

Rabies Epidemiological Bulletin

On behalf of the Global Alliance for Rabies Control

4th MEEREB meeting

Veyrier-du-Lac, France

23-25 April, 2018



We know data collection is difficult



There is a problem with current data



Tarehe ya ²⁰¹⁰ ~~2009~~ ^{12/12/2010} ~~12/12/2009~~

Rejesta ya OPD, Schemu ya Magonjwa yanayotolewa Ripoti

| Tarehe | Kijiji | Umri | Jina | Mtaji | Mtaji | Mtaji | Mtaji | Mtaji |
|------------------|----------------|------|-------|---------|--------------|-----------------|-------|-------|
| 21-2009-1-09 | Paul Mbatia | 9 | MR/KE | Gidjan | Jufare | For T.T. | | |
| 5-2009-3-02 | Pili Muma | 9 | MR/KE | Rosi | Muti Mawanga | ↑Torioid | | |
| 8-2009-2-09 | Julu Muri | 20 | MR/KE | Rosari | Muri | ↑Torioid | | |
| 6-1-2009-1-09 | Nabura Chawel | 11 | MR/KE | Julus | Muri | ↑Torioid | | |
| 6-1-2009-2-09 | Guthi Gati | 4 | MR/KE | Riris | Muri | ↑ | | |
| 7-1-2009-4-09 | Epke Sigire | 6 | MR/KE | Rakari | Muri | ↑Torioid | | |
| 7-1-2009-6-09 | Amosi Chachus | 13 | MR/KE | Gath | Muri | ↑Torioid | | |
| 7-1-2009-3-09 | Musa Migo | 25 | MR/KE | | | ↑Torioid | | |
| 11-2009-7-09 | Marius Muri | 14 | MR/KE | Marius | Mamuche | ↑Torioid | | |
| 11-2009-11-09 | Marius Choko | 9 | MR/KE | Julus | tabati | T.T. | | |
| 15-11-2009-12-09 | Zakari Bshaka | 74 | MR/KE | Thomas | | T.T. | | |
| 17-11-2009-11-09 | Pino Emma | 18 | MR/KE | Maria | nyambuchi | T.T. + B.Kidizi | | |
| 17-11-2009-11-09 | Jemba James | 8 | MR/KE | Wanyaga | Julus | T.T. | | |
| 17-11-2009-11-09 | Dino John | 10 | MR/KE | Chetide | Muri | For T.T. | | |
| 21-11-2009-11-09 | Waco Francis | 50 | MR/KE | Mogope | Muri | For T.T. | | |
| 21-11-2009-11-09 | Vamo Magonjwa | 9 | MR/KE | | | For T.T. | | |
| 21-11-2009-11-09 | Jaha Kanda-aka | 66 | MR/KE | Muri | Choko Tere | For T.T. | | |
| 21-11-2009-11-09 | Erica Muri | 44 | MR/KE | Muri | Mamuche | For T.T. | | |
| 21-11-2009-11-09 | Peta Joram | 70 | MR/KE | Julus | tabati | For T.T. | | |

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.

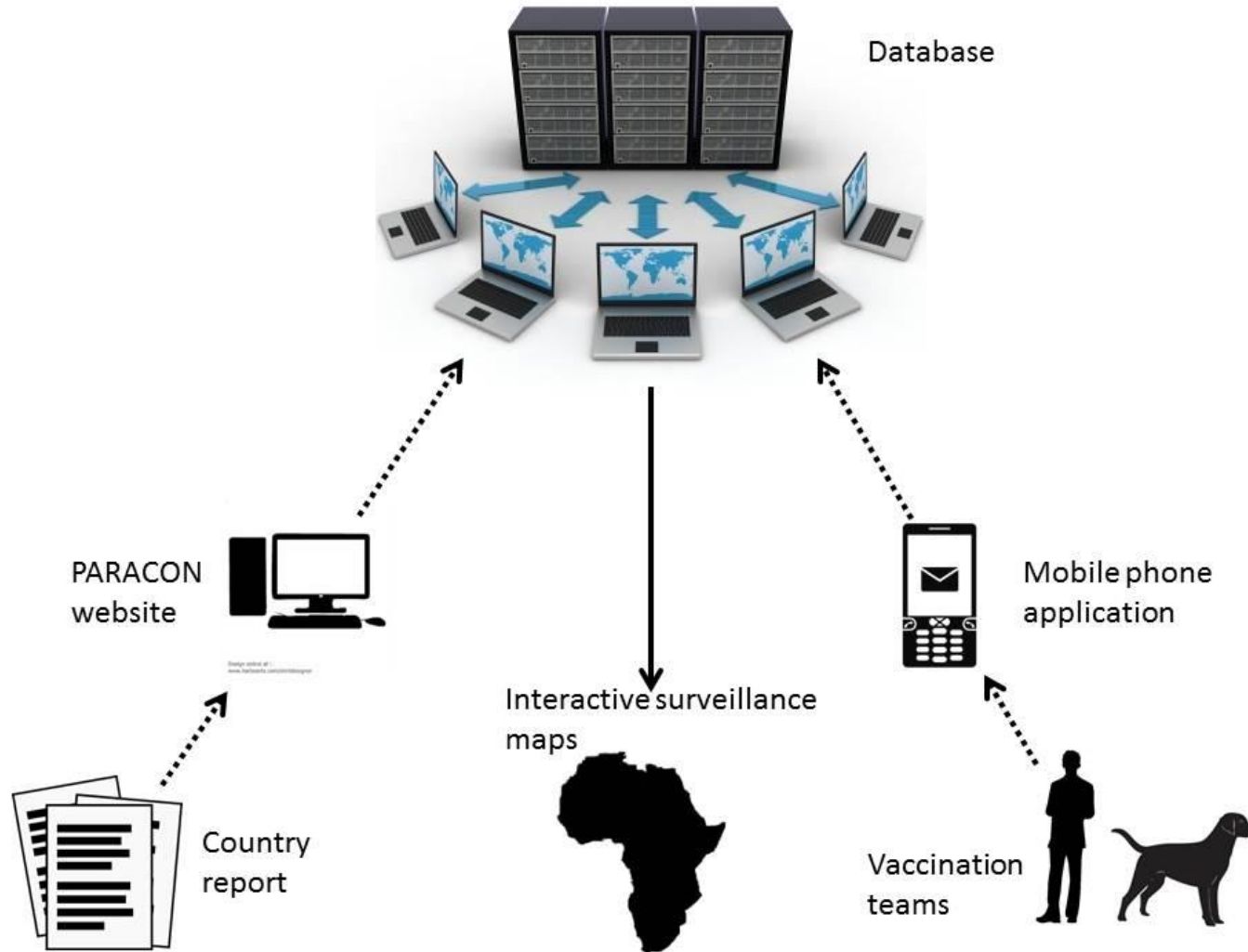
Factors Leading to Complacency and Neglect of Rabies

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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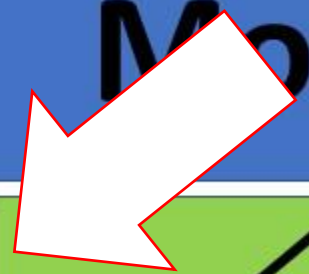
Vaccinators



CHWs



Facilities



Facility level reporting – Patient tracker

Secure | <https://bulletin.rabiesalliance.org/dhis-web-tracker-capture/index.html#/?program=GVZJsi9AFVm>

dhis2

Global Alliance for Rabies Control - Epidemiological Bulletin

Search apps



TS

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

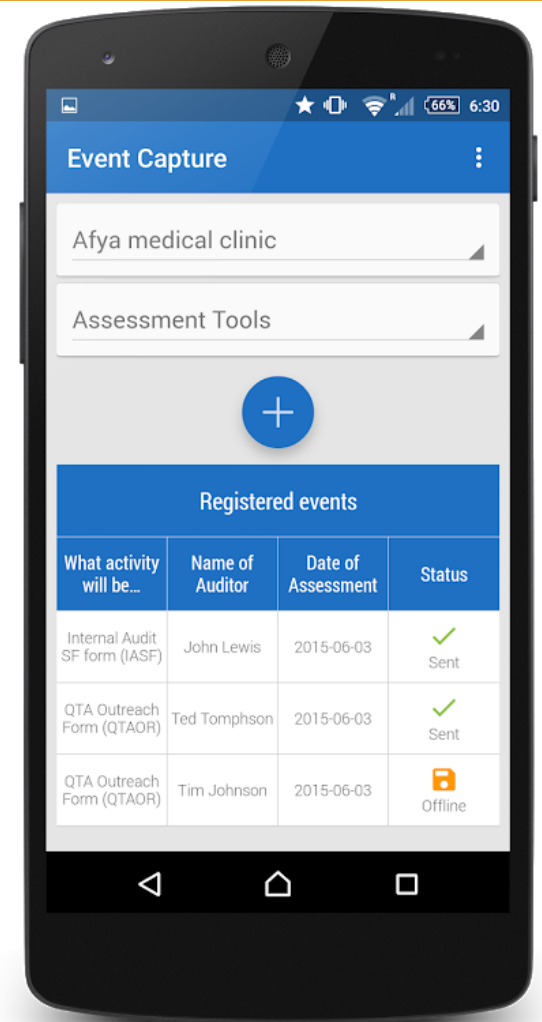
Number of rows per page: 50

Jump to page: 1

« « 1 » »

Facility level reporting – Patient tracker

- The patient tracker is a web-based programme
 - Can be used anywhere
 - Can store data offline if internet connection is poor
- Scales to screen size and can thus be used as-is on a mobile phone



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

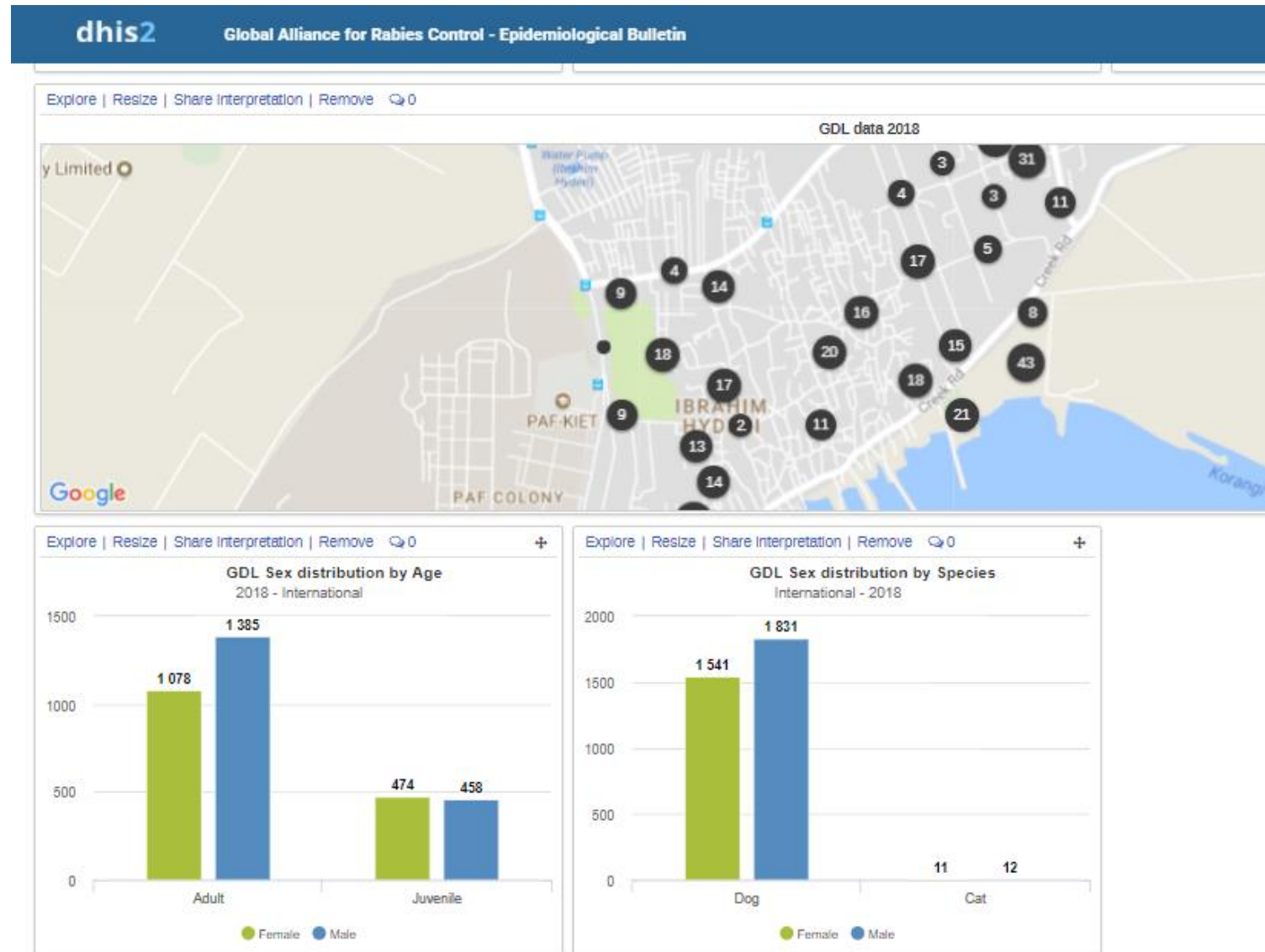
GARC Data Logger

- 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



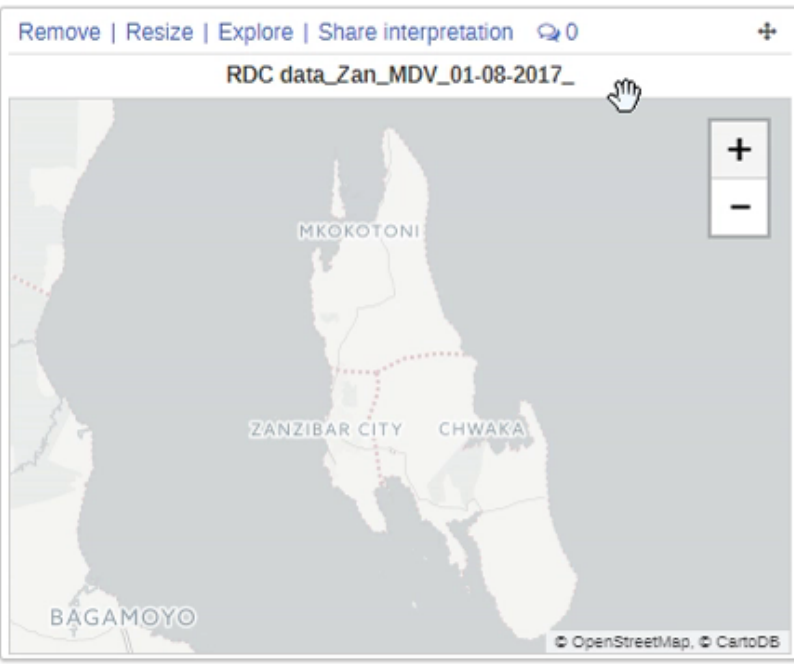
Write feedback • Zanzibar

Profile Messages Interpretations

Search for users, charts, maps, reports and resources Search

Add Manage Share < >

Uganda Zanzibar Zimbabwe



Remove | Resize | Explore | Share interpretation 0

Total number of rabies samples diagnosed per animal species

Zanzibar Archipelago



International reporting



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MoA



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sub-National data collection



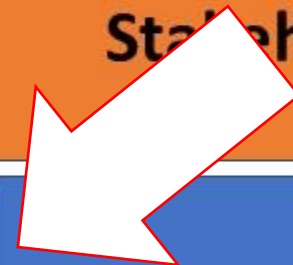
Vaccinators



CHWs



Facilities





Working to eliminate deaths from canine rabies by 2030

How can we help you today?
Let us take you to the right page

Choose an option

TAKE ME THERE!

The logo for the 2017 World Rabies Day Awards, featuring a globe and the text "WORLD RABIES DAY SEPTEMBER 28" and "MSD".

Nominate your community champions for a 2017 World Rabies Day Award

International reporting

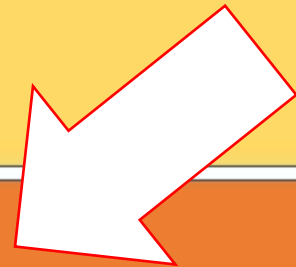


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CHWs



Facilities

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

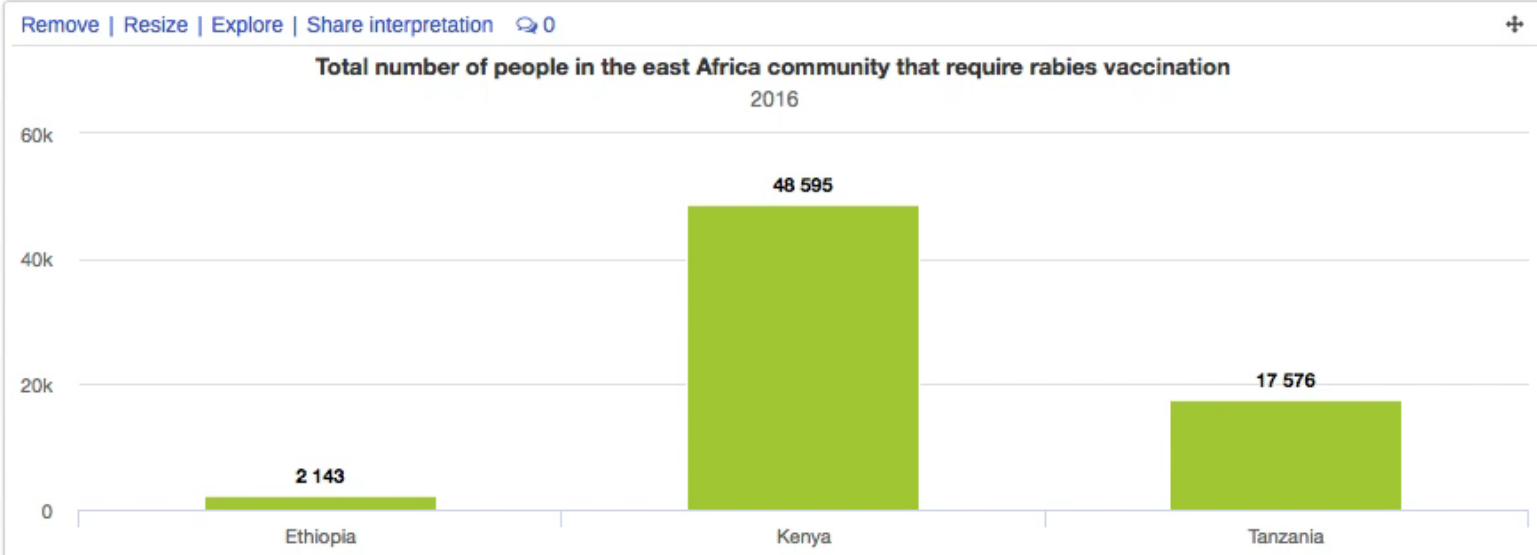
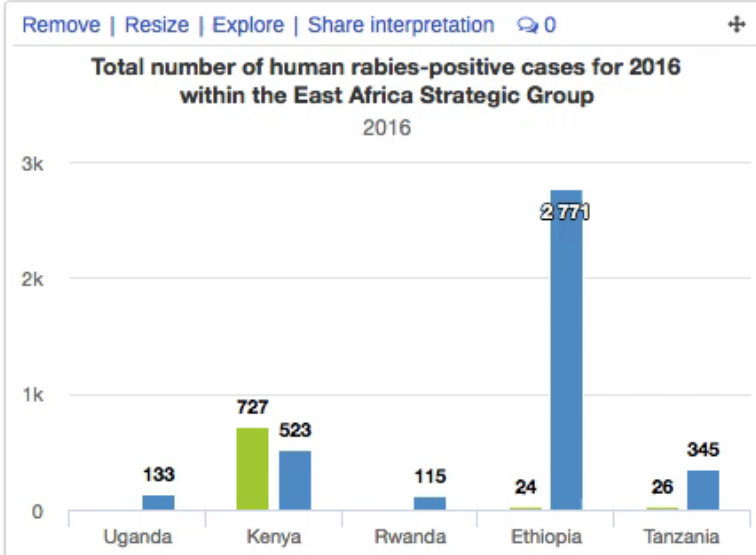
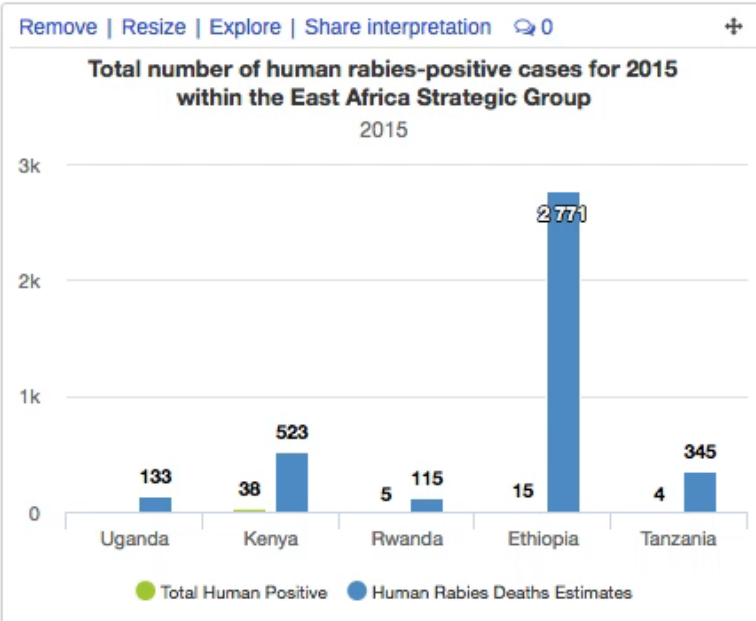
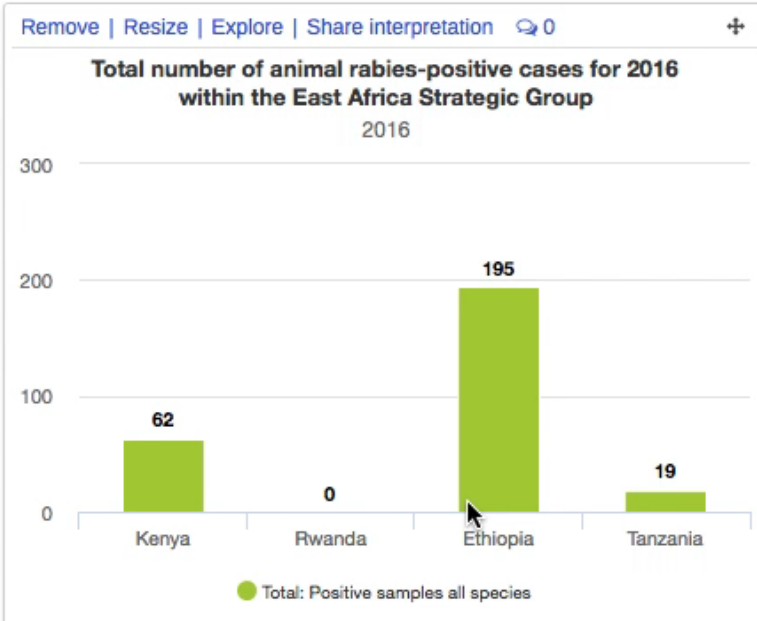
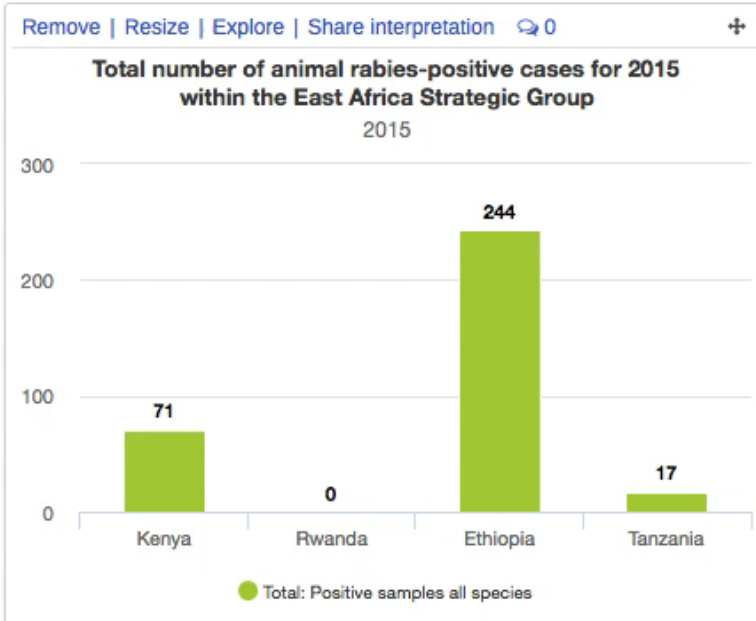


Rabies Epidemiological Bulletin: Country Rabies Data Permission Request Form

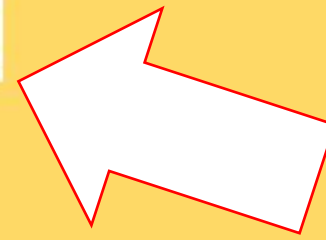
Background

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





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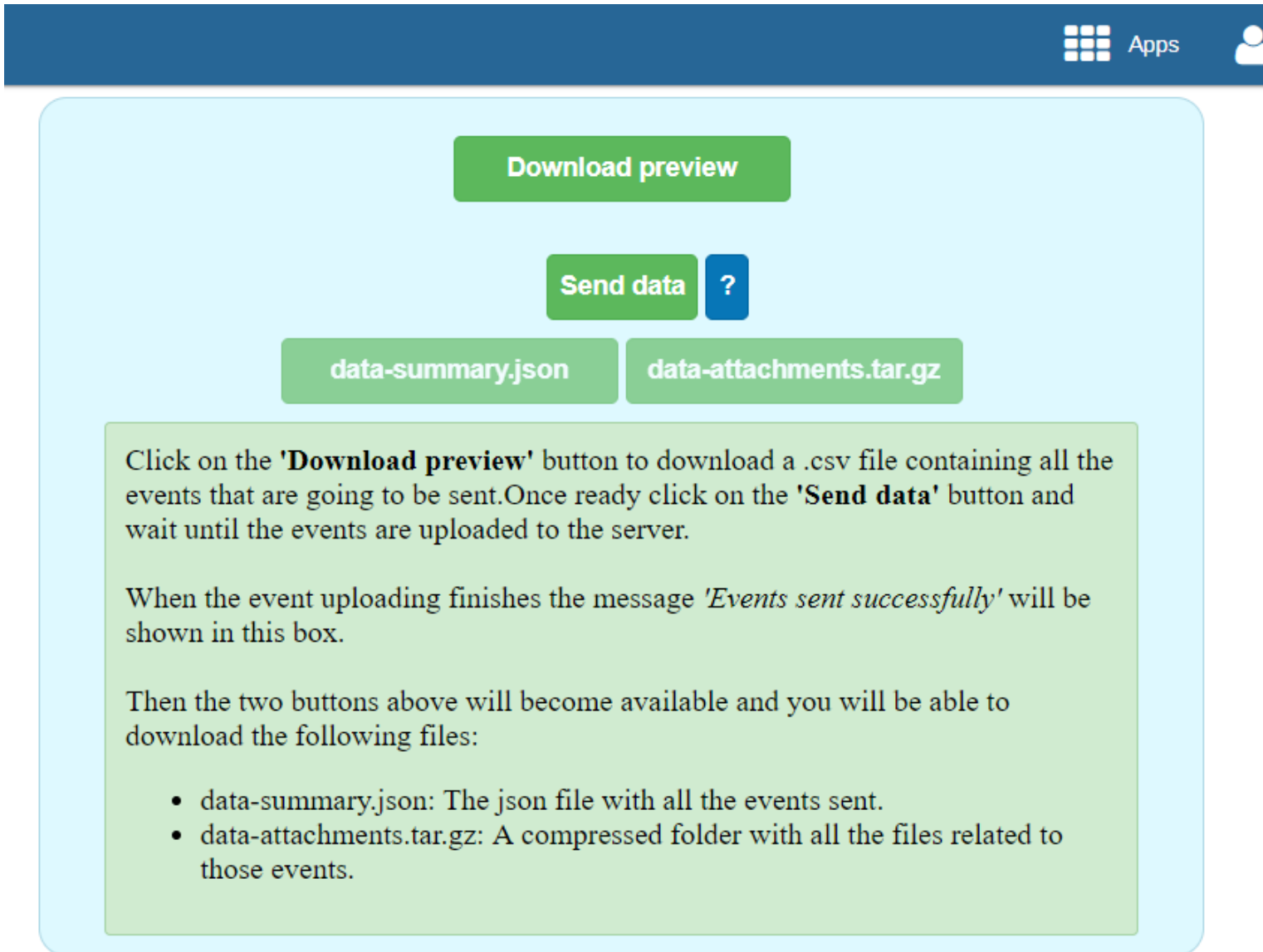
Facilities

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



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.

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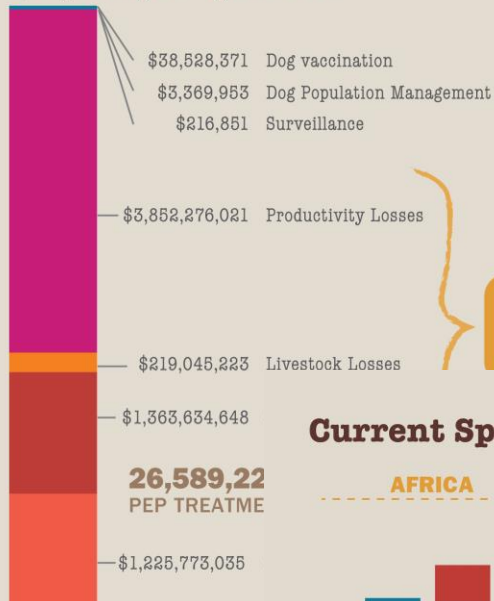


Facilities

Making a statement with data

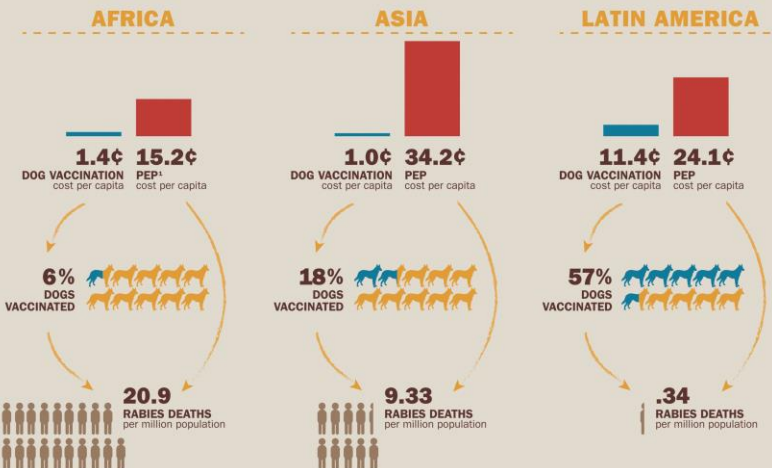
Asia: Annual Cost of Rabies

\$6,702,844,102 USD



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)

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.**



100% of human cases are preventable.

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

Domestic dogs cause over **99%** of human rabies deaths.

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

95% of human rabies deaths occur in Africa and Asia.

Mass canine vaccination programmes reduced rabies by **90%** in Latin America.

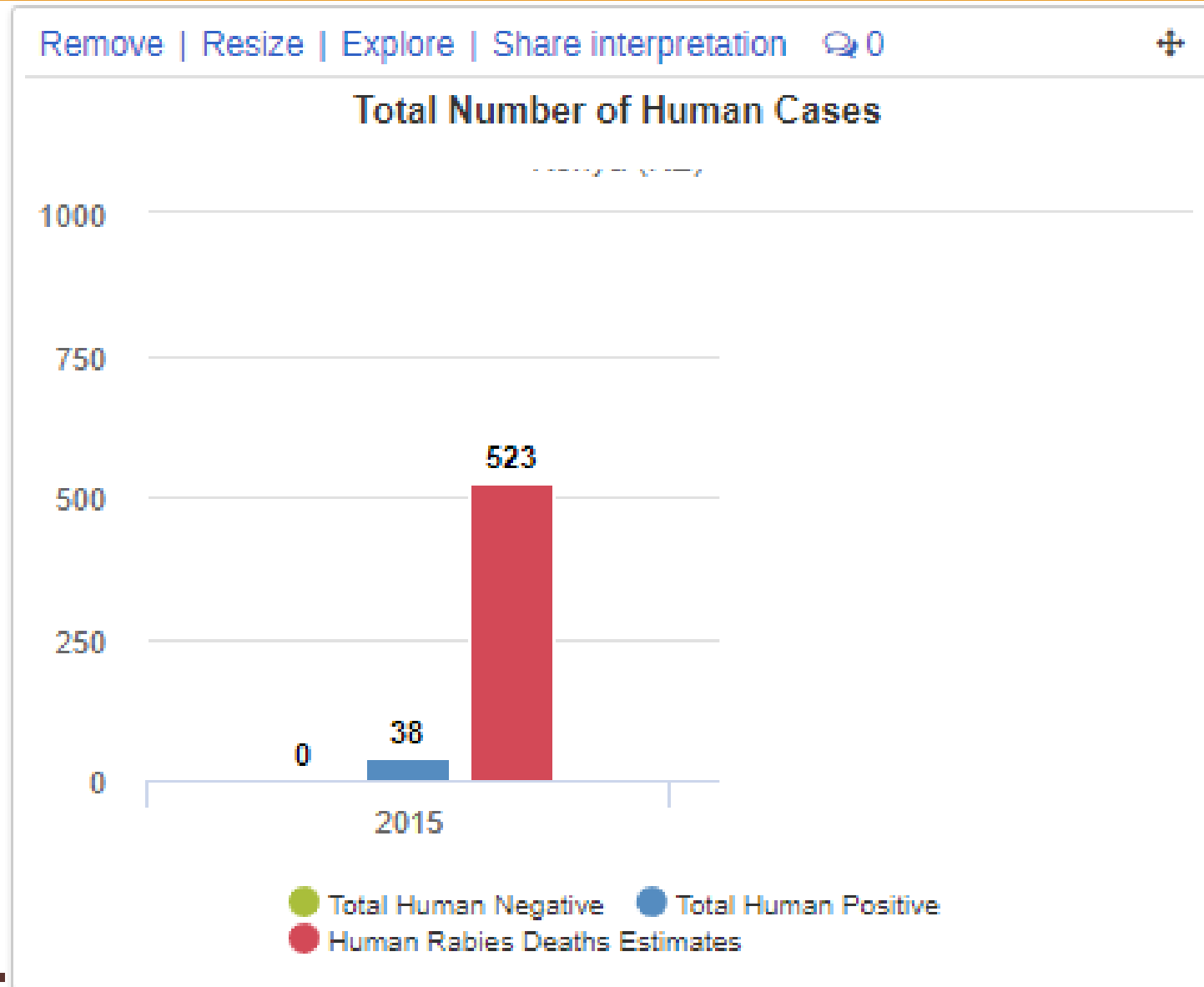
Canine rabies kills more than **59,000** people every year.



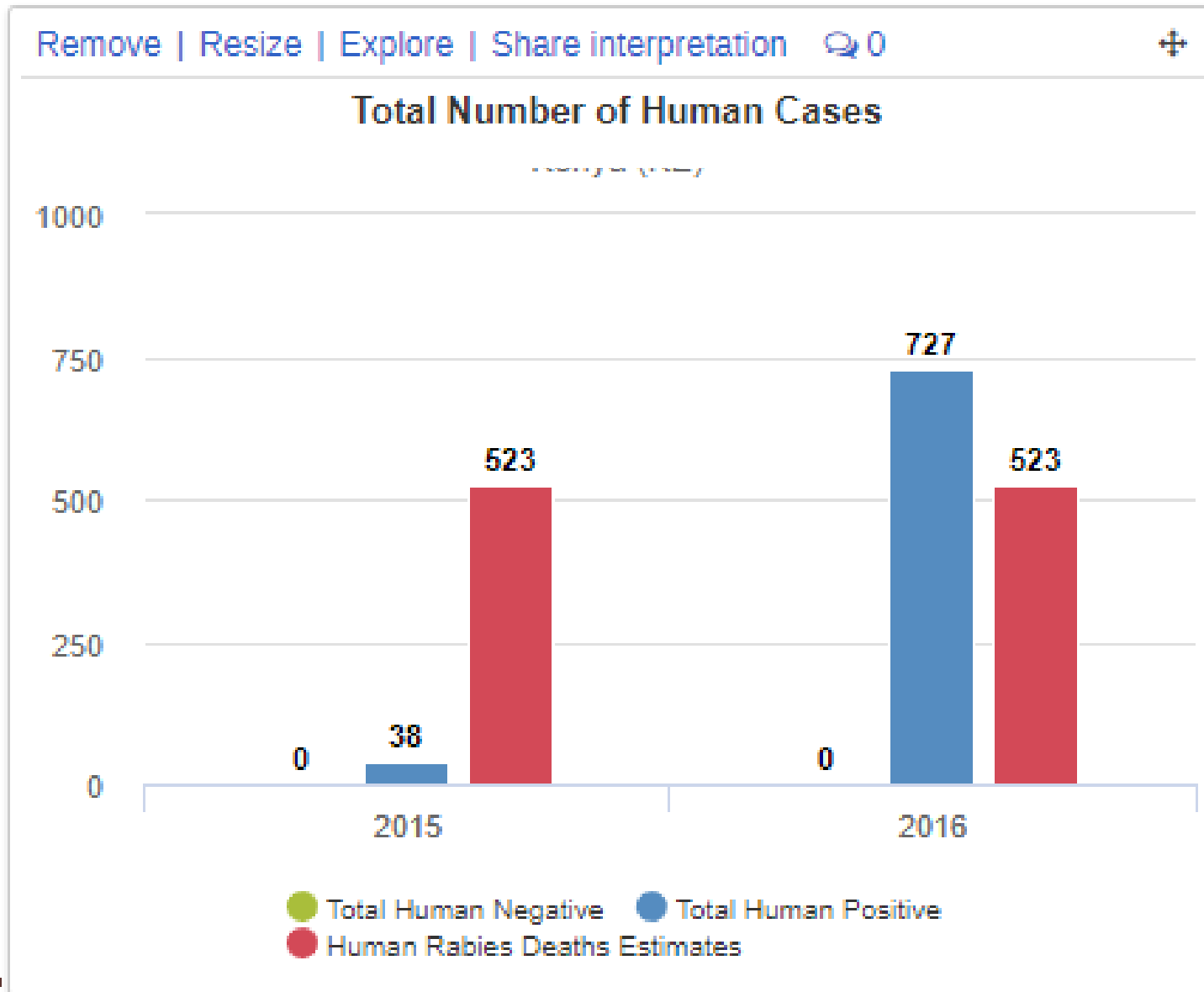
2.9 million lives are saved annually due to preventative measures.



Data supporting the estimates



Data supporting the estimates



We aim to make data collection and analysis easy!



<https://bulletin.rabiesalliance.org>

<https://endrabiesnow.org>