

FROM FORECASTING TO CONTROL OF ZOO NOTIC DISEASES – LINKING ANIMAL AND HUMAN SYSTEMS

- **Formenty P.**
Global Alert and Response Department, World Health Organization (WHO), 20 avenue Appia, 1211 Geneva 27, Switzerland

Emerging Infectious Diseases (EID) outbreaks often cause serious problems for public health services (e.g. SARS, Ebola, H5N1). About 75% of EID being of animal origin, we are threaten not only by pathogens spreading across countries and regions but also by diseases crossing borders between human, domestic animal and wildlife. Lack of timely laboratory diagnosis and functional epidemiological surveillance, poor infection control practices at health-care facilities, inadequate communication with affected population and weak vector control programs often result in prolonged outbreaks, population suffering and disease spread.

To respond to the threat of emerging zoonotic diseases WHO and its partners at national, regional and international level, has developed a global strategy that link/coordinate animal and human health systems through a process of forecasting, epidemic intelligence and coordinated response:

- Forecasting and readiness programme to mitigate disease emergence. Forecasting systems based on risk mapping, satellite images, disease climatology, disease forecasting models, vector monitoring data and animal diseases surveillance helps affected countries to prepare themselves before EID emerge in human populations and allows authorities to implement measures averting impending epidemics.
- Epidemic intelligence and verification. International timely detection and verification of EID events is based on a systematic gathering of epidemic intelligence and a rapid verification of these events. Surveillance and early detection of EID rely on competent national and regional surveillance systems and on close collaboration and cooperation with wildlife and domestic animal health authorities.
- A coordinated response. The rapid response and outbreak control operations consider a multi-sectoral and pluri-disciplinary approach to ensure that appropriate control measures are taken and that progress in our understanding of new diseases are made to benefit global preparedness.

Today's technologies can help to better detect, manage and contain the international spread of emerging zoonotic diseases but key points remain high level governments commitment and international collaboration.

