Strategic Plan for Elimination of Rabies in Kenya

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1st Pan- African Rabies Control Network Meeting
9 -11 June 2015, Gauteng, South Africa.
Background

- Human population
  - 44 million (2014)

- Livestock populations
  - Cattle 18 million
  - Sheep 18 million
  - Goats 28 million
  - Camels 3 million

- Dogs 4.5 million

- Wildlife
  - Rich in diversity and numbers
Rabies in Kenya

- 1st case of human rabies documented in 1928
- Epidemics in 1930/40’s – early 1950s (DVS records)
- Widespread mass dog vaccinations in 1950/60’s that controlled rabies
- By 1973, rabies virtually eliminated
- Breakdown in these efforts, epidemics in late 1970’s, disease spread to most parts of the country by 1982
Rabies in Kenya

- Endemic in Kenya with varying incidence levels
- Domestic dogs transmit at least 98% of human rabies in Kenya
- Nearly 2,000 human deaths from rabies occur annually (Kitala et al, 2000)
- Rabies listed as one of the priority zoonotic diseases for the country.
Is Dog mediated Human Rabies Elimination Possible?

- **South Africa – KZN**
  - Government and donors launched rabies elimination project in 2007
  - Animal rabies has been reduced from 473 cases in 2007 to 37 in 2014
  - No single human case for last two years

- **Philippines**
  - The number of human deaths from rabies has decreased significantly from **48 cases in 2008** to **13 in 2012**, a **70% reduction**
Guiding principles of the strategy

• Rabies control is a public good; elimination of rabies is an effort that all interested sectors should be involved in

• Rabid domestic dogs transmit at least 98% of human rabies

• Rabies cycles are maintained by domestic dogs in East Africa; no evidence of role of wildlife
Guiding Principles of the Strategy

• Sustained annual mass dog vaccination (at least 3 consecutive years) of >70% of dog population eliminates rabies in dogs, other domestic animals and subsequently in humans

• More than 70% of dogs in Kenya are owned and are accessible for parenteral vaccination

• Rabies elimination is a cost-effective strategy, saves lives and results in decline in the use of costly PEP
Strategies for Rabies Elimination
Strategies for Rabies Elimination

• Control of dog rabies
  – Mass dog vaccination
  – Promotion of responsible dog ownership

• Advocacy, social mobilization and partnerships

• Control of human rabies
  – Pre/post exposure treatment
  – Training of health workers

• Surveillance, outbreak response & research

• Partnerships and multisectoral coordination

• Resource mobilization
Objective of the Strategy

To eliminate human dog-mediated human rabies by 2030
Implementation Plan

The strategy for the elimination of human-dog mediated human rabies will be based on a Stepwise Approach to Rabies Elimination (SARE)
Stepwise Approach to Rabies Elimination (SARE)

- A comprehensive risk based model that proposes a stepwise approach in the reduction of disease risk.
- Allows for regional or synchronized activities towards disease elimination.
- The Rabies SARE consists of six stages (stage 0 - 5).
- Set of activities in each stage that build on to each other until country completely declared free of rabies in stage 5.
Timelines

- 2030 -
- 2028 - 2029
- 2017 - 2027
- 2014 - 2019
- 2013 - 2014
- 2013

Stages in the Rabies progressive control pathway

STAGE 5
- Maintain freedom-from-rabies status in humans and dogs

STAGE 4
- Maintain freedom from dog-mediated human rabies
  - Elimination of dog rabies

STAGE 3
- Rabies risk reduction through full-scale implementation of the control strategy

STAGE 2
- Implementation of the National Rabies control strategy in pilot districts

STAGE 1
- Development and adoption of the National Rabies control strategy
  - Preparation for its implementation

STAGE 0
- Rabies suspected to be present
  - Scanty information available
Pilot Zones
Resource Mobilization

• Total cost in pilot zones in 5 years $11M
  – Human PEP 53%
  – Mass dog vaccination 31%

• Proposed funding mechanism
  – Government of Kenya – 30% (vaccines)
  – Partners and International organizations
  – Grants
  – NGO’s
Thank You
Introduction

• Rabies is a neglected zoonotic disease
• Invariably fatal in humans, livestock & other mammals.
• It causes approx 60,000 deaths annually mainly in developing countries with one person dying of rabies every 10 minutes.
• More than 95% of human deaths occur in Africa and Asia.
• Rural populations, especially children <15 years are at the greatest risk of rabies exposure
Rabies, countries or areas at risk

The boundaries and names shown and the designations used on this map do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted lines on maps represent approximate border lines for which there may not yet be full agreement.

Data Source: WHO Rabnet/CDC
Map Production: Public Health Information and Geographic Information Systems (GIS)
World Health Organization

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Stage 1 (2013-2014); Preparatory Phase

- Establishment of inter-sectoral NRECC
- Selection of pilot areas
  - Machakos, Makueni, Kisumu, Kitui, Siaya and Kisumu
- Strengthen rabies surveillance
  - Early detection and reporting of cases
- Development of Guidelines
  - To standardize implementation of activities in counties
- Training
  - Training of staff; professionals, community
South Africa

- The KwaZulu-Natal province of South Africa had been plagued by dog rabies.
- During 1983–2007, 79% of laboratory-confirmed human cases in South Africa occurred in this province.
- Govt and donors launched rabies elimination project in 2009.
- The occurrence of animal rabies has been halved in 3 years, with an initial decrease in human cases.
- For the first time in 20 years, KwaZulu-Natal reported a continuous 12-month period without a single human case in 2012.
Phillipines

- The regional program for rabies elimination partnership between Govt, WHO, Bill & Melinda Gates Foundation
- The project involves vaccination of more than 3 million dogs over 5 years
- The number of human deaths from rabies has decreased significantly, from 48 cases in 2008 to 13 in 2012, a 70% reduction
Other Stages

• Stage 3 (2019-2025): Rabies risk reduction through full-scale implementation of control and elimination strategy

• Stage 4 (2025-2028) - Maintaining freedom from dog-mediated human rabies and elimination of canine rabies

• Stage 5 (2028-2030) – Maintain Freedom from rabies in humans and dogs
Stage 2: Roll out of activities in Pilot areas (2015 – 2019)

- Setting up CRECCs and SCRECCs
- Training of staff
- Dog ecology studies
- Mass dog vaccinations
- Dog population management
- Advocacy, communication and social mobilization
- Pre/Post exposure measures
- Surveillance and Research
Coordination structure of the National Rabies Elimination Strategy
Next steps

• Lobby for funding for its implementation
  – Government ministries
  – International organizations/partners
  – NGO’s
  – County Governments

• Development of guidelines to standardize implementation of activities

• Implementation in pilot counties
WORLD ANIMAL PROTECTION WORK IN AFRICA – HUMAN RABIES CONTROL

Tennyson Williams
Regional Director for Africa

1st PARaCoN Conference,
Johannesburg, South Africa
Introduction

• This PARaCoN platform has provided the astonishing potential that Africa has to help address problems associated with dog population management and rabies elimination from across Africa and the world.

• Participants are familiar with challenges that face Africa (and around the world in general), including:
  ➢ Social
  ➢ Economic
  ➢ Cultural
  ➢ Political
Introduction

We know:

• dogs are inhumanely killed as a measure to control rabies
• thousands of lives continue to be lost to rabies
• productivity potential of communities and countries affected are seriously undermined
• many governments from across the continent are yet to prioritise rabies elimination among existing competing interests, and
• that change needs to happen
Status of Dog population in Africa

• Estimates from World Health Organization:
  ➢ around 78 million owned dogs
  ➢ excess of 70 million dogs are technically strays - owned but allowed to roam freely

• The dog is still primarily a utility animal closely linked to livestock and wildlife and extensively used for guarding.

• Majority of owners do not place much value on their dogs.

• Vast majority of African dogs can be classified as roaming - most owners do not confine their dogs.
Status of Dog population in Africa

- Challenges to the welfare of the dogs in the Africa context due to:
  - Poverty
  - Changing socio-cultural and Religious status of dogs in society
  - Lack of access to veterinary services and its affordability
Rabies in Africa

• Globally, about 55,000 – 80,000 people, most of them children, die annually as a result of rabies

• Over 24,000 of those are reported to occur in Africa alone

• Rabies is endemic across Africa due to:
  ➢ lack of government support to control programs
  ➢ lack of accessibility and affordability of veterinary services political instabilities
  ➢ lack of resources
Rabies in Africa

- African Governments allocate very little priority to management of dog issues

- Exception - where they (dogs) play a role in transmission of zoonosis, mainly rabies

- Governments adopt an ineffective and quick-fix approach of culling dogs in the name of controlling the spread of rabies
Rabies in Africa

• Our experience and knowledge show that culling programmes do not work because:
  ➢ It is difficult to eradicate the animals - finding and catching them is hard enough, but people love their dogs and will do their level best to avoid them being killed
  ➢ Dogs are mobile and territorial - removing dogs from one area, simply invites dogs from another area in, bringing all their problems with them
  ➢ Failure to deal with the root causes of why the animals are on the streets in the first place including; over breeding and a culture of dumping unwanted dogs

Causes can vary but unless they are tackled, culling can only result in a temporary drop in the number of dogs on the street
World Animal Protection

• Dedicated to enhancing welfare and ending cruelty to animals across the world for over 30 years

• Our successes and ambitious plans for the future supported by hundreds of thousands of people, governments, international institutions and businesses in over 50 countries

• We and our many partners share a common view that a sustainable world is one where animals are free from suffering.
World Animal Protection

• Our strategy for the future is to develop substantial programmes to enhance animal welfare in:
  ➢ farming
  ➢ the wild
  ➢ disasters
  ➢ Communities

• We will:
  ➢ take on specific issues that will bring the world’s attention to animal welfare issues
  ➢ mobilise people and organisations to change how we perceive and treat animals
World Animal Protection

• Our vision within Africa over the coming years commits to scaling up and engaging in activities which will rapidly increase our:
  - reach
  - influence
  - credibility

• Example - Work on animals in communities focus on dog population management and rabies elimination - key aspect of our coming together to mark this first PARaCoN conference.
Our Approach

• For effective and sustainable elimination of rabies:
  - A holistic approach is needed
  - An approach that is aimed at improving the welfare of dogs and creating an environment for harmonious co-existence

• To date, we have worked with partners to further this holistic approach in Zanzibar, Southern Tanzania, Kenya and Sierra Leone
Dog population management and rabies elimination
Dog population management and rabies elimination
Our Approach

• Key lessons emerging from these projects are:

  ➢ the challenge but critical importance of developing credible baselines, particularly dog numbers and distribution

  ➢ the need to make maximum use and improve efficiency of existing government infrastructure

  ➢ the importance of public mobilisation
Experience from the Field

- The next advance is to build in a component to improve responsible dog ownership, a fundamental aspect of ensuring a safe and healthy dog population.

- Good animal welfare practice need to be mainstreamed by governments - essential not only for rabies elimination but also for long term public health and economic benefit to the nation accrued in terms of cost and productivity in areas of:
  - health
  - labour
  - human welfare
  - GDP
Experience from the Field

• Engagement of multi-sector stakeholders ranging from:
  ➢ health professionals
  ➢ veterinary authorities
  ➢ different line ministries (particularly health, environment and education)
  ➢ community leaders

• Understanding community’s perception to dogs and engaging them in devising humane strategies for fostering harmonious co-existence.
Observations & Recommendations

• This conference has created an opportunity for highlighting the importance of using existing official mechanisms as vehicles for driving the rabies elimination process in Africa.

• Our Africa Regional Office is primarily responsible for facilitating activities and processes that will assist countries at local, national and regional levels.

• For sustainable impact to be achieved the competent country authorities need to prioritise rabies elimination and resource the activities appropriately through a regional plan that sovereign countries have signed up to.
Observations & Recommendations

• A regional plan ideally achieved through institutions mandated to set these up including:
  ➢ African Union InterAfrican Bureau for Animal Resources (AU-IBAR)
  ➢ Regional Economic Communities (RECs)

• An opportunity for us here at PARaCoN to lobby and technically support this endeavour.

• Based on our experiences around the world (including ongoing engagements in Africa), we are available to offer support to countries within the platform.
Observations & Recommendations

• The national competent authorities will never be given the directive and sufficient resources to deal with rabies until it is a political priority.

• That because of poor surveillance capabilities in all countries, the perceived local threat of rabies is unlikely to ever reach levels of mortalities or loss of productivity that will force governments to take notice.

• We would therefore, need to adapt one aspect of our strategy to focus on another angle – development of nationally owned policy guidelines.
Observations & Recommendations

- Tactical selection of obligatory instruments will hopefully speed up uptake of policy at national level.

- World Animal Protection Africa is well positioned to catalyse this approach with key global players such as one health tripartite and GARC.
Conclusion

• Rabies elimination and improving the welfare of dogs is key priority for World Animal Protection and we are currently running a global campaign to achieve this.

• We have outlined our approach in our newly published resource entitled ‘Humane Dog Management: Better lives for dogs and communities’.
Conclusion

• We will continue to collaborate with key institutions and communities across Africa to ensure that we realise our common vision of canine rabies free Africa.

• We reiterate our willingness to cooperate with governments across the continent and share our years of knowledge and experience in order to create an African continent where dogs and humans have harmonious co-existence.
THANK YOU
Developing a Stepwise Approach towards (Dog-Transmitted) Rabies Elimination (SARE)

Katinka de Balogh
Senior Officer – Veterinary Public Health
Animal Health Service
Food and Agriculture Organization of the United Nations
Global Rabies Burden: A Public Health Concern

• Neglected and re-emerging zoonotic disease
  • 50-70,000 cases per year

• Rabies is inextricably linked to poverty

• Rabies is a vaccine preventable disease

Challenges:
1. Lack of available and accessible PEP
2. Low vaccination rate of dogs
Dog Rabies Control

- Over 95% of all human rabies deaths are observed in Asia and Africa
- Over 99% of the human rabies cases reported are due to dog-bites
- Global elimination of dog transmitted human rabies under consideration

HOW CAN WE ACHIEVE SUSTAINED ELIMINATION OF DOG TRANSMITTED RABIES?
Countries are often overwhelmed when dealing with (human) rabies outbreaks....

• Fear
• Political/social pressure,
• Lack of resources
• Lack of available and accessible PEP
• Low vaccination rate of dogs.....
Why develop a stepwise approach?

- **Goal of SARE:**
  I. Provide a structured approach
  II. Enable countries to define the “Stage” of rabies control they are in
  III. Provide defined “keys” to move to a next stage (measure progress)
  IV. Indicated links to relevant sections of the rabiesblueprint

- **Role of FAO:**
  I. To assist countries in getting started and implement SARE
Stepwise Approach: How does it work?

6 stages to move from endemic to free from human rabies transmitted by dogs

List of achievements (keys) essential to move to the next stage

SARE Topics Considered

I. Legislation
II. Data collection and analysis
III. Laboratory diagnosis
IV. Information, education, and communication
IV. Prevention and control
V. Dog population related issues
VI. Cross cutting issues
COUNTRY FREE FROM DOG TRANSMITTED RABIES

STAGE 5
Freedom from human and dog-transmitted rabies being monitored

- No dog-to-dog transmitted rabies for a consecutive 12 months
- Maintenance of human rabies freedom, elimination of dog rabies

STAGE 4

STAGE 3
Full-scale implementation of the national rabies control strategy

- National rabies prevention and control strategy endorsed and funded
- Development of the national rabies prevention and control strategy

STAGE 2

STAGE 1
Assessment of the local rabies epidemiology, elaboration of a short term rabies action plan

- Rabies occurrence in any species is reported to international agencies
- Functional intersectoral rabies task force in place, rabies is a notifiable disease

STAGE 0

COUNTRY ENDEMIC FOR DOG TRANSMITTED RABIES

- No information on rabies available but rabies is suspected to be present

FAO-GARC SARE-TOOL (version July 2014)
6.4 Vue d’ensemble des étapes:

Une description plus précise de chaque étape et les clés permettant de passer à l’étape suivante sont détaillées dans les sections suivantes de ce document. Ce diagramme présente une vue générale du processus :

ÉTAPE 5 : Subi de l’absence de cas de rage chez l’homme et de cas due à la rage transmise par les chiens

ÉTAPE 4 : Maintien de l’absence de cas humains indigènes, élimination de la rage canine

ÉTAPE 3 : Application complète de la stratégie nationale de contrôle de la rage

ÉTAPE 2 : Mise au point d’une stratégie nationale de prévention et de contrôle de la rage

ÉTAPE 1 : Suivi épidémiologique local de la rage, élaboration d’un plan d’action à court terme

ÉTAPE 0 : L’incidence de la rage chez les différentes espèces est rapportée aux agences internationales

Le tableau ci-dessous indique les acronymes utilisés pour chaque thème. La section suivante fournit une description détaillée de chaque étape individuelle de la SARE.
COUNTRY ENDEMIC FOR DOG TRANSMITTED RABIES

Stage 0

No information on rabies available but rabies suspected to be present

Key to move from Stage 0 to Stage 1:
Rabies occurrence in any species is reported to international agencies
<table>
<thead>
<tr>
<th>Topic</th>
<th>Activities &amp; achievements</th>
<th>Blueprint or other</th>
</tr>
</thead>
<tbody>
<tr>
<td>LEG</td>
<td>A national rabies case definition (both, for human and animal rabies) is available</td>
<td>2, 5</td>
</tr>
<tr>
<td>LAB</td>
<td>Contacts to an international rabies reference laboratory or international organizations are established</td>
<td>3.1.7 Which laboratories are available, OIE-ref-lab, WHO-coll-centres, FDA, CDC centre, 2</td>
</tr>
<tr>
<td>LAB</td>
<td>Several rabies suspect samples are submitted to a national laboratory, if available</td>
<td>Simple-techniques-for-sample</td>
</tr>
<tr>
<td>LAB</td>
<td>At least one rabies suspect sample of either animals or humans is submitted to an international rabies reference laboratory for confirmation</td>
<td>Simple-techniques-for-sample, 6, WHO guidelines for shipping</td>
</tr>
<tr>
<td>IEC</td>
<td>Result of rabies sample(s) are shared appropriately with local and national authorities</td>
<td></td>
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</table>

**Key:**
- Notification of at least one rabies case (any species) has been confirmed at an international reference laboratory and has been notified to global organizations (human rabies) and OIE (animal rabies).
Republic of Congo

<table>
<thead>
<tr>
<th>STAGE O</th>
<th>STAGE 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>June 2013</td>
<td>November 2013</td>
</tr>
<tr>
<td>Stakeholder Consultation + Strengthening Lab Capacity</td>
<td>Clinical human cases and first rabies case diagnosed in a dog (Point Noire)</td>
</tr>
<tr>
<td>December 2013</td>
<td>Early 2014</td>
</tr>
<tr>
<td>Outbreak notified to OIE</td>
<td>FAO/WHO/WAP course on dog handling and vaccination (Point Noire)</td>
</tr>
<tr>
<td>April 2015</td>
<td></td>
</tr>
<tr>
<td>Suspected rabies case Dolisie</td>
<td>Need for High level interest and support</td>
</tr>
</tbody>
</table>

June 2013 - November 2013
- Stakeholder Consultation + Strengthening Lab Capacity

November 2013 - December 2013
- Clinical human cases and first rabies case diagnosed in a dog (Point Noire)
- Outbreak notified to OIE

December 2013 - Early 2014
- FAO/WHO/WAP course on dog handling and vaccination (Point Noire)

Early 2014 - April 2015
- Suspected rabies case Dolisie
- Need for High level interest and support
Stage 1

Assessment of the local rabies epidemiology, elaboration of a short term rabies action plan

Key to move from Stage 1 to Stage 2:
Functional intersectoral rabies task force in place, rabies is a notifiable disease (in humans and animals)
6.6 Description de l'étape 1

Description :

À ce stade, le gouvernement évalue les structures mises en place, les activités lancées et les ressources disponibles. Le pays commence la collecte et l'analyse des données existantes et des nouvelles données relatives à la rage, telles que les événements liés aux morsures d'animal et l'évaluation des activités de prévention et de contrôle de la rage au moins dans certaines régions du pays. Quelques activités de suivi de cas ou d'épisodes de rage (y compris des études spécifiques, telles que la surveillance active dans certaines régions ou des campagnes locales de vaccination des chiens, la gestion de la population canine et des initiatives de sensibilisation) ont déjà lieu ou ont été lancées. Les informations recueillies et ces expériences permettent l'élaboration d'un plan d'action à court terme relatif aux premiers besoins et aux pratiques réussies. Il est jugé important d'acquérir une connaissance approfondie des parties prenantes impliquées dans la prévention et le contrôle de la rage dans le pays et de comprendre les besoins des communautés affectées par la rage. Cette étape comprend des activités permettant de jeter les bases de l'élaboration d'une stratégie et d'un programme nationaux de prévention et de contrôle de la rage. En règle générale, les fonds alloués à la lutte contre la rage sont inexistants ou limités à cette étape.

Cette liste peut aider à définir les progrès réalisés jusqu'ici ainsi que les points qui demandent encore des efforts.

Activités et infrastructure devant être mises en place au cours de l'étape 1 :

<table>
<thead>
<tr>
<th>Thème</th>
<th>Liste descriptive des activités et accomplissements</th>
<th>Liens</th>
</tr>
</thead>
<tbody>
<tr>
<td>LEG</td>
<td>Le cadre légal a été revu</td>
<td></td>
</tr>
<tr>
<td>LEC</td>
<td>Un plan de travail d'adaptation du cadre légal relatif à la rage a été élaboré</td>
<td>3.2. Le cadre législatif</td>
</tr>
</tbody>
</table>
### Le Plan Directeur de Prévention et de Contrôle de la Rage Canine

| LAB | Les analyses de laboratoire sont possibles | 3.1.8 Les exigences minimales de laboratoire  
- OIE Manuel des tests de diagnostic et des vaccins pour les animaux terrestres  
- La gestion des risques biologiques en laboratoire |
|-----|-----------------------------------------|---------------------------------------------|
| LAB | La capacité d'effectuer un diagnostic en laboratoire existe au moins un niveau d'un laboratoire national | 3.1.8 Les exigences minimales pour les laboratoires  
- OIE Manuel des tests de diagnostic et des vaccins pour les animaux terrestres  
- La gestion des risques biologiques en laboratoire |
| LAB | Des prélèvements peuvent être effectués et leur transport est possible | OIE Manuel des tests de diagnostic et des vaccins pour les animaux terrestres  
- La gestion des risques biologiques en laboratoire  
5.3.1 La surveillance de la rage |
| IEC | Des plans de formation des formateurs ainsi que des cours de mise à niveau sur la rage destinés aux professionnels de la santé humaine et animale ont été développés | 3.1.6 Le personnel est-il suffisamment formé ?  
5.3 Qui devons nous former et à quoi ? |
<p>| IEC | Un plan de communication à propos de la rage a été élaboré | Plan de communication |
| IEC | Des campagnes de sensibilisation et de vigilance de la population et un programme de sensibilisation des responsables de communauté et des autorités ont été lancés | 5.4.7 Campagne de sensibilisation |</p>
<table>
<thead>
<tr>
<th>régions pilotes</th>
<th>PCA</th>
<th>PID</th>
<th>PID</th>
<th>PID</th>
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</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Des initiatives locales de promotion de la responsabilisation des propriétaires de chiens, notamment en cas de foyer, ont été lancées</td>
<td>L'identification des principales parties prenantes nationales en termes de prévention et de contrôle de la rage a été réalisée</td>
<td>La consultation des parties prenantes a eu lieu</td>
<td>Un comité ou un groupe de travail intersectoriel de lutte contre la rage a été mis en place</td>
<td>Un plan de lutte contre la rage à court terme a été élaboré sur la base de la check-list jointe et des expériences recueillies dans les régions pilotes</td>
</tr>
<tr>
<td></td>
<td>- 5.4.16- La gestion de la population canine</td>
<td>- 2. Rôles et responsabilités</td>
<td>- Zoonose : un guide pour l'établissement de la collaboration</td>
<td>- Zoonose : un guide pour l'établissement de la collaboration</td>
<td>- 5.1 Qu'avons nous besoin de savoir avant de commencer ?</td>
</tr>
<tr>
<td></td>
<td>PID</td>
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<td>PID</td>
<td>PID</td>
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<tr>
<td></td>
<td>Les mécanismes de mobilisation des fonds d'urgence en cas d'un foyer ont été identifiés</td>
<td>Un plan d'action de lutte contre la rage à court terme a été amélioré et entériné par les parties prenantes appropriés aux niveaux national et local</td>
<td>- 3.3 Les coûts et financement</td>
<td>- 1.8 Quelles sont les mesures disponibles ?</td>
<td>- 2. Rôles et responsabilités</td>
</tr>
</tbody>
</table>

**Points clé :**
- Fournit la preuve de l'établissement d'un comité intersectoriel de lutte contre la rage qui se réunit de manière régulière
- La rage est une maladie à déclaration obligatoire chez les humains et les animaux
- Les principaux déficits ainsi que les actions requises ont été identifiés et un plan d'action de lutte contre la rage à court terme a été formulé
- Un système de surveillance de la rage basique et fonctionnel a été établi, il comprend l'envoi de rapports ainsi que la notification des cas réguliers (meilleure disponibilité des données de surveillance)
- La vaccination des chiens a été lancée dans certaines régions du pays
- Le PEP est disponible dans certaines régions du pays
- Le nombre de campagnes de sensibilisation augmente clairement

**LEG =** Législation
**CDA =** Collecte de données et analyse
Stage 2

Development of the national rabies prevention and control strategy

Key to move from Stage 2 to Stage 3: National rabies prevention and control strategy endorsed and funded
<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>LEG</td>
<td>Legislation</td>
</tr>
<tr>
<td>DCA</td>
<td>Data collection and analysis</td>
</tr>
<tr>
<td>LAB</td>
<td>Laboratory diagnosis</td>
</tr>
<tr>
<td>IEC</td>
<td>Information, education and communication</td>
</tr>
<tr>
<td>PCO</td>
<td>Prevention and control</td>
</tr>
<tr>
<td>DPO</td>
<td>Dog population related issues</td>
</tr>
<tr>
<td>CCI</td>
<td>Cross cutting issues</td>
</tr>
</tbody>
</table>
Essential activities and infrastructure that need to be put in place during stage 1:

<table>
<thead>
<tr>
<th>Topic</th>
<th>Descriptive list of activities &amp; achievements</th>
<th>Blueprint or other links</th>
</tr>
</thead>
<tbody>
<tr>
<td>LEG</td>
<td>The legal framework has been reviewed</td>
<td>3.2. Legislation</td>
</tr>
</tbody>
</table>
| LEG   | A work plan for the adaptation of the legal framework on rabies is proposed, at least:  
- Rabies is a notifiable disease in humans and animals (especially in dogs)  
- Legislation on dog keeping and compulsory rabies vaccination  
- Outbreak declaration and response | 3.2. Legislation, 3.2.3-Why-does-rabies-need-to-be-notifiable, 2, 5 |
| LEG   | Rabies case definition (human and dog rabies) is available and has been disseminated to relevant professionals | 2, 5 |
| DCA   | Reporting and data analysis capacity has been established | 3.1.3-Infrastructure-surveillance, 12 |
| DCA   | Dog bite reporting and documentation has been reviewed and data compiled | 5.3.1-Rabies-surveillance |
| LAB   | Laboratory capacity has been established    | 3.1.8 Minimum laboratory requirements, 6, Laboratory biorisk management/ |
| LAB   | Rabies diagnostic capacity has been established in at least one national laboratory | 3.1.8 Minimum laboratory requirements, 6, Laboratory biorisk management/ |
| LAB   | Mechanisms and capacity for sample collection and transportation have been established | 6, Laboratory biorisk management/, 5.3.1-Rabies-surveillance |
| IEC   | Plans for training of trainers, refresher courses on rabies for professional health care workers | 3.1.6-How-well-trained-is-your-staff |
COUNTRY FREE FROM DOG TRANSMITTED RABIES

STAGE 5
Freedom from human and dog-transmitted rabies being monitored
No dog-to-dog transmitted rabies for a consecutive 12 months
Maintenance of human rabies freedom, elimination of dog rabies

STAGE 4

STAGE 3
Full-scale implementation of the national rabies control strategy
No deaths due to indigenously acquired human rabies for a consecutive 12 months
National rabies prevention and control strategy endorsed and funded
Development of the national rabies prevention and control strategy

STAGE 2

STAGE 1
Assessment of the local rabies epidemiology, elaboration of a short term rabies action plan
Functional intersectoral rabies task force in place, rabies is a notifiable disease
Rabies occurrence in any species is reported to international agencies

STAGE 0
No information on rabies available but rabies is suspected to be present

COUNTRY ENDEMIC FOR DOG TRANSMITTED RABIES

FAO-GARC SARE-TOOL (version July 2014)
Republic of Georgia

STAGE 1
May 2013

- Stakeholder Consultation

- Large vaccination campaign for WRD 2013

- Rabies as now one of the priority diseases (National rabies strategy developed 2014)

STAGE 2
June-September 2013

- Training and rabies control program

2014

- National rabies control strategy and programme
How to Access SARE Online

http://caninerabiesblueprint.org/The-Stepwise-Approach-towards
WHAT STAGE IS YOUR COUNTRY IN?
Welcome to the Stepwise approach towards rabies elimination SARE workshop
Outline of workshop

• Introduction to SARE (done)
• Case-study (warm up)
• Determination of SARE stage of your country and identification of gaps
• Create action plan per country short, medium and long term
• Brief summaries and establishing a common target for rabies elimination
• Discussion
Facilitators

- Bernadette Abela Ridder
- Herve Bourhy
- Chari Amparo,
- Kevin le Roux
- Johann Kotze
- Sarah Cleaveland
- Paola de Benedictis
- Katinka de Balogh
## Determining the SARE Stage

### LEGISLATION

Instructions: Enter "0" under Status if No or None, or "1" if Yes

<table>
<thead>
<tr>
<th>STAGE</th>
<th>ACHIEVEMENTS / ACTIVITIES</th>
<th>OTHER IMPORTANT INFORMATION (please include in REMARKS)</th>
<th>STATUS</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>National case definition for animal rabies is available</td>
<td>Agencies the case definition was disseminated to</td>
<td>0</td>
</tr>
<tr>
<td>1</td>
<td>The animal rabies case definition has been disseminated to relevant professionals</td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>The animal rabies case definition has been reviewed and was endorsed (intersectoral approach)</td>
<td>Agencies and lowest local government unit the definition was endorsed to</td>
<td>0</td>
</tr>
<tr>
<td>7</td>
<td>National case definition for human rabies is available</td>
<td>Agencies the case definition was disseminated to</td>
<td>0</td>
</tr>
<tr>
<td>8</td>
<td>The human rabies case definition has been disseminated to relevant professionals</td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>9</td>
<td>The human rabies case definition has been reviewed and was endorsed (intersectoral approach)</td>
<td>Agencies and lowest local government unit the definition was endorsed to</td>
<td>0</td>
</tr>
<tr>
<td>11</td>
<td>Legal framework</td>
<td>Title of the framework and the year it was passed</td>
<td>0</td>
</tr>
<tr>
<td>12</td>
<td>There is a legal framework</td>
<td>Year the framework was reviewed</td>
<td>0</td>
</tr>
<tr>
<td>1</td>
<td>If there is a legal framework, the framework has been reviewed in terms of how current it is.</td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>1</td>
<td>Rabies is defined as a notifiable disease in humans and animals in the framework</td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>1</td>
<td>Legislation includes dog keeping and compulsory rabies vaccination</td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>1</td>
<td>Legislation includes SOPs on outbreak declaration and response</td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>Legal frameworks are in the process of being updated to include specifications on international movements of animals, preferably also compulsory vaccination of dogs</td>
<td></td>
<td>0</td>
</tr>
</tbody>
</table>
Please note:

• SARE is a living document and approach

• Your feedback on usefulness, strengths and weaknesses of SARE are key
Case study

In a district hospital over the last week there have been 3 human cases reported to have hydrophobia and confusion.

• What will you do?
• What procedures are in place?
• List your groups top three constraints (except lack of funding)

1. ______________________________
2. ______________________________
3. ______________________________
• Questions??
STAGE 0: Country endemic for dog transmitted rabies
- Rabies occurrence in any species is reported to international agencies
- No information on rabies available but rabies is suspected to be present

STAGE 1: Assessment of the local rabies epidemiology, elaboration of a short term rabies action plan
- Functional intersectoral rabies task force in place, rabies is a notifiable disease

STAGE 2: Development of the national rabies prevention and control strategy
- National rabies prevention and control strategy endorsed and funded

STAGE 3: Full-scale implementation of the national rabies control strategy
- No deaths due to indigenously acquired human rabies for a consecutive 12 months

STAGE 4: Maintenance of human rabies freedom, elimination of dog rabies
- No dog-to-dog transmitted rabies for a consecutive 12 months

STAGE 5: Freedom from human and dog-transmitted rabies being monitored
- Country free from dog transmitted rabies
Thank You

katinka.debalogh@fao.org
### Checklist on activities and achievements to determine where main efforts are needed:

<table>
<thead>
<tr>
<th>Topic</th>
<th>Activities &amp; achievements</th>
<th>NO</th>
<th>YES, available</th>
<th>YES, functional</th>
<th>Blueprint or other links</th>
</tr>
</thead>
<tbody>
<tr>
<td>LEG</td>
<td>Is there a legal framework for rabies available at national level?</td>
<td></td>
<td></td>
<td></td>
<td>3.2. Legislation</td>
</tr>
<tr>
<td>LEG</td>
<td>Has a work plan for updating the legal framework on rabies been proposed?</td>
<td></td>
<td></td>
<td></td>
<td>3.2. Legislation</td>
</tr>
<tr>
<td>LEG</td>
<td>Is rabies a notifiable disease in humans?</td>
<td></td>
<td></td>
<td></td>
<td>3.2.3-Why-does-rabies-need-to-be-notifiable, 2, 5</td>
</tr>
<tr>
<td>LEG</td>
<td>Is rabies a notifiable disease in animals (at least in dogs)?</td>
<td></td>
<td></td>
<td></td>
<td>3.2.3-Why-does-rabies-need-to-be-notifiable, 2, 5</td>
</tr>
<tr>
<td>LEG</td>
<td>Is there a case definition on human rabies?</td>
<td></td>
<td></td>
<td></td>
<td>2, 5</td>
</tr>
<tr>
<td>LEG</td>
<td>Is there a case definition for rabies in dogs?</td>
<td></td>
<td></td>
<td></td>
<td>2, 5</td>
</tr>
<tr>
<td>LEG, IEC</td>
<td>Has this case definition been disseminated to relevant professionals?</td>
<td></td>
<td></td>
<td></td>
<td>2. Roles-and-Responsibilities</td>
</tr>
<tr>
<td>LAB</td>
<td>Has laboratory capacity for rabies diagnosis been established?</td>
<td></td>
<td></td>
<td></td>
<td>3.1.8 Minimum laboratory requirements, 6,</td>
</tr>
<tr>
<td>LAB</td>
<td>Is rabies diagnostic capacity available in at least one national laboratory?</td>
<td></td>
<td></td>
<td></td>
<td>3.1.8 Minimum laboratory requirements, 6, Laboratory biorisk management/</td>
</tr>
<tr>
<td>LAB</td>
<td>Has there been any capacity building for laboratory personnel in approved rabies laboratory methods?</td>
<td></td>
<td></td>
<td></td>
<td>3.1.3 Personnel-surveillance</td>
</tr>
<tr>
<td>DCA</td>
<td>Are animal bite events recorded and documented?</td>
<td></td>
<td></td>
<td></td>
<td>5.3.1-Rabies-surveillance</td>
</tr>
<tr>
<td>DCA</td>
<td>Are dog bite events recorded and documented separately?</td>
<td></td>
<td></td>
<td></td>
<td>5.3.1-Rabies-surveillance</td>
</tr>
<tr>
<td>DCA</td>
<td>Are there mechanisms for reporting of suspect rabies cases present?</td>
<td></td>
<td></td>
<td></td>
<td>5.3.1-Rabies-surveillance, 5,</td>
</tr>
</tbody>
</table>

### How to decide what stage your country or region is in?


# Integrated Bite-Case Management (IBCM)

## Bite-Centre
- Reporting of person bitten
- Wound treatment and PEP/RIG if required
- Follow-up, inform veterinary sector

## (Joint) Field Investigation
- Suspected dog identification and containment/euthanasia
- Dog contact tracing
- Tracing of humans exposed

Public awareness, dog vaccination campaigns and PEP go across stage 0-4 (5)
Rabies Stakeholder Consultations

Kick-starting integrated rabies control
Engage in World Rabies Day
Risk of rabies outbreaks

- Lack of awareness
- No responsible dog-ownership
- Under-reporting of cases
- Weak health services
- Low rabies vaccination coverage
- Rabies not a priority
Favourable conditions to address rabies

- Urban area affected
- Human rabies cases
- Media attention
- Election time
- Large expat community
- Tourism at risk
- Animal welfare groups present
Ingredients for successful control

- **High level committment**
- **Funding/Resources made available**
- **Success stories**

How to sustain interest?
Observations and Challenges

• **Dog vaccination and public awareness are key**
  • Countries are often overwhelmed when dealing with rabies outbreaks
    • Fear, political/social pressure, scarce resources, other priorities…

• Need for **coordination** and **communication** between different sectors concerning:
  • (Joint) National rabies control strategy
  • Dog bite follow up
  • Joint outbreak investigation

• Important role of **municipalities** and **communities**
Reporting zoonotic disease

Veterinary/medical care sought

Animal or person becomes ill

J. Halliday et al. 2012
Reporting zoonotic disease

Problems relating to veterinary sector

Communication and transportation difficulties
Lack of incentive for owners to report

Problems relating to human health sector

Difficulties of travel to hospital
Poor knowledge and awareness
‘non-institutional’ health providers

Veterinary/medical care sought
Animal or person becomes ill
Reporting zoonotic disease

Problems relating to veterinary sector

- Communication and transportation difficulties
- Lack of incentive for owners to report

Problems relating to human health sector

- Difficulties of travel to hospital
- Poor knowledge and awareness
- ‘non-institutional’ health providers

Reliable diagnostic tests available

- Appropriate samples collected for diagnosis of zoonotic disease

Veterinary/medical care sought

- Animal or person becomes ill
Reporting zoonotic disease

Problems relating to veterinary sector

- Poor diagnostic infrastructure, lack of trained personnel, lack of field-based tests
- Lack of equipment/training for collection of diagnostic samples
- Communication and transportation difficulties
- Lack of incentive for owners to report

Problems relating to human health sector

- Poor diagnostic infrastructure, lack of trained personnel, lack of hospital-based tests
- Poor knowledge of zoonotic diseases among medical practitioners, non-specific clinical signs
- Difficulties of travel to hospital
- Poor knowledge and awareness
- ‘non-institutional’ health providers

Steps:

1. Animal or person becomes ill
2. Veterinary/medical care sought
3. Appropriate samples collected for diagnosis of zoonotic disease
4. Reliable diagnostic tests available
Reporting zoonotic disease

Problems relating to veterinary sector

- Poor diagnostic infrastructure, lack of trained personnel, lack of field-based tests
- Lack of equipment/training for collection of diagnostic samples
- Communication and transportation difficulties
- Lack of incentive for owners to report

Problems relating to human health sector

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- ‘non-institutional’ health providers
Reporting zoonotic disease

Problems relating to veterinary sector

Unreliable reporting, negative consequences of reporting, poor intersectoral communication

- Poor diagnostic infrastructure, lack of trained personnel, lack of field-based tests
- Lack of equipment/training for collection of diagnostic samples
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Problems relating to human health sector

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- Poor knowledge of zoonotic diseases among medical practitioners, non-specific clinical signs
- Difficulties of travel to hospital
- Poor knowledge and awareness
- ‘non-institutional’ health providers

J.Halliday et al. 2012
Communities and laboratories are key for surveillance

- Surveillance for action
- Information exchange between sectors
- Reporting is the weakest link?
Syndromic surveillance

- Fever
- Central nervous symptoms
- Diarrhoea
- Respiratory illnesses

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SARE workgroups

• Francophone Country groups:
  Group 1: Benin, Cameroon, CAR, Senegal, Madagascar
  Group 2: Chad, Gabon, Rep. Congo, Niger,
  Group 3: Ivory Coast, Mali, Togo, DRC,
• Anglophone country groups:
  Group 4: Angola, Ethiopia, Kenya, Lesotho, Swaziland
  Group 5: Malawi, Mozambique, Tanzania, Namibia, Nigeria, Botswana,
  Group 6: South Africa, Sudan, Uganda, Zambia, Zimbabwe,