

#### 4.4. Ecuador

The presentation was “*Roll Back Malaria* in Ecuador: The Experience of Collaboration Between Central and Local Level”. Ecuador has a population of 12,646,095 inhabitants, and is divided into 22 provinces: five on the coast, ten in the mountains, six in the Amazonian Region and one is an archipelago in the Pacific Ocean.

In 1998, the Director General of the World Health Organization launched a global partnership, the *Roll Back Malaria* Initiative. In January 1999, the National Sub-Secretary of Tropical Medicine prepared a proposal to seek funding of a project to *Roll Back Malaria* in Ecuador.

During the first half of 1999, it was noted that the control of the malaria situation in Ecuador was deteriorating. There were more cases than those reported in 1998 and from the 45,000 cases reported in the country, 56.4% were due to *P. falciparum*. A project was developed by the National Sub-Secretaries of Tropical Medicine and of Institutional Development, along with the National Malaria Eradication Service, the Fasbase and Modersa Projects with technical support of the Pan American Health Organization and the World Bank. Within the context of the *Roll Back Malaria* Initiative, this project was presented to the World Bank for consideration. In October 1999 the project started in the provinces of Esmeraldas, El Oro and Manabí.

The epidemiological map of the country according to the level of malaria risk is presented in Annex 1, Figure 4.

The RBM Initiative in Ecuador has been working on the integration of activities between the provincial and local levels.

In the provincial and local levels there are many experiences of inter-institutional and inter-sectoral coordination, each of them in a different level of development. El Oro, located along the border with Peru, has 13 cantons, 7 of them are areas at risk for malaria. There is a deficit of health structure. They have 369 voluntary collaborators, 104 health units, 51 private laboratories, 24 private doctors and 7 laboratories from SNEM (National Malaria Eradication Service). The training activities made available 128 treatment workers, 18 entomologists, 20 surveillance workers and included workshops for students and the community. These activities allowed an increase of 18% in the number of slides examined and the decrease of positive cases in 8.7%. They were able to destroy breeding sites in some localities (Huquillas, Arenillas and Machala). Eleven thousand one hundred and forty-four impregnated bed-nets were distributed. In El Oro, since before the beginning of the RBM Initiative there existed an integration between the SNEM and the Health Provincial Directorate for the control of vector transmitted diseases. Control activities at breeding sites were carried out jointly by the Army and the municipality. One of the most important partnerships in El Oro is the Bi-national Cooperation Treaty with Peru through the “Integrating Frontiers Health Project”. This project includes training in entomology, joint work in risk areas and interchange of medicines.

In the province of Guayas (3,349,111 inhabitants), four out of sixteen municipalities are high-risk malaria areas. The principal city is Guayaquil. They have an inter-institutional committee. The local committee for malaria control includes a representative of the municipality, the area manager and a NGO called “Health Plan”. This committee is coordinating activities of chemical control of vectors and treatment and diagnosis of cases. The number of diagnostic posts has increased as has the training of personnel in treatment and diagnosis. They observed an increase in the number of examined slides of 35% and the improvement of the laboratories network. There also exists community and health workers participation.

In the province of Esmeraldas, border with Colombia, there are seven cantons, six of them are high risk for malaria. The majority of cases are *P. falciparum* malaria.

The intention is to organize a committee for vectors with the participation of SNEM, the Health Provincial Direction, the Government, the Army and the Church, however the results have not been favorable. There is a partnership with the CECOMET (Epidemiological Community and Tropical Medicine Center) to launch an operational research activity on chloroquine-resistant malaria and to implement quality control of microscopic diagnosis. It was possible to increase the number of examined slides by 9.4%, the number of cases decreased in 11% and the *P. falciparum* cases in 45.1%.

In Sucumbíos, border with Perú and Colombia, there live a great number of indigenous people (Quíchua, Shuar, Ashuar and Huaorani) who have organized vectors committees. There is an active partnership of the Municipality, SNEM, FOISE (Federation of Indigenous Organizations), ISAMIS, Doctors without Frontiers and the Health Areas working to elaborate a health strategic plan for the province. The participants of this committee vote to decide the local strategy to be used for the control of vector borne diseases and particularly for malaria control. This unit will take all the decisions and will execute all the components of the Project for Malaria Epidemic Control. The workers have been trained in microscopy, entomology and epidemiological surveillance. The objective is to improve diagnosis and treatment and to strengthen the network of voluntary workers. In this province there are important initiatives with indigenous organization to discuss health.

The launching of the RBM Initiative in Ecuador has strongly moved forward with the implementation of the Global Strategy for Malaria Control, which although adopted in 1993, was not put into practice.

The following problems are still threatening the RBM implementation in Ecuador: the lack of resources for the Vector Control, incomplete integration of SNEM in the health systems, instability of workers and political instability.

Regarding the malaria situation in Ecuador the following points were highlighted:

- The number of malaria cases increased from about 46,000 in 1998 to around 86,000 in 1999.
- Following an evaluation of the National Malaria Eradication Service (1998) the program was placed under the Sub-Secretary of Tropical Medicine authority (1999).
- Within the RBM context and with the objective of strengthening the efforts to control malaria in the higher risk cantons of the country, the National Sub-Secretary of Tropical Medicine presented a project to the World Bank. In December, 1999 World Bank approved the “Health and Development Project” aimed at 1) improvement of water infrastructure 2) nutrition 3) improvement of the health service infrastructure and 4) malaria.
- A Technical Support Unit was organized with the participation of consultants from each of the prioritized provinces. A “Communicable Disease Control Committee” was also organized in each province.
- In March 2000, 52 cantons/municipalities of high risk for malaria were identified: five in the provinces of the coast, four in the highlands and three in the Amazonian Region.
- The initiatives against malaria are being taken in the context of decentralization and improvement of the local capacity, proposed by the health sector reform.
- A “Committee of Control of Vector Transmitted Diseases” was organized in each provincial direction. The provincial directors, chiefs of epidemiology and the chiefs of the health areas are members of the committee.
- The medical doctors have received training in the malaria treatment, which had previously been done by microscopists. Volunteers are trained in areas where there are no medical doctors. The training was done jointly with the IMCI.
- Training in entomology was provided. There are two entomologists in Ecuador and 12 entomology assistants (five on the Coastal Region, four in the Andean Region and three in the Amazonian Region).
- Use of bednets is being promoted and the program has distributed 100,000 impregnated bednets in El Oro and Esmeraldas.
- The Sub-Secretary of Tropical Medicine together with the Ministry of Development of Environmental Health and PAHO had mapped the municipalities at risk.
- Identification of breeding sites and planning of sanitary activities are done with participation of other sectors, like the National Direction of Environmental Sanitary and municipalities.
- Vector Control is carried out by malaria units in nine zone, following norms and regulations at the national level.
- The project includes a proposed study of the efficacy of antimalarial drugs and other areas of operational research.