



# Addressing Pandemic Disease Threats

Shifting the focus from emergency response to prevention at source

Summary of discussions at the Chatham House Seminar *Strengthening Collaboration between Wildlife, Livestock and Human Health Sectors*, 16-17 March 2010

# The need for a fundamental shift – From response to prevention

- To date, efforts to combat outbreaks of infectious diseases at the human/animal interface have tended to centre on the human health sector
  - Detection in humans, tracing back to source, attempt elimination in human and animal populations
- Focus is increasingly shifting towards prevention
  - Attempts to better understand the dynamics of infectious diseases in *animals* and to attempt to identify those infections that pose potential risks to humans
  - One Health approach – coordination between human, livestock and wildlife health sectors
- An effective One Health approach requires shifting the focus even further upstream, to addressing the **underlying factors** influencing disease emergence and spread, but that may not traditionally be seen as related to animal and human health.
- These factors are changing the **frequency, geographical range & manner** of interactions between animals and humans.
  - Human-induced changes in natural landscapes, urban areas, agricultural systems
  - Global changes related to trade, migration, climate change

# Examples of underlying factors shaping disease emergence and spread

- **Environmental stewardship** decisions around such issues as land use planning, watershed management, deforestation and wildlife and habitat conservation.
- **Livestock production practices**, both on the industrial and small-holding levels.
- **Trade of wild and domesticated animals** and their products.
- Urban planning
- **Incentives for disease reporting** and compliance with control efforts.
- Health education, **risk communication** and incentives to modify human behaviours that increase risk of exposure.
- **Commercial attractiveness** of developing livestock diagnostic tests, vaccines and medicines.
- **Impacts of climate change** on animal and human migration, shifts in agricultural areas, weather patterns and water quality and availability.
- For example...

Feasibility studies needed to prioritise interventions, determine funding and define roles.

- **Technical**

- Mobilise technologies for disease prevention  
e.g. **tracking & surveillance**, innovation in food systems, **pharmaceutical industry, mapping & planning**
- Address issues around access to information and technologies
- Cross disciplinary workforce training

- **Institutional**

- **Solidify alliances** forged during recent emergencies
- Develop new modes of **inter-sectoral cooperation**
- Assign roles and responsibilities
- **Greater engagement of additional sectors and actors**  
e.g. land-use planning, watershed management, climate change adaptation, social sciences, Ministries of Finance, Planning & Foreign Affairs, private sector, media, emerging powers
- **Incentives for greater cooperation**, esp. for livestock producers

# Feasibility (cont.)

- **Financial**

- Restructure funding architecture to **direct funds at prevention**
- Establish cross-sectoral funding opportunities
- Identify funding sources and mechanisms
- Cost-effectiveness analysis

- **Political**

- Articulate **clear messages that politicians can respond to**
- **Adapt response strategies** to local, national and international contexts
- Identify and reconcile varying priorities
- Minimize negative social, economic and environmental impacts
- **Acknowledge that different sectors – and actors within them – will have different priorities**
- **Demonstrate how addressing underlying factors to shift toward prevention could benefit all sectors**

## Building political support, measuring progress

- Need to translate the long-term vision into manageable **milestones** – including a clear articulation of **costs and benefits** associated with each step in the process.
- Criteria for **measuring progress** also need to be established and responsibility for evaluation and ensuring accountability must be assigned.
- Achieving the necessary level of cooperation will require understanding and highlighting why **it is in the global, national and individual interests of all involved** – be it for economic, health-related, social or environmental reasons – to engage in prevention strategies that tackle diseases before they can cause significant harm to global security.