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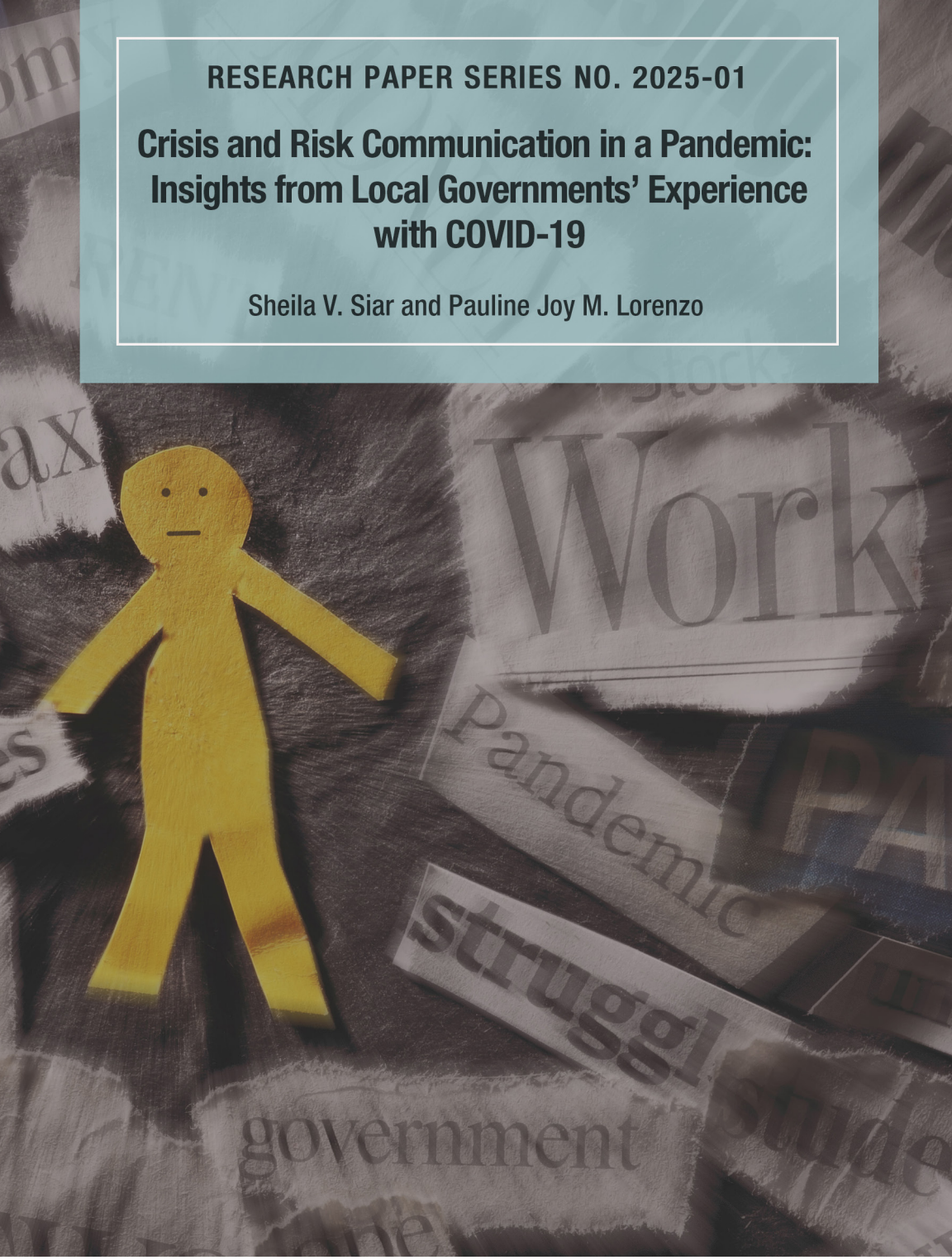

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Philippine Institute for Development Studies
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List of Acronyms

ADB	Asian Development Bank
AFP	Armed Forces of the Philippines
AO	Administrative Order
BARMM	Bangsamoro Autonomous Region in Muslim Mindanao
BCDA	Bases Conversion and Development Authority
BHERT	Barangay Health Emergency Response Team
BHW	barangay health worker
CADAO	City Anti-Drug Abuse Office
CAO	City Agriculture Office
CAR	Cordillera Administrative Region
CDC	Centers for Disease Control and Prevention
CDRRMO	City Disaster Risk Reduction and Management Office
CERC	crisis and emergency risk communication
CHED	Commission on Higher Education
CHO	City Health Office
COA	Commission on Audit
COVID-19	coronavirus disease 2019
DA	Department of Agriculture
DILG	Department of the Interior and Local Government
DOH	Department of Health
DOTR	Department of Transportation
DRRM	disaster risk reduction and management
DRRMC	Disaster Risk Reduction and Management Council
DSWD	Department of Social Welfare and Development
DTI	Department of Trade and Industry
ECQ	enhanced community quarantine
EOC	Emergency Operations Center
EXECOM	Executive Committee
FAQs	frequently asked questions
GCQ	general community quarantine
HUC	highly urbanized city
IATF	Inter-Agency Task Force
IATF-EID	Inter-Agency Task Force on Emerging Infectious Diseases
ICC	Incident Command Center

ICS	Incident Command System
ICTO	Information and Communications Technology Office
IEC	information, education, and communication
KII	key informant interview
km	kilometer
LCE	local chief executive
LDRRMC	Local Disaster Risk Reduction and Management Council
LGOO	Local Government Operations Office
LGU	local government unit
LHO	Local Health Officer
LSWD	Local Social and Welfare Development
LSWDO	Local Social and Welfare Development Office
LTF	Local Task Force
M&E	monitoring and evaluation
MBB	Manila Barangay Bureau
MECQ	modified enhanced community quarantine
MPHS	minimum public health standards
MROF	Management of Returning Overseas Filipino
NAEFIC	National Adverse Effects Following Immunization Committee
NAP	National Action Plan
NCA	National Command Authority
NCR	National Capital Region
NDRRMC	National Disaster Risk Reduction and Management Council
NEDA	National Economic and Development Authority
NFID	National Foundation for Infectious Diseases
NIC-EOC	National Incident Command-Emergency Operation Center
NITAG	National Immunization Technical Advisory Group
NRA	National Reconstruction Authority
NTF	National Task Force
OCA	Office of the City Administrator
OCD	Office of Civil Defense
OP	Office of the President
OPCEN	Operations Center
OWWA	Overseas Workers Welfare Administration

PCOO	Presidential Communications Operations Office
PDITR	prevention, detection, isolation, treatment, and recovery
PIO	Public Information Office
PNP	Philippine National Police
PNVR	Philippine National Vaccine Roadmap
PPE	personal protective equipment
PSA	Philippine Statistic Authority
RA	Republic Act
RDRRMC	Regional Disaster Risk Reduction and Management Council
RSET	Regional Social and Economic Trends
RTF	Regional Task Force
SAP	Social Amelioration Program
SPED	special education
sqm	square kilometer
STWG	Sub-Technical Working Group
TV	television
TWG	Technical Working Group
UNDRR	United Nations Office for Disaster Risk Reduction
WHO	World Health Organization

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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 crucial functions is crisis and risk communication to ease public fear, mitigate the pandemic's damage, and promote the adoption of health and safety protocols. However, only a few studies have examined LGUs' COVID-19 experience, and no study has delved deeply into the crisis and risk communication strategies of Philippine LGUs. To fill this gap, this study investigated how LGUs communicated with their residents during the pandemic, particularly from 2020 to 2021, following the Crisis and Emergency Risk Communication model. It utilized a mixed method approach encompassing desk review, a cursory audit of national COVID-19 plans and policies, key informant interviews with representatives from Pasay, Manila, Caloocan, and Navotas, and a content analysis of COVID-19-related Facebook posts from these LGUs. The results revealed the LGUs' lack of a strong preparation phase, highlighting their reactive approach to the pandemic. All four LGUs did not have a communication plan and a monitoring and evaluation system, which hindered the systematic implementation, monitoring, and assessment of their communication strategies. A closer look at their interventions showed that they used a combination of traditional, electronic, and digital communication channels. Digital channels, such as social media, virtual meetings and groups, and online messaging platforms, were largely used and proved useful amid mobility restrictions and the need for physical distancing. Traditional channels remained useful, particularly face-to-face communication whenever possible, printed materials, and interpersonal channels on the ground like barangay officials and health personnel. While social media was largely used, LGUs failed to maximize its potential to combat fake news and enhance their responsiveness to the public. The analysis of the LGUs' Facebook messages indicated a need for clearer communication by using local languages more frequently, simplifying

technical terms, and increasing the use of visual communication. Several contextual factors affected the LGUs' communication functions during the pandemic. These included delays in receiving official memos on new policies from the national government, rapidly changing guidelines, difficulty in communicating a novel disease, inadequate training in science, risk, and crisis communication, insufficient resources, personal health risks of COVID-19, and spread of false information.

Introduction

Local governments have been at the forefront of the COVID-19 pandemic response since 2020. Following Republic Act (RA) 7160 or the Local Government Code of 1991, the Philippines' decentralized governance structure made local government units (LGUs) directly responsible for delivering basic services to 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). These responsibilities include implementing emergency measures to protect citizens; delivering relief services and assistance, health services, and other interventions to help citizens regain their livelihood; protecting human rights; and providing information. While the COVID-19 pandemic is not technically a natural or manmade disaster, authorities consider a health emergency like a pandemic or an epidemic as a disaster event, as evidenced in the Department of Health's (DOH) policy issuances, including Administrative Order (AO) 2004–168 or the National Policy on Health Emergencies and Disasters and AO 2019–0046 or the National Policy on Disaster Risk Reduction and Management in Health.

A critical aspect 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, it focuses on encouraging the adoption of and continued compliance with minimum public health and safety standards to control the disease's spread. Risk communication is essential in the overall strategy to control COVID-19 and promote the successful adaptation of "new normal" practices (Dugenia 2020; ADB and McCann Global Health 2021). Crisis communication involves interventions to prevent or mitigate 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 managing the risks and mitigating the negative impacts of the COVID-19 pandemic. However, pandemic or not, local officials—as the government actors closest to citizens—assume a prominent role in communication tasks (Baranyai et al. 2021). This responsibility becomes even more

crucial during a disaster, as its impacts and consequences are felt most strongly at the local level.

Soriano et al. (2020) noted that implementing good communication strategies during a pandemic can empower the public with accurate information, fostering desired collective behaviors. Conversely, poor communication may leave communities distressed and result in disjointed actions. The authors outlined recommendations for effective health communication during a pandemic, including establishing a coordinated communication protocol and strategy managed by a designated communications team to avoid disseminating ambiguous messages and to leverage all possible channels for information dissemination. They highlighted the importance of a readily available and accessible feedback mechanism, open interagency collaboration and communication, and targeted information materials. However, the mere presence of these measures does not guarantee success. LGUs may face challenges like resource constraints, a lack of trained information officers in health communication, and communication inequalities due to demographic and social factors. These challenges can worsen due to 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).

Given the complex nature of a pandemic and the pressure facing local governments, it is important to examine how Philippine LGUs managed crisis and risk communication during the COVID-19 pandemic. The lessons and insights from their experience can guide future strategies for managing health emergencies or similar crises.

Policy research question

This research sought to answer the question: "How did local governments execute crisis and risk communication during the COVID-19 pandemic, and how can their communication strategies be improved?" In investigating this topic, the study examined the communication strategies that LGUs used to inform, educate, and engage the public during the pandemic. It also scrutinized the LGUs' feedback and monitoring systems and how they used the information gathered to improve their communication interventions. The study analyzed the LGUs' communication activities in executing crisis and risk communication during the COVID-19 pandemic

and drew insights from their experiences. The study used 2020–2021 as a reference period to ensure a focused analysis.

Objectives

This study primarily aims to analyze how local governments implemented crisis and risk communication during the COVID-19 pandemic, with the following specific objectives:

a. Determine the preparedness of LGUs for crisis and risk communication during a pandemic;
b. Discuss and analyze the communication strategies implemented during different phases of crisis and risk communication, including how lessons learned were integrated into their strategies;
c. Analyze the COVID-19 messages communicated to the public;
d. Explore factors that influenced or hindered the implementation of communication interventions; and
e. Identify effective crisis and risk communication strategies that other LGUs can replicate during a pandemic or similar health emergencies.

Relevance to policymakers and implementing agencies

While most COVID-19 studies focus on country-level experience (e.g., ADB and McCann Global Health 2021), only a few studies have explored local government responses (Flores and Asuncion 2020; Vallejo and Ong 2020; Baranyai et al. 2021). Moreover, there is a lack of comprehensive studies on Philippine LGUs' crisis and risk communication strategies during the COVID-19 pandemic.

It is important to ensure LGUs can effectively and efficiently deliver their communication functions during a crisis. This study aims to provide useful insights into the communication systems and practices of LGUs based on their experience during the COVID-19 pandemic and to identify areas for improvement. It seeks to shed light on why some LGUs communicated better with their citizens compared to others.

Although effective internal and external communication is a core function encompassing all service areas of local governments, it is often overlooked, with minimal resources allocated to communication strategies and tools. Following the implementation of the Supreme

Court's Mandanas-Garcia ruling, LGUs will have a bigger share of the national tax allotment (formerly called "internal revenue allotment" or IRA). With increased resources, LGUs will have more flexibility to strengthen functions where they are weak, such as communications. They can allocate larger budgets to expand their pool of information officers; pursue capacity-building activities like communication training; upgrade their communication programs, applications, and equipment; and improve their internet connectivity.

Enhancing LGUs' communication functions can improve local governance. Timely and coherent communication strategies are important not only during emergencies but also in daily operations, as LGUs are mandated to deliver basic services. Effective communication can boost local government capability, accountability, transparency, and responsiveness.

The insights from this study are relevant not only for LGUs but also for policymakers and program implementers in both the public and private sectors. Risk communication and crisis communication are crucial for managing potential threats that could escalate into a crisis.

Review of Related Literature

Crisis and risk communication

The COVID-19 pandemic has brought increased attention to the field of communication. Crises and disasters demand timely, relevant, and coherent communication of critical information by those managing 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 combines two concepts—risk communication and crisis communication—which have different objectives.

Understanding risk communication requires a clear understanding of risk. In 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, determined probabilistically as a function of hazard, exposure, vulnerability, and capacity" (UNDRR n.d., par.1). Risk is often associated with a

potential threat to human health and the environment (Lundgren and Mcmakin 2013).

Reynolds and Seeger (2005) defined risk communication in public health as the delivery of public messages intended to inform individuals and encourage behavior change to protect and improve public health and safety. They emphasized that risk communication's goal is behavior change, a notion aligned with the explanation of Renn (2009), although elucidated differently and focused on making a risk-based decision. According to Renn (2009), risk communication aims to assist people in making informed choices on important matters. He clarified that its purpose is not to convince people that the source of the message has done the right thing but to provide the information needed for decisionmaking or judgment. Given the deeper objective of risk communication, Renn (2009) noted that it transcends public information and public relations. It complements risk management by promoting an understanding of risk and the available choices to manage it.

While risk is often associated with environmental and public health concerns, a crisis is commonly linked to political events (Palenchar 2009). Tracing the historical evolution of crisis communication in the US, Palenchar (2009) 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 (commonly referred to as 9/11). These incidents, especially 9/11, propelled crisis communication—integral to crisis management—to the forefront of government crisis response efforts.

Lerbinger (1997, p.4, as cited by Palenchar 2009) defined a crisis 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". Elaborating on the harm a crisis can bring, Coombs (2014) categorized damage into three types: public safety, such as loss of lives; financial loss; and reputation loss. Following this, crisis communication is perceived 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, crisis communication's objective is "to allay individual and collective fears, prevent the circulation of

uncontrollable rumors, and stem generalized panic which could spread from one country or even one continent to the next" (Saliou 1994, p.516).

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

In the two decades preceding the COVID-19 pandemic, researchers extensively studied the country-level implementation of risk and crisis communication during pandemics. Events like the H1N1 or swine flu pandemic posed a similar context. Barrelet et al. (2013) systematically reviewed social science studies about the H1N1 pandemic from 2009 to 2011. Their review revealed that risk perception varies across different groups and countries, which affects trust-building. The study highlighted research gaps, such as the effects of competing information sources on risk perception and agencies' design and implementation of risk communication strategies.

Like COVID-19, pandemics caused by infectious diseases like influenza, Ebola, Zika, and Yellow Fever require a communication response that should be implemented and adjusted at various phases. Studies involving a systematic review of scientific studies and expert consultations have revealed essential elements of effective communication during a pandemic (Vaughan and Tinker 2009; Toppenberg-Pejcic et al. 2018; Jong 2020). These elements include maintaining public trust, providing clear call-to-action messages from reliable sources, crafting culturally sensitive messaging, coordinating response strategies, and forming partnerships with different agencies.

Building trust is a common theme identified in most risk communication studies and is widely perceived as challenging (Abraham 2011). A study found that timely and audience-specific messaging from relevant local leaders or groups, culturally sensitive practical interventions, and responsive feedback mechanisms helped foster trust in implementing agencies during health emergencies (Toppenberg-Pejcic et al. 2018).

ADB and McCann Global Health (2021) conducted a rapid assessment of risk communication strategies for COVID-19, highlighting notable communication campaigns from 40 countries. Many countries used social media to build trust, disseminate reliable information, address misinformation, and promote preventive measures. For instance,

South Korea, Taiwan, and China used social media platforms to address misinformation, while Canada launched the "Break the Fake" campaign to help people detect misinformation. In Viet Nam, the popularity of challenges on the short video platform Tiktok was utilized to promote hand-washing practices. Pakistan used WhatsApp and repurposed its existing Polio Program network to disseminate COVID-19-related information. Rwanda used drones to broadcast health education messages in remote areas. Capitalizing on existing technology, other countries explored various applications to aid contact-tracing initiatives, such as South Korea's digital test and trace application. The same report showcased initiatives that used traditional communication channels. Senegal used murals depicting ideal health behaviors in rural areas during the pandemic. Kerala and China used physical cues to reinforce physical distancing and other preventive measures. These initiatives show the resourcefulness of many countries in implementing risk communication strategies.

Systematic reviews and expert consultations were done at the height of the pandemic to identify best practices and barriers to implementing risk communication. These studies aimed to create a comprehensive document to help national governments plan, implement, and monitor risk and crisis communication (OHA n.d.; ADB and McCann Global Health 2021; NFID 2021). Most of these studies highlighted similar key elements of risk communication for infectious diseases, with a recurring theme emphasizing the importance of building information credibility and establishing trust in implementing agencies and leaders.

Factors affecting communication interventions

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

Knowing the audience's characteristics and needs is a cardinal rule in communication. Nishizawa's (2018) study on risk communication in the post-Fukushima nuclear disaster in Japan highlighted the **relevance of information** to the target audience. She found that the child-rearing generation needed more practical, hands-on information about radiation compared to the older generation. This demonstrates the importance of tailoring messages to the target audience's needs. During the interviews, Nishizawa (2018) and her volunteers found that the elderly were more

interested in information about rebuilding their lives and knowing when they could return home rather than radiation-related information. Meanwhile, mothers were deeply concerned about radiation's health effects on their children and preferred practical protection advice over detailed scientific information.

Appropriate messaging, including the choice of communication channels, is essential for effective communication and the uptake of policies and interventions. In Uganda, using English in communication materials resulted in the exclusion of non-English speaking communities, causing them to feel left out during the pandemic (Awobamise et al. 2021). This led to protests and noncompliance with health advisories and protocols due to unclear and confusing guidelines. Age can also influence the choice of communication channels. In a survey during the COVID-19 pandemic in Germany, Scholz et al. (2021) found that people aged 60 and above preferred television (TV) and radio over social media as their trusted sources of information.

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

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 affected the speed of reconstruction efforts. The time spent on reconstruction significantly decreased when program beneficiaries promptly received clear information. Moreover, using multiple communication channels is crucial for spreading information and can increase the believability of complex information. It also enhances the perception of timeliness and clarity of information. However, not all channels are equally effective. Their **acceptability** varies by audience, the type of information delivered, and age. As Scholz et al. (2021, p.8) noted: "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 sociotechnical assistance groups."

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) implementation actors like local government representatives, field engineers and officials deployed by the NRA, and partner organizations as the second tier; and (3) the beneficiaries as the third tier and main end users. Communication among these tiers was facilitated using various channels, such as TV, 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 audience's level of education influenced the choice of communication channel. Those with higher education preferred TV programs and social media or websites more than those with lower education. University-educated ones used 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 for 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 used social media and official websites to obtain and disseminate information. Local government representatives relied more on local radio and training/orientation events. Very few participants reported using phone inquiries or messaging to stay informed of reconstruction issues.

For interpersonal or person-to-person sources of information, program beneficiaries primarily preferred local government representatives and social leaders, followed by government officials and partner organizations for reconstruction-related questions. Only 18 percent were aware of the NRA's toll-free number, and a mere 3 percent actually used it.

Moreover, the study underscored the importance of an **effective monitoring and evaluation (M&E) plan** to identify gaps and challenges, such as inconsistent information and misinformation, due to multiple information sources involved. Part of this is an appropriate **feedback mechanism** to continuously enhance communication channels. This mechanism should be well-known and fully accessible

to program beneficiaries. Sharma et al. (2021) noted that while the NRA's toll-free number was a good initiative, it proved ineffective as its intended users (program beneficiaries) lacked adequate information about this facility.

A study conducted in China found that the lack of public feedback and participation resulted in one-way governance during the COVID-19 pandemic (Wang et al. 2021). Community feedback can enhance communication materials' messaging by making them more audience- and context-specific (Awobamise et al. 2021). Feedback can also improve trust (Tworek et al. 2020).

Given the importance of feedback, it is important to establish a feedback mechanism, whether structured or unstructured. Without feedback, communication becomes a one-way process (Lamba et al. 2017). Feedback can be nonverbal, so capturing cues is important. The authors cautioned that a feedback mechanism should consider the "timeliness-quotient". It must collect prompt and specific feedback, which is necessary to 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 that trust in an organization's stakeholders directly correlates with the organization's crisis readiness and management. A trustworthy source becomes more important in a crisis than in an ordinary setting, as individuals cannot easily verify information. Moreover, they emphasized that trust should be two-way. The organization should be a trustworthy source of information, and this is more likely to happen if the organization also trusts its audience.

To build trust, an organization must make its plans and programs transparent to the public. In a study on avian influenza conducted by the Southwest Center for Public Health Preparedness, funded by the Centers for Disease Control and Prevention (CDC), Elledge et al. (2008) found that citizens' lack of awareness of disaster plans undermines their confidence in public officials and agencies. The study revealed that citizens highly desire "local, credible, trustworthy information from local, credible sources".

Trust is often linked to credibility. A credible person is usually trusted and can exert more influence than someone less credible. Pornpitakpan (2004, p.244) defined credibility as having two dimensions:

expertise, which is "the extent to which a speaker is perceived to be capable or making correct assertions"; and trustworthiness, or "the degree to which an audience perceives the assertions made by a communicator to be the ones that the speaker considers valid".

In their rapid scoping study of health authorities' risk communication during the COVID-19 pandemic, Berg et al. (2021) confirmed that people trust healthcare professionals as spokespersons and information sources during public health emergencies. However, they cautioned that trust is not static and can fluctuate depending on public perception of how well health authorities manage the crisis. Additionally, the effectiveness of communication methods varies by location and population, requiring risk communicators to adapt their methods to diverse audiences.

Most studies on effective risk communication emphasize that building public trust 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 trust in the information released by the World Health Organization (WHO) during the first wave of the pandemic and the public's uptake of 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 that 86.3 percent of respondents were knowledgeable about WHO press releases and preventive measures, which contributed to a high adherence rate to physical distancing and hygiene practices. This highlights how perceived risk influences health decisions and behaviors (OHA n.d.).

Other challenges undermining trust are information overload, uncertainty, and misinformation (Vraga and Jacobsen 2020). Addressing these challenges is essential for achieving effective communication during a pandemic.

Finally, having an **established and dedicated communication office** is essential for implementing agencies to craft and implement their communication plans. Institutionalizing a communication unit is important for an organization, as it allows the development of targeted campaigns, ensures the timely delivery of information to the public, manages feedback, and addresses public misinformation (Tworek et al. 2020).

Conceptual Framework

This study adopted the Crisis and Emergency Risk Communication (CERC) model in examining how Philippine local governments implemented crisis and risk communication during the COVID-19 pandemic. The CDC developed and promoted the CERC model, integrating (1) crisis communication, which provides information to help individuals make an informed decision about their behavior, and (2) crisis communication, which alerts the public about a crisis or an emergency and the immediate response that must be made to reduce harm (CDC 2018). The addition of "emergency" emphasizes the urgency of decisionmaking in crisis situations, wherein choices must be made quickly with imperfect or incomplete information and may have irrevocable outcomes.

The merging of the two concepts can be traced to the CDC's launch of a course on CERC for public health officials in October 2002. Reynolds and Seeger (2005, p.9) explained the CDC's motivation to blend risk and crisis communication into a unified model:

> "…in response to a recognition that health communication in an era of bioterrorism and 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."

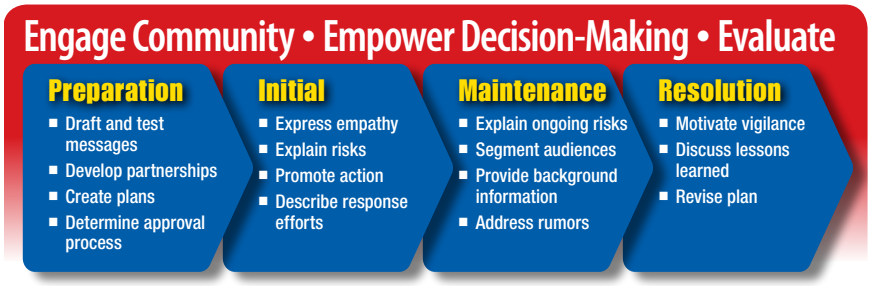
While it was the CDC that initiated the blending of risk and crisis communication, practitioners and academics have recognized that the two concepts overlap and should be seen as complementary. Heath and O'hair (2009, p.9) explained this relationship as follows:

> "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 are not undue or intolerable, risks. Conceived in this way, crisis can be defined as a risk manifested."

The CERC model emerged from the CDC health communicators' experiences (Veil et al. 2008). Known as the CERC Rhythm, the current version includes four phases that outline communication objectives, message types, and intervention strategies (Figure 1).

Figure 1. The CERC Rhythm



CERC = crisis and emergency risk communication
Source: CDC (2018)

This study acknowledges the CERC model's limitations, such as its deterministic and linear stages, which assume that a crisis follows a predictable pattern—from precrisis to the initial and maintenance stages and recovery. The study applied the CERC approach to analyze the LGUs' crisis and risk communication interventions for each phase of the model. The four phases are:

1. **Preparation** occurs before a crisis. It involves developing partnerships with organizations and stakeholders that can contribute to the response during a crisis, creating a communication plan, drafting and testing messages, and determining the approval process for releasing information. This phase also includes selecting and training spokespersons who should be reputable leaders in the community or organization, with knowledge and expertise of the situation.

2. The **initial phase** reflects the onset of a crisis. Based on the CERC model, it is necessary to express empathy immediately to those affected, inform affected communities about the risk, provide guidance on risk mitigation, communicate the organization's response efforts, and offer regular updates on the situation.
3. The **maintenance phase** continues previous communication efforts to sustain community actions to reduce risk or harm. It involves continuously sharing information on how individuals can take care of themselves and help in the recovery efforts, segmenting the audience for targeted messaging explaining varying risks and necessary actions to protect individuals, and dispelling rumors and addressing disinformation. Encouraging public support and cooperation is vital during this phase for successful recovery efforts.
4. The final phase in the CERC model, **resolution** requires motivating people to stay vigilant and organizations to take stock of lessons learned for future emergencies and revise communication plans based on these lessons. It is also recommended to promote community preparedness for future crises and build on the current momentum in emergency response.

In reality, a crisis or emergency may not follow this sequence due to various factors, including "effective risk during the early stages, the emergence of secondary shocks, or unanticipated interactions" (Reynolds and Seeger 2005, p.51). Unforeseen events can unexpectedly reverse the anticipated resolution of a crisis. For instance, the emergence of more severe COVID-19 variants like Delta and the highly transmissible Omicron variant caused infection levels to reach record highs in many countries. This halted the reopening of economies and forced a 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 impact the communication interventions of entities responsible for crisis communication. They may require new communication strategies and

alternative methods for delivering risks and warning messages (Reynolds and Seeger 2005).

The findings discussed how the emergence of more severe and transmissible variants and the cyclical lockdowns affected the crisis and risk communication response of the LGUs and how they coped with the volatile situation.

Methodology

The following methodological framework was developed based on the study's policy research question and objectives. Guided by the literature review and conceptual framework, Figure 2 sums up the data collection methods, the data collected, and the insights expected from the analysis.

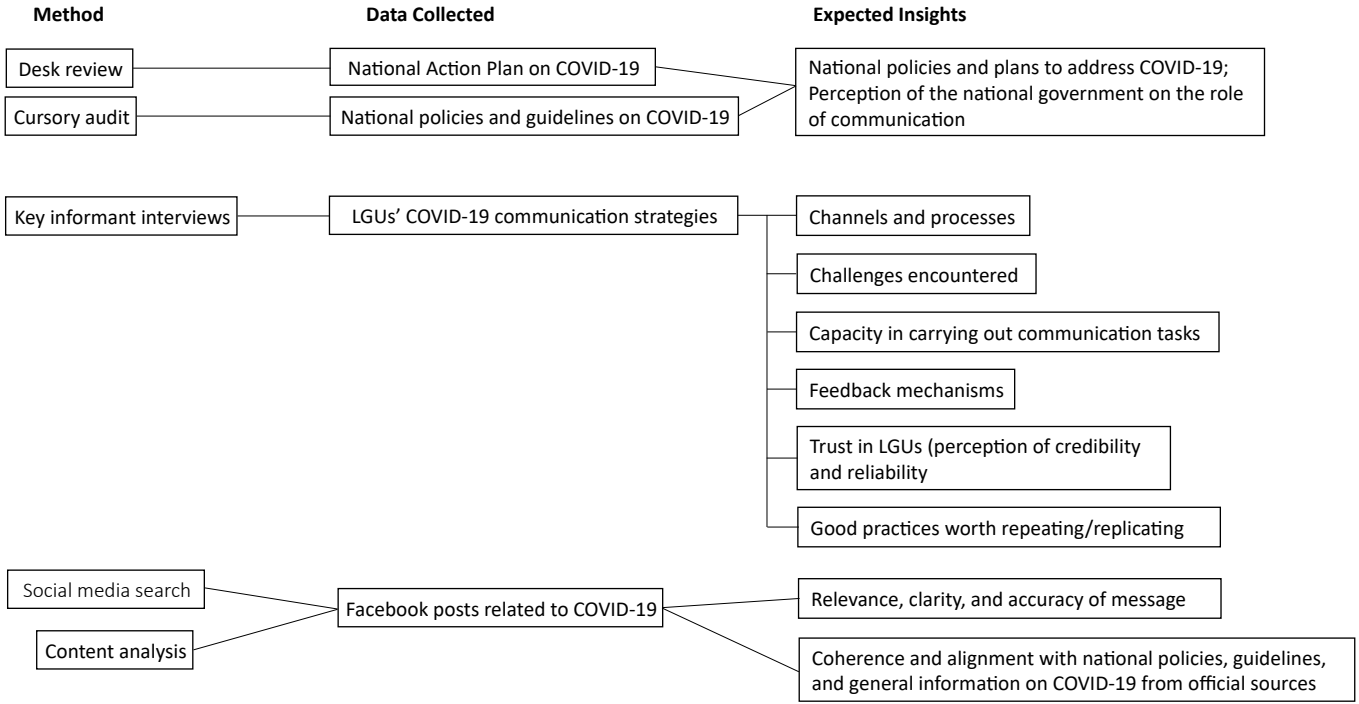
Data collection

Data were collected using mixed methods consisting of desk review, cursory audit, social media search, content analysis of LGUs' Facebook messages to the public, and key informant interviews (KIIs) with LGU officials and staff directly involved in the pandemic response, especially those handling communication activities.

The desk review explored the government structures and the national action plan for the pandemic response to assess how the Philippine government considered and perceived crisis and risk communication. This review was an important starting point for the study to examine how communication was integrated into the government's pandemic response plan and its intended implementation, especially at the local level.

A cursory audit of national COVID-19 policies released from January 2020 to December 2021 was conducted by reviewing the official websites of key national entities, such as the DOH, Inter-Agency Task Force (IATF) on Emerging Infectious Diseases, National Task Force (NTF) on COVID-19, and the Office of the President (OP). This audit was essential because the LGUs cascaded national policies—including quarantine classifications and alert levels, minimum public health standards, protocols for infected and exposed individuals, and vaccination guidelines—to citizens through local ordinances and various communication channels.

Figure 2. A summary of the methodological framework



COVID-19 = coronavirus disease 2019; LGU = local government unit
Source: Authors' rendition

The KIIs aimed to gather data on how the LGUs managed their communication functions during the pandemic, assess their capacity level in handling crisis and risk communication, and identify practices that other LGUs could replicate. The interviews explored the communication channels used; the process for planning, executing, and monitoring communication activities; and the challenges that LGUs encountered.

The social media search involved a comprehensive review of the LGUs' COVID-19-related posts on their official Facebook pages from March 2020 to December 2021. Following this search, a content analysis was performed to assess the relevance, clarity, accuracy, format, and content of the messages and the public's engagement with the LGUs through these posts.

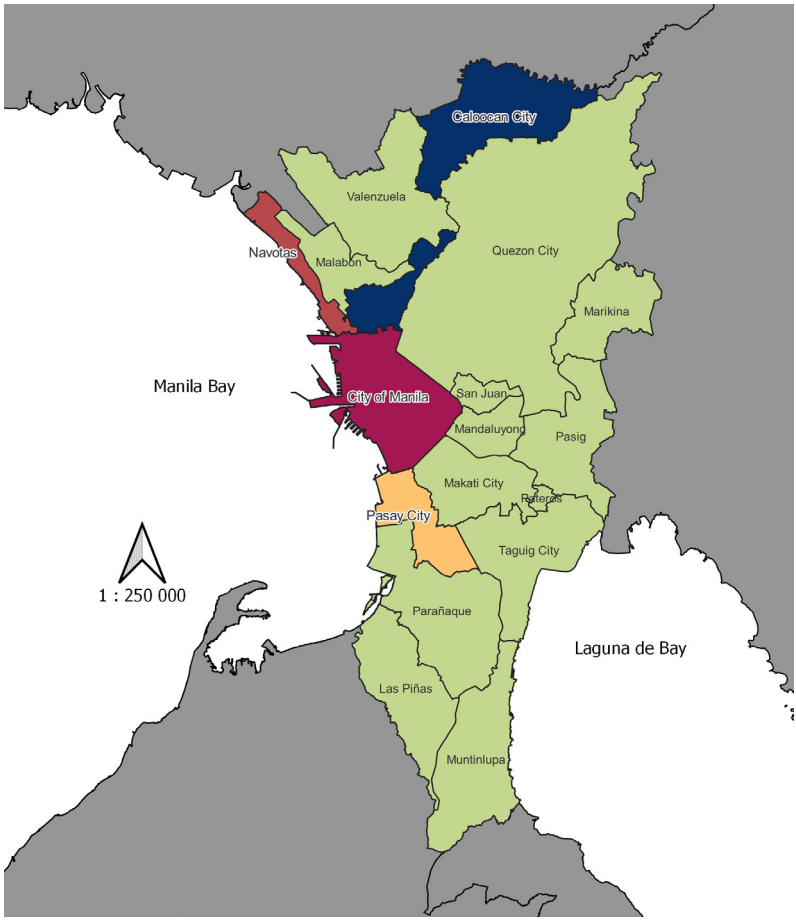
Selection of sample LGUs

The study used purposive sampling in selecting the study LGUs. It focused on the National Capital Region (NCR) as 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. Four LGUs were decided to allow for a comparison of cases.

The study team initially consulted a DOH official for recommendations. Based on the criteria and insights from field directors and staff, the official suggested the cities of Manila, Pasay, Caloocan, and Navotas.[1] Geographically, Pasay and Manila are contiguous and located in the central part of the NCR (Figure 3). Navotas is situated to the west on the periphery, while Caloocan lies to the north. Navotas, Manila, and Pasay share the coastline facing Manila Bay. Caloocan is landlocked and divided into two administrative areas.

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

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



Source: Authors' rendition

The suitability of these sites was verified by examining official data. All four cities surpassed the regional population density of 21,765 individuals per square kilometer (sqm) (Table 1). Manila had the highest density at 73,920 individuals per sqm, while Navotas was closest to the regional population density with 27,689 individuals per sqm. Consequently, Manila has the most barangays at 897, while Navotas has the lowest number at 18.

Table 1. 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: Grade 1–4	31,949	8.40	166,277	10.43	156,649	10.96	29.981	13.42
Elementary: Grade 5–6	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	27,101	12.09
College graduate	73,628	19.35	288,127	18.08	207,143	14.49	23,712	10.61
Postbaccalaureate	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 years old and above)	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	(99.90)	1,410,170	(99.83)	1,268,346	(99.83)	197,272	(99.77)

NCR = National Capital Region; km = kilometer; No. = number; SPED = special education
Sources: PSA (***2017, *2021b); **PhilAtlas (https://www.philatlas.com/luzon/ncr.html [accessed on October 20, 2022]).

In terms of educational attainment, nearly 30 percent of residents across the LGUs are high school graduates. The percentage of college graduates varies: about 19 percent in Pasay, 18 percent in Manila, 14 percent in Caloocan, and 11 percent in Navotas. All LGUs reported nearly universal simple literacy rates, which means that the population aged 10 and older can read, write, and understand simple messages in any language or dialect. These characteristics are essential considerations when crafting messages and designing communication strategies.

The top occupations across the four LGUs are service and sales workers and elementary occupations (Table 2). Pasay and Manila have clerical support and managerial occupations among their top four occupations. Craft and trade occupations and plant and machinery operators and assemblers are common in Caloocan and Navotas. Notably, 5 percent of Navotas' working-age population are fishermen.

In terms of overall competitiveness, Manila and Pasay ranked second and third, respectively, in the 2021 rankings of the 33 highly urbanized cities in the Philippines. Caloocan ranked in the middle at 14th place, while Navotas ranked 27th.[2]

Based on Philippine Statistics Authority regional statistics from 2018, Caloocan has the highest poverty incidence among the selected sites at 4.6 percent (PSA 2021b). Navotas and Manila follow, with poverty incidences exceeding the regional average of 2.25 percent. In terms of the number of individuals classified as poor, Caloocan and Manila rank among the top cities. Manila has significant urban poor communities and informal settlers. Navotas and Pasay each have fewer than 9,000 individuals classified as poor (PSA 2021b).

Data analysis

Qualitative data were organized using NVivo 11 and analyzed through thematic analysis. A priori approach was used to analyze the policy releases, interview transcripts, and social media posts, with major themes determined before data analysis and additional themes emerging as the analysis progressed. Descriptive statistics were used to analyze quantitative data.

[2] The rankings are based on the scores each LGU received across the four pillars established by the National Competitiveness Council through the Regional Competitiveness Council. These pillars includeconomic dynamism, government efficiency, infrastructure, and resiliency (National Competitiveness Council n.d.).

Table 2. 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 and associate professors	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 and sales workers	58,972	19.84	190,449	15.87	142,253	13.33	24,146	14.71
Skilled agricultural, forestry, and fisheries workers	391	0.13	2,014	0.17	2,785	0.26	7,793	4.75
Craft and trade workers	14,499	4.88	55,661	4.64	97,205	9.11	13,025	7.94
Plant and machine operators and 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 YO Population (2015)	297,303	–	1,200,381	–	1,066,766	–	164,118	–

HUC = highly urbanized city; No. = number; YO = years old
Source: National Competitiveness Council n.d.*; PSA (2017***, 2021a**); PhilAtlas

The National Action Plan on COVID-19: Structures and Actors and How Communication is Perceived

It is essential to have a clear grasp of the key government entities and actors involved in the pandemic response to effectively understand the government's crisis and risk communication function during the pandemic. The response is organized into three command levels: strategic, operational, and tactical (Philippine Humanitarian Country Team 2020). The latest governance structure is illustrated in Figure 4.

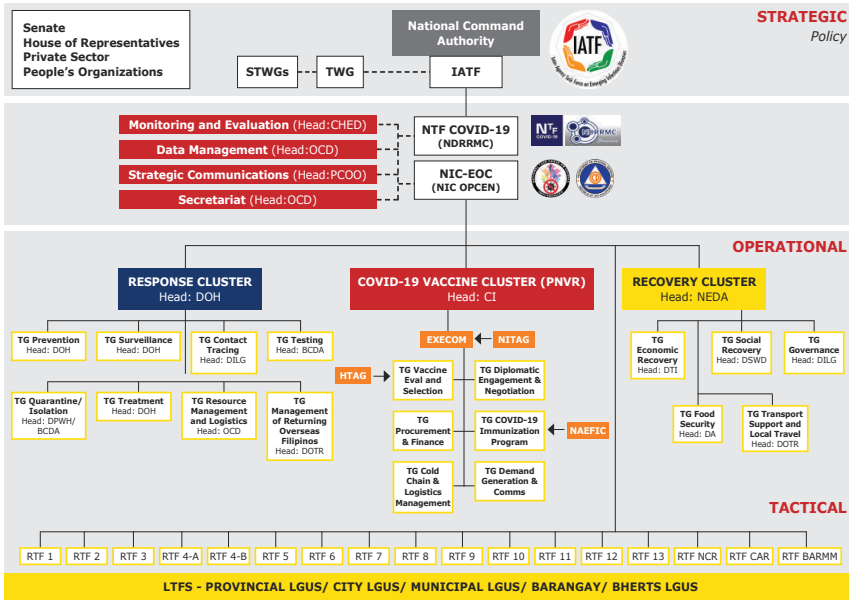
At the strategic level, the National Command Authority (NCA), represented by the President of the Philippines, leads the national government's COVID-19 pandemic response. The NCA is supported by the Inter-Agency Task Force on Emerging Infectious Diseases (IATF-EID), which serves as the primary advisory and policymaking body for COVID-19-related actions. Established by Executive Order (EO) 168 in 2014, the IATF was convened on January 28, 2020 to respond to concerns about the viral outbreak in Wuhan, China. The IATF is chaired by the Secretary of Health and includes members from various government departments.

In Resolution 25 (s. 2020), the IAFT stated that it "adopts a national-government-enabled, LGU-led, and people-centered response to the COVID-19 health event" (Item A, p.1). This shows the pivotal role of LGUs in leading the pandemic response.

Established through Resolution 15 of the IATF,[3] the National Action Plan (NAP) serves as the national strategy for responding to the COVID-19 crisis. The National Task Force (NTF) Against COVID-19 is responsible for implementing the NAP. The Secretary of the Department

[3] The NAP consists of four phases: Phase I (March–June 2020) focuses on preventing and containing COVID-19 while mitigating its economic impact. The government adopted the Prevent, Detect, Isolate, Treat, Reintegrate (PDITR) strategy through the "treat-trace-treat" management system. Efforts included increasing daily testing capacity and imposing localized lockdowns to prevent virus transmission within local communities. A national communication campaign was launched during this period to emphasize the importance of following the minimum public health standards (i.e., regular handwashing, keeping physical distancing, and wearing face masks and face shields) to protect individuals and control the spread of COVID-19. Phase II (July–September 2020) aims to safeguard public health while reviving the economy. Phase III (October 2020–March 2021) marks the government's transition plan to the new normal by managing the health risk while the country awaits vaccine availability. Phase IV focuses on the vaccination program (Kabagani 2020; DILG and World Bank 2021).

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



STWGs = Sub-Technical Working Groups; TWG = Technical Working Group; IATF = Inter-Agency Task Force; CHED = Commission on Higher Education; OCD = Office of Civil Defense; PCOO = Presidential Communications Operations Office; COVID-19 = coronavirus disease 2019; NDRRMC = National Disaster Risk Reduction and Management Council; NIC-EOC = National Incident Command Emergency Operations Center; OPCEN = Operations Center; DOH = Department of Health; PNVR = Philippine National Vaccine Roadmap; CI = Chief Implementer; NEDA = National Economic and Development Authority; DILG = Department of the Interior and Local Government; BCDA = Bases Conversion and Development Authority; DOTR = Department of Transportation; HTAG = Health Technical Advisory Group; EXECOM = Executive Committee; NITAG = National Immunization Technical Advisory Group; NAEFIC = National Adverse Effects Following Immunization Committee; DTI = Department of Trade and Industry; DSWD = Department of Social Welfare and Development; DA = Department of Agriculture; RTF = Regional Task Force; NCR = National Capital Region; CAR = Cordillera Administrative Region; BARMM = Bangsamoro Autonomous Region in Muslim Mindanao; LTF = Local Task Force; LGUs = local government units; BHERTs = Barangay Health Emergency Response Teams
Source: NTF COVID-19 (2020)

of National Defense, who chairs the National Disaster Risk Reduction and Management Council (NDRRMC), leads the NTF. By law, "the DRRMCs at the national, regional, and local levels are the country's disaster management coordination structure as mandated by RA 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. At the national level, the NDRRMC—which comprises almost all government departments (including the DOH), military forces, commissions, and LGU leagues—is considered the primary body for implementing the NAP. The National Incident Command-Emergency Operation Center (NIC-EOC) is tasked to oversee the daily operations of the NAP's implementation. Its establishment was based on NDRRMC policies stipulating the Incident Command System (ICS) as part of the Philippines' disaster response system, reflecting that the country's pandemic response is anchored on the DRRM.

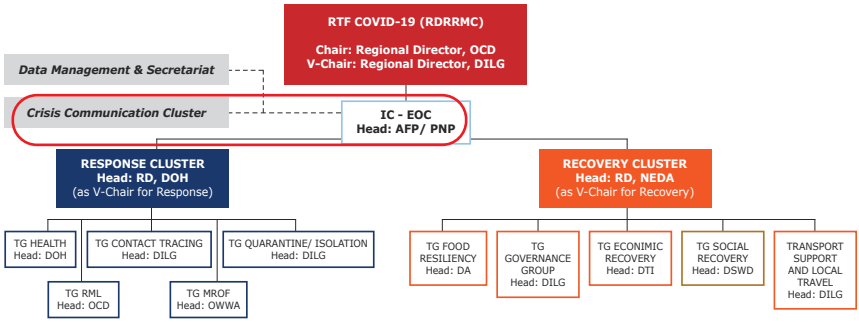
Strategic communication is outlined in the organizational structure (see the encircled part in Figure 4), suggesting that the national government considers it an essential component of the pandemic response. The Presidential Communications Operations Office (PCOO) is responsible for strategic communications, including setting overall communication directions, objectives, and messaging. The Commission on Higher Education handles M&E, while the OCD manages data.

At the operational level, three response clusters, each led by specific task groups, coordinate the pandemic response: the DOH leads the response cluster, the NTF COVID-19 chief implementer manages the vaccine cluster, and the National Economic and Development Authority oversees the recovery cluster.

The tactical level consists of the regional task forces (RTFs) and local task forces (LTFs) designed to address the COVID-19 crisis. Their organizational structure is depicted in Figures 5 and 6. The regional director of the OCD chairs the RTF COVID-19, with the DILG regional director serving as vice-chair. At the provincial and municipal/city levels, the local chief executives (LCEs) chair the LTFs. Both RTFs and LTFs must align local actions with the national strategic framework. DILG Memorandum Circular 2020-077 urged all LGUS to establish and activate their respective LTFs.

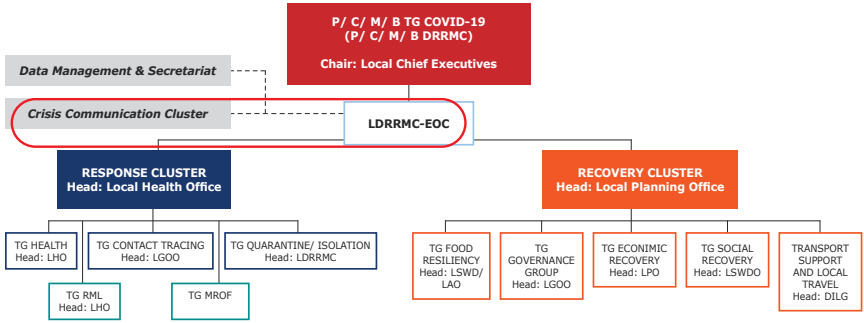
In the "LGU Guide for Rehabilitation and Recovery from COVID-19", the DILG and World Bank (2021) indicated that the LTF may include—in addition to the LCE—the city/municipal local government operations office (C/MLGOO), Philippine National Police (PNP), Bureau of Fire Protection, local DRRM office, Municipal Health Office, barangay

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



COVID-19 = coronavirus disease 2019; RTF = Regional Task Force; RDRRMC = Regional Disaster Risk Reduction and Management Council; OCD = Office of Civil Defense; V-Chair = Vice Chair; DILG = Department of the Interior and Local Government; IC = Incident Commander; EOC = Emergency Operations Center; AFP = Armed Forces of the Philippines; PNP = Philippine National Police; RD = Regional Director; DOH = Department of Health; NEDA = National Economic and Development Authority; DA = Department of Agriculture; DTI = Department of Trade and Industry Philippines; TG = Technical Group; DSWD = Department of Social Welfare and Development; OWWA = Overseas Workers Welfare Administration
Source: NTF COVID-19 (2020)

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



P/C/M/B = Province/City/Municipality/Barangay ; TG = Technical Group; DRRMC = National Disaster Risk Reduction and Management Council; LDRRMC = Local DRRM Council; EOC = Emergency Operations Center; LHO = Local Health Office; LGOO = Local Government Operations Officers; MROF = Management of Returning Overseas Filipino; LSWD = Local Social and Welfare Development; LAO = Local Agricultural Office; LPO = Local Planning Office; LSWDO = Local Social and Welfare Development Office; DILG = Department of the Interior and Local Government
Source: NTF COVID-19 (2020)

health workers (BHW), Barangay Health Emergency Response Team (BHERT), Barangay Public Safety Office, and the Local Epidemiology Surveillance Unit. LGUs can organize their LTF according to local needs and may incorporate additional clusters depending on their situation.

The importance of crisis communication is highlighted at both the RTF and LTF levels, each including a dedicated crisis communication cluster in its organizational structure. The LGU Guide devoted a chapter on communication strategy, highlighting its role in achieving the government's COVID-19 rehabilitation and recovery objectives. This chapter outlines key principles for developing an effective communication strategy, including the need to identify a suitable spokesperson for the LGU and utilize various communication materials and channels for different audiences. It underscored the essential core messages that the LGU must craft and deliver, which include "(a) key roles of the government, the community, and other stakeholders; (b) sectoral rehabilitation and recovery priorities; (c) priority PPAs [programs, projects, and activities] 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 communication task shifted from strategic to crisis communication (Figure 5). While risk communication is not explicitly detailed in the structure, it is discussed in the NAP's full report. The structure reveals that crisis communication is assigned to law enforcement agencies—the Armed Forces of the Philippines (AFP) and the PNP. This is evident from the strong presence of police officers and other uniformed personnel enforcing the lockdowns. Most national heads of the NTF's4 various clusters are former military officials handpicked by the then-Philippine president, who expressed his preference for them over health experts. The president stated in a late-night public address that the pandemic was "not a study of medicine" but should be treated more like a business transaction (Ferreras 2021). The president's preference for

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

military generals is consistent with his administration, as former military officials led several key government departments (e.g., Department of Information and Communications Technology, DILG, Department of Social Welfare and Development [DSWD]). This approach reflects the militarized nature of the pandemic response in the Philippines, which may not be suitable given that the crisis is primarily a health emergency.

At the local level, such as in municipalities and cities, crisis communication is assigned to the Local Disaster Risk Reduction and Management Council (LDRRMC) (Figure 6). The LDRRMC, which serves as the Emergency Operations Center, is an interoffice council responsible for directing, developing, implementing, and coordinating disaster risk reduction and management (DRRM) programs. The council is chaired by the LCE (mayor) and includes heads of various municipal or city departments such as social welfare and development, local health, agriculture, engineering, gender and development, and budget offices. Entities handling peace and order, such as the highest-ranking officer of the AFP and PNP assigned in the area, are members of the LDRRMC. Given the LDRRMC's comprehensive membership, it is advantageous to assign it the crisis communication function. The mayor heads the council, which includes the local health office, equipped with the technical competency to handle the COVID-19 crisis. Like the regional task force structure (Figure 5), only crisis communication is explicit in its local counterpart, with risk communication not specifically mentioned. However, the LDRRMC does have a risk communication function. The health office, which is part of the council, plays a key role in this area. Risk communication is addressed in the plan's full report.

National Issuances Related to COVID-19: Messages Expected of LGUs to Cascade at the Local Level

A cursory audit of COVID-19 national issuances released by relevant NGAs between 2020 and 2021 was conducted to determine the key messages that LGUs should communicate to their residents through various communication strategies. These policies must be cascaded to the LGUs clearly and promptly, reflecting the national government's priorities in addressing the COVID-19 pandemic. A total of 406 issuances were found on the official websites of the DOH and PCOO. Table 3 lists all the websites and subsites visited.

Table 3. Websites visited for the cursory audit of COVID-19 national issuances

Title	Website Address
COVID-19 IATF-EID	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

COVID-19 = coronavirus disease 2019; IATF-EID = Inter-Agency Task Force for the Management of Emerging Infectious Diseases Resolutions; PCOO = Presidential Communications Operations Office; NTF = National Task Force; OP = Office of the President
Source: Authors' compilation

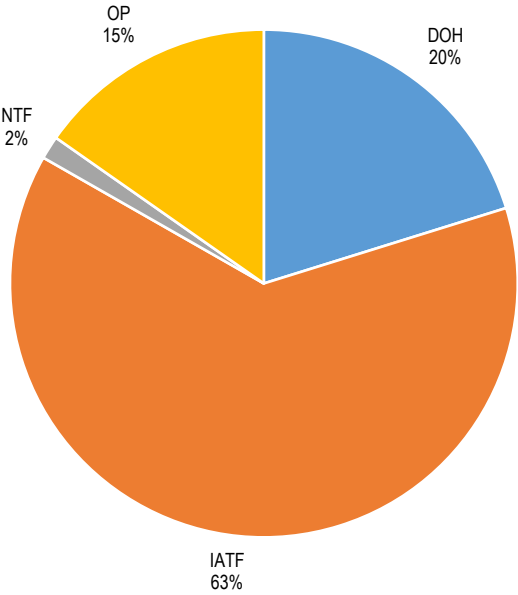
The sources of these issuances include the IATF, DOH, OP, and NTF (Figure 7). The IATF released most of the issuances (63%), followed by the DOH (20%), OP (15%), and NTF (2%).

In terms of the type of issuance,[5] more than half are resolutions released by the IATF (Table 4). The remaining issuances are circulars (14.79%), guidelines (9.11%), memorandums (8.13%), and orders (6.40%) from various entities like the DOH, OP, and relevant NGAs.

Most issuances aim to address multiple aspects of the COVID-19 pandemic (Table 5). The audit revealed that most of the policy issuances from 2020 to 2021 focused on mobility restrictions, followed by directives on prevention, detection, isolation, treatment, and recovery (PDITR)

[5] Executive orders, issued by the OP, are permanent issuances and arise from the exercise of statutory powers. Administrative orders are like executive orders but generally pertain to specific government operations. Proclamations are documents from the same office declaring a particular status or condition of public interest. These OP issuances can serve as the basis for laws and regulations (EO 292 [s. 1987], Book III, Chapter 2). Memorandum orders are agency-specific documents outlining procedures, directives, or guidelines that are temporary in nature. Circulars address administrative concerns shared with different departments, agencies, offices, or bureaus to ensure proper dissemination and compliance (EO 292 [s. 1987], Book IV, Chapter 11). Resolutions are formal documents summarizing or adopting rules or regulations created by a deliberate agency or body for specific situations.

Figure 7. Distribution of national issuances per source agency



OP = Office of the President; NTF = National Task Force; DOH = Department of Health; IATF = Inter-Agency Task Force
Source: Authors' compilation

Table 4. 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

COVID-19 = coronavirus disease 2019; No. = number
Source: Authors' compilation

Table 5. 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

COVID-19 = coronavirus disease 2019; DOH = Department of Health; IATF = Inter-Agency Task Force; NTF = National Task Force; OP = Office of the President; PDITR = prevention, detection, isolation, treatment, and recovery; MPHS = minimum public health standards; OFWs = overseas Filipino workers; LGUs = local government units

Notes:

* Multiple responses

** Admin - policies on work arrangements, changes in organizational structures to address the pandemic, and interagency 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 distancing in different settings); Finance/business - policies and reports on procurement; Social services - policies on the Social Amelioration Program distribution and other social services provided by LGUs; PDITR - policies on prevention, detection, isolation, treatment, and recovery, including guidelines for diagnostic services, isolation, contact tracing, and treatment ; Frontline - policies on compensation allowances, special risk allowances, and other support service for frontline workers; Transportation - policies regarding the resumptions of public transportation systems like the Metro Rail Transit operations and motorcycle taxis.; Mobility - policies and guidelines for lockdown measures and implementation of community quarantine restrictions; Communication - launch of official social media pages to support the Health Facility Development Unit/COVID guidelines; Leisure - policies restricting 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 for collecting and managing health information; OFWs - policies on support services for repatriated OFWs; and Others - policies and guidelines for prize freeze of commodities and waste management of infectious wastes from hospitals.

Source: Authors' compilation

of COVID-19 cases, and policies on minimum public health standards (MPHS). This focus reflects the effort to mitigate the risks of the health crisis and prevent its escalation. The government also released policies on vaccination during this period.

The interval between the releases was determined to understand how often the national government issued new policies. The intervals between releases ranged from 1 to 14 days, with more than 70 percent released within two days (Table 6). This high frequency of new policies issued within a short interval highlights the need for their timely cascading to LGUs for immediate implementation. This affects how effectively LGU officials can digest and communicate them to the public.

Table 6. Interval between policy releases

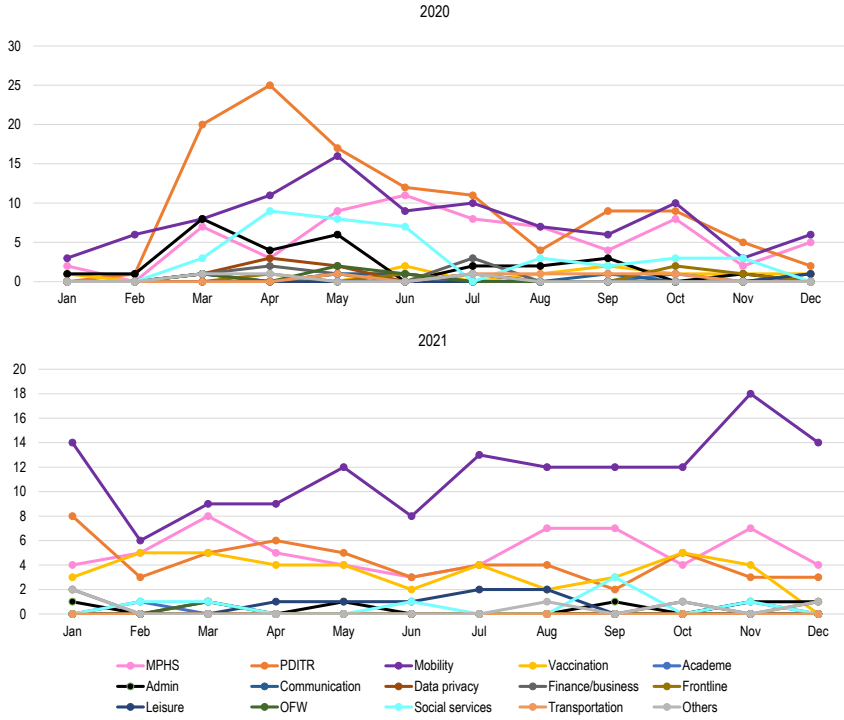
Interval	No.	%
0–2 days	296	72.92
3–5 days	75	18.47
6–8 days	30	7.39
9–11 days	3	0.74
12–14 days	2	0.49
Total	**406**	**100**

No. = number
Source: Authors' compilation

Figure 8 describes the policy issuances by month according to their objectives. Most of the releases in the first half of 2020 focused on PDITR and mobility restrictions to inform the public about the disease, preventive measures, and guidelines for testing and treatment. This was followed by policies on MPHS and social services, particularly the Social Amelioration Program (SAP) distribution implemented by the DSWD and LGUs. PDITR and MPHS policies remained prominent in late 2020 as the government geared toward partially reopening the economy to mitigate the negative impacts of the crisis.

In 2021, mobility policies topped the list with the highest number of releases, followed by MPHS issuances. These included directives for gradually reopening the country to incoming foreigners while ensuring

Figure 8. Monthly policy issuances of pertinent NGAs according to objective, 2020–2021



MPHS = minimum public health standards; PDITR = prevention, detection, isolation, treatment, and recovery; OFW = overseas Filipino worker
Source: Authors' compilation

adherence to minimum public health standards. PDITR policies remained significant, providing updated information on the increasing availability of diagnostic facilities. Moreover, as vaccines became available, issuances included guidelines on priority groups and other relevant vaccination information.

Findings from the Case Studies

The study team conducted a total of 14 KIIs between March and June 2022 with representatives from the four study LGUs. The team aimed to complete all interviews before the national and local elections in

May 2022 and before the end of June 2022, when new LCEs and elected officials assumed office. Table 7 summarizes the KIIs for each LGU, including their offices and departments.

Key informants identified several entities directly involved in the pandemic response, including crisis and risk communication. In all four LGUs, the LCE (mayor) was considered the overall leader and decisionmaker of the city government's COVID-19 pandemic response, with various entities providing support (Table 8). In Navotas, the mayor was likened to a conductor (*tagakumpas*), orchestrating all efforts. The City Health Office (CHO) was recognized as the primary unit in the pandemic response due to the health emergency nature of the crisis. The city administrator, the Public Information Office (PIO), and the City Disaster Risk Reduction and Management Office (CDRRMO) also played key roles across the four LGUs.

Other units were mentioned in some LGUs. In Navotas, the Information and Communications Technology Office (ICTO) played a crucial role in data management by developing information systems and applications for contact tracing, patient monitoring, and vaccination registration. In Caloocan, the City Anti-Drug Abuse Office (CADAO) was repurposed as an Incident Command Center to augment the city government's COVID-19 response workforce.

The following sections discuss and analyze how the LGUs handled the different phases of crisis and risk communication. The discussion is organized following the phases of the CERC model.

Preparation phase

Across the four LGUs, the preparation phase overlapped with activity implementation, which can be traced back to March 8, 2020, when the country's president declared a state of public health emergency in the Philippines. The activities intended for the preparation phase—where there was no crisis yet—were instead done when the crisis had already ensued. This suggests a lack of preparation despite the WHO declaring the COVID-19 outbreak as a global health emergency on January 30, 2020. Thus, the activities that should have been addressed in the preparation phase were listed and discussed in the initial phase.

Table 7. 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)

LGUs = local government units
* Enclosed in parentheses are the designations of the respondents who participated in the interviews
Source: Authors' compilation

Table 8. 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 (Reassigned 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

Initial phase

Drafting and testing of messages; review and approval process
Although this was part of the preparation phase, it was implemented in the initial phase when the health emergency had already started. In all four LGUs, the PIO handled the dissemination of COVID-19 guidelines, local ordinances, and health data. The PIO's roles included packaging COVID-19-related information into information, education, and communication (IEC) materials, translating them into the local language, simplifying technical terms as needed, and disseminating them through various channels.

> "The public won't understand *kapag binigyan mo lang sila ng* guidelines. One thing, *kailangan talagang i*-Tagalog or you write in Filipino *para mas ma-gets nila. Kasi* technical *yung mga* terms *na ginagamit kaya hindi siya agad maiintindihan.* So *yun yung isa rin* challenge. *Kailangang ma-inform na 'yong mga tao* in the sense *na maiitindihan nila agad. Kasi, bago sa ating lahat ang COVID kaya malaking* challenge *na maunawaan ito ng mga tao.* You need to inform the people in the sense *na maiintindihan nila agad.* [The public will not understand if you only provide them with guidelines. For one, it is crucial to translate the information into Tagalog or Filipino so that they can grasp it better. The technical terms used can be difficult to understand right away. That is a significant challenge. It is essential to ensure that the information is presented in a way that people can immediately comprehend. Since COVID-19 is new to everyone, making sure people understand it is a major challenge. You need to communicate in a way that ensures immediate understanding.]" - Key informant, Caloocan City PIO

The materials were reviewed and cleared by the mayor, city administrator, or chief health officer, depending on the content, before they were released to the public. The PIO and the team involved in crisis and risk communication must keep up with the policy releases from the NGAs and their own disease surveillance system to provide timely

information and guidance to citizens. However, because the guidelines were often delayed in reaching the LGUs and given the pandemic's unprecedented uncertainty, the PIOs did not have ample time to test their materials. They had to provide immediate updates to their constituents as soon as they received the information from the LGU or the national government.

Creating plans

Having a communication plan in the preparation phase is important. A strategic communication plan ensures that communication efforts are well-planned, coordinated, and consistent. When multiple units within an organization are involved, an integrated communication plan helps harmonize efforts and optimize resources.

However, there was a lack of a strategic communication plan for the pandemic across the four LGUs. This absence was apparent in the different units involved in crisis and risk communication.

Communication plans include monitoring the effectiveness of implemented strategies. Since none of the LGUs had a communication plan, they lacked a defined system to track and evaluate the success of their communication campaigns. They relied on residents' feedback via social media and hotline facilities, which proved insufficient, as most information received through these channels were inquiries, requests, and complaints.

Developing partnerships

Although developing partnerships is part of the preparation phase, it was pursued when the pandemic had already begun. Aid and support from the private sector, international organizations, and nongovernment organizations generously poured into communities, which augmented the city governments' limited resources and capacities. In Caloocan, the city government received support from the United States Agency for International Development (USAID) through the ReachHealth project, which provided laptops, information materials, and an e-jeepney for COVID-19-related education campaigns and delivery of health supplies. The Philippine Chamber of Commerce and the GMA Foundation donated food packs and personal protective equipment (PPEs). Manila received assistance from Plan International, *Komunidad,* and Catholic

Relief Services (Caritas). According to a key informant from Manila's DRRMO, Plan International sponsored a training on community-based DRRM, while Komunidad hosted a capacity-building workshop on contingency planning. Key informants from Navotas reported receiving assistance from Relief International and United Nations Children's Fund. Private companies donated food, bicycles, PPEs, and tents.

The activities mentioned in the succeeding sections are part of the initial phase of the CERC model.

Disseminating information on the health risks of COVID-19, the need to follow minimum health standards, and the LGUs' overall pandemic response

The LGUs used both digital and traditional communication channels, such as social media, online programs, text messaging, hotlines, meetings, public address systems, and printed and electronic IEC materials. They continued using the same channels throughout the maintenance phase. Table 9 summarizes the communication channels that the four LGUs used.

Across the four LGUs, social media was the most frequently used tool for disseminating information (e.g., guidelines on lockdowns and alert levels, minimum health protocols, programs and services of the city government, news articles, official advisories and announcements). Social media also played a key role in addressing citizens' fears and concerns. This finding aligns with ADB and McCann (2021), one of the earliest publications on communicating COVID-19.

The most common platform across the LGUs was Facebook, particularly their official accounts: 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, these accounts are considered the official social media pages of the four LGUs. The PIO managed COVID-19 posts on these pages based on official policies and guidelines, COVID-19 data from the CHO, and updates from different LGU departments. These pages reshared posts from the Facebook pages of other departments and the city mayors' personal Facebook pages. In Navotas, Manila, and Caloocan, the city mayors used

Table 9. Communication channels used by the four LGUs

Channels	Pasay	Manila	Caloocan	Navotas
Digital				
Social media	✓	✓	✓	✓
Regular online broadcasts (e.g., Facebook Live, YouTube)	✓	✓		✓
Text blasts				✓
Electronic				
Electronic billboards	✓		✓	
IEC materials (e.g., video infomercials)				✓
Traditional				
IEC materials (e.g., posters, flyers)	✓	✓	✓	✓
Hotlines	✓	✓	✓	✓
Public address systems			✓	✓
Meetings (virtual or face-to-face)		✓	✓	✓

IEC = information, education, and communication
Source: Authors' compilation

their personal Facebook pages to share COVID-19-related information and messages and updates on the city government's pandemic response. The mayors of Manila and Navotas engaged with the public through their personal X (formerly Twitter) accounts and YouTube channels.

Online weekly updates through Facebook Live were used across three LGUs. Two of the four LGUs broadcasted weekly programs on their mayor's Facebook page, which were also shared on the PIO's page. Manila featured "The Capital Report", which initially updated residents on the city government activities and accomplishments before the pandemic. According to a key informant, the broadcast occurred three times a day during the early months of the pandemic to keep residents informed and reassure them of the city government's commitment to ensuring their safety and welfare. Navotas aired the "COVID Situationer Report" weekly, where the mayor provided updates on the city government's pandemic response. The program included appearances by department heads who updated viewers on their respective units' activities and

answered questions from viewers. Pasay City conducted live broadcasts where officials answered public inquiries. However, these broadcasts were less frequent and regular compared to those in Manila and Navotas.

According to key informants, the LGUs conducted both face-to-face meetings and virtual meetings using teleconferencing applications like Zoom to disseminate COVID-19 guidelines to the community and gather direct feedback from residents.

In Caloocan, a key informant noted 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 and the BHERTs. However, subsequent meetings with BHWs and residents shifted to virtual formats when the lockdowns ensued. In Navotas, the LGU engaged with small fishermen and owners of large motorized boats both virtually and in person. The CHO organized virtual dialogues with the owners and marine police officers to consult on policies, including COVID-19 testing before the fishermen set out to sea and mandatory quarantine upon their return.

The use of public address systems was reported in Caloocan and Navotas. In Caloocan, the "barker" system involved a roving van with a public address system that went around the city, especially in the inner barangays, to announce minimum health protocols and forthcoming lockdowns. In Navotas, the LGU used a public address system during the enhanced community quarantine. They employed a similar system in 2021 when the vaccination efforts started. The DOH provided a *Resbakuna*[6] van for a month, which circulated through the barangays playing the Resbakuna jingle and sharing vaccination information. Navotas used its existing public address system, known locally as *bandillo*, which is attached to closed-circuit television cameras along the major roads to broadcast city government announcements. Key informants from Navotas confirmed that this equipment was already operational before the pandemic.

A channel unique to Navotas was using text blast through a messaging service called TextJRT. Initially created to respond to citizen queries and concerns, this service was repurposed in 2020 during

[6] *Resbakuna* pertains to the DOH's vaccination information campaign.

the pandemic. Managed by the Navotas CDRRMO, TextJRT sends announcements from the LGU, with all messages requiring approval from the city mayor before release. Navotas also set up an online community on Viber, with 1,800 members as of June 2022, to disseminate COVID-19-related information from the city government.

All four LGUs established COVID-19 hotlines. Manila created dedicated numbers for the Manila Emergency Operations Center and the Manila COVID-19 Vaccine Action Center, addressing questions about COVID-19 and vaccination. Navotas launched NavoGabay in 2021, a telehealth service accessible via text, Facebook, Viber, or dedicated mobile and landline numbers. Pasay set up a COVID-19 hotline managed by the Incident Command Center (ICC) for general inquiries on COVID-19 and patient transfers to hospitals and isolation facilities. Caloocan maintained 24/7 hotlines for COVID-19 inquiries, originally used for citizen feedback and complaints before the pandemic. Operated by the Gender and Development Office, ICC, and CDRRMO, these facilities were repurposed to coordinate medical assistance and patient transfers to isolation facilities.

All four LGUs continued using printed IEC materials like tarpaulins to disseminate information about COVID-19 and minimum health protocols. These materials were prominently displayed in city halls, hospitals, and various public places. Figure 9 shows samples of these printed materials. Some of these materials were digitized and shared on social media platforms.

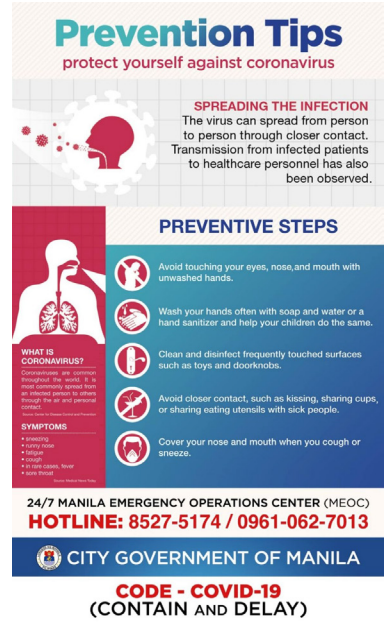
Navotas produced videos featuring testimonials from vaccinated residents and recovered patients shown in isolation facilities and vaccination centers. According to a key informant, these videos aimed to counter misinformation about the conditions of patients and the quality of care provided in isolation facilities. The city government produced videos with children urging adults to stay home and follow health protocols. Samples of these videos are shown in Figure 10.

In Caloocan, a key informant shared that they developed an infomercial about the use of quarantine passes instead of relying on text-based communications to promote public uptake.

Pasay and Caloocan used electronic billboards, which could be attributed to the presence of big business establishments in these cities. In Pasay, a major shopping mall and a popular hotel casino lent their

Figure 9. Samples of communication materials produced by the LGUs

(a)



(b)

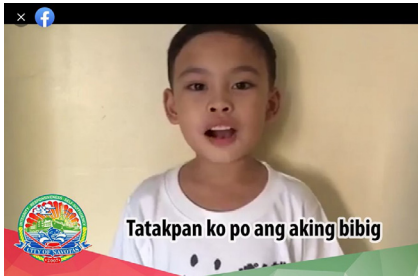
(c)

(d)

LGUs = local government units
Notes: Items a and b are posters produced by the LGUs of Pasay and Manila. These posters were printed and strategically placed in key locations. Their electronic versions were also posted on the LGUs' social media pages. Item c is a magazine of the City of Caloocan, which details the LGU's pandemic response. Item d is a sample of a social media post of the City of Navotas.
Source: LGUs of Pasay, Manila, Caloocan, and Navotas

Figure 10. Samples of video produced by the Navotas LGU

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



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

Source: Screen grab from Navotas LGU Facebook page

electronic billboards to display IEC materials about the LGU's pandemic response. In Caloocan, an electronic billboard at Monumento, a busy roundabout crossing in South Caloocan, was used to broadcast the DOH's BIDA Solusyon campaign, which aimed to promote behavior and mindset change among Filipinos.[7]

Maintenance phase

During this phase, the LGUs continued using the same communication channels as in the initial phase to disseminate information and engage with their constituents. They leveraged public feedback to improve their communication interventions.

Continuing communication activities and improving communication efforts by listening to feedback

The LGUs maintained their communication strategies and channels, utilizing the same methods to explain the pandemic's risks. They considered feedback from their constituents to enhance communication effectiveness and improve service delivery. However, none of the LGUs

[7] BIDA is an acronym for the DOH's four recommended behaviors: B - *Bawal walang mask* (do not go out without a mask); I - *I-sanitize ang mga kamay, iwas-hawak sa mga bagay* (sanitize your hand, avoid touching things); D - *Dumistansya ng isang metro* (keep your distance of 1 meter); and A - *Alamin ang totoong impormasyon* (know the right information).

had a formal feedback mechanism in place. Instead, they gathered comments and questions from various channels to understand residents' needs during the pandemic.

All four LGUs had dedicated personnel, usually from the PIO, managing their official social media pages. In Navotas, the official Facebook page, *Navoteño Ako*, and the mayor's personal Facebook page had community managers working in shifts to monitor and address comments and messages. Text messages received through the TextJRT service were sorted and forwarded to concerned agencies. A key informant and one of Pasay LGU's three social media administrators revealed that they received an average of 200 messages per day at the height of the pandemic. They assessed the information needs of residents by reviewing comments and frequently asked questions on social media, then adjusted their content accordingly. While all comments and direct messages were read, no LGU reported using Facebook's social media analytic tools.

In Caloocan, feedback was collected through LGU personnel and offices on the ground. According to a key informant, the CHO gathered residents' feedback through BHWs and BHERTs. The barangay officials relayed updates from their constituents to the mayor and other LGU officials during regular city government meetings. Key informants from Navotas and Manila mentioned that they found vaccination sites and isolation facilities useful for getting direct feedback from residents.

Existing communication mechanisms in Manila were leveraged. The Manila Barangay Bureau (MBB) established in 1973 under the Office of the Mayor helped synchronize the city's programs, projects, vision, and thrust. Its functions include disseminating information on important policies, programs, and ordinances to Manila's 896 barangays. The MBB coordinates with barangay officials and gathers feedback from residents. According to a key informant, the MBB was instrumental in implementing lockdowns, providing information on the pandemic, and distributing financial aid. The League of Barangays, the formal organization of all barangays in the city, facilitated feedback collection from residents.

Audience segmentation

In heterogenous LGUs with diverse socioeconomic groups, reaching poorer and less educated segments of the population can be challenging.

Key informants from Manila reported difficulties in explaining a disease as complex as COVID-19 and motivating residents to follow health protocols. The city's large population of poor urban dwellers and informal settlers with lower levels of education needed a tailored communication strategy. As one key informant explained:

> "One cannot be too formal with them or act like an elite. You must understand and speak their language and behave like you are 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

The LGU personnel consistently coordinated with barangay officials to address this challenge. They sought assistance from barangay leaders, who had better understanding of the communities.

Navotas faced similar issues. Despite being a highly urbanized city, it remains a major commercial fishing hub, with 70 percent of the population relying on fishing and related industries. During the pandemic, many fisherfolk who spent most of their time at sea had limited access to social media and the internet due to their low-income status. The CHO collaborated with the City Agriculture Office (CAO) to engage with the fisherfolk. They organized virtual dialogues with boat owners and marine police to set policies, such as COVID-19 testing before the fishermen depart for the sea and quarantine upon their return. The LGU used interpersonal communication channels by working with the fish port association and marine offices to relay information and policies. For the cannery sector, the LGU scheduled Zoom or face-to-face lectures for workers in shifts. To inform small fishermen who were often at sea, the CHO partnered with the CAO, which maintained direct contact with the fisherfolk.

Encouraging public support and cooperation

LGUs actively sought public support and cooperation by engaging with citizens through various channels, including mayors' online programs, (e.g., Manila's "The Capitol Report" and Navotas' "COVID Situationer Report"), social media posts, virtual and face-to-face meetings, IEC

materials, and COVID-19 hotlines. On-the-ground interpersonal channels, including barangay captains, BHERTs, and BHWs, were instrumental in keeping residents informed and engaged in their LGUs' COVID-19 response.

Addressing rumors/fake news

Addressing false information is a key component of the maintenance phase in the CERC model. Misinformation was rampant during the pandemic, which worsened an already stressful situation. Alongside false claims about COVID-19 prevention and treatment, misleading information about vaccine side effects, such as the erroneous belief that vaccines would cause zombie-like effects on humans, contributed to low vaccination rates in Caloocan. In Manila, an early false rumor that vaccinated individuals would receive free rice circulated. When this claim was debunked, many residents chose not to get vaccinated. In Navotas, key informants reported false claims about isolation facilities, including allegations of poor maintenance and terrible food. During the implementation of the Q-Band system for contact tracing, public misconceptions arose that the city government would disclose users' personal information.

The LGUs addressed fake news by issuing clarifications and official statements on their official Facebook pages and urging the public to trust information from official channels only. They repeatedly shared relevant social media posts to amplify their message. However, in some cases, the LGU itself unintentionally spread false information. In Pasay, a key informant reported that outdated distribution schedules for financial assistance (*ayuda*) posted by an LGU department on Facebook led to confusion among residents.

Information dissemination at the barangay level was enhanced through established internal mechanisms, such as barangay officials and support personnel like BHWs and BHERTs. LGUs engaged barangay leaders, who hold a strategic position and authority in their communities, to relay information to residents, supplement announcements on social media, and address public misconceptions about city government policies and programs. For example, the barangay leaders in Caloocan helped

dispel the misconception that the Q-Band invades personal privacy. A key informant from Caloocan shared that:

> "*Sila* [barangay officials] *na 'yong nagsasabi na: 'Ano 'yan? Hindi totoo.' So siyempre,* trusted *nila 'yan. Iba kapag ka-barangay ang nagsabi.* [Barangay officials were the ones saying: 'What is that? It is not true.' They clarified things in this manner, and since they are trusted by the community, their statements carried weight. It makes a difference when the barangay speaks out]." - Key informant, Caloocan CHO

IEC materials were created to counter fake news. In Navotas, the PIO produced testimonial videos of patients from isolation facilities to address and correct misinformation about facility conditions and patient treatment.

Resolution phase

Motivating people to stay vigilant

By the end of 2021, the COVID-19 pandemic remained a serious threat to public health in the Philippines. Case numbers remained high, especially as the economy reopened—a measure deemed necessary by the government to foster economic recovery and address the challenges posed by the pandemic.

During this phase, LGUs sustained their communication interventions through both traditional and social media. They continued using the strategies summarized in Table 9. They urged the public to stay vigilant as COVID-19 remained widespread, especially during the holiday season with frequent social gatherings. They advised the public to follow minimum health protocols.

Moreover, the government intensified vaccination efforts to achieve herd immunization. By this time, they had secured an ample supply and a variety of COVID-19 vaccines. Caloocan and Navotas opened additional vaccination sites, while Pasay and Manila launched drive-through vaccination programs to enhance accessibility. They supported these efforts with ongoing information and education campaigns on the importance of vaccination and the availability of more vaccination sites.

Taking stock of lessons learned and revising the communication plan

LGUs recognized the importance of a communication plan, especially during challenging times like the recent pandemic. A key informant from the PIO of Caloocan emphasized that having a communication plan is essential, admitting that their operations lacked one. Although they managed to perform their tasks during the pandemic, the informant noted that a communication plan would have been vital for guiding their work and assessing their strategies' effectiveness. The same respondent attributed the difficulty of implementing a communication plan to their limited workforce and the constantly evolving nature of the pandemic. Despite these challenges, they acknowledged that a communication plan was necessary, as their experience showed.

A respondent from the health office of Caloocan noted that their office had a communication plan developed in 2018, reflecting the lack of an updated plan specifically addressing the COVID-19 health emergency.

In Navotas, a key informant from the PIO reported that the LGU initially lacked a communication plan for the pandemic but later developed one specifically for the vaccination campaign due to a requirement from the DOH. The informant explained that the plan outlined Navotas' communication strategies to boost vaccination demand among residents. She mentioned that crafting the plan was challenging since none of their team members had prior experience in developing such plans. The DOH provided training on communication planning only after the LGU complied with the requirement to submit a plan for vaccine demand generation.

In Manila, the key informant from the PIO mentioned not having a communication plan and relying on the mayor's directives instead.

Looking ahead, key informants emphasized the need to strengthen their communication offices and enhance their capacities. They acknowledged the importance of having an LGU-wide strategic communication plan to better prepare for similar situations in the future. This was further elaborated by the respondent from Caloocan:

> "*Maganda pa rin na* we have a communication plan to guide us. *Mache*-check *mo kasi* if you are effective and *'yong* strategies are effective enough. If *nai*-inform *niyo ba talaga* or *nade*-deliver *niyo sa* public *'yong* specific information *na*

> *kailangan ninyong maibigay sa kanila* to avoid confusion and fake news. Mostly *na*-experience *ng mga common na tao 'yong* confusion because certain information was not delivered to them properly. [It is still beneficial to have a communication plan to guide us. It allows us to assess our effectiveness and determine whether our strategies are adequate. It ensures that we deliver the specific information the public needs, helping to avoid confusion and fake news. People often experience confusion because certain information was not communicated properly]." - Key informant, PIO, City of Caloocan

Content Analysis of the Social Media Post

To examine how the LGUs communicated risks associated with COVID-19, advised the public to protect themselves, and engaged residents in supporting the government's pandemic response efforts, a social media search and content analysis of the four LGUs' COVID-19-related posts on their official Facebook pages was conducted.

The analysis covered all posts from March 2020 to December 2021. Aside from using the filter option of the search bar, keywords were used such as COVID-19, vaccine, cases, quarantine, new normal, community testing, MECQ (modified enhanced community quarantine), ECQ (enhanced community quarantine), and GCQ (general community quarantine) for a comprehensive search. An attempt to collect the Facebook analytics reports of the LGUs was made, but these reports were not available, as the LGUs had not yet utilized Facebook's analytics facility.

A total of 6,787 COVID-19-related posts were collected (Table 10). Navotas (30.79%) and Manila (29.25%) had the highest number of posts, followed by Caloocan (21.42%) and Pasay (18.54%).

Post types and content

The most common post types were advisories/announcements (Table 10), which comprised more than half of the total posts (55.80%) across the four LGUs. This was followed by photo releases or stories (21.70%) and infoposters/infographics (10.90%).

Table 10. 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)	0	13 (0.19)
Instructional video	1 (0.08)	1 (0.05)	0	5 (0.24)	7 (0.10)
Podcast	2 (0.16)	0	0	0	2 (0.03)
Brochure	2 (0.16)	0	0	0	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

The advisories and announcements primarily covered the status or number of positive cases, as well as guidelines for community quarantines. They also include instructions on the release of social assistance programs, such as the SAP and food packages. Photo releases usually showcased the LGUs' activities in addressing the pandemic. Infoposters and infographics generally depicted MPHS and provided information about the disease to improve public understanding of COVID-19 and its prevention measures.

The most common posts varied across the four LGUs. Pasay largely used only one post type—advisories/announcements (79.41%). Other LGUs had more diverse post types, especially Manila and Navotas. While advisories and announcements were also their top post

in Manila (43.88%), Caloocan (59.42%), and Navotas (50.38%), these LGUs also produced other post types. Manila frequently posted photo releases/stories (33.25%), news alerts/releases (11.64%), and video livestreams (5.19%). Besides advisories/announcements, Caloocan relied heavily on photo releases/stories (33.01%). Navotas posted more infoposters/graphics (29.86%) compared to the other LGUs and included photo releases/stories (13.63%).

Each social media post was categorized by its content. Table 11 shows that most social media posts focused on PDITR for COVID-19 cases (37.54%). This category included information on the status of COVID-19 cases, testing guidelines, quarantine protocols, preventive measures like disinfection and misting, and contact-tracing methods. Vaccination efforts followed next (36.85%), covering guidelines for vaccination, locations of vaccination sites, and information on available vaccines and boosters. The third most common content category was about MPHS (28.69%), which included reminders to use face masks and shields and maintain physical distancing in public places. The next most common information shared on social media was about various social services that the LGUs offered, including cash and relief assistance, mobile/roving markets, and other pandemic-related government services. Mobility and community quarantine guidelines appeared in 13.23 percent of the total number of posts, including guidelines for the different quarantine classifications implemented in 2020–2021 and the alert system implemented in late 2021. Unfortunately, only 45 posts, or less than 1 percent, addressed fake news or misinformation, while 140 posts, or 2 percent, expressed appreciation for frontline workers. Other content included acknowledgments of private sector donations, vaccination promotions through raffles, and advisories about event postponements due to the pandemic. Many posts covered multiple categories, such as the number of COVID-19 cases and MPHS and vaccination reminders.

The top posts varied by LGU, reflecting the key messages the city governments aimed to highlight during the pandemic. The top three posts in Pasay were on PDITR, MPHS, and vaccination. Manila's posts primarily focused on vaccination, followed by PDITR and social services. Caloocan's top posts covered vaccination, social services, and PDITR. Navotas' posts focused almost equally on PDITR and MPHS, followed by vaccination and social services.

Table 11. 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)

PDITR = prevention, detection, isolation, treatment, and recovery; COVID-19 = coronavirus disease 2019
* Multiple responses
Source: Authors' compilation

Posts' communication objectives and sources

Table 12 shows that the primary communication objective of social media posts across all four LGUs was to inform the public. More than 99 percent of the posts were informative. Over 60 percent were motivational, with clear calls to action encouraging the public to adopt certain behaviors or practices. Only 2.9 percent of the posts aimed to engage the public in activities, such as supporting frontliners through prayer.

To determine the accuracy of the social media posts, the content analysis evaluated whether the LGUs cited the contents' source (e.g., DOH, NGAs, WHO). Given the technical nature of COVID-19 and the goal to modify behaviors to mitigate risks, citing the source was deemed important to establish the posts' accuracy, which enhances the credibility of the information and encourages readers to follow the recommended actions.

Table 12. 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

Table 13 details the proportion of social media posts by type and whether the source agency was indicated. Only Pasay City cited sources in their posts by including the logos of the respective agencies. This practice could be attributed to the fact that most of Pasay's social media posts were advisories/announcements.

Social media engagement

Public engagement on 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 assessed through the presence of viewer reactions depicted by emojis and the number of times a post was shared. Figure 11 shows that most reactions to posts were positive, including like, love, and care reactions. Negative reactions included anger and sadness, while other reactions included surprise (wow) and mocking (haha).

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

Figure 11 shows the distribution of public engagement across different types of social media posts. Advisories and announcements garnered the most engagements, followed by photo and news releases. Among the LGUs, Caloocan's social media posts received the fewest engagements at under 8,000, while the other cities received more than 500,000 reactions and shares. Manila topped all sites, with over 2 million engagements. Public announcements and advisories received the most engagements across all sites, followed by news releases, photo releases, and infographics/infoposters.

Table 13. Citation of official sources in the social media posts

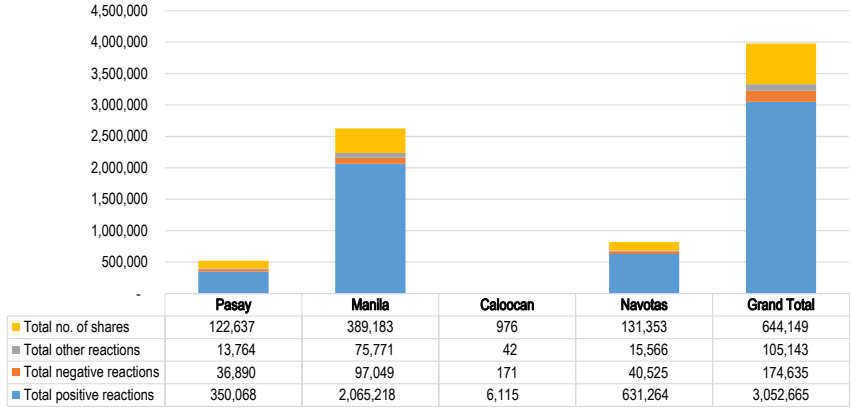
Type of Social Media	Pasay	Manila	Caloocan	Navotas	Total
Advisory/announcement	999	871	864	1,053	3,787
With reference (%)	936 (93.69)	127 (14.58)	93 (10.76)	94 (8.93)	1,250 (33.01)
Without reference (%)	63 (6.31)	744 (85.42)	771 (89.24)	959 (91.07)	2,537 (66.99)
Photo release	48	660	480	285	1,322
With 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)	0	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)	0	5 (8.47)	31 (17.51)
Without reference (%)	18 (46.15)	69 (93.24)	5 (100)	54 (91.53)	146 (82.49)
Photo release	0	151	0	0	151
With reference (%)	0	8 (5.30)	0	0	8 (5.30)
Without reference (%)	0	143 (94.70)	0	0	143 (94.70)

Table 13 *continued*

Type of Social Media	Pasay	Manila	Caloocan	Navotas	Total
Newsletter	11	1	1	0	13
With reference (%)	7 (63.64)	1 (100)	0	0	8 (61.54)
Without reference (%)	4 (36.36)	0	1 (100)	0	5 (38.46)
Instructional video	1	1	0	5	7
With reference (%)	0	1 (100)	0	2 (40)	3 (42.86)
Without reference (%)	1 (100)	0	0	3 (60)	4 (57.14)
Brochure	2	0	0	0	2
With reference (%)	2 (100)	0	0	0	2 (100)
Podcast	2	0	0	0	2
Without reference (%)	2 (100)	0	0	0	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

Figure 11. Public engagement of the study LGUs' social media posts



	Pasay	Manila	Caloocan	Navotas	Grand Total
Total no. of 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

LGUs = local government units; No. = number
Source: Authors' compilation

Table 14. 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. of 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. of 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. of shares	8,826	124,734	42	1,124	134,726
Total (reactions + shares)	69,842	767,903	541	7,667	845,953

Table 14 *(continued)*

	Pasay	Manila	Caloocan	Navotas	Grand Total
Infoposter/infographic					
Positive reactions	28,590	43,365	116	108,402	180,473
Negative reactions	1,121	2,490	0	7,442	11,053
Other reactions	1,933	536	2	1,205	3,676
No. of 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	0	38	1,754
Other reactions	1,200	1,466	2	34	2,702
No. of shares	712	730	0	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	0	126	959
Other reactions	480	641	0	357	1,478
No. of 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	0	9,698
Negative reactions	1,016	29	0	0	1,045
Other reactions	328	24	0	0	352
No. of shares	5,144	656	0	0	5,800
Total (reactions + shares)	12,668	4,225	2	0	16,895
Instructional video					
Positive reactions	864	4,327	0	1,024	6,215
Negative reactions	14	0	0	2	16
Other reactions	126	86	0	11	223
No. of shares	241	0	0	2	243
Total (reactions + shares)	1,245	4,413	0	1,039	6,697
Podcast					
Positive reactions	1,342	0	0	0	1,342
Negative reactions	34	0	0	0	34
Other reactions	43	0	0	0	43
No. of shares	0	0	0	0	0
Total (reactions + shares)	1,419	0	0	0	1,419

Table 14 *(continued)*

	Pasay	Manila	Caloocan	Navotas	Grand Total
Brochure					
Positive reactions	317	0	0	0	317
Negative reactions	0	0	0	0	0
Other reactions	4	0	0	0	4
No. of shares	42	0	0	0	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. of 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 through the comments section. Almost all social media posts had comments enabled (Table 15). Notably, only the Navotas Facebook page, managed by their PIO, actively responded to public comments on their posts.

Table 15. Comments on the social media posts per LGU

Social Media Posts by LGU	Total (No.)	Enabled Comment Section	With Page Administrator Feedback
Pasay	1,258	1,245	3
Advisory/announcement	999	987	0
Photo release/story	48	48	0
Infoposter/graphic	45	44	0
News alerts/release	95	95	2
Video livestream	16	16	1
Informational video	39	39	0
Newsletter	11	11	0
Instructional video	1	1	0
Podcast	2	2	0
Brochure	2	2	0

Table 15 *(continued)*

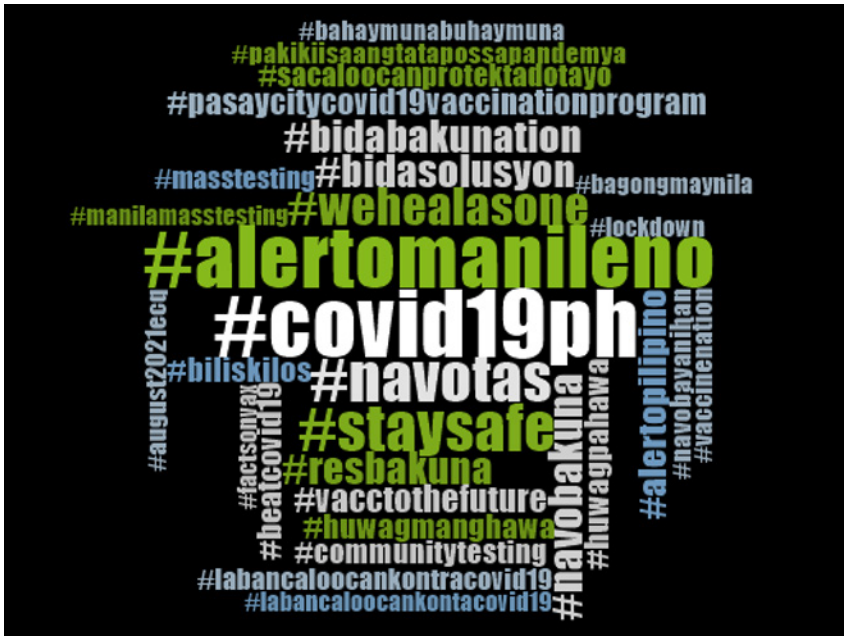
Social Media Posts by LGU	Total (No.)	Enabled Comment Section	With Page Administrator Feedback
Manila	1,985	1,985	5
Advisory/announcement	871	871	2
Photo release/story	660	660	0
Info poster/graphic	44	44	0
News alerts/release	231	231	3
Video livestream	103	103	0
Informational video	74	74	0
Newsletter	1	1	0
Instructional video	1	1	0
Podcast	0	0	0
Brochure	0	0	0
Caloocan	1,454	1,454	0
Advisory/announcement	864	864	0
Photo release/story	480	480	0
Info poster/graphic	27	27	0
News alerts/release	71	71	0
Video livestream	6	6	0
Informational video	5	5	0
Newsletter	1	1	0
Instructional video	0	0	0
Podcast	0	0	0
Brochure	0	0	0
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	0	0	0
Instructional video	5	5	1
Podcast	0	0	0
Brochure	0	0	0
Total (%)	6,787	6,770 (99.75)	394 (5.81)

Source: Authors' compilation

Hashtags

Figure 12 shows the top 30 hashtags used across all social media posts. Aside from #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. Since these hashtags incorporate the names of the cities, they enhance awareness and recall of their LGUs. The LGUs used call-to-action hashtags like #staysafe and #wehealasone promoted by the IATF in their posts. Several hashtags promoted the LGUs' vaccination programs.

Figure 12. Commonly used hashtags in all social media posts



Source: Authors' compilation

Contextual Factors Affecting the Crisis and Risk Communication Process

This section analyzes the key factors that contributed to or hindered the LGUs' effective crisis and risk communication.

Resource constraints and personal risks

Resource constraints and personal risks hindered effective crisis and risk communication. Key informants reported several challenges, including inadequate and untrained personnel, insufficient equipment for risk and crisis communication and pandemic response, and the direct risk of COVID-19 infection.

In Pasay, a key informant managing the city government's official social media page reported an overwhelming influx of messages on Facebook, particularly at the height of the pandemic. She acknowledged that her team struggled to respond to all inquiries due to inadequate staffing. The LGU deployed some staff from the mayor's office to the PIO to address the shortage of social media personnel.

In Caloocan, the city government faced significant challenges managing the needs of its 188 barangays. The city's large geographic area, substantial population (the fourth most populous in the country), and division into North and South Caloocan complicated communication efforts and the overall pandemic response. Ensuring that information and assistance were distributed evenly across all barangays and that services in North Caloocan were equally accessible in South Caloocan created logistical and budgetary difficulties. A lack of adequate and relevant equipment further constrained these efforts.

All key informants reported that working past regular hours and on weekends was common at the height of the pandemic. They faced personal health risks, including the potential of contracting COVID-19 and exposing their families to the virus upon returning home.

External entities provided support to address resource constraints. Staff augmentation helped mitigate workforce shortages. All four LGUs reported receiving assistance from other government agencies, private sector companies, civil society organizations, and international organizations. In Caloocan, USAID's ReachHealth project provided laptops, an e-jeep for their communication campaign, IEC materials, and additional healthcare personnel.

Delay in the cascading of policies at the local level

This factor also impeded efficient crisis and risk communication. The audit of national issuances showed that almost two-thirds of the policies were released by the NGAs within a two-day interval. The high frequency of policies released within a short period left LGUs with minimal time to review and implement new policies. This situation was compounded by delays in cascading official memos from NGAs, which are crucial for policy implementation.

Key informants from Pasay and Caloocan noted that the guidelines were not promptly communicated to the LGUs. The city governments had to wait for the official memo from the national government to ensure their action would align with the official policy. As a key informant from Caloocan explained:

> "Legal *na* basis *ang kailangan natin* in the project implementation. In the absence of that, *lalo na kung may* changes in the agreed policy, *magkakaroon ng problema* in the implementation. *Lalo na* if it will entail budget, *magkakaproblema sa* COA. [We need a legal basis for project implementation. Without this, especially if there are changes to the agreed policy, there will be problems in the implementation process. This is particularly problematic when budgetary considerations are involved, as it can lead to complications with the Commission on Audit (COA)]."
> - Key informant, Office of the City Administrator, Caloocan

A key informant from Pasay highlighted that the delay in transmitting official guidelines to the LGUs often left the PIO with limited time to create and localize communication materials. This delay hampered the timely implementation of advisories on the ground.

In Caloocan, another key informant noted that new guidelines were often first discovered on social media, with the official memo arriving only the next day, which was typically the day of its implementation. There were instances when news sites reported the new policies before the official documents reached city officials. This scenario created challenges for the LGU, as they lacked a definite plan due to the absence of a legal basis. In Pasay, a key informant related that

the PIO received inquiries from residents about advisories seen on social media. They had to inform residents that they had not yet received the official guidelines and needed to wait before taking action or making an official announcement.

Fast-changing guidelines

The rapid changes in COVID-19 guidelines compounded the delay in local-level communication, presenting further challenges for LGUs. Frequent updates required LGUs to rectify or clarify messages. For instance, in Caloocan, modifications to the quarantine periods for individuals who tested positive or were close contacts needed clear and immediate communication 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 barangay officials, who had minimal time to adjust to the new guidelines. Meanwhile, a key informant from Navotas noted the need to stay aligned with the official policies and monitor updates in contact tracing guidelines. Changes in the definitions of close contacts and the number of required isolation days needed to be accurately reflected in their contact tracing system.

Difficulty in communicating a novel disease

Another significant challenge was the difficulty in communicating information about COVID-19. A key informant from Caloocan explained that COVID-19 was new to them, and they faced substantial difficulties in disseminating technical information and implementing the necessary policies, especially during the early months of the pandemic.

Similarly, respondents from Manila reported facing the same issue. They needed to understand the disease thoroughly to educate the public effectively. Ensuring that explanations were clear, respectful, and not offensive proved challenging.

Since COVID-19 was unprecedented, public misunderstanding was rampant. A respondent from Caloocan noted that explaining the necessity of lockdowns and encouraging people to wear masks were initially challenging. Most residents had an aversion to COVID testing due to the stigma associated with being labeled as COVID-19 positive.

A key informant from Navotas reported that her team struggled with communicating health emergencies like a pandemic. Although

they had significant experience in disaster risk communication because Navotas is a flood-prone area, they had limited knowledge of science and risk communication specific to health emergencies. Key informants from the Manila CDRRMO shared a similar challenge. They acknowledged their lack of mastery in the four pillars of DRRM (preparedness, mitigation, response, and recovery) related to a pandemic. They admitted that COVID-19, as a health-related disaster, presented new challenges they were not fully prepared for.

High public trust

High public trust appeared to have influenced the LGUs' crisis and risk communication efforts, according to key informants. All respondents indicated that residents had high trust in their city governments. In Manila, Caloocan, and Pasay, this trust was attributed to the positive perception of how the city government, particularly the mayor, managed the pandemic. In Navotas, a key informant from the CDRRMO credited the effective performance of barangay officials and BHERTs. Factors of trust, such as competence and reliability, align with findings from previous studies on crisis and risk communication (e.g., Pornpitakpan 2004; Covello 2009).

In Manila, respondents highlighted the mayor's effective leadership and the strong performance of various LGU departments before and during the pandemic. A CDRRMO informant said that the LGU provided services not only to Manila residents but also to nonresidents. For instance, many overseas Filipino workers were accommodated at the Manila COVID-19 Field Hospital in Rizal Park, and other LGUs sought assistance in transporting patients to Manila when local hospitals had reached full capacity.

In Navotas, a key informant mentioned the mayor's clear directives and close monitoring despite not being physically present due to being a senior citizen with comorbidities. Another respondent attributed the success of their pandemic response to the close coordination and positive relationship between the mayor and the CHO, with the mayor providing full support to the health officer. As noted by a Navotas LGU respondent:

> "*Talagang may say dito si* Dr. X because she is the City Health Officer. *'Pag sinabi niyang ganoon dapat, paniniwalaan ni* boss.

> *Kami naman* implement *kami nang* implement. Support *kami nang* support… *Lahat kami naka*-support 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. [Dr. X, our City Health Officer, has significant influence. When she makes a directive, it is taken seriously by the mayor. We support those directives. Everyone is fully supportive of the City Health Office. As Incident Commander, I report to the responsible official, the mayor, and fully support our City Health Officer.]" - Key informant, Navotas CDRRMO

This was also evident in Manila, where the mayor and the vice mayor, a medical doctor, worked closely in managing the city's pandemic response. The mayor fully supported and trusted the vice mayor, whose husband was the city health officer at the time.

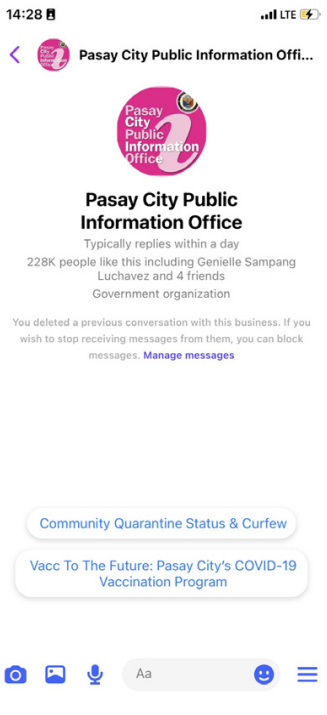
Key informants in Caloocan and Navotas observed that the success of the mayor and his ticket in the May 2022 national and local elections reflects their constituents' sustained trust. In Caloocan, the mayor won as the representative of the first district of Caloocan, while his son succeeded him as the elected mayor. In Navotas, the former congressman, the mayor's brother, won the mayoralty race, while the mayor won a congressional seat.

In Pasay, key informants attributed the residents' high trust in the city government to the LGUs' transparency in releasing reports and data. Respondents from both Pasay and Navotas noted that the capacity of their city governments to address residents' requests and concerns positively influenced the perception of the LGU.

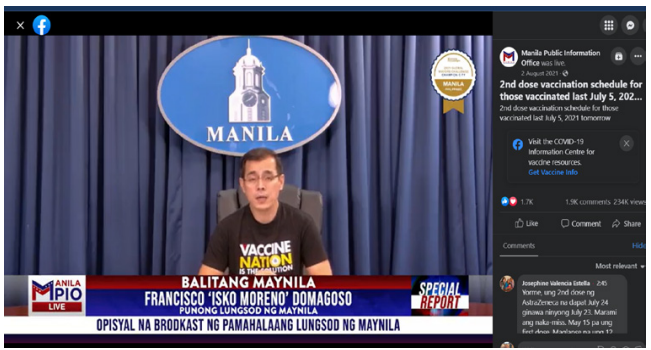
Perceived Best Practices

Key informants from the LGUs highlighted various best practices, which are methods or strategies that proved to be effective in their COVID-19 responses or were instrumental to the success of their efforts (Figure 13).

Figure 13. Best communication practices reported by key informants from the four LGUs

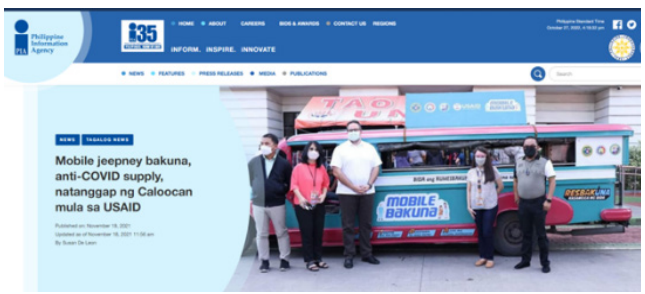


Pasay: Use of an FAQ autobot



Manila: "The Capital Report" online broadcast

Navotas: TextJRT messaging service



Caloocan: Roving van with public address system

LGUs = local government units; FAQ = frequently asked questions
Source: Screen grab from the LGUs' social media pages

Manila

The key informant from the PIO highlighted the weekly live broadcast of the mayor, "The Capital Report", as a best practice. This program informs the public about the LGUs' activities, the allocation of public taxes, and the city government's plans. The informant believed that "it bridged the gap between the public and the city government" by allowing residents to directly raise their concerns to the mayor. She attributed this transparency and responsiveness to the Open Governance Policy, the city mayor's first EO upon taking office in 2019. She explained that this policy enhanced the LGU's information dissemination efforts, which were crucial for the city government's pandemic response.

Pasay

The LGU's extensive use of social media was highlighted as a best practice of the LGU. A key informant managing the LGU's official social media page reported implementing innovations to streamline their Facebook account management, such as using a Frequently Asked Question (FAQ) autobot in the chat box to reduce the volume of common queries needing direct responses. The LGU also took pride in having developed an ICS before the pandemic. The ICS outlines the communication protocols for managing emergencies, whether disaster or health-related.

Caloocan

A key informant considered the use of traditional channels as one of the LGU's best practices. She noted that the barker or public address system effectively reached low-income households lacking immediate access to the internet and social media. Moreover, using the electronic billboard in Monumento was highlighted as an effective way for disseminating information, given the high foot traffic in the area. For another key informant, the video clips featuring the mayor speaking to constituents and urging adherence to health protocols effectively showcased the mayor's leadership and the administration's commitment to addressing the crisis. A respondent from the CHO added that the mayor's immediate recognition of COVID-19's urgency helped to direct the city government's efforts. According to this respondent, the mayor regularly communicated with constituents through a weekly public address, providing updates on positive cases, detailing implemented strategies, explaining guidelines and policies, and seeking public

cooperation. Involving BHWs in health promotion and education was an effective strategy for reaching residents on the ground.

Navotas

One of the best practices highlighted in Navotas is the TextJRT messaging service, which allows residents to receive announcements and send messages directly to the LGU. Other best practices included the daily executive meetings led by the mayor, which ensured effective issue monitoring and the city government's prompt action, and the strong coordination within the LGU through various communication channels, such as regular executive meetings and Viber groups.

Summary of Key Findings and Insights

- The LGUs' experience did not necessarily follow the CERC Rhythm model. Instead of a linear process, all phases happened almost simultaneously. The LGUs lacked a strong preparation phase, highlighting their reactive approach to the pandemic. This challenge was exacerbated by contextual factors that complicated the implementation of crisis and risk communication. This situation manifested the reality of health emergencies, which may unexpectedly recur due to the emergence of more transmissible variants. Conceptually, it implies a need to refine the CERC model to capture the nuances of health emergencies—a limitation noted by other studies as well.
- The importance of communication in the pandemic response is clearly shown in the organizational structures outlined in the National Action Plan on COVID-19 at the strategic, regional, and local levels. Within LGUs, the LDRRMC, chaired by the LCEs of the province, city, or municipality, is tasked with managing and coordinating crisis communication, including the local health office, as its members.
- The audit of national issuances revealed key policies and messages that needed to be disseminated and implemented in 2020 and 2021. The review uncovered 406 COVID-19 issuances on the official websites of key national agencies.

These issuances reflect the government's priorities and focus on addressing urgent issues.

- The crisis and risk communication for COVID-19 involved multiple entities within the LGUs. Their information, health, and disaster management office managed these functions. The LCE (mayor) provided overall leadership, the health office led the technical and medical aspects of the response, and other LGU units/departments provided support.
- The LGUs used a range of communication strategies for public outreach, including social media, online programs, text messaging, hotlines, face-to-face and virtual meetings, public address systems, and printed and electronic IEC materials.
- ICT-facilitated communication channels, such as social media and virtual meetings, were crucial in the LGUs' crisis and risk communication. However, traditional methods, particularly face-to-face communication (whenever possible) and printed IEC materials, remained essential for reaching target audiences with limited ICT access.
- Interpersonal channels on the ground, such as barangay officials, BHWs, and BHERTs, played a crucial role in crisis communication. They disseminated important information, clarified misconceptions, corrected misinformation, relayed citizen feedback to LGUs, and served as a bridge between the LGU and the community. Working with barangay officials in Manila enabled outreach to informal settlers and slum dwellers. In Navotas, working with the fish port association and marine officers facilitated communication with the fisherfolk community and helped develop responsive policies for the fishing stakeholders.
- The LGUs heavily relied on messages sent to their social media pages and hotlines to gather citizen feedback and assess residents' needs. Barangay personnel (e.g., barangay officials, BHWs, BHERTs) and health centers served as feedback channels.
- All the study LGUs lacked a formal communication plan and a communication M&E system.

- While social media was widely used, the LGUs did not fully leverage its potential to address misinformation or enhance responsiveness. Out of the 6,787 COVID-19-related posts on the LGUs' Facebook pages, only only 45 (less than 1%) were aimed at correcting false information. Only one of the three LGUs responded extensively to public comments on its Facebook page. The analysis revealed a need to improve the clarity of the LGUs' social media posts by using the local language more frequently, simplifying technical terms, and incorporating more visual communication.
- The LGUs faced numerous challenges in their communication activities and overall pandemic response.
- Citizen trust in the LGUs was perceived to be high in all LGUs, with key informants attributing this to effective mayoral leadership during the pandemic.

Conclusion and Recommendations

The experiences of Pasay, Manila, Caloocan, and Navotas show that the LGUs implemented a combination of traditional and ICT-facilitated strategies for crisis and risk communication during the pandemic. While they largely used digital channels like social media, virtual meetings and groups, and online messaging platforms, traditional channels remained important, particularly face-to-face communication (e.g., meetings, dialogues) whenever possible, printed IEC materials, and interpersonal channels on the ground like barangay officials and health personnel. Traditional channels were essential for reaching population groups with low education and limited access to digital technologies. Face-to-face communication was important for building trust, explaining key concepts, and gathering immediate feedback. In Navotas, virtual and in-person dialogues with fishing stakeholders were crucial for developing COVID-19 guidelines specific to their situation. In Manila, barangay officials engaged with the urban poor and informal settlers. This suggests that despite their popularity, internet-enabled platforms should not replace face-to-face communication methods, printed materials, and other legacy communication systems. Rather, these digital tools should complement and enhance established

communication practices.

The communication strategies used during the pandemic are worth sustaining and applicable in day-to-day situations for informing and connecting with residents. For instance, virtual meetings are useful in reaching individuals with physical limitations 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 and virtual) in conducting town hall meetings, fora, and stakeholder consultations. Livestreaming city hall activities like council meetings can promote transparency.

Government agencies and local governments can leverage electronic and digital communication tools to enhance accountability, responsiveness, transparency, and accessibility. Hiring dedicated personnel for social media management is essential to fully utilize these platforms and address public inquiries and concerns promptly. Ensuring affordable, fast, and reliable internet connection is vital for government offices to effectively use internet-based tools for service delivery and for the public to access these services. Improving the country's ICT infrastructure is necessary to leverage digital communication tools.

The study highlighted several challenges affecting the LGUs' communication functions during the pandemic. These include delays in cascading official memos on new policies and guidelines from the national to the local level; rapidly changing guidelines; inadequate training in science, risk, and crisis communication; insufficient resources; personal health risks from COVID-19; and the proliferation of fake news. Moreover, all four LGUs lacked a communication plan and M&E system, which impeded their ability to implement, monitor, and evaluate their communication strategies effectively.

These gaps must be addressed to strengthen the country's ability to manage health emergencies and natural hazards. Delays in cascading official memos from the national to the local governments may be resolved using ICT tools to improve coordination. Government information officers need targeted training in strategic communication to effectively carry out their communication functions during crises. Effective communication is vital for preparation, mitigation, control, and recovery. As a subset of risk communication, science communication is important to explain complex concepts in an accessible language

for those with limited technical knowledge. Strengthening public communication during health emergencies is especially important given the country's limited experience with epidemics and pandemics and its frequent exposure to natural hazards, such as floods, typhoons, volcanic eruptions, and earthquakes.

Moreover, whether or not the situation is a crisis, LGUs should have a strategic communication plan. Such a plan is essential for setting goals and objectives, identifying the audience, crafting messages, choosing appropriate channels, timing, allocating resources, and specifying responsibilities. Alongside the plan, a clear communication M&E system is necessary to track outcomes against targets, identify communication pitfalls and areas for improvement, and evaluate the effectiveness of communication interventions. As the overseeing body for LGUs, the DILG should institutionalize communication planning and M&E across local governments and ensure these systems are effectively implemented and operational in all the LGUs.

Effective communication requires adequate resources—people, equipment, and materials—to plan and implement strategies. The pandemic has highlighted the urgent need to invest in these communication resources. With the increased revenues LGUs are receiving from the Mandanas-Garcia ruling starting in 2022, there is a valuable opportunity to enhance communication capacity by upgrading equipment, improving internet connectivity, hiring additional communication personnel, acquiring essential software and applications, and allocating funds for communication training.

Finally, the government, including LGUs, must lead efforts to address fake news, which proliferated during the pandemic. Given their proximity to the public, LGUs can address misinformation and disinformation through their social media pages and interpersonal channels, such as barangay officials, local health officials, and BHWs. To ensure these interpersonal channels effectively counter false information, they should receive continuous training and education. LGUs should support the institutionalization of fact-checking by organizing digital literacy training in schools, offices, and barangays and by partnering with media organizations, schools, and civil society groups.

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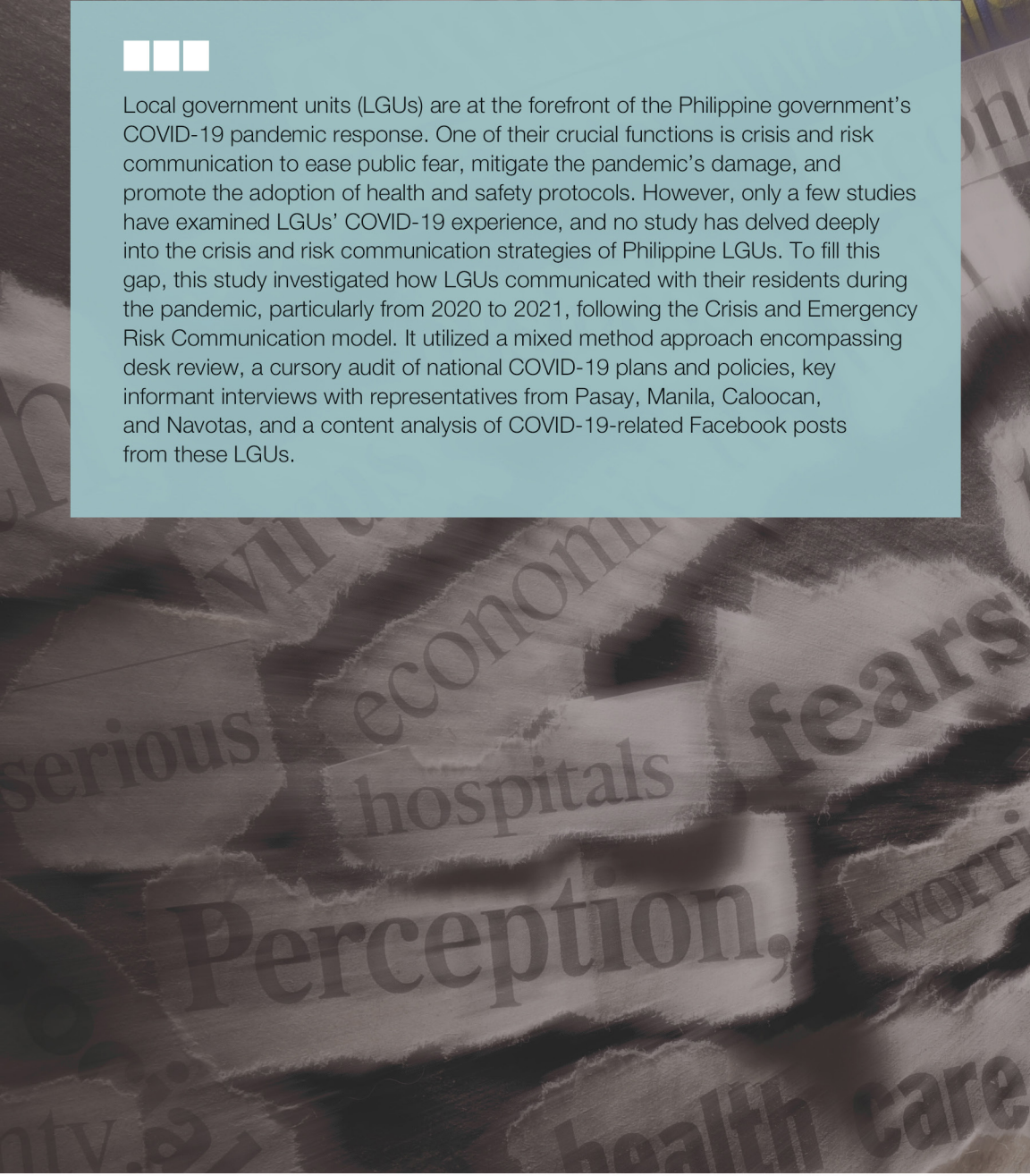
Local government units (LGUs) are at the forefront of the Philippine government's COVID-19 pandemic response. One of their crucial functions is crisis and risk communication to ease public fear, mitigate the pandemic's damage, and promote the adoption of health and safety protocols. However, only a few studies have examined LGUs' COVID-19 experience, and no study has delved deeply into the crisis and risk communication strategies of Philippine LGUs. To fill this gap, this study investigated how LGUs communicated with their residents during the pandemic, particularly from 2020 to 2021, following the Crisis and Emergency Risk Communication model. It utilized a mixed method approach encompassing desk review, a cursory audit of national COVID-19 plans and policies, key informant interviews with representatives from Pasay, Manila, Caloocan, and Navotas, and a content analysis of COVID-19-related Facebook posts from these LGUs.



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