REGIONAL NETWORKS

ECTAD
Emergency Centre for Transboundary Animal Diseases

FAO FIAT PANIS

Information Sheet: April 2010

Credit: FAO

Laboratory training and building of regional networks

THE ISSUE

Infectious animal diseases occurring in one country may threaten neighbouring countries as a result of the movement of animals and animal products across borders. Whether it is through trade or seasonal migration, through formal or informal systems, when animals or animal products cross borders, pathogens may be transferred. Therefore, the prevention, detection and control of transboundary animal diseases (TADs) cannot be effectively achieved without coordinated regional efforts. The importance of regional coordination is even greater where there is free movement of wildlife and other vectors across borders.

The experience of the Food and Agriculture Organization of the United Nations (FAO) in combating TADs has demonstrated that regional veterinary laboratory and epidemiology networks can be an efficient and effective foundation for sustainable infectious disease management.

THE FACTS

Outbreaks of TADs, such as H5N1 Highly Pathogenic Avian Influenza (HPAI) in Asia and Africa, foot-and-mouth disease in South America and Asia, *peste des petits ruminants* in North Africa and Rift Valley fever in East Africa, all highlight the need for coordinated regional actions. The elimination of rinderpest and confirmation of disease free status for Africa was due largely to strong laboratory networks.

FAO and its partner organizations contribute to animal health, food security and economic growth through timely information sharing. Detecting disease emergence and tracking potentially dangerous genetic changes of pathogens is an extremely useful tool for epidemiologists and decision-makers. After the recent establishment of the West and Central African Laboratory Network, RESOLAB, the time between observation, confirmation, and subsequent reporting of H5N1 HPAI outbreaks from Niger, Nigeria and Cameroon to the World Organisation for Animal Health decreased from an average of thirty days in 2006 to only two days in 2008.

The successful establishment, consolidation and ongoing maintenance of regional networks are intrinsically linked to their recognition and support by national governments and regional economic organizations. In many cases, FAO, through its Technical Cooperation Programmes, has been the initiator of important networks, becoming a catalyst and facilitator in the medium term and a technical back up in the long term, helping develop the sense of ownership needed at local, national and regional levels.

CHALLENGES AND GAPS


Credit: FAO

The major challenge for effective regional networks is to ensure the free exchange of high quality information and specimens at all levels. For epidemiology networks, building capacities for data collection, analysis and decision-making is an ongoing challenge. For laboratory networks, FAO recognises the need for continuous training and supply of technical staff for:

- updating personnel on laboratory diagnostic techniques;
- developing regional technical collaboration;
- periodic maintenance and calibration of equipment and instruments;
- ensuring a regular supply of reagents; and
- quality assurance and diagnostic proficiency testing.

An important challenge where epidemiology and laboratory networks co-exist is to build bridges between these two essential networks so that data can be shared and analysed, providing decision-makers with the most reliable and timely information.

- Implementation of FAO projects in relation to regional networks is helping to answer some critical questions:
- Does upgrading the diagnostic capacity of national veterinary laboratories result in more rapid detection of diseases? Does it result in increased confidence in laboratory diagnosis?
- Can regional networks enhance collaboration between national laboratories and health agencies for better disease detection and reporting?
- What are the lessons learned for establishing effective regional networks?

FAO'S POSITION

Regional epidemiology and laboratory networks represent ideal mechanisms to foster regional leadership, develop centres of expertise, enhance disease diagnostic performance and provide decision-makers with timely and reliable information.

Building epidemiology and laboratory networks are a strategic imperative for the efficient and effective management of animal diseases. Combining these networks with public health, socio-economic, wildlife conservation or communication networks greatly increases the usefulness of these systems for decision-makers at all levels of health or animal production programmes.

A proactive approach to developing strong networks is underpinned by four core principles:

- Networks are processes, not products.
- The free exchange of thought, ideas and opinions is vital to nurture networks.
- Networks require active participation based on mutual respect and trust.
- Countries need to invest in their own regional networks to make them sustainable.

RECOMMENDATIONS

- It is critical to take a long-term view of regional coordination and networks, adopt multidisciplinary approaches and forge 'win-win' partnerships with relevant stakeholders, in order to ensure a high return on investment.
- The development of interpersonal relationships and interactions among practitioners facilitates open sharing of experiences, opinions and data. The resulting dialogue and collaboration among national veterinary services and laboratories leads to better prevention, detection and control of diseases.
- National governments must realise that their sense of ownership and provision of moral, financial and logistical support are crucial for ensuring the establishment and sustainability of regional networks.

References and Resources:

- *EMPRES Bulletin No. 34, pages 14-18: ftp://ftp.fao.org/docrep/fao/012/i1215e/i1215e00.pdf*
- *ECTAD Regional Animal Health Centres: www.fao.org/ag/againfo/programmes/en/empres/rahc.html*

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