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Review

Strengthening Preparedness for Arbovirus Infections in Mediterranean and Black Sea Countries: A Conceptual Framework to Assess Integrated Surveillance in the Context of the One Health Strategy

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Abstract

In the context of One Health, there is presently an effort to integrate surveillance of human, animal, entomological, and environmental sectors. This aims to strengthen the prevention of, and preparedness against, arbovirus infections, also in the light of environmental and climate changes that could increase the risk of transmission. However, criteria to define integrated surveillance, and to compare different systems, still need to be identified and tested. We conducted a scoping review to identify and examine surveillance systems for West Nile virus (WNV), chikungunya virus (CHKV), dengue virus (DENV), and Rift Valley fever virus (RVFV), which involve human, animal, entomological, and environmental sectors. We analyzed findings using a conceptual framework we developed for this purpose. The review highlights that the criteria proposed in the conceptual framework to describe integrated surveillance are consistently reported in the context of studies and programs related to integrated surveillance of the selected arboviral diseases. These criteria can facilitate the identification and description of operationalized One Health surveillance. [View Full-Text](#)

Keywords: One Health; integrated surveillance; West Nile virus (WNV); chikungunya virus (CHKV); dengue virus (DENV); Rift Valley fever virus (RVFV)

Figures

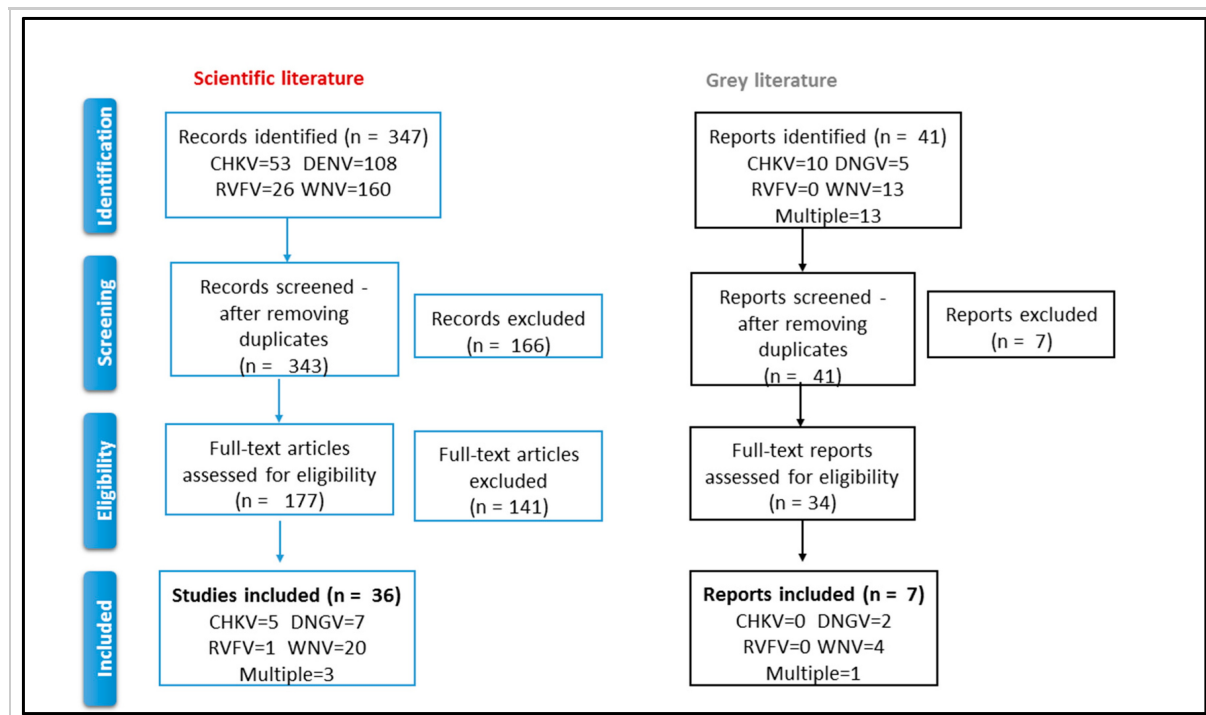


Figure 1

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Supplementary File 1:

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