

Preventing pandemic risk by improving pandemic literacy among communities at the frontline of disease emergence in Southeast Asia (PANDA)

Initiative: Globale Herausforderungen

Ausschreibung: Pandemieprävention: die Rolle von Mensch-Umwelt-Beziehungen

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Fragmented approaches to the research of emerging infectious diseases origin do not provide a comprehensive picture of the pathogen spillover system. The principles of One Health frame a systemic approach to studying spillover and disease emergence. It allows the identification of the most relevant spillover determinants and targets for effective, sustainable interventions. Within the PANDA project, the interdisciplinary team of scientists and practitioners aims to systematically investigate processes and interactions, human risk behaviors and actions, and structural barriers at the human-animal-environment interface, which lead to zoonotic infectious diseases emergence. PANDA places a strong focus on the social side of the interface, aiming to understand cultural contexts, knowledge, practices, and beliefs that contribute to increased exposure of humans to potential spillover. PANDA will engage local communities aiming to tailor One Health content and co-design a community-level intervention to gain pandemic preparedness and prevention literacy in high-risk settings. The project will investigate communities along the northern Thai-Lao border, a hotspot area of zoonotic disease emergence. PANDA will employ a multi-method approach as it will collect and analyze data for each of the sectors of the human-animal-environment interface. Sequential mixed methods study design and trans- and interdisciplinary approaches include in-depth interviews, focus group discussions, participatory community mapping, observations, quantitative surveys, a host risk ranking matrix, animal sample collections, and molecular biology techniques. The spillover potential of the pathogens will be assessed by phylogenetic analyses and in-vitro receptor binding assays. The combined information on animal hosts harboring high-risk spillover viruses as well as the outcomes of the social research will provide input for and guide the development and delivery of a pandemic preparedness and prevention literacy intervention.

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