

# **WHO initiatives to support rabies elimination in Asia**

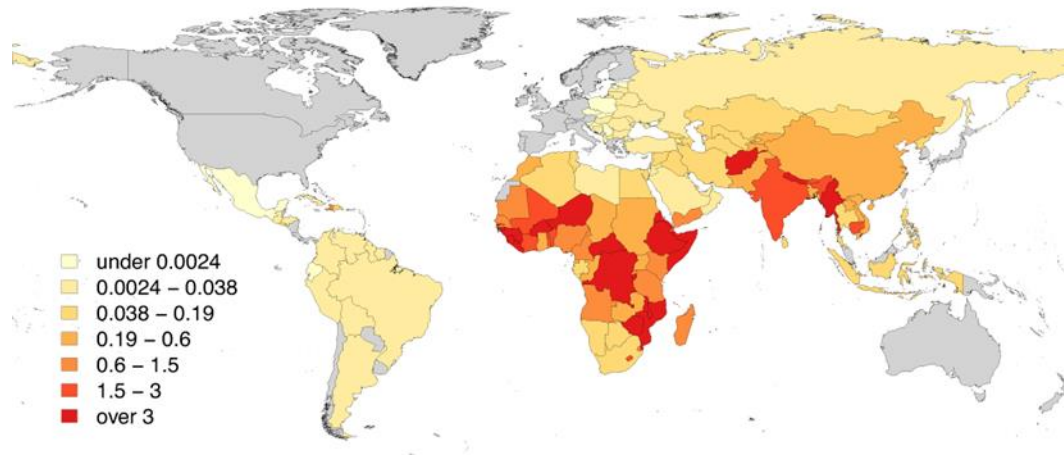
**Asian Rabies Control Network (ARACON) Meeting, 13-14 March 2018**

**Rick Brown, WHO Thailand**



# Rabies is a neglected, vaccine-preventable disease

## An indicator for impact on inequity



*Rabies per capita death rates per 100,000 persons.*

- 100% fatal
- ~60,000 deaths per year, mostly children
- Dog bites cause ~ 95-99% of human cases
- Weak data and under-reported
- Vaccine is a key component of the global plan

# Rabies in Asia

- **More than 4 billion people in Asia are at risk of getting rabies**
- **More than 94% of documented human rabies cases were exposed to rabid dog bite**
- **Raccoon dogs, foxes, jackals, mongoose are responsible for maintenance of rabies transmission**
- **More than 11 million people receive rabies vaccination annually**

# A global framework: zero by 30

## GLOBAL ELIMINATION OF DOG-MEDIATED HUMAN RABIES

GLOBAL CONFERENCE  
10–11 DECEMBER 2015  
GENEVA, SWITZERLAND

the time is  
now!



- Pillar 1. Socio-cultural
- Pillar 2. Technical
- Pillar 3. Organizational
- Pillar 4. Political
- Pillar 5. Resources

**STOP-Rabies**

## “0 by 30”

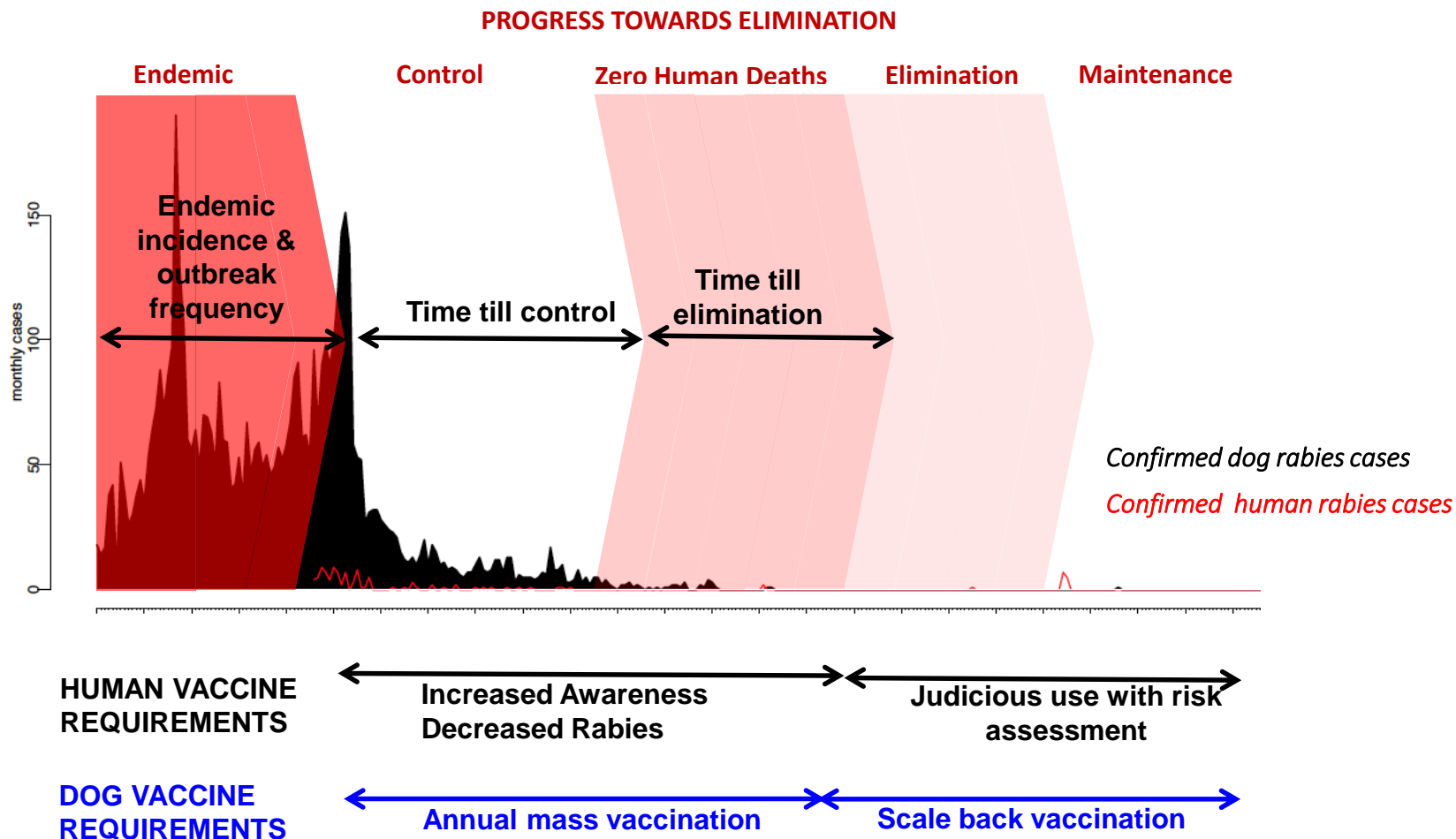
The goal of reaching zero human deaths  
from dog-mediated rabies by the year  
2030

© United against rabies

**3** GOOD HEALTH  
AND WELL-BEING



# The evidence for reaching 0/30



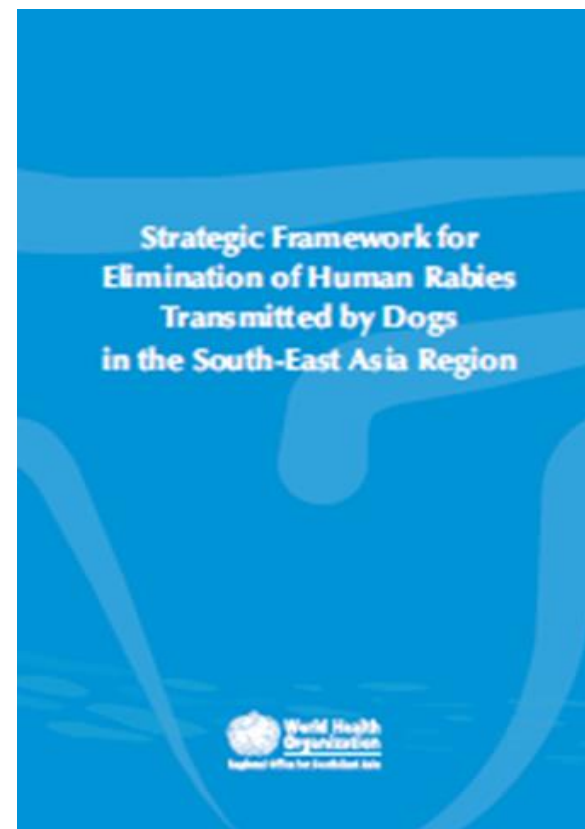
# Tripartite Collaboration in the Region

- **Regional platform for sharing One Health practices organized by FAO, OIE and WHO**
  - First workshop – Sapporo, Dec., 2010 **WHO**
  - Second workshop – Chiang Mai, Jan. 2012 **FAO**
  - Third workshop – Bali, Nov. 2012 **OIE**
  - Fourth workshop – Kathmandu, Nov. 2013 **WHO**
  - Fifth workshop – Bangkok, Nov. 2014 **FAO**
  - Sixth workshop – Sapporo, Nov. 2015 **OIE**
  - Seventh workshop – Manila, September 2017 **WHO**
  - Eighth workshop – Thailand, February (!) 2019 **FAO**
- **Rabies, zoonotic influenza and AMR are priority issues for the operationalization of One Health**

# SE Asia Regional Strategic Framework

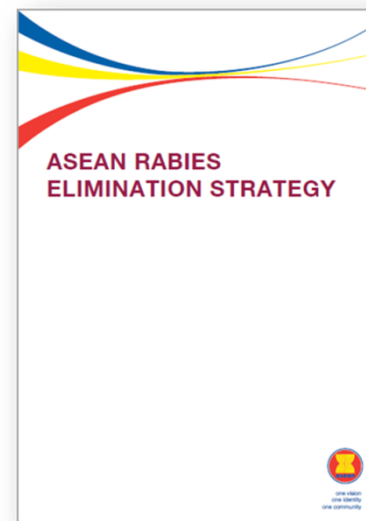
- Strategic approaches

- **Prevention**: Introduce cost-effective public health intervention techniques to improve accessibility, affordability and availability of post-exposure prophylaxis
- **Promotion**: Improve understanding of rabies through advocacy, awareness, education and operational research
- **Partnership**: Provide coordinated support for anti-rabies drive with the involvement of community, civil society, government and non-government sectors and international partners



# Regional Initiatives for Rabies Elimination

- **ASEAN call for rabies elimination by 2020**
  - WHO/FAO/OIE have supported ASEAN in developing **ASEAN Rabies Elimination Strategy** including country support
  - Most ASEAN countries have introduced **cost-effective intradermal rabies vaccination** to improve accessibility of PEP
- HRH Princess Chulabhorn has committed acceleration of efforts to eliminate human rabies deaths by 2020 from Thailand while visiting WHO HQ in 2017





# Highlights of the Rabies Expert Consultation Meeting

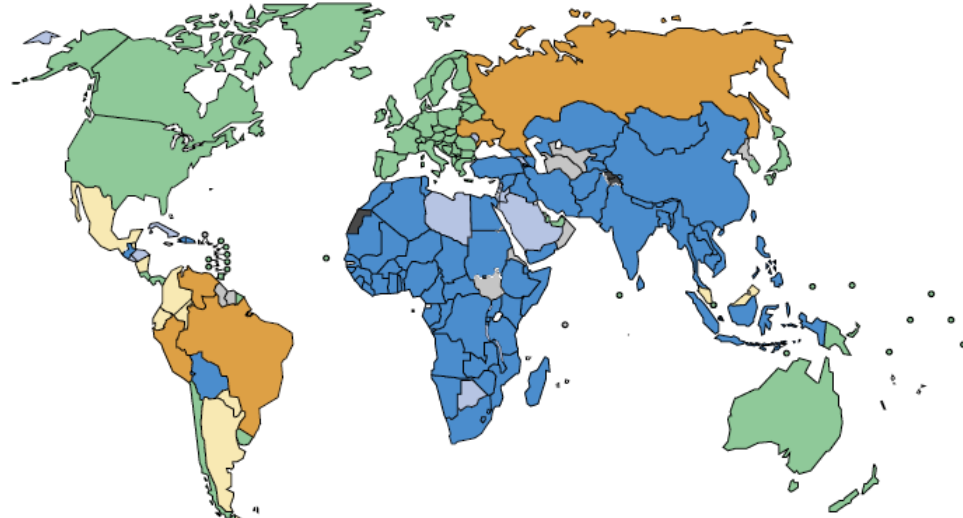
**Chulalongkorn University Hospital, Bangkok - 26-28 April 2017**

- Safe and feasible human and animal immunization policies
- Practical approaches to improve surveillance in animals and humans including updates for the laboratory techniques
- Strategies to reduce over-use of scarce human biologicals
- Potential of new rabies biologicals to improve delivery to (rural) communities
- Oral vaccination in dog vaccination campaigns
- Processes for countries to declare freedom from rabies
- Modelling consortium for policy decisions in countries and globally



# Evidence to inform policy?

Map 1 Endemicity of dog rabies and dog-transmitted human rabies, 2016  
Carte 1 Endémicité de la rage canine et de la rage humaine à transmission canine, 2016



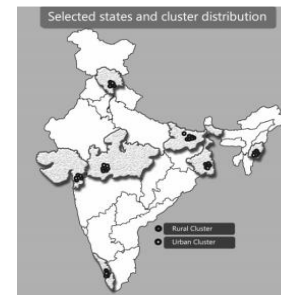
**Bhutan**



**Cambodia**



**Vietnam**

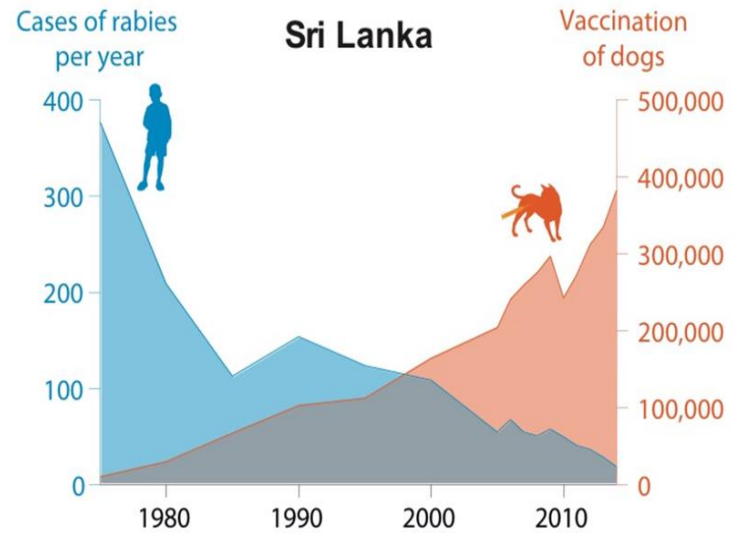
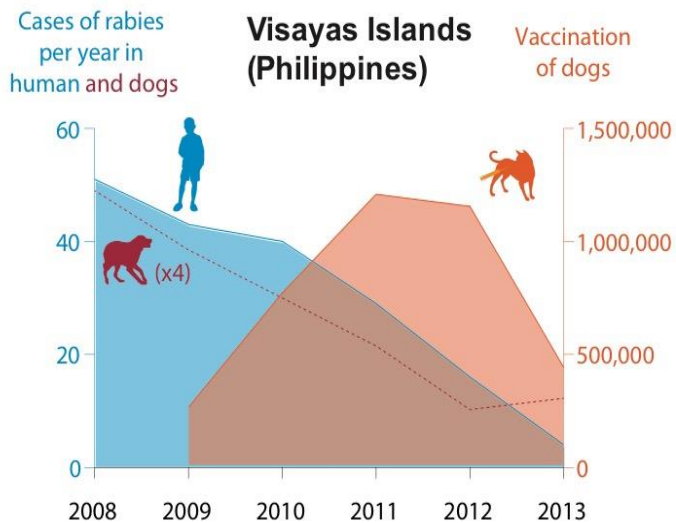


**India**



**Kenya**

# Lessons learned



# Lessons Learned: Western Pacific Region

- Success factors:
  - Building a feasible intersectoral national strategy targeted towards elimination goal, with tiered approach for full expansion
  - Strong surveillance, risk assessment and response system at all levels
    - strengthening rabies diagnostic capacity
    - ensuring inter-sectoral collaboration
    - establishing a concrete operating procedure on surveillance and response
  - Understanding dog ownership and health care seeking behavior to build the most effective communication strategy, and measures to address stray dogs appropriate to the local context.
- Possible bottleneck:
  - Lack of resources and rabies focal point in relevant ministries
  - Lack of awareness and incentives among dog owners (or communities)
  - Shortage of quality assured and low cost PEP

# Challenges ahead....!

- How do we reach and maintain **70% dog vaccination coverage** to reduce human rabies incidence?
- How long will **dog vaccination programme** will be carried out?
- How to ensure **balance funding** of human rabies prophylaxis and dog rabies control?
- How to make accessible post-exposure prophylaxis to **rural population**?
- How to accelerate **regional cooperation** for human rabies elimination?

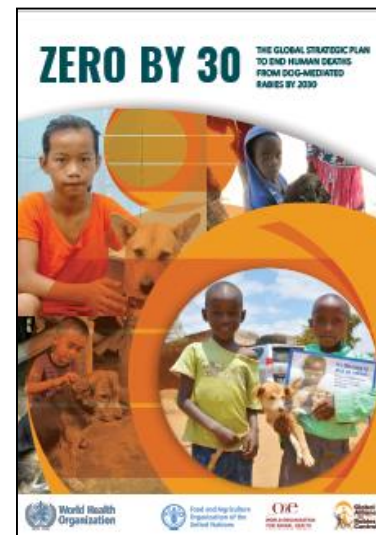
# Addressing the challenges

- Political will and inclusion in national plans with adequate resources
- Appropriate/customized outreach and education at community, national and subnational levels
- Motivating & coordinating different sectors/players to engage in comprehensive programme
- Enhanced disease reporting and surveillance
- Innovative approaches to support dog vaccination targets , including new technologies like oral rabies vaccine)
- Access to safe, efficacious vaccines, at affordable prices
- Promoting intradermal PEP administration in high incidence areas



# Opportunities

- Global Strategic Plan for Rabies Elimination (United Against Rabies)
  - “Supporting countries to prepare robust, budgeted, effective and sustainable national rabies elimination plans following a One Health approach; and facilitating the coalescence of these plans into a coordinated regional effort”.
- Involvement of Regional organizations and international partners in dog rabies control and dog population management
- New technological advancement
  - Cost-effectiveness and PEP compliance
  - Alternate to HRIG (Purified ERIG, mab)
  - Vaccine delivery (Oral rabies vaccine)
  - Diagnostic tool (dRIT, RDT)
  - Animal birth control (Immunocontraceptive)
- Models for operationalization of ‘One Health’ (4 way linking)
- Push to achieve SDGs (rabies as an equity / access issue)



# What can WHO do to help?

- Strengths – guidelines, country representation, partnership, convening power, access to expertise...
- Limitations - funds, human resources
- So....
  - Advocacy for a comprehensive rabies control programme
  - Development of National Guidelines/Protocols for rabies prophylaxis
  - Technical support for introduction/promotion of cost effective intradermal rabies vaccination
  - Improving surveillance and rabies diagnostic services
  - Operational research in endemic countries



*Thank you.....*

***Acknowledgements***

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**Let's put rabies in the history books!**