Role of Veterinary Services and Veterinary Professionals in the control of Rabies

RICHARD D. SUU-IRE
Presentation Outline

• Introduction (Veterinary Contribution to Society)
• Veterinary Services and Professionals in the Control of rabies
• Ghana National Rabies Campaign – Pass and Current Campaign Experiences.
• Conclusion/Recommendations
The Veterinary contribution to Society

• Public Health
• Disease Control
• Animal Welfare
• Public Education
• Food Production and safety

Courtesy of Dr. M. F. Aubert, France
The Veterinary contribution to Society

- Disaster Management
- Environmental Protection and Conservation of Wildlife
- International Development including Trade
Veterinary Bodies in Ghana

• Veterinary activities is molded by:
• The Veterinary Council:
• The Veterinary Services – Government regulatory body
• Private Veterinarians
• The Veterinary Associations – Ghana Veterinary Medical Association, Veterinary Medical Technicians Association.

All these bodies play are vital role in the practice of very surgery including the control of rabies.
Veterinary Services and Rabies control in Ghana

• Veterinary Professionals are engage in many areas of national economies – Research /Academia, Private/commercial sectors, Security, Veterinary Regulatory Services.

• Veterinary Services Department in most countries is responsible for animal health and production, including disease control and human capacity/Infrastructural development in the country.

• Various organs of the services play role in the control of rabies locally and Internationally
Veterinary Organogram for rabies prevention and control (Ghana)

Veterinary Directorate:
- Deputy Director for disease control
- Veterinary Epidemiologist
- Public Heath
- Wildlife Unit
- Veterinary Laboratory

Regional Veterinary Office:
- Regional Vet. Office
- Vet. Epidemiologist
- Regional Vet. Laboratory

District Vet. Office:
- District Vet. Officer
- Veterinary Technician (Paravets)
Veterinary Services Directorate and Rabies Control

The Veterinary Headquarters:

• Develop Policy /legislation on rabies prevention/control and advice government on the prevention and best control method for rabies

• Plan and coordinate National Vaccination Campaign

• Budget and source for funds for rabies control interventions

• Procure vaccines and other logistics for rabies control.
Veterinary Services Directorate and Rabies Control (Cont.)

• Promote diagnosis and Research into rabies in the country

• Dissemination information (Surveillance data, cases etc on rabies to national and international stakeholders.

• Member of National Rabies control committee

• Develop Veterinary Capacity and Laboratory Capacity for the surveillance, diagnosis and control of rabies
Regional Veterinary Office

• Headed by a deputy Director (Reg. Vet. Officer)
• Plan and coordinate rabies activities within her/his region
• Distribution of Vaccines and logistics to districts
• Advices Regional Minister on outbreak control measures
• Collate and report to CVO on rabies cases, vaccination and control measures
• Facilitate submission of samples to Rabies laboratory
• Support district in the control of rabies outbreak in the region
Rabies is reported in outbreaks and in retune monthly returns (Ashanti Region Mid - Year Report, 2011)

<table>
<thead>
<tr>
<th>Disease</th>
<th>Species</th>
<th>No. vaccinated (Jan-June 2010)</th>
<th>No. vaccinated (Jan-June 2011)</th>
<th>Performance (+/-)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PPR</td>
<td>Sheep</td>
<td>11,909</td>
<td>47,203</td>
<td>+35,294</td>
</tr>
<tr>
<td>PPR</td>
<td>Goat</td>
<td>4,208</td>
<td>41,848</td>
<td>+37,640</td>
</tr>
<tr>
<td>CBPP</td>
<td>Cattle</td>
<td>2,651</td>
<td>2,742</td>
<td>+91</td>
</tr>
<tr>
<td>Blackleg</td>
<td>Cattle</td>
<td>Nil</td>
<td>Nil</td>
<td></td>
</tr>
<tr>
<td>Rabies</td>
<td>Dog</td>
<td>8,127</td>
<td>12,226</td>
<td>+ 4,099</td>
</tr>
<tr>
<td>Rabies</td>
<td>Cat</td>
<td>233</td>
<td>1,044</td>
<td>+ 811</td>
</tr>
<tr>
<td>Rabies</td>
<td>Monkey</td>
<td>10</td>
<td>12</td>
<td>+ 2</td>
</tr>
<tr>
<td>NCD</td>
<td>Poultry</td>
<td>157,727</td>
<td>167,615</td>
<td>+ 9,888</td>
</tr>
<tr>
<td>Fowl Pox</td>
<td>Poultry</td>
<td>67,200</td>
<td>28,480</td>
<td>- 38,720</td>
</tr>
<tr>
<td>Gumboro</td>
<td>Poultry</td>
<td>65,000</td>
<td>53,000</td>
<td>- 12,000</td>
</tr>
</tbody>
</table>
District Veterinary Office

• Headed by a District Vet. Officer
• Plan and coordinate with local authority on vaccination campaign
• Report to region vet. Officer, Local Authority, on rabies cases and outbreak in animals
• Education and sensitisation on rabies at local level
• Conduct Rabies surveillance in the district
District Veterinary Office

- Together with epidemiologist and Regional Vet. Officer Control rabies outbreak – Diagnosis, quarantine, Outbreak surveillance, targeted vaccination, Education/sensitisation,
- Operate district dog quarantine - Quarantine suspected rabid dogs
- Give feedback to District medical Officer on results of quarantine dogs (dog bite cases involving human)
Quarantine Facility at The Accra Metropolitan Veterinary Services
Role of Private Veterinarians and Veterinary Clinics

- Vaccination of individual dogs at clinics
- Contract anti-rabies campaign in their area of operations
- Coordinate with Official government veterinary officer on rabies control
- Report to official government veterinarian (Regional Vet. Officer) on vaccinations and clinical activities in her/his clinic and area of operations
Role of Private Veterinarians and Veterinary Clinics

• Promote population control through neutering and contributing to the birth of unwanted animals.

• Education and sensitisation on responsible pet ownership

• Knowledge sharing for her members – Workshops and conference
Veterinary Associations and Advocacy on rabies control

• Mouth peace where the Chief Vet. Cannot talk
• The Ghana Veterinary Association (GVMA) advocated for the formation of National, Regional and District Rabies Control Committees in Ghana
• GVMA currently dialoguing with government for a return to the National rabies campaign, since the district level rabies campaign is ineffective
Role of Veterinary Professional Bodies
Case of GVMA

• Public Sensitisation /education through media discussion, durbars (world rabies day celebration)
GVMA Rural Education Outreach
Role of Professional Bodies (CVA)

• The Commonwealth Veterinary Association (CVA) facilitate dissemination of professional knowledge and information

• CVA plan and execute micro projects that serve as a model for national governments and international organisations

• With other stakeholders organises workshops and conferences on Rabies. The 5th Pan Commonwealth Veterinary Conference (Accra, Ghana) had a day Rabies workshop that had over 400 participants from over 54 countries.
Role of Professional Associations (CVA)

- CVA funds projects to develop capacity of Veterinarians. One current project is a rural community rabies project to demonstrate the effectiveness of combined and coordinated medical and veterinary intervention of rabies control.
# Role of Professional Associations – Case of CVA (Tanzania Rabies Project Report)

<table>
<thead>
<tr>
<th>Sector</th>
<th>Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Dog vaccination</td>
</tr>
<tr>
<td>Veterinary Services</td>
<td>X</td>
</tr>
<tr>
<td>Health Services</td>
<td></td>
</tr>
<tr>
<td>Local Government</td>
<td></td>
</tr>
<tr>
<td>Community Leaders</td>
<td>X</td>
</tr>
</tbody>
</table>
Rabies Surveillance - Diagnosis

• Accra Veterinary Lab. is the national facility for confirmation of suspected rabies cases (FAT test)
• There are also Regional Labs in Kumasi, Cape Coast, Takoradi, Ho and Pong Tamale That uses Steller staining for diagnosis of rabies.

- Dog samples (Head) are submitted from the regions by Veterinary officers for diagnosis
- Human samples are also sometimes received for confirmation of human rabies.
- The lab. store samples and data for research purposes
## Reported Rabies Outbreak in Ghana – 2005 - 2010

<table>
<thead>
<tr>
<th>Year</th>
<th>No. of Outbreaks</th>
<th>Cases</th>
<th>Deaths</th>
<th>Destroyed</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>38</td>
<td>55</td>
<td>55</td>
<td>0</td>
</tr>
<tr>
<td>2006</td>
<td>37</td>
<td>37</td>
<td>37</td>
<td>0</td>
</tr>
<tr>
<td>2007</td>
<td>24</td>
<td>30</td>
<td>27</td>
<td>3</td>
</tr>
<tr>
<td>2008</td>
<td>61</td>
<td>72</td>
<td>54</td>
<td>18</td>
</tr>
<tr>
<td>2009</td>
<td>34</td>
<td>38</td>
<td>32</td>
<td>6</td>
</tr>
<tr>
<td>2010</td>
<td>30</td>
<td>32</td>
<td>4</td>
<td>28</td>
</tr>
</tbody>
</table>
Rabies Surveillance - Research

- The Veterinary Services promote and facilitate research on rabies in the country (though Research is not within her mandate):
  - In Ghana, the Veterinary Services have MOU with research institutions (Cambridge University, VLA, ZSL) and published many scientific findings on rabies in the country.
  - Developing twining agreement with developed Rabies laboratories (VLA)
Rabies surveillance - Research

• Lyssavirus seroprevalence in commonly caught species (Hayman et al 2008 *Emerging Infectious Diseases* **14**, 926-8)

Rabies Surveillance – Import/Export Border Control

• The directorate has regulatory mandate for the importation and export of dogs from Ghana

➢ Develop required standard prophylactic treatment guide lines and test requirement for dogs and other animals imported into the country.

➢ Ensure dogs exported meet rabies requirement for the importing countries.
Local Dog Market in Ghana
Previous National Rabies Campaign (Before 1998)

• Is an annual National activity
• Coordinated by the Veterinary services directorate
• Funds are provided to the Veterinary Directorate for logistics from the Ministry Food and Agriculture.
• Massive publicity on the campaign in the national and local media – advertisement in media, posters, radio discussions, Public announcement (vans, churches, Assembly meetings, market places, other public gatherings
Sample Campaign Posters

ANTI-RABIES CAMPAIGN

IMMUNISE YOUR DOG AND SAVE A LIFE

ORGANISED BY VETERINARY SERVICES DEPT.
OF MINISTRY OF FOOD AND AGRIC.

DESIGNED BY HEALTH EDUCATION DIVISION
MINISTRY OF HEALTH

PRINTED BY: AVAKEL PRESS, OAIA
Radio talk shows
Previous National Rabies Campaign (Before 1998) (cont.)

• Vaccination dates is usually scheduled by the Chief Veterinary Officer and obeyed by all.
• Campaign is lunched by the Sector minister.
• Vaccination is either at a Fixed post or by House to house mobile teams.
• Pets are vaccinated and tagged free during a month window campaign.
• Mopping is done at veterinary clinics for another 2 weeks.
National Rabies Campaign (Before 1998)

- Unvaccinated dogs are captured by a Task Force comprising staff of Veterinary services in collaboration with local government (assembly) and security agencies and detained at quarantines for owners to claim ownership. Owners pay for vaccination.
- Unclaimed pets are destroyed.
Current Annual rabies campaign (Since 1998)

• Vaccination campaign is done by the district veterinary office under decentralised MOFA and
• Funds are from the District Directorate of the Ministry of Agriculture and the District Assembly
• No national Coordination
• Virtually there no Publicity
• Free Pet vaccination, but not tagged
• Do not destroy unvaccinated dogs
Challenges

• Lack of Trained Veterinary Professionals in developing countries

• Decentralised system and use of unskilled Agric personnel/Quack vets for vaccination campaigns etc

• Weak legislature and Chain of command structure of veterinary services of African countries

• Poor Veterinary Infrastructure including Inadequate diagnostic capacities of rabies laboratories in developing countries (Twinning?)
Recommendations

• Review legislation and Restore command structure of veterinary services in developing countries

• Develop diagnostic Capacity of national laboratories and Provide Regional reference Veterinary Laboratories for confirmation of rabies

• Encourage national rabies campaign, than current decentralised approach.

• Synchronise Regional Annual rabies campaign programmes
# Conclusion - Role of Veterinarians in rabies control

<table>
<thead>
<tr>
<th>Veterinary Services Activity</th>
<th>Task</th>
<th>Other stakeholders</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education</td>
<td>Community sensitisation, especially during vaccination campaign</td>
<td>MoE, NGOs, MoH, Local Authorities, Private veterinarians, Veterinary associations</td>
</tr>
<tr>
<td>Rabies Surveillance</td>
<td>Dog bite cases, laboratory confirmation, Data collection and analysis,</td>
<td>MoH, Private veterinarians</td>
</tr>
<tr>
<td>Dog ecology surveys</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vaccination</td>
<td>Vaccine Importation, distribution, dog vaccination and monitoring of vaccine stock</td>
<td></td>
</tr>
<tr>
<td>Dog population management</td>
<td>Education, Registration and identification, sterilisation, confinement</td>
<td>MoE, NGOs, Local Authorities</td>
</tr>
<tr>
<td>Legislation</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Acknowledgement / Literature

• Ghana Veterinary Services Directorate and the Ghana Veterinary medical association
• Commonwealth Veterinary Association
• Ghana Veterinary Medical Association
• Tanzania Veterinary Association
Literature

- E.N.W. Oppong, Veterinary Medicine in the service of mankind(1998) 2-4, 83-85
- Hayman et al 2008 *Emerging Infectious Diseases* 14, 926-8