

Responding to novel emerging epidemics: The “One Health” approach

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Novel emerging infectious diseases continue to arise in this 21st Century, posing unexpected threats. Recent examples include SARS, influenza, Ebola and most recently, Zika. Such epidemics often spread with great rapidity and across geographical boundaries leading to major social, economic, and political, as well as human health or animal health, impact. Many of these epidemics arise from domestic animals or wildlife. Recent changes in human behavior and travel, food production systems, deforestation and environmental change facilitate such disease emergence. Understanding the drivers of such events may allow measures for “containment at source”. Given the complex and multifactorial factors contributing to such events, an integrated, multidisciplinary approach is needed in our response. The concept of “One Health” envisages a multidisciplinary, holistic and integrated approach to optimize health of humans, animals and the environment. This requires the collaboration of expertise in public health, animal health, environmental science and the seamless integration of laboratory, epidemiology, behavioral, and anthropological expertise.