



# Rabies in Morocco

## Current national policy situation and conformity with guidelines

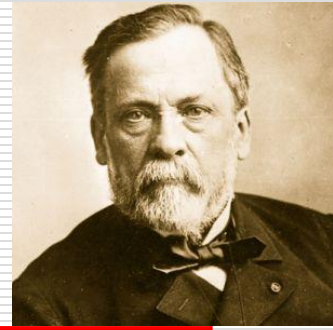
Abdelaziz Barkia



**Middle East & Eastern Europe Rabies Expert  
Bureau Meeting, 3<sup>rd</sup> Edition  
Organized by Fondation Mérieux Mérieux  
University Lyon - France 7 to 9 April 2015**

# Introduction

---



- Rich history of the fight against rabies since the discovery of rabies vaccination by Louis Pasteur in 1885
- Huge delays in the area of control in many developing countries, including African countries
- International guidelines have evolved with the development of scientific knowledge
- Renewed interest of the international community to the problem of rabies (2007 day of rabies, etc.)

# international initiatives

---

- One Health Initiative
- London declaration on neglected tropical diseases
- Stepwise approach for rabies prevention and control (FAO): towards Rabies Elimination
- Joint FAO, OIE and WHO Statement on elimination of rabies launched on World Rabies Day 28 September 2013
- Resolution WHA66.12: Neglected tropical diseases **(27 may 2013)**
- WHO Expert Consultation on Rabies (Second report), 05 July 2013, Geneva : calls for strong, effective and inter-sectoral collaboration to progress the elimination of rabies at all levels

## The FAO-OIE-WHO Collaboration

Sharing responsibilities  
and coordinating global activities  
to address health risks at the  
animal-human-ecosystems interfaces

A Tripartite Concept Note





*"... these diseases are now being brought to their knees with stunning speed. With a boost to this momentum being made today, I am confident almost all of these diseases can be eliminated or controlled by the end of this decade"".*

- 
- WHO supports targets for elimination of human and dog rabies in all Latin American countries by 2015 and of human rabies transmitted by dogs in South-East Asia by 2020.



**World Health  
Organization**

**WHO, Rabies,** Fact Sheet N°99  
Updated September 2014

# What about for Morocco





# Portrait du Maroc

---



**Population : 33.848.242 (2014 census)**

- North African country  
l'Afrique du Nord
- Area : 710.850 kms
- 2 sea : 3,500 kms
- 16 administratives regions
- 82 provinces and préfectures
- languages : Arabic, French, Amazigh (Berber)

# The struggle against rabies in Morocco

---

- Long history of rabies and the fight against rabies
- Notifiable disease: human and animal health
- **National Program since 1986**, revised in 2003 (interministerial circular)
- **Multisectoral** aspect of the control program:
  - ◆ Role of each department well defined (MoH, Agriculture, Interior)
  - ◆ interministerial Committee (national level)
  - ◆ Provincial and prefectural committees
- Availability and free rabies vaccine (263 rabies centers)







# Strategic axes

- Epidemiological and enzootic Surveillance
- Actions directed to the canine population:
  - ◆ vaccination ((campaigns + + +)
  - ◆ Management of stray dogs : targeted and continuous slaughter
- Actions directed to humans
  - ◆ Post exposure vaccination
  - ◆ Case management
  - ◆ IEC
- Accompanying measures:
  - ◆ Infrastructure improvement: upgrade slaughterhouses, closure of landfills, etc.).





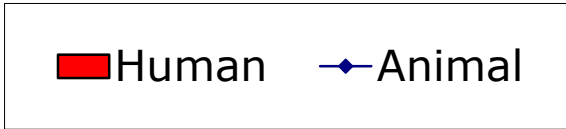
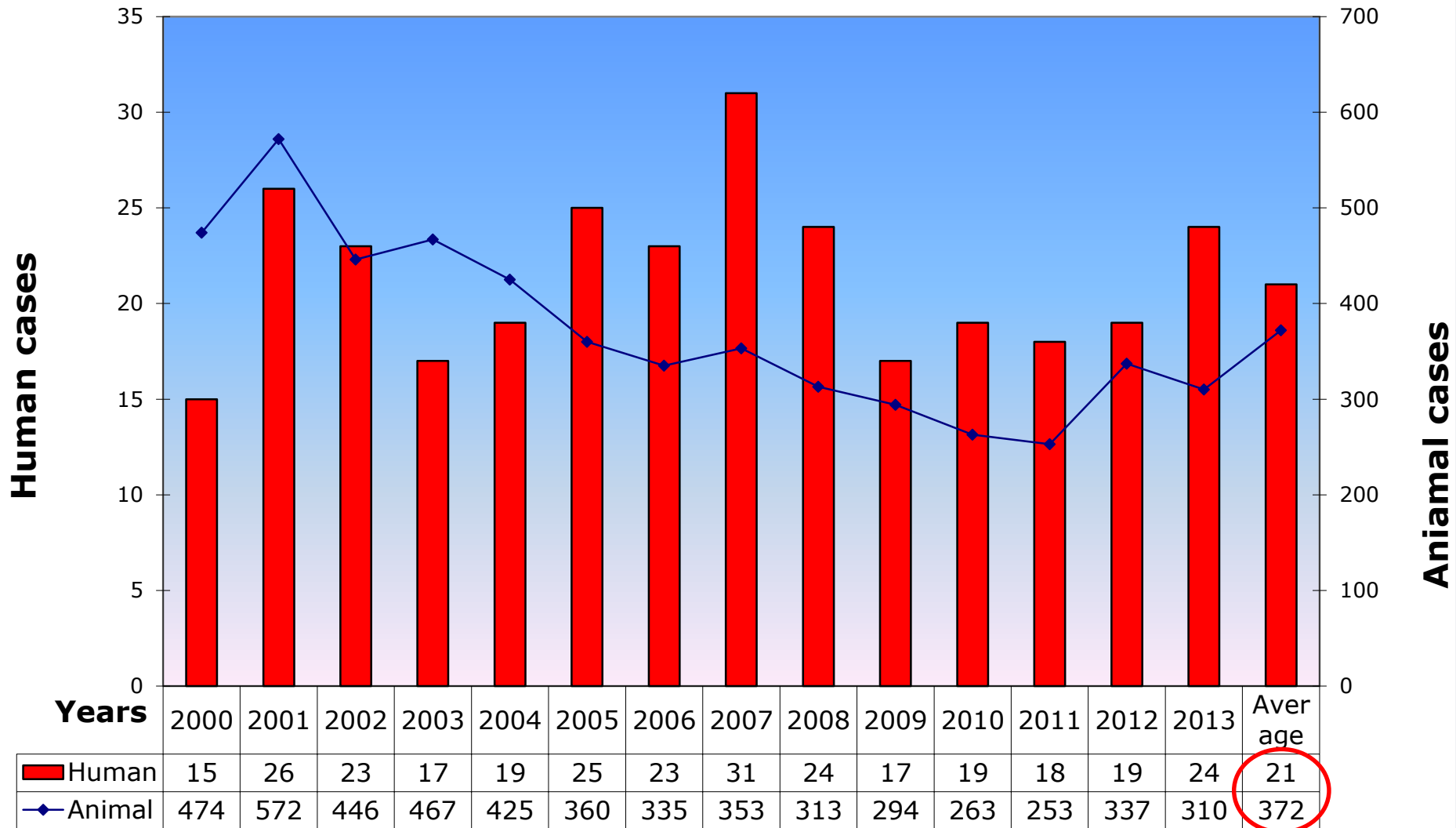
# تخليد اليوم العالمي لحداء السعور

داء السعور يقتل... إلى متى؟  
القنيطرة، 27-28 شتنبر 2013

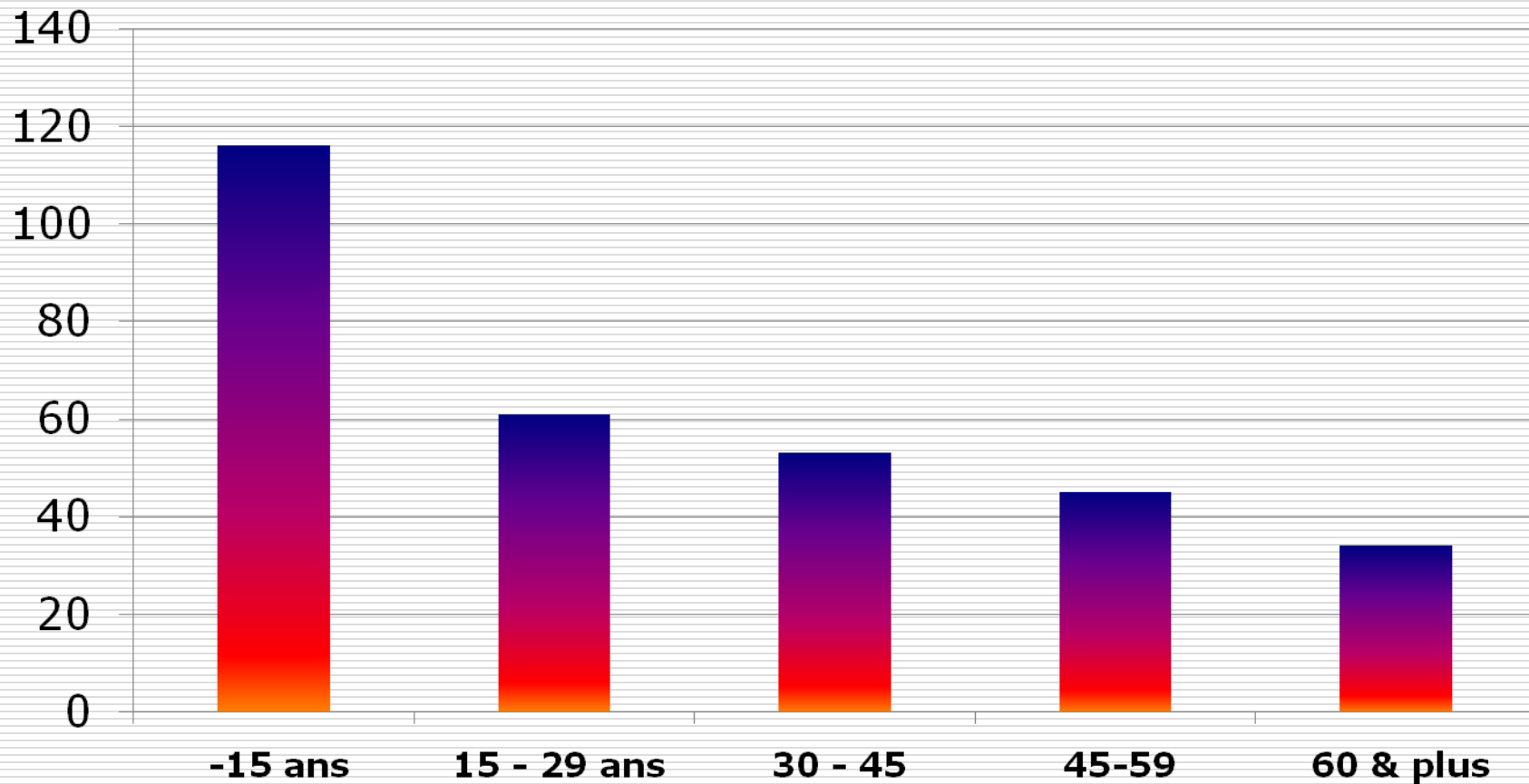
Efforts, **But** ..... Rabies still kills  
in Morocco !! Until when?



# Annual evolution of rabies cases in humans and animals, Morocco 2000-2013



# Distribution of human rabies cases by age groups, Morocco 2000-2014

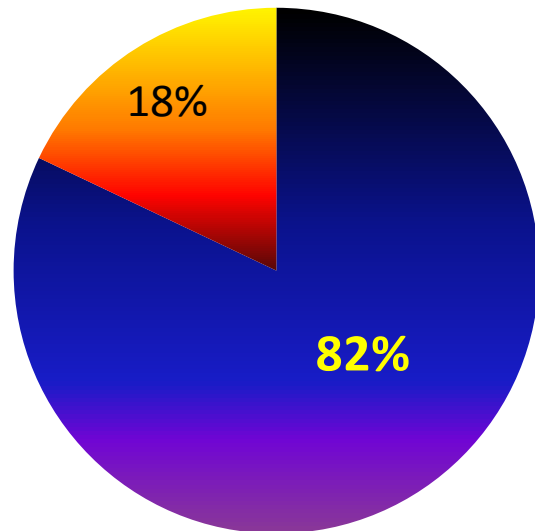


# Distribution of human rabies cases by sex and area, Morocco 2000-2014

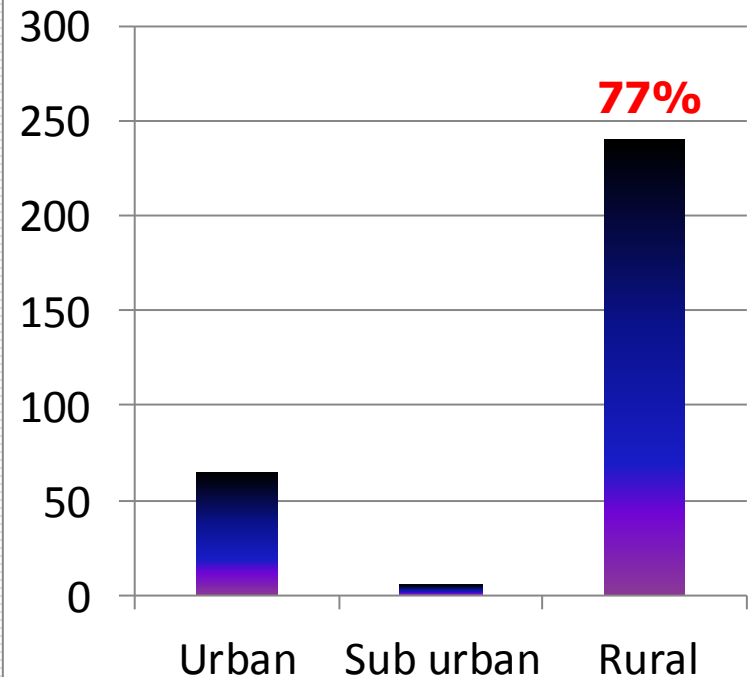
---

Sex

■ Male ■ Femelle

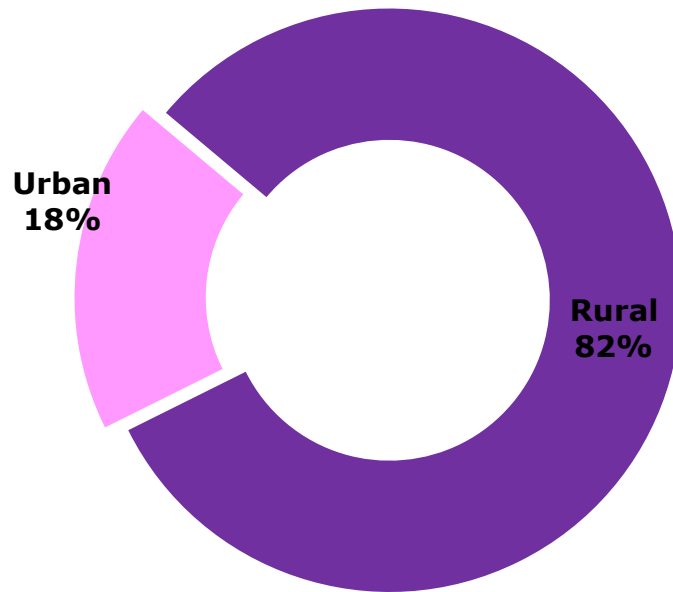


Area



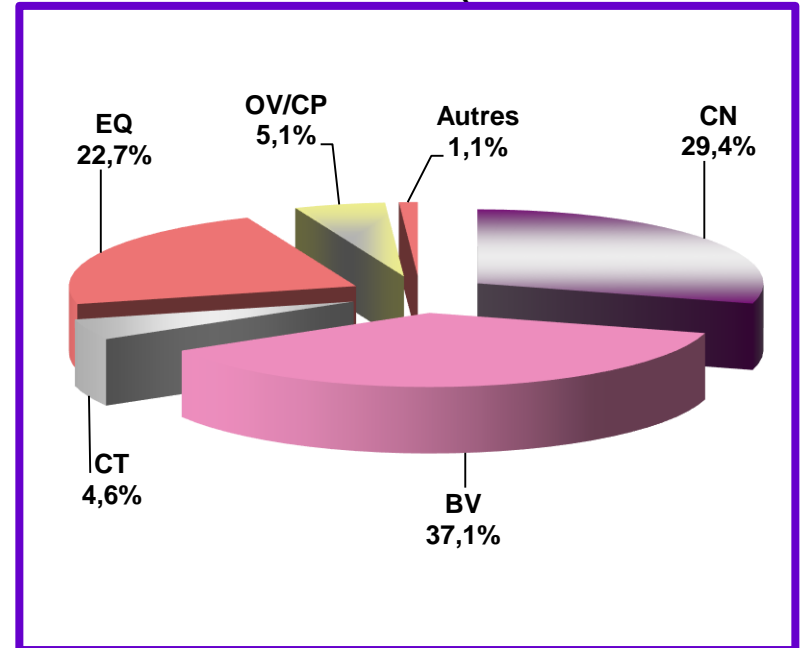
# Animal rabies cases by area and species, Morocco 2004-2013

Rural accuses the largest number of animal rabies cases



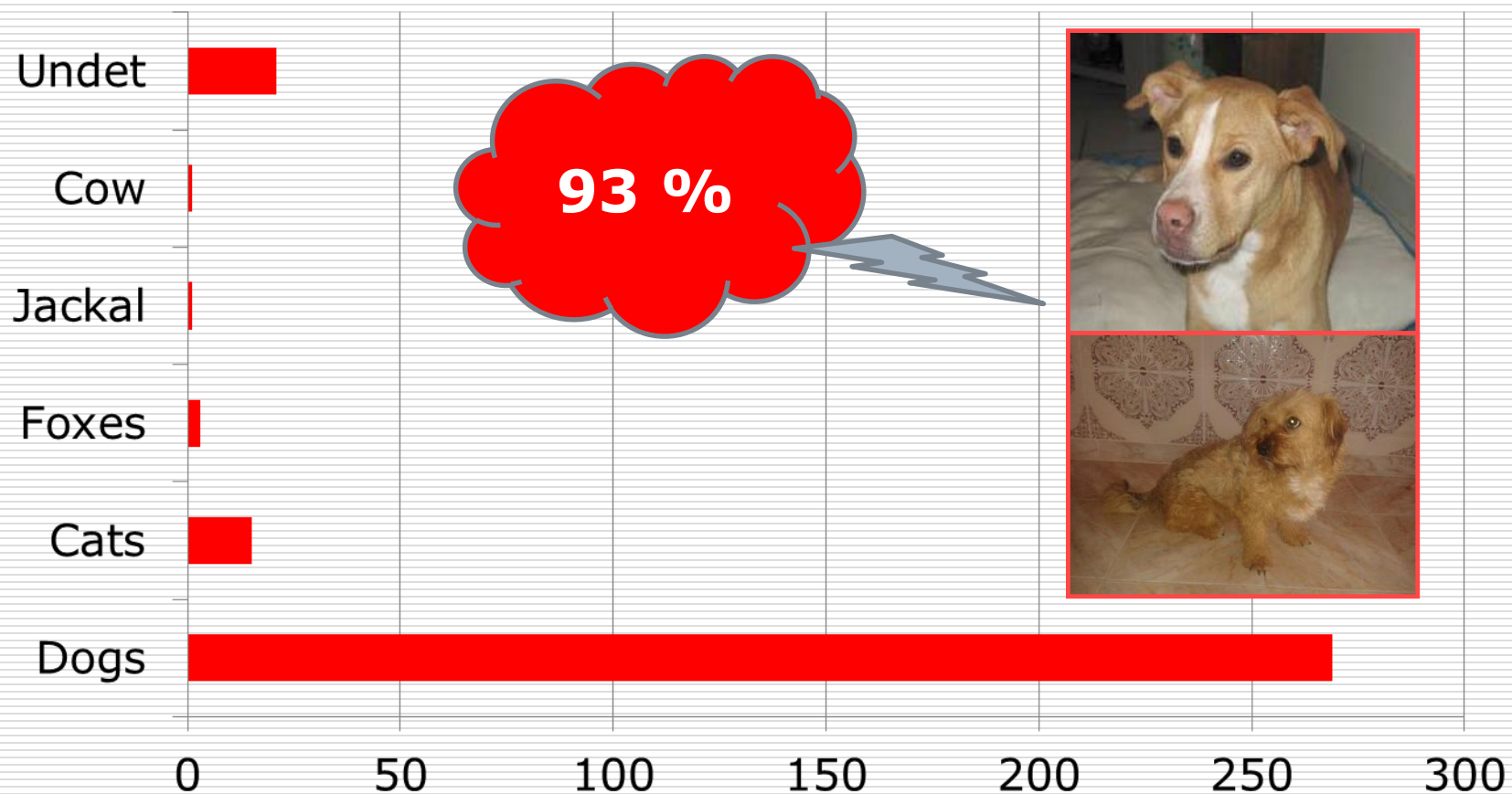
(Average 2004-2013)

DOG is a vector for rabies and the source of all contamination (29.4% of cases)



Cattle: 1st victims of dog bites (37% of cases)

# Distribution of rabies cases according to the biting animal, Morocco 2000-2014



# Continuous struggle but !!!

---



# Persistent public health problem



Failure of strategies **or**  
Insufficiency of Commitment ??



# Evaluation of Rabies Surveillance System in Morocco, NPHS-DELM, 2012\*

---



- System with coverage quality
- **Strenght** : Existence of a multi-sectoral system with availability of resources and working documents
- **Weaknesses** (to be improved):
  - ◆ Irregular retro-information
  - ◆ Quality of information (missing data)
  - ◆ Coordination and exchange between the different contributors
  - ◆ Training of the staff
  - ◆ Very little awareness

\* <http://www.sante.gov.ma/INAS/mem/mem-2012/Ezzahidi.pdf>



# Main obstacle

---

- Dog vaccination is considered as the key solution to eliminate rabies in humans
  - Vaccinating at least 70% of dogs in endemic areas breaks the cycle of transmission in dogs and to humans, thereby preventing rabies in humans most efficiently\*

**Annual realization in Morocco : about 25%**

# Perspectives of elimination in Morocco

Renforcement des programmes de lutte pour l'élimination de la



Rage en Afrique du Nord

*Maroc : pays pilote*



Ministère de la Santé



Réseau International des Instituts Pasteur

Organisation Mondiale de la Santé

Organisation Mondiale de la Santé Animale

Organisation des nations unis pour l'alimentation et l'agriculture

Comités nationaux de lutte contre la Rage



Concrétisation de la mise en oeuvre du concept «One Health»

***Réunion MAROC-OMS-OIE-RIIP  
pour l'élaboration d'un plan national d'élimination de la rage  
DELM, Rabat, le 13 juin 2014***

# Stepwise approach: towards Rabies Elimination, as a reference framework





# Conclusion

---

- The epidemiological situation in Morocco remains critical
- Relative conformity with guidelines but stable situation
- Several opportunities to do better:
  - ◆ Control of rabies (in particular in North Africa) is a priority of WHO, OIE and FAO (Morocco, June 2014) ?
  - ◆ Collaboration with many partners
  - ◆ Possibilities to explore joint and complementary funding opportunities
  - ◆ MEEREB

لنساهم جميعا في الوقاية  
من داء السعير



ملتقى حول إشكالية داء السعير  
تحت شعار

## مكافحة داء السعير إرادة محلية

02-06 ديسمبر 2014 - سيدي قاسم



# Thank you for your attention

## شكرا



## تخليد اليوم العالمي لجراء السعير

### داء السعير يقتل... إلى متى؟

القنيطرة، 27-28 شتنبر 2013

