

## **Malaria risk perception and barriers for effective prophylaxis in the Sub-Saharan African VFR traveller community in Hamburg, Germany**

Marabelle Essandoh<sup>1,2</sup>, Pia Michelitsch<sup>1</sup>, Frank Ekoka Mbassi<sup>1</sup>, Maria Mackroth<sup>1</sup>, Thomas Brehm<sup>1</sup>, Michael Ramharter<sup>1,2</sup>

<sup>1</sup> Centre for Tropical Medicine, Bernhard Nocht Institute for Tropical Medicine & I. Department of Medicine University Medical Centre Hamburg-Eppendorf, Hamburg Germany, <sup>2</sup> German Centre for Infection Research, Partner Sites Hamburg-Lübeck, Borstel-Riems

**Background:** The African VFR community of the global North is at high risk of contracting preventable travel-associated infections when travelling to Sub-Sahara Africa. This study aimed to assess knowledge, risk assessment, travel medicine advice practices and chemoprophylaxis usage of VFR travellers for malaria to improve our understanding of barriers for effective prevention and to develop tailored travel advice.

**Methods:** A questionnaire-based survey was conducted at the Hamburg Airport with adult Sub-Saharan African VFR travellers on malaria risk perception, attitudes towards prophylactic measures and travel medicine advice as well as pre- and post-travel experiences with travel medicine and malaria prophylaxis.

**Results:** 389 participants were included in the survey. 67% had sufficient knowledge of malaria transmission. 51% stated they had little to no risk of being infected with malaria in the visited malaria endemic country. 47% did not seek travel advice before their trip. Half of the population interviewed did not take malaria prophylaxis due to an assumed low risk for the disease. 77% of participants who took antimalarial drugs finished the complete dose. On return 13% experienced symptoms suggestive of malaria and subsequently 55% self-medicated or didn't seek medical attention. In the subgroup of travellers who were accompanied by children, differences in travel behaviour were noted.

**Conclusion:** VFR travellers have a low self-risk perception of malaria which leads to low uptake of travel medical advice and chemoprophylaxis. Mistrust in the advice of healthcare providers on tropical infections was noted. Insights from this survey are valuable for practitioners and travel medicine clinics to provide more tailored and culturally sensitive travel advice to VFR travellers.