



AGRICONCONSULTING EUROPE SA

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**Regional action on animal disease eradication
in the Western Balkans (ADEWB) Project**

**Workshop on Regional Approach in Control of Transboundary Animal Diseases,
Cooperation, Communication and Coordination of activities**

COHERENT STRATEGY FOR RABIES CONTROL IN THE WESTERN BALKAN REGION

Petrovac (Montenegro) ♦ 08 and 09 July 2021

Activity description

- Define the needs for information to be requested to the beneficiary countries
- Assess the current approach in the beneficiary countries for rabies control as well as regional aspects
- Conduct on line meetings with representatives of the beneficiary countries
- Propose a coherent strategy for rabies control with emphasis on a regional approach

The proposed strategy is science-based. Existing documents published by international organisations (EC, OIE, EFSA and WHO) have been used as well as peer-reviewed scientific publications

Background : rabies in Europe

SOME KEY DATES

- **At the end of the 1970s** : First oral vaccination campaigns (ORV) in Switzerland
- **In the 1980s** : Involvement of Western European countries in ORV
- **1989** : Highest peak on rabies cases – Introduction of the first EC co-financing policy for disease eradication – First ORV initiated in Central Europe
- **From 2004** : Inclusion of 10 north and east European countries in EU - First ORV initiated in these countries
- **From 2007** : First ORV programmes in several non-EU countries (Ukraine, Belarus, Turkey, Kaliningrad, etc)
- **From 2010** : Instrument for Pre-accession Assistance (IPA) for potential accession of Western Balkans to the EU



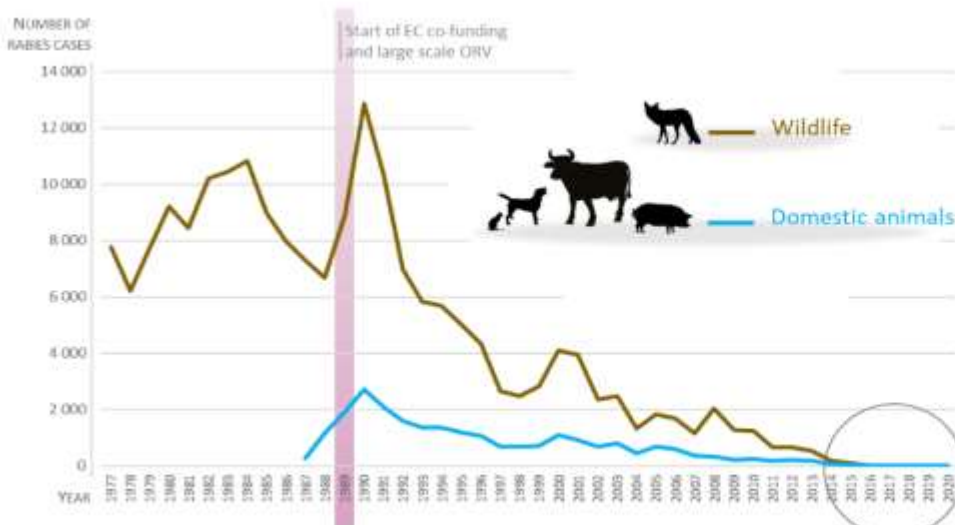
Evolution of rabies in animals in the EU

1977 – 2021

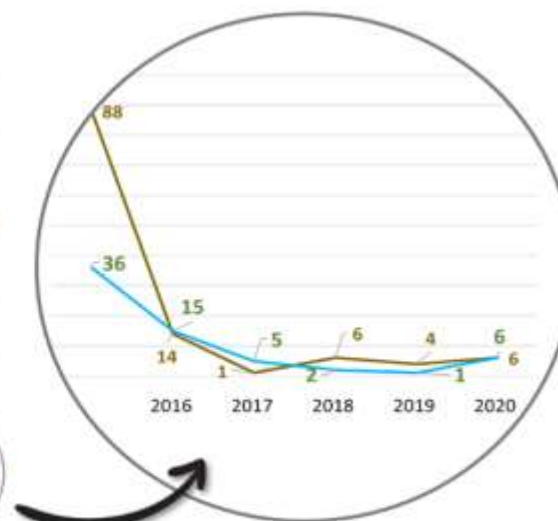
- In 2019 : 4 cases in Romania, 1 case in Poland
- In 2020 : 5 cases in Romania, 7 cases in Poland
- In 2021 (end of June) : 1 case in Romania, 29 cases in Poland

As a result :

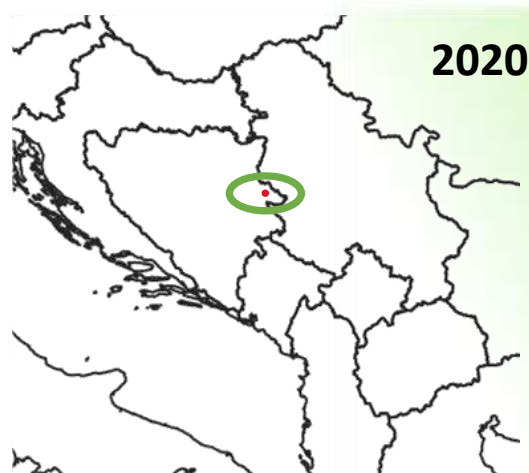
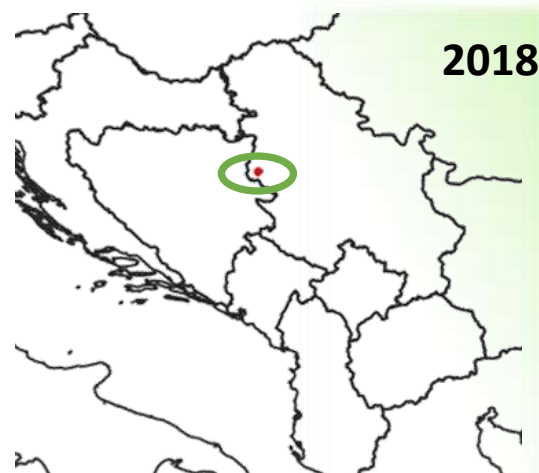
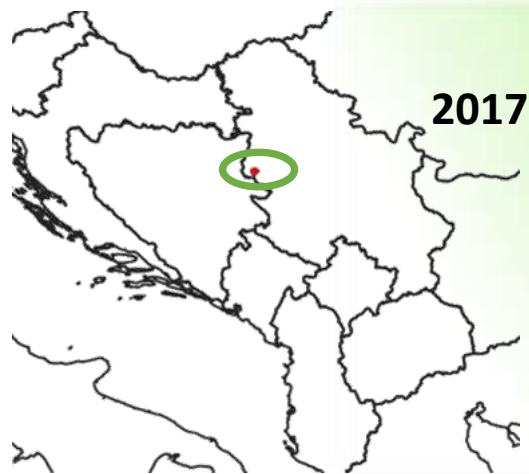
- Regular decrease of the areas vaccinated in MS
- Increase of the areas vaccinated in non-EU bordering countries



Source: Rabies Bulletin Europe and Animal Disease Notification System



Rabies cases in the Western Balkans 2016 - 2021



**No case detected
in 2019 and in
2021**

Cases

- EU bordering Countries
(no visible case at this scale)
- Western Balkans

Source : Rabies Bulletin Europe, Rabies Information System of the WHO

Background

Surveillance

- Very low level
- Lack of detailed data
- Lack of epidemiological expertise

Data reporting

- No data sharing within the region
- Poor dissemination to international bodies

Vaccination monitoring

- Globally insufficient (sampling below the recommended size, uneven location)
- Lack of epidemiological expertise

ORV campaigns



- Conducted in case IPA funds available; no coordination in the region (within 10 years, campaigns done together two times only)
- Lack of sharing of information (seems limited to GF TADs meetings)
- Mountain areas should be vaccinated (> 2000m)
- No emergency vaccination procedure in case of resurgence of the disease

Background



FINDINGS SUGGEST

- A neglected priority given to rabies (whereas EC through annual funding ranks rabies as a high priority)
- Rabies is not under good control in the region

Strategy of rabies control and elimination

Final report of a fact-finding study of Serbia, 2021

carried out to evaluate the implementation and effectiveness of the rabies eradication programme: “The authorities reasoned that the insufficient number of samples is as a result of improving the rabies situation in the country, and thus there is a decreased number of indicator animals”.



Regional approach and collaboration with EU, key of the success

Rabies is a trans-boundary disease

Political and administrative borders are not barriers to rabies spread

- Limited geographical size of the beneficiary countries (219.000 km²)
- High number of borders
- Rabid foxes are able to move outside their territories (20-60 km/year)
- Countries are all close to rabies elimination

A regional approach means that all countries must have harmonized principles and methods for the surveillance and elimination of rabies

Development of a formal, long-term and sustainable collaboration supported by OIE, EC and FAO

Framework - Advocacy - Funding

Organization in each beneficiary country

- Political prioritization



- Stability in the institutional framework and chain of command agile and fluid, with all roles clearly defined and known at both national and local levels



- Nomination of a coordinator

- National Committee for Rabies Control



- Budgets from EU delegations and each country clearly secured for several years thanks to close cooperation between EU delegations and national competent authorities



Importance of coordinators and network of regional coordinators

**Each country (veterinary services)
should NOMINATE a national coordinator ^(1/2)**

- Responsible of all activities related to rabies in the country:
 - Planning, organizing and implementing VOR
 - Organizing passive surveillance
 - Organizing monitoring of vaccination
 - Organizing meetings of the National Committee for Rabies Control
 - Collecting epidemiological data
 - Evaluating control measures
- Technical authority to take decisions or to refer for decisions to be taken rapidly

Importance of coordinators and network of regional coordinators

Regional network of national coordinators (2/2)

- Building a regional network with all coordinators:
 - Exchanging regularly on surveillance data (monthly basis)
 - Exchanging immediately for any positive case
 - Organizing regular meetings (at least one every six months)
 - Organizing an annual meeting (annual assessment, discussing shortcomings, deciding possible mitigation measures, etc...)

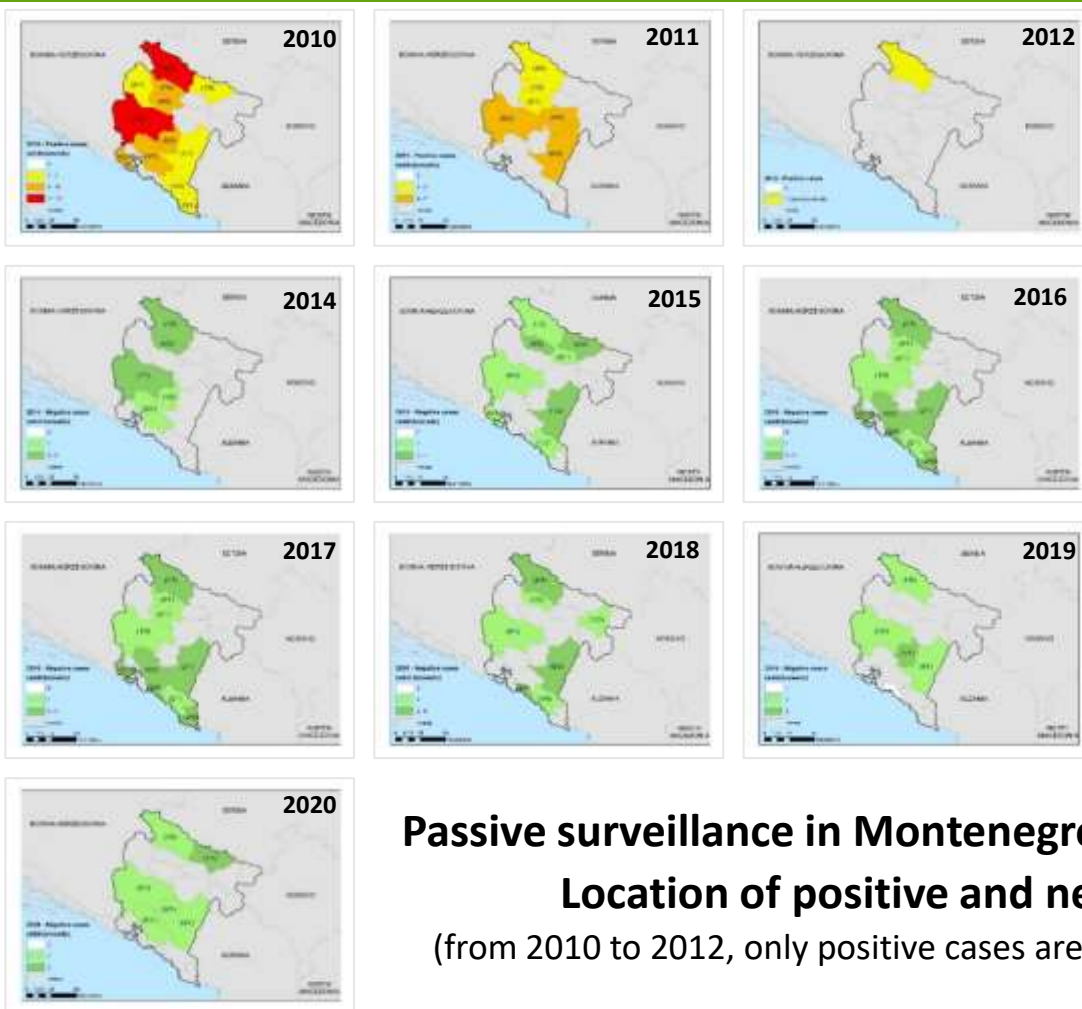


Rabies surveillance

Major improvements needed in each country

NATIONAL side	Organizing regular trainings of all national and local professionals (stakeholders, hunter associations and veterinary inspectors) on passive surveillance.
	Organizing regular awareness campaigns for the general public focusing particularly on rabies surveillance by using different means available (written press, radio, Internet, posters, etc...).
	Organizing the collection of animals found dead in the field to the laboratory; in particular, arranging with road authorities the collection of road-killed animals throughout all the country.
	Identifying clearly the samples collected in the field , as well as the type of sampling: passive surveillance <i>versus</i> monitoring.
	Increasing collaboration with the EURL for rabies (for support for typing for example, trainings, etc...).
REGIONAL side	Evaluating the programme on a very regular basis.
	Organizing regular meetings (at least one every six months) within the network to exchange data and to share experiences. These meetings could be chaired by different countries on a rotational basis.
	Organizing awareness campaigns for all stakeholders of the control programme.
	Exchanging on a monthly basis surveillance data among the WeB network.
	Demonstrating the activities, discussing shortcomings and agreeing on mitigation measures during an annual Coordination meeting.

Rabies cases in the Western Balkans 2016 - 2020



- Clear and rapid assessment that every part of the country has been covered by passive surveillance.
- Easy detection of possible gaps.
- Trend analysis of surveillance pressure along years.

**Passive surveillance in Montenegro from 2010 to 2020:
Location of positive and negative cases**
(from 2010 to 2012, only positive cases are known; no data in 2013)

Oral rabies vaccination programmes ^(1/2)

**Proposal to conduct 4 consecutive years of ORV
in each country, with two vaccinations per year**

Prerequisite

**Absolute need to
improve the passive surveillance in all the region**

- This 4-year period is short, as it includes a 2-year period after the last case is recorded
- Objective to eliminate rapidly the infection and to maintain a sufficient vaccination coverage of fox population (around 70%) until rabies elimination is achieved

Oral rabies vaccination programmes ^(2/2)

NATIONAL side	Planning ORV within all the countries for a 4 consecutive year period.
	Preparing with the EU delegations the administrative dossiers to ensure annual dedicated budget and secures annual national budget and preparing the public tendering procedure (vaccines planned for the current vaccination and emergency stock).
	Supporting the field activities (ORV) by regular visits of the coordinator during each campaign, with different places at each campaign.
	Harmonizing the technical parameters of ORV for all the region (2 vaccinations per year, bait density, flight lines, manual distribution, etc...).
	Vaccinating in all areas, including at high altitudes (until 2500 m) and close to the borders.
	Assessing the quality of bait distribution according to established standards and preparing ORV report.
REGIONAL side	Exchanging through the coordinator' network the dates of the ORV campaigns, sharing this information with the EU bordering countries.
	Vaccination along the borders: <ul style="list-style-type: none"> ▪ Increasing of the bait density (25 baits/km²) in a ≥10 km depth ▪ If possible, synchronisation of the ORV at both sides of the borders <p>If possible, overlapping of the vaccinated areas by crossing the borders (on a ≈10 km depth or even less.</p>
	Sharing of ORV reports among the WeB network after each campaign from each country.
	Establishing bilateral collaborations with the neighboring countries (including Member States).

Rabies outbreak management

Emergency vaccination

NATIONAL side	Defining a protection zone around the positive case , i.e. a zone where the passive surveillance will be reinforced immediately and for a long time.
	Conducting an awareness of the public in the zone to report any found dead or suspect animal to the veterinary services.
	Conducting investigations in the delimited zone to collect any found dead or suspect animal.
	Performing immediate ORV campaigns (thanks to the emergency stock available) within a radius of at least 50 km around the outbreak with a minimum of 5000km ² and possibly additional short interval baiting.
REGIONAL side	Communicating to all rabies coordinators of the region the positive case as well as investigations around the case.
	Coordinating activities (ORV) with the bordering country(ies) in case of an outbreak close to border(s).

“In case of re-emergence of rabies in an area where rabies has been previously eliminated, vaccination should be implemented immediately, whatever the period of the year, except under extreme climatic conditions which would severely hinder bait and vaccine stability. An emergency vaccination area with a radius of at least 50 km around the outbreak should be established” (EFSA and EC).

Vaccination monitoring

NATIONAL side	Reminding the hunters (by the coordinator) some technical points linked to the monitoring (proper identification of the samples, number of samples to get and location, etc...).
	Organizing the safe transport of fox/jackal carcasses to the laboratory within the whole territory.
	Evaluating each campaign (rabies incidence in mammals, bait uptake and immune status in the target species) by the epidemiologist.
REGIONAL side	Reporting monitoring data 6 months after each campaign from each country, shared among the WeB network (detailing bait uptake and immunisation rates in the different regions, as well as a map with the geographical location of the samples collected).

	AL	BiH	KO ¹	MN	MKD	SR
Estimated sample size recommended	1150	2048	435	552	1028	3534

1 - This designation is without prejudice to positions on status and is in line with UNSCR 1244 and the ICJ Opinion on the Kosovo Declaration of Independence.

Other major recommendations

National Reference Laboratory	Creating a network with all National Reference Laboratories of the region.
	Typing rapidly any positive sample to possibly investigate the origin of the infection.
Reporting of data to international organizations	Reporting to existing international databases surveillance data (rabies diagnosis results (positive and negative cases).
Public awareness and trainings	Organizing awareness campaigns for the general public before each ORV.
	Organizing awareness campaigns for the general public in case of rabies outbreak.
	Organizing annual awareness campaigns for all stakeholders.
Vaccination of pets	Organizing effective vaccination of pets and accessible dogs as well as identification.
Stray dog management	Adopting measures to reduce the risk of human bites (awareness).
	Organizing vaccination of accessible stray dogs.
	Improving responsible ownership notion.

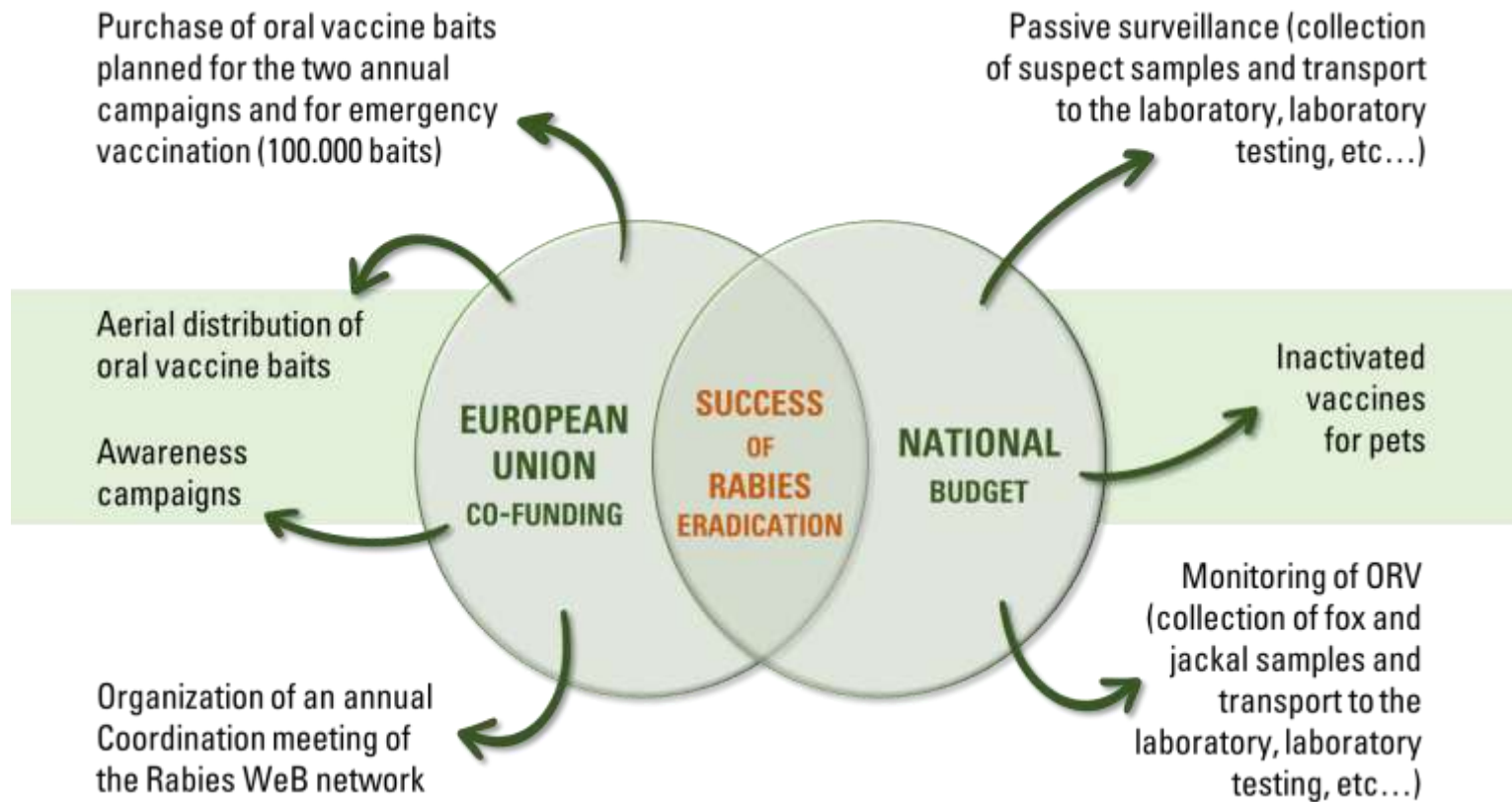
The general public should be the first key element of passive surveillance, as the discovery of found dead, road kills and suspect animals in made by people

If no change in rabies control in the Western Balkans

Or if the proposed strategy is followed only by few countries

	CONSEQUENCES	REPERCUSSIONS
NATIONAL and REGIONAL sides	<ul style="list-style-type: none"> Continuation of the disorganized ORV programmes in all countries over a long period. If no regular vaccination campaign twice a year, this first point could even be indefinite. Constant risk of rabies re-infection. 	<ul style="list-style-type: none"> This does not make sense, Expensive, Low efficacy, Long lasting “strategy”.
	<ul style="list-style-type: none"> Continuation of isolation of biting animals and suspect animals according to the legislation on suspect animals. Continuation of mandatory vaccination of pets. 	<ul style="list-style-type: none"> Very expensive. One or two cases might be detected, like the one of Srebrenica in 2020. Or no case could be detected as a result of too poor surveillance.
	<ul style="list-style-type: none"> Increased risk for human exposure. Contaminated people to be submitted to a post-exposure treatment. 	<ul style="list-style-type: none"> Very expensive. Highly cumbersome for people.
EU bordering countries	<ul style="list-style-type: none"> EU neighbouring countries will have to pursue a buffer zone vaccination for an extended period. 	<ul style="list-style-type: none"> Expensive,
	<ul style="list-style-type: none"> More generally, the heavy legislation on rabies will have to continue to be applied. 	<ul style="list-style-type: none"> Risk of rabies resurgence, Constraining.

Funding of EU and national budget





Conclusion



- Rabies is under control in all EU countries involved in oral vaccination programmes co-funded by the EC. Regional situation in the Balkans has improved thanks to ORV since years 2010
- Western Balkans started very rapidly using ORV in the 2010s. ORV is not sufficient to guarantee the free status of a country. Efforts for surveillance are absolutely required in the final phase for effectively eliminating the last foci
- Giving to rabies control and surveillance a political priority and securing long term funding is crucial to achieve sustainable rabies elimination

At a crucial moment close to elimination, time is now to promptly improve rabies control and surveillance all together

Literature



**THANK YOU FOR
YOUR ATTENTION**