

**Report of the Fourth meeting  
of the International  
Coordinating Group of the Bill & Melinda Gates  
Foundation–World Health Organization project  
on eliminating human and dog rabies**

**Cebu City, Philippines, 2–4 October 2012**

**BILL & MELINDA**  
**GATES** *foundation*



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## **1. Opening remarks, purpose and objectives**

The meeting was opened by Dr Nyunt Soe (Representative of the World Health Organization (WHO) in Manila, Philippines) who welcomed participants on behalf of Dr Shin Young-soo (Regional Director, WHO Western Pacific Region) and Dr Margaret Chan (Director-General, WHO). He confirmed WHO's commitment to eliminating human and dog rabies in the Visayas and beyond in the region, and thanked the national, regional and provincial governments of the Philippines, Department of Health Region 7 and Cebu respectively for agreeing to host the meeting. Dr Soe acknowledged the excellent cooperation among the Department of Health, the Department of Agriculture and WHO within the project's framework, and thanked Dr Raffy Deray (Project Coordinator, Department of Health, Philippines) and regional health authorities for organizing the meeting, especially Ms Joy Tabotabo (Regional Rabies Coordinator) and Ms Jessa Kristine Pis-an (support staff). Finally, he thanked the Bill & Melinda Gates Foundation (the Gates Foundation) for their generous contribution to the project and WHO headquarters for assisting with its management.

Dr Anastasia Pantelias (Neglected Infectious Diseases Department, Global Health Programme, Gates Foundation) and Dr François-Xavier Meslin (Team Leader, Neglected Zoonotic Diseases, WHO Department of Control of Neglected Tropical Diseases) welcomed participants on behalf of their respective organizations.

The purpose and objectives of the meeting were to review progress, identify challenges and opportunities, and discuss the fifth year of the project's implementation with national coordinators and advisers to the three project sites (in KwaZulu-Natal, South Africa; the south-eastern United Republic of Tanzania; and the Visayas, Philippines), WHO staff in countries, regions and at headquarters, and the responsible officer at the Gates Foundation.

The meeting was held in Cebu city, Cebu Province, Region 7, Philippines, in order to share experiences among project sites during a field visit on 3 October 2011.

Dr Raffy Deray (Department of Health, Philippines) was nominated as Chairperson of the meeting and Dr Sunny Townsend (Glasgow University, Scotland) as its rapporteur. The agenda (Annex 1) and List of participants (Annex 2) are attached to this report.

## **2. Progress reports and specific results by project sites (see also Annex 3)**

### **2.1 KwaZulu-Natal**

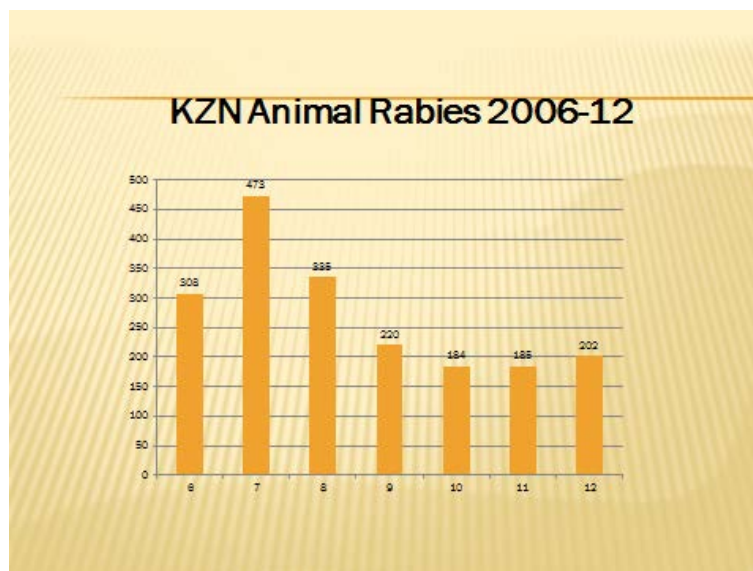
#### **2.1.1 Human and dog rabies control (K. Leroux)**

The main objective at the beginning of the 4th year of implementation was gaining lost ground from the outbreak of foot and mouth disease in 2011. Although dog vaccination campaigns had progressed well, the situation became tense following three rabies fatalities in rapid succession, another confirmed rabies case and a child in a long coma suspected of being caused by rabies.

Progress was recorded in other areas, with the appointment of a new Provincial Minister of Agriculture whose enthusiasm about communicating through the media resulted in one of the most important events in the project's history. Extensive rabies media coverage (one rabid

person was a prominent sportsman on whom the experimental ‘Milwaukee protocol’ for treatment of clinical rabies was attempted) raised interest among senior politicians and precipitated a landmark decision to grant huge support to the elimination programme in KwaZulu-Natal. Media coverage extended beyond KwaZulu-Natal as the national government requested a plan for dog rabies elimination in all endemic provinces. The Provincial Coordinator of the project (Mr Le Roux) was invited to address a meeting of the South African Development Community to discuss a possible strategy for the entire region.

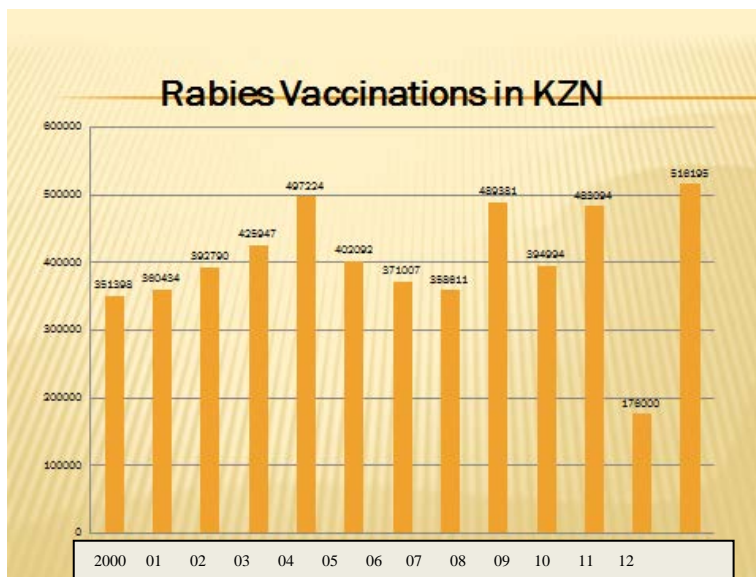
A rabies outbreak in a state veterinary area (Uthukela) that had been unwilling to participate in the provincial rabies project represented a further setback. The outbreak resulted in decreasing vaccination coverage and the spread of rabies into a previously rabies-free area. By July 2012, the number of cases in dogs in Uthukela accounted for 43% of the total number of cases in KwaZulu-Natal; in most other areas, rabies cases were declining. This situation gave the false impression – echoed by the international press – that rabies was re-emerging throughout KwaZulu-Natal, when in fact it was highly localized. In 2012, the total number of rabies cases in KwaZulu-Natal increased by an estimated 31%, mostly due to the localized outbreak



Number of animal rabies cases in KwaZulu-Natal, 2006–2011 and first months of 2012. The increase was mostly due to the localized outbreak in Uthukela recorded during 2012, which may reach 31% of the total number of rabies cases in the province at the end of the year.

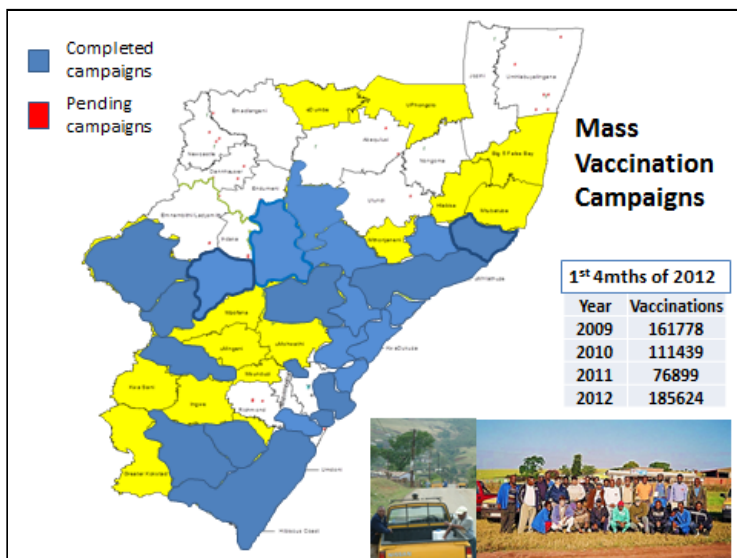
When a rabies fatality in Uthukela was buried at the State’s expense and MEC instructions, the media storm intensified. The rabies project was invited to carry out activities in the area, doubling vaccinations figures in a short time and removing rabies rapidly. In recent months, however, three jackals have tested rabies-positive and cases of bovine rabies have increased, suggesting that a jackal-to-jackal transmission cycle may exist in the area. The laboratory is attempting to validate this finding through sequencing.

In 2012, a total of 516 195 dogs were vaccinated, a record for the province. Activity is focusing on the northern part of KwaZulu-Natal, which has been significantly affected by the disease. An important development is the newly introduced system of follow-up vaccinations; previously, follow up was not done because of the small number of staff and the overwhelming size and limited accessibility of the dog population. Community health workers from the health department (each being responsible for 50 households) are requested to visit all houses, record unvaccinated dogs and report them to the veterinary services for follow up. The pilot area has been rabies-free for 2 years and the system is being expanded across the province.



Annual numbers of dog vaccinations in KwaZulu-Natal, 2000–2013. In 2012, a total of 516 195 dogs were vaccinated, a record for the province. In 2011, an outbreak of foot and mouth disease mobilized all veterinary services and interrupted dog vaccination activities.

What started as a tragedy ended in success, and is a tribute to the value of the Gates Foundation/WHO project. Initially, the contribution of the Gates Foundation represented a significant percentage of the operational costs of the provincial project. Further to the events described above and the decision by the government to allocate the necessary resources to achieve the goal of rabies elimination, the Gates Foundation’s contribution to the overall project budget has decreased from 23% in 2010 to 4% in 2012.



Total number of dogs vaccinated during the first four months, by year, 2009–2012

Blue shading: mass dog vaccination campaigns completed in 2012

Yellow shading: zero rabies cases reported for a year or more

White shading: dogs vaccinated outside mass campaigns, mostly in sparsely populated farming areas.

The momentum created by the Gates Foundation/WHO project has exceeded expectations and will leave a lasting legacy in South Africa and neighbouring countries. More and more organizations are joining to support what they consider a successful concept. Two ‘sister’

projects are starting in Mozambique and Swaziland, with Lesotho making enquiries for assistance.

### *2.1.2 Primary animal health care and research (D. Stewart)*

Activities during 2012 were expected to revitalize an aspect of rabies elimination from a large sponsorship (South African Rand 20 million (US\$ 2.2 million equivalent) for a dog sterilization project initially intended to be coordinated by the Primary Animal Health Care Coordinator of the KwaZulu-Natal rabies project. Although the funds arrived at the end of October 2011, the contract signed was found to be illegal and the Pietermaritzburg Society for the Prevention of Cruelty of Animals (SPCA), the implementing agency of the funds, had to make changes and sign a new document. As a result, the outreach project in KwaZulu-Natal started sterilizing only around mid-May. Unfortunately, the state-appointed project manager decided to remove the rabies project from outreach clinics and concentrate on other aspects of the project. The involvement of the outreach project was thus reduced to a seat on the committee of the implementing agency; to date, just over 2000 animals have been sterilized through the project.

At the beginning of 2012, the outreach project assisted with and was closely involved in three primary animal health-care mobile clinics, sterilizing an additional 556 animals. In March, it started a static primary animal health-care clinic in the north of the province in Hluhluwe, where the state vet provides basic rural veterinary services, now including sterilization.

Tracking of dogs in 'townships' was more difficult than anticipated: one collar was lost but subsequently found (it had detached from a dog going through a fence), 'stray' dogs were caught (a challenging task since trapping systems are not dog specific) and a number of cats were trapped. Oral drugging was also difficult, and outcomes varied with doses. Despite these challenges, the average movements of dogs were influenced by humans, corresponding to the distances travelled and the timing of activities.

Relationships among animal welfare (SPCA) and rabies projects were maintained through visits, staff training and vaccine delivery and by the enthusiasm generated by vaccination days at SPCA offices during a 2-week period in which nearly 4500 dogs and cats were vaccinated in four centres.

New vaccinators were trained either in SPCAs or as state officers, doubling the number of eligible staff for mass vaccination campaigns. The total of new vaccinators and rabies-free promoters in KwaZulu-Natal now numbers 284, of whom 40 are community volunteers spreading the word and mobilizing their communities; this marks a real breakthrough. An outbreak of rabies in the north-west provoked anger among farmers because their farms had not been vaccinated and teams were presumed to be working too slowly. In response, these farms were visited during one week, and all the farmers and staff compounds were checked; those not vaccinated were vaccinated (a small number of dogs had not been vaccinated). The exercise was a worthwhile follow-up of the original vaccinating team.

The research facilities for the Gonacon trial are available for the first dogs. The end of 2012 concludes the advanced diploma in companion animal behaviour begun in 2010 to better understand dogs and their behaviour, improve disease control and enhance training of vaccinators.

The year ended with a positive visit on International Rabies Day in Swaziland when 250 dogs were vaccinated; the rabies project was invited to communicate a positive message to a community that had unfortunately lost an 8 year-old boy to rabies. A primary health-care sterilization clinic will be organized in the future through Swaziland welfare, Swaziland state vets, KwaZulu-Natal animal welfare services and the rabies project.

## 2.2 Philippines (R. Deray)

The first year of project implementation was 2009. Mass dog vaccination campaigns started in 2010 only according to the master plan. From 2010 to the end of October 2012, dogs have been vaccinated for 2.5 years in the Western Visayas and parts of Central Visayas (Negros Oriental, Bohol<sup>1</sup>) and for 1.5 years in the Eastern Visayas. Vaccination has significantly decreased the number of human rabies deaths in the project sites, from 48 cases in 2008 to 13 cases in 2012 (as of October), a reduction of >70% (Table 1).

**Table 1. Number of human rabies cases in the Visayas regions, Philippines, 2008 and by year during project implementation, 2009–2012**

Region	2008	Year of project implementation				% reduction in average number of deaths, 2009–2012, compared with 2008
		2009 year 1	2010 year 2	2011 year 3	2012 year 4	
Western Visayas	14	14	15	8	3	29
Central Visayas	20	17	12	11	5	44
Eastern Visayas	14	12	13	10	5	20
Total	48	43	40	29	13	Average 35

Of the 8 islands declared ‘rabies-free zones’ jointly by the Department of Health and the Department of Agriculture, 6 belong to the project area (Biliran and Siquijor provinces and the smaller islands of Apo, Camotes, Limasawa and Malapascua). As of October 2012, no human rabies deaths had been reported or notified in 9 out of 17 provinces and 4 out of 6 major cities (Table 2).

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