The successful control of epidemics - whether they are diseases of humans or animals - depends on rapid access to complete information on the national disease situation. People and goods now travel long distances in a very short time, thus creating enormous challenges that demand efficiency and speed of response on the part of both public health and veterinary authorities. To ensure a timely response, diseases must be immediately notified in a transparent manner.

It is under the mandates of the two global organisations responsible for the dissemination of disease information, i.e. the World Health Organization (WHO) for diseases of humans and the World Organisation for Animal Health (OIE) for animal diseases, including zoonoses (animal diseases transmissible to humans).

For OIE Member Countries, the rapid exchange of information about animal diseases was the key objective in the establishment of the organisation in 1924, while on the public health side, in 2005 the WHO States Parties updated and adopted a set of new rules dealing with the quick reporting of infectious diseases - the International Health Regulations (IHR 2005) - to face the new challenges posed by the exponential increase in travel and freight, and as a result of experiences such as the SARS epidemic.

In making a comparison of the effectiveness of the systems for the notification of transboundary diseases in animals and humans, the different contexts must be borne in mind.

People usually move freely and without health related restrictions from one place to another, while the transport of live animals and animal products is closely regulated - this does not mean that these rules are always respected. Moreover while people normally travel and cross international frontiers via controlled entry points it is not possible to control the movement of wild animals which can be carriers of highly contagious pathogens.

The notification of diseases may have a negative impact on the economic performance of a country (e.g. by causing loss of export markets or discouraging tourism). However, new information technologies and practices make it difficult for governments to hide occurrences of serious notifiable diseases. A country’s credibility must be based on timely and accurate notification of diseases, and this also gives the respective government a much better position to contain a disease, as compared with the situation where it first has to defend a failure to comply with international obligations. Regaining credibility in the face of public knowledge of failure to meet international rules is a costly and time-consuming exercise and can be of the highest political risk for policy-makers.
WHO NOTIFICATION SYSTEM

As early as the 19th century and during the 20th century, international health conferences were held and conventions signed on the notification of human diseases such as cholera, plague and yellow fever.

In 1946 the WHO Constitution established responsibilities for the organisation in connection with combating infectious diseases, but obligations regarding information of the States Parties were limited to the transmission of important documents already published in the respective Member State to the WHO. Later, in 1951, the International Health Regulations (IHR) were adopted to provide an international legal framework to prevent and control the cross-border spread of communicable diseases. In 1995, Member States asked for a major change to the IHR as the regulations had become obsolete and were not coping with new challenges. New IHR were adopted in 2005, when WHO States Parties established (in Articles 6 to 11) an improved system for notification of communicable diseases. These regulations have been in force since June 2007.

Article 6 requires that States Parties report to the WHO within 24 hours all incidents that could be of international concern for public health emergencies using the fastest available means of communication via national IHR focal points. Subsequently, further detailed information should be sent promptly.

In accordance with Articles 9 and 10, the WHO can use other sources of information about diseases in Member States. In this case the WHO is supposed to inform the respective State Party about these unofficial reports and try to obtain confirmation by the State Party before taking measures on the basis of this information. After this, information can be disseminated to all States Parties. Only in exceptional cases the source of information can be kept confidential.

In the situation where there is a threat of serious public health risks of international importance arising from non-cooperating countries, the WHO can disseminate information to other States Parties (Art. 10 para 4).

Article 11 obliges the WHO to send all necessary information, confidentially and as quickly as possible, to the States Parties. For certain documents, there are additional conditions. The WHO is required to obtain information about an affected country in consultation with the latter. If other information about the same event already became public and there is a need for dissemination of authoritative information, the WHO may also make this information accessible to the general public.
The circumstances of the establishment of the OIE highlight the importance to the founding countries of timeliness and transparency in sharing information on the international disease situation. In 1920, a shipment of Zebu cattle from India to Brazil transited the port of Antwerp. The cattle were carriers of one of the deadliest diseases of livestock, rinderpest, which caused a devastating disease outbreak in Belgium. Notably, rinderpest is now almost eradicated from the globe.

In 1924 the Secretary General of the League of Nations, the forerunner of the United Nations between the world wars, initiated the creation of the Office International des Epizooties (OIE) in Paris. At this time, 28 countries established obligations – laid out in the founding documents - for reporting and sharing information on animal diseases for the founding states and all members joining subsequently. The OIE now numbers 175 Members. Of note, from the beginning both the Organisation and the Member Countries have unconditional duties to disclose all relevant information about animal diseases. These obligations are set out in the OIE Organic Statutes, signed and ratified by the founding Member Countries, and are therefore a basic element of the organisation. The Organic Statutes can be changed only by the unanimous decision of its current Members.

The Member Countries have identified three key tasks for the OIE to meet the goals of the Organisation; one of these concerns the collection of all facts and documents about the spread of diseases, their control measures and their notification to the government or veterinary authorities (Article 4).

Articles 37 and 38 of the General Rules of the OIE (established in 1973) give practical expression to the monthly reporting obligations contained in Article 10 of the Organic Statutes. The collection and publication of all facts and documents about diseases takes priority over all the other objectives of the OIE. The OIE is obliged to make immediate reports to the Governments on emerging diseases and other significant epidemiologic events. Additionally, the OIE has the obligation to publish and to disseminate periodic reports on the global animal disease situation to all Member Countries.

Nowadays, the transmission of information by new communication technologies is more advanced and provides for Members real-time notifications to the OIE. Members must report the occurrence of animal diseases listed by the OIE, the emergence of new diseases and significant epidemiologic events within 24 hours of the event. The OIE’s capacity to relay information about the global animal disease situation has been significantly accelerated and improved, through the implementation of the World Animal Health Information System (WAHIS). The WAHIS allows all Members to be on line electronically with a server located in OIE Headquarters. The OIE has taken steps, in recent years, to improve disease notification in both domestic and wild animals through increased surveillance and through information collected from Members, including data on family and species of wild animals.
Direct contact between the OIE and the Delegates of the Members, who usually are the Chief Veterinary Officers, is an important prerequisite for the rapid transmission of information; therefore OIE communications with its Member Countries are not limited to the contacts through diplomatic channels (Article 2 of the OIE Organic Statutes). The two Animal Health Codes published by the OIE (for aquatic and terrestrial animals) stipulate in their international standards that this is an official form of communication between the OIE and its Member Countries. Chapters 1.1 in the respective codes define notification procedures.

In Article 9 of the Organic Statutes, the OIE is required to inform its Member Countries automatically, or upon demand, on any information collected by the OIE, via bulletin or special notification. In urgent situations this information must be provided immediately.

The withholding of facts on the incidence of diseases by the OIE – for whatever reasons – would constitute a violation of its Organic Statutes.

The list of notifiable diseases is regularly revised by experts and updates approved at the annual General Assembly, based on formal adoption by governments (Article 5). The list of notifiable diseases in 2009 includes 118 terrestrial and aquatic animal diseases. Members are also obliged to inform the OIE about the measures used for disease control. This is particularly important in relation to international frontiers, in order to protect against the entry of diseases via imports from other countries. The Members are required under the Organic Statutes to provide on demand as much information as possible to the OIE (Art. 5).

The withholding of information on a disease situation from the OIE by an OIE Member would also amount - regardless of the grounds – to a violation of the OIE Organic Statutes. The ratification of membership of the OIE gives Members obligations to provide information to the OIE that are international legally binding obligations.

Against this background it is evident that the disease notification systems of both organisations - WHO and OIE - are based on legally binding instruments.

Without a prior amendment to the Organic Statutes - the “OIE constitution” - by all Member Countries, any decision of a General Assembly must be interpreted to comply with the above principles.
The General Assembly Decision of 2004 determined that OIE reference laboratories must immediately communicate positive findings of a reportable disease to the OIE and to the veterinary authority of the respective Member Country. Prior to publishing these results and if the biological sample is provided by a country other than that in which the reference laboratory is located, the OIE needs the agreement by the Delegate of the respective Member Country, and a precise identification of the origin of the sample (Res XXVIII, No. 2, 27 May 2004). This requirement for confirmation is sensible as it prevents a premature or erroneous report from a laboratory, which could have serious economic repercussions. If the source of the information cannot be validated, further investigations by the concerned national veterinary authorities are indicated. The fear that a Delegate could prevent the elucidation of a disease situation in his/her country by refusing or delaying information is not justified.

A Delegate who does not share information about the possible occurrence of a disease (which is inconsistent with the OIE Delegate’s obligations under Article 5 of the Organic Statutes) has no grounds for objection if the OIE informs other Members in accordance with Articles 4 and 9 of the Organic Statutes.

While WAHIS relies on official information provided by the OIE Delegate, the OIE may also report unofficial (but reliable) information of global health concern. Such action has been taken on several occasions.

The reporting of positive results from OIE reference laboratories is a delicate matter because of the relationship between the laboratory and their clients which is sometimes based upon private law. Coordinates of a sender cannot be transmitted without permission of the client to third parties such as the OIE, or national veterinary authorities unless national law compels the laboratory to do so.
DATA FROM NOTIFICATION SYSTEMS AND PUBLIC AWARENESS

Incidents of international concern for public health emergencies may have a major political and economical impact on societies and on the public in large, especially in a world more oriented to a culture of fear and general sentiment than logic. In contrast, animal disease events (excluding those of zoonotic nature that may have a significant impact on public health) do not generally raise such concerns at the international level. Even the worst animal disease (excluding zoonoses), such as a foot and mouth disease occurrence in a disease-free country, can seriously affect the economy of that country and has a very bad effect on the local population.

This is not limited to farmers, but can also affect the general public, where human movements are controlled and disease management measures shock the general public and affect tourism. However, animal diseases that are not zoonoses normally do not have the same impact on international public opinion as an outbreak of a highly contagious and potentially fatal human disease.

Against this background, the use of notification systems calls for responsibility by political leaders and the media to use the data from these systems to raise awareness and not create panic.
CAPACITY-BUILDING EFFORTS

Given that the notification systems of the WHO and the OIE both have the necessary instruments and legally binding obligations for a fast and efficient distribution of information globally on human and animal diseases, the priority is to focus common efforts on the strengthening of governmental public health and veterinary services, especially in the more than 120 Member countries that are developing countries and countries in transition.

The best systems are only as strong as their weakest components and the timely notification of a disease is dependent on the ability of countries to detect diseases at an early stage. There are many remote areas in the world that are ‘hotspots’ for disease outbreaks, where public health and veterinary services are weak or inexistent. In those parts of the world WHO is concentrating its work on capacity building and the OIE helps its Members via the application of the OIE PVS Tool and PVS Gap Analysis to improve their veterinary surveillance and notification systems. These are the real challenges to the successful implementation of the “One health” concept.