Cambridge Centre for Risk Studies

Advisory Board Research Showcase – 29 January 2019

Health and Humanity

Centre for Risk Studies

UNIVERSITY OF CAMBRIDGE
Judge Business School

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RISK 10

Health and Humanity

Plant Epidemic

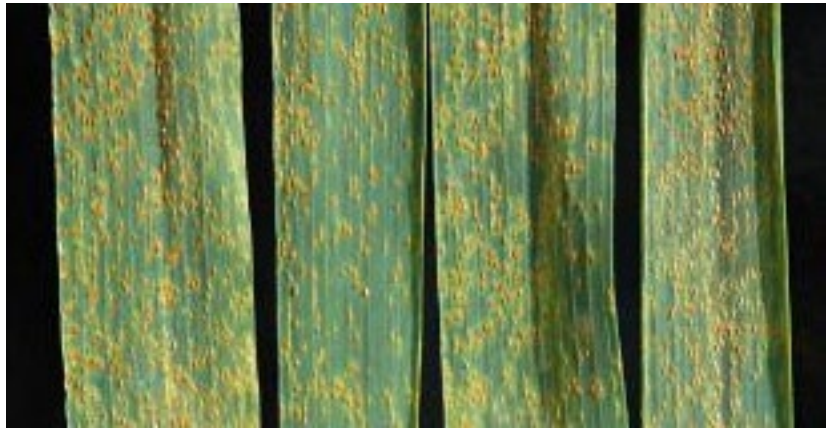
- Panama Disease
- Xylella Fastidiosa

Human Pandemic

- Yemen Cholera Outbreak
- Democratic Republic of the Congo Ebola Crisis
- Nigeria Lassa Fever
- Avian Flu, H7N4
- Anti-Microbial Resistance

Plant Epidemics

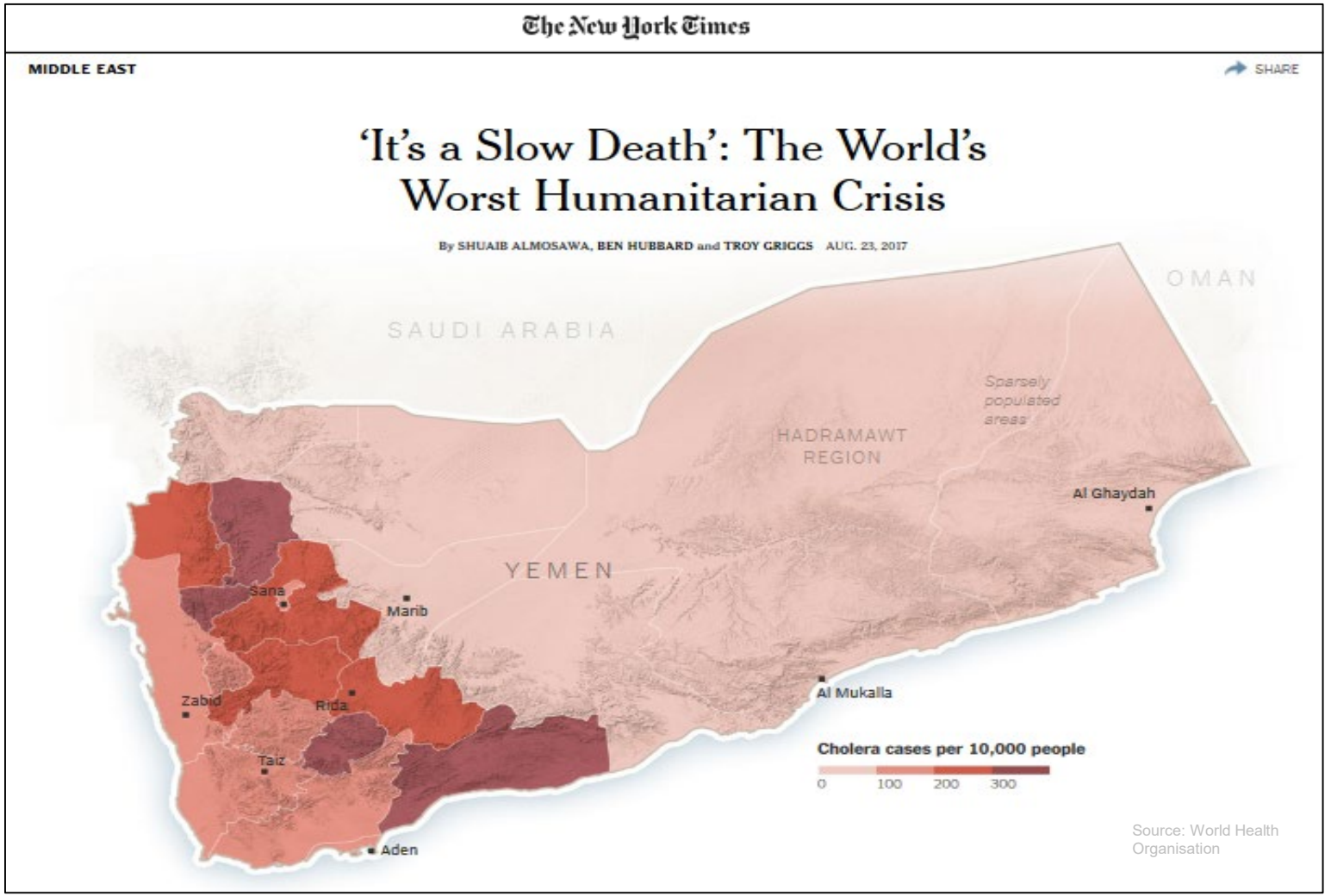
Panama Disease
Nelson, 2017



(Top) Xylella Fastidiosa
Australian Government, 2018

(Bottom) Wheat Rust
Agricultural Research Service, 2006

Yemen Cholera Outbreak



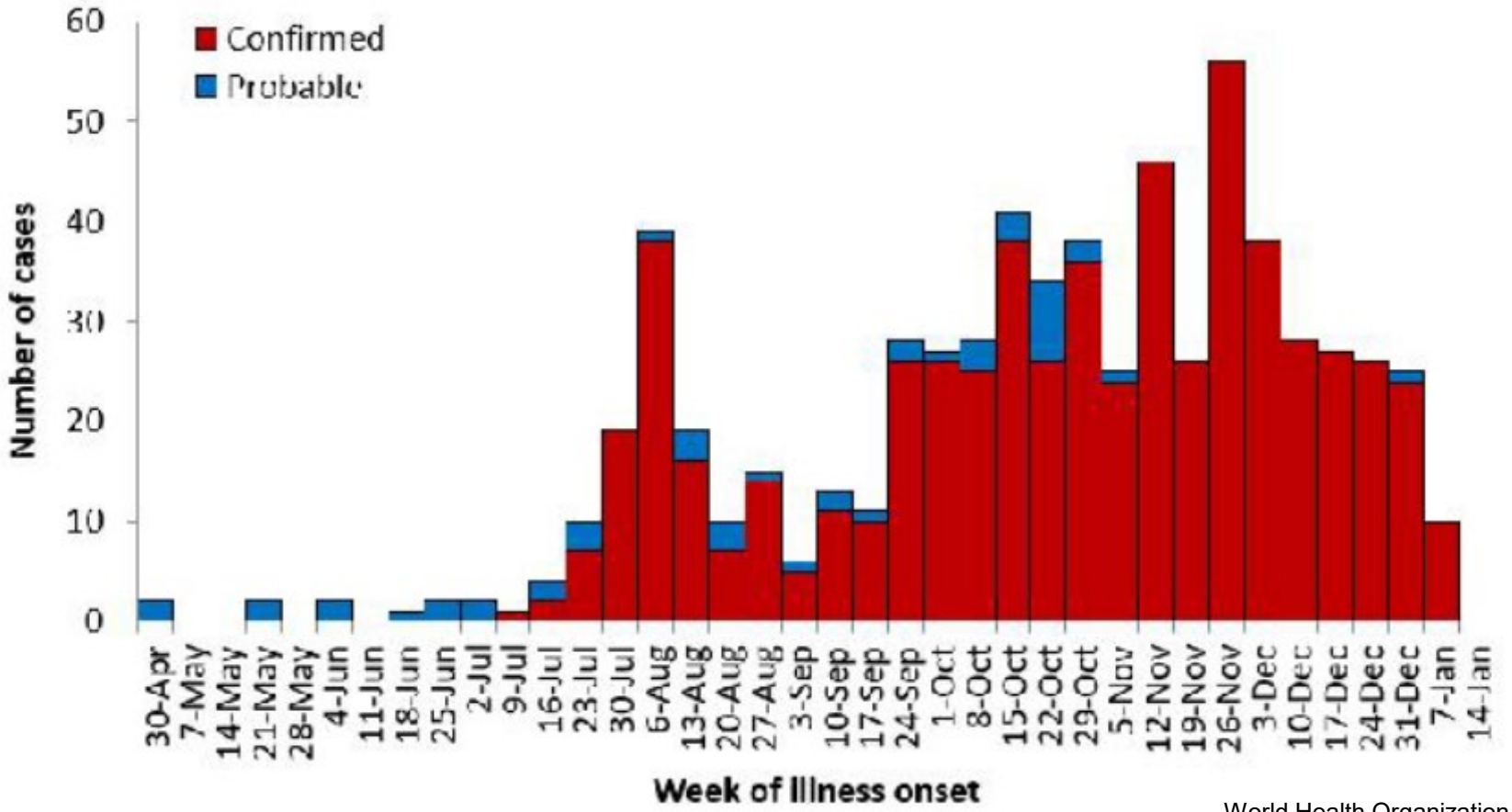
Almosawa, Hubbard, Griggs, 2017

"While previous outbreaks may have helped build immunity in the population, other diseases and widespread malnutrition can weaken resilience."

ABC News, 2018

Human
Pandemic

Democratic Republic of the Congo Ebola Crisis



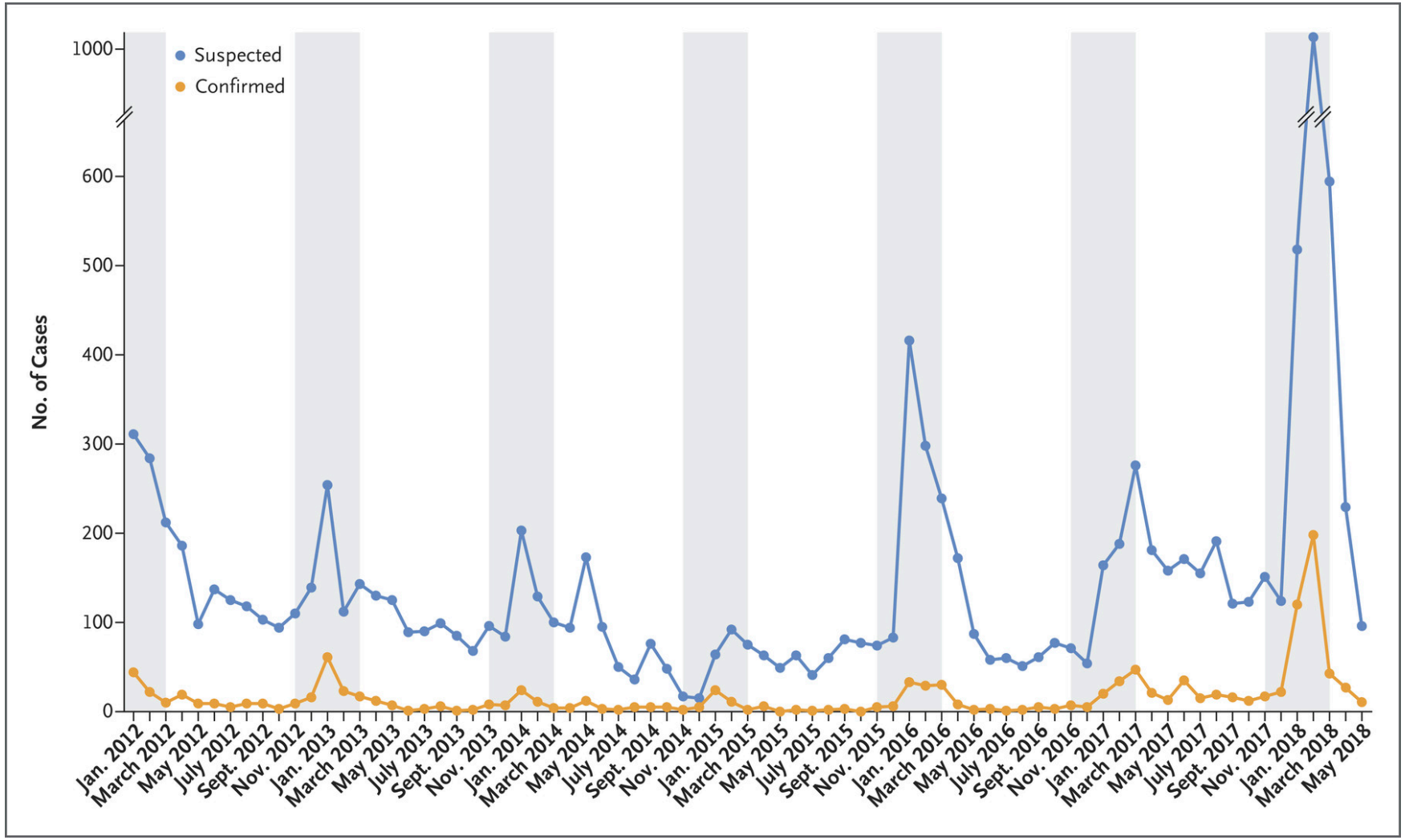
Latest numbers as of 15 January 2019

- Total cases: 663
  - Confirmed cases: 614
  - Probable cases: 49
- Deaths: 407
  - Fatality rate 61%

World Health Organization, 2019
Current as of January 15th, 2019

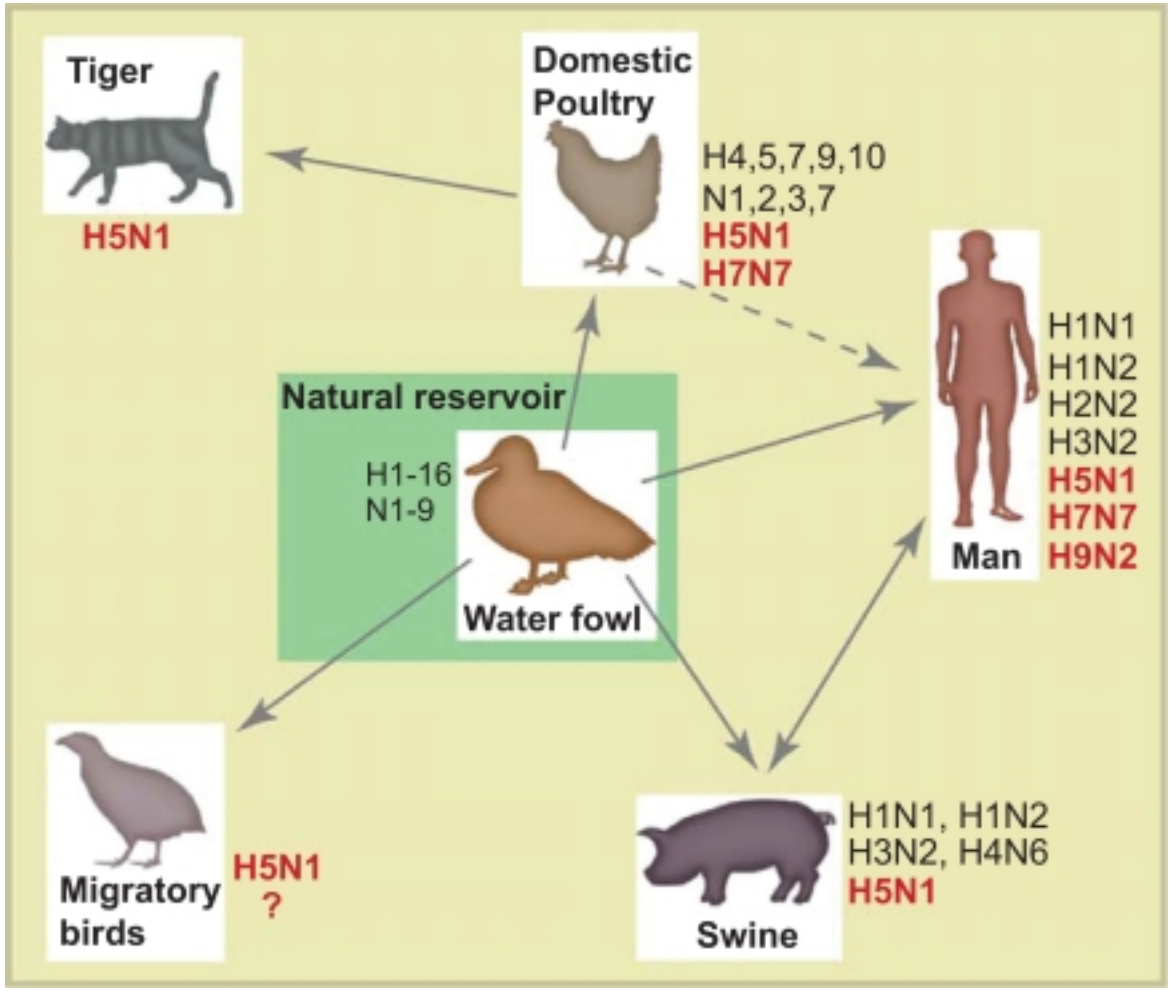
Nigeria Lassa Fever

Lassa Fever Cases Over Time



Siddle, K. J., Eromon, P., Barnes, K. G., Mehta, S., Oguzie, J. U., Odia, I., … Happi, C. T. (2018). Genomic Analysis of Lassa Virus during an Increase in Cases in Nigeria in 2018. *New England Journal of Medicine*, *379*(18), 1745–1753. https://doi.org/10.1056/NEJMoa1804498

Avian Flu



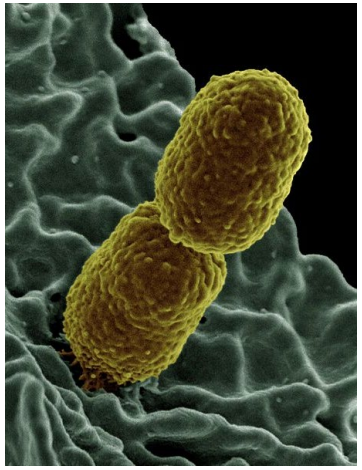
Hovden, Arnt-Ove & Cox, Rebecca & Reinhardt Haaheim, Lars. (2007). Influenza: The virus and prophylaxis with inactivated influenza vaccine in "at risk" groups, including COPD patients. International journal of chronic obstructive pulmonary disease. 2. 229-40.

"Any animal influenza virus that develops the ability of human to human transmission can theoretically cause a pandemic."

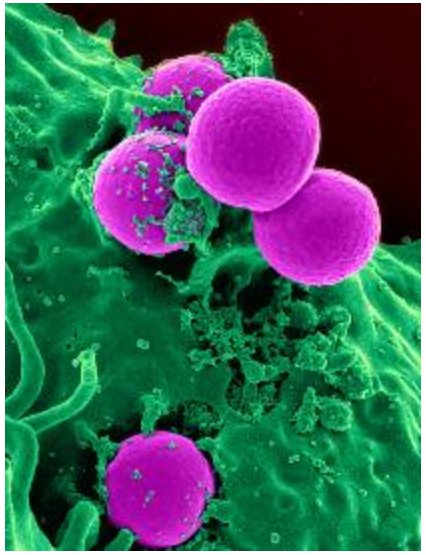
– WHO, 2018

Human Pandemic

Anti-Microbial Resistance



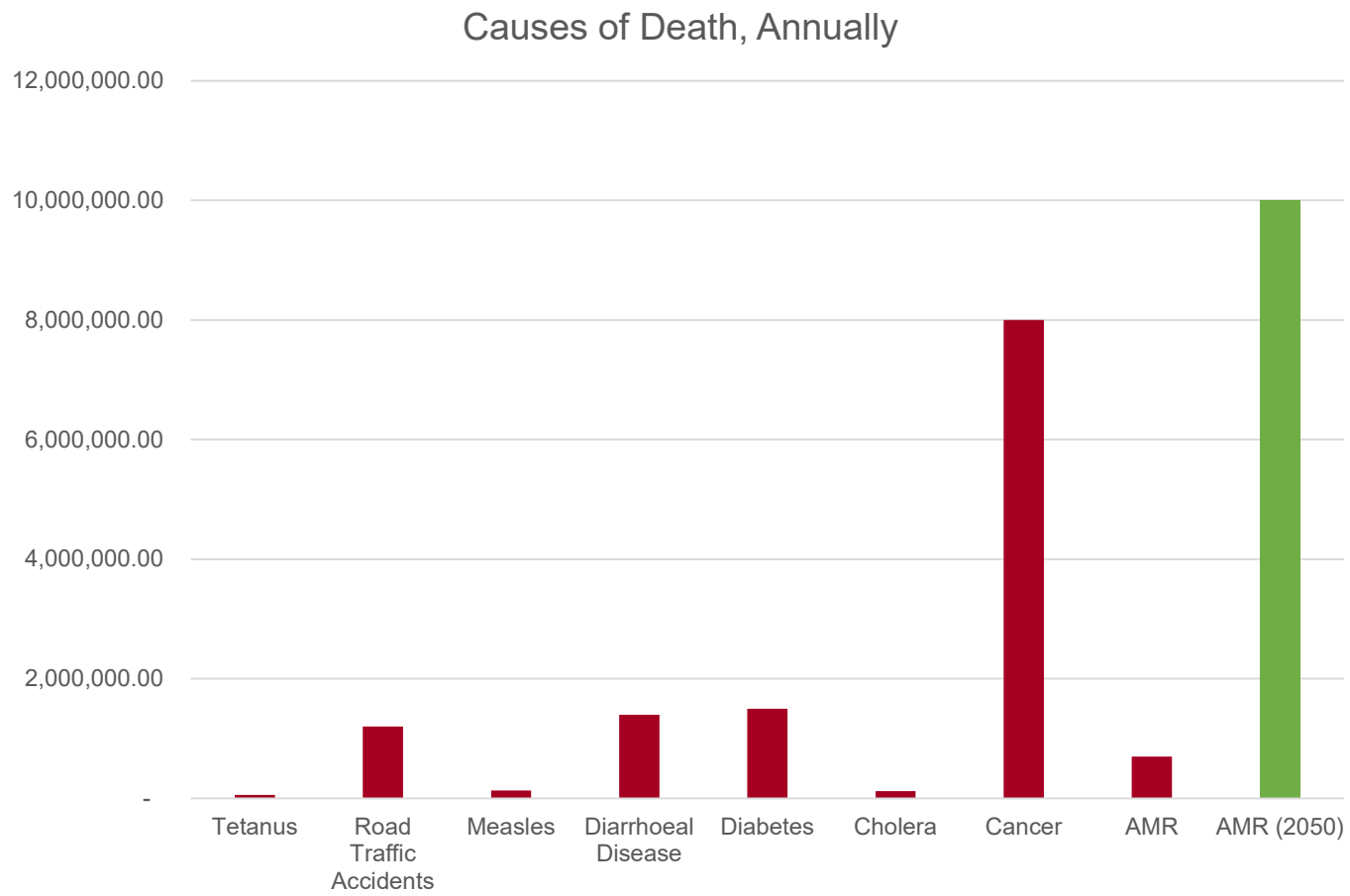
Klebsiella Pneumoniae
(NIAID, 2014)



Staphylococcus Aureus
(National Institutes of Health, 2017)

Mycobacterium Tuberculosis
(NIAID, 2010)

Non-typhoidal Salmonella
(Eckert & Oosthuizen, 2013)



(O'Neill, 2014)

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