BUILDING VETERINARY LABORATORY DIAGNOSTIC CAPACITY IN AFRICA: THE VETLAB NETWORK

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TRANSBOUNDARY ANIMAL DISEASES and those animal diseases that affect human health have a strong impact on public health, community livelihoods, and trade.

They also pose a major challenge to the value chain of food of animal origin, causing serious production losses and food safety problems.

Additionally, the globalization of trade with increased movement of people facilitates the rapid spread of infectious diseases across countries and between continents.

The early and rapid diagnosis and progressive control and eventually eradication of these diseases require concerted interdisciplinary actions at national and international levels.

In this context, the veterinary diagnostic laboratory network (VETLAB Network) offers a unique opportunity for countries facing similar challenges to work together and better coordinate activities, including training, information dissemination, expertise and experience exchange, and the design of common disease control strategies.

The VETLAB network carries out research and development, training and activities in support of member countries.

VETLAB NETWORK *features*

32 AFRICAN AND 17 ASIAN NATIONAL ANIMAL DISEASE DIAGNOSTIC LABORATORIES SHARING EXPERIENCES AND INFORMATION

SUPPORTING HARMONIZATION OF REGIONAL APPROACHES FOR EARLY, RAPID AND CONFIRMATORY DETECTION OF TRANSBOUNDARY ANIMAL AND ZOONOTIC DISEASES

WHAT VETLAB NETWORK DOES

The VETLAB network was initially developed and supported by the Joint FAO/IAEA Division of Nuclear Techniques in Food and Agriculture in close cooperation with FAO's Animal Production and Health Division to support the global rinderpest eradication campaign through the development, evaluation, validation, and transfer of selected diagnostic technologies.
Rinderpest has been a dreaded cattle disease for millennia, causing massive losses to livestock and wildlife on three continents.

The formation of the laboratory network in Africa was essential to rinderpest eradication and outbreak management campaigns and this network continues today for the prevention, control and eradication of transboundary animal and zoonotic diseases.


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The VETLAB network is also a forum to introduce and apply Quality Assurance systems to ensure international acceptance of test results.
In addition, the VETLAB Network improves regional and national laboratory diagnostic capacity; supports coordination and harmonization of regional approaches for early and efficient detection and readiness to disease alerts during disease surveillance; enhances regional capacity and cross boundary collaborations to enable more effective responses to transboundary animal and zoonotic diseases; builds trust through enhanced transparency

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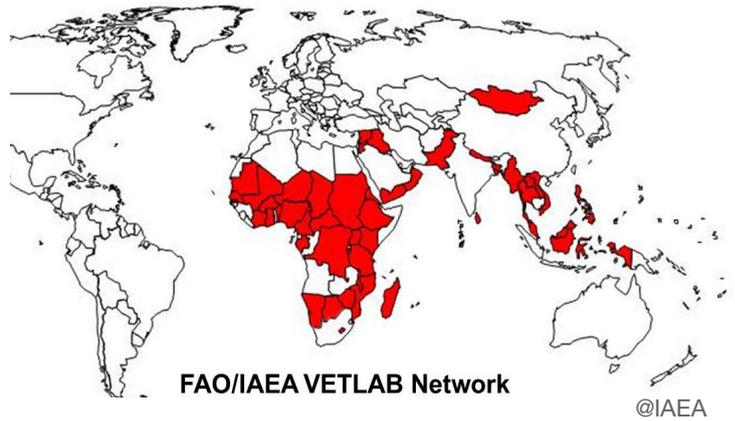
› **VETLAB NETWORK**
features

IMPROVING REGIONAL AND NATIONAL LABORATORY DIAGNOSTIC CAPACITY

PROVIDING TECHNICAL ADVICE, TRAINING ON SEROLOGICAL AND MOLECULAR TECHNIQUES FOR DISEASE DIAGNOSIS AND A QUALITY ASSURANCE PROGRAMME ON THE DIAGNOSIS OF MAJOR DISEASES

PROMOTING CONSISTENCY AND RIGOR IN METHODOLOGY

LABORATORY ACCREDITATION; COUNTRY-TO-COUNTRY TECHNICAL SUPPORT; PROFICIENCY TESTING EXERCISES

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FAO/IAEA VETLAB Network

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and mutual confidence in support of EMPRES-i disease information; facilitates a dynamic approach for interaction between countries and enhances information sharing between national veterinary laboratories in the region.

SUPPORTING VETERINARY DISEASE DIAGNOSTICS IN AFRICA

The sub-Saharan African branch of the VETLAB Network is composed of 32 African countries with four leading institutes providing regional support. The leading institutes are in Cote d'Ivoire (West Africa), Cameroon (Central Africa), Ethiopia (East Africa) and Botswana (Southern Africa).

Through FAO and IAEA support, several laboratories in Africa have strengthened their diagnostic capacity, upgraded their facilities, become more technically sound and improved test reliability.

A striking example of this is the National Veterinary Institute in Ethiopia, which received ISO 17025 accreditation in 2014, an international standard certifying that the laboratory is technically competent and able to produce accurate tests.
This is also shown by the National Animal Health Diagnostic and Investigation Centre in Ethiopia, which has increased the number of accredited assays during the last two years.

Furthermore, the Botswana National Veterinary Laboratory and the Cameroun Laboratoire National Vétérinaire have proven their capacity to contribute as centres of excellence. In fact, they have organized and hosted

training courses on disease diagnosis funded by both FAO and IAEA.

In Botswana, the laboratory is currently providing external quality assessment for contagious bovine pleuropneumonia to Southern African Development Community (SADC) countries while the laboratory in Cameroon is providing diagnostic services for African swine fever to Chad. Both are excellent examples of country-to-country support.

As a result of the improved capacity attained through the help of the Joint FAO/IAEA Division and collaboration with national and international laboratories, the laboratory in Botswana was granted the status of a World Organisation for Animal Health (OIE) reference laboratory for contagious bovine pleuropneumonia in May 2012.

The joint FAO/IAEA Animal Production and Health Laboratory runs annual proficiency tests with laboratories affiliated to the VETLAB Network on foot and mouth disease (FMD) and *peste des petit ruminants* (PPR) and will add further relevant diseases to these exercises in the near future. Participation in these proficiency testing exercises gives confidence to the successful laboratories – and alerts and highlights shortcomings to the less successful ones.

The VETLAB Network will continue supporting collaboration and harmonization between the veterinary laboratories in Africa, aiming to increase the overall laboratory proficiency, performance and preparedness to respond to animal and zoonotic disease challenges.

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