Abstract of Master's Dissertation

No.1

Course	International Health Development Course	Name	Yumiko IIZUKA
Thesis Title	Impacts of COVID-19 pandemic on national malaria control programs in 11 low- and middle-income countries: A quasi-systematic review		

Abstract of Master's Dissertation

Objective :

Behind COVID-19 pandemic threat and turmoil, the people in low-income and middle-income countries (LMICs) are undergoing the threat of existing infectious diseases such as malaria at the same time. Some studies suggested COVID-19 pandemic responses could disrupt health services and malaria interventions. In this inextricably linked context, the impacts of COVID-19 pandemic on national malaria control programs in 11 LMICs were identified in this study. And the constraints in the fields by the chained impact of COVID-19 pandemic on malaria control were also highlighted. Furthermore, this study explored the possible key commonalities to strengthening the control measures of malaria and emerging infectious diseases such as COVID-19. Overall, this study aimed to contribute maintaining the global outcome of malaria elimination to date and also preparing for the next pandemic of infectious diseases.

Method :

A quasi-systematic review of the impacts of COVID-19 pandemic on national malaria control programs in 11 LMICs was conducted. This study used the secondary data collected via the Internet and searched the article search engines and also gray literature through the specific website from 1 January to 30 November 2020. A framework analysis based on scientific/peer-reviewed articles and gray literature review were applied. All types of impacts were grouped into four groups, and those groups were categorized into 15 key sub-programs of malaria.

Result :

The impacts of COVID-19 pandemic on national malaria control programs were reviewed separately for expected and confirmed negative impacts. Using the key search descriptors, 197 articles were identified and screened at two stages. And after adding seven gray literature, ultimately, 36 studies met the inclusion criteria of this study.

＊ The abstract, containing the objective, method, result and conclusion should not exceed 300-500words and printed double sided on A4 paper)

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Result : (continued)

Twenty-three and 36 impact cases were mentioned in 36 studies as the expected and confirmed impacts, respectively. Insecticide-treated nets (ITNs) distribution was the most impacted sub-programs by COVID-19 pandemic. In contrast, surveillance and risk communication were the least impacted sub-programs. Regarding health workers response option was not identified as an expected impact but as a confirmed one. In this findings, COVID-19 responses and some constrains, were the main hinders to national malaria control programs. Those hinders included repurposing drugs, reprioritization resources, fear, stigma, and confusing symptoms. Adopting digitalized programs (e.g., digitalized mass ITN distribution) to reinforce national malaria control programs, deployment of point-of-care tests and protecting health workers could be the key factors of malaria control to alleviate impacts of COVID-19 pandemic. Well-functioning surveillance system and integrated approaches, i.e., risk communication, enhancement public awareness and behavior changes can be fundamentally important toward malaria elimination and COVID-19 control.

Conclusion :

COVID-19 pandemic impacted national malaria control programs far-ranging. Therefore, this study recommends the following short and medium-term interventions for alleviating the cascading negative impacts and also preparing for future attack of emerging infectious diseases, i.e., COVID-19. (i) Timely provide the general public with accurate data and information by utilizing an integrated risk communication approach, (ii) establish an integrated digital health platform with surveillance information, (iii) a similar systematic review should be done again when COVID-19 pandemic converged.

(494 words)

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