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

- 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
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

“0 by 30”
The goal of reaching zero human deaths from dog-mediated rabies by the year 2030

© United against rabies

STOP-Rabies
The evidence for reaching 0/30

PROGRESS TOWARDS ELIMINATION

Endemic

Control

Zero Human Deaths

Elimination

Maintenance

Endemic incidence & outbreak frequency

Time till control

Time till elimination

Confirmed dog rabies cases

Confirmed human rabies cases

HUMAN VACCINE REQUIREMENTS

Increased Awareness

Decreased Rabies

Judicious use with risk assessment

DOG VACCINE REQUIREMENTS

Annual mass vaccination

Scale back vaccination

World Health Organization
Regional Office for South-East Asia
Tripartite Collaboration in the Region

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

- 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?
Lessons learned

Visayas Islands (Philippines)

Cases of rabies per year in human and dogs

Vaccination of dogs

Sri Lanka

Cases of rabies per year

Vaccination of dogs
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......

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Let’s put rabies in the history books!