Sharing experiences of a successful mass dog vaccination campaign in Namibia

Dr Rauna Athingo

Africa Rabies Webinar, 23-24 September 2020
Background

- Area: 825,615 km²
- Population: 2.59 million people
- Population density: 2.6 person/km²
- Namibia is ethnically diverse
  - 11 ethnic groups
  - speaking 22 different languages
- Shares its borders with Angola, Botswana, South Africa, Zambia and Zimbabwe.

rabies situation - dog rabies and sylvatic rabies; dog rabies present mostly in NCA region and wildlife mostly south of Namibia

Hikufe et al., 2019, PLOS NTD

Direct link b/t dog rabies and human rabies surveillance data in terms of location
Rabies Control Strategy

• Rabies is a notifiable disease in Namibia as per Animal Health Act 1 of 2011 – reporting of the disease to authority

• Namibia developed and officially endorsed a “National Rabies Control Strategy” in May 2015

• Multisectoral One Health approach
Key stakeholders identified under Namibia Rabies Control Strategy

Local and international stakeholders

- Traditional authorities
- Local authorities
- Regional councilors
- Ministry of Education
- Ministry of Health
- Law enforcement
- MAWF
- VAN
- UNAM
- Private sector/Business communities
- OIE/FRG/FLI
Implementation of Pilot project

• Government of Germany co-financed the Project with technical coordination provided by OIE and FLI

• Pilot project implemented in Oshana region – First campaign started in May 2016
Capacity building: training of the vaccinators
School-based rabies awareness education
Awareness education to the children

Public education and awareness via TV and radio
Resource/Logistics arrangement

• Pre-approved campaign budget
  o Infrastructure – cold chain facilities
  o Diagnostic Labs and sample packaging materials
  o Transport - vehicles

• Equipment and material
  o PrEP and PoEP
  o Vaccines (enough doses)
  o Handling equipments- nets, control poles and leashes
  o Megaphones
  o Cooler boxes
  o Certificates
  o Tables and chairs
Mass dog vaccination campaign

- Targeted campaign - Central point and house to house vaccination
- Vaccination campaign conducted during school holidays
Vaccination at cattle crush pen

- Annual vaccination campaign at crush pen
- Challenge on distance
- People without cattle unlikely to come
Dog and cat vaccination

- **2016**: 62,213
- **2017**: 110,352
- **2018**: 81,663

Estimated vaccination coverage: 69% (40-87%)

*Rauna et al., 2020, Trop Vet Med*
Impact of dog vaccination on rabies incidence in animals and in humans

Dog and cat vaccination
- 2016: 62,213
- 2017: 110,352
- 2018: 81,663

Vaccination coverage: 69% (40-87%)

Rabies surveillance increased; Rabies positivity rate has reduced; increased negativity rate
Ecology and epidemiology of rabies in humans, domestic animals and wildlife in Namibia, 2011-2017

Emmanuel H. Hikufe, Conrad M. Freuling, Rauna Athingo, Albertina Shilongo, Emmy-Else Ndevaetela, Maria Helao, Mathews Shiindi, Rainer Hassel, Alec Bishi, Siegfried Khaiseb, Juliet Kabajani, Jolanda van der Westhuizen, Gregorio Torres, Andrea Britton, Moetapele Letshwenyo, Karin Schwabenbauer, Thomas C. Mettenleiter, Nicolai Denzin, Susanne Amler, Franz J. Conraths, Thomas Müller, Adrianatus Maseke

Article

Fighting Dog-Mediated Rabies in Namibia—Implementation of a Rabies Elimination Program in the Northern Communal Areas

Rauna Athingo, Tenzin Tenzin, Albertina Shilongo, Emmanuel Hikufe, Kenneth K. Shoombe, Siegfried Khaiseb, Jolanda van der Westhuizen, Moetapele Letshwenyo, Gregorio Torres, Thomas C. Mettenleiter, Conrad M. Freuling, and Thomas Müller
Targeting vaccination on rabies hotspot areas from 2019 onwards

Gray dots are the location of vaccination points in 2019 and 2020 campaigns.
Vaccination data management

• Paper-based form used until 2018

Since 2019, GARC Data Logger is being used to capture vaccination data
Visualization of vaccination location via Rabies Epi Bulletin

• 2019 (Red dots) and 2020 (Black dots) campaign; lower map is vaccination location around the rabies hot spot areas
Visualization of daily and cumulative vaccination data via Rabies Epi Bulletin campaign monitoring purposes, data crucial for future campaign planning
• Namibia-Angola border: 1370 km
• Rabies is a cross-border problem
Annual Review and Planning
Important elements of rabies elimination program

- Legal framework – national control plan
- Political support and commitment
- Leadership – national committee, coordinators
- Public and stakeholder sensitization, commitment and engagement - rabies is a public good
- Inter-sectoral collaboration – One health
- Training/ capacity building
- Resource –both human and materials
- Good advocacy plan
- International support
- Logistic arrangement
- Proper planning
- Surveillance system
- Monitoring and evaluation
Challenges and way forward

- Vast country and a sparsely populated Northern Communal Areas where dog rabies is endemic.
- Porous border with neighboring country
- Nomadic lifestyle of people moving in search of grazing areas influenced by climatic changes as a result that might affect campaign timing
- Estimation of the target dog population and high dog population turnover,
- Unforeseen budgetary constraints at the governmental level
- Possible animal and human disease outbreak and most recently the SARS-CoV-2 pandemic.
- Surveillance mostly depends on reporting from communities and samples presented to local hospitals, hence inter-sectoral collaboration very crucial
- Therefore, strategic vaccination campaigns (targeted vaccinations) focusing on high risk areas and improving the vaccination coverage at a local level.
- Coordination of rabies control efforts between Angola and Namibia and its implementation is a priority as set in the bilateral agreement on TADs
- Namibia submitted a rabies elimination commitment letter to the UAR in February 2019 (level of commitment towards Rabies elimination)
- Preparing to submit an application for endorsement by the OIE of their official national control programme for dog-mediated rabies.
Thank you

END RABIES: COLLABORATE, VACCINATE

RABIES ENDS HERE WITH ALL

#rabiesendshere