The association between livestock keeping and mosquito-borne diseases in urban areas in Hanoi city, Vietnam

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MOTIVATION

- Urban livestock keeping is an important and integral part of cities in many tropical and developing countries, where it ensures highly nutritious food on urban markets and provides inhabitants with livelihood options (Herrero et al., 2013; De Zeeuw and Drechtel, 2015). However, there are also risks associated with livestock keeping that should not be neglected.
- A systematic review indicated an association between agricultural intensification and an increased risk of human disease (Jones et al., 2013).
- Mosquito-related diseases, are constituting an increasing threat to human health globally, especially in tropical and developing countries (World Health Organization, 2014). Whereas livestock is increasing in the growing cities, mosquitoes also are adapting and finding urban breeding habitats.
- There has so far not been any infection with Zika virus in Hanoi, but dengue fever is emerging as an endemic disease. In 2017, Hanoi witnessed the largest dengue outbreak ever in both urban and rural districts with nearly 38,000 cases and 7 deaths. In addition, 9 cases of Japanese Encephalitis were reported (Hanoi Preventive Medicine Center, 2017).
- Since 2008, after merging areas of surrounding provinces; Hanoi city, now called “Great Hanoi”, is in rapid progress of urbanization. The livestock in Hanoi was diverse and numerous with approximately 160,000 cattle, 1.6 million pigs and 23 million poultry in 2016 (GSO, 2016). Besides the advantages for high value animal-source food products; livestock keeping is potentially increasing the risk for human infections with vector-borne pathogens.
- This study attempts to increase the understanding of urban disease epidemiology in urban districts of Hanoi city where multiple vector-borne diseases are occurring simultaneously, and to an improved understanding on how urban livestock is contributing to these risks.

REFERENCES


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