

## **Implementation and Challenges in COVID-19 Community Mitigation Strategies**

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### **Abstract**

COVID-19 has governments at all levels operating in a context of radical uncertainty; most likely Local Government Units were confronted with a health crisis that has an economic, social, and fiscal impact. Thus, in this context, this study aimed to determine the implementation and challenges of barangay officials on COVID-19 community mitigation strategies in the second-class municipality in Central Negros using a mixed-method research design. The respondents comprised a total enumeration of 80 elected officials of the ten (10) biggest barangays based on the area and population. Purposive sampling was used to determine five respondents for the informant interview to supplement challenges in implementation. A researcher-made survey questionnaire consisting of two parts; part 1 is a 30- item questionnaire, 15 for health and safety, and the other fifteen (15) for management and monitoring was used to measure the extent of implementation of community mitigation strategies. Part II is an interview protocol to determine the challenges of implementation. The findings revealed a moderate extent of implementation by barangay officials of the COVID-19 mitigation strategies in health and safety, management, and monitoring. No significant difference was found in the extent of implementation in both areas of health and safety and management and monitoring. Challenges encountered by barangay officials in implementing mitigation strategies include lack of budget, inadequate services, mobilization, and medical health support. The results suggest a lack of awareness, as shown by the communities' low turnout of vaccination programs. Community participation is needed to prevent the spread of the virus and minimize morbidity and mortality that will overwhelm barangay officials. Therefore, there is a need for empowerment by a strong delegation of responsibilities and accountabilities with appropriate budget support to strictly impose the COVID-19 mitigation strategies at the barangay level. These findings call for a concerted effort among the different levels of governance in implementing mitigation strategies.

**Keywords:** Health, COVID-19 community mitigation strategies, local government unit, Negros Occidental, Philippines.

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## **Introduction**

### **Nature of the Problem**

Ensuring the protection and promotion of every citizen's right to health is the government's primary policy anywhere in the world. The implementation of mitigation strategies for the protection of public health is a paramount concern. As communities work to reduce the spread of any pandemic, they also address the disease's economic, social, and secondary health consequences (Centers for Disease Control and Prevention, 2021). The Philippine government's Department of Health (DOH) set public health standards and developed mitigation strategies to respond to the COVID-19 pandemic (Department of Health, 2020). To contain and prevent the spread of COVID-19, the country was placed under a state of emergency, enforcing restrictions on health and safety (Department of Interior and Local Government, 2020). Management mechanisms and monitoring activities were strengthened and given priority to complement the mitigation strategies in place (National Economic and Development Authority, 2020).

The COVID-19 pandemic brought surprises to local governments. Officials were overwhelmed by the rapid spread of the virus. The lack of capacity to handle the effects of the pandemic and the inadequate human and financial resources aggravated the problem. Barangay officials being at the forefront, faced challenges in implementing strategies demanded by the national, provincial, and municipal governments. Gonzales (2020) claims that cases of graft charges, corrupt practices, and alleged irregularities in the disbursement of financial aid and cash assistance have been filed against some barangay officials and staff of the Municipal Social Welfare and Development Office. The immediate declaration of a state of emergency and Enforcement of restrictions on the movement of the people alarmed the residents for fear of deprivation of their livelihood, stoppage of employment, and lack of food and supply of necessities (Candelario, 2020). Implementing mitigation strategies such as contract tracing, physical distancing, Enforcement of preventive measures, distribution of cash assistance, and organization of processes to curb the spread of the virus was lodged on the barangay officials observed by the researcher, hence, motivated the conduct of this study.

### **Current State of Knowledge**

This section establishes the implementation of mitigation strategies for the COVID-19 pandemic at the barangay level and the responses of the barangay officials to this health crisis.

### ***Implementation of Mitigation Strategies by the Government***

One of the strategies employed by the government is the vaccination program proven effective through collaboration, community organizations, and the building of partnerships with other agencies (Kahn et al. 2020). This finding is supported by the study of Gale et al. (2020), which claimed that the COVID-19 vaccines hold great promise in reducing the transmission of the virus in rural communities. It was stressed that the success of the vaccination program is attributed to the leadership of officials of the communities. Other mitigation strategies advocated by the Centers for Disease Control and Prevention (2021) are case investigation and contact tracing employed by local and state health departments for

decades; monitoring and supervision inside quarantine facilities and social distancing are also recommended. Testing and contact tracing are mitigation strategies, especially for local leaders (Ham and Tuddenham (2020), because the local council members have close relationships and understanding of their population and residents. While in Taipei, Beerman (2020) reported that short-time economic relief measures for local businesses, including tax deferral and reduction, rent reduction, preferential interest rates, and subsidies to counter unemployment and business shutdowns, were implemented. Deshpande et al. (2020) wrote that food allowance, direct cash transfers, and access to loans, grants, or credit were provided to employ women in Myanmar.

### ***Implementation of Mitigation Strategies in terms of Health and Safety and Management and Monitoring***

In the area of health and safety, the Department of Interior and Local Government (DILG) directed all local government units to create the Corona Virus Task Forces through Memo Circular No. 2020-126 to be primarily responsible for the implementation of DOH protocols and guidelines and extend full cooperation to the DOH and other government agencies to meet the world health emergency. Another initiative by the national government to develop the LGU's Contact Tracing Apps for monitoring is being implemented in provinces, cities, municipalities, and barangays (National Privacy Commission, 2020). In a related study conducted by De Bruin et al. (2020), measures such as mobility restrictions, physical distancing, hygienic measures, socio-economic restrictions, and communication support mechanisms, among others, were implemented during the COVID-A9 pandemic.

Other initiatives adopted and implemented at the local government level include the "Ensuring Access to Medicines," a mobile pharmacy by Caloocan City stationed in barangays that distributes medicines such as vitamins, paracetamol, and lagundi syrup for free (Basilio and Roxas, 2020). Valenzuela City operates the 24/7 Mega Contact Tracing Center composed of data encoders, contact tracers, disease surveillance officers, swab test schedules, and doctors participating in this program (Porciuncula, 2020).

In the area of management and monitoring, Tarlac City launched the "Covid-19 Risk Assessment, Monitoring, and Management System," which collects information from Barangay Health Emergency Response Teams (BHERTs) and Rural Health workers to identify the PUIs and the PUMs (Philippine Inquirer, News Update, 2020). At the same time, Vergara (2020) reported a monitoring information system implemented in Makati City known as the "Makati Defeat COVID-A9 Monitoring Information System," an online application for easy contact tracing. Another strategy used by the City of Valenzuela is the Localized Targeted Mass Testing, where swab samples are taken to identify and implement an appropriate approach to detecting, isolating, and treating COVID-19 cases (del Mundo, 2020).

### ***Challenges Encountered in the Implementation of Mitigation Strategies***

To address health and safety, countries encountered challenges in implementing mitigation strategies. Even developed countries suffered from the effects of the COVID-19 pandemic. Sagin and Kessa (2020) wrote that the global pandemic drained the national stockpile of medical supplies and equipment of the United States (Sun et al., 2021) confirmed in their study that China was challenged by the inadequacy of their healthcare system, failure to detect early the spread of the disease, shortage of medical resources, and methods to address the pandemic. While as investigated by Rowan and Laffey (2020), they encountered a lack of PPE and medical supplies in Ireland. While as a result of the lockdowns due to the pandemic, Nigeria experienced a lack of buffer stocks, unstable mobility, a decrease in manufacturing, poor access to resources such as food, and inadequate funding for the healthcare system.

Implementation strategies for health and safety, such as vaccination, to counter the pandemic were hampered by inadequate transportation and distances to vaccine distribution sites in rural communities, becoming more difficult because of misinformation about the effectiveness of the vaccines (Georgia Health Policy Center, 2020). The study by Spiro and Emmanuel found that manufacturing and distribution of the COVID-19 vaccine rank as one of the most challenging initiatives of the government. In contrast, Faiva et al. (2020) reported a shortage in drug supply, which, when left unattended, can cause serious drawbacks to the health of the populace. In the Philippines, implementing mitigation strategies for health and safety also encountered challenges. Strategies such as testing, social distancing, age quarantine, house-to-house information campaign, and social assistance measures were moderately accepted by residents. The idea of public officials as role models seemed to be ineffective since many have been identified as casualties linked to the implementation of these strategies (Cordero, 2020); Bornales et al. (2020); and Economic Policy Research Institute (2020). Although, there are studies that reported success in the implementation of mitigation strategies, such as Morales (2020); and Statistica (2020).

In the area of management and monitoring, Masefield et al. (2020), Bhalla (2021), and Bertozzi et al. (2020) shared challenges in political, structural, and leadership, which are relevant to policymaking and financial resources to improve governance in the health system. Shah et al. (2020) mentioned the shortage of staff; Steege-Reimann (2020), Donia et al. (2021), and Mignin-Vergara et al. (2020) all cited a shortage of testing materials, supplies on food and cleaning, and lack of awareness resulting to the absence of people participation. However, studies by Kamga and Eickemeyer (2020) and Islam et al. (2020) reported success in implementing social distancing recommended for stricter measures and more effective Enforcement of mitigation strategies. In the Philippines, Hapal (2021) found challenges in implementing the wearing of face masks and physical distancing while Prasetyo and Castillo et al. (2020) and Flores and Asuncion (2020) on communication; Pastor (2020) on relief distribution. Ocampo et al. (2020) revealed challenges in compliance with minimum public health standards, movement of persons, suspension of face-to-face classes, and prohibition of mass gatherings. Several studies offered recommendations: Lau et al. (2020); Tabuga et al. (2020); Torneo and Berse (2020), Cuaton (2020), and Domingo et al. (2020), such as improving knowledge of the public, coordination, integration of inputs from experts, and the Enforcement of the social amelioration program.

## **Objectives**

This paper aimed to determine the implementation and challenges barangay officials encountered in COVID-19 community mitigation strategies in a second-class municipality in Central Negros during the first quarter of CY 2021. It analyzed the extent of implementation of barangay officials on COVID-19 community mitigation strategies according to the areas of health and safety, management, and monitoring. In addition, the study aimed to determine whether a significant difference exists in the extent of implementation of barangay officials on COVID-19 community mitigation strategies when grouped and compared according to the variables, age, civil status, highest educational attainment, average family monthly income, and length of service. Lastly, this study sought to determine the challenges encountered by barangay officials in implementing COVID-19 community mitigation strategies.

## **Hypothesis**

There is no significant difference in the extent of implementation of COVID-19 community mitigation strategies when barangay officials are grouped by age, civil status, educational attainment, family income, and length of service.

## **Methodology**

## **Research Design**

This study utilized the mixed method of research design deemed appropriate to measure the implementation and challenges of COVID-19 community mitigation strategies when barangay officials are grouped according to age, civil status, educational attainment, family income, and length of service.

## **Respondents/Conversation Partners**

Taking part in filling out the self-made survey questionnaire that has passed the rigorous tests of validity and reliability were all 80 elected officials of the ten biggest Barangays of a highly-urbanized city in Central Philippines. Conversely, five conversation partners (CPs), chosen via purposive sampling, also took part in an in-depth interview and helped generate the data on the challenges respondents encountered in implementing the mitigation strategies of the local government unit (LGU). These CPs were chosen based on the following inclusion criteria: Length of service, literacy of the topics covered and the protocols, and direct implementers. Two of them were barangay chairs while three were barangay councilmen on health.

## **Instrument**

A researcher-made survey instrument based on DILG guidelines was used in gathering the data to determine the extent of implementation and challenges encountered by barangay officials on COVID-19 community mitigation strategies where it was subjected to validity (4.80=excellent) and reliability (0.815= good). The questionnaire was divided into two parts; one deals with the profile of respondents in terms of age, civil status, highest educational attainment, average family monthly income, and length of service, whereas part I is a 30-item statement; 15 items are questions on health and safety and the other 15 on management and monitoring. These questions measure the extent of implementation of COVID-19 mitigation strategies by the barangay officials using a 5-point Likert scale rating. Part II is an interview guide to determine the challenges in the implementation using a 5-point Likert scale rating with 5 as always, 4 as often, 3 as sometimes, 2 as rarely, and 1 as almost never.

## **Procedures**

After establishing the validity and reliability of the research instrument, the researcher sought the approval of the local chief executive to conduct the survey and thereafter sought the assistance of concerned barangay chairpersons to identify target respondents. The researcher personally administered the instruments to the respondents to ensure that the needed data were gathered/retrieved immediately after the survey. The purpose is to establish the credibility of the data and that they are free from error or bias (Walliman, 2006). After all the survey instruments were retrieved, the researcher encoded the data and submitted it to the statistician for analysis. The respondents were assured of the confidentiality of the data gathered.

## **Analysis**

A descriptive-analytical scheme was used to determine the extent of implementation of mitigation strategies on health and safety and management and monitoring. The mean percentage score (MPS) as its statistical tool was used to determine whether or not a significant difference exists in the implementation of mitigation strategies when respondents are grouped and compared according to the aforementioned variables; the comparative analytical scheme was used, the statistical tool is Mann-Whitney U test. Finally, this paper used a thematic analysis to determine barangay officials' challenges with COVID-19 community mitigation strategies. The rating scale and description utilized in interpreting the results were

4.59-5.00, very great extent; 3.50-4.49, great extent; 2.50-3.49, moderate extent; 1.50-2.49, low extent; and 1.01-1.49, very low extent.

### **Ethical Considerations**

The researcher ensured that respondents were given the free will to be subjects of the study, their identities were not disclosed, and they were assured of the confidentiality of the data gathered. After completion, all data stored in electronic gadgets were discarded to protect against unauthorized access or use.

### **Results and Discussion**

This section presents the data gathered in relation to the objectives of the study.

#### **Extent of Implementation of Barangay Officials on COVID-19 Community Mitigation Strategies in Health and Safety and Management and Monitoring**

##### ***Extent of Implementation of Barangay Officials on COVID-19 Community Mitigation Strategies in Health and Safety***

Data gathered illustrates the implementation of barangay officials of the COVID-19 mitigation strategies in the area of health and safety is moderate ( $M=3.27$ ,  $SD=.12540$ ). Barangay officials are implementing physical distancing and sanitary measures to all public transportation to a very great extent ( $M=4.54$ ,  $SD=.594$ ), while the implementation of the national vaccination program using community members was rated low extent ( $M=1.70$ ,  $SD=.624$ ).

This finding suggests that there is inadequate implementation of mitigation strategies at the barangay level; that there is a lack of coordination among local officials, such as in the vaccination program, corroborating the studies of Kahn et al. (2020); De Leon (2021) and Visco (2021) who stressed on the roles that the government, the private sector, and the community will play in the rollout; that partnerships among stakeholders are important to mitigate inequities. The success of the vaccination program begins with health education for acceptance by the community. This finding of a very great extent of implementation of mitigation strategies on public transport implies that this is an area of high risk, affirmed in the study of Dzisi (2020); Musselwhite et al. (2020); Luo & Lei (2020); who all recommended for intervention measures.

##### ***Extent of Implementation of Barangay Officials on COVID-19 Community Mitigation Strategies in Management and Monitoring***

Data reveals that the extent of implementation of COVID-19 mitigation strategies by barangay officials in the area of management and monitoring is moderate ( $M=3.37$ ,  $SD=.15225$ ); with limitations on sports and other health-enhancing physical activities rated very great extent ( $M=4.61$ ,  $SD=.490$ ) and the use of proper contact tracing system ( $M=1.99$ ,  $SD=.606$ ) interpreted low extent.

Findings of a moderate extent of implementation of mitigation strategies by barangay officials in management and monitoring demonstrate the deficiencies and difficulties in implementation attributed to the absence of a plan of action to address COVID-19. While leadership is shared between politicians, implementers, and the community, strong central leadership is crucial for a sound national strategy, such as fighting against a national pandemic (Bhalla, 2021), which affirmed this study. In contrast, the Organization for Economic Cooperation and Development (2020); and Ona et al. (2020) pointed out that

the regional and local impact of the COVID-19 crisis is heterogenous, with implications for crisis management and policy responses at the local level; hence, there is a need for local governments to reexamine the laws and leverage supporting programs from the national government.

### **Difference in the Extent of Implementation of Barangay Officials in COVID-19 Mitigation Strategies in the area of Health and Safety, Management, and Monitoring when Grouped according to Variables.**

#### ***Difference in the Extent of Implementation of Barangay Officials on COVID-19 Community Mitigation Strategies in the Area of Health and Safety when Grouped according to Variables***

Data gathered indicates no significant difference in the extent of implementation of barangay officials on COVID-19 community mitigation strategies in the area of health and safety with computed  $p$ -values age=0.261, civil status=0.539, highest educational attainment=0.278, average family monthly income=0.883, length of service=0.435 respectively when respondents are grouped according to demographic variables since the  $p$ -value is higher than the level of significance 0.05. Therefore, the hypothesis is accepted.

Findings substantiated the studies conducted by Nilsen and, Seing et al. (2020), OECD (2020), and OECD (2018) that the paucity of knowledge on policies and measures is highly relevant to how governments and public health authorities implement policy regulations; that the effect of trust in government may have essential and uncertain effects, the crisis has highlighted trust in government and public institution, confidence in government messaging and willingness to follow; that there can be heavy reliance on hard rules and sanctions in regulatory policy; however, there is strong evidence to suggest that a gradation of sanctions is most effective in driving compliance. On the contrary, Azene and Merid (2020) have indicated poor adherence to COVID-19 mitigation measures. Level of information exposure, attitude towards COVID-19 preventive measures, and risk perception of COVID-19 were factors that significantly influenced the adherence of the community toward COVID-19 mitigation measures.

#### ***Difference in the Extent of Implementation of Barangay Officials on COVID-19 Community Mitigation Strategies in Management and Monitoring when Grouped according to Variables***

Data shows no significant difference in the extent of implementation of mitigation strategies in the area of management and monitoring with  $p$ -values age=0.068, civil status=0.651, highest educational attainment=0.139, average family monthly income=0553, length of service=0.468 when respondents are grouped according to variables since the  $p$ -value is higher than the level of significance of 0.05; thereby, the hypothesis is accepted.

Findings corroborated studies by Lunn et al. (2020); Rossman et al. (2021); and OECD (2020) that individuals will override self-interests and act in the collective interest when conditions to cooperate are present; that none of the demographics will cause different patterns of responses; and behavioral insights are helpful for policymakers in improving outcomes of public policy such as in the management and monitoring of COVID-19 mitigation strategies. However, Bicchieri (2020) claimed that in responding to a crisis such as COVID-19, the need to motivate individual action for the collective good and social norms should be considered.

### **Challenges Encountered by Barangay Officials in Implementation of COVID-19 Community Mitigation Strategies**

#### ***Thematic Insights***

After a thorough analysis, two major themes emerged; insufficient funding for services and program implementation and inadequate Enforcement of mitigation strategies at the barangay level.

**Insufficient Funding for Services and Program Implementation.** Poor funding or inadequate funding for the healthcare system could cause serious drawbacks to the health of the population affecting the quality of life (Faiva et al., 2020). In times of national crises such as a pandemic, local officials turn to the national government for resources and guidance (Rappler, Inc. 2020). There were three sub-themes for insufficient funding: lack of healthcare professionals; limited mobilization of personnel and patients, and lack of medical supplies and personal protective equipment (PPE).

**Lack of Healthcare Professionals is an Effect of Insufficient Funding.** In health and safety, respondents identify the need for healthcare professionals to respond to their needs to detect the spread of the disease (Sun et al., 2021). The presence of medical doctors and other healthcare workers in the barangay demands funds for their salaries and allowances. Based on the focus group discussion with barangay officials, insufficient funds hinder the provision of health responses to barangay residents.

"There is no medical staff whom we can ask for assistance. There is no doctor on duty here; there is a midwife, but days are scheduled in a week, and it is very rare when a nurse would be here. Our patients need to go to the town proper for consultation; the reason for this is there are no funds available for hiring of medical workers to be stationed in the barangays" (respondent 1).

"There is no doctor who comes up here to check the sick patients or monitor their condition. If needed, we have to call the LGU so that the suspected or probable COVID 19 cases may be picked up from high-risk areas to be transferred for quarantine in facilities. The ambulance of the LGU can only carry one patient and would prioritize emergency cases for referral to tertiary hospitals in Bacolod City. This is caused by the lack of funds of the barangay and probably of the municipality" (CP2)

"Municipal health personnel rarely come and visit our barangay. This could be because of a shortage of health personnel, and they have a lot of areas to cover, especially if they are on duty at the municipal health center and others in the quarantine areas. There is a lack of manpower, especially frontline workers due to lack of funds" (CP3).

**Limited Mobilization of Personnel and Patients as an Effect of Insufficient Funding.** In the area of health and safety, respondents identify the need for the presence or availability of medical professionals to provide assistance and preliminary diagnosis. The presence of medical doctors and other healthcare workers in the barangay demand funds for use in the travel of personnel and patients diagnosed with COVID-19. Based on the focus group discussion with barangay officials, insufficient funds hinder the provision of health responses to barangay residents.

"We realigned the budget of our barangay because of inadequate appropriation from the local government unit. The budget appropriated by the municipality is insufficient to finance even gasoline for the service vehicle we utilize to transport suspected cases to the quarantine area. Our community needs support from the municipal government to minimize the spread of COVID-19" (CP1).

"Sometimes, the community service vehicle has no fuel to pick up and drop off patients to be isolated in the quarantine facility since the budget given by the municipality is insufficient. The dilemma of the barangay is insufficient funds to transport the person under investigation and the person under monitoring. Mobilization of healthcare personnel and the patients is affected" (CP2).

"Considering the distance of our barangay as it is a geographically isolated and desolate area (GIDA) and the insufficient budget coming from the municipality, it cannot be avoided that there is a delay in the response and help. If only financial assistance is provided, the patient and the family would come to the hospital for medical attention" (CP3).

**Lack of Medicines, Medical Supplies, and Insufficient Relief Assistance as a Result of Inadequate Funding.** The use of vaccines holds a great promise to reduce the surge of the virus in rural communities, and the effectiveness of vaccination programs prevents damage caused by COVID-19 (Gale et al., 2020). However, the lack of funding was identified as a constraint.

The barangay received relief goods for the first and second tranches from the municipality, but these were not enough to be distributed to each household in the barangay. Rice and noodles and canned goods were given to be distributed, but since it was not enough for all, we had to repack them so that each household got this form of assistance. There are no medical supplies from the municipality, not even a face mask we can use when going to the market or other crowded places (CP1).

The municipality gave out financial and food assistance during the strict community quarantine in timely need, and we divided them further for every household in the barangay. The barangay provided additional relief goods, especially rice because these goods supplied by the municipality were not enough. There were also supplements given, such as vitamins, but free medical check-ups were not available (respondent 2)

The barangay distributed food packs from the municipality. Still, our barangay captain added a few more to be distributed to thousands of households in the barangay to ensure that every family received food assistance and free medicines during the lockdown. Still, these were not sufficient (CP3).

**Inadequate Enforcement of Mitigation Strategies.** Protecting public health is a primary function of government; as communities are working to reduce the spread of COVID-19, they are also addressing the economic, social, and secondary health consequences of the disease, and local officials are in the best position to implement mitigation strategies that are feasible, practical, and acceptable (Center for Disease Control and Prevention, 2021). Two sub-themes emerged from the discussion with barangay officials: insufficient quarantine measures and lack of punitive sanctions in the implementation of enacted ordinances on mitigation.

**Insufficient Quarantine and Preventive Measures Result from Inadequate Enforcement of Mitigation Strategies.** In times of pandemic, mobility restriction, contact tracing, physical distancing, and hygienic standards are implemented, but these are not religiously followed.

"The quarantine facilities of the town are limited and are far from our barangay. Patients are either picked up by police vehicles or an ambulance together with the relatives and family members who came in close contact with the patient" (CP1).

"The municipality has a mall quarantine facility to accommodate the number of patients. The response of the COVID-19 team is inefficient, especially in transporting the patient from our barangay since it is far from the town proper" (CP2).

"The municipality does not have a digital epidemiological surveillance information system for contact tracing. There is a delay in picking up patients from their homes" (CP3).

**Lack of punitive sanctions in implementation of enacted ordinances as an effect of inadequate Enforcement of mitigation strategies.** All local government units nationwide are advised to create their respective task forces to implement DOH protocols and guidelines and extend full cooperation to the DOH and other government agencies to meet the world health emergency mandated under Memorandum Circular No. 2020-126 of the Department of Interior and Local Government (DILG) (Malaya, 2020). Some local government units launched practices to ensure continuity of service to residents during the pandemic (Basilion & Yu Roxas, 2020). Results of focus group discussion with respondents revealed the following insights:

"If ever there is a violation like not wearing of face mask, we just give them a verbal reminder here in the barangay. The municipality is not imposing sanctions on those who are not wearing a face mask. The only ones being captured are those who succumb to illegal gambling and violate social distancing protocols" (CP1).

"Those who do not abide by the minimum health guidelines are summoned by the barangay captain and given a verbal warning. It could not be managed at the barangay level, and they do not follow the IATF guidelines; they are reported to the municipality, but response takes some time since we are far from the town center" (respondent 2)

"We reprimand those who hold social gatherings such as birthday parties but sometimes, we do not call their attention or reprimand anymore since we are not updated if this ordinance is issued by the municipality and is being actively followed since we have information that this is not practiced anymore by other barangays" (CP3).

### **Conclusion**

The moderate extent of implementation of COVID-19 mitigation strategies provides evidence that where resources have to be allocated among agents/users and allocation decisions are dispersed; implementation becomes inadequate. In health and safety, community acceptance is necessary, hence the need for information dissemination at the grassroots level. In management and monitoring, local officials should be empowered with enough knowledge and training to confidently implement guidelines and rules and regulations issued by higher government agencies, also the need for coordination of functions. It is therefore recommended that sufficient funding be provided to counter health emergencies such as COVID-19. Future researches are necessary to cover a larger jurisdiction such as province-wide. This study is limited by the current situation as it was conducted during the pandemic. Still, insights on implementing mitigation strategies were uncovered as the basis of scientific knowledge.

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