

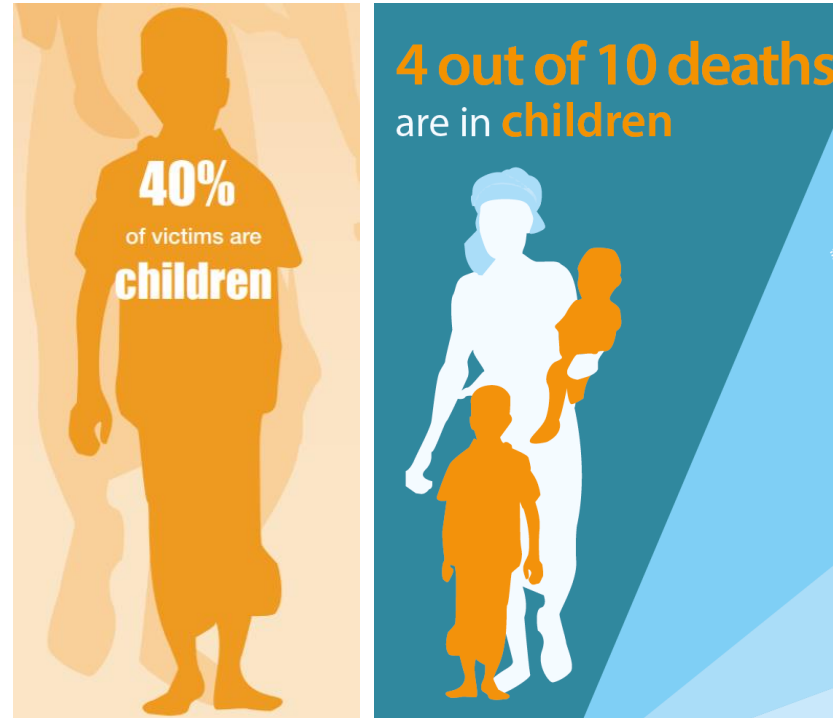
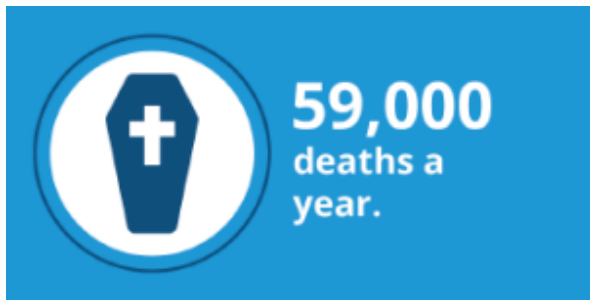
Rabies situation in the region and the challenges in its control and prevention

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*OIE Sub-Regional Representation for Southern Africa
Gaborone, Botswana*

***Virtual Regional Training Workshop on the OIE procedures for the endorsement of official control programmes with regard to Peste des Petits Ruminants (PPR) and Dog-mediated Rabies in Africa
4 to 6 May 2022***

Rabies - the facts



Rabies - the facts

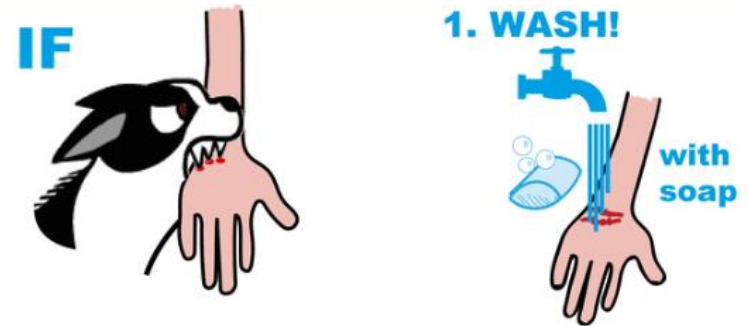
STOP DOG TO HUMAN TRANSMISSION OF RABIES 



DOG VACCINATION can eliminate human rabies



RABIES PREVENTION 



Human rabies is 100% VACCINE-PREVENTABLE

Thorough washing of the wound with soap, and vaccine injection **save lives**



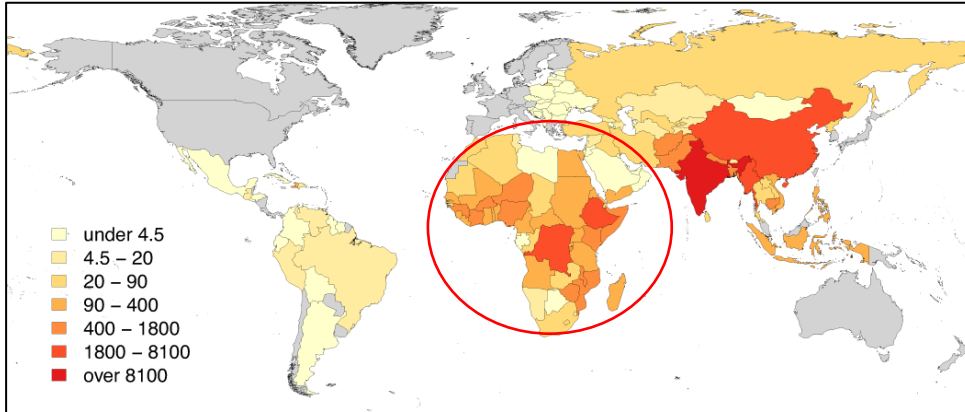
Rabies situation in Africa



- Rabies is endemic in Africa
- Only few island countries are free from rabies
- Dogs are the main sources of rabies in Africa
- Dog rabies incidence in 15,600 dogs: 0-100%
 - meta-analysis incidence = 44.1%, (95% CI: 35.1-53.4)
 - Owned dog =60.6% (95% CI 52.6 – 68.4%)
 - Stray dog =10.9% (95%CI-4.7-19.0)

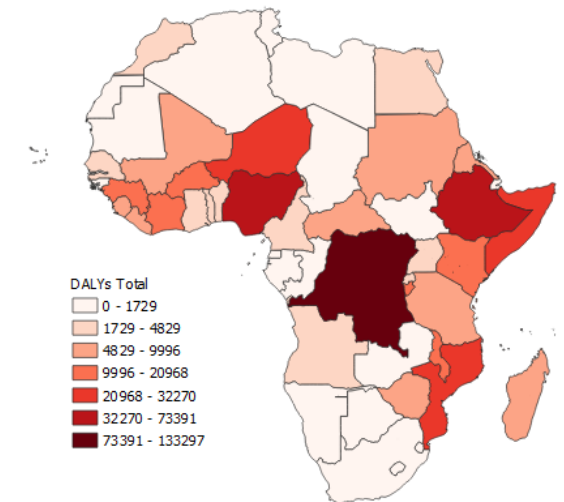
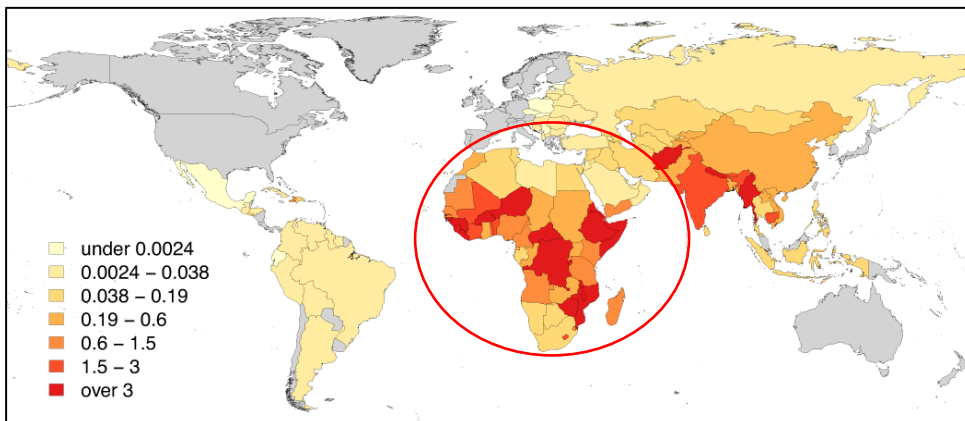
Rabies situation in Africa

Human deaths due to rabies

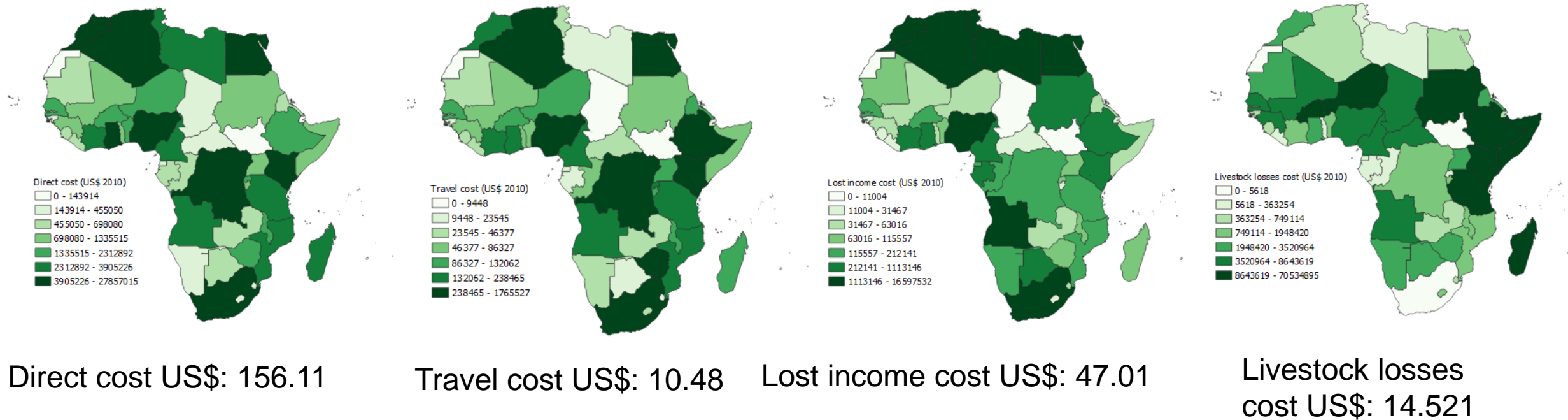


- Estimated 21,476 human deaths/year (95% CI: 10,000 - 66,000)
- Second highest human deaths due to rabies
- 36.4% of the global death due to rabies
- Rabies burden in Africa: 1.34 million disability-adjusted life year lost/year
 - 37% of the global estimate (3.7 million DALYs)

Per capita death rates (per 100,000 persons)

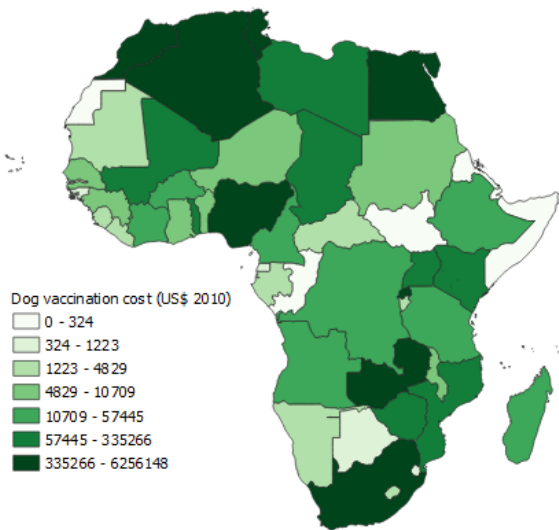


Economic cost of rabies in Africa (in 1000's USD)

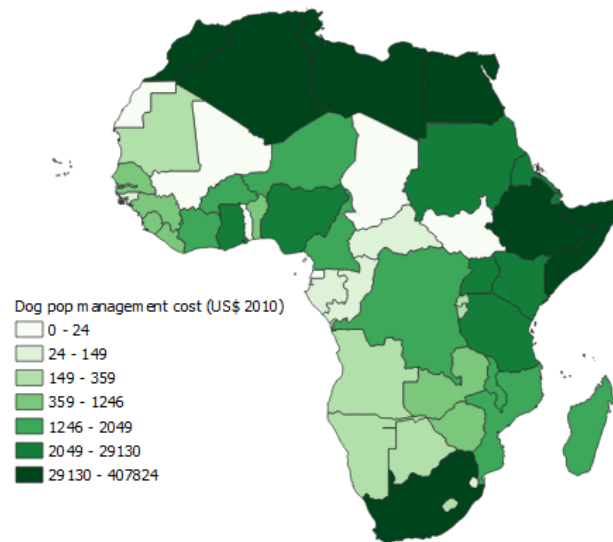


Data source: Hampson et al., (2015) Estimating the Global Burden of Endemic Canine Rabies. PLOS Neglected Tropical Diseases 9(4): e0003709. <https://doi.org/10.1371/journal.pntd.0003709>

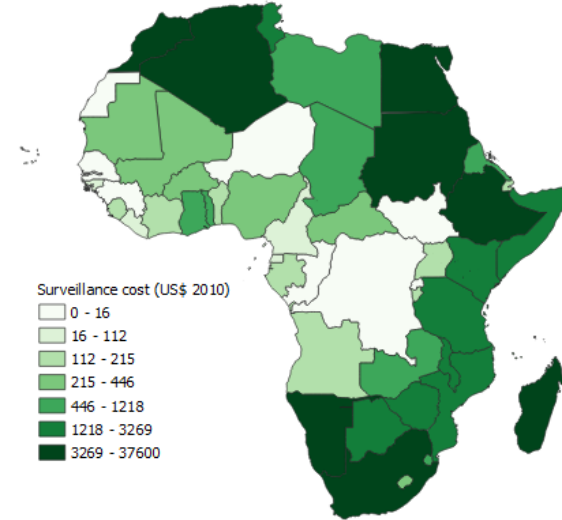
Economic cost of rabies in Africa (in 1000's USD)



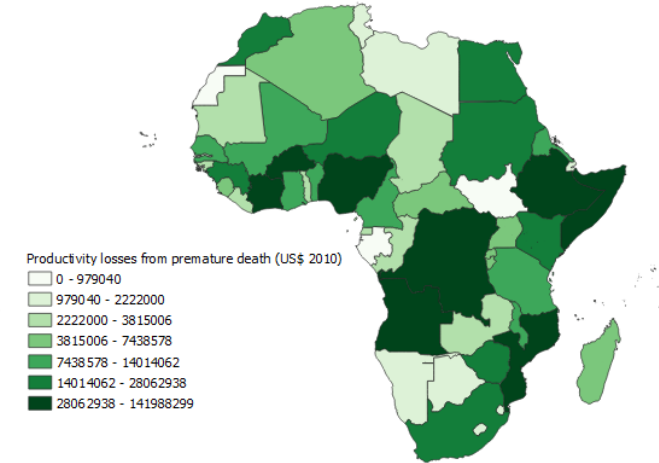
Dog vaccination cost
US\$: 1.305



Dog population management
cost US\$: 279.546



Surveillance cost
US\$: 0.124

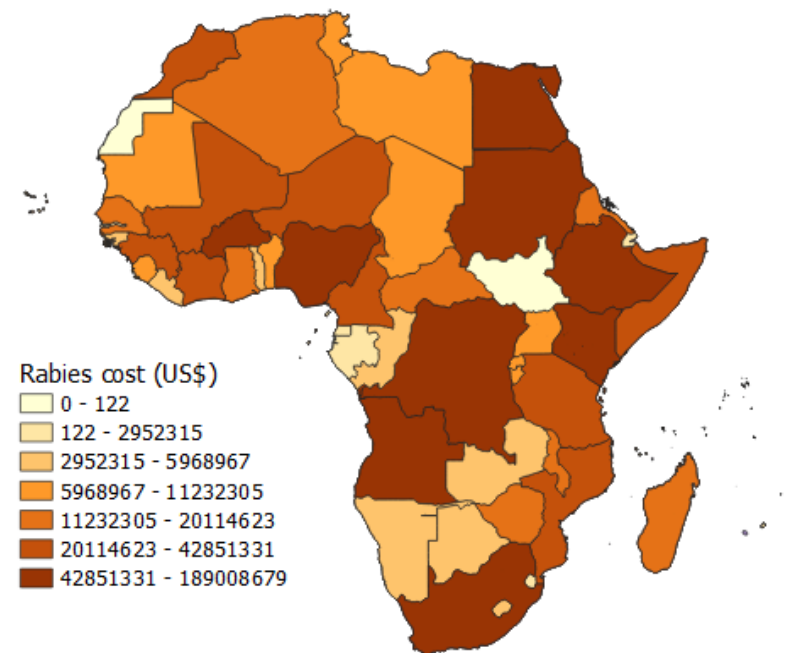
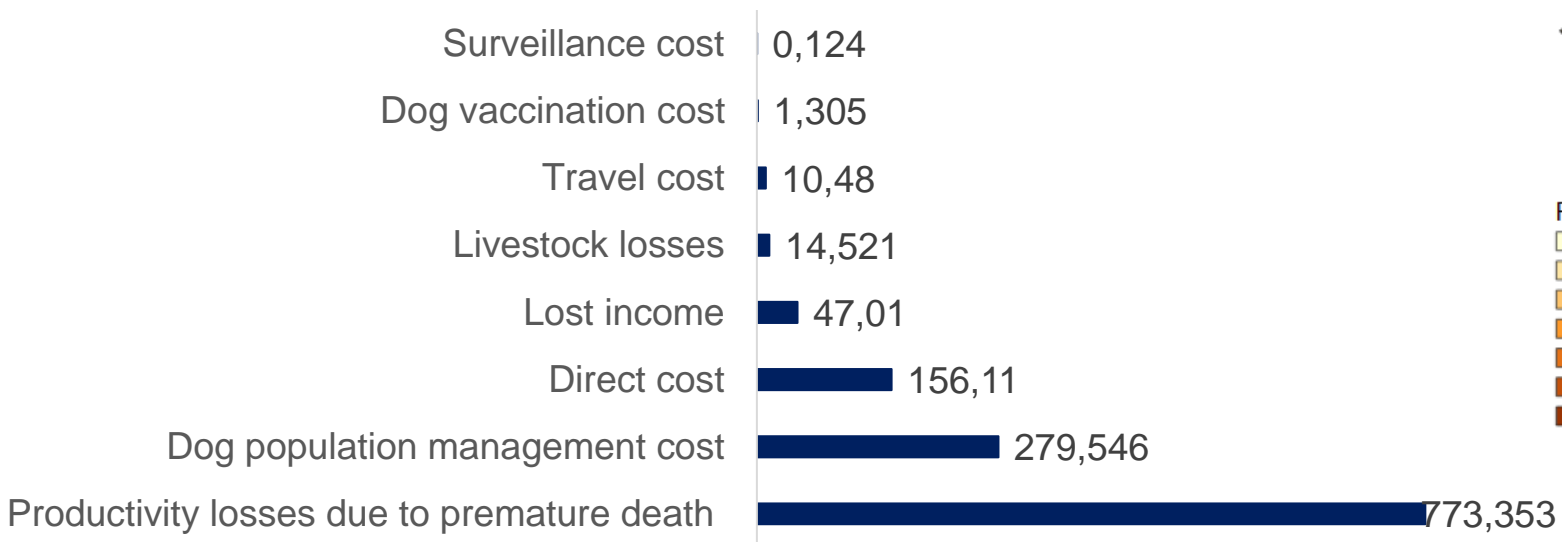


Premature death
cost US\$: 773.353

Data source: Hampson et al., (2015) Estimating the Global Burden of Endemic Canine Rabies. PLOS Neglected Tropical Diseases 9(4): e0003709. <https://doi.org/10.1371/journal.pntd.0003709>

Economic cost of rabies in Africa (in 1000's USD)

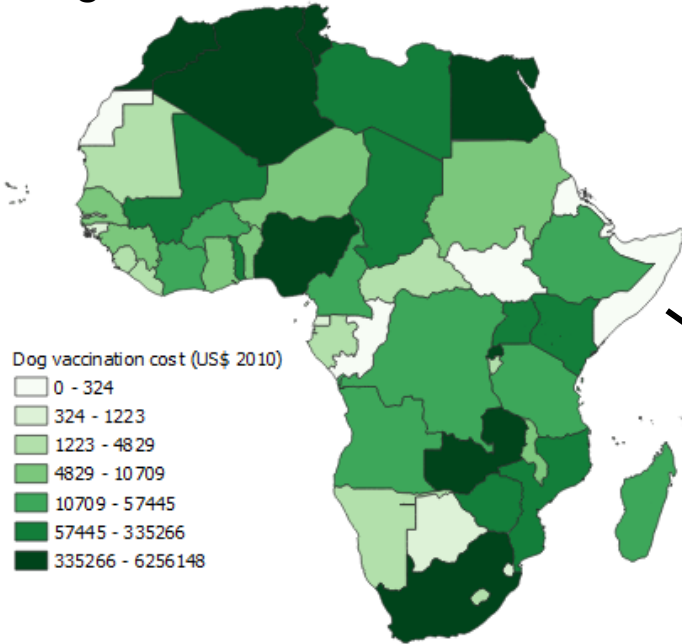
Rabies cost in Africa, 1000's USD



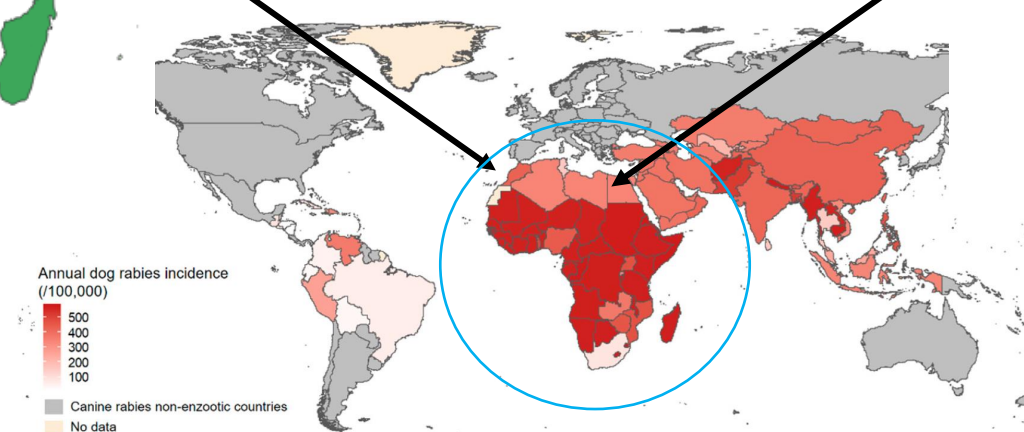
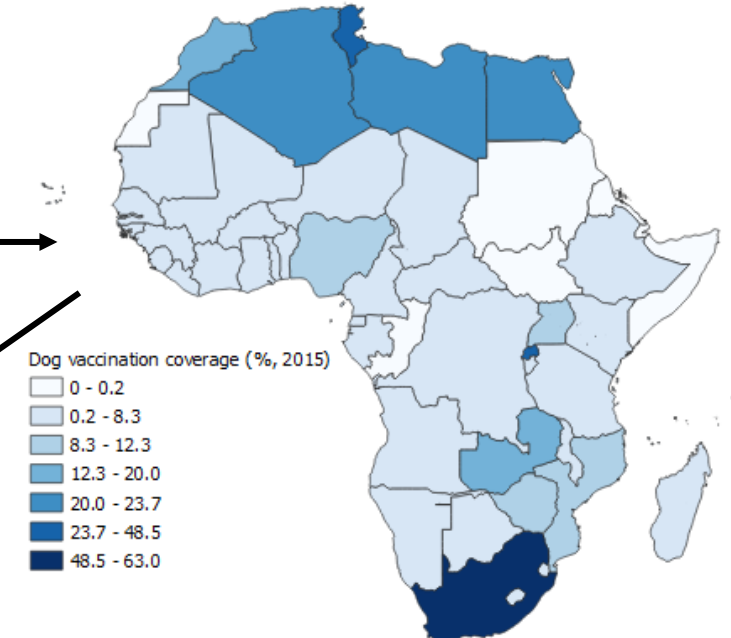
Africa region total cost: USD 1.3 billion/year
Global rabies cost: USD 8.6 billion/year

Dog vaccination coverage

Dog vaccination cost US\$: 1.305 (in 1000's USD)



Dog vaccination coverage



Annual dog rabies incidence

Crozet et al., 2020. *Vet. Sci.* 2020, 7(4),207; <https://doi.org/10.3390/vetsci7040207>

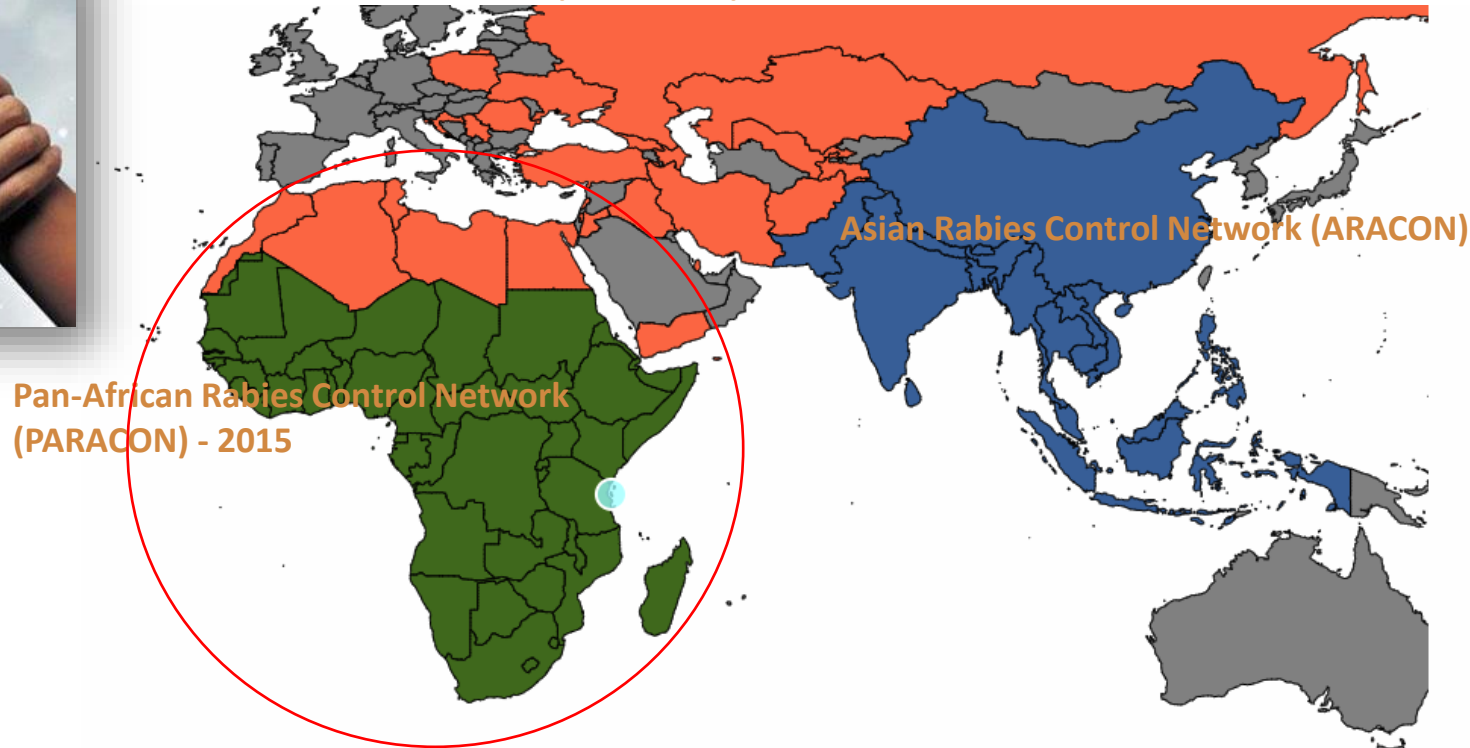
<https://www.ed.ac.uk/impact/research/one-health/smartphones-fighting-rabies-in-africa>

Data source: Hampson et al., 2015

Rabies networking in the region



Middle East, Eastern Europe, Central Asia and North Africa Rabies Control Network (MERACON)



**“If you want to go fast, go alone.
If you want to go far, go together”
– African proverb**

Haselbeck et al., 2021. *Int. J. Environ. Res. Public Health* 2021, 18(4), 1736; <https://doi.org/10.3390/ijerph18041736>

<https://rabiesalliance.org/networks/paracon>

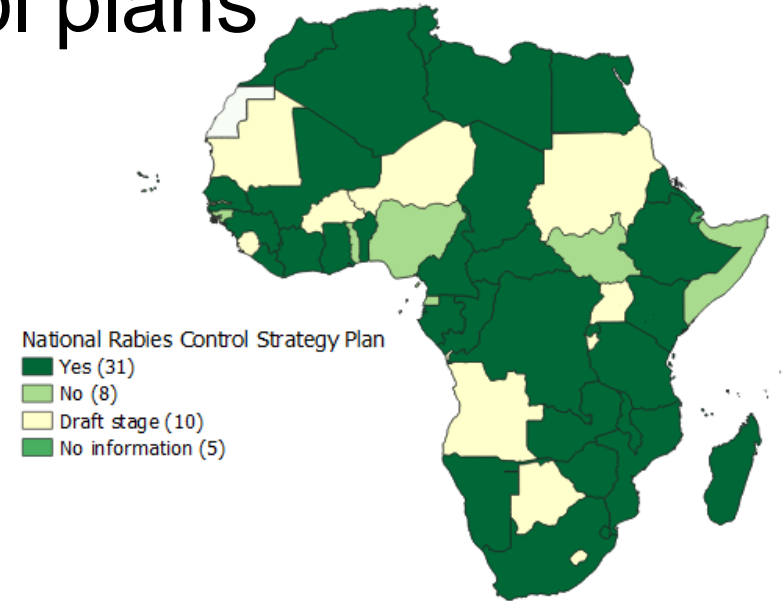
<https://rabiesalliance.org/networks/paracon/bulletin>

National rabies prevention and control plans

Roadmap

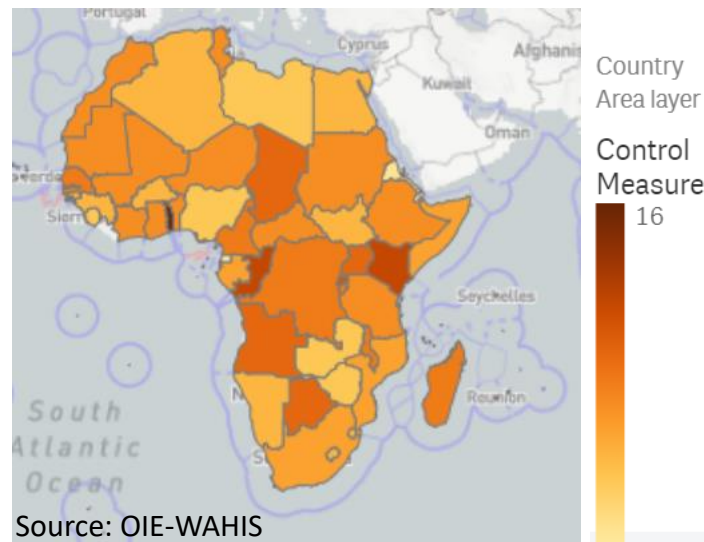


- Some countries included rabies prevention and control measures in their NTD MasterPlan



Haselbeck et al., 2021. *Int. J. Environ. Res. Public Health* 2021, 18(4), 1736; <https://doi.org/10.3390/ijerph18041736>

Presence of rabies control measures

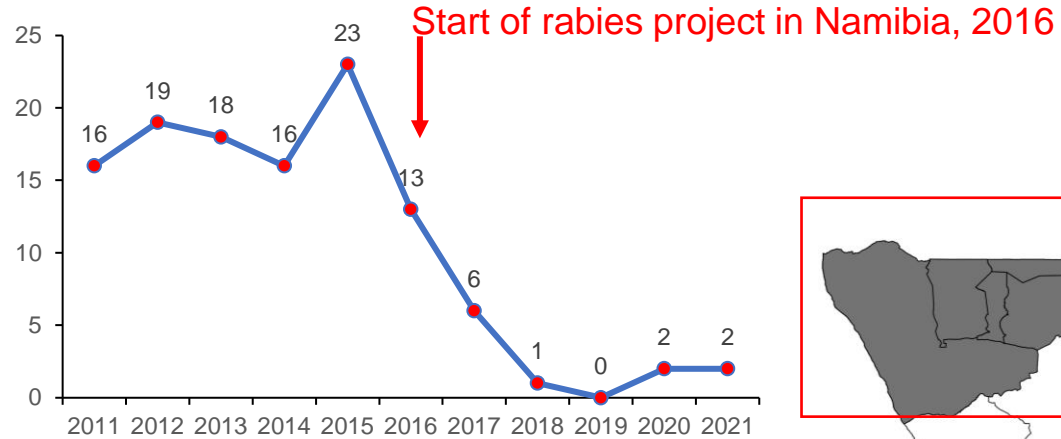


Presence of vaccination program

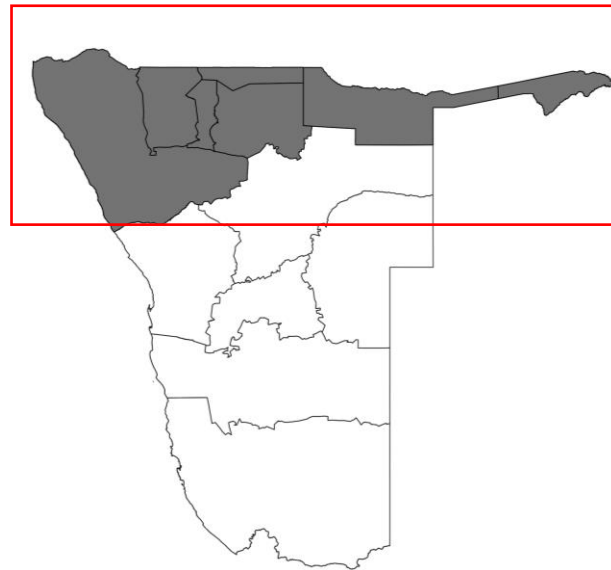
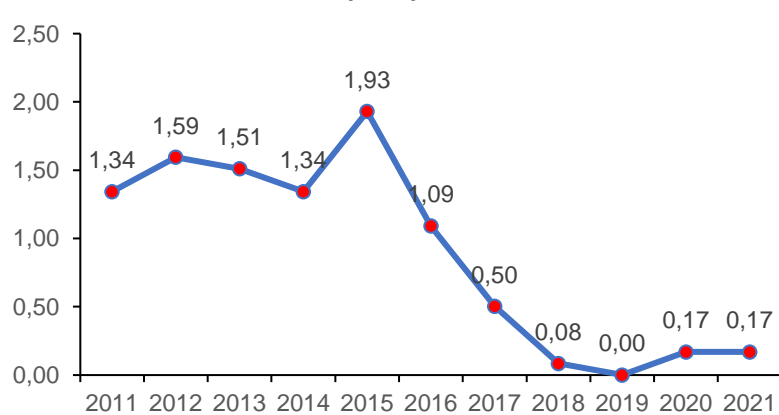


Rabies projects in the region – example Namibia

Human rabies deaths



Human rabies incidence/100,000 people

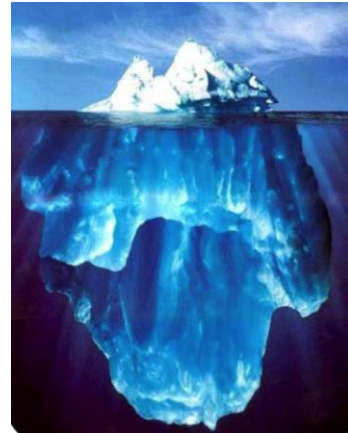


- Rabies pilot projects implemented in the region
- Proof of concept (e.g., South Africa, Tanzania, other countries...) has demonstrated the effectiveness of dog vaccination



Challenges in its control and prevention in the region

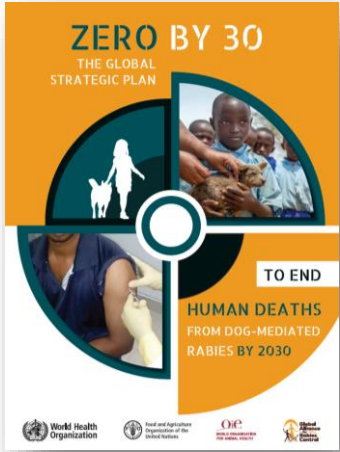
- Political support and commitment
- The cycle of neglect persists in many countries
- Extent of the disease burden is not well understood due to inadequate/poor rabies surveillance
- Shortage of financial and human resources
- Weak coordination among the key stakeholders
- Stray/ free-roaming dog population and its management



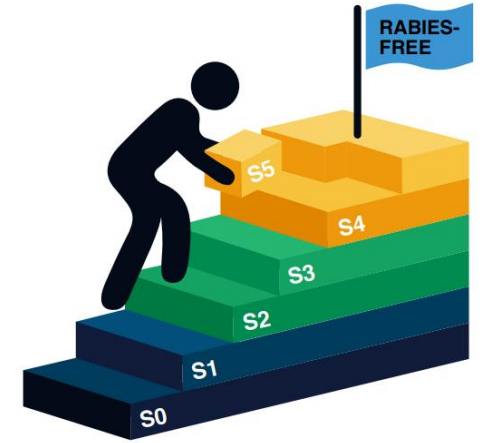
Challenges in its control and prevention in the region...

- Difficult to consistently achieve the required dog vaccination coverage of 70% across the hard-reach landscapes in Africa
- Inadequate education on rabies /rabies control/ elimination strategies among the veterinarians, physicians, general public, stakeholders
- Shortage of rabies vaccine
- Data/information sharing system
- Others...

Way forward



Phase 2 of *Zero by 30*



Phase 1: **START UP**
2018–2020
29 countries

Phase 2: **SCALE UP**
2021–2025
+52 countries

Phase 3: **MOP UP**
2026–2030
+19 countries

#rabiesendshere

**RABIES
ENDS
HERE**



WITH ALL

