OneHealth, emerging zoonoses, and organising public health surveillance

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Aspects of 2022

Covid19 continues, variant tracking is super important

Monkeypox crosses 15, 000, jumped from 10, 000 cases last week

First case of a seven month old child with Monkeypox reported from Spain

Marburg virus in Ghana re-emerges isolated from bats

Record heat waves in Northern Hemisphere

Wildfire in Europe

Nor'wester with strong wind and unusual heat battered Canterbury

Operational Definition of OHS

A OH surveillance system is a system in which collaborative efforts exist between at least two sectors (among human health, animal health, plant health, food safety, wildlife and environmental health) at any stage of the surveillance process, to produce and disseminate information with the purpose of improving an aspect of human, animal or environmental health.

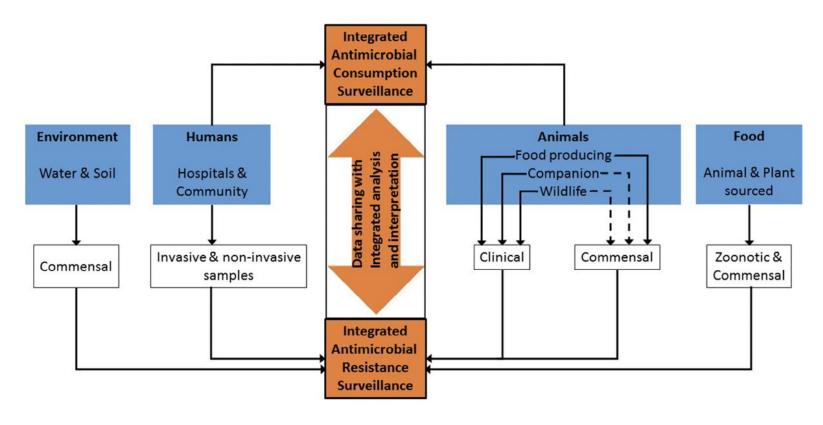
Why What and How

There seems to be a need to expand sentinel surveillance and microbial genomic surveillance to

- keep genetic changes of the microbes under surveillance BUT also
- A case to study associated human genomic variation and SNPs
- The problem with SNPs and human genomic variants is how little PRS explains phenotype, so
- Expand the scope of taking in family data
- But because we are all connected to each other,
- We need to expand surveillance to everything we consume (food we eat, pets we keep, and so on)

Onehealth





Kevin Queenan, Barbara Häsler, Jonathan Rushton, A One Health approach to antimicrobial resistance surveillance: is there a business case for it?, International Journal of Antimicrobial Agents, Volume 48, Issue 4,2016: 422-427, ISSN 0924-857

Github site for this presentation:

https://github.com/arinbasu/phonz onehealth 22