

Implementation of Health Policies in the COVID-19 Pandemic Phases of Myanmar and How the Population Approach Influenced Their Success Rate

Review began 12/04/2023

Review ended 12/16/2023

Published 12/22/2023

© Copyright 2023

Zin Aung et al. This is an open access article distributed under the terms of the Creative Commons Attribution License CC-BY 4.0., which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

Khine Zin Aung¹, Han Thiri Zin², Sa Tin Myo Hlaing³, Putri Damayanti³, Tamanna Tabassum³

1. Biostatistics, University of Kentucky College of Medicine, Lexington, USA 2. Biomedical Sciences, Hood College, Frederick, USA 3. Public Health, Faculty of Medicine, University of Miyazaki, Miyazaki, JPN

Corresponding author: Khine Zin Aung, khinezin.aung@uky.edu

Abstract

The impact of the COVID-19 pandemic is continuing in developing countries, and post-pandemic individuals are still suffering mentally and physically. Many researchers have tried to find the causes and risks that can impact the spread of disease. Among the causes and risks identified, socioeconomic factors and health policies played an important role in determining the transmission of the disease. However, the significance of these factors for the spread of infection is different depending on the country. In this editorial, we discuss the implementation of health policies in Myanmar and their effect on infection transmission.

Categories: Preventive Medicine, Public Health, Infectious Disease

Keywords: developing countries, public health policy, infection spread, public health care, covid 19

Editorial

Myanmar, a developing country in Southeast Asia, has suffered from many impacts of COVID-19 because of its vulnerability in healthcare and socioeconomic conditions [1]. The details of COVID-19 in Myanmar are available for the period August 20, 2020, to January 31, 2021. According to a previous ecological study in Myanmar, population density and medical-related variables were found to be associated with COVID-19 transmission [1]. More studies are needed to find out the effective countermeasures against infectious diseases in the future.

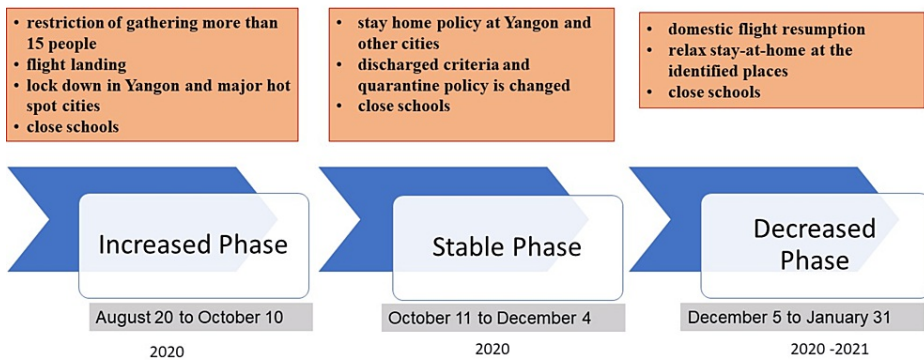
To prevent the spread of infectious diseases, the primary countermeasures are 1) blockage of infection sources such as lockdown, contact tracing, and disinfection; 2) checking the infection routes and taking necessary precautions; and 3) countermeasures, especially for susceptible people such as elders and immunodeficient people [2]. However, the approaches to countermeasures are different in different countries [3, 4]. In developing countries, the population approach is still a gold standard because it can easily be applied to populations with limited resources. Therefore, health policy settings by the government to reach the population level became important in the infection prevention of COVID-19.

The timeline of COVID-19 infection in Myanmar was divided into an increasing phase (August 20, 2020 to October 10, 2020), a stable phase (October 11, 2020 to December 4, 2020), and a decreasing phase (December 5, 2020 to January 31, 2021) [1]. Yangon, which is the commercial and most populated city, had the highest cases of COVID-19. The Ministry of Health (MOH) in Myanmar and government officials also announced public health policies in each phase of COVID-19 transmission (Figure 1) [5].

How to cite this article

Zin Aung K, Zin H, Hlaing S, et al. (December 22, 2023) Implementation of Health Policies in the COVID-19 Pandemic Phases of Myanmar and How the Population Approach Influenced Their Success Rate. Cureus 15(12): e50944. DOI 10.7759/cureus.50944

Public health policies in Myanmar in response to the timeline of COVID-19 by the Ministry of Health



Effects on the prevalence of COVID-19

FIGURE 1: Summary of public health policies in Myanmar during 3 phases of COVID-19 infection by Ministry of Health, Myanmar.

Myanmar's public health policies during the three stages of COVID-19 infection. Policy information was obtained from the Ministry of Health, Myanmar's publicly accessible official website [5].

In this editorial, we discuss the effectiveness of health policies by population approach in Myanmar in each phase. In the increasing phase, the policies included banning gatherings of more than 15 people, restrictions on international flight landings, lockdowns in major economic cities, and school closings. In the stable phase, the MOH announced the stay-at-home order in hot spots for COVID-19 transmission, quarantine policies were changed according to WHO guidelines, and schools were still closed then. In the decreased phase of COVID-19, the policies were relieved and only carried out in affected areas [5].

The overview of these policies gave insights into the effectiveness of primary countermeasures with a population approach toward population density by observing the period (from stable to decreased phase) and case reduction in those phases in Myanmar. For example, the range of cases of COVID-19 per 10^4 population in the stable phase is 0.76-67.9, and in decreased phase is 1.0-22.2 [1]. The previous ecological study in Myanmar concerning COVID-19 spread factors indicated population density was the main factor that was found to be associated with the transmission of infection. Other factors like income, employment, aging, and transportation were not significantly correlated and the policies we discussed also did not focus on those factors. However, the policies have some limitations to some hard-to-reach areas, details concerning individuals such as virology status, host defense, and comorbidities. Several studies also reported that population density is an effective factor against COVID-19 and policies for social restrictions in developing and developed countries [3,4].

In conclusion, even in developing countries like Myanmar, health policies focusing on population density are still effective against infection outbreaks. We hope this discussion can give insights into future infection control in the primary phase of infection in developing countries with limited health care and resources.

Additional Information

Author Contributions

All authors have reviewed the final version to be published and agreed to be accountable for all aspects of the work.

Concept and design: Khine Zin Aung, Han Thiri Zin, Sa Tin Myo Hlaing, Tamanna Tabassum

Acquisition, analysis, or interpretation of data: Khine Zin Aung, Han Thiri Zin, Sa Tin Myo Hlaing, Putri Damayanti

Drafting of the manuscript: Khine Zin Aung, Sa Tin Myo Hlaing, Putri Damayanti, Tamanna Tabassum

Critical review of the manuscript for important intellectual content: Khine Zin Aung, Han Thiri Zin, Putri Damayanti

Supervision: Khine Zin Aung

Disclosures

Conflicts of interest: In compliance with the ICMJE uniform disclosure form, all authors declare the following: **Payment/services info:** All authors have declared that no financial support was received from any organization for the submitted work. **Financial relationships:** All authors have declared that they have no financial relationships at present or within the previous three years with any organizations that might have an interest in the submitted work. **Other relationships:** All authors have declared that there are no other relationships or activities that could appear to have influenced the submitted work.

Acknowledgements

I would like to acknowledge and thank my previous research team from the public health department at the University of Miyazaki, Japan for their supervision of previous studies, and the research frameworks generated from those studies under their supervision and support.

References

1. Aung KZ, Kuroda Y, Hinoura T: Socio-demographic, health, and transport-related factors affecting the COVID-19 outbreak in Myanmar: a cross-sectional study. *Cureus*. 2022, 14:e29693. [10.7759/cureus.29693](https://doi.org/10.7759/cureus.29693)
2. Sarwar A, Imran M: Prioritizing infection prevention and control activities for SARS-CoV-2 (COVID-19): a multi-criteria decision-analysis method. *J Healthc Leadersh*. 2021, 13:77-84. [10.2147/JHL.S292606](https://doi.org/10.2147/JHL.S292606)
3. Jawad AJ: Effectiveness of population density as natural social distancing in COVID19 spreading . *Ethics Med Public Health*. 2020, 15:100556. [10.1016/j.jemep.2020.100556](https://doi.org/10.1016/j.jemep.2020.100556)
4. Purnama SG, Susanna D: Attitude to COVID-19 prevention with large-scale social restrictions (PSBB) in Indonesia: partial least squares structural equation modeling. *Front Public Health*. 2020, 8:570394. [10.3389/fpubh.2020.570394](https://doi.org/10.3389/fpubh.2020.570394)
5. Ministry of Health, Myanmar. (2023). Accessed: 30 November 2023: https://www.mohs.gov.mm/Main/content/publication/2019-ncov?utm_medium=email&utm_source=transaction.