

Reimagining zoonotic malaria control in communities exposed to Plasmodium knowlesi infection

ABSTRACT

Plasmodium knowlesi malaria infection in humans has been reported throughout southeast Asia. The communities at risk are those living in areas where Macaque monkeys and Anopheles mosquito are present. Zoonotic malaria control is challenging due to the presence of the reservoir host and the possibility of human-vector-human transmission. Current control measures, including insecticide-treated nets (ITNs) and indoor residual spraying (IRS), are insufficient to address this threat due to gaps in protection associated with outdoor and early evening vector biting and social and economic activities, such as agricultural and forest work. Understanding the challenges faced by affected communities in preventing mosquito bites is important for reducing disease transmission. This opinion paper discusses opportunities to improve P. knowlesi malaria control through understanding the challenges faced by communities at risk and increasing community engagement and ownership of control measures. The paper highlights this issue by describing how the concept of reimagining malaria can be adapted to zoonotic malaria control measures including identifying current gaps in vector control, understanding interactions between environmental, economic, and human behavioral factors, and increasing community participation in and ownership of control measures.