## Early experiences and challenges of a resource-limited country

The Philippines is a low- and middle-income archipelagic country (LMIC) located in Southeast Asia with a population of more than 100 million people. The country has a dual and decentralized health system composed of public and private sectors with local government units being responsible for finance and operations. Despite improvements in the past decade, the Philippines continues to face public health challenges because of its resource and capacity limitations. First, the Philippines only has 1 hospital bed and 1.3 physicians per 1,000 people, with only about 1,600 critical care beds nationwide (2).

These available resources are concentrated in urban areas, with rural areas having only one physician for a population as large as 20,000 people. Second, we have a primary care system of health centers and community health workers in cities, provinces, and municipalities, but they are generally ill-equipped and poorly resourced with limited surge capacity.

This is evidenced by a lack of capability for laboratory testing, limited number of equipment and medical supplies, and lack of personal protective equipment for health workers in both primary care units and hospitals. Third, we have disease surveillance capacity, but this is also uneven across regions and provinces in the country. Fourth, we have disaster preparedness plans at the level of local government that can be mobilized. However, disaster response is better geared for typhoons and floods, rather than fighting epidemics.

Hence, our limited resources and capacity make it difficult to adequately respond to public health emergencies, such as COVID-19. As a result, triage systems and algorithms are being implemented in hospitals to prioritize patients who need testing and treatment the most. This system further propagates health inequities with higher chances of treatment and survival for urban patients who are able to access quality healthcare.

Drawing from experiences of previous pandemics, the Philippine government conducted contact tracing and imposed a travel ban covering foreigners from China, Hong Kong and Macau after reports of the first few cases and deaths due to COVID-19. In the succeeding weeks, it issued another travel ban covering foreigners from South Korea and Taiwan (3). However, these bans were only briefly successful as the number of confirmed cases increased in the weeks that followed (1). While the bans prevented potentially infected people from spreading the disease in the Philippines, travelers from other countries where the disease was already spreading but not subject to the travel bans were not tested.

No other interventions were done until early community transmission was reported on March 6 and after the WHO declared COVID-19 as a pandemic on March 11. The Philippines government responded to both developments by declaring a 'community quarantine' for Metro Manila beginning March 15 until April 14, and was made even more stringent by extending the quarantine to the whole island of Luzon.

This quarantine consisted of the following measures: social distancing; suspension of classes; closure of sea, air, and land travel; establishment of checkpoints for temperature screening; temporary closure of non-essential business establishments; encouragement of work-from-home arrangements; and prohibition of mass gatherings and non-essential public events (4). The declaration was met with panic:

ports, expressways, and airports were filled with people attempting to leave Metro Manila; shops posted 'out-of-stock' signages as people hoarded consumer goods and hygiene products; online resellers took advantage of the situation by stockpiling health products and reselling at exorbitant prices e.g., USD 20 for one N95 mask that normally costs only USD 5). The government responded to these reactions by implementing an 'enhanced community quarantine' in Metro Manila.

The enhanced community quarantine consisted of: strict home quarantine in all households; suspension of all forms of public transportation; regulation of the provision for food and essential health services; and implementation of a heightened presence of uniformed personnel enforcing quarantine procedures (4). In addition, curfews were implemented from 8:00 PM to 5:00 AM. According to disease control experts, these community-wide interventions are difficult to implement owing to its scale (5). However difficult, they are necessary to 'flatten the curve' so health systems are not overwhelmed.

This is especially important in a country with: limitations on and poor distribution of resource and capacity; highly populated urban areas; a health system undergoing changes to provide equitable access to quality and affordable health care services for all Filipinos under the newly enacted Universal Health Care Law.