Key factors in the global rabies epidemic are undervaluation and chronic social and veterinary neglect of dogs.

Les principaux facteurs de l’épidémie mondiale de rage sont la sous-evaluation (manque de valeur économique) et la negligence chronique sociale et vétérinaire des chiens.
Per capita human death rates from canine rabies

Hampson et al., 2015
Per capita costs of rabies prevention

<table>
<thead>
<tr>
<th>Region</th>
<th>Dog vaccination coverage (%)</th>
<th>Human rabies deaths per million population</th>
</tr>
</thead>
<tbody>
<tr>
<td>AFRICA</td>
<td>$0.11</td>
<td></td>
</tr>
<tr>
<td>ASIA</td>
<td>$0.34</td>
<td></td>
</tr>
<tr>
<td>LATIN AMERICA</td>
<td>$0.34</td>
<td></td>
</tr>
</tbody>
</table>

**Notes:**
- Human post-exposure prophylaxis
- Dog vaccination

**Visual Elements:**
- Icons representing human and dog figures
- Dollar signs indicating costs

**Legend:**
- Green squares indicate dog vaccination
- Red squares indicate human rabies deaths

**Colors:**
- Blue
- Green
- Red

**Additional Information:**
- The diagram illustrates the distribution of costs and vaccination coverage across different regions.
- The cost figures reflect the average per capita costs for rabies prevention.

R = 0.78
Figure 2. Rabies imposes a heavy economic burden
THE GLOBAL STRATEGIC PLAN
TO END HUMAN DEATHS FROM
DOG-MEDIATED RABIES BY 2030

ZERO BY 30

UAR Global Strategic Plan
A MISSION DRIVEN COALITION DEDICATED TO ACHIEVE A SHARED GLOBAL GOAL

The Collaboration builds on more than 10 years of global partnership, research and evidence-building to demonstrate the feasibility of eliminating dog-transmitted rabies.

The UNITED AGAINST RABIES collaboration

<table>
<thead>
<tr>
<th>Organization</th>
<th>Year</th>
<th>Key Objectives</th>
</tr>
</thead>
</table>
| World Health Organization | 1946 | - Global leadership for public health development to meet needs of disadvantaged population  
- Necessus for governments, international organisations, NGOs, private sector and civil society  
- Provides technical support to countries and catalyses capacity building |
| Food and Agriculture Organization of the United Nations | 1945 | - Aims to eliminate hunger and food insecurity worldwide  
- Advocates for improved social and economic status of all people worldwide  
- Engages partners and stakeholders including governments, civil society and the private sector  
- Links what happens in local communities to regional and global initiatives |
| OIE | 1924 | - Aims to improve animal health and welfare  
- Develops evidence-based international standards, guidelines and recommendations for disease control and animal welfare  
- Promotes strengthening of veterinary services worldwide |
| Global Alliance for Rabies Control | 2007 | - Dedicated to eliminating deaths from rabies  
- Develops information, surveillance and training tools to increase country capacity for rabies control  
- Provides training and capacity building to countries and coordinates regional and cross-sectoral networks  
- Undertakes advocacy, education and communication campaigns |

A global catalytic initiative to achieve a common global goal

Creating an enabling environment for change via a multi-stakeholder platform

A forum to highlight best practices and define standards, policies, processes and tools

Facilitate regional knowledge exchange and promote ‘One Health’ approach

Country specific initiative that puts Accra agenda for Action (AAA) at the heart of our work

ZERO HUMAN DEATHS FROM DOG TRANSMITTED RABIES 2030

The purpose of this document is to present the Global Strategic Plan of the United Against Rabies Collaboration to end human deaths from dog-mediated rabies by 2030. The plan outlines the vision, the value proposition and the road-map designed to achieve the desired global goals set forth by the Collaboration. The document also presents the estimated resources (budget) required and the commitment from the international development partners and countries globally to deliver on these goals.
HOW WE WILL REACH ZERO BY 30

Our global strategic plan prioritizes the societal changes needed to reach Zero by 30 into three objectives:

**OBJECTIVE 1**
- to effectively use vaccines, medicines, tools and technologies
  - Reduce human rabies risk
    - improved awareness and education
    - increased access to healthcare, medicines and vaccines
    - dog vaccinations

**OBJECTIVE 2**
- to generate, innovate and measure impact
  - Provide guidance and data
    - effective policies, guidance and governance
    - ensuring reliable data to enable effective decision-making

**OBJECTIVE 3**
- to sustain commitment and resources
  - Harness multi-stakeholder engagement
    - demonstrate the impact of activities completed under the United Against Rabies collaboration
PROPOSED PHASING OF RABIES ENDEMIC COUNTRIES IN THE GLOBAL STRATEGIC PLAN

Phase 1: START UP
2018 - 2020
28 COUNTRIES

Phase 2: SCALE UP
2021 - 2025
+52 COUNTRIES

Phase 3: MOP UP
2026 - 2030
+19 COUNTRIES

Phase 1: Bangladesh, Benin, Bhutan, Bolivia (Plurinational State of), Cambodia, Ethiopia, Georgia, Ghana, Guatemala, Haiti, Iran (Islamic Republic of), Kazakhstan, Kenya, Lesotho, Liberia, Malawi, Mali, Morocco, Namibia, Nicaragua, Philippines, Sierra Leone, Sri Lanka, Thailand, Tunisia, Turkey, Uganda, Viet Nam, Zimbabwe

Phase 2: Afghanistan, Algeria, Angola, Azerbaijan, Botswana, Brazil, Burkina Faso, Burundi, Côte d’Ivoire, Cameroon, Chad, China, Colombia, Congo, Cuba, Djibouti, Ecuador, Egypt, El Salvador, Eritrea, Gambia, Guinea, Guinea-Bissau, Honduras, India, Indonesia, Israel, Jordan, Kyrgyzstan, Lao People’s Democratic Republic, Lebanon, Madagascar, Malaysia, Mexico, Mongolia, Mozambique, Myanmar, Nepal, Nigeria, Pakistan, Russian Federation, Rwanda, Saudi Arabia, Senegal, South Africa, Senegal, South Africa, Swaziland, Togo, Ukraine, United Republic of Tanzania, West Bank and Gaza Strip, Western Sahara, Zambia

Phase 3: Armenia, Central African Republic, Democratic People’s Republic of Korea, Democratic Republic of the Congo, Equatorial Guinea, Gabon, Iraq, Libyan Arab Jamahiriya, Mauritania, Moldova, Niger, Somalia, South Sudan, Sudan, Syrian Arab Republic, Tajikistan, Turkmenistan, Uzbekistan, Yemen
The United Against Rabies collaboration builds skills and knowledge in rabies-endemic countries towards achievement of zero human rabies deaths by 2030. The collaboration, consisting of the World Health Organization (WHO), World Organization for Animal Health (OIE), Food and Agriculture Organization of the United Nations (FAO), and Global Alliance for Rabies Control, aims to eliminate dog rabies by 2030.

For more information:
- Consult the full Global Strategic Plan: Zero by 30
- View the Lancet Global Health article here

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United Against Rabies launches global plan to achieve zero rabies human deaths

18 June 2018, Paris /Geneva/Rome/Manhattan (KS) - Investing approximately US$ 50 million between now and 2030 can support the elimination of dog-mediated human rabies. A strategic plan that provides a phased, all-inclusive, intersectoral approach to eliminate human deaths from rabies has just been launched by United Against Rabies, a collaboration of four partners: the World Health Organization (WHO), the Food and Agriculture Organization of the United Nations (FAO), the World Organisation for Animal Health (OIE) and the Global Alliance for Rabies Control (GARC).

Zero by 30: the global strategic plan to end human deaths from dog-mediated rabies by 2030 was prepared following a global call in 2015 to "end human rabies deaths by 2030".

The plan, finalized in consultation with relevant global, regional and country stakeholders, builds on the current international momentum to eliminate rabies.

In alignment with the United Nations Sustainable Development Goals and health for all, Zero by 30 advocates for investment to achieve zero human deaths from rabies by 2030.
Rinderpest?

• Major threat to the food production industry

• Responsible for denuding Europe of cattle in the 19th century

• Economically devastating

(Roeder et al., 2005)

Source: Greenbelly.co
5 Critical Factors in Eradication Successes

1. Feasibility, International Coordination & Strategy
2. National Governments
3. Communities
4. Surveillance
5. Research & Tools
Feasibility

Dog vaccination stops rabies transmission from dogs to humans

Mexico

Rabies cases per year in human & dogs

Vaccination of dogs

Sri Lanka

Rabies cases per year

Vaccination of dogs + PEP
The One Health Triad

Healthy people

Healthy Environments

Healthy Animals
**Strategy & Coordination**

**Smallpox**
- WHO Strategic Action Plan
- International collaboration

**Rabies**
- Global Strategic Plan, ZERO by 30
- International collaboration

1 Feasibility, International Coordination & Strategy
Political & Societal Support

Smallpox

• Significant societal and political support
• Smallpox affected everyone, contagious

Rabies

• Rabies considered low priority = neglected

Diagram: Cycle of Neglect

Weak surveillance

Low priority

Under-resourced

National Governments
**Smallpox**
- Mostly funded by national governments

**Rabies**
- Governmental buy-in required
- Strategy country-centric

“...nor was support for the programme generous, whatever the favourable cost-benefit ratios may have been...”

“...industrialized countries were reluctant contributors and UNICEF.... stated that it would make no contributions...”

“...cash donations to WHO during the first 7 years of the smallpox programme 1967-73, amounted to exactly US$ 79500. That is not per year but the total for that entire period.”

Henderson DA, Bulletin of the WHO 1998, 76 (Suppl 2) 17-41
Stepwise Approach to Rabies Elimination

The Global Dog Rabies Elimination Pathway (GDREP)

Using this tool, a well considered case can be made for the adequate financing of a rabies elimination strategy in any rabies endemic country.
CANINE RABIES VACCINES TO SAVE HUMAN LIVES

RABIES kills nearly 60,000 PERSONS PER YEAR with more than 95% of cases originating from INFECTED DOG bites.

By providing high-quality dog vaccines, the OIE Vaccine Bank helps countries implement vaccination campaigns and eliminate canine-mediated human rabies.

OIE Vaccine Bank

2018/19
2 million doses
13 countries
In June 2019, the GAVI Alliance announced that it would widen its portfolio to include human rabies vaccines as of 2021.
Communities

Henderson & Klepac 2013,
Phil Trans R Soc B 368
Communities
Rabies Educator Certificate (REC)
Animal Handling and Vaccination Certificate (AVC)
Rabies Healthcare Certificate (RHC)
Community Coordinator for Rabies Certificate (CCC)
Surveillance

Smallpox
- Developed national and global systems for detection and reporting

Rabies
- Severely under-reported
- Limited surveillance i.e. cycle of neglect (rabies Fermi paradox)

“From the beginning of the programme, surveillance for smallpox cases was a basic strategy of the campaign. As expected it proved to be the ultimate quality control measure, the guide to improved operations and the yardstick of progress.”

Henderson, 1987
The Rabies Epidemiological Bulletin:

- **Comprehensive** rabies surveillance system
- **Integrated, intersectoral** data sharing
- **Government owned** and driven
- **International** Indicators (OIE and WHO requirements)
- Facilitates **accurate** data reporting

Rabies Epidemiological Bulletin

Coordinated harmonization of data indicators and data validation to ensure accurate monitoring of progress, WHO, OIE and GARC
“..research initiatives were encouraged at every level. This occurred despite the opposition of senior WHO leadership who insisted that the tools were in hand and the epidemiology was sufficiently well understood and that better management was all that was necessary to eradicate smallpox.... “

Henderson DA, Bulletin of the WHO 1998
CanineRabiesBlueprint.org

Welcome

The Blueprint for Canine Rabies Prevention and Control has been developed by global rabies experts to serve as a guide for countries that would like to prevent human rabies by eliminating canine rabies within their borders.

VERSION 3 - UPDATED AND EXPANDED - IS NOW COMPLETED.
GARC, September 2014
Where are World Rabies Day events taking place?

Click on the map or search for an event

Any Region    Any Country    2019

MAP   LIST