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Sub-Regional Representation for Southern Africa, Gaborone, Botswana World Organisation for Animal Health

Rabies Elimination Experiences from Africa and Cross-border collaboration

SAARC Rabies Webinar
Organized by OIE-Regional Representation for Asia, Tokyo
18-20 May 2020



Presentation Outline

OIE Vaccine Bank and delivery in Africa

1

Rabies elimination program in Namibia

2

Regional and cross-border collaboration

3



Rabies in Africa



54 countries

divided into 5 regions

1.3 billion people



Rabies is endemic

 only few island countries are free from rabies

- 21,476 deaths/year
- 36.4% of the global estimates
- 1.34m DALYs lost

Per capita death rates (per 100,000 persons) due to rabies in Africa

B

under 0.0024
0.0024 - 0.038
0.038 - 0.19
0.19 - 0.6
0.6 - 1.5
1.5 - 3
over 3

Hampson et al., 2015, PLOS NTD



OIE's engagement towards Rabies

Elimination in Africa

Bamako

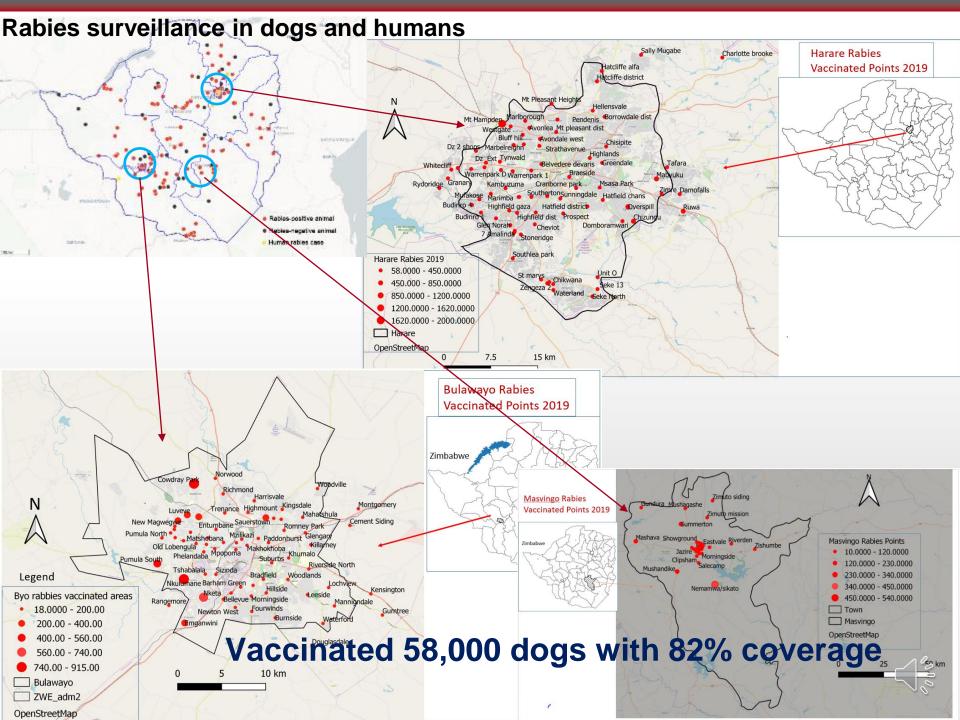
- OIE Vaccine Banks (rabies est. 2012)
 - Supported by EU, Australia, Germany, France, Canada and Japan
- 22.6 million doses of rabies vaccine were delivered to 33 countries in Asia and Africa
- In Africa: 25 countries benefited
- It played a catalytic role to encourages MS towards rabies elimination program





Formal handing over of the OIE donated rabies vaccines to the Agriculture Minister







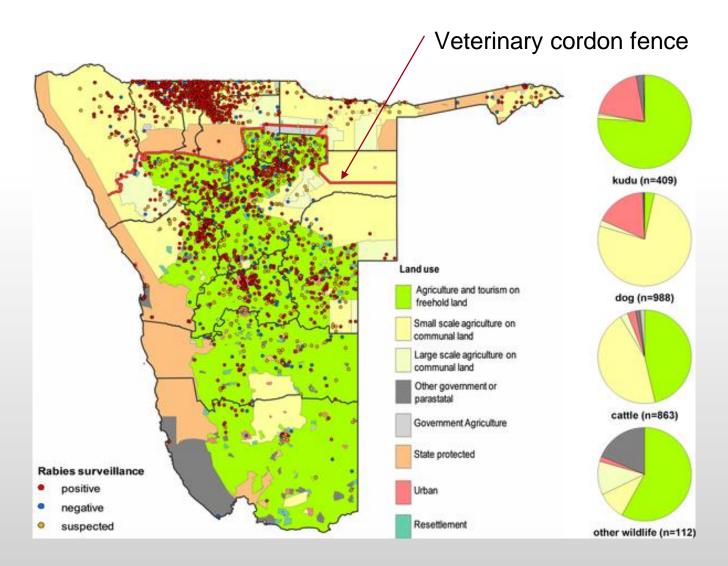
Rabies Project in Namibia

- 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



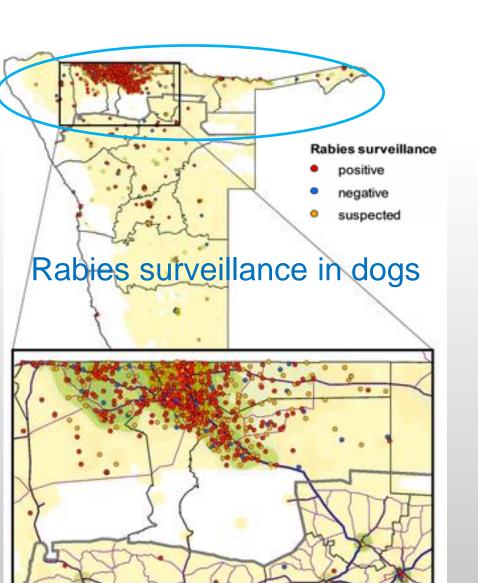


Rabies surveillance in animals in Namibia (2011-2017)



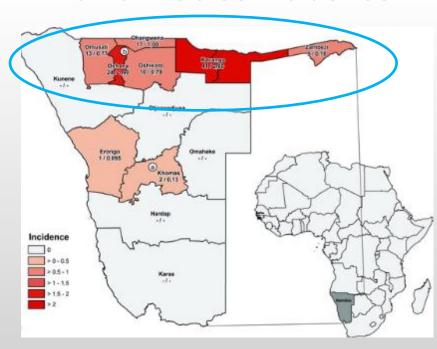


Rabies surveillance in dogs and in human Namibia (2011 - 2017)



There is a strong correlation between human density and the incidence of dog rabies

Human rabies incidence



Hikufe et al., 2019, PLOS NTD

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Pilot project (March 2016 – March 2017)

 Pilot project implemented in Oshana region

First campaign started on 02 May 2016

Start Small and Build Progress





Capacity building: training of the vaccinators



Rabies Education in Schools



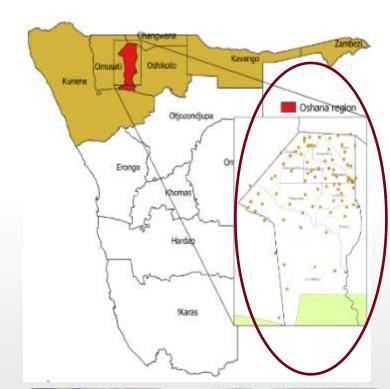
Mass dog vaccination campaign

 Vaccination campaign conducted during school holidays



Pilot campaign progress

- 1st campaign: May–Jun 2016
 - 8 teams: 46 vaccination days
 - 24,638 dogs and 2,078 cats
 (26,711 animals)
 - Estimated coverage: 96%
- 2nd campaign: Oct-Dec 2016
 - 32 vaccination days, 12,634
 dogs' and 907 cats vaccinated
 - 68.3% vaccination coverage

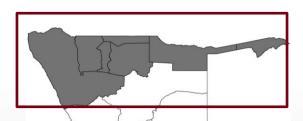






Rollout of the campaign in all 8 NCA regions (2017-2018)

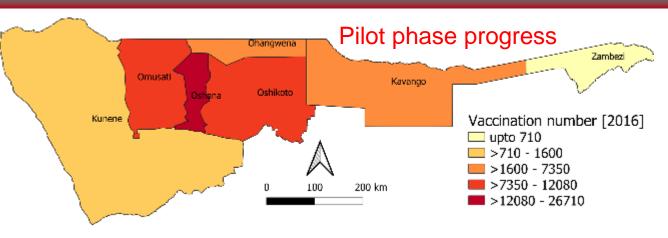
Launched on 6th April 2017



- NCAs huge area (263,000 km²)
- Estimted population ____ 1.2 million people
- Varying population density dense to very low
- Spead-out settlements
- Varying infrastructure
- Long distances West –East: 1500 km
- Namibia-Angola border: 1370 km in length



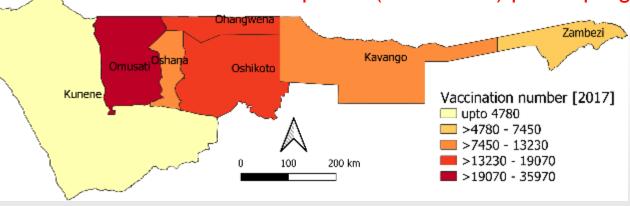




Dog and cat vaccination

2016: **62,213**

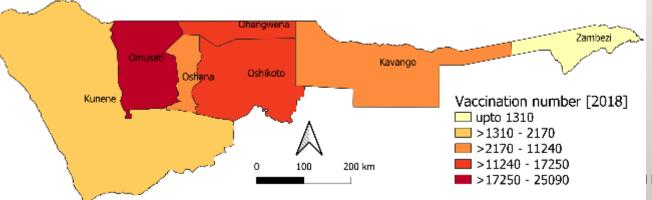
Roll out phase (2017-2018) phase progress



Dog and cat vaccination

2017: 110,352

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



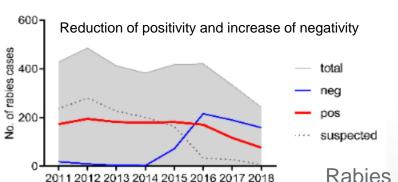
Dog and cat vaccination

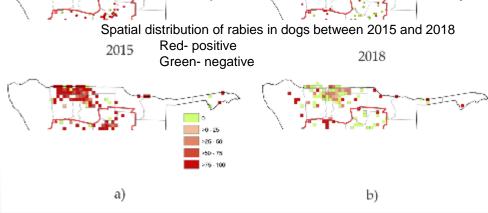
2018: 81,663

Rauna et al., 2020, Trop Vet Med

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Impact of dog vaccination on rabies incidence in animals and in humans



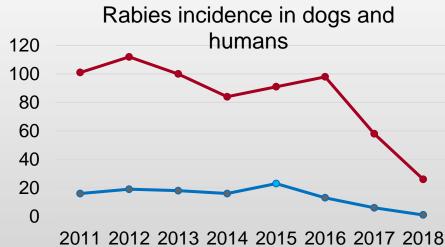


Rabies surveillance in dogs

Dog and cat vaccination

Year

- **2016**: 62,213
- **2017**: 110,352
- **2**018: 81,663
- Vaccination coverage: 69% (40-87%)



• Dog coops

→ Dog cases → Human cases



Rauna et al., 2020, Trop Vet Med

Important elements of rabies elimination program

- 1. Legal framework national control plan
- 2. Political support and commitment
- 3. Leadership national committee, coordinators
- Public and stakeholder sensitization, commitment and engagement - rabies is a public good
- 5. Inter-sectoral collaboration One health
- 6. Training/ capacity building
- 7. Resource –both human and materials
- 8. Good advocacy plan
- International support
- 10. Logistic arrangement
- 11. Proper planning
- 12. Surveillance system
- 13. Monitoring and evaluation







RESEARCH ARTICLE

Ecology and epidemiology of rabies in humans, domestic animals and wildlife in Namibia, 2011-2017

Emmanuel H. Hikufe^{1©}, Conrad M. Freuling^{2©*}, Rauna Athingo³, Albertina Shilongo¹, Emmy-Else Ndevaetela⁴, Maria Helao⁴, Mathews Shiindi⁴, Rainer Hassel⁵, Alec Bishi⁵, Siegfried Khaiseb⁶, Juliet Kabajani⁶, Jolandie van der Westhuizen⁶, Gregorio Torres⁷, Andrea Britton⁸, Moetapele Letshwenyo⁸, Karin Schwabenbauer⁹, Thomas C. Mettenleiter², Nicolai Denzin¹⁰, Susanne Amler¹⁰, Franz J. Conraths¹⁰, Thomas Müller², Adrianatus Maseke¹





Article

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

Rauna Athingo ^{1,†}, Tenzin Tenzin ^{2,†}, Albertina Shilongo ³, Emmanuel Hikufe ³, Kenneth K. Shoombe ¹, Siegfried Khaiseb ⁴, Jolandie van der Westhuizen ⁴, Moetapele Letshwenyo ², Gregorio Torres ⁵, Thomas C. Mettenleiter ⁶, Conrad M. Freuling ⁶ and Thomas Müller ^{6,*}



Cross-border collaboration Cabinda Ulge **Uige** Lunda Norte Lundá Norte Berigo Berigo Malagie Malagje Luarica Luanda Lunda Sul Lunda Sul Cuanza Su Cuanza Sul Micwico Benguéla Bié Moxico Benguéla Huila Huila Namibe Nam/be Duando Cultango Cunene Cuando Cubango Zambezi Cunene Oshikoto Zambezi Kavanco Oshikoto Kulpene Kavango Omusati Mig Atjozondjupa Kunene Otjozondiupa Omaheke Erongo Chomas. Omaheke Erongo Khomas Hardap Hardap !Karas Namibia-Angola border: 1370 km Rabies is a cross-border problem **DiC**

Cross-border collaboration

- Organized joint technical committee meeting between the veterinary services of Namibia and Angola in 2019
- Developed rabies elimination cation plan for Southern Angola and cross-border plan









OIE donates 140,000 doses of rabies vaccine to Angola to implement MDV in southern Angola



Regional collaboration

 Pan-African Rabies Control Network (PARACON)

The Pan-African Rabies Control Network (PARACON) was established by GARC in 2014, merging existing networks and uniting scientific expertise with planning and practical support to help countries to progress towards elimination.







Rabies Regional Seminar/Workshops







Capacity building

(Technical Support to Developing Rabies Implementation Plans and Rabies laboratory diagnostic training/twinning programme)



Thank you for your attention



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