
SEGA One Health: planning for the future of effective integrated health surveillance in the Indian Ocean

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Abstract

Twelve years after the eye-opening Chikungunya epidemic in the Indian Ocean (IO), fuelled by ravaging zoonoses (notably Rift Valley fever) and transboundary animal diseases (FMD, AFS), a charter for a One Health Surveillance and Response network (SEGA One Health) was signed by all IO Commission member States. To strengthen health preparedness, the network's activities the past eight years included health events monitoring, regular calls and meetings, support of national surveillance systems, outbreak investigations, and response. The Surveillance and Response Unit of the IOC coordinates and plans for sustainability beyond the next few years. Therefore the network needs to capitalize on its past successes, increase visibility, become more analytical and anticipatory, foster cooperation and synergies between health sectors and include progressively daily health threats such as diabetes and food-borne diseases to strengthen the systems. Digital health information systems are implemented for real-time reporting. Adapted surveillance system evaluations and benefit-cost analysis document the performance. Next to technical issues, sub-regional expertise is mobilised and strategic plans elaborated showing the priorities of countries and how they are anchored in national health plans. Transversal topics emerge like port controls, cross-country quality assurance of laboratories, capacity-building, risk analysis and targeted communication. There is a large untapped potential of One Health to enhance early detection and control of zoonoses. Novel contingency planning with all line ministries and cost-effective transsectoral economics for zoonoses are key elements and can be extended to other sectors such as plant health. AMR as emerging topic can showcase One Health when it considers the environmental interface of human and animal health and human mobility. Rabies is a prime example of added value of cooperation. Climate change via ecosystem instability and new patterns of vector abundance (e.g. *Aedes* and ticks), and increasing extreme weather events are closely related to epidemics. Remote sensing for early alerts is only sufficient if linked to social contexts and behavioural adaptations. Newly created regional excellence centres acknowledge these future challenges. Sub-regional harmonised actions based on mutual learning for change require institutional and operational partnerships – and buy-in and long-term commitment by States - stipulating governance becoming an overarching topic.

Keywords: surveillance, network, Indian Ocean, One Health, vector borne disease

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