Early Warning Systems for Zoonotic Diseases in Humans – IDSA EIN

Phil Polgreen, MD, MPH
Assistant Professor and Director,
IDSA Emerging Infections Network
University of Iowa
In 1995, the Infectious Diseases Society of America (IDSA) received a Cooperative Agreement Program award from the CDC

IDSA Emerging Infections Network (EIN)

Sentinel network comprised of clinical infectious diseases consultant physicians
The goal of the EIN is to assist CDC and other public health authorities with surveillance for emerging infectious diseases (EIDs) and related phenomena.

The EIN gathers relevant clinical data that complements other surveillance systems.
EIN Purposes and Functions

Detection of Unusual Clinical Events

Case Identification

Acquisition and Dissemination of Knowledge

Communication (on and off-line)
Membership

- 1,252 North American members
- 50 states, Canada & Puerto Rico
- 80% adult practice
- 27% pediatric practice
EIN Activities

Electronic mail conference (listserv)

- Listserv for 1,300 members

- 135 persons from CDC and state or local health departments

- Two-way traffic; moderation

- Change in focus from emerging infectious diseases to clinical diseases
Surveys: Periodic, Urgent

- 73 surveys issued since Jan 1997

- Examples:
  - Hantavirus Pulmonary Syndrome
  - West Nile Virus
  - Southern Tick-Associated Rash Illness (STARI)
  - Babesiosis
  - Colorado Tick Fever (CTF)
Addressing Gaps: Ways to improve detection and communication through the use of provider-based sentinel surveillance systems to detect zoonoses

• Provision of a structure for other electronic communities in other countries

• Expansion of veterinarian provider listservs

• Encouragement of cross communications between listserv members
Limitation to listservs and web based surveys

- Volume of emails
- Too many surveys

Need for more tools -- Web 2.0 solutions for linking groups or data bases

Examples:
- Bayesian Algorithms for Information Streaming (from multiple sources)
- Social Network analysis
- Interactive Maps
- Prediction Markets (H5N1 market with Pro-MED)
Analysis of EIN Listserv postings?

Frequency of postings change over time

Can we look at the messages in this network as a social network? As a graph?