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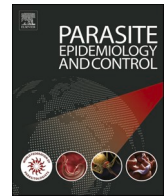
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Malaria attack and COVID-19 pandemic: Is it a double burdening public health concern?

To the Editor,

Malaria outbreak countries in all World Health Organization (WHO) regions have reported cases of Coronavirus Disease 2019 (COVID-19). While the world is fighting this deadly COVID-19, we should not miss the focal point on managing one more deadly disease, i.e. malaria attack. Around the world, the COVID-19 pandemic spreads speedily, so there is a vital need to aggressively combat the novel COVID-19 by ensuring that other life-threatening diseases, like malaria, are not ignored in the current pandemic situation (WHO, 2020a). This situation is a double burden of public health concern in the affected countries. The WHO Global Malaria Programme is foremost a cross-partner effort to diminish the negative impact of COVID-19 in malaria-affected countries and, where possible, contribute towards a successful COVID-19 response.

In 2018, 99.7% of malaria cases were in the African region, 50% in the South-East Asia region, 71% of cases were in the Eastern Mediterranean, and 65% in the Western Pacific (WHO, 2020b). As of March 12, 2020, in Africa, malaria-endemic regions have reported a few imported COVID-19 positive cases including in Nigeria, Senegal, and the Democratic Republic of the Congo (Wang et al., 2020). The world needs to be ready to combat COVID-19 with its prearranged infectious potential and its ability to weaken malaria control efforts. In addition to public watchfulness, countries worldwide should endorse, and regions must consider their local areas' malaria outbreak and acquire supplementary actions for preparation. South-East Asia, like India, has been historically recognized for malaria outbreaks and is supposed to go on with malaria's responsiveness and safety measures.

Therefore, public health preparedness is essential for malaria-endemic regions during the COVID-19 pandemic. Countries must go rapidly and distribute malaria prevention and treatment tools at this phase of the COVID-19 pandemic in malaria-prone areas and do their utmost to maintain these necessary services to control malaria carefully. Zero malaria is possible during the COVID-19 pandemic. We should follow these: use mosquito repellent, wear long-sleeved clothing, fit our home with wire mesh, sleep under bed nets, take antimalarial drugs as advised by the doctor, clean places in and around the home where mosquitoes may breed, and spray insecticides in-home or premises. The Indian Council of Medical Research (ICMR) and the Ministry of Family and Health Welfare (MoHFW) are already recommended. WHO underlines the serious importance of supporting efforts to stop, detect and treat malaria. Special actions, such as presumptive malaria management and mass drug management, could effortlessly the load on health systems in the situation of COVID-19. WHO has guided countries to sustain necessary public health services carefully and urges governments to ensure the continuity of malaria services during the COVID-19 pandemic. So, there is a need to combat this situation in the upcoming days. Public health strategies also reduce the malaria impact on COVID-19 vulnerable areas.

Declaration of Competing Interest

The authors declare that they have no conflicts of interest.

Abbreviations: COVID, Coronavirus Disease; WHO, World Health Organization; ICMR, Indian Council of Medical Research; MoHFW, Ministry of Health and Family Welfare.

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References

- Wang, J., Xu, C., Wong, Y.K., He, Y., Adegnik, A.A., Kremsner, P.G., Agnandji, S.T., Sall, A.A., Liang, Z., Qiu, C., Liao, F.L., Jiang, T., Krishna, S., Tu, Y., 2020. Preparedness is essential for malaria-endemic regions during the COVID-19 pandemic. *Lancet* 395, 1094–1096. [https://doi.org/10.1016/S0140-6736\(20\)30561-4](https://doi.org/10.1016/S0140-6736(20)30561-4).
- WHO, 2020a. Malaria and COVID-19. World Health Organization. <https://www.who.int/teams/global-malaria-programme/covid-19>.
- WHO, 2020b. Malaria. World Health Organization. <https://www.who.int/news-room/fact-sheets/detail/malaria>.

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