Epidemiology: How Equine Influenza (EI) spread in the horse population in NSW

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Epidemiology

- The study of the occurrence of disease in populations and its interactions with the host and environment

Diagram:
- Disease Agent (EI Virus)
- Host (Horses)
- Environment (Properties, events, transport etc)
Important to know where the populations (horses) are located

Horse Ownership Database (incomplete)
35,000 point locations
Ways in which disease (EI) can spread in populations

1. Direct contact

2. Via contaminated air
3. Fomites

- Inanimate objects on which infectious particles can transfer
The spread of EI in time

- Epidemic curve early in the outbreak
Daily cases peaked at 204 on 24/9/07.

Last case detected on 22/12/07.
Spread of EI in space

- Maps – earliest cases
EI – the movie: Spread and control of EI in NSW