

Integrated Bite Case Management

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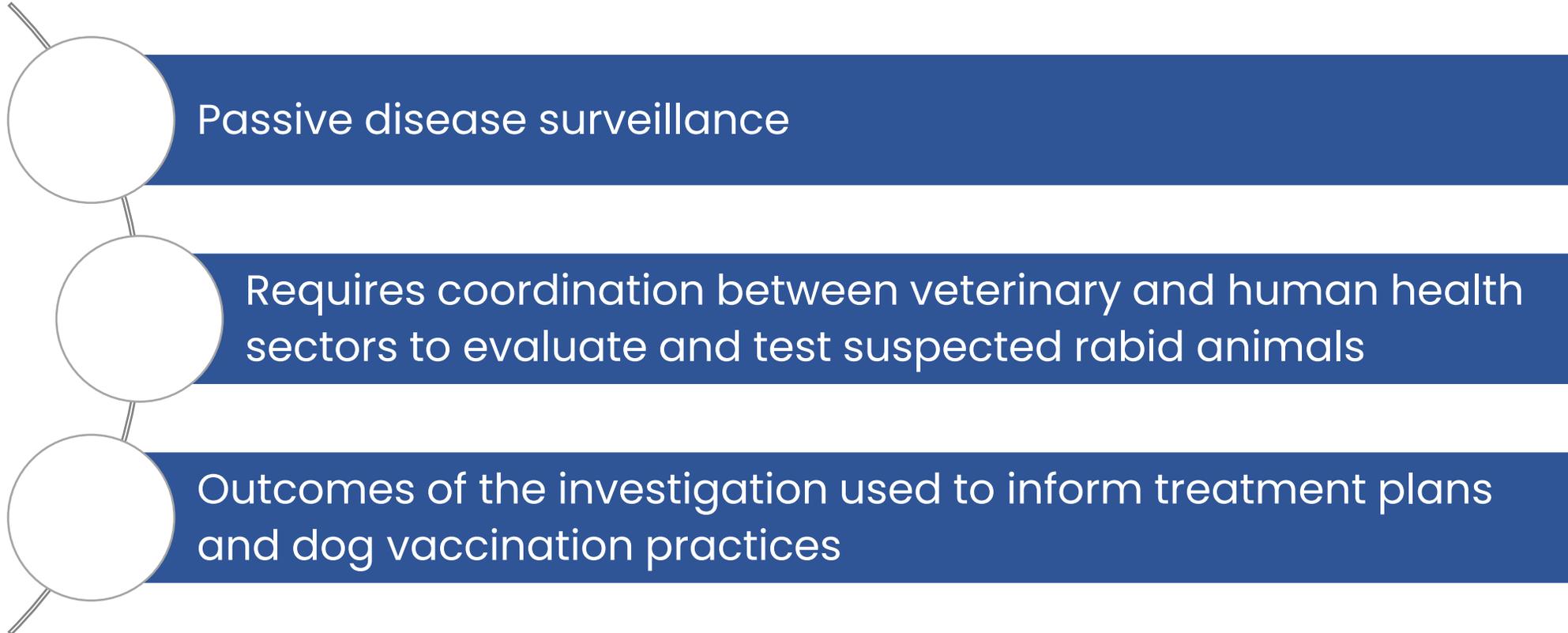


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Integrated Bite Case Surveillance



Rabies control can be approached in two different ways

1

Reactionary



~ \$ 108.07 per person

Post-Exposure Prophylaxis
to do in perpetuity

Preventive

2

per dog ~ \$ 2.18



Dog vaccination
for the permanent elimination
of dog and dog-mediated rabies

Average costs, in USD, in rabies endemic countries

But there are two issues to consider:

Issue 1: There are many more dog bites than dogs with rabies



Bites from dogs are extremely common

	Haiti	Philippines
People who report being bitten by a dog in a year	3.5%	5%

Rabies in biting dogs is not common

	Haiti	Philippines
Biting dogs with confirmed rabies	1%	1%

Providing PEP to all bite victims means spending too much money on a temporary solution

Issue 2: Current spending on rabies underinvests in dog vaccination

Reactionary



\$1.7 billion USD spent on human rabies vaccines

Preventive



\$0.065 billion USD spent on dog rabies vaccines

A solution: Integrated Bite Case Management (IBCM)

IBCM is an advanced surveillance method that connects



Veterinary professionals



Human health professionals

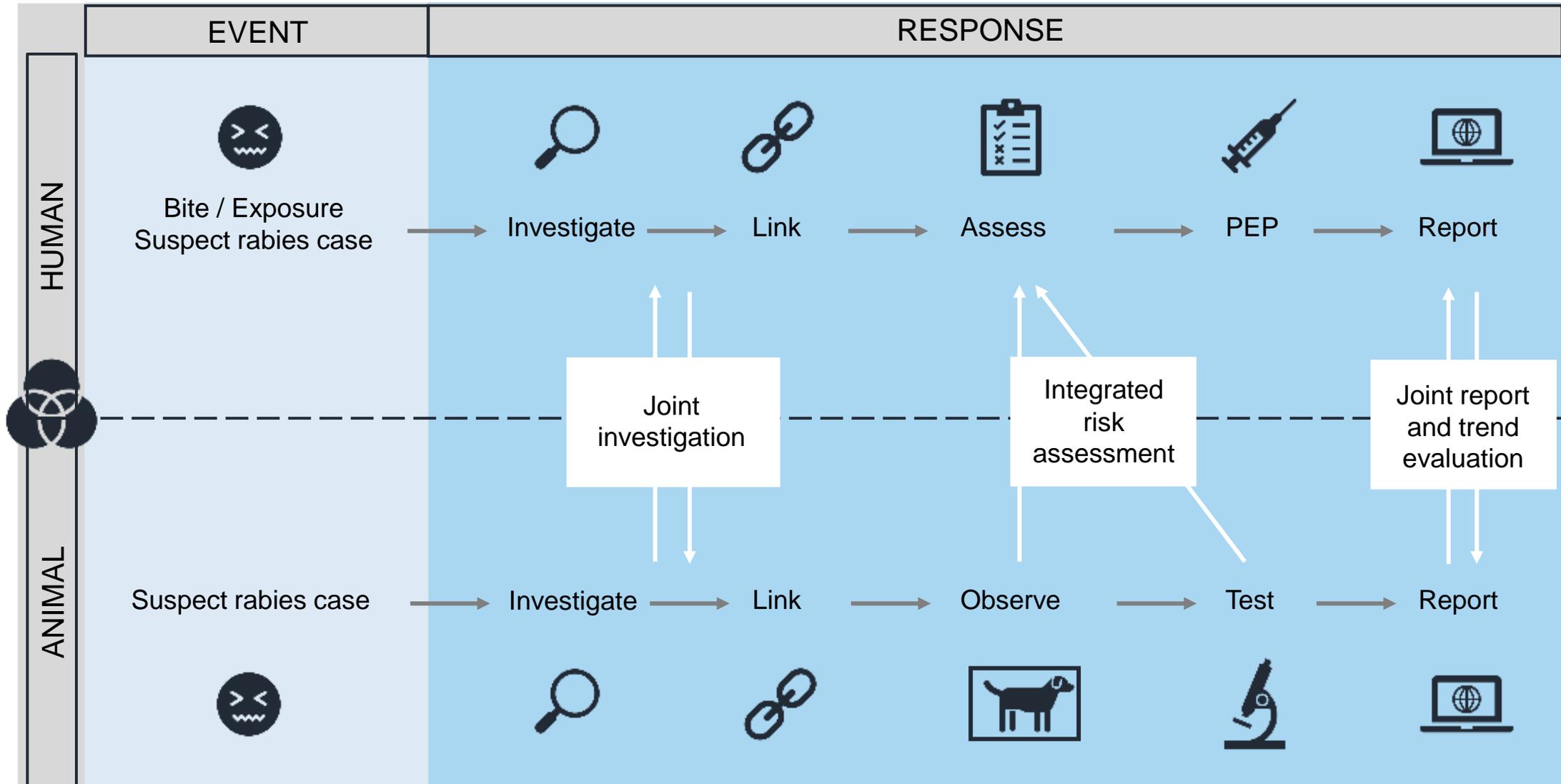


Communities

and consists of:

- Investigations of bite cases and suspected rabid animals
- Safe animal capture and animal assessment
- Animal observation for 10 days
 - Healthy: quarantine
 - Signs of disease: euthanize and test for rabies
- Sharing of information across sectors for appropriate risk assessments to inform PEP decisions and joint reporting

Integrated bite case management shows One Health in action



IBCM needs qualified investigators...

Case investigation actions

- Identify all persons potentially exposed through community investigations
- Capture and confine potentially rabid animals
- Ensure proper quarantine
- Perform euthanasia of suspect rabid animals
- Coordinate, collect and transport suspect rabies samples
- Prepare standardized animal rabies report form for each investigation conducted

Community outreach and One Health approach

- Disseminate awareness materials to healthcare professionals and communities

...and supervisors

Post-bite animal rabies investigations

- Contact healthcare facilities to make sure they share reports of animal bites
- Communicate with animal health workers to ensure that rabies suspect animals are reported
- Follow up on reports by investigating rabies suspect animals and communities
- Coordinate the activities of IBCM investigators
- Ensure that humane euthanasia procedures are followed

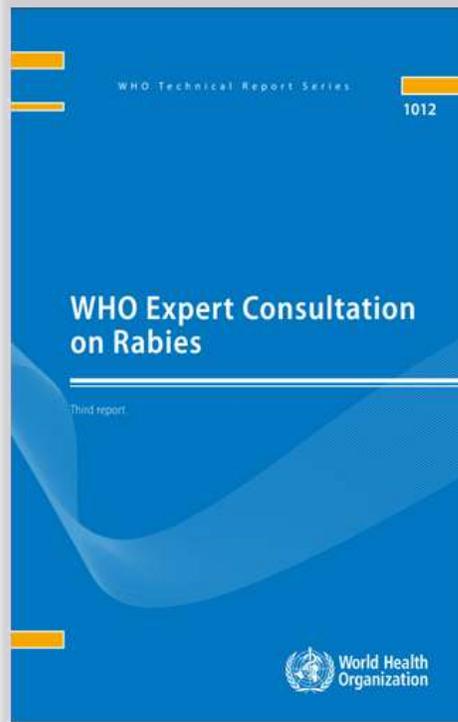
Laboratory testing and surveillance

- Receive lab results and communicate them to healthcare providers and communities
- Maintain a database of bite reports for surveillance purposes

Community outreach

- Implement community awareness programmes
- Disseminate awareness materials to healthcare professionals and communities

... and WHO's considerations and recommendations for PEP

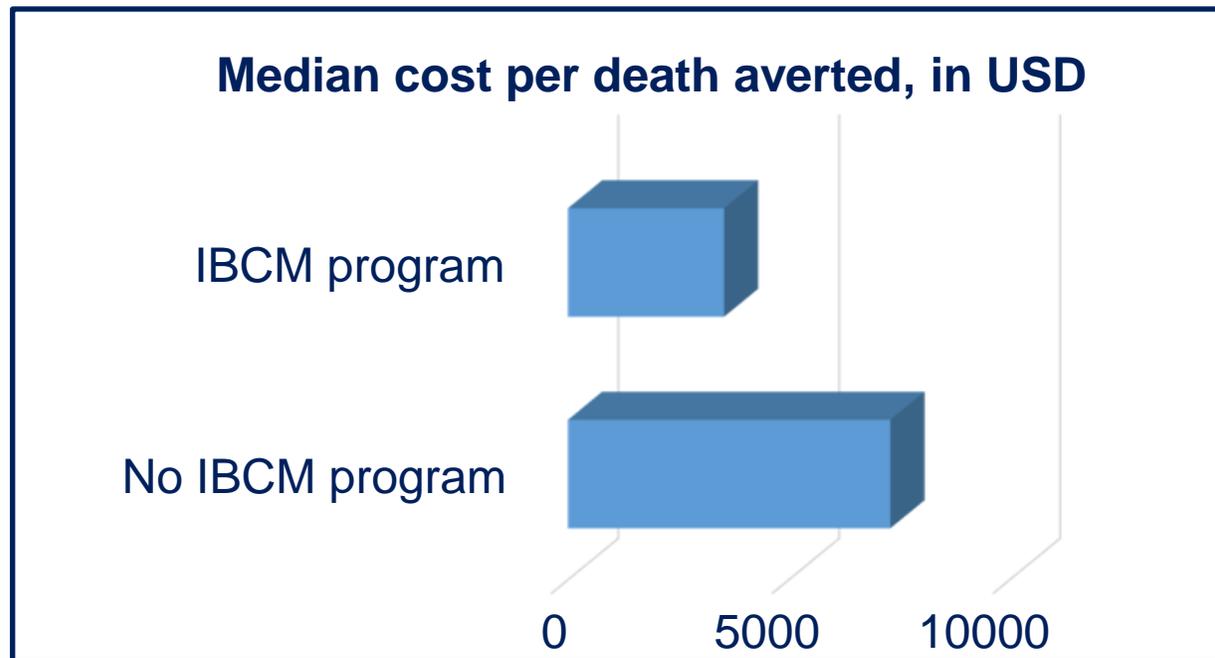


Human vaccine providers need to consider:

- Time since exposure
- Exposure risk
- Animal health status, including test results
- Number of other animals or people attacked without provocation
- Availability for assessment and quarantine
- Animal vaccination status
- Risk that the animal was exposed to rabies within the last 12 months

Investment in IBCM is cost-effective and maximizes resources

\$0.05 per person = IBCM programme + PEP
51% reduction in the cost per human death averted



“IBCM offers a solution for countries transitioning from reactive to preventive strategies (i.e., comprehensive dog vaccination)”

IBCM programmes bring many benefits

Increasing rabies case investigations

Increasing detection of suspect rabid animals

Increasing detection of individuals exposed to rabies

Increasing community participation

Removing suspect animals → reduction of ongoing transmissions and further exposures

Improving compliance for high-risk bites → reduction of human deaths

Using vaccines in a prioritized and targeted way, especially when supply is limited

Providing a prime example for implementing One Health



IBCM Implementation in Cambodia

IBCM implemented by Ministry of Health in Kandal Province

2017-2018

IBCM implemented by an NGO in Phnom Penh

2019

2020-Present



2023-Present

IBCM implemented by MoH and MAFF in Battambang province



IBMC Progresses

Key stakeholders and partners

- GDAH/MAFF works with Provincial Vets at the Provincial Department of Agriculture, Forestry and Fisheries in collaboration with CDC/MOH at Provincial Department of Health
- Development partners including GIZ, Mission Rabies, WVS and IPC for sample collection and test

Core activities

- Train the trainers from the national to the provincial level
- Provision of transportation and IT/phone equipment
- Establishment of a system to follow up bite incidents after presentation at the IPC PEP Center to enable swift initiation of field investigations, removal of any threat of a potentially rabid animal from the community and diagnostic sampling for testing in Phnom Penh
- Accompanying training and awareness raising

Results

- More than 3,429 cases investigated, 129 suspected and 36 positives found in 2023
- Impact: First cross-sectoral (human and animal health) and government-led Integrated Bite Case Management system as successful blueprint for further rollout



IBCM in action – Example of a programme in Goa, India



Thanks

Resource: <https://openwho.org/courses/NTDs-Rabies-and-one-health/items/6rlozjnZioYkFRWVcX6XBR>

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