

Primary prevention of mosquito borne disease in international travellers: Qualitative exploration of factors that influence the use of personal protection measures.

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Background: Mosquito Borne Disease (MBD) in travellers is primarily prevented by avoiding mosquito bites through the use of personal protection measures (PPM). The combined use of repellents, long-sleeved clothing and bednets can be considered a complex health behaviour. Use of PPM during travel is long known to be suboptimal, however literature on the factors that influence adherence is scarce. Using a qualitative approach, this study aims to explore determinants that influence the use of PPM by Dutch travellers at risk of MBD.

Method: In depth semi-structured interviews were carried out with 13 travellers to destinations endemic to MBD. Analysis of the data was performed in a combined approach of thematic and theory-based coding using the Integrative Change Model as a framework.

Results: A gap was observed between intentions before departure and mosquito protective behaviour during travel. In explanation three main themes influencing the use of PPM emerged: the environment at the destination, the experience of mosquito bites, and the experience of low control. Within these themes the following factors influenced the use of protective measures: perceived exposure to mosquitoes at the destination, perceived risk of the natural environment, modelling influences in the social environment; the greater influence of perceptions of mosquito nuisance versus risk of disease, cueing effects of mosquito bites; barriers/facilitators, attitudes to the measures, and low response efficacy expectations.

Conclusions: This study identified awareness, motivational and action factors that influence mosquito protective behaviour. These determinants can be used to inform future research and the design of effective interventions.