THE ROLE OF WHO IN RABIES PREVENTION AND CONTROL

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At the occasion of 10TH International Southern and Eastern African Rabies Group Meeting (SEARG) – Maputo,
Mozambique 24 - 27 January 2011
- Developing global guidelines and standards for Region and Member States' consideration and adaptation
- Collecting, processing and mapping rabies data globally (RABNET)
- Advocating for rabies prevention and control especially as one of the "Neglected zoonotic Diseases"
- Assessing the burden of rabies
- Implementing field projects and promoting/coordinating research (e.g. Monoclonal Antibodies Cocktail)
- Assisting individual country national rabies programmes
- Supporting the development of regional strategies and initiatives
- Promoting work at the human-animal interface: FAO/OIE/FAO tripartite Health-Agriculture InterMinisterial Meeting in Mexico (November 2011)

WHO Head Office with its WHO Regional Offices and Country Offices and the support of the network of WHO Collaborating Centres for Reference and Research on Rabies
DATA COLLECTION AND PROCESSING
Welcome to RABNET

Human and Animal Rabies
an interactive and information mapping system

Since 1959 the World Health Organization has collected data on human and animal rabies from its member States using a World Rabies Survey (WRS) questionnaire. In the late nineties we added to the paper version of the questionnaire sent by surface or airmail, an e-publication version accessible through Rabnet. Over the past 2 years we have improved rabies data collection and processing online. We are therefore proud to announce the release of “Rabnet version 2”.

Although “Rabnet version 2” retains the same concept as the former Rabnet, it uses a new electronic platform named “WHO’s Communicable Disease Global Atlas”. Through the Global Atlas “Rabnet 2” provides new features such as the possibility to create interactive global or country rabies maps. In the near future it will be possible to generate rabies maps at district and even community level. “Rabnet 2” also has a library of Ready-made maps, rabies related documents and provides details of the WHO network of collaborating centres on rabies. Finally in “Rabnet 2” rabies data can be linked to a broad range of country-specific indicators (population, health and education services) to provide a more comprehensive picture of the situation in various geographical areas.

With this new system the “data questionnaire” can be accessed and data punched in online. Main rabies indicators have been reviewed and the number of questions has been consequently reduced. Once validated, data is automatically transferred into the “Rabnet version 2” for your immediate access and processing.

A username and a password is required to have access to the online questionnaire.

http://www.who.int/rabnet
GLOBAL GUIDELINES AND STANDARDS FOR WHO REGIONS AND MEMBER STATES' CONSIDERATION
WHO recommendations on all aspects of human and animal rabies surveillance prevention and control and elimination (2005)

WHO recommendations on the production and control of human rabies vaccine and immunoglobulin (2007)
Outcome of a series of WHO consultations on oral vaccination of dogs looking at:
- efficacy
- safety for target and non-target species including humans
- bait distribution strategies
- economic feasibility
Review of various pre-and post-exposure regimens (intramuscular and intradermal), use of RIG and role of sterilization in dog population management for rabies control
WHO position paper on rabies vaccines

Intradermal vaccine administration

ID administration is as safe and immunogenic as the standard IM use of CCRVs, ID regimens require only 1–2 vials for post-exposure prophylaxis, reducing volume and direct costs by 60–80%.

ID regimens have been successfully introduced for post-exposure prophylaxis e.g. in India, the Philippines, Sri Lanka and Thailand.
The only WHO recommended ID PEP regimen: 2-site ID

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With PVRV, PCECV, HDCV: id dose=0.1ml / site
Dog population studies
(E.G. Tunisia, Ecuador, Sri-lanka, Nepal, Zambia)

- A relatively small proportion of the total dog population is ownerless which means that most dogs which are eliminated are owned (and potentially vaccinated) dogs.
- The size of a dog population is usually underestimated so that calculated vaccination coverage is overestimated.
- Dog removal activities reached a small proportion of the dog population (less than 10%)..
- Permanent vaccinations centres reached a small % of the owned dog population (up to 40%), mobile vaccination centre may reach up to 80% of the dog population.
- In view of high dog population turnover vaccination campaign should be organized on an annual or biannual basis.
- Vaccine should provide at least one year immunity after one injection.
Characteristics of a good dog vaccination campaign

- is understood and supported by the communities
- is adapted to communities (density of vaccination points, door to door, combing out)
- is free for dog owners (or their contribution is voluntary)
- vaccinated dogs can be identified within the days following the campaign
- reaches at least 70% of the total dog population within a few weeks
ADVOCATING FOR RABIES AS A NEGLECTED ZOONOTIC DISEASE

NZDs are zoonoses affecting mostly populations of the tropical and subtropical areas of the world which are the poorest and most vulnerable.
Overlap of six selected neglected zoonotic diseases (NZDs)* at the country level in Africa.

More than 60% of countries have 3 or more NZDs in various combinations.

*The NZDs are cutaneous leishmaniasis (anthroponotic and zoonotic), zoonotic trypanosomiasis, zoonotic schistosomiasis, echinococcosis, cysticercosis and rabies.
DALY scores of zoonotic and anthroponotic components of selected Neglected Tropical Diseases

Cumulated estimated DALY score for zoonotic component of these diseases: 5.3 millions

Rabies     Schisto.     VL     HAT     CE     CL

VL = Visceral Leishmaniasis, CL = Cutaneous Leishmaniasis, CE = Cystic Echinococcosis, HAT = Human African Trypanosomiasis
The Control of Neglected Zoonotic Diseases

A route to poverty alleviation

THIRD MEETING ON NEGLECTED ZOONOTIC DISEASES HELD IN WHO/HQ NOVEMBER 2010

Integrated control of neglected zoonotic diseases in Africa

Report of a Joint Meeting
WHO/EU/ILRI/DBL/FAO/OIE/AU Meeting
ILRI headquarters, Nairobi, Kenya
13–15 November 2007
ASSESSING THE BURDEN OF RABIES
Different incidence and burden studies sponsored by WHO

- National cluster community survey (Myanmar 2003)
- Mathematical model applied to Africa and Asia (2005)
- National multi-centre epidemiological survey (APCR India – 2007)
- National survey (Pakistan 2008-2010)

- WHO a member of the Global Burden of Disease Study (GBDS) led by Harvard and the Sabin Institute which include rabies
IMPLEMENTATION RESEARCH
PROJECTS: THE GATES FOUNDATION FUNDED/WHO COORDINATED PROJECTS FOR HUMAN AND DOG RABIES ELIMINATION
Gates Foundation/WHO project for rabies elimination in developing countries

- $10 Million
- Five year project: 2009 – 2013
- Executive agency: WHO
- Consensus strategy developed by international rabies experts community in collaboration with Alliance for Rabies Control (ARC)
- Largest single grant ever allocated to human and dog rabies elimination in developing countries
Objectives of the GF/WHO rabies

To demonstrate in today’s context in selected areas of Asia and Africa:

- The feasibility and sustainability of human rabies elimination through dog rabies elimination in 5 years
- The cost-effectiveness of dog rabies elimination through reduced number of PEP following dog rabies control and elimination
Other objectives

- To demonstrate the validity of a "paradigm shift in dealing with human-dog mediated rabies" in Africa and Asia
- The project aims to catalyse similar initiatives for the control and elimination of rabies in Africa and Asia within the next decade.
Visayas group of islands covering 25% of the total number of animal rabies cases, 28% of the total human rabies and 27% of the animal bites in the entire country.

The project will serve almost 19% of the country’s human population (with 17 million inhabitants in the area) and an estimated 2 million dogs.
SUPPORTING THE DEVELOPMENT OF REGIONAL STRATEGIES AND NATIONAL PROGRAMMES
**CALL FOR ACTION**
Towards the Elimination of Rabies in the ASEAN Member States and the Plus Three Countries

**WE, THE PARTICIPANTS UNITED** by the common desire and collective will to eliminate rabies, a neglected and under-reported disease,

**COMMİTTED** to working together in the spirit of solidarity and unity to meeting the goal of eliminating rabies in Asia by 2020;

**AFFIRMED** by the Resolution to Eliminate Rabies adopted during the Conference Towards the Elimination of Rabies in Eurasia organised by the World Organisation for Animal Health (OIE), the World Health Organization (WHO) and the European Union held in Paris, France on 27-30 May 2007;

**CONVINCED** of the need for political commitment and action at the highest level of all member Countries, to consider rabies as one of the priorities and an important emerging and re-emerging disease; and to provide resources for human and animal health services;

**ACKNOWLEDGING** the socio-economic implications of rabies and its impact to meeting the Medium Development Goals;

**RECOGNIZING** the importance of good veterinary governance for comprehensive and sustainable national programmes for rabies elimination to be designed and implemented, and the importance of good animal care programmes with appropriate consideration and respect to them for reduction of the risk of diseases transmissible to humans (zoonoses);

**APPRECIATING** the lessons learned and best practices in the rabies control and elimination shared in this Workshop.

**HEREBY RECOMMEND** the following:
Phase and Step-wise approach towards rabies control in Africa

Phase 1:
- Step 1: Using reliable diagnostic procedures to confirm rabies in animals and people
- Step 2: Compulsory notification of rabies in humans and animals (using a standardized case definition) and reporting
- Step 3: Acquire basic data on dog population and its accessibility immunization
- Step 4: Effective coordination between those involved in rabies control