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# EBOLA, INFLUENZA, SARS AND TB: LESSONS LEARNED FOR MITIGATING THE IMPACT FUTURE OUTBREAKS AND PANDEMICS

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## ABSTRACT

"It is now just more than a year [and a half] since the official confirmation of an outbreak of Ebola hemorrhagic fever in West Africa.With new cases occurring at their lowest rate for 2015, and the end of the outbreak in sight for all three countries predominantly affected, now is the time to consider strategies to prevent future outbreaks of this, and other, zoonotic pathogens. The Ebola outbreak, like many other emerging diseases, illustrates the crucial role of the ecological, social, political, and economic context within which diseases emerge [1]"

Dispersal, mobility and residence times within highly variable environments play and has played a significant role on the transmission dynamics of communicable diseases like Influenza, TB, SARS or Ebola. In this lecture, I will discussed some of the challenges and opportunities posed by the study of the dynamics of these emergent or re-emergent diseases within multiple temporal and geographical scales and across various levels of organization. The talk will conclude with a few comments on what we may have learned from the challenges posed by the most recent outbreaks involving these communicable diseases.

## References

[1] Carlos Castillo-Chavez, Roy Curtiss, Peter Daszak, Simon A. Levin, Oscar Patterson-Lomba, Charles Perrings, George Poste, and Sherry Towers, Beyond Ebola: lessons to mitigate future pandemics. *The Lancet Global Health*, **3**(7): e354–e355.

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