



THE NEED FOR A COMPREHENSIVE APPROACH TO ADDRESS THE ZOOONOTIC DISEASE EMERGENCY

LA NECESIDAD DE UN ENFOQUE INTEGRAL PARA ABORDAR LA EMERGENCIA DE ENFERMEDADES ZOOONÓTICAS

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Dear Editor

Emerging infectious diseases that affect humans commonly come from pathogens whose hosts are wildlife species. These zoonotic disease outbreaks constitute a major challenge to human health. In fact, the current Covid-19 pandemic has evidenced that the activities human beings carry out in ecosystems, as well as, the use of wildlife species, have a direct impact on society.

Land use change, especially deforestation, has been associated with the risk of spillover of infectious diseases from wildlife species to humans, as a consequence of changes in species communities, especially in reservoirs⁽¹⁾. Similarly, the wildlife trade, whether legal or illegal, has been considered a mechanism for the transmission of zoonotic infectious diseases, since infectious agents can be spread at different stages of this trade, such as hunting, transport or its sale⁽²⁾.

This year Winck, Raimundo, Fernandes-Ferreira, Bueno, D'Andrea, Rocha, Cruz, Vilar, Brandão, Cordeiro and Andreazzi⁽³⁾ had published an analysis on socio-ecological vulnerability and the risk of the emergence of zoonotic diseases in Brazil. This study described that the risk of zoonotic epidemics is positively associated with the loss of natural vegetation (e.g., deforestation and forest fragmentation), the diversity of mammals and the distance to large cities. Furthermore, their data seem to support the recent suggestion that due to its ecological vulnerability, the Amazon represents a zoonotic risk.

In particular, the authors highlighted the importance of identifying critical species that may be potential sources of zoonotic diseases, but also recognized the need to focus on processes that increase the possibility of human-wildlife contacts, such as deforestation, hunting and bushmeat consumption, as well as wildlife trade.

Unfortunately, despite advances in research on the emergence of infectious diseases and their relationship with anthropogenic environmental disturbance in different parts of the world, this issue has been poorly addressed in Peru. Peru has little more than 60% of its territory in forests but with a rate of deforestation that has increased in recent decades⁽⁴⁾.

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After Brazil, Peru has the largest area of Amazonian forests (~13%) and also one of the most important biodiversity of mammals, of which the majority is found precisely in the Amazon ⁽⁵⁾. Peru has similar socio-ecological vulnerabilities to those described in Winck, Raimundo, Fernandes-Ferreira, Bueno, D'Andrea, Rocha, Cruz, Vilar, Brandão, Cordeiro and Andreazzi ⁽³⁾, although an analysis of the risk of emergence of zoonotic pathogens is still pending. The current context suggests the need for a comprehensive and multidisciplinary approach conceived within the concept of "One health", in which both the contribution of the health sciences and the involvement of disciplines from the natural and social

sciences are combined. Likewise, its impact seeks to be reflected not only in the conservation of biodiversity, but also in human health, in the reduction of infectious diseases, and in avoiding the appearance of future emerging diseases. At the academic level, lines of research based on "One Health" are absent in national universities, despite the challenge of global change and the conservation of species and ecosystems. Therefore, it is important to promote synergy between these disciplines through programs of research based on this theme, which has a great potential to generate information both at a scientific level and to support public health policies.

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