Malaria epidemiology in India in 2018: 2 years after the NFME

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The National Framework for Malaria Elimination (NFME) drafted in 2016 focuses on the districts as the strategic units for planning and implementing intervention strategies, specifically in high transmission areas. In the present study, the malaria data from 677 districts across India for 2018 was analysed to identify clusters with high transmission risk and assess the critical socioeconomic, environmental and climatic factors influencing the malaria burden. India reported >420,000 malaria cases, with the densely populated Uttar Pradesh accounting for ~20% of cases. Out of 96 deaths reported, only eight were due to Plasmodium vivax, indicating the higher burden of P. falsiparum (P.f). In Chhattisgarh, 97.4% of deaths were attributed to P.f, with the tribal district of Dantewada reporting the highest (9). (Figure 1). The significant bivariate associations between P.f indicators (like %P.f) and variables like marginalized communities' distribution and mobile/TV ownership suggest that P.f strongly impacted people of lower socioeconomic status. Annual parasite incidence (API) and %P.f significantly associated with the usage of mosquito nets, which indicates the compliance of the intervention strategies in severely affected regions. The impact of socioeconomic inequities, environmental and climatic variables is further being investigated through spatial models.