

# The COVID-19 Battle

Fighting the Invisible Foe through Data Visualization and Utilization

Iloilo City Government, Western Visayas Centre for Health Development, USAID Philippines, RTI International

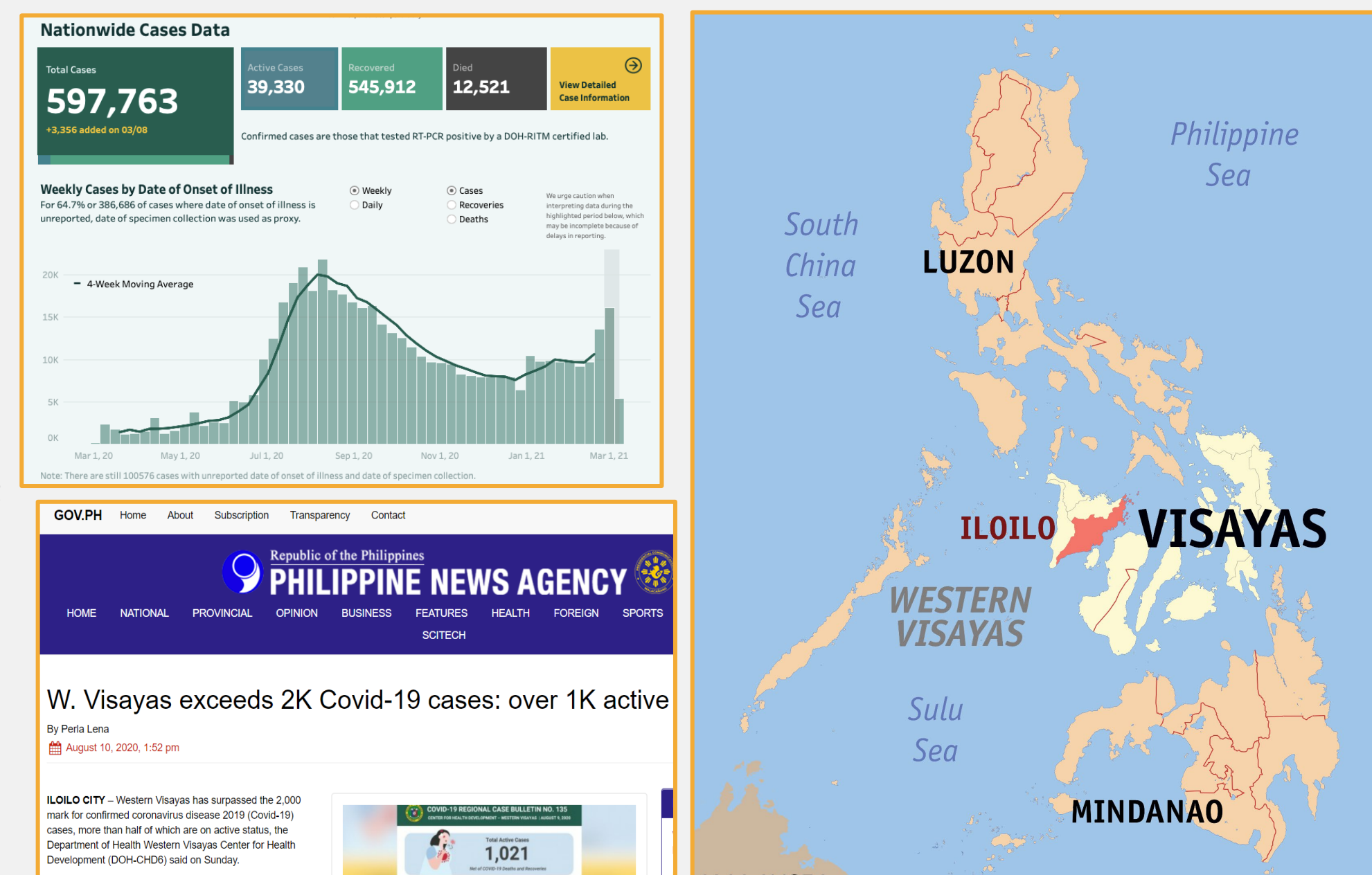


## Context

In March 2020, the coronavirus disease 2019 (COVID-19) pandemic put the world on its knees. Battling COVID-19 is rooted at the community level, and those that stood at the forefront were the smallest unit of administration in Philippine society – the barangay. Together with the Philippine government, USAID's Reach-Health project identified priority areas for assistance. Barangay Calumpang, an urban village in Iloilo City, was one of the areas first identified.

The officials of Barangay Calumpang were seasoned local leaders and were already applying various COVID-19 preventive and mitigative measures, a number of which were blanket responses based on general national guidelines. Despite their efforts, their village continued to have among the highest cases, and they were among the first sites in the city to be put on lockdown. **They could not see what they were dealing with, and they could not get a hold of their enemy.**

In order to gain insight and get a hold of the situation, the officials needed a systems-thinking approach to reevaluate their response.



## Activity Description

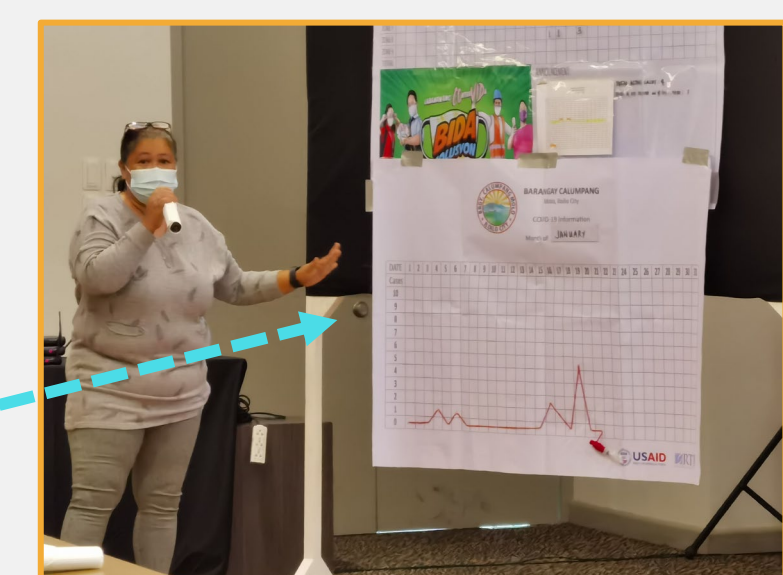
The steps of the engagement began with a gathering of partner agencies, development partners, and the local government unit (LGU). Various discussions were held, and an initial assessment was produced together with identified capacity-building activities. The figure below shows the progression of the activities for the technical assistance.

### Sequence of Technical Assistance Activities

- Discussions and assessments made with LGU, government agencies, and development partners
- Conduct of infection prevention and control orientations for barangay health officials, barangay health emergency response teams (BHERTs), and volunteers.
- Data visualization training with **spot maps, daily case counts, and the contact tracing dashboard.**
- Conduct of 3-day microplanning session to standardize and creation of a manual for response.
- Creation of a village-level emergency operations center.



Two weeks of **infection prevention and control (IPC)** orientations were conducted for several members of the emergency response team, including the barangay officials, the BHERTs, and volunteers. It was during this period that the group was able to identify the need for data visualization and utilization tools to help them monitor and evaluate the progress of their interventions.

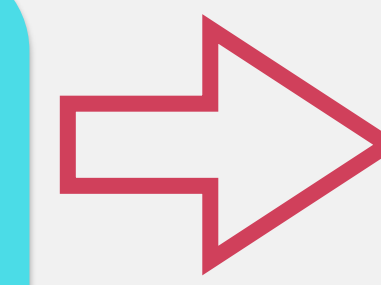
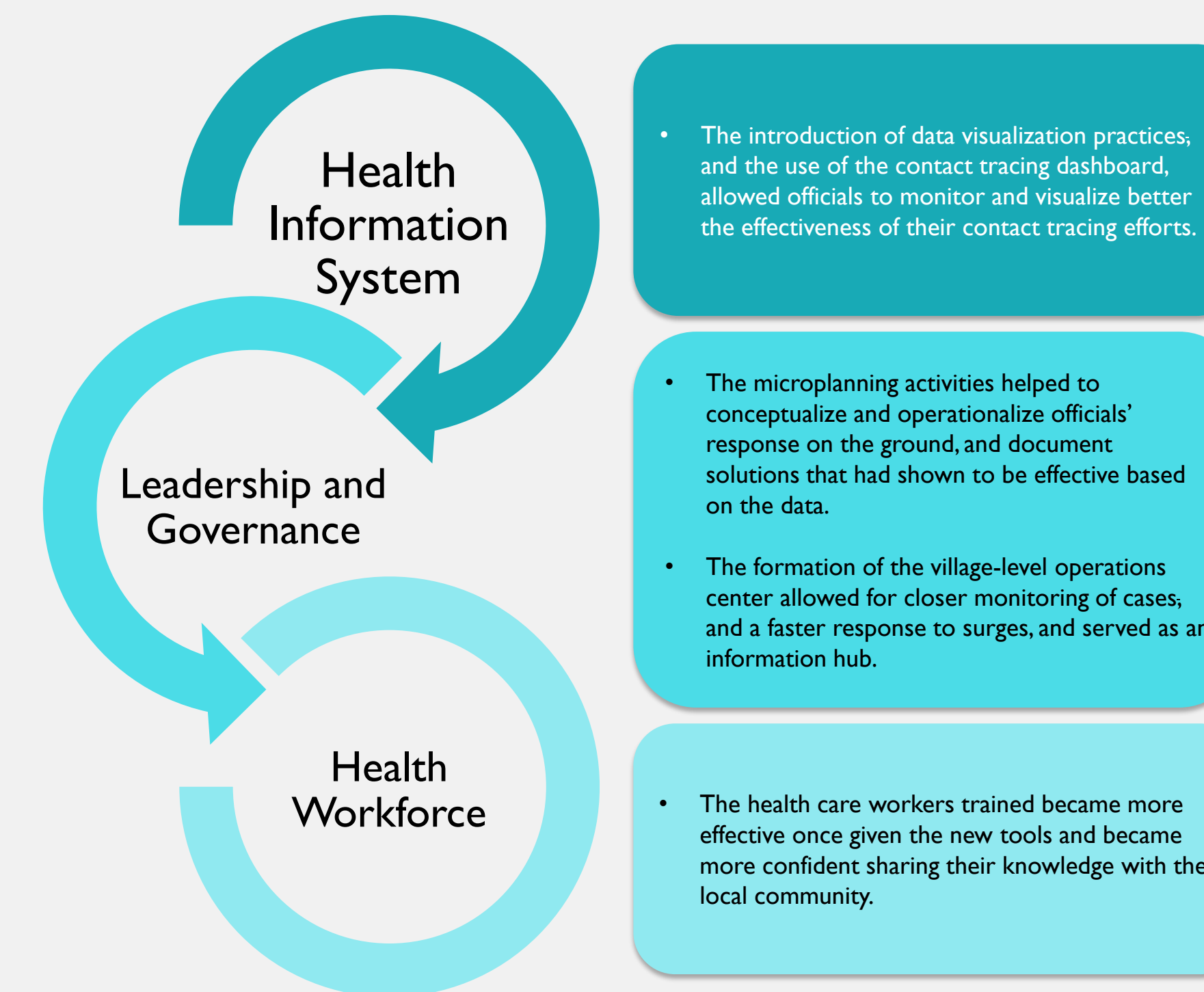


**Daily case counts** were converted into graphs to monitor trends and provide insights on performance. **Spot maps** were used to highlight where cases were rapidly increasing, and discussions were held to understand human behavior within various high-risk areas.



The **contact tracing dashboard** was where Barangay Calumpang monitored and visualized the effectiveness of its contact tracing efforts.

## Activity Impact



## Outcomes

- Improved quality of the COVID-19 response
- Optimization of available human resources

### External Impact

City-wide recognition of the success of their COVID-19 response

Replication of trainings and practices in 110 LGUs

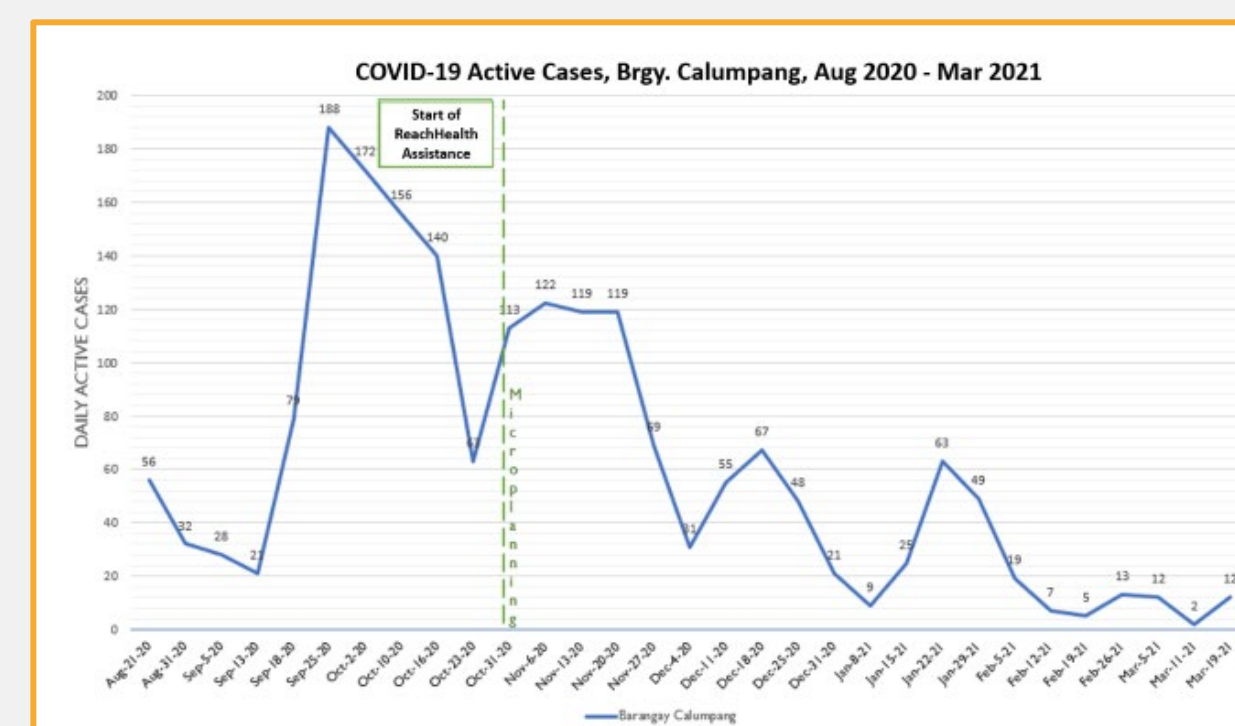
### Internal Impact

Improved local response

Preparedness for upcoming surges

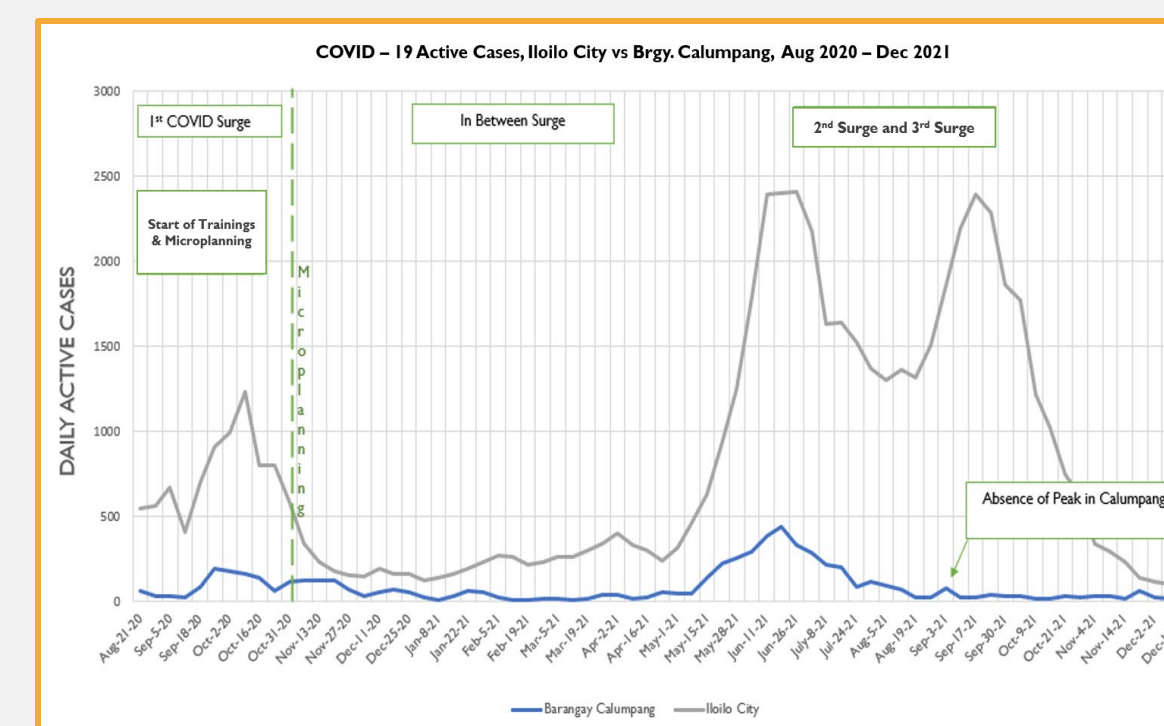


## Evidence



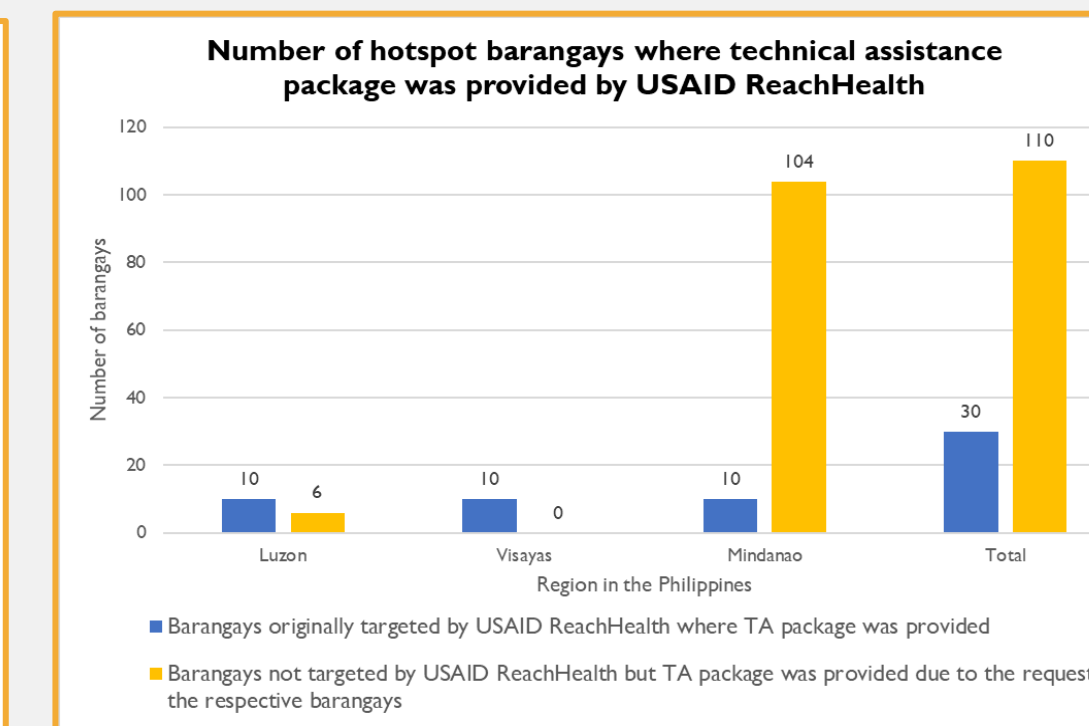
**Reduction of Cases**

After consistently having more than 60 cases active in the barangay from September through November 2020, the cases lessened significantly by early December 2020, as compared to other barangays, where cases continued to increase. By the start of February 2021, active cases had dropped to as little as 2 cases and did not go beyond more than 20 active cases for several months.



**Sustained Response**

In 2021, Iloilo City underwent two more major surges, and Barangay Calumpang continued using its health information system, the microplan developed, and operations of its emergency operations center. During the COVID-19 Delta variant surge of September 2021, the barangay was able to keep its cases down despite Iloilo City seeing significant increases in many barangays.

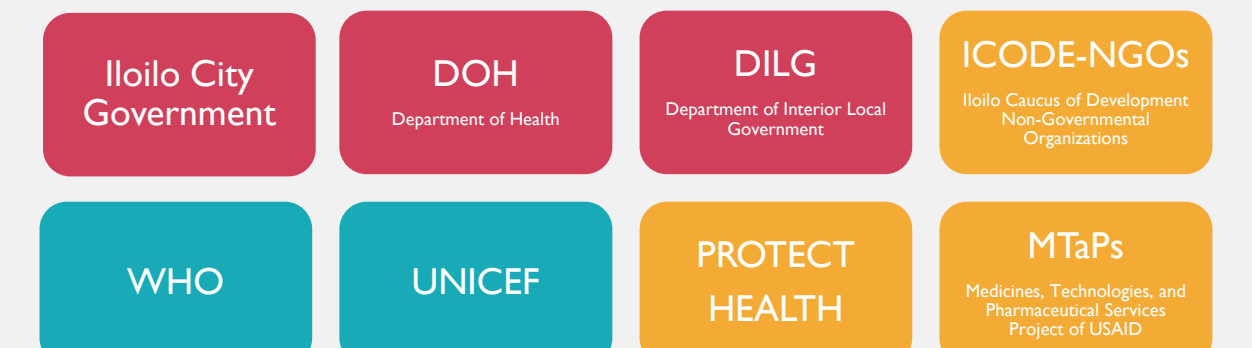
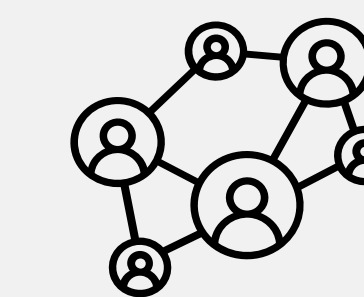


**Replication in other LGUs**

Initially, the support and trainings were only planned for 30 sites across the country, but around 110 other LGUs requested and underwent a training program similar to that of Barangay Calumpang.

## Facilitators

### Collaboration



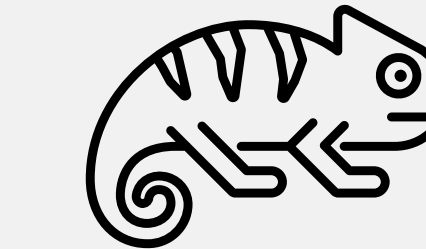
### Information Sharing

Sharing of technology on data gathering and visualization, the trainings on IPC and contact-tracing, microplanning, and other best practices aided the project.



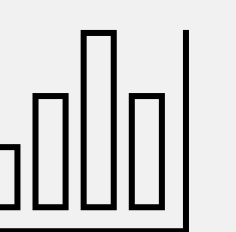
### Adaptability & Sustainability

The adaptability of the local health leaders to adjust their COVID-19 response was essential, as was the willingness to sustain these interventions after external partners had completed technical assistance provision and related support.



### Availability of Local Data

The community was already gathering local data based on the general guidelines of the national government. All that was needed was to present the data using easy-to-understand graphs, maps, and dashboards, and to teach them how to interpret and use the tools.



## Challenges

Limited number of human resources and staff forced to multi-tasking

Maintaining the quality of data and cascading to local users

Ensuring the regularity and speed of updating data

Making the products of the health information system layperson-friendly

## Lessons Learned

### Data Analytic Tools

The use of **simple data analytic tools** like graphs presented in dashboards can go a long way in providing context to raw data of the daily number of COVID-19 cases, and help laypersons, health workers, and barangay officials visualize and monitor the effectiveness of their efforts.

### Locally Generated Data

The use of **locally generated data** to guide response measures greatly facilitated the conduct of microplanning sessions and helped barangay officials veer away from less tailored, blanket responses based on national government policies.

### CLA Framework

Applying the basic elements of the **CLA (collaborate, learn, adapt) framework**, particularly taking time to pause and reflect on unsuccessful interventions; opening themselves to collaborating within and outside their organization; and using technical evidence to better inform their daily and weekly decisions were essential to local officers in mitigating the number of COVID-19 cases in Calumpang.

