VIETNAM

Overview of the ASEAN Rabies Elimination Strategy and its Application in Vietnam

Nguyen Thi Thanh Huong

Team leader of secretariat board
Rabies control program – Ministry of Health
The Prime Minister signed the National Plan for Elimination II (2017-2021)

Vietnam commits to lead rabies control among ASEAN countries

Circular 16 is issued for intersectoral cooperation between animal and human health

Celebration of World Rabies Day begins

Utilization of locally produced canine vaccine ceases

Rabisin and Virbac canine vaccines introduced

Local manufacturing of canine vaccines

Nerve cell tissue ceased and cellular human vaccine standardized

Imported cellular vaccine for humans introduced

Local Production of nerve cell tissue vaccine for humans

Prime Minister signs National Plan for Elimination I (2011-2015)

Vietnam commits to lead rabies control among ASEAN countries

The Prime Minister signed the National Plan for Elimination II (2017-2021)
The ASEAN Rabies Elimination Strategy

NATIONAL DOG RABIES ELIMINATION

A. SOCIO-CULTURAL
B. TECHNICAL
C. ORGANIZATIONAL & ONE HEALTH
D. POLICY & LEGISLATIVE

ASEAN RABIES CONTROL
GLOBAL RABIES CONTROL
AGENDA

1. Background
2. Political commitment and Legislation
3. Technical support
4. Organization and Multi-sectoral element
5. Challenges
6. Impact
BACKGROUND

• Leading country in ASEAN
• One of the most important notifiable disease.
• Endemic in both human and animal, focus in the North region (80%)
• One of the communicable diseases cause most death in recent years (~100 cases per years).
• Cause a significant social and economic burden (~ 400,000 PEP per year).
• Nearly all of the human rabies cases are due to bites from rabid dogs.
• Low vaccination coverage in dog population, dog management.
• PEP cost is still an issue (quite high for poor people).
Rabies has existed and circulated in Vietnam for many years. It occurs at any time in the year.

- In 1990s- rabies declining; 2004 - today rabies increasing
- Rabies in people is almost exclusively caused by dog bites
- According to the Ministry of Health report from the rabies prevention and control committee:
  - >400,000 PEP/year
  - Human deaths from rabid dog bites is on the rise (average per year of about 100 people die of rabies)
• Most cases occur in the northern mountainous provinces.
• Most outbreaks were detected in humans before dogs.
• Since dogs are not managed carefully, numbers of dog cases may not be accurately counted.
• 2 rabies vaccination rounds annually: April-May and Sept-October.
• In urban areas, more than 80% of pets was vaccinated while in rural and remote areas, vaccination percentage was less than 50%.
Rabies in Vietnam

Phase 1 Elimination Plan
Phase 2 Elimination Plan

Commitment from Prime Minister
Nerve tissue to cell-based vaccine

Source: Rabies Control Program

No. Deaths

Years

### Dog case situation
(Data from provincial SDAH reported in Jan 2018)

<table>
<thead>
<tr>
<th>Năm</th>
<th>Tổng đàn chó</th>
<th>Tỷ lệ tiêm phòng (%)</th>
<th>Number of province</th>
<th>Suspect rabies dog (head)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>8.585.856</td>
<td>37,8</td>
<td>16</td>
<td>1199</td>
</tr>
<tr>
<td>2012</td>
<td>8.437.861</td>
<td>38,2</td>
<td>12</td>
<td>1365</td>
</tr>
<tr>
<td>2013</td>
<td>8.239.877</td>
<td>44,2</td>
<td>21</td>
<td>1924</td>
</tr>
<tr>
<td>2014</td>
<td>8.195.809</td>
<td>47,0</td>
<td>19</td>
<td>1444</td>
</tr>
<tr>
<td>2015</td>
<td>9.080.802</td>
<td>42,9</td>
<td>27</td>
<td>-</td>
</tr>
<tr>
<td>2016</td>
<td>7.721.720</td>
<td>38,5</td>
<td>23</td>
<td>-</td>
</tr>
<tr>
<td>2017</td>
<td>7.219.159</td>
<td>51,0</td>
<td>30</td>
<td>1045</td>
</tr>
</tbody>
</table>
Dog population, dog vaccination rate, dog rabies by 2017
ribution dog rabies cases by province, 2015-2017
POLITICAL COMMITMENT AND LEGISLATION

- Vietnam government commit to fight rabies: providing support at all level, coordination via steering committee.
- **Government decree** on rabies control and prevention of rabies in animal and human.
- **Inter-Ministerial circular** (MOH and MARD) on zoonotic diseases prevention and control (rabies is one of priority zoonotic diseases).
- **National guidelines** on surveillance and control rabies both in human and animal.
- **MOU between the MARD, MOH and key partners** (WHO, FAO and WPA) to build the overall prevention of rabies at national level.
POLITICAL COMMITMENT AND LEGISLATION (2)

• Issued the law emphasize dog ownership, dog management, rabies vaccination and dog exports and imports.
• PEP free for the poor people
• Allocate budget for rabies prevention and control
• Engage local government to support proper resources for rabies prevention and control.
• Mobile other resources from local government, private sectors, WHO, FAO, CDC and other NGOs (including technical, physical and human resources for rabies elimination).
TECHNICAL SUPPORT

Surveillance and epidemiology:

• Issue National Guidelines on surveillance, prevention and control rabies in human and animal.

• Monitor PEP and human death cases base on the national surveillance system (from central to commune level)

• Develop and implement pilot of rabies free zone, then sustain and expand to other regions.

• Ensure availability and accessibility of vaccine and immunoglobulin, especially at remote areas (at least 1 vaccination site per district)

• Monitor dog rabies: in the high risk area

- Overall: National Program - Minister of MARD
- Government budget: $11.6 million USD (233.114 billion VND)
  - Central Government: $1.3 million USD of which MARD 0.8 million USD & MOH: 0.5 million USD
  - Local Government: $10.3 millions USD of which MARD 6.5 million USD & MOH 3.8 million USD
- Privates/dogs owners: vaccine and vaccination fees
- MOET (education), MIC (communication); MPS (Pub. Security), MARD & MOH Institutions
National Program on Rabies Prevention and Control
(Period 2: 2017-2021)

- **Government budget:** $14.9 million USD (Central level: $1.72M USD, Local: $13.18M $)

**General objective:**
- Basically controlling rabies on domestic dogs by 2021, progressing towards eliminating rabies in domestic animals.

**Specific objectives**
1. Over 95% of communes, wards, towns, make the list of household raising dog
2. Over 85% dog population in communes, wards, towns have been vaccinated against rabies
3. Over 70% of provinces nationwide observed no rabies case in human in two consecutive years
4. Reducing by 60% of the number of provinces at high risk of rabies
5. Reducing by 60% of deaths due to rabies by 2021 compared to the number of deaths on average in 2011-2015 periods.
TECHNICAL SUPPORT (2)

Laboratory diagnoses:
• 2 national and regional laboratories in human. (30-50% of samples of clinical cases were diagnosis/year)
• 3 national and regional laboratories in animal (66/111 samples were positive)

Other activities:
• Enhance the dog population/biosecurity management:
  ➢ Government issued a law emphasize the responsibilities of pet owners.
  ➢ Raising public awareness on dog management: limit the stray dogs.
Research:

- ASSESSMENT OF RABIES BURDEN AND VACCINE UTILIZATION IN VIET NAM, 2017


- Investigate the existence of perceptions, attitudes and practices of the local people involved in the ecological characteristics of dogs and rabies prevention.

- Investigate the relationship between people, dogs, and other animals.

- Identify difficulties remained in the policies of rabies prevention for sound adjustments to better prevention, as well as better effective mobilization of resources.
SOCIO-CULTURAL ELEMENTS

Communication and advocacy:

• Public awareness of rabies risk and control, and implementing Celebration of World Rabies Day yearly.

• Conduct awareness workshop/meeting at high risk provinces to increase engagement of the local government for rabies prevention and control.

• Allocate canine vaccine and fund from local government, organizations to control rabies, particularly to implement and sustain dog vaccination campaigns.

• Socialization of rabies control and prevention
The ONE HEALTH World Rabies Day
Coordination between Animal and Human health sectors for rabies prevention and control
World Rabies Day (11 years for ceremony)
Workshop on Coordination between Animal and Human health sectors for rabies prevention and control, 2017
Surveillance and Response Pilot

Phu Tho Province
- 16 reported deaths/year (0-95)
- 1.4 million residents, 13 districts
- 2 hours from Hanoi

National Center Veterinary Diagnostics (NCVD)
- National reference laboratory
- No rabies diagnostic testing capacity

Source: Rabies Control Program
Phu Tho Pilot

Goals

- Develop system with partners
- Ensure NCVD is proficient for testing
- Engage stakeholders
Phu Tho Pilot: Detect

Detect an event

Event | Village | Commune | District | Province

Ministry of Health
- Animal Exposure
  - Health Worker
  - Health Station
  - Hospital
  - Prevent. Center

Ministry of Agriculture
- Suspected Rabid Animal
  - Animal Health Worker
  - Vet Station
  - Sub. Dept. Animal Health

Food and Agriculture Organization of the United Nations
OIE
World Health Organization

World Health Organization
South-East Asia Region
Western Pacific Region
Phu Tho Pilot: Example

Respond to event

Detect

Event | Village | Commune | District | Province

Ministry of Health

Animal Exposure

Ministry of Agriculture

Respond

Hospital

PMC

Sub. Dept. Animal Health

Vet Station

Food and Agriculture Organization of the United Nations

World Health Organization

OIE

World Organisation for Animal Health
Phu Tho Pilot: Respond

Respond to event

- Start PEP immediately
- Investigate (community and animal)
  1. Identify additional victims
  2. Animal capture and assessment
     - 10 day quarantine
     - Euthanatize and submit for testing
  3. Report outcome
     - Continue or stop PEP
Phu Tho Pilot: Example

Respond to event

- Event
- Village
- Commune
- District
- Province

Detect

Ministry of Health
- Animal Exposure

Ministry of Agriculture

Respond

Hospital

PMC

Sub. Dept. Animal Health

Vet Station

Respond to event

Food and Agriculture Organization of the United Nations
World Health Organization
World Health Organization
World Health Organization
OIE
Reported Events in Phu Tho

233 events in 7 months
- 11 of 13 districts (3 targeted)
Reported Events in Phu Tho

233 events in 7 months

- 91% (213) human exposures
- 9% (20) suspected rabid animal
Phu Tho Community Investigation

233 events in 7 months
- 213 human exposures
- 43 additional people exposed
- 16 years, range <1–86
- All started PEP
Animal Investigation

233 events in 7 months
- 233 animals involved
- 12 additional animals
- 95% unvaccinated

Bar chart showing:
- 82% unvaccinated for Owned
- 8% unvaccinated for Stray
- 4% unvaccinated for Food

Legend: Vaccinated - Unvaccinated
Laboratory Diagnostic

66 animals tested

- 3 days (0-6) submission to results
Significant Findings

People
- 48 exposed to rabid animal
- 43 additional exposures

Animal
- 12 additional animals
- 2,487 vaccinated

Food and Agriculture Organization of the United Nations
World Organisation for Animal Health
World Health Organization
Significant Findings

- **Vietnam**: Positive $0,000, Negative $20,000
- **Phu Tho**: Positive $4,000, Negative $8,000
- **US**: Positive $10,000, Negative $12,000

**Post-exposure Prophylaxis**
- **Vietnam**: Start and stop
- **Phu Tho**: Start and stop
- **US**: Delay

[Logos of FAO, OIE, and WHO]
Expansion more 6 provinces
Expansion

• GHSA Flagship

Early Warning And Response (EWAR)

Epidemic Intelligence

IBS

EBS

EOC

Event Based Surveillance: EBS
Localized Outbreaks
Emerging pathogens
Poor access to health care
Activities of the FAO TCP Rabies Project

• 6 Training of trainers (TOT) courses for dog catching, vaccination, and rabies prevention & control - 120 Participants
• Trainings coordinated between DAH and FAO
• 6 policy advocacy meetings in the 6 District models in two pilot project provinces (Phu Tho and Thai Nguyen)
• 13 communes levels advocacy meetings in the 6 districts in model of 2 provinces (Phu Tho and Thai Nguyen province).
• 30 Rabies communication at school based education programs with more than 8,000 participations in Thai Nguyen; 9,000 in Phu Tho province
• Cross-sectoral communication materials produced via collaboration amongst FAO, OIE, WSPA, DAH, GDPM, WHO
  – Posters, leaflets, world rabies day fact sheets and materials
Policy and Coordination Workshop

Communication Workshop
Catching dog by net in Thai Nguyen province, Vietnam
Catching dog by net in Thai Nguyen province, Vietnam
Collar mark after vaccinating dog in Thai Nguyen province, Vietnam
Collar mark and unleash a dog in Thai Nguyen province, Vietnam
Leaflet of Asia Canine Protection Alliance
Dogs movement into Vietnam (Circular 48 MARD)
Rabies Video

• Vietnam rabies video
  • http://youtu.be/-cMZ5ou8TJU
  • http://youtu.be/qfOKyhT4p7E

• OIE rabies video (Philippines)
  • https://www.youtube.com/watch?v=RS4_38sZF3

• ACPA video
  • http://www.acpagroup.org
Rabies communication at primary and secondary school - Thai Nguyen province
Public awareness campaigns and education programs implemented to increase general awareness on rabies
Rabies education programs in school
ORGANIZATION AND MULTI-SECTORAL ELEMENTS

• ASEAN rabies elimination strategy (ARES)
• Action Plan to implement ARES.
• National program of Rabies prevention and control (2017-2020).
• Timely information sharing between human and animal health sectors.
• Active and close cooperation between human and animal health in the investigation.
• Organizing the joint training course on rabies surveillance, prevention and control.
Main challenges for controlling human & canine cases in Viet Nam

• People do not think it is important to vaccinate their dogs
• Difficult to reach desired 70% vaccination rate of dog population
• As most dogs roam in large numbers with other dogs, one infected dog can easily spread disease to other dogs in the group
• Rabies vaccination too expensive for some families to treat their dogs
• People do not get post-exposure vaccination if they are bitten because: a) they do not think it is necessary, b) they do not have access to medical facilities with the vaccine, or c) it is too expensive
CHALLENGES

• The coordination between human health and animal health at the local levels are still limited and not frequently consistent

• Sharing information of surveillance delayed results in slow response to implement prevention and outbreak treatment.

• Differences in priorities of disease surveillance between human health and animal health.

• Smuggle of dogs is risk for uncontrollable incursion of diseases from other countries; Incursion risk of emerging infectious diseases from outside of Vietnam.

• Limited funding for prevention and control of zoonotic diseases.

• Limited public-private partnership.

• Limited dog population management.
CHALLENGES (2)

• Insufficient attention is given to strengthening vaccine delivery by the animal health sector. Greater detail about vaccination strategies is required, including methods of evaluating coverage, proposals for increasing coverage and projected timelines.

• Insufficient information on course materials for training workshops prevents budget and time allocation evaluation.

• Too much emphasis is placed on enforcement and regulations, rather than grassroots activities promoting community participation in dog vaccinations.
CHALLENGES (2)

1. Quản lý, đăng ký nuôi chó:

2. Công tác tiêm phòng chó nuôi:
IMPACT

• Government commitment (central and local) and One Health efforts (MoH, MARD) have been made a significant reduction on human death case by rabies in 2011-2015 (~60%).

• Timely information sharing, active and close cooperation in the investigation and handling of the outbreak help to control the disease.

• Joint circular between MoH and MARD created a legal basis for human health and animal health collaborative activities at all levels in disease prevention and control.
IMPACT (2)

• Interdisciplinary activities promotes the relationship between officers of both sides and facilitate information sharing and more active development of a joint action plan for the next period of time.

• The support from International organizations to promote cooperation and funding activities

• The mobilization and participation of the government, social and civil society organizations, the mass media... and at all levels are key factors in the success of public awareness-raising and communication activities on zoonotic diseases.
CÁCH HẠN CHÉ BỊ ĐỘNG VẬT CẢN

KHÔNG chạy nhanh gần chó.

KHÔNG đuối chóc chò, KHÔNG lại gần chó khi chó đang ăn, ngủ hoặc khi chó mèo đang cho con

KHÔNG nhìn thẳng vào mắt chó.

Khi một con chó gần gũi đến sát bạn, KHÔNG DƯỢC quay đầu chạy. Đừng yên tay chó, tay duỗi 2 bên. Cho chó người bạn và rồi nó sẽ bỏ đi.

Nếu bị chó tấn công, HAY giã về người im, cuốn tròn như quả bông, che mặt lại.

CÁCH PHÒNG CHÓNG BỆNH ĐẠI

KHÔNG thả rông chó mèo ra đường.

TRẢNH XA chó mèo lá, chó mèo chạy rông.

Đặt chó ra đường phải có rọ möm.

Chó nuôi phải được tiêm vắc xin phòng đại hành năm.
THANK YOU SO MUCH FOR YOUR ATTENTION