



Climate Change and Vector-Borne Diseases as Biological Hazards

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Global geographic distribution patterns of vector-borne diseases (VBDs) as biological hazards are changing due to climate change. The World Health Organization (WHO) Health Emergency and Disaster Risk Management (Health-EDRM) framework emphasizes the importance of primary prevention of biological hazards and its value in protecting against VBDs. The framework encourages stakeholder coordination and information sharing, though there is still a need to reinforce prevention and recovery within disaster management. This presentation will first introduce a keyword-search-based narrative literature review to identify 10 health-EDRM primary prevention measures at three levels (personal, environmental, and household).

Enabling factors, limiting factors, co-benefits, and strength of evidence will be discussed. Although prevention against mosquito-borne diseases, notably malaria, has been well-studied, research on other vectors and VBDs remains limited. This presentation will also introduce the knowledge of dengue fever (as an example of climate change-related vector-borne diseases), mosquito bite patterns, protective behavior practices, and their associated factors in Hong Kong, a non-endemic subtropical city. Currently, evidence of the community's knowledge, mosquito bite patterns, and protective behavior practices in non-endemic regions is limited.