Bhutan’s experience with dog population management and mass dog vaccination

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Background

- Facts of Bhutan - implications on DPM and rabies control
- Burden of increasing dog population - dog bites and diseases, social nuisance, threat to wildlife, animal welfare issues
- Rabies is cross-border transmission problem in Bhutan
- Awareness campaign on rabies and DPM during World Rabies Day since its inception in 2007
Timeline on initiatives under taken to manage dog population and rabies control

1970’s - 1980’s

- Poisoning and Shooting
  - Socially not acceptable
  - Poor coverage, un-manageable dog population and high incidence of rabies and Zoonosis

1990’s

- Translocation
  - Created animal welfare and social issues

2000’s

- Impounding
  - Poor animal welfare and not sustainable

2009

- CNVR
  - Scientifically proven and socially acceptable

2013

- Mass Rabies Vaccination
  - Targeted vaccination and reduce incidence of Rabies

2014

- CABC
  - Community ownership and higher coverage

High coverage, manageable dog population and reduced incidence of rabies and zoonoses
Dog Population Management through Capture Neuter Vaccinate Release Program

**Catch**
Dog are caught from the community in a humane way and transported to our clinic.

**Neuter**
The dog is then sterilized so they are no longer able to reproduce.

**Vaccinate**
Each dog is vaccinated against rabies.

**Release**
Once recovered, the dog is then released back to the same location where it was caught.
Collaboration between RGOB and HSI

**Phase 1 (2009 to June 2012)**
Funding mechanism (RGOB: HSI): 50:50 Partnership
Manpower: Technical team (100% HSI)

**Phase 2 (July 2012 to June 2015)**
Funding mechanism (RGOB: HSI): 50:50 Partnership
Manpower: Technical team (90% Bhutanese and 10% HSI)
HSI Role – Team leader, training of RGOB staff, CABC

**Phase 3 (July 2015 to June 2018)**
Funding mechanism (RGOB: HSI): 70:30 Partnership
Manpower: 100% Bhutanese
HSI: AWOs payment, surgical instrument & dog catching van
Key achievements of CNVR program

- Veterinarians and Paravets trained in CNVR protocol leading to uplifting the image of veterinary profession
- Three rounds of nationwide survey conducted in year 2012, 2015 and 2018 to evaluate the impact of CNVR program

<table>
<thead>
<tr>
<th>Questions</th>
<th>Year 2012</th>
<th>Year 2015</th>
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<tbody>
<tr>
<td>Knows sign of rabies</td>
<td>61%</td>
<td>70%</td>
</tr>
<tr>
<td>Rabies prevention</td>
<td>50%</td>
<td>70%</td>
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<tr>
<td>FR dog population control</td>
<td>84%</td>
<td>92%</td>
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Dog Population Management (DPM) Strategy

Task Force for DPM

- Policy and Legislation
- Animal Birth Control
- Habitat Control

- Animal Shelter
- Community Adoption
- Feral dogs
- Euthanasia

- Responsible Dog Ownership
- Import, Export & Movement
- Surgical – CNVR & CABC
- Chemical – Hormones
- Food and water
- Shelter

Community Engagement & HBC
DPM Coord Meeting
Research & Development

M & E
National Rabies Prevention & Control Plan (2016)

Stakeholders

Control Strategy
- Outbreak – Reporting & Investigation
  - Activate RRT
    - Case mgt
    - Booster vaccination
    - Pre-emptive culling
  - PEP for humans
  - Information sharing and IBCM

Prevention Strategy
- Identification of risk zones
- Vaccination Program
- Dog Pop Management

High risk – annual vaccination
Low – once in two years

Vaccine quality, cold chain, supply, target species & animals, mass vaccination

Responsible Pet Ownership
Sustainable dog pop management
DPM

Awareness
Surveillance
Coord Meeting
R & D
Cross Border

M & E

M & E

M & E
Mass Vaccination Campaign

- Mass vaccination campaign conducted in rabies endemic areas
- Awareness and advocacy campaign
- Fix vaccination points
- Owner bring their dogs and strays are captured by AWOs
- Conduct vaccination of dogs and mark dogs with vegetable dye
- Conduct proportion count to ascertain coverage
- Decision to move from one site to another is based on the proportion counts (70% or higher)
- Conduct cross border vaccination after having a harmonization meeting with counterparts across the border in feasible areas
Key Achievements in rabies control

- Improvement in reporting and rapid detection including diagnosis
- Rabid containment of all outbreaks in animals
- Close linkages between animal health, human health officials and Local Government
- Only two human rabies reported since 2012 (1 in 2013 & 1 case in 2016)
- Reduction of animal rabies cases
Strategic Plan for Elimination of Rabies by 2030

- Two assessment (2017 and 2019) conducted using SARE-PWARE Tool
  - Score was 3.5 during both assessment
  - Will be able to achieve freedom from dog mediated human rabies 2025
  - IMCOH advised TWG to align with the global target of 2030
  - National Strategic Plan for elimination of rabies prepared based on SARE-PWARE Assessment
Way Forward

• **Implement National Dog Population Management Strategy**
  – Enhance CNVR programme
  – Promote community engagement and human behaviour change on dog population management
  – Initiate and implement feral dog population control programme
  – Liaise and sign MOU with relevant stakeholders (LG, Municipal Authorities & NGOs)

• **Implement Strategic Plan for Elimination of Rabies by 2030**
  – Strengthen rabies surveillance in animals
  – Enhance mass vaccination of dogs in rabies endemic areas
  – Promote integrated bite case management (IBCM) through one health approach
  – Develop and implement National Advocacy Plan for rabies
THANK YOU