

Rabies Epidemiological Bulletin

On behalf of the Global Alliance for Rabies Control

Inaugural ARACON meeting

Bangkok, Thailand

13-14 March 2018



We know data collection is difficult



There is a problem with current data



Tarehe ya kuanzishwa: 2010-11-10

Rejesta ya OPD, Schemu ya Magonjwa yanayotolewa Ripoti

Tarehe	Kijiji	Umo	Jina	Mtoto	Mtoto	Mtoto
21-10-2007	Paul Mhoro	9	MR/KK	Gideon Indare	For T.T.	
21-10-2007	Pili Muma	9	MR/KK	Rosi Maiti Mawaga	T.T.	
21-10-2007	Pili Muma	20	MR/KK	Rosi Maiti Mawaga	T.T.	
21-10-2007	Nabura Chacha	11	MR/KK	Rosi Maiti Mawaga	T.T.	
21-10-2007	Githi Muma	4	MR/KK	Rosi Maiti Mawaga	T.T.	
21-10-2007	Githi Muma	6	MR/KK	Rosi Maiti Mawaga	T.T.	
21-10-2007	Amisi Chacha	12	MR/KK	Rosi Maiti Mawaga	T.T.	
21-10-2007	Musa Muga	25	MR/KK	Rosi Maiti Mawaga	T.T.	
21-10-2007	Musa Muma	14	MR/KK	Rosi Maiti Mawaga	T.T.	
21-10-2007	Musa Muma	9	MR/KK	Rosi Maiti Mawaga	T.T.	
21-10-2007	Zakari Bhahe	74	MR/KK	Thomas	T.T.	
21-10-2007	Pili Muma	18	MR/KK	Mwaka Mambuchi	T.T.	
21-10-2007	Jamini Juma	8	MR/KK	Wanyaga	T.T.	
21-10-2007	Pili Muma	20	MR/KK	Mwaka Mambuchi	T.T.	
21-10-2007	Musa Muma	52	MR/KK	Mwaka Mambuchi	T.T.	
21-10-2007	Musa Muma	9	MR/KK	Mwaka Mambuchi	T.T.	
21-10-2007	Musa Muma	66	MR/KK	Mwaka Mambuchi	T.T.	
21-10-2007	Musa Muma	44	MR/KK	Mwaka Mambuchi	T.T.	
21-10-2007	Musa Muma	70	MR/KK	Mwaka Mambuchi	T.T.	

THE MINISTRY OF AGRICULTURE & CO-OPERATIVES
LIVESTOCK DEPARTMENT
VETERINARY SERVICES
ANIMAL DISEASE SURVEILLANCE FIELD REPORT

ICT: NORTH-EAST REGION: ARUSHA
GE: MULHOTO WORK STATION: SHIMBA
LAT: 01° 15' S STAFF FILE No.: 011111
REF: 011111
DISEASE NAME: ANTRAX OIE DISEASE CODE: 011111 FOLLOW UP REPORT: YES

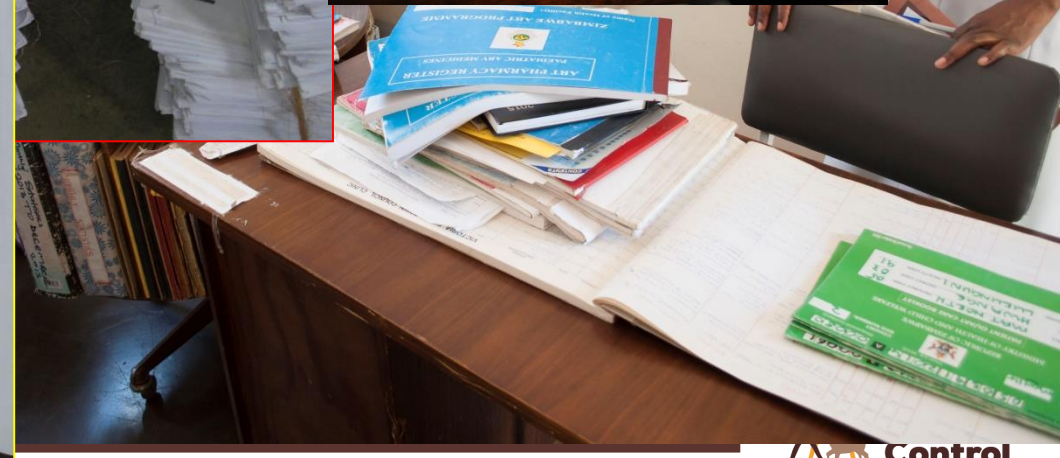
ATE: 28/10/08 Species Affected: CATTLE EPIDEMIOLOGY: 8 DISEASE CONTROL: 8

DIAGNOSIS: CLINICAL LABORATORY POST-MORTEM UNL AFFECTED POPULATION: 8 PRODUCTION SYSTEM: 1

Other control measures: Nil Main Clinical and PM Features: Nil

Epidemiology of the disease (i.e. source of infection, rate of spread, reservoir): Nil

Signature: Dr. A. A. A. A. Full name: A. A. A. A.



Discrepancies in Data Reporting for Rabies, Africa

Louis H. Nel

Human rabies is an ancient disease but in modern times has primarily been associated with dog rabies—endemic countries of Asia and Africa. From an African perspective, the inevitable and tragic consequences of rabies require serious reflection of the factors that continue to drive its neglect. Established as a major disease only after multiple introductions during the colonial era, rabies continues to spread into new reservoirs and territories in Africa. However, analysis of reported data identified major discrepancies that are indicators of poor surveillance, reporting, and

and responsible data reporting. Analyses of examples from Africa indicate that the above aspects are seriously compromised.

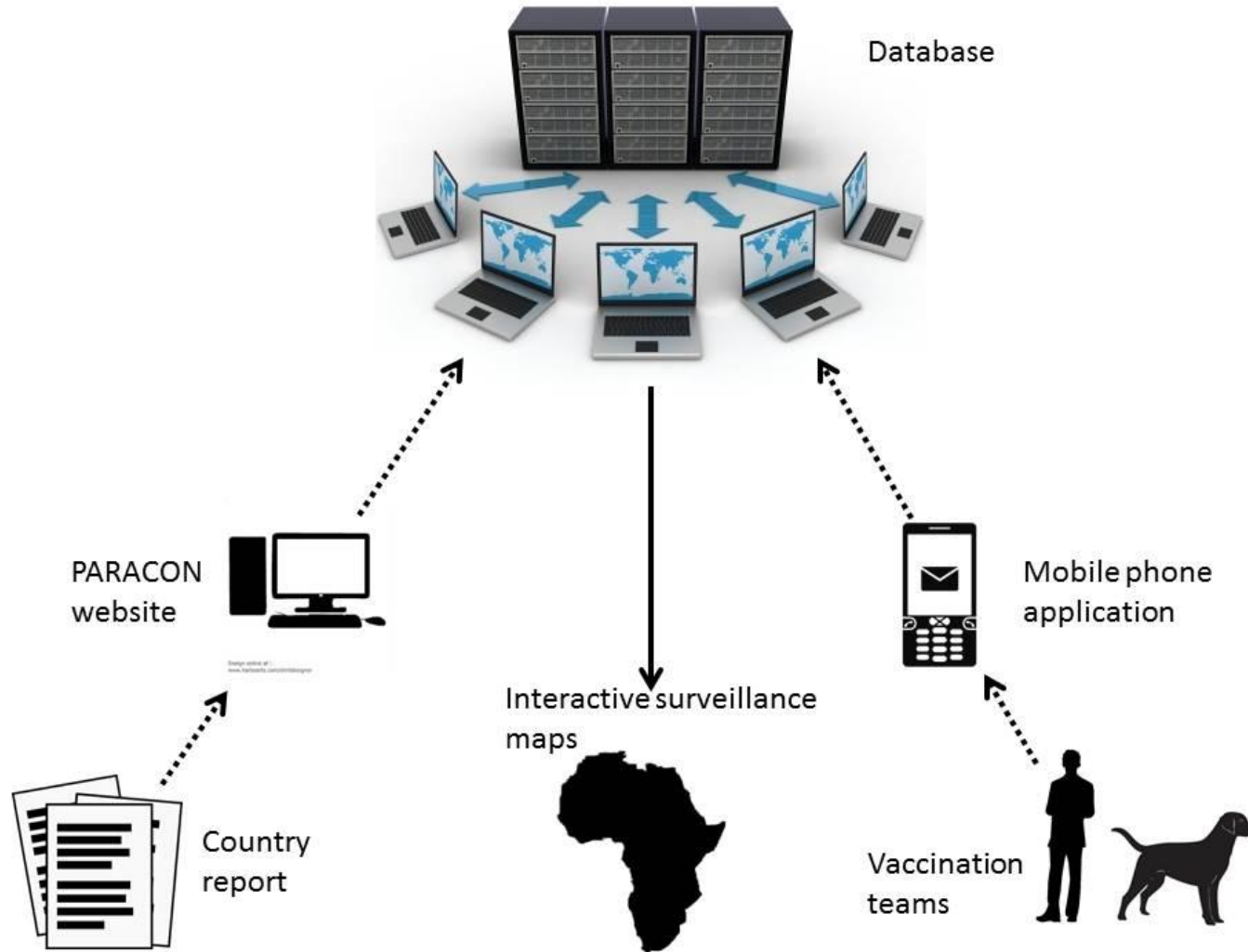
Factors Leading to Complacency and Neglect of Rabies

Rabies virus, a classical zoonotic pathogen, has an extensive host range and can probably infect all terrestrial mammals. Although vampire bat rabies has a major effect

International Reporting Inconsistencies

	Nat database	OIE WAHID	Meeting	Oral comms
Kenya	1000–2000	2	3	
Lesotho		3	11	2
Liberia – Libéria				
Madagascar	8	Unknown – Inconnu	7	2
Malawi		50		
Mali		2	3	
Mauritania – Mauritanie		Unknown – Inconnu		
Mozambique		40	72	72
Namibia – Namibie	18	10	1	62
Niger		Unknown – Inconnu	2	

Rabies Epidemiological Bulletin concept: 2015



Rabies Epidemiological Bulletin

- Based on the DHIS2 platform
 - Open source software
 - Used in more than 60 countries in MoH
- Rabies Epidemiological Bulletin active in Africa since June 2016
- Available in English and various other languages



International reporting



Regional data collection



Awareness
and public info

PARACON; ARACON; MEEREB

Stakeholders



National reporting



MoA



MoH



sub-National data collection



Vaccinators



CHWs



Facilities

Who owns the data?

- **The data belongs to the country**
- The REB is simply a tool for countries to use:
 - Designed to ease data reporting
 - Simplify data collection and analysis
- Countries must provide permission for their data to be shared
 - Only made public with country's permission
- Countries are requested to share data permission sharing form

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sub-National data collection



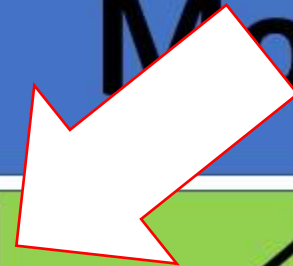
Vaccinators



CHWs



Facilities



Facility level reporting – Patient tracker



Registration and Data Entry

Reports

- Comoros Islands (KM)
- Cote D'Ivoire (CI)
- Democratic Republic of Congo (C)
- Djibouti (DJ)
- Egypt (EG)
- Equatorial Guinea (GQ)
- Eritrea (ER)
- Ethiopia (ET)
- Gabon (GA)
- Gambia (GM)
- Ghana (GH)
- Guinea (GN)
- Guinea-Bissau (GW)
- Kenya (KE)**
- Lesotho (LS)
- Liberia (LR)
- Libya (LY)
- Madagascar (MG)

Tracker capture

ABTC Patient Tracker

Type your search criteria here



List all

Register



Total: 6



Registering unit	Tracker_First Name	Tracker_Surname/Family Name	Tracker_Sex
Kenya (KE)	mimi	wewe	Male
Kenya (KE)	momo	kariuki	
Kenya (KE)	athman	mwatondo	Male
Kenya (KE)	Mzee	Makoto Mserengeti	Male
Makueni District Hospital	Louise	Taylor	Female
Makueni County	Celeste	Schepers	Female

Number of pages: 1

Number of rows per page: 50

Jump to page: 1

GARC Data Logger (GDL) and its integration into the Rabies Epidemiological Bulletin

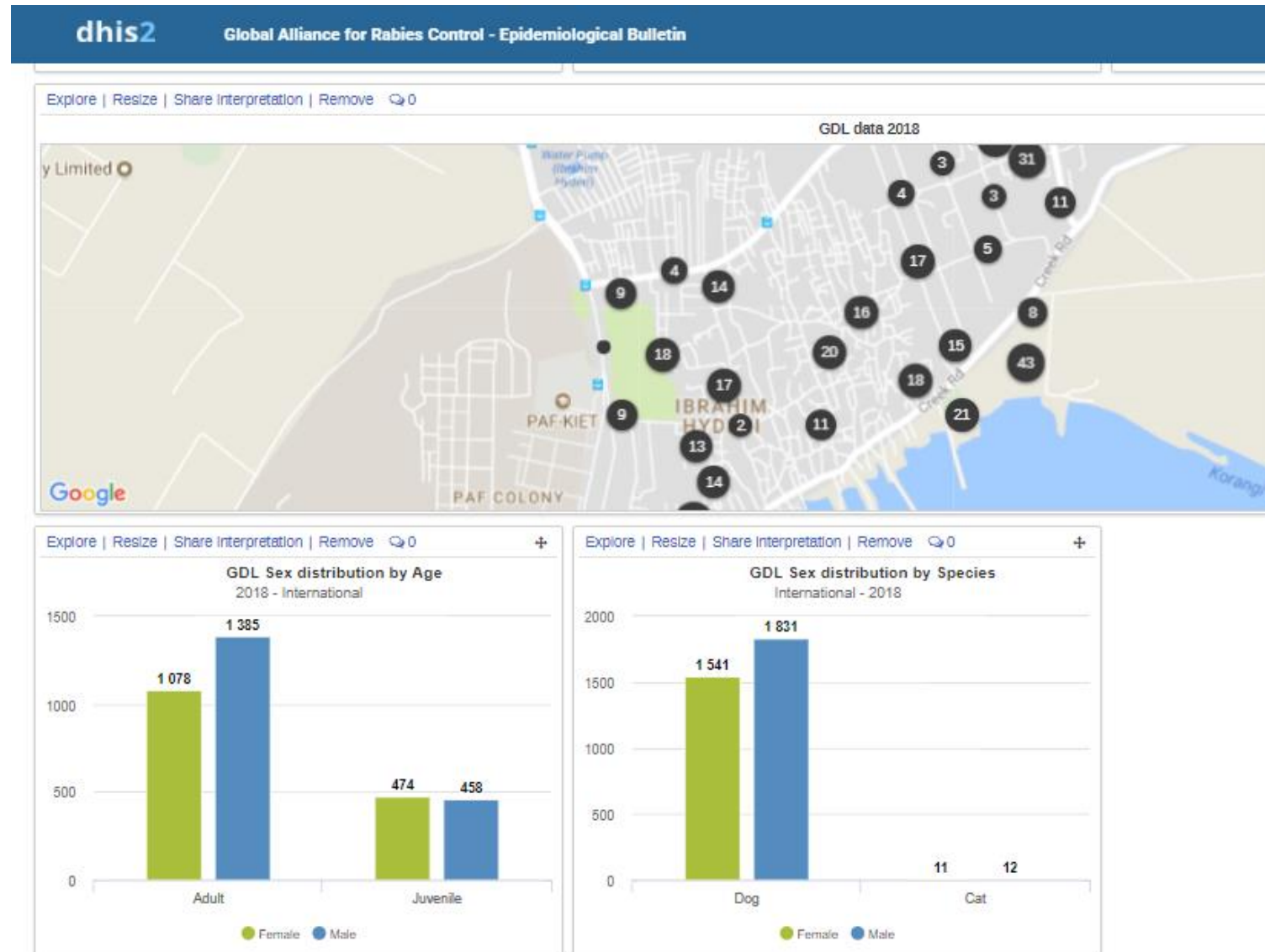
GARC Data Logger

- Robust, lightweight handheld device
- Works solely on GPS
 - No running costs
 - Works anywhere in the world
- Collects essential data
 - GPS
 - Time and date
 - 3 questions
 - Campaign information



GARC Data Logger integration

- Direct integration into DHIS2
 - Simple upload of data
- Once in DHIS2, data is automatically aggregated and visualised
 - Perfect to visualise progress of vaccination campaigns daily



[Write feedback](#) • Zanzibar

Profile

Messages

Interpretations

Search for users, charts, maps, reports and resources

Search

Add

Manage

Share

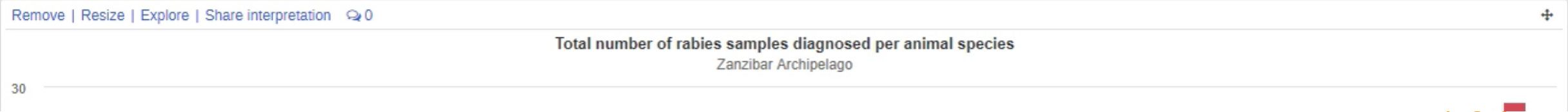
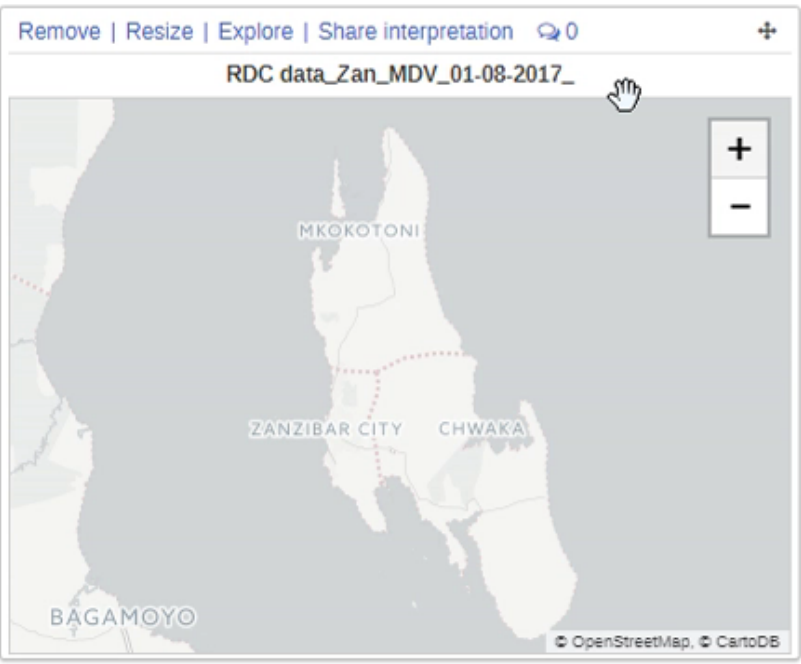
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Uganda

Zanzibar

Zimbabwe



International reporting



Regional data collection



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EVENT DASHBOARD

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SEARCH Search



Working to eliminate deaths from canine rabies by 2030

About GARC Policy and Advocacy Capacity Building Networks World Rabies Day Resources Media



How can we help you today?

Let us take you to the right page

Choose an option

TAKE ME THERE!



Nominate your community champions for a 2017 World Rabies Day Award

Data Sharing

- Transparency to work together
 - Address that rabies is transboundary
- Automated reporting to international organisations
 - WHO
 - Working to include OIE and others
- Encourage you to sign your data sharing permission form



Rabies Epidemiological Bulletin: Country Rabies Data Permission Request Form

Background

The Rabies Epidemiological Bulletin has been developed and managed by GARC to support rabies control efforts through the improvement of rabies surveillance in all rabies endemic countries and any other interested parties. The Rabies Epidemiological Bulletin focusses on the collection of national rabies data, but also supports and encourages the use of this system in-country as a specialised rabies





Standardised indicators

TABLE 1 | Description of and rationale for using initial basic indicators in the Pan-African Rabies Control Network bulletin.

Indicator	Disaggregation	Description	Rationale	Reporting period
Number of bite cases in humans	Age: <5 years, 5–14 years; ≥15 years; unknown age Sex: male, female; unknown Wound category: I, II, or III	Number of bite cases reported at a health-care facility, disaggregated by age, sex, and wound category	To determine at-risk populations (children, adults) and the numbers of people who have been potentially exposed to a rabid animal; this indicator influences decisions regarding human vaccine procurement and targeted education. This indicator also excludes snake bites	Annual
Doses of human vaccines purchased	None	Number of human vaccines purchased for the country	To determine the number of vaccines available in the country and whether this complies with PEP requirements	Annual
Cost per vaccine (US\$)	Private sector Public sector	Cost per vaccine administered in a government institution (including all associated costs such as doctor's fees, consumables, etc.)	To determine the costs associated with procurement and administration of vaccine for budgetary purposes and to advocate the allocation of funds toward rabies control efforts	Annual

Automated sharing of data

 Apps 

Download preview

Send data ?

data-summary.json

data-attachments.tar.gz

Click on the '**Download preview**' button to download a .csv file containing all the events that are going to be sent. Once ready click on the '**Send data**' button and wait until the events are uploaded to the server.

When the event uploading finishes the message '*Events sent successfully*' will be shown in this box.

Then the two buttons above will become available and you will be able to download the following files:

- data-summary.json: The json file with all the events sent.
- data-attachments.tar.gz: A compressed folder with all the files related to those events.

International reporting



Regional data collection



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Facilities

Add

Manage

Share

<

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1.PARACON

2.East Africa Strategic Group

3.Example Country

Benin

Burkina Faso

Cameroun

Congo (Brazzaville)

Cote d'Ivoire

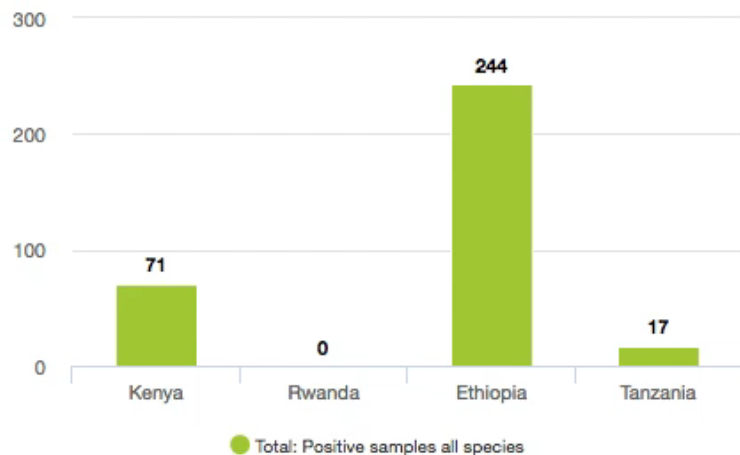
Equatorial Guinea

Ethiopia

Remove | Resize | Explore | Share interpretation 0

Total number of animal rabies-positive cases for 2015 within the East Africa Strategic Group

2015



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Total number of animal rabies-positive cases for 2016 within the East Africa Strategic Group

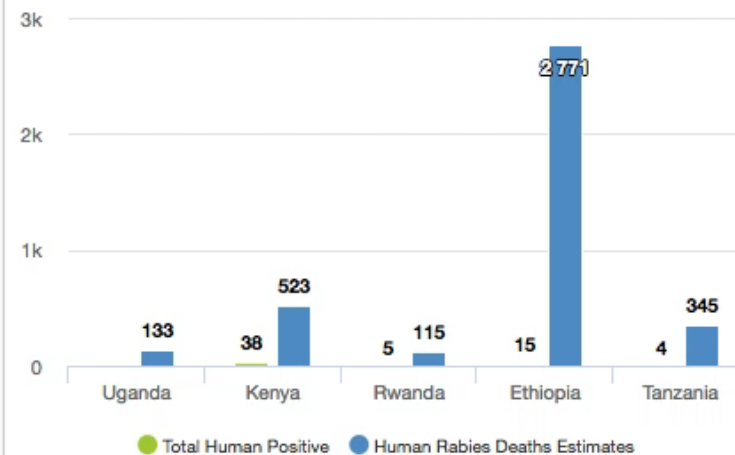
2016



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Total number of human rabies-positive cases for 2015 within the East Africa Strategic Group

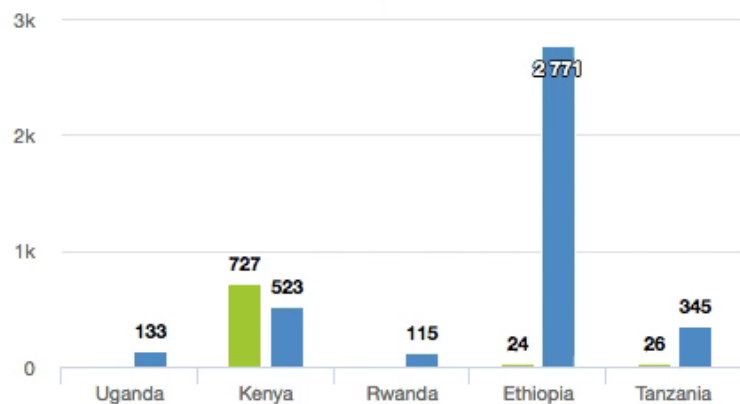
2015



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Total number of human rabies-positive cases for 2016 within the East Africa Strategic Group

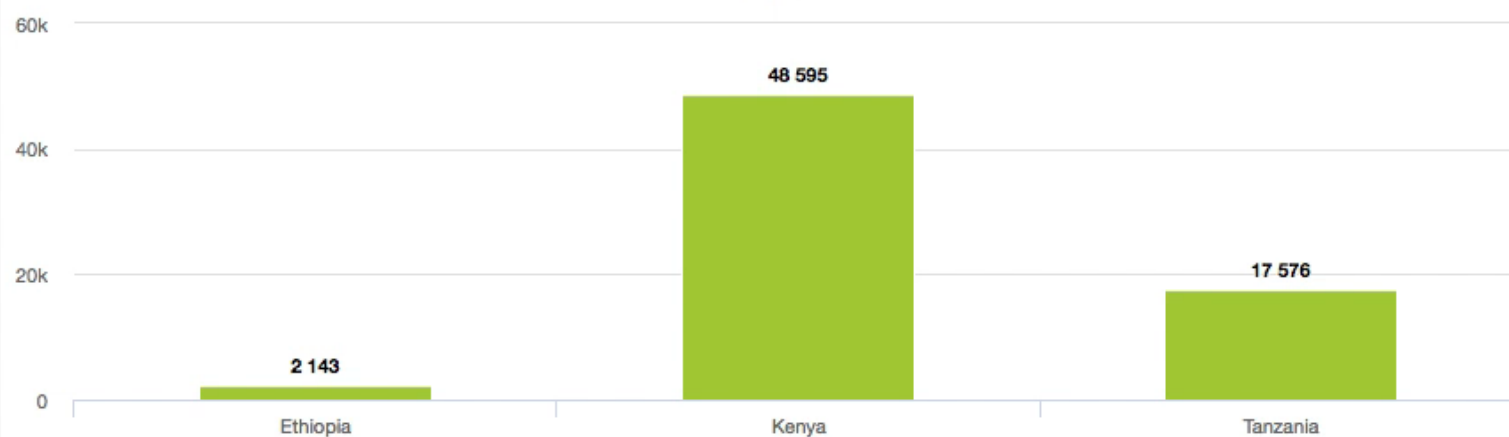
2016



Remove | Resize | Explore | Share interpretation 0

Total number of people in the east Africa community that require rabies vaccination

2016



International reporting



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Making a statement with data

Asia: Annual Cost of Rabies

\$6,702,844,102 USD



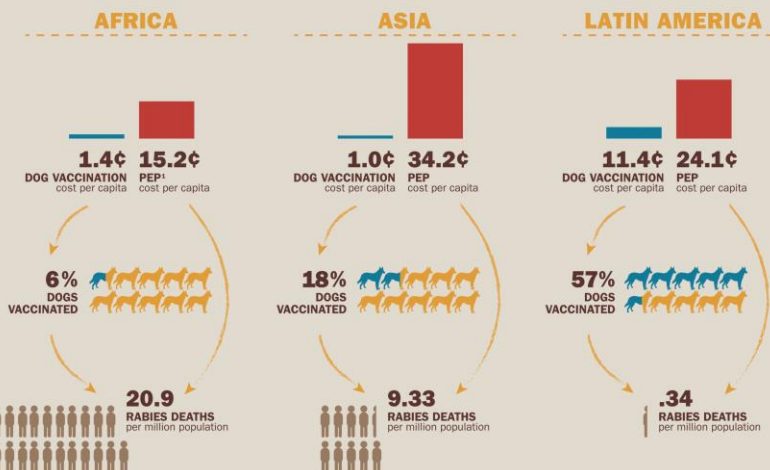
1 PEP - Post Exposure Prophylaxis is a course of vaccinations that protects a person against rabies after exposure to the virus. Costs are in US currency.
2 DALYs - Disability-adjusted life years (L

Source: Estimating the Global Burden of

GLOBAL ALLIANCE FOR RABIES

AVOIDABLE LOSSES
\$ 6,660,728,927 = **\$1.67** per capita

Current Spending on Rabies Vaccination



1 PEP - Post Exposure Prophylaxis is a course of vaccinations that protects a person against rabies after exposure to the virus. Costs are in US currency.
Source: Estimating the Global Burden of Endemic Canine Rabies, K. Hampson et. al. PLoS Negl Trop Dis. 2015 May;9(5)

GLOBAL ALLIANCE FOR RABIES CONTROL PARTNERS FOR RABIES PREVENTION

rabiesalliance.org

WHY WE NEED TO END RABIES NOW

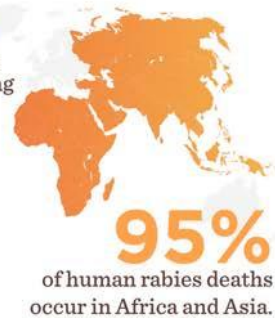
Canine rabies is one of the world's oldest diseases, eliminated in countries like the US and the UK, but still a daily threat to millions around the world.

Every **09** minutes,
a person dies from
RABIES.



Domestic dogs cause over
99%
of human rabies deaths.

Nearly
85%
of the world is at risk of contracting canine rabies.

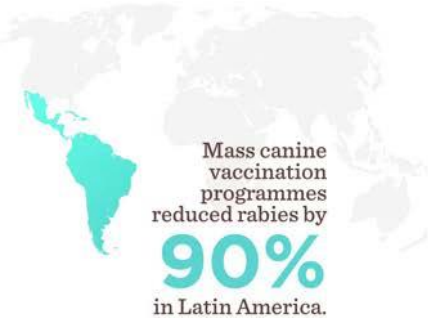


Canine rabies kills more than
59,000
people every year.

100%
of human cases are preventable.



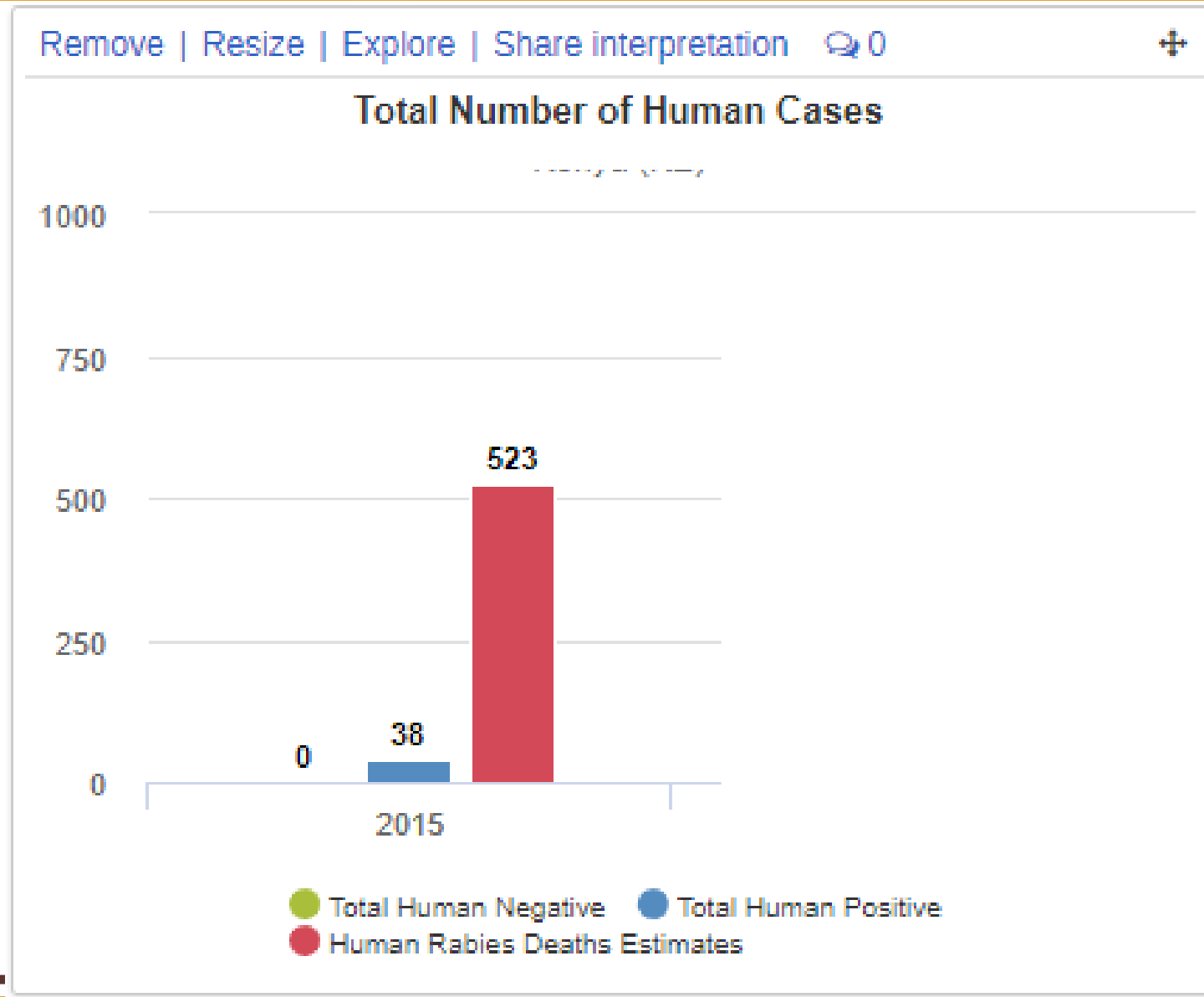
Vaccinating
70%
of dogs in at-risk areas can eliminate canine rabies.



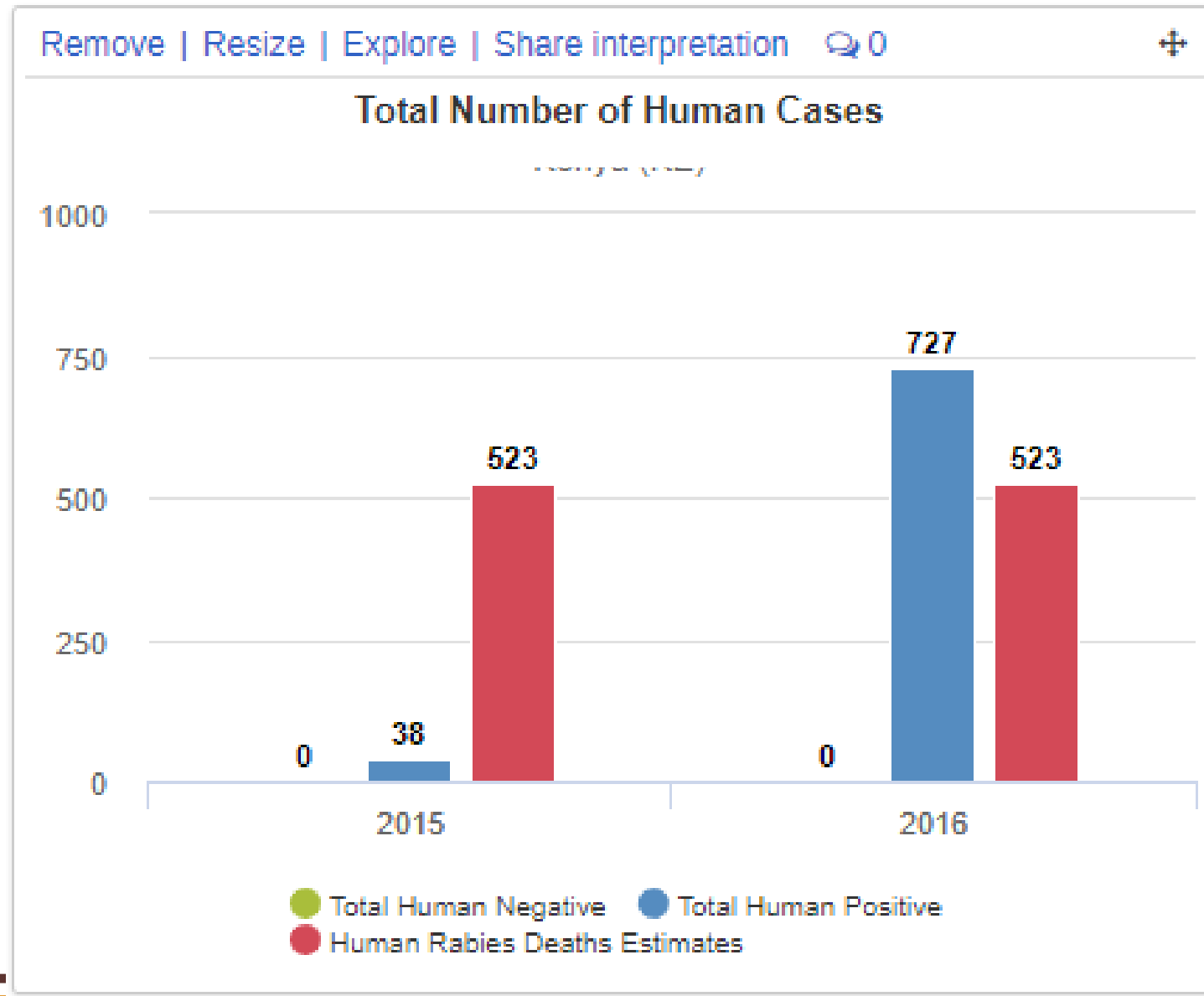
2.9 million
lives are saved annually due to preventative measures.



Data supporting the estimates



Data supporting the estimates



We aim to make data collection and analysis easy!



<https://bulletin.rabiesalliance.org>

Endrabiesnow.org