



Food and Agriculture Organization
of the United Nations



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THE FOOD AND AGRICULTURE ORGANIZATION AND RABIES PREVENTION AND CONTROL

WHY IS RABIES IMPORTANT AND WHAT IS THE CONNECTION BETWEEN FAO'S MANDATE AND EVERYDAY WORK WITH ANIMALS LIKE DOGS?

Rabies has a significant impact on lives and livelihoods, particularly in developing countries in Africa, Asia and Latin America. Rabies is a widespread, neglected and under-reported zoonosis which is 100% fatal in untreated humans and animals, causing a significant social and economic burden in many countries.

The poor and marginalized communities are most heavily impacted as they often cannot afford treatment or transport for care. We know that human and canine rabies cases are largely underreported, and livestock rabies severely underreported. When livestock die from rabies, households lose important food sources, as well as assets for farming and transportation. Livestock become infected with rabies most commonly through dog or wild animal bites, including bats. It is important to remember that dogs play a number of important roles in people's lives, directly linked to livelihoods and food security. Dogs are used for hunting, herding livestock and guarding property.

Communities become disrupted by the menace of rabid animals which can prevent farmers from tending their fields, traders going to markets and children from going to school.

Working to prevent and eliminate rabies contributes directly towards Sustainable Development Goal (SDG) 3, which aims to "ensure health lives and promote well-being for all ages". Within that goal, a specific target calls for ending the epidemics of neglected tropical diseases, which would include rabies.

Efforts to end rabies, which disproportionately affects poor and rural populations, also support progress towards SDG1 (end poverty in all its forms everywhere) and SDG2 (end hunger, achieve food security and improved nutrition and promote sustainable agriculture).

The Food and Agriculture Organization (FAO) is committed to rabies control, including raising awareness and contributing to the development of the Blueprint for Rabies Prevention and Control (www.rabiesblueprint.com) and the Stepwise Approach towards Rabies Elimination (SARE). FAO assists countries in the design and implementation of rabies control programmes, in addition to developing and distributing educational materials, promoting World Rabies Day and fostering operational research. FAO has joined with the World Health Organization (WHO), World Organisation for Animal Health (OIE) and the Global Alliance for Rabies Control (GARC) to form the "United Against Rabies" collaboration.



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WHAT IS THE IMPACT OF RABIES ON LIVES AND LIVELIHOODS?

Rabies is virtually 100% fatal in humans, once symptoms appear. It is estimated that 59 000 persons die of rabies each year. Most of the human cases occur in Asia and Africa and 40 percent are below the age of 15 years. A **study** led by researchers at the University of Glasgow estimated that the number of human deaths due to rabies might be even higher, establishing rabies as the most deadly of all known infectious diseases that can be transmitted by animals. The same study estimated that the economic impact of rabies is enormous at US\$8.6 billion annually, of which 6% of that is due to livestock losses. Major underreporting of rabies cases in animals and humans remains the main reason for the lack of reliable data on the number of rabies cases and their impact on communities and society as a whole.

WHAT IS THE BEST WAY TO PREVENT HUMAN RABIES AND WHAT IS ITS IMPACT ON FOOD SECURITY AND LIVELIHOODS?

Controlling rabies in animals, and especially in dogs, is the main way to prevent human cases, as well as the negative impact the disease has on food security and livelihoods. Over 99% of human rabies cases are caused by dogs infected with rabies. Controlling the disease in dogs through vaccination and dog population management remains the most cost-effective way to sustainably protect humans from rabies exposure.

When a bite from a potentially infected animal does occur, vigorous wound washing with plenty of water and soap for 15 minutes is the first line of prevention. Medical care with post-exposure prophylaxis (PEP) should also be provided immediately after the exposure to prevent rabies infection.

WHAT IS FAO DOING IN RABIES PREVENTION AND CONTROL?

FAO assists Member Countries (MC) in their efforts to prevent and control rabies including responding to outbreaks of rabies, raising awareness of the disease, as well as in support to strengthening disease surveillance and control systems and encouraging MC to work closely with other sectors (public health, wildlife, municipalities and local communities) in a One Health approach.

There are however still a number of countries that lack awareness, political will, technical capacity, resources and community involvement. FAO and partners assist MC in country to advocate for rabies control and develop community-based programmes. As with most complex issues, it is best to tackle rabies on several fronts at once:

enhancing disease surveillance and laboratory diagnostics, defining and implementing clear protocols and interventions after animal exposures, animal rabies vaccinations, dog population management as well as overall public awareness and enhancing the involvement of municipalities and communities in rabies prevention and control. Since the establishment of World Rabies Day (WRD) in 2007, FAO has actively contributed to the commemoration of this day at its headquarters and at regional, as well as national and local levels.

FAO assist countries to respond to, and control rabies outbreaks. In Bali, Indonesia, rabies was introduced for the first time ever in 2008 with approximately 500 000 unvaccinated dogs present on the island. On receiving a request

from Indonesia, FAO responded with fielding a rapid response mission within hours. Other examples include FAO assistance to Azerbaijan after increased threat of rabies following extensive flooding and dislocation of people livestock and wildlife in the country and Kenya during a rabies outbreak in Kisumu.

In supporting Bali's efforts to eliminate rabies, FAO developed, together with local authorities, the integrated bite case management (IBCM) where public health and animal health coordinate and (jointly) follow up bite cases from suspected rabid animals. This way, people can be advised to seek post-exposure prophylaxis (PEP), the suspected rabid animal and other animal contacts can be identified and cases of human exposure can be documented. During mass dog

rabies vaccination campaigns in Bali and Bangladesh, the training of so-called “A-Teams” created highly skilled dog catching and vaccination teams that were able to increase vaccination coverage especially of street dogs that can be difficult to capture and contain.

In close collaboration with GARC, FAO has elaborated and tested educational material for rabies to be used in school curricula in countries where rabies is endemic. FAO and partners have also engaged in dog population management for public health and animal welfare, as well as in country specific activities, such as supporting the Animal Health

Clubs in schools in Sierra Leone.

In the framework of the United States Agency for International Development (USAID)-funded Global Health security Agenda (GHSA) programme that is been implemented in 14 countries since 2016 in Africa, FAO has supported the following activities:

- 1) provision of laboratory reagents and equipment;
- 2) on-site trainings on **OIE gold standard diagnostic tests** including Fluorescent Antibody Test (FAT) and the newly recommended Direct Rapid Immunohistochemical Test (DRIT) test;

- 3) support to the development of National Rabies Elimination Plans (Cote d’Ivoire, Ethiopia, Ghana, Guinea, Liberia, and Senegal) using the SARE assessment and the Practical Workplan Toward Achieving Rabies Elimination tools (SARE-PWARE) with the aim to achieve the “zero by 2030” global objectives as endorsed by UAR and supported by CDC;
- 4) rabies outbreak control in Tanzania and Ethiopia; and
- 5) support to the implementation of the Kenya’s strategic plan for elimination of dog-mediated human rabies.



“FAO is instrumental in advocating the essential One Health approach to address rabies”

WHY IS RABIES A MODEL DISEASE FOR THE ONE HEALTH APPROACH?

Over the last years, FAO has been at the fore-front of using the One Health approach to address diseases in a holistic and cross-sectoral manner. Rabies is a model One Health disease based on its need to be addressed in a cross sectoral and systemic manner. If this is not done, it tends to “fall between the cracks”.

Although animal health issues are generally addressed by the veterinary services, in most countries they tend to focus on livestock related diseases without addressing diseases in dogs and wildlife. This gives rise to a dangerous gap, especially since most humans and livestock become infected with the rabies virus through dog-bites. In Latin America, the human health sector has embraced dog rabies control, employing

veterinarians, especially in urban areas, to organize and implement dog vaccination and dog sterilization campaigns. In other parts of the world it remains difficult to get veterinary services to deal with dog rabies control and dog population management.

FAO advocates the essential One Health approach to address rabies, linking closely with the veterinary services and local communities and creating capacity to address rabies in livestock, wildlife and also dogs, as well as working with their counterparts in ministries of health and the ministries that deal with wildlife. FAO and partners have developed a comprehensive rabies framework that can be used to assist countries in developing their rabies prevention and control programmes, integrating the latest know-how and developments with regard to rabies surveillance, diagnostics and control measures.

*“Together with
its partners,
FAO is ready to
assist countries in
controlling rabies”*

DEVELOPING A STEP-WISE APPROACH TOWARDS RABIES PREVENTION AND CONTROL

The step-wise approach towards rabies elimination (SARE) that FAO and partners developed stems from experience with developing the progressive control pathway (PCP) for foot-and-mouth disease (FMD). A step-wise approach assists countries to identify which stage of controlling the disease they are at and to define what next steps are needed to progressively control and ultimately eliminate the disease.

UNITED AGAINST RABIES

FAO is working with the World Health Organization (WHO), World Organisation for Animal Health (OIE) and the Global Alliance for Rabies Control (GARC) to end human deaths from dog-transmitted rabies by 2030, jointly as “United Against Rabies”. The partners have jointly launched the Zero by 30 **Global Strategic Plan** outlining a comprehensive strategy to provide global coordination that will support countries in their efforts, through three key objectives:

1) Efficiently preventing and responding to rabies by improving awareness and education, reducing rabies risk through dog vaccinations and improving access to healthcare,

medicines and vaccines for populations at risk.

- 2) Generating, innovating and measuring impact by ensuring adherence to proven effective guidelines for rabies control and encouraging the use of technologies in surveillance to monitor progress towards elimination by 2030
- 3) Sustaining commitment and resources by demonstrating the impact of activities completed as part of the United Against Rabies collaboration in national, regional and global rabies elimination programmes to ensure continued stakeholder engagement at all levels and sustained financing to reach the “Zero by 30” goal.

This effort will use the existing knowledge, tools (including SARE and others) and technology to eliminate human rabies deaths from dog-transmitted rabies by 2030. It will empower, support and catalyse countries to implement rabies elimination programmes. Together with its partners, FAO is ready to assist countries in controlling rabies and linking with funding institutions to target the elimination of dog mediated human rabies by 2030.



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