

AUTHORS' REPLY

Singapore Med J 2017; 58(2): 114 doi: 10.11622/smedj.2017011

Dear Sir,

We very much agree with the message conveyed by Lange and Cegolon⁽¹⁾ in their letter, written in response to our editorial,⁽²⁾ about the significance and potential impact of global climate change on emerging and re-emerging zoonotic infectious diseases. One Health emphasises optimal health for not only humans and nonhuman animals, but also the environment.⁽³⁾ Rising global temperatures will have profound effects on the ecological health of environments that humans share with nonhuman animals and plants.⁽⁴⁾ Variations in temperature, rainfall and humidity are expected to affect the transmission and infection rates of pathogens that are already present in the region, including vector-borne diseases such as Zika, dengue and West Nile virus infection.⁽⁵⁾ The most vulnerable groups are marginalised communities with limited healthcare resources, and relatively endangered plant and animal populations that are unable to adapt quickly enough to rapidly changing environmental conditions. Ironically, the human populations that have contributed the least to the emission of carbons may end up disproportionately shouldering the greatest burdens of climate change and, most likely, the emergence of new pathogens and infectious diseases. One Health and social medicine offer frameworks that can address these issues of global justice and encourage policies and interventions that benefit the most vulnerable, human and nonhuman, as the climate changes.

Yours sincerely,

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REFERENCES

1. Lange JH, Cegolon L. Comment on: Zika in Singapore: insights from One Health and social medicine. *Singapore Med J* 2017; 58:113.
2. Lysaght T, Lee TL, Watson S, et al. Zika in Singapore: insights from One Health and social medicine. *Singapore Med J* 2016; 57:528-9.
3. American Veterinary Medical Association. One Health: A New Professional Imperative 2008 [online]. Available from: <https://www.avma.org/KB/Resources/Reports/Pages/One-Health.aspx>. Accessed April 4, 2016.
4. Scheffers BR, De Meester L, Bridge TC, et al. The broad footprint of climate change from genes to biomes to people. *Science* 2016; 354(6313). pii: aaf7671.
5. Parham PE, Waldock J, Christophides GK, et al. Climate, environmental and socio-economic change: weighing up the balance in vector-borne disease transmission. *Philos Trans R Soc Lond B Biol Sci* 2015; 370(1665). pii: 20130551.