

WHO (HQ-MZCP) / OIE Inter-country EXPERT WORKSHOP ON PROTECTING HUMANS FROM DOMESTIC AND WILDLIFE RABIES IN THE MIDDLE EAST  
23-25 June, 2008, Amman, Jordan

## 1. Aim of the meeting

The workshop was launched following the recommendations of the OIE/WHO/EU International conference “towards the elimination of rabies in Eurasia” which was held in ay 2007, OIE headquarters. The objective of the Middle East rabies workshop was to improve knowledge and exchange on the epidemiological situation of rabies in the Middle East region, to enhance regional and inter-sectoral collaboration on rabies prevention in humans and rabies control/eradication in animals. The ultimate goal would be to initiate or strengthen existing rabies control programmes in the Middle East.

## 2. Participant Countries:

Bahrain, Cyprus, Egypt, Iraq, Jordan, Kuwait, Lebanon, Oman, Pakistan, Palestinian Authorities, Qatar, Syria, Saudi Arabia, Sudan, Yemen



### 3. Summary:

Besides the above mentioned organizations and institutions, representatives of 13 countries (mainly from the veterinary services) and various international rabies specialists attended the workshop. The workshop was opened by high ranking officials from the Jordanian Ministry of Agriculture and Ministry of Health, representatives of the co-organizing organizations and institutions. The first part of the workshop was characterized by technical presentations from experts followed by interactive discussions between presenters and country representatives. As a start Dr Meslin gave a general overview on the epidemiology, prevention and control of rabies worldwide. Dr Briggs (Univ. Kansas), Dr Barrat (AFSSA) and Dr Bourhy (Inst. Pasteur) highlighted the current best practices of rabies control in humans, wild and domestic animals and state of the art in diagnostics thereby presenting the range of sometimes very simple and effective practices available for rabies prevention and control. Other experts' contributions were dedicated to good practice in inter-sectoral rabies programmes with a focus on lessons learnt, further various aspects of combating stray dog populations and challenges of oral vaccination campaigns in carnivores were on the agenda. OIE representatives provided an overview on the highlights and recommendations of the Eurasia rabies conference and explained the OIE rabies control policy, including the provisions of the OIE international standards (Code and Manual) related directly or indirectly to rabies.

The representatives of the respective countries gave an interesting overview on the rabies situation in their countries, on both, the human health and the veterinary public health side. Later on countries were grouped according to their epidemiological and/or geographical situation to conduct a SWOT analysis in order to identify e.g. their needs to engage in sustainable and efficient rabies prevention and control programmes. The overall goal being to prevent rabies in humans through control of rabies in animals.

The majority of reports clearly showed that there was a suspicion of severe underreporting, both, in human and in animal cases. In the Middle East rabies seems to occur mainly in rural areas, where more vulnerable populations are located (access to health facilities limited, lower education level). In general the diagnostic capabilities (infrastructure and training of personnel) revealed to be minimal or poor which additionally contributes to underreporting. Human cases are rarely confirmed by laboratory testing and solely based on observation of clinical signs and exposure history. Many countries reported a tremendous increase in Post Exposure Treatment (PET) in humans in the last years which is an all to heavy financial burden for the Health Ministries, additionally the worldwide shortage in rabies immunoglobulins and rabies vaccines for humans was discussed. With regard to dog vaccination the situation is variable. In some countries vaccination of owned dogs is compulsory and carried out directly or under supervision of the veterinary services. In rare cases figures on numbers of vaccinated owned dogs are available, but no country of the region had an idea of the size of its dog population or vaccination coverage, be it the dogs clearly under the control of the owner or be it the vaguely defined population of stray dogs. Concerning cats the rabies situation is even less evident. In one country oral vaccination campaigns are carried out (without knowing the exact situation on the ground), others consider to launch oral vaccination campaigns. Countries generally sought technical support from experts and international organizations on how to conduct oral vaccination campaigns safely (for humans) and effectively for rabies control in the targeted animal populations. WHO has compiled a documentation on oral vaccination of dogs which already contains very useful technical advice. Particular difficulties to access suspected high incidence areas, such as military occupation zones or general political instability were mentioned as one of the problems that may lead additionally to the observed resurgence of rabies in the region. Surveillance data on rabies in wildlife, e.g. presence of wildlife relevant in rabies transmission or rabies cases in wildlife, are mostly not available and not collected in a systematic way.

In the majority of countries committees on zoonotic diseases are in place, with representatives from the ministry of health and ministry of agriculture or veterinary services and sometimes even representatives from the ministry for environment (wildlife). The intensity of collaboration and implementation of zoonosis control programmes, however, is highly variable and reports revealed that rabies usually is not ranked a high priority in the programme of these committees.

In addition to that, Dr Siemenis (WHO-MZCP) defined the general principles for planning rabies control programmes which objectives should reflect the so needed intersectoral character, mobilization, defining priority levels and consideration of the mobilization of the decision makers interest.

He pointed on the coordination –strengthening of existing control activities, animal rabies spread control, and detection prevention, PET in humans. He concluded that these control programmes should be divided in immediate, medium and long term phases.

The conclusions and recommendations are attached as drafted by the participants and exerts of the workshop.

#### **4. Comments:**

Although rabies is a notifiable disease in all participating countries, this seems not to have a major effect. Disease surveillance systems and weak implementation of disease control measures in general may impair efficient and sustainable disease/rabies control programmes. Some countries have good collaboration also over borders, but the exchange of data on rabies, existing control programmes and animal movement might still need to improve. There is a need for careful analysis of the baseline situation in each of these countries. As very few is known about wildlife in general and because many countries intend to start oral vaccination campaigns (targeting stray dogs and/or wildlife) special attention should be given to include representatives of Ministry of environment or wildlife biologists into the planning of rabies control programmes. The increasing budgetary burden of PETs for Ministries of Health is impressive.

#### **5. Recommendations ( annex 1)**

#### **6. Agenda (Annex 2)**

#### **7. List of participants (Annex 3)**

## ***Annex 1: Recommendations***

### **Conclusions and Recommendations**

The conclusions and recommendations issued are summarized as follows:

#### **CONCLUSIONS**

1. Rabies continues to be a significant public health hazard underestimated in majority of Member countries of the Middle east region The situation in some countries has worsened due to the emergence of rabies in the region, especially in wildlife, due to deteriorating environment.
2. The progress in preventing human rabies through control of the disease in its animal reservoir has been slow due to technical ,intersectoral, organizational, financial obstacles, and lack in the implementation of efficient dog and/or wildlife rabies control campaigns including controlling dog population.
3. As a consequence in a majority of countries of the region the number of post-exposure prophylaxis provided has steadily increased over time. Countries of the Region are spending increasing part of their health budget on procurement of modern rabies vaccines and immunoglobulins to meet the increasing demand for rabies post-exposure treatment. The region as a whole experiences shortage in vaccines and immunoglobulins
4. Intersectoral sustainable co-operation for rabies surveillance, prevention and control, particularly between the Ministries of Health, Agriculture, Environment, Municipalities, Education and Interior still needs further strengthening.
5. The network of rabies diagnostic laboratories is inadequate to cover territories of all countries. Logistics for the collection and dispatching of samples of suspected humans and animals to diagnostic laboratories need further improvement. National laboratories suffer from inadequate budget allocation and from chronic shortage of essential diagnostic materials and lack of trained personnel;
6. Controlling the disease in its domestic and/or wildlife reservoirs will reduce human rabies and numbers of rabies post-exposure prophylaxis.
7. Through fear of rabies and with the lack of knowledge and resources, some communities in the Region use cruel and ineffective methods of dog depopulation regardless to the pain and suffering caused to the animals.
8. Public health education and awareness are still insufficient to contribute to national rabies control and prevention programmes.
9. Dog and wildlife populations control measures are still carried out with poor planning and lack of monitoring of its consequences.
10. Vaccination of domestic animals remain limited in the Region and insufficient for the control of rabies
11. Lack of reliable data on human and animal rabies impairs perception of the importance of rabies and its control by decision-makers.

## RECOMMENDATIONS

1. The Resolutions and Recommendations of the OIE/WHO/EU International Conference Towards the elimination of Rabies in Eurasia, held in Paris from 27 to 30 May 2007 which has provided information on the control and elimination of rabies and highlighted the need for strong close partnerships among veterinary and public health authorities should be considered and followed by the participants;
2. Comprehensive, sustainable national multisectoral programmes for rabies , surveillance, control and prevention should be planned, funded, implemented and evaluated with the assistance of international agencies.
3. Development of subregional intercountry programmes and networks should be considered.
4. Mid term and long term national strategies should be revised or planned by different sectors with the definition of roles and responsibilities of different sectors involved.
5. Rabies control strategies should focus on the control and elimination of rabies in animals. The strategy should be based on community participation/involvement in all aspects of programme planning and implementation particularly dog vaccination and movement restriction.
6. The capacity of veterinary services should be strengthened and acknowledged by policy makers as an important contribution to the control and eventual elimination of rabies.
7. More efforts should be made to further involve the veterinary sector in the use of modern methods of immunization against rabies and contraception of dog, cat and wildlife for population control.
8. Public awareness and health education on rabies should be a priority as it is an effective preventive measure. Public awareness should be increased by exchange of information, experience and cooperation between medical, veterinary and environmental authorities, it should aim at promoting the participation of individuals and the community in rabies prevention and control activities.
9. Reporting of human and animal rabies (including wildlife rabies) should be improved at all levels. National authorities should maintain or establish an effective mechanism for collating, processing, analysing and disseminating data on rabies, with the technical support of international and regional organisations and utilising existing reporting facilities such as the OIE WAHIS and WHO Rabnet.
10. There is an urgent need establish a rabies regional reference laboratory in the middle east to improve and facilitate the laboratory based rabies surveillance and monitor the dynamics of the disease in domestic and wildlife animals.
11. Countries should improve their diagnostic facilities, system of shipment of human and animal specimens and ensure prompt communication of concerned medical and veterinary professionals regarding the results of laboratory investigation as per existing WHO and OIE recommended methods.
12. Concerned international organizations should be approached to assist Member states in capacity building in epidemiological surveillance, application of suitable and appropriate diagnostic techniques and evaluation of the national human and animal rabies prevention and control programmes.

13. Funds for the control of rabies should be sought not only from governmental agencies but also from the private sector, national non-governmental organizations and international funding agencies.
14. All countries of the region are invited to participate in the World Rabies Day on 28 September 2008 by raising community awareness. See at [www.worldrabiesday.org](http://www.worldrabiesday.org)
15. During a stray dog control programme in case animal killing is considered, countries should rely on guidelines of international animal welfare organizations and the general principles laid down in the OIE Animal Health Code should be followed with emphasis on using the most practical, rapid and humane methods and ensuring operator safety, considering the circumstances and resources of the countries.
16. The use of immunocontraception should be considered, in conjunction with oral and parenteral rabies vaccination, as complementary tools to reduce the density of dogs and rabies incidence.
17. Improve knowledge of the ecology, behaviour and population parameters of dogs as well as wildlife host populations by involvement of research institutes. The cost-effectiveness of oral vaccination for dog and wildlife should be evaluated.
18. The OIE regional Representation for the Middle East and WHO-MZCP should further strengthen their collaboration to achieve human and animal rabies prevention and control in the Region.

## ***Annex 2: Agenda***



**WHO (HQ-MZCP) / OIE Inter-country EXPERT WORKSHOP ON PROTECTING HUMANS FROM DOMESTIC AND WILDLIFE RABIES IN THE MIDDLE EAST**

*23-25 June, 2008, Amman, Jordan*

## *Agenda*

<b>Day 1: 23 June 2008</b>		
09:00 – 09:30	Opening Ceremony	<i>Officials and WHO (HQ, WR Jordan and MZCP)/OIE Secretariat</i>
<b>Session 1:</b>	<b><i>Setting the scene</i></b>	<b><u>Chairperson:</u></b>
09:30 – 10:00	Overview of rabies epidemiology, prevention and control worldwide	<i>F.-X. Meslin, WHO HQ</i>
<b>10:00 - 10:30 Coffee break</b>		
10:30 – 11:00	Rabies control – current best practices in humans	<i>D. Briggs, Kansas University</i>
11:00 – 11:30	Rabies control – current best practices in (wild and domestic) animals	<i>J. Barrat, AFSSA NANCY, WHO CC, Malzéville, France</i>
11:30 – 12:00	Best practices in rabies diagnosis and surveillance	<i>H. Bourhy IP/Pasteur, Paris, France</i>
12:00 – 12:30	<b><i>Discussion</i></b>	
<b>12:30 – 14:00 Lunch break</b>		
<b>Session 2:</b>	<b><i>Rabies surveillance, prevention and control activities in humans and animals (domestic &amp; wild)</i></b>	<b><u>Chairperson:</u></b> <i>(Representative from Jordan)</i>
14:00 – 16:00	Country reports ( <i>ONE report per Country 10 minutes each</i> ) will cover topics: – <i>Existing diagnostic, surveillance prevention and control activities and/or programmes in humans, wild and domestic animals</i>	<b>Country Representatives:</b> <i>(Bahrain, Cyprus, Egypt, Iraq, Iran, Jordan, Kuwait, Lebanon, OPT, Oman, Qatar, Saudi Arabia, Sudan, Syria, Turkey, UAE, Yemen)</i>
<b>16:00 - 16:15 Coffee break</b>		
16:15 – 17:15	Country reports ( <i>continued</i> )	
17:15 – 18:00	<b><i>Discussion</i></b>	
<b>Day 2: 24 June 2008</b>		
<b>Session 3:</b>	<b><i>Intersectoral collaboration for effective management of human and animal rabies prevention and control programs</i></b>	<b><u>Chairperson:</u></b>
08:30 – 09:00	Good practices in intersectoral rabies prevention and control management and lessons learnt	<i>D. Tabbaa, Al Baath University, Hama, Syria</i>
09:00 – 09:30	OIE International Standards on rabies control and diagnosis	<i>Lea Knopf, OIE-CB</i>
09:30 – 10:30	Lessons from the conclusions and recommendations of the international conference on Rabies in Eurasia (OIE, Paris, 27-30 May 2007)	<i>L. Knopf, OIE-CB &amp; G. Yehia, OIE/RRME</i>
<b>10:30 – 11:00 Coffee break</b>		

<b>Session 4:</b>	<b>Designing national programmes for the elimination of rabies in humans and animals</b>	<u>Chairperson:</u>
11:00 -11:30	Programme planning/burden of rabies/global rabies epidemiology/dog ecology studies	F.-X. Meslin, WHO HQ
11:30 – 12:00	General principles for planning rabies control programmes	A. Seimenis, WHO/MZCC
12:00 – 12:30	Oral vaccination of dogs and wild carnivores	J. Barrat, AFSSA NANCY, WHO CC, Malzéville, France
12:30 – 13:00	Dog population control and immunocontraception	G. Massei, WEMB/CSL, England
13:00 – 13:30	<b>Discussion</b>	
<b>13:00 - 14:45 Lunch break</b>		
<b>Session 4: continued</b>		
14:45 – 16:15	Forum on discussions on <b>SWOT*</b> analysis, to design an improved national programme	Country Representatives
<b>16:15 – 16:30 Coffee break</b>		
16:30 – 17:30	Presentation of Working Groups-Discussion	
<b>Day 3: 25 June 2008</b>		
<b>Session 5:</b>	<b>Workshop findings – Conclusions, Recommendations</b>	<u>Chairperson:</u>
09:00 – 09:30	Human pre- and post-exposure treatment	F.-X. Meslin, WHO HQ
09:30 – 10:00	Combating stray dogs, in consideration with animal welfare	H. Aidaros, FAO ECTAD
<b>10:00 – 10:15 Coffee break</b>		
10:15 – 12:00	Presentation of Workshop findings, summary, Conclusions, Recommendations	
12:00 – 12:30	<b>Closing Remarks</b>	

\* **SWOT:** Strengths, Weaknesses, Opportunities, Threats.

## ***Annex 3: List of participants***

## List of Participants

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