

Introduction

This meeting was organized within the framework of ‘technical cooperation among countries’ (TCC) to “Strengthen activities for the control of dog-transmitted human rabies in Haiti” in collaboration with Haiti, Cuba, Brazil, Canada, and the Dominican Republic. Prior to the meeting, the preliminary version of the *National Plan of Eradication of Human Rabies* was edited, thanks to support from an external consultant (Dr. Celso Bittencourt). It provided an opportunity to validate and enrich a well developed national strategic plan, the text of which was distributed to all the participants. Participants included some 20 technical personnel from the Ministries of Health and of Agriculture, PAHO/WHO, IICA, UNICEF; France, Cuba, Brazil, Canada, the Dominican Republic, and the Haitian private sector.

Context

The first part of the meeting was devoted to presenting the regional and national situation.

Regional Situation

Dr. **Cristina Schneider** of PAHO/WHO presented the favorable regional results in terms of controlling human rabies, which indicate a reduction in the frequency of the disease of 90% over the past 20 years.

She discussed the reasons why certain countries stayed behind in terms of control. Haiti presents an accumulation of unfavorable circumstances: lack of financial resources, limited income and information on the part of the population, lack of access to post-exposure treatment, a situation of insecurity, lack of control of canine populations, and deficits in laboratory biosafety.

She stressed key measures for human rabies control: intensification of dog vaccination, intensification of *foci* control, decentralization of post-exposure treatment, creation of a legal framework, sensitization of both the authorities and the population, and allocation of funds specifically for rabies control.

Dr. **Nicolás Ehrhardt** de CIRAD-Guadeloupe presented the CaribVet network, the purpose of which is to promote a regional approach to disease control, communication and information exchange, veterinary laboratory development, and strengthening of surveillance networks. Rabies is one of its priorities and the network invited Haiti to participate in the working group that CaribVet is forming on this topic.

Animal Rabies in Haiti

Despite the discontinuities that have arisen in recent years in terms of epidemiological surveillance and diagnosis of animal rabies, the Ministry of Agriculture has established a “Rabies Charter” and identified 13 principal *foci* distributed throughout its territory.

In the course of the discussions, emphasis was placed on the causes of deficient rabies control: absence of a control program for canine populations, an antiquated and poorly adapted legal framework, discontinuity in

public information, lack of coordination with the Ministry of Health, and limited implementation of post-exposure measures.

Human Rabies in Haiti

Dr. **Jacques Thomas** of the Ministry of Health presented activities to implement post-exposure measures that have been carried out in recent years in particularly difficult conditions.

Year	Number of Reported Bites	Human Rabies Cases	Vaccine Doses Administered	Serum Doses Delivered
2005	1,263	1	1,540	
2006	1,151	11	289	
2007	400	5	1,760	5 vials

He insisted on the need to improve reporting rates, strengthen public information, train public and private health personnel, strengthen measures regarding stray dogs, and motivate those responsible in the Ministry to make a commitment to allocate more technical and financial resources for the struggle against rabies. In the course of the discussion, a suggestion was made to approach medical associations in order to facilitate the training and awareness, as well as to better document cases of human rabies and difficulties in access to care (CAP survey).

National Plan

The main lines of the National Plan conceived by the two Ministries and supported by PAHO/WHO and by Dr. Celso Bittencourt were presented by Dr. **Max Millien** of the Ministry of Agriculture.

The Plan proposes to resolve the main difficulties encountered and to strengthen all aspects of the fight against the disease, animal vaccination, *foci* control, post-exposure prophylaxis, public information, professional training, laboratory diagnosis, operational research, health-related animal control, and active and passive epidemiological surveillance. Basically, it consists of distributing responsibilities between the national and departmental levels.

The Plan has several clearly defined strategic lines:

- ✓ Strengthening interinstitutional cooperation at the country level
- ✓ Development of binational, regional, and international cooperation
- ✓ Definition of a framework for legal reference
- ✓ Implementation of an integrated national program for the fight against rabies organized in phases, with two fundamental objectives:
 1. Elimination of human rabies
 2. Control of canine and feline rabies
- ✓ National financing with public funds, with a search for varied external funding for plan implementation

The discussion emphasized the importance treatment in *foci* through a rapid intervention cell/team and the need for adequate intersectoral collaboration—especially with the Ministries of the Interior, Education, and Environment—while placing special importance on the interest in operational research.

Field Visits

Two visits were organized at the end to enrich the participants' experience. The first one, bringing together Drs. Fehlner-Gardiner and Ehrhardt, allowed for an evaluation of the veterinary laboratory, about which a separate report will be prepared. The other, related to the other partners, was devoted to observing animal vaccination in the field. It showed a high level of organization by the Ministry of Agriculture as well as enthusiasm on the part of the population for this type of initiative.

Partners Sharing Experiences

France

Dr. **Pascal Hendriks** of French Cooperation presented the rules for the effective operation of an epidemiological surveillance network. He particularly insisted on the need for formal organization and surveillance protocols, for a motivated field team, and for strengthening diagnostic capacities. The discussion gave priority to monitoring dogs and cats and to the need for collaboration among professionals in health and agriculture to organize joint supervision and follow-up activities.

Brazil

Dr. **Lucia Montebello** presented the Brazilian experience with social mobilization via their vaccination campaign. He insisted on the importance of the intersectoral collaboration (universities, municipalities, environment, education, fire departments, army, police, etc.), the role of health professionals and community groups (associations, churches, etc.), the utilization of all available communications media (radio, television, posters, musical events, megaphones) and the role of the schools. The discussion recognized both the importance and the need for demand to be formalized by interministerial collaboration, as well as the central role of municipalities.

Dr. **Celso Bittencourt** presented the delicate subject of the control of canine populations. He insisted on the role of the capture in the *foci* control, the need to avoiding exaggerated risk assessments and especially spontaneous culling on the part of the population, the need for community consensus and the involvement of municipalities (in activities that can fall within a framework of environmental management), and respect for the established standards for euthanasia. In the discussions participants again recognized the importance of adequate collaboration between health and agriculture and the need for a legal framework.

Cuba

Dr. **Myriam Acosta** presented *foci* control as it is carried out in Cuba by those responsible for human and animal health, which includes canine vaccination activities, biological sampling, canine and feline population control, the struggle against mongooses, limitation animal displacement, and public information activities. The debate was centered on the attention being paid to wildlife vectors, with an agreement being reached on the need for the time being to target dogs and cats in Haiti.

Dominican Republic

Dr. **Guillermo Rosario** presented the status of the implementation of post-exposure measures in the Dominican Republic. In this country, comparable to Haiti in terms of population and environment, 16,000 bites were reported annually, compared to a little more than 1,000 in Haiti—which gives an idea of the extent of underreporting in the latter country. He insisted on cooperation with Haiti, the role of workshops for broad-based personnel training, and the respect needed for internationally established rules on emergency measures to take with bites.

Canada

Dr. **Christine Fehlner-Gardiner** discussed laboratory diagnostic techniques. She particularly insisted on biosafety aspects as well as training and certification for laboratory technicians. She presented areas in which the reference laboratories can provide support.

Summary of the Discussions

Dr. **Jean-Philippe Breux** presented a summary of the interventions and the main topics of discussion: importance of *foci* control, need for a legal framework, strengthening monitoring and follow-up activities, training, involvement of civil society, and intersectoral collaboration.

Dr. **Cristina Schneider** placed emphasis on efforts the country has made to date, from unsung success the discontinuities. She recognized the importance of political will to encourage the country and of opportunities provide in collaboration activities such as this one and the one proposed by the TCC to jointly develop the different components of the plan needed for rabies control in Haiti. On behalf of PAHO/WHO, she proposed involvement in a new TCC to allow for a better response to the country's needs in their fight against rabies.

Possible Support

Participants were invited to submit their proposals for support proposals for the Haitian program in the fight against rabies.

Brazil

- ✓ Mass dog vaccination campaigns (technical and operational assistance)
- ✓ Assistance in planning
- ✓ Legal framework
- ✓ Research
- ✓ Technical standards
 - Treatment
 - Operational manual on human and animal vaccination
 - Canine population control
 - Epidemiology
 - Human and animal case definition
 - *Foci* control
 - Active case identification
- ✓ Possibilities for donors (to be confirmed)
 - Human vaccines (10,000 doses in 2008)
 - Animal vaccines (ideally 800,000 doses in 2008)
- ✓ Training
 - Subsidized visits during which Haitian professionals can observe the vaccination campaign
 - Basic training in epidemiology (40 hours) (documents available for training trainers)

Cuba

- ✓ Continue with the activities in progress
 - Technical support (physicians and veterinarians)
 - Training
 - Assistance in planning
 - Support for the laboratory
- ✓ Training in Cuba for professionals who were already trained in Cuba

Dominican Republic

- ✓ Training for personnel in the agriculture and health sectors
- ✓ Implementation
- ✓ *Foci* control
- ✓ Legal framework
- ✓ Training in laboratory diagnosis
 - Epidemiological surveillance

Canada

- ✓ Consultations and advisory services for the establishment of the rabies diagnostic laboratory in Haiti
- ✓ Training for Haitian laboratory staff in rabies diagnostic techniques
- ✓ Provision of reagents, for example fluorescent rabies antibodies or mononuclear antibodies for viral characterization

France

Haiti will commit to coordinating these activities, particularly the training.

Conclusions

The final floor was given to representatives from the two ministries. The particularly moving speech by Dr. Max Millien thanked the partners present at this meeting, for which the results exceeded the expectations.