

Emerging Infectious Disease (EID) involving Respiratory Tract

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Underlying causes for EID

1. Generalized social changes

- worldwide urbanization, IV drug abuse, changing sexual practice

2. Demographic changes

- ↑ human mobility and refugee population

3. Medical care

- blood transfusion, organ transplant, re-used syringes for antibiotic injections, contamination vaccines and antibiotic resistance

Underlying causes for EID

4. Economic and commercial trends

- intensive food production, extended irrigation, liberalized trading pattern

5. Climatic changes

- global warming and regional changes

6. Ecosystem disturbance

- deforestation, eutrophication of waterways, reduction in predators of disease vector organisms

Human Metapneumovirus (hMPV)

hMPV

- Is a pathogen that emerged as a result of *increased and tenacious diagnostic efforts* rather than through expansion of its range or transmission to a new host species
- First identified in 2001 by van den Hoogen BC, et al. (Nat Med 2001;7:719)
- Isolated from 28 young children, stored nasopharyngeal aspiration (NPA) with RTI over 20 years in Netherlands
 - New member of *Metapneumovirus* genus, *Paramyxoviridae* family