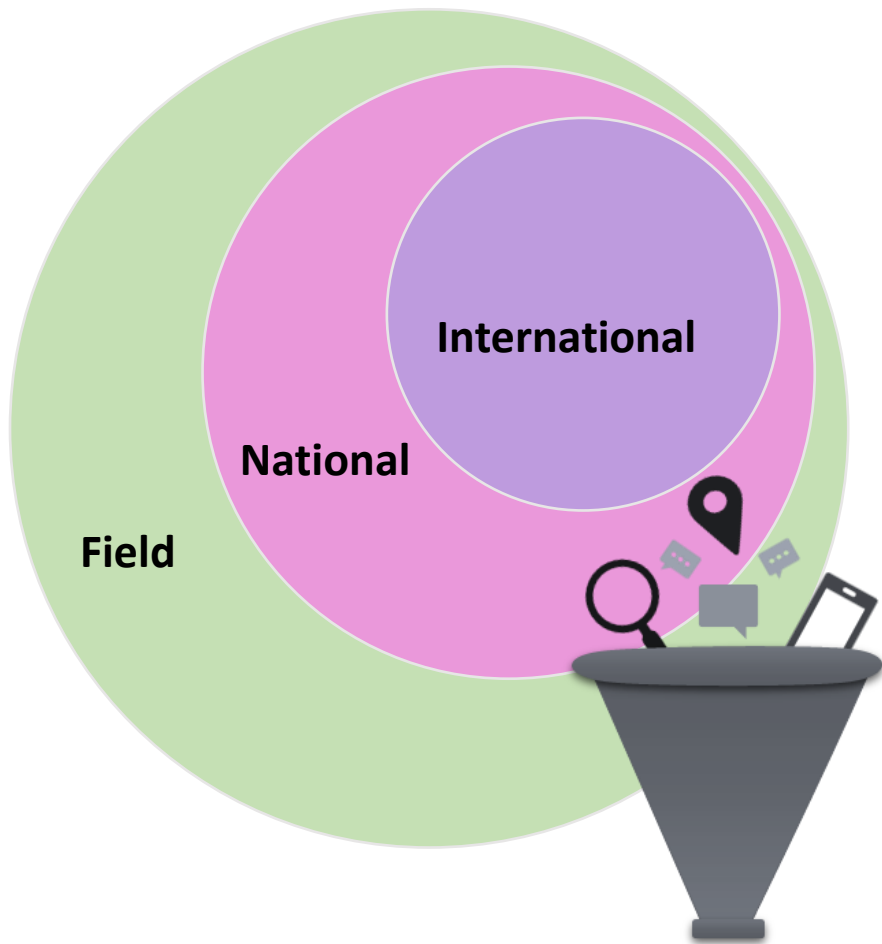# Rabies Under the Radar: The Power of Data and Reporting

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Technical Officer - Neglected Tropical Disease Control
Department of Communicable Diseases
WHO Regional Office for South-East Asia (SEARO)

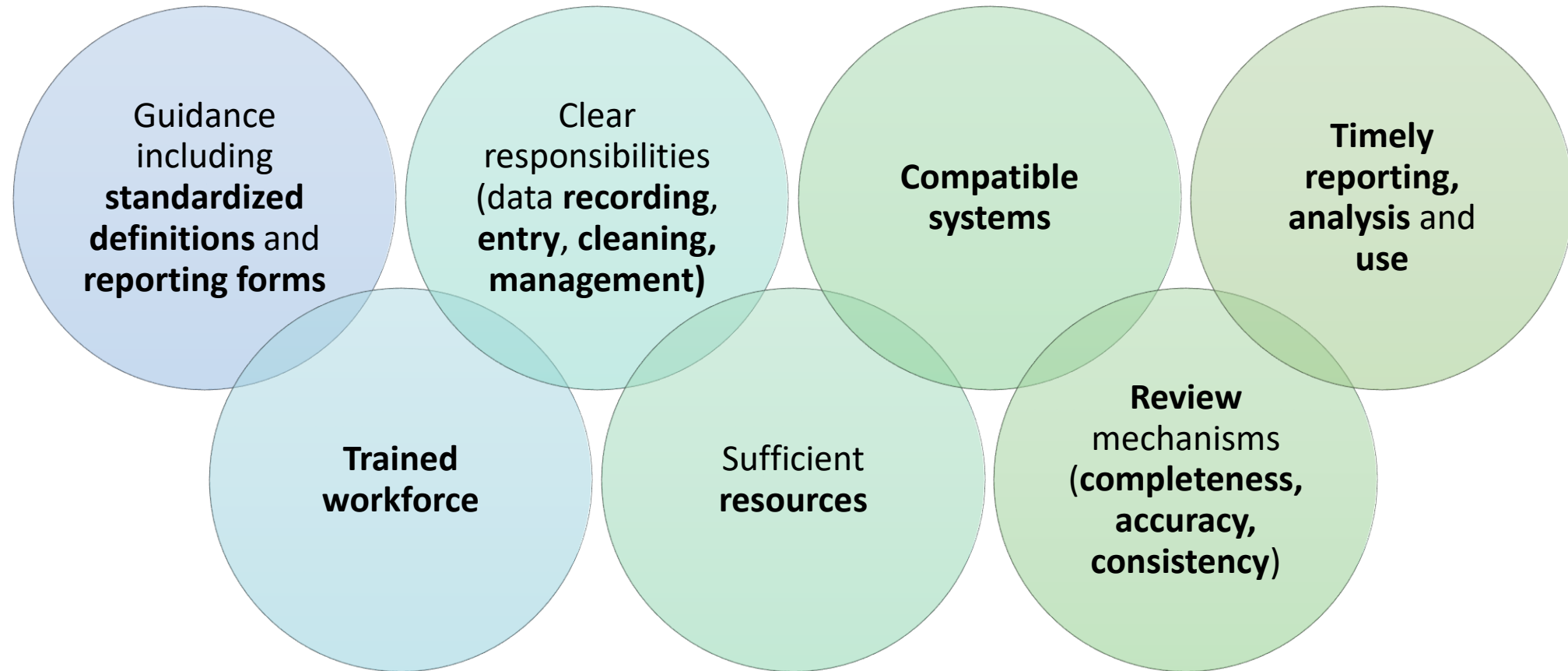# Strong and reliable data are your assets for decision making

But surveillance / data quality often is poor → Problems to…

- estimate the real burden of rabies
- understand epidemiology and dog population dynamics
- use resources in a targeted way
- design programmes, monitor & evaluate
- obtain political and financial commitment and community buy-in
- validate your success
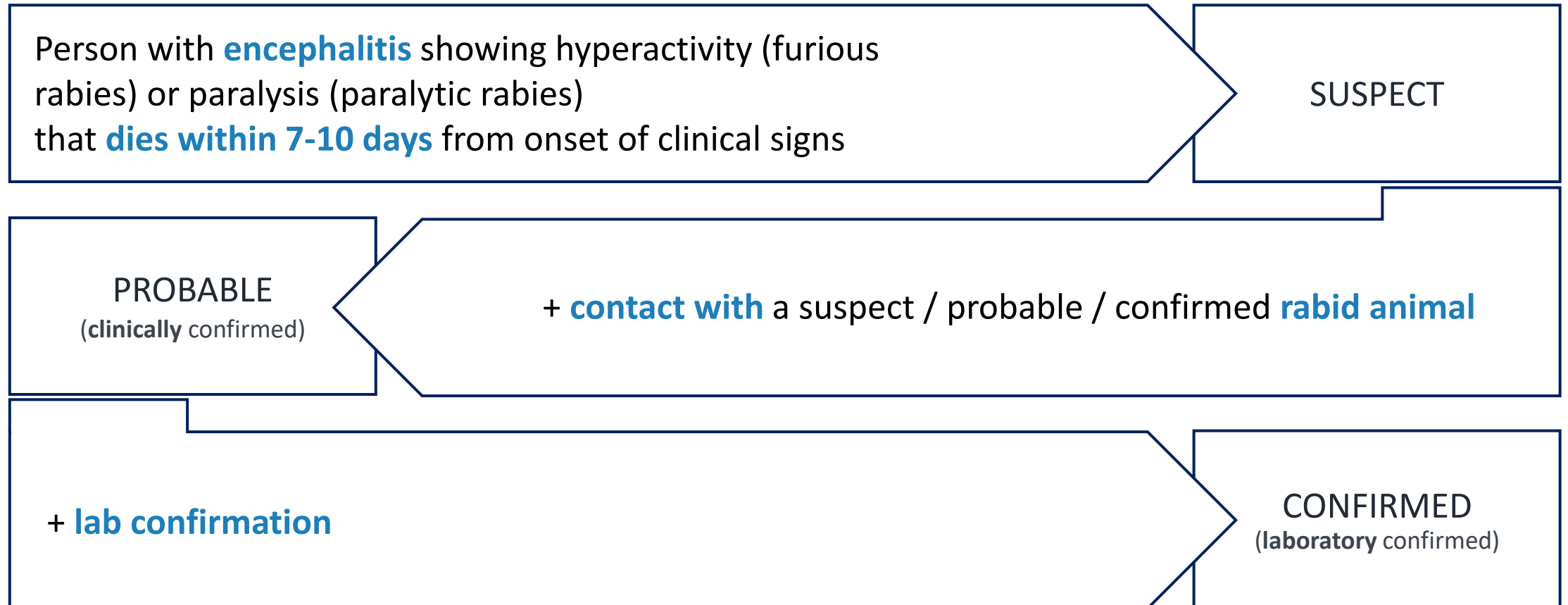- measure the progress towards Zero by 30

Ensuring good quality of data is crucial for making decisions

Surveillance and data underpin all aspects of rabies control programmes

Guidance including **standardized definitions** and **reporting forms**

Clear responsibilities (data **recording, entry, cleaning, management**)

Compatible systems

Timely reporting, analysis and **use**

Trained workforce

Sufficient **resources**

Review mechanisms (**completeness, accuracy, consistency**)

Laboratories play a crucial role in identifying rabies cases and providing evidence for decision-making.

Data collection and reporting ground on precise human case definitions…

Person with **encephalitis** showing hyperactivity (furious rabies) or paralysis (paralytic rabies)
that **dies within 7-10 days** from onset of clinical signs → SUSPECT

PROBABLE
(**clinically** confirmed) ← + **contact with** a suspect / probable / confirmed **rabid animal**

+ **lab confirmation** → CONFIRMED
(**laboratory** confirmed)

❌ **NOT** A CASE: Suspect / probable case ruled out by lab tests
OR
No animal contact in the past 6 months

… and animal case definitions

Animal with **any of the following signs:**
hypersalivation, paralysis, lethargy, unprovoked abnormal aggression, abnormal vocalization, diurnal activity of nocturnal species

SUSPECT

… and animal case definitions

Animal with **any of the following signs**:
hypersalivation, paralysis, lethargy, unprovoked abnormal aggression, abnormal vocalization, diurnal activity of nocturnal species

SUSPECT

A **L** **P** **H** **A**

Aggression
(unprovoked and abnormal (e.g. biting two or more people, animals or objects)
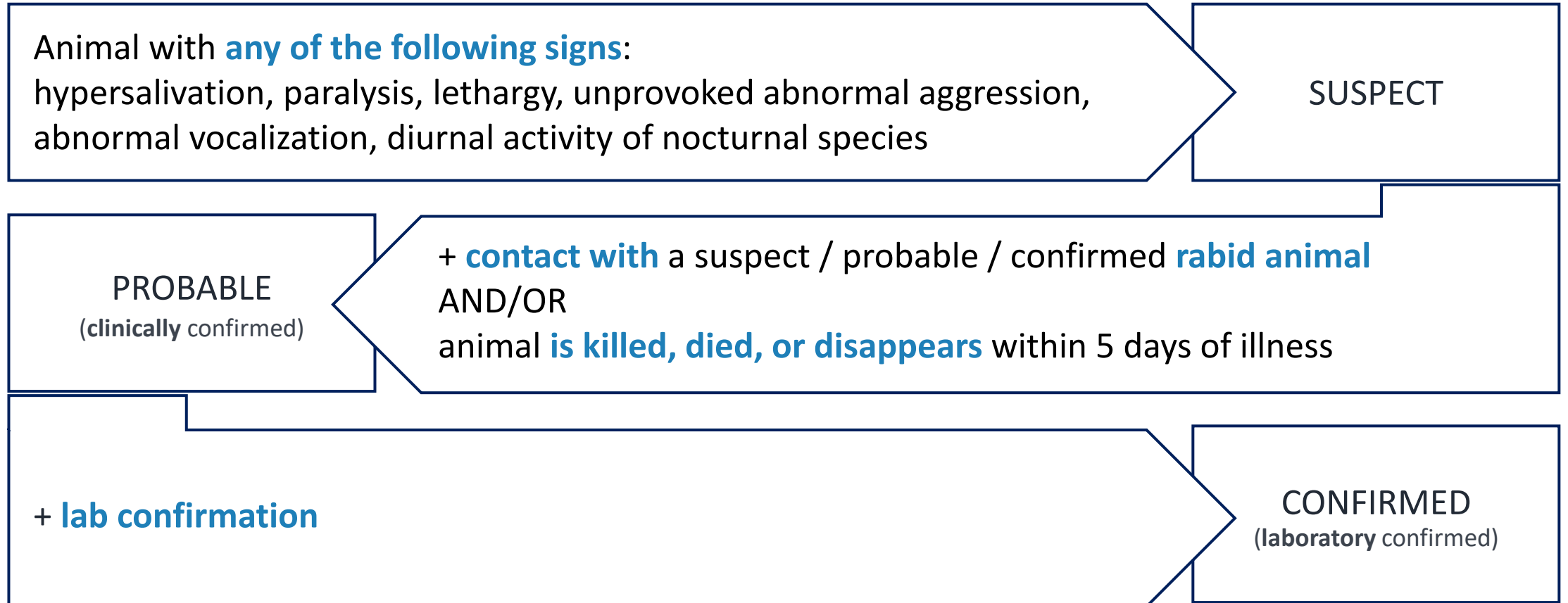
Lethargy

Paralysis

Hypersalivation

Abnormal vocalisation

A master of deception - the signs of rabies in dogs

… and animal case definitions

Animal with **any of the following signs**:
hypersalivation, paralysis, lethargy, unprovoked abnormal aggression, abnormal vocalization, diurnal activity of nocturnal species → **SUSPECT**

PROBABLE
(**clinically** confirmed)
+ **contact with** a suspect / probable / confirmed **rabid animal**
AND/OR
animal **is killed, died, or disappears** within 5 days of illness

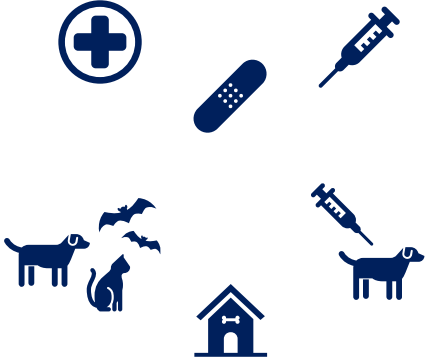+ **lab confirmation** → **CONFIRMED**
(**laboratory** confirmed)

❌ **NOT** A CASE:
Suspect / probable case ruled out by lab tests
OR
Survival after a 10 day-observation (for dogs, cats and ferrets)

To support standard reporting, WHO defined minimum data

	# Human rabies cases	# Animal exposures	# People receiving PEP
HUMAN	• Gender • Age • Transmission • Type of diagnosis	• Gender • Age • Biting animal • Wound category	• Gender • Age • Wound category

	# Dog rabies cases	# Rabies cases in other animals	Dog population	Dog vaccination coverage
ANIMAL	• Type of diagnosis	• Species • Type of diagnosis	• Ownership status	• Ownership status

See also: United Against Rabies Forum – Minimum Data Elements

Importance of laboratory confirmation of rabies cases

Confirm suspected and probable cases (especially paralytic cases or when exposure was a long time ago)

Risk-based approach for PEP decisions to optimally use **resources** and ensure **availability** of rabies biologicals

Building **trust** with communities and **increase PEP uptake**

Identification and classification of **Rabies Virus Variants**

Determine burden, true presence or absence of rabies, and **confirm rabies free areas**

Validate elimination efforts officially

Laboratory techniques in rabies, volume 1 & volume 2

It is important to use standard diagnostic tests as recommended by WHO or WOAH terrestrial manual. **Currently, no PEP decisions should be made based on rapid diagnostic tests (lateral flow devices) in animals.**

Ready, Set, Diagnose!

- **Get Hands-On**
- **Ask questions and be curious**
- **Build Capacity**
- **Connect**
- **Have fun**