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Commentary

The Impact of Adherence to Minimum Health Standards in the Philippines during the COVID-19 pandemic

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As of July 23, 2021, the coronavirus disease 2019 (COVID-19) has already caused over 192 million infections and over 4 million deaths worldwide. Although over 3.5 billion vaccine doses have already been administered, the number of infected cases is still increasing in most countries more probably due to the occurrence of new variants, lack of vaccine supplies, and failure to observe minimum health standards (MHS). In a low-and middle-income country (LMIC) such as the Philippines, there have been a total of over 1.5 million cumulative cases which has already resulted in almost 27 000 deaths [1]. Due to the quick surge in the number of COVID-19 cases, the Philippines has implemented multiple interventions as early as March 2020 expanding throughout the country. Such interventions include localized lockdowns, restrictions of mobility, and strict adherence to MHS i.e., wearing of masks/face shields, washing of hands, and physical distancing [2,3]. As the world starts to recover and countries begin to return back to the way they were, it is worth discussing how adherence to minimum health standards has affected the COVID-19 dynamics of a country and how it should be adjusted into the “new normal” post-pandemic.

With the Philippines being an LMIC that has experienced a relatively severe COVID-19 outbreak, Jamie Caldwell and colleagues used an age-structured compartmental model to determine the spread of the disease in the country and analyze the effect of key factors such as control measures, key epidemiological parameters, and interventions in the dynamics of the disease [4]. They considered the number of susceptible individuals, exposed individuals (both infectious and non-infectious), infectious individuals, and recovered individuals with each compartment being classified into age groups and incorporated heterogeneous mixing by age. Their model was able to capture the national trends in confirmed cases,

hospitalizations, and deaths when they incorporated both mobility and adherence to MHS. Results of their study suggest that without adherence to MHS, the number of cases in the August 2020 outbreak peak of the country could be 12 times larger. Following MHS has decreased the infection risk per contact among individuals by 13–27% [4]. Considering the timeline of the study, it can be implied that the strict implementation of these interventions and great adherence to MHS by the community has helped the country obtain a relatively less severe outbreak compared to many high-income countries. And as more transmissible variants began to appear, while the number of currently vaccinated individuals in the country is still far from the government’s target, strict implementation, and adherence to MHS is still the country’s best defence against the disease.

However, as more citizens get vaccinated, MHS is expected to get relaxed. In countries such as the US, requirements for wearing masks have been loosened despite the fact the herd immunity is yet to be attained by the country [5]. Mobility began to increase due to eased travel restrictions and lower MHS compliance. While results from Jamie Caldwell and colleagues’ study show that relaxing some restrictions like work-from-home orders can be a possibility, the threat of disease resurgence will always be present until vaccinations have been widely administered [4]. In countries such as Vietnam and Singapore, better communication and information dissemination have helped gain the confidence of their citizens which resulted in better MHS compliance and fewer cases, hospitalizations, and deaths compared to the Philippines [6]. Thus, even without the new variants being incorporated in the model of [4], it is safe to assume that current MHS may not be able to decrease transmission similar to before due to the increased transmissibility of the new variants. MHS should then still be implemented and adjusted to the dynamics of the new variants (along with improved communication and information dissemination) until LMICs have reached enough vaccination coverage to approach herd immunity.

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In the Philippines, this is estimated to be around 60-70% of the population [7].

Like any other mathematical model, the model of the study from Jamie Caldwell and colleagues is only as good as its assumptions [4]. The model was able to explain the effects of COVID-19 interventions in the Philippines. However, larger data along with updated parameter values and possibly additional compartments can further be used by experts to extend the model and explain the role of MHS in the current dynamics of COVID-19. In an LMIC, costly interventions such as lockdowns might have a great effect in decreasing the number of cases but are not ideal long-term due to their adverse economic effects. As long as the threat of the pandemic is there, proper implementation and adherence to MHS, along with wider testing, and vaccination are still the best defences against the disease [8,9]. The positive impact of adherence to MHS in countries such as the Philippines can serve as a blueprint for all countries in adjusting their implemented MHS and adapting it into the current COVID-19 strains while trying to relax and adjust to the “new normal” post-pandemic.

Declaration of competing interest

The author declare no competing interest.

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