

#### UNITED AGAINST RABIES:

#### ONE HEALTH IN ACTION —PARTNERING FOR SUCCESS

**One-Health - Rabies Webinar 26 February 2021** Bernadette ABELA-RIDDER





# Not only beating rabies but contributing to sustainable development and strengthened health systems



# Rabies Elimination is a worthwhile investment

# 01

Elimination saves lives.

#### 02

Elimination investment averts treatment costs and is cost-effective over time. Elimination strengthens government health and surveillance systems.

03



https://www.who.int/rabies/resources/9789241513838/en/





Food and Agriculture Organization of the **United Nations** 

Oie WORLD ORGANISATION FOR ANIMAL HEALTH



#### United Against Rabies: One Health in Action, Partnering for Success

A global virtual event announcing the new United Against Rabies Forum, with high level speakers including ministers, experts and activists from around the world. First shown 22 September 2020, moderated by Patricia Amira.



English



Français

HIGHLIGHTS



Español



Highlights



Dr Tedros Adhanom Ghebreyesus Director-General, WHO



Dr Qu Dongyu Director-General, FAO



**Dr Monique Eloit** Director-General, OIE

Contact r.tidman@oie.int



A practical reference for implementation of the One Health Approach and managing zoonotic risks



https://extranet.who.int/sph/one-health-operations



### No Surveillance = No programme

Surveillance of preventable disease: a health check for health systems



"knowledge of usual allows detection of the unusual"



#### Expert Report on Rabies 2018 https://www.who.int/rabies/resources/who\_trs\_1012/en/

#### Rabies vaccines: WHO position paper – April 2018

https://www.who.int/rabies/resources/who\_wer9316/en/







https://www.who.int/publications/i/item/9789241515153

Continuous systematic collection, analysis, interpretation, and timely dissemination of information on health <u>events</u>

- to demonstrate the presence and distribution of disease in humans and animals
- to aid in control efforts through situational awareness,
- to document absence of disease

Linking human and animal surveillance

- Human case definitions
- Animal case definitions



# Programme planning and targeting high risk

#### areas

- Knowing the extent of the problem and where
- Breaking the transmission in high risk communities and corridors
- Forecasting of vaccine needs (animal and human)
- Monitoring and evaluation of interventions & their impact



## Rabies as a One Health Model

#### PREDICTIONS FROM 2020-2035 IN 67 GAVI COUNTRIES



- Under status quo >1 million deaths in 67 endemic countries from 2020-2035
- PEP + dog vaccination can prevent <u>800,000 deaths & eliminate the disease</u>
- Surveillance to guide elimination can reduce PEP costs by a further 70%
- Gavi support for rabies vaccines is scheduled to start in 2021







#### **Rabies INDICATORS**

• in humans and animals

### Human Case Definition and Surveillance Activity

	Human Case Definition	Surveillance Activity
Suspect Case	<ul> <li>A subject presenting with</li> <li>an acute neurological syndrome (i.e. encephalitis)</li> <li>dominated by forms of hyperactivity (i.e. furious rabies) OR paralytic syndromes (i.e. paralytic rabies)</li> <li>progressing towards coma and death, usually by cardiac or respiratory failure, typically within 7–10 days after the first sign, if no intensive care is instituted.</li> <li>This may include any of the following signs: <ul> <li>aerophobia</li> <li>Hydrophobia</li> <li>paraesthesia or localized pain</li> <li>Dysphagia</li> <li>localized weakness</li> <li>nausea or vomiting.</li> </ul> </li> </ul>	<ul> <li>Notify appropriate local authorities as indicated by national protocols</li> <li>Collect appropriate samples from patient according to national protocols</li> <li>Conduct verbal autopsy to collect case history on patient for further characterization</li> </ul>
Probable Case	A suspected case plus a reliable history of contact with a suspected, probable or confirmed rabid animal	<ul> <li>Identify additional contacts of patient and/or animal involved in patient's exposure for follow-up</li> <li>Notify appropriate authorities of probable human rabies cases as indicated by national protocols 13</li> </ul>

## Human Case Definition and Surveillance Activity (2)

Confirmed Case	A suspect or probable case that is laboratory- confirmed.*	<ul> <li>Systematically record laboratory diagnostic results and link with verbal autopsy information</li> <li>Notify appropriate authorities of confirmed human rabies cases as indicated by national protocols</li> </ul>
Not a Case	A suspect or probable case that is ruled-out by laboratory confirmation. OR No known or suspected animal contact in the past six months	<ul> <li>Systematically record laboratory diagnostic results and link with verbal autopsy information</li> <li>Notify appropriate authorities investigating case</li> </ul>

## Animal Case Definition and Surveillance Activity

	Animal Case Definition	Surveillance Activity
Suspect Case	<ul> <li>A case that is compatible with a clinical case definition of animal rabies.</li> <li>Animal case definition: An animal that presents with any of the following signs[12]</li> <li>Hypersalivation</li> <li>Paralysis</li> <li>Lethargy</li> <li>Unprovoked abnormal aggression (e.g. biting 2 or more people or animals, and/or inanimate objects)</li> <li>Abnormal vocalization</li> <li>Diurnal activity of nocturnal species</li> </ul>	<ul> <li>Notify appropriate local authorities of suspect rabid animal</li> <li>Collect primary animal history if available (i.e. ownership status, vaccination status, prior exposures, date of onset for signs, etc) <see appendix="" form="" investigation="" –=""></see></li> <li>Collect CNS samples for laboratory diagnosis if available</li> </ul>
Probable Case	A suspected case plus a reliable history of contact with a suspected, probable, or confirmed rabid animal. AND/OR	<ul> <li>Systematically record secondary information and link to primary history</li> <li>Notify appropriate authorities of probable animal rabies cases according to national protocols</li> </ul>
	A suspect animal that is killed, died, or disappears within 4-5 days of observing illness.	

# Animal Case Definition and Surveillance Activity (2)

Confirmed Case	A suspect or probable animal case that is laboratory confirmed*	<ul> <li>Notify appropriate authorities for follow-up of any human or animal exposures</li> <li>Systematically record laboratory diagnostic results and link with case record</li> </ul>
Not a Case	A suspect or probable case that is ruled-out by laboratory confirmation.*	<ul> <li>Notify appropriate authorities for follow-up of any human or animal exposures</li> <li>Systematically record laboratory diagnostic results and link with primary history</li> </ul>

#### United against rabies

- 1. The urgency of One Health
  - The Covid-19 pandemic makes zoonotic disease control more urgent than ever, demanding much greater collaboration between animal and human health sectors. Rabies is a potentially solvable problem that could serve as a model or foundation for tackling zoonotic diseases
- 2. Existing strategic frameworks lack funding
  - The 'Zero by 30' strategy developed by the United Against Rabies (UAR) Coalition presents a clear pathway to rabies elimination, but lacks critical financing
- 3. Amplify Gavi's contribution and protect its resources
  - Gavi, the vaccines alliance, aims to make human PEP available to its partner countries from 2021. Financing mass dog vaccination optimises Gavi's investment impact, and keeps future PEP costs from rising
- 4. Improve data systems
  - The collection of harmonised, government-owned data to inform funding decisions and implementation of operations
- 5. Build on local capacity and innovation, streamline operations
  - Support innovative approaches, such as using Ministry of Agriculture workforce to conduct rolling vaccination programmes to reduce overall costs



#### Examples of broader benefits of rabies programmes



- Provides a cost-effective platform for One Health, other health interventions and NTD activities
- Can improve inter-sectoral coordination, response capability and integrated surveillance ("One Health")
- Involves regular engagement with communities and can build trust
- Dog rabies vaccination has rapid, tangible impacts appreciated by communities

# THANK you!

Bernadette ABELA-RIDDER

Department of the Control of Neglected Tropical Diseases

abelab@who.int





### A Dog's Eye View <a href="https://www.youtube.com/embed/v75d668P96E">https://www.youtube.com/embed/v75d668P96E</a>



