ONE HEALTH IN COMMUNICABLE DISEASE CONTROL IN VIETNAM

Vu Sinh Nam, Consultant,
Vietnam One Health Partnership for Zoonoses
13 November 2018
I. Overview of the OHSP

Background
Results Framework
Implementation Planning
The OHSP was developed 2016 based on previous national integrated One Health programmes in Viet Nam.
The OHSP was developed by a team of national and international consultants.
Approval on OHSP, 2016-2020

- The OHSP was approved by MARD (Decision 5273/QD-BNN, December 19, 2016)
- Consensus of MOH (Official Correspondence 8225/BYT, November 17, 2016)
The OHSP aims to provide an integrative One Health interface and framework for:

- **More than 20 related national plans** on health, emergencies, priority zoonotic diseases: influenza, rabies and AMR, food safety, and the environment.

- **Around 50 individual One Health projects and programmes in Viet Nam** of the members of the Viet Nam One Health Partnership for Zoonoses (OHP).

*It is aligned with* international and regional initiatives:

- IHR (2005), APSED III and JEE
- OIE PVS and World Bank HSFAT
- The Global Health Security Agenda (GHSA)
- International and regional plans for specific zoonotic diseases and health issues (e.g. AMR, rabies)
Objective A: Strengthened One Health capacity for the prevention and control of zoonotic diseases

Objective B: Enhanced preparedness for a human emergency of animal origin

Objective C: One Health principles applied to limit the public health impact of current priority zoonotic diseases and AMR

GOAL: Reduce the health and other impacts of zoonotic diseases and diseases of animal origin

1. Improved One Health Capacity
   - Workforce
   - Research
   - Risk Communications
   - Legal Framework
   - Governance & Coordination
   - Surveillance
   - Laboratories

2. Improved management of any severe pandemic disease in humans

3. Improved identification and risk characterization of novel zoonotic agents

4. Influenza
5. Rabies
6. AMR
7. Food Borne Diseases and other zoonotic pathogens

OHP NATIONAL and INTERNATIONAL MEMBERS and STAKEHOLDERS (27)
II. Update on OHSP Progress

Measuring progress and identifying key issues on each Focus Area
Focus Area 1: One Health capacity building

Inter-sectoral collaboration activities

Achievements

Gaps and issues

Photo: VOHUN / USAID EPT/OHW
Focus Area 1: Inter-sectoral collaboration activities

A. Governance
- AGRICULTURE: Inter-sectoral collaboration, joint response
- HEALTH: Inter-sectoral collaboration, joint response
- OTHER SECTORS: All related sectors. Role of MONRE on environmental health

B. Legal Framework
- AGRICULTURE: Regulations and guiding documents
- HEALTH: Regulations and guiding documents
- OTHER SECTORS: MOIC, MOST, MONRE and others

C. Risk assessments and communications
- AGRICULTURE: Risk assessment capacity (AVET). Risk Communications plan
- HEALTH: Risk assessment capacity (FETP). Risk Communications plan
- OTHER SECTORS: MOIC, MOST, MONRE and others

D. Laboratories
- AGRICULTURE: Capacity building, accreditation, quality assurance, networks
- HEALTH: Capacity building, accreditation, quality assurance, networks
- OTHER SECTORS: MOIC, MOST, MONRE and others

E. Trained One Health Workforce
- AGRICULTURE: One Health Competencies, AVET, VOHUN curricula
- HEALTH: One Health Competencies, AVET, VOHUN curricula
- OTHER SECTORS: MOET certification of One Health curricula
<table>
<thead>
<tr>
<th>Focus Area 1: Inter-sectoral collaboration activities</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>AGRICULTURE</strong></td>
</tr>
<tr>
<td>F. Appropriate One Health research</td>
</tr>
<tr>
<td>- Research, sharing with policy makers</td>
</tr>
<tr>
<td>G. Prevention activities</td>
</tr>
<tr>
<td>- Antibiotic stewardship, biosecurity, waste management, etc.</td>
</tr>
<tr>
<td>H. Surveillance and reporting</td>
</tr>
<tr>
<td>- Surveillance systems, information sharing and reporting (OIE)</td>
</tr>
<tr>
<td>I. Emergency management &amp; response</td>
</tr>
<tr>
<td>- Inputs to JEE, testing plans, joint investigations &amp; SOP</td>
</tr>
<tr>
<td><strong>HEALTH</strong></td>
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</tr>
<tr>
<td>- EOC, JEE, testing plans, joint investigation &amp; SOP</td>
</tr>
<tr>
<td><strong>OTHER SECTORS</strong></td>
</tr>
<tr>
<td>F. Appropriate One Health research</td>
</tr>
<tr>
<td>- MONRE: environmental disease drivers</td>
</tr>
<tr>
<td>G. Prevention activities</td>
</tr>
<tr>
<td>- Environmental health &amp; waste management, land use planning</td>
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<tr>
<td>H. Surveillance and reporting</td>
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<tr>
<td>- Environmental health &amp; waste management, land use planning</td>
</tr>
<tr>
<td>I. Emergency management &amp; response</td>
</tr>
<tr>
<td>- Participate in testing plans</td>
</tr>
</tbody>
</table>
Focus Area 1: Achievements

• Surveillance systems have been strengthened in both sectors. Provincial piloting and evaluation of Circular 16 on inter-sectoral collaboration on zoonotic diseases. Joint risk assessment training and activities have been conducted.
• A wide range of regulations, guidelines and SOPs have been developed.
• National EOC, two regional EOCs were established, EOC guidelines were issued.
• Laboratory capacity building and quality assurance activities have been implemented with human and animal health labs.
• FETP, AVET and VOHUN activities on One Health Workforce training and Core Competencies have been carried out, including cross-sectoral activities.
• Completed its first WHO JEE, and the pilot of the World Bank HSFAT.
• Cross-border information sharing and exchanges with Cambodia, China and Laos.
• Good animal husbandry practices (VietGAHP) have been promoted.
• One Health studies have been carried out by different partners.
One Health workforce

- 62 Master of Public Health – OH oriented in English, HMU
  - 2016-2017: 19 students graduated (8 international + 11 Vietnamese)
  - 2017-2018: 17 students graduated (7 international + 10 Vietnamese)
  - 2018-2019: 26 students recruited (12 international + 14 Vietnamese)

- 220 faculties were trained on OH & teaching methods
- 373 existing health & veterinary staff were trained OH
The number students studied One Health modules in 2017 - 2018

- One Health field trip
- Risk analysis & infectious diseases
- One Health economic
- Policies relating to One Health
- Ecosystem health
- Antimicrobial resistance
- Zoonotic diseases
- Infectious diseases prevention
- Value and Ethics
- Planning and Management
- System thinking
- Culture and Belief
- Collaboration
- Communication
- Leadership
- Overview of One Health concept

Legend:
- Public health
- Preventive Medicine
- General Doctor
- Veterinary
Gaps and issues

• There are a number of relevant steering committees, the proposal for a new high-level integrated One Health steering committee noted in the OHSP is not expected to be adopted at this time.

• Currently, funding for the key OHSP activities is secured through mid-2019. Sustainability of these activities and further international cooperation beyond this point.

• Reduction in State budget funds in the context of sector restructuring can result in limitations in human resources and other factors for meeting national disease control targets.

• Inter-sectoral information sharing is still carried out manually. Online reporting system support information sharing mechanisms between the human and animal health sectors is needed.

• Specific environmental activities identified in the OHSP have not yet been addressed.
Gaps and issues

• More consideration may be needed to official adoption and sustainability of AVET, FETP and VOHUN activities in future.

• Further attention needed to the involvement of social sciences in the development and assessment of joint risk and behavior change communications for priority zoonoses.

• Further efforts to involve the private sector in specific aspects of One Health (ex. on AMR).

• How to formalize and put into operation a wide range of SOPs that have been developed, particularly in relation to inter-sectoral SOPs in a context where Joint Circulars can no longer be issued.
Focus Area 2: Human disease emergencies of zoonotic origin

Inter-sectoral collaboration activities
Achievements
Gaps and issues

Photo: USAID EPT/P&R (DAI)
Focus Area 2: **Inter-sectoral collaboration activities**

<table>
<thead>
<tr>
<th>AGRICULTURE</th>
<th>HEALTH</th>
<th>OTHER SECTORS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Effective coordination &amp; clear multi-sectoral roles</td>
<td>Animal health aspects</td>
<td>Coordinate public health emergencies</td>
</tr>
<tr>
<td>EOC system in place</td>
<td>EOC system operational</td>
<td></td>
</tr>
<tr>
<td>Revised and tested emergency plans</td>
<td>Develop &amp; test animal disease plans</td>
<td>Develop &amp; test preparedness plans</td>
</tr>
<tr>
<td>Surveillance for disease emergencies</td>
<td>Animal surveillance</td>
<td>Human surveillance</td>
</tr>
<tr>
<td>Risk communications capacity</td>
<td>Risk communications for animal diseases</td>
<td>Risk communications for human diseases</td>
</tr>
</tbody>
</table>
Focus Area 2: **Achievements**

- National EOC (at GDPM) and two regional EOCs (at NIHE and PI-HCMC) have been established. Capacity building and development of human and technical resources is ongoing, with support from international partners.

- Regular testing of preparedness and response plans is being coordinated through the national PHEOC.

- Animal and Human Health sectors have also cooperated on preparedness and response exercises, (simulation exercises for a possible incursion of influenza A(H7N9)).
Focus Area 2: **Gaps and issues**

- How to ensure the appropriate involvement of animal health and other sectors in the national, regional and provincial EOCs.
- Is there a need to establish an EOC/national zoonoses centre within DAH to strengthen national capacity for responding to zoonotic and other animal disease emergencies,
Focus Area 3: Zoonotic agents of pandemic potential

Inter-sectoral collaboration activities
Achievements
Gaps and issues

Photo: USAID EPT/PREDICT (WCS)
### Focus Area 3: Inter-sectoral collaboration activities

<table>
<thead>
<tr>
<th>Activity</th>
<th>Agriculture</th>
<th>Health</th>
<th>Other Sectors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identification of zoonotic and potential pandemic agents</td>
<td>Collection &amp; testing of samples</td>
<td>Collection &amp; testing of samples</td>
<td></td>
</tr>
<tr>
<td>Improved capacity for early detection of spill-over</td>
<td></td>
<td>Collection &amp; testing of samples</td>
<td></td>
</tr>
<tr>
<td>Inter-sectoral data sharing</td>
<td>Sharing data, analysis</td>
<td>Sharing data, analysis</td>
<td></td>
</tr>
<tr>
<td>Mitigation measures at identified risk interfaces</td>
<td>Design and implement</td>
<td>Design and implement</td>
<td>Related sectors, industries</td>
</tr>
</tbody>
</table>
Focus Area 3: Achievements

• Through the LISN and USAID EPT/PREDICT projects, samples are being gathered from humans, livestock, wildlife and the environment in selected locations

• Testing and analysis of the samples is taking place in Viet Nam (including laboratory capacity building support) and overseas

• Test results are being shared
Focus Area 3: Gaps and issues

• The diagnostic capacity of laboratories is limited and laboratory staff still need further training, supported by technical and equipment assistance from international organizations.
Focus Area 4: Zoonotic Influenza Viruses

Inter-sectoral collaboration activities

Achievements

Gaps and issues

Photo: OHP Secretariat
Focus Area 4: **Inter-sectoral collaboration activities**

- **AGRICULTURE**
  - Surveillance for zoonotic influenza poultry, pigs
  - Effectiveness of vaccination programs in poultry
  - Progress towards elimination of H5Nx HPAI
  - Surveillance of human respiratory illness cases for novel zoonotic influenza
  - Enhanced biosecurity of farms, markets

- **HEALTH**
  - Surveillance for LBM, swine
  - Selecting & applying vaccines
  - Develop infection-free zones
  - Human surveillance

- **OTHER SECTORS**
  - Apply VietGAHP, Market sanitation
  - MOIT Market Management Forces
Focus Area 4: Achievements

- LISN surveillance in live bird markets.
- Swine surveillance and studies
- SARI, SVP and LISN surveillance ongoing for humans
- Surveillance for H7N9 in humans and animals; no incursion detected
- Coordination of active surveillance locations; cross-sectoral data sharing
- SOPs for influenza outbreak response developed
- Issuing of guidelines and related awareness raising on market sanitation, poultry farm biosecurity, etc.
Focus Area 4: **Gaps and issues**

- Continuing challenges regarding the approach to addressing low pathogenic virus strains (with no clinical signs).
- The presence of both high pathogenic and low pathogenic avian influenza A(H7N9) in China requires continued attention to surveillance and preparedness activities.
Focus Area 5: Rabies

Inter-sectoral collaboration activities

Achievements

Gaps and issues

Photo: Nguyen Thuy Dung
Focus Area 5: **Inter-sectoral collaboration activities**

<table>
<thead>
<tr>
<th>AGRICULTURE</th>
<th>HEALTH</th>
<th>OTHER SECTORS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increased dog vaccination &amp; responsible dog ownership</td>
<td>Vaccination, dog management, communications</td>
<td>Authorities support enforcement of fines</td>
</tr>
<tr>
<td>PEP for human dog-bite cases (district centres)</td>
<td>Capacity building &amp; awareness raising</td>
<td></td>
</tr>
<tr>
<td>PrEP for high risk groups</td>
<td>Risk groups (dog raisers, vaccinators)</td>
<td>PrEP administration</td>
</tr>
<tr>
<td>Improved capacity to diagnose rabies</td>
<td>Animal health labs, Active surveillance</td>
<td>Human health labs</td>
</tr>
<tr>
<td>Outbreak response</td>
<td>Animal management, ring vaccination, communications</td>
<td>Human case management, tracing, communications</td>
</tr>
</tbody>
</table>

 Authorities support enforcement of fines
Focus Area 5: Achievements

• National canine vaccination rate of 51% in 2017 (increase compared to earlier years).
• 63 human rabies cases reported in 2017 (91 human cases in 2016).
• National Program for Rabies Control and Elimination, 2017-2021 issued
• Rabies Animal Vaccination Fund established and provided 90,000 doses of vaccine for ring vaccination during outbreaks in 2017
• Penalties issued to support improved canine vaccination and responsible dog ownership
• Public awareness raising in high-risk provinces, including through schools and World Rabies Day events
• Rabies testing capacity in place in key human and animal health labs
• Active surveillance of dogs suspected of having rabies
• Inter-sectoral collaboration to develop outbreak response SOPs
• Inter-sectoral simulation (table-top exercise)
WHO – NIHE cooperation

- From 2007 up to now
- Technical and financial supports
  - Communication
  - Policy and technical Workshops
  - Training courses for human and animal health sites
  - Studies on rabies burden, rabies surveillance system
The ONE HEALTH World Rabies Day
Communication
Regional Rabies training courses
Studies on rabies burden, rabies surveillance system

- Expand surveillance and response
- Evaluate PEP availability and utilization
- Understand dog ownership and healthcare seeking behavior
- Increase canine vaccination coverage
Focus Area 5: **Gaps and issues**

- Implementation, data collection and reporting on animal vaccination and dog management systems are uneven throughout the country.
- Funding for rabies prevention and control remains challenging, including sufficient fund allocations from central and local budgets, as well as mobilising international assistance.
- Increased awareness and attention from local authorities and mass organizations to support the implementation of the national action plan.
- Consideration to setting up a national reserve for PEP vaccine and anti-rabies serum in high risk locations in order to respond to outbreaks.
- Prep for high risk groups (including dog vaccinators) is noted as a need in the national action plan.
- Investment needs for domestic rabies vaccine production
Focus Area 6: Antimicrobial resistance

Inter-sectoral collaboration

Achievements

Gaps and issues

Photo: OHP Secretariat
### Focus Area 6: Inter-sectoral collaboration activities

<table>
<thead>
<tr>
<th>AGRICULTURE</th>
<th>HEALTH</th>
<th>OTHER SECTORS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Reduced and improved use of antibiotics</strong></td>
<td>Regulations &amp; monitoring, communications, VietGAHP</td>
<td>Stewardship, regulatory authority, communications</td>
</tr>
<tr>
<td><strong>Improved data on antimicrobial use and AMR</strong></td>
<td>Surveillance, information sharing</td>
<td>Surveillance, information sharing</td>
</tr>
<tr>
<td><strong>Enhanced lab capacity and quality assurance</strong></td>
<td>Assessments, capacity development</td>
<td>Assessments, capacity development, Develop reference labs</td>
</tr>
<tr>
<td><strong>Reduced environmental contamination</strong></td>
<td>Livestock waste monitoring</td>
<td>Monitoring of hospital wastes</td>
</tr>
<tr>
<td><strong>Strengthened inter-sectoral coordination</strong></td>
<td>Inter-sectoral coordination</td>
<td>Inter-sectoral coordination</td>
</tr>
</tbody>
</table>

**Surveillance, information sharing**
- Environmental sector residue monitoring
- MOIT (markets), MONRE (environmental residues)

**Regulations & monitoring, communications, VietGAHP**
- VietGAHP
- Communications

**Stewardship, regulatory authority, communications**
- Stewardship
- Regulatory authority

**Assessments, capacity development, Develop reference labs**
- Assessments
- Capacity development
- Develop reference labs

**Inter-sectoral coordination**
- Inter-sectoral coordination
- Inter-sectoral coordination
- Involvement of environmental sector
Focus Area 6: Achievements

• National AMR surveillance system under development.
• SOPs for AMR surveillance in livestock and food production system developed and piloted.
• A range of communication and public awareness raising activities carried out.
• Hospital infection prevention and control tools and models developed and tested, and guidelines issues.
• National reference laboratories being developed.
• FAO ATLASS tool applied to assess the laboratory capacity of animal health labs
• Mapping and analysis of One Health approach to AMR surveillance
• Studies conducted on related sectors and issues. Sharing of results.
Focus Area 6: Gaps and issues

• Many actors and activities now working on AMR across the three sectors of human health, animal health and environmental health. An effective coordination mechanism is needed at the working level, involving all three sectors and both national and international partners.

• Is it necessary to strengthen the coordination mechanism and allocation of human resources to address AMR in the agriculture sector?

• Resources for dealing with review and removal of previously-approved veterinary drugs for which permission has now been removed as they are on the list of priority antibiotics to reserve for treatment of humans.
Focus Area 7: Other priority zoonoses

Inter-sectoral collaboration activities

Achievements

Gaps and issues
Focus Area 7: **Inter-sectoral collaboration activities**

<table>
<thead>
<tr>
<th>Priority zoonoses: Anthrax, Streptococcus suis, Leptospirosis</th>
<th>AGRICULTURE</th>
<th>HEALTH</th>
<th>OTHER SECTORS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Guidelines, prevention &amp; control, communications</td>
<td></td>
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<td></td>
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</tbody>
</table>

| Traceability of animals and residue testing                   | Develop, pilot and apply traceability |        |               |

| Risk assessment of food borne illness of animal origin         | Risk assessment through value chains | Surveillance of food-borne illness | Sectors responsible for food safety |

| Implementation of Circular 16 on inter-sectoral collaboration  | Inter-sectoral coordination | Inter-sectoral coordination |       |

| Additional research on diseases and appropriate measures       | Research and identification of measures | Research and identification of measures | Related sectors for prevention and control measures |
Focus Area 7: Achievements

• MARD and MOH have issued guidelines on prevention and control of priority zoonoses including Anthrax, Streptococcus suis and Leptospirosis.
• Provincial piloting and evaluation of Circular 16 implementation.
• Traceability of pig origins on farms, transportation, quarantine inspection and slaughtering has been improved.
• A number of risk assessment studies and meetings on zoonoses have been carried out.
Focus Area 7: **Gaps and issues**

- Remote, mountainous and poor areas face particular difficulties for access, awareness, prevention and control of priority zoonoses.
- A need for further investigation on the status of brucellosis in animals and humans.
The future of One Health and GHSA coordination
Global focus on animal health-human health coordination, single-disease response: SARS, AI…

Global inter-ministerial meetings (Beijing, Bamako, Delhi, Egypt, Hanoi) move beyond individual diseases.

Hanoi IMCAPI 2010 affirms global OH approach.

ODA support for individual diseases, One Health, Global Health Security.

Addressing priority zoonoses (updated 2013): influenza, rabies, strep suis, anthrax, leptospirosis.

Global and National progress to ONE HEALTH & GHSA


Global Health Security Agenda (GHSA)

Biannual Global OH Congresses

One Health Partnership for Zoonoses (OHP)

Partnership for Avian and Human Influenza (PAHI)

MOH/MARD Joint Circular 16

Annual OH Forums

Global Coordination

National Coordination

Viet Nam's National Coordination

Global and National OH progress to GHSA

1st National One Health Conference

2nd National One Health Conference

3rd National One Health Conference

SARS S.C.

PANDEMIC INFLUENZA STEERING COMMITTEE

AVIAN INFLUENZA STEERING COMMITTEE

Addressing priority zoonoses (updated 2013): influenza, rabies, strep suis, anthrax, leptospirosis

MERS-CoV

SARS

Avian Influenza H5N1

Pandemic H1N1

Influenza H7N9, H6N6

Zika

West African Ebola
Thank you very much!
ONE HEALTH IN COMMUNICABLE DISEASE CONTROL IN VIETNAM

Vu Sinh Nam, Consultant,
Vietnam One Health Partnership for Zoonoses
Hanoi, 13 November 2018