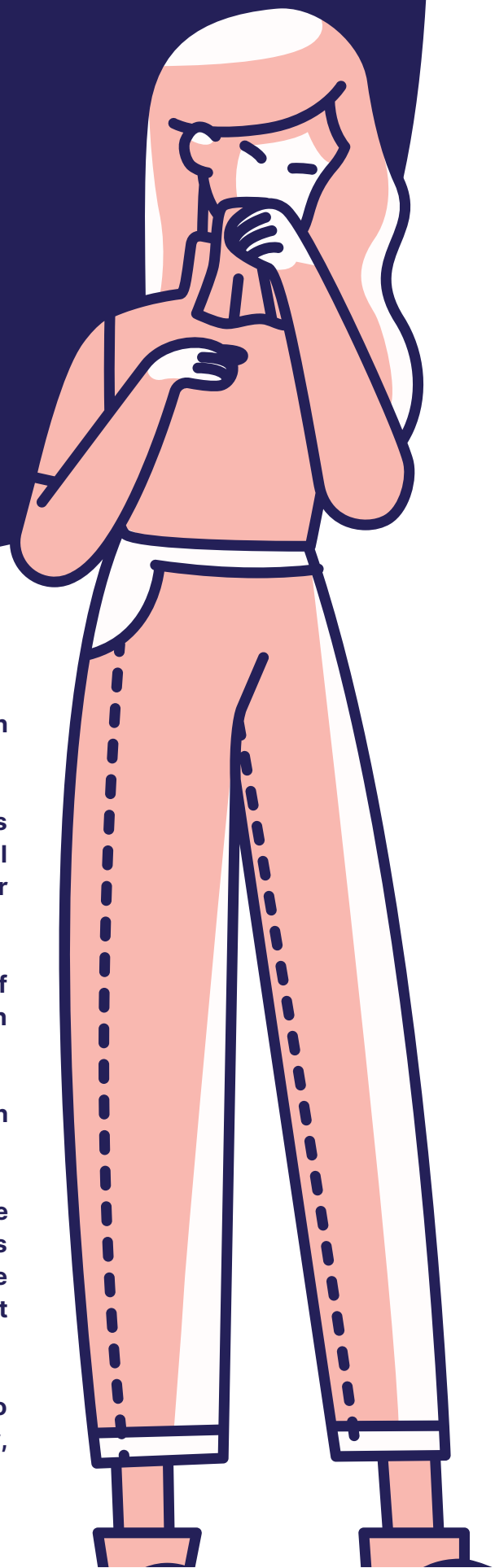
COVID-19 VARIANTS EMERGENCE, PH HEALTH SHARPEN

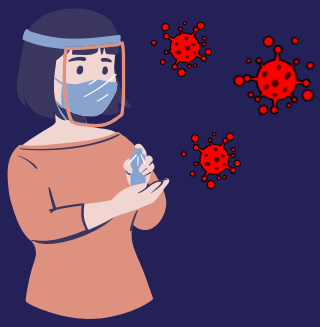
POLICY BRIEF - INTERNSHIP 2022 BY CENTER FOR INFORMATICS

Presented By: Mondia, Robbie A.



EXECUTIVE SUMMARY

- There are a total of 3.76M (+2,359) COVID-19 cases in the Philippines and 60,694 deaths as of July 27, 2022.
- Even though COVID-19 variants are less harmful, it is still essential to practice strict public health and social measures because COVID-19 variants change their properties rapidly over time.
- The Omicron variant dominates the total number of sequenced samples (20,987) in the Philippines which consist of 7, 351 - 35.03% of the population.
- NCR and CALABARZON have the highest concentration of Omicron cases.
- Patients under 30 years old are more likely to be infected than people in their 40s. Meanwhile, cases among 80 and older age groups infected with the original COVID-19 strain are reduced but seen highest with variant infection.
- Increase the COVID-19 Testing Capacity and Rate to properly represent the infection cases of the country, and Empower Medical Facilities' Competitiveness



On January 25, 2020, the first case of 2019-nCoV arrived in the Philippines. The Department of Health (DOH) confirmed that one of their patients under investigation (PUI) has tested positive for the virus according to the laboratory result released from Melbourne, Australia's Victorian Infectious Disease Reference Laboratory on the same date. Since then, the DOH have reported a total of 29 PUIs; most of them residing in Metro Manila and few cases were reported from different parts of Visayas and Mindanao.

On the other hand, the Bureau of Quarantine remained highly alert and strict to its border protocols to prepare the country from the arising health crisis cases. They also reassured that its medical facilities are set up to handle PUIs and confirmed 2019-nCoV cases.

Despite the best efforts of DOH to implore the public to stay vigilant, keep their composure, and maintain decent hygiene and active lifestyles, we now have a total of 3.76M (+2,359) COVID-19 cases in the Philippines and 60,694 deaths as of July 27, 2022.

FINDINGS

- According to the World Health Organization (WHO), even though the virus's characteristics have little to no impact on its hosts, it is still essential to practice strict public health and social measures because COVID-19 variants change their properties rapidly such as how quickly it spreads or how severe it damages its hosts.

- It is also essential to monitor these variants to measure how effective therapeutic drugs are administered to the public, how competitive the diagnostic tools are being used in health facilities, and to check if the efficacy of the vaccines is enough to protect the people from the variants.

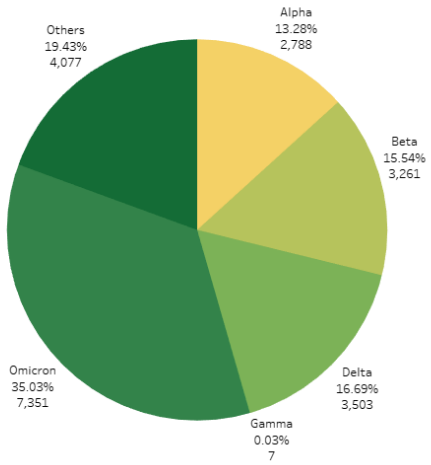


Figure 1. COVID-19 Variant Cases in the Philippines

- In the Philippines, 20,987 positive samples were sequenced from February 2020 to July 2022; divided into 6 variants namely; Alpha - 13.28% of the population, Beta - 15.54%, Delta - 16.69%, Gamma - 0.03%, Omicron which dominates the total cases - 35.03%, and other strains which consist of 19.43% of the population.

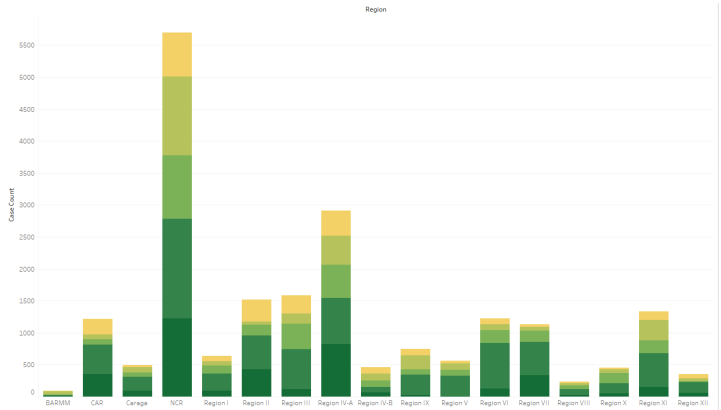


Figure 2. COVID-19 Variant Cases in Philippine Regions

- Omicron instances began to be identified in early December 2021 and have since quickly increased, with nearly all sequenced samples obtained in the first few days of January 2022 falling within this variant's classification. The high transmissibility and immune evasion of this variation, which is consistent with what has been seen in other nations, this may be the cause of the sudden rise of Omicron cases in the Philippines.

- **Local examples of the Omicron variety, which mostly belong to Omicron sublineage BA.2, have already been found in 12 different parts of the nation, with the NCR and CALABARZON seeing the highest concentration of cases.**

- **In a study of Taishi Kayano, Katsuma Hayashi, Tetsuro Kobayashi and Hiroshi Nishiura in *Age-Dependent Risks of COVID-19 Putatively Caused by Variant Alpha in Japan*, the results showed that people with COVID-19 who were younger than 30 years old were more likely than people in their 40s to have alpha variant infection. If infected with alpha variant, patients older than 40 years had a higher probability of developing serious disease and dying away.**

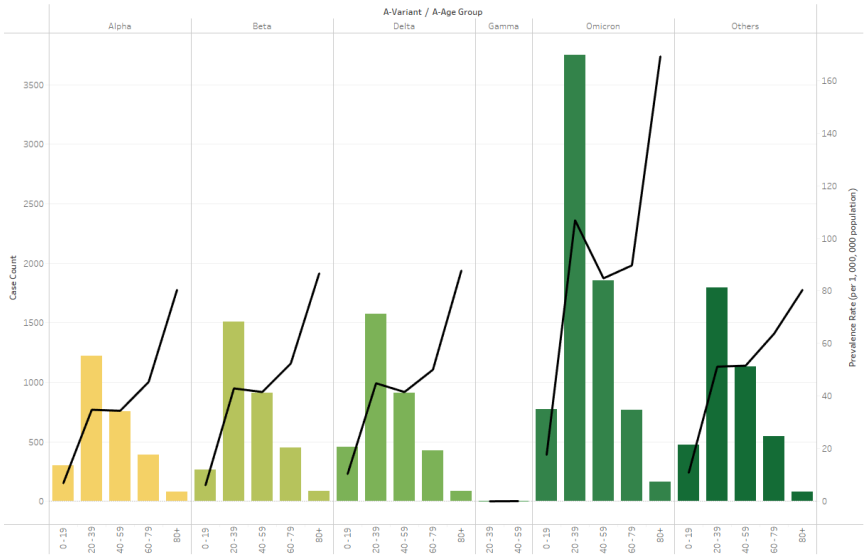


Figure 3. COVID-19 Variant Cases to Affected Age Groups. The highest COVID-19 variant infection belongs to the age group of 20-40s. While age 80 above have less infection number of cases.

- **On the other hand, those infected with pre-existing strains, the percentage of serious cases was reduced in the 80 and older age group infected with the alpha variant but it does not mean that they are the least vulnerable sector; contrary to the study of Kayano et. al, ages belong to the 80 years and older group have seen to have the highest infection rate per 1 million cases of COVID-19 variant in the Philippines.**

POLICY RECOMMENDATIONS

Increase the COVID-19 Sequence Capacity and Rate within the government agencies, public, and private hospitals to gain more accurate results and properly represent the cases of infection in the country.

Continuous Vaccination will greatly secure the lives of comorbid patients, age groups that are highly affected by the virus, and people who belong in older age groups.

Strict and Constant Public Health Measure and Reminders could potentially mitigate the spread of the virus and its variants since we're still in the pandemic.

Empower Medical Facilities' Competitiveness in fighting health crises such as COVID-19 because DOH's statement of "preparedness" early pandemic does not reflect the actual scenario.

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https://www.usacfi.net

+639776027221

informatics@usa.edu.ph

Center for Informatics