SUMMARY

Demographic and environmental changes, globalization, and the ensuing social and economic consequences, lead us to new challenges: emerging diseases (75% of which are zoonoses), and the unfinished agenda of the neglected human infectious diseases that have resurfaced, hitting the most disadvantaged and vulnerable populations the hardest and jeopardizing efforts to meet the Millennium Challenges of the United Nations (MDGs).

Although in a regional context many of these diseases appear to have been forgotten, in Ecuador they are being addressed with the latest scientific knowledge, following the recommendations made by international organizations specializing in the field. Improving the living conditions of neglected populations—the groups most vulnerable to these diseases—as well as aspects related to information, education, and communication for behavioral change, poses a challenge. Continued improvements in access to health services, epidemiological surveillance with community participation, and the diagnostic capacity of laboratories will lead to a better characterization of the situation of these diseases and the impact of interventions.

Implementing the International Health Regulations and ensuring country compliance are important for boosting the surveillance and response capacity to these diseases and events, as a basis for guaranteeing global health security.

The following actions constitute the intersectoral coordination that should be considered and strengthened to reduce the burden of neglected diseases:

a) Strengthen coordination among technical cooperation entities in the health and agriculture sectors, paying special attention to rural areas, food producers, consumer associations, and entities representing different segments of society;

b) Develop organizational management capacity, chiefly at the local level.
Equity for Health Care: Neglected diseases in forgotten populations

I. Introduction

Demographic and environmental changes, globalization, and the ensuing social and economic consequences, lead us to new challenges: emerging diseases (75% of which are zoonoses), and the unfinished agenda of the neglected human infectious diseases that have resurfaced, hitting the most disadvantaged and vulnerable populations the hardest and jeopardizing efforts to meet the Millennium Challenges of the United Nations (MDGs).

The neglected zoonoses include: plague, yellow fever, leptospirosis, *Brucella melitensis* brucellosis, bovine tuberculosis and brucellosis, equine encephalitis, leishmaniasis, Chagas’ disease, schistosomiasis, and cysticercosis.

Zoonoses are said to be neglected because, with the exception of plague and yellow fever which are reportable diseases in most countries, they usually affect the poor, unknown or little known, and are not considered a public health problem. However, every day thousands of people living in poverty get sick and/or die from preventable diseases, which also represent an important financial burden for the individual, family, community, country, and even the Region, since they hinder social and economic development (Belotto, A.; Schneider, M.C.; Fernandes, D.; Leanes, F.L. and Genovese, M.A. Veterinary Public Health Unit. PAHO/WHO. 2006)

A. NEGLECTED DISEASES: CURRENT SITUATION IN ECUADOR

1. Human and Canine Rabies

Since 1941, the year in which the first case of rabies was reported, rabies has spread across the entire territory of Ecuador except for the Galapagos Islands, thus becoming a significant public health problem. In the 1990s, Ecuador was among the countries of the Region with the highest incidence of canine and human rabies, caused by severe epizootics that took many human lives.

The severest epizootic event ever experienced occurred in 1996, followed by an epidemic that took 65 lives, after which Ecuador drafted its “Plan of Action for the Elimination of Urban Rabies in Ecuador,” as part of the “Plan of Action for the Elimination of Urban Rabies in the Americas,” whose main strategy is to carry out national canine vaccination campaigns in brief periods, with coverage exceeding 75%, 85% and 95%, depending on the respective level of risk—low, medium, or high—in every province, together with controlling the canine population, strengthening epidemiological surveillance, controlling 100% of rabies foci, improving care provided to people who have been attacked by potentially rabid animals, and intersectoral and interinstitutional community participation.

As shown in the following maps, between 1996 and 2005 the incidence of canine rabies cases fell (Map 1), and no canine rabies cases were reported in 2006 and 2007.
With regard to human rabies, the figure fell from 65 cases in 1996 to 9 in 1997, 7 in 1998, 5 in 1999, and 3 in 2000 and 2001, with no human cases recorded from 2002 to 2004. In epidemiological week 28 of 2005, two cases of bat-transmitted human rabies were reported in Pastaza Province, revealing an increased risk of wildlife rabies in the Amazon provinces, given the ecological characteristics unique to that region. A viral typing study was conducted on the samples, and risk areas were monitored in coordination with the Ecuadorian Animal Health Service of the Ministry of Agriculture and Livestock.

Although dog-transmitted rabies has been under control, the country has experienced problems with foci of bovine rabies, with a significant number of bovine cases and the treatment of 100% of human contacts (Figure 2).
Control Measures

Canine vaccination, controlling the canine population, strengthening epidemiological surveillance, improving treatment for people attacked, and community and intersectoral participation have been combined with national canine vaccination campaigns and information, education, and communication for the population, so that people will go to the health services when injured by animals.

2. LEPTOSPIROSIS

In 1998, 398 cases of leptospirosis—the largest number ever—were recorded, 189 of which occurred in the Guayas Province, 190 in Manabi, and a smaller number in Cañar, Pichincha, Los Ríos, Bolivar, Zamora, and Napo Provinces. In 2003, an outbreak occurred in Manabí Province, adding 140 cases (an incidence rate of 11.17/100,000 inhabitants) to a total of 155 recorded nationwide.

In 2004 and 2005, the incidence rate held stable, only to increase again in 2006 and 2007, with 122 and 155 cases, respectively, in El Oro, Guayas, Pastaza, Pichincha, and Manabí Provinces, with the greatest number of cases being reported in the latter (Figure 3).
Control Measures

In order to improve leptospirosis control, epidemiological studies are needed that will permit isolation of the circulating strains, especially in the endemic foci and identification of the sources of infection that generate a risk of human cases. It is also necessary to increase the involvement of public health and veterinary medicine institutions to improve timely case detection and reporting, educate the population on the modes of transmission and protective measures, particularly among workers exposed to occupational risk, so that they begin using gloves and boots, in addition to rodent control.

3. LEISHMANIASIS

No cases of the visceral form of leishmaniasis have been found or described to date in Ecuador; however, there have been reports of the cutaneous form of the disease, with its different clinical presentations and complications: relapsing and disseminated mucosa. In the Andean valleys of Paute, Alausí, Sibambe, Gualaceo, Huigra, and Yunguilla, located at altitudes of 1200 to 2400 m above sea level where the vectors and reservoirs are different, the reported cases have a different clinical presentation from those occurring in the country’s other geographical regions.

This parasitic disease constitutes a public health problem in Ecuador because it is distributed widely throughout rural areas in the coastal, mountainous, and eastern regions and is contracted by humans while engaging in work, moving from one region to another, or colonizing the tropical and subtropical areas where communities settle in periforest or jungle areas where there are wild mammal reservoirs such as sloths, coatis, gray squirrels, red squirrels, and anteaters; the black rat and stray dogs act as domestic reservoirs.

In addition, this disease, above all, has a major social impact on economically depressed groups; in particular the cutaneous-mucous form causes serious deforming and destructive lesions that lead to the social isolation of individuals and psychological disorders.
The greatest number of cases has been recorded along the coast. Although fewer cases (1185) were recorded in 2007 than in previous years, the trend has remained stable over the last five years. The most affected provinces in terms of the number of cases are Pichincha (242), Morona Santiago (183), Orellana (116), Emeraldas (125), Sucumbios (65) and Los Ríos and Imbabura (63 each). This distribution of cases coincides with the presence of subtropical and tropical rainforests, which constitute the appropriate ecological niches for the presence of vectors and reservoirs (Figure 4).

Figure 4. Cutaneous Leishmaniasis by Region. Ecuador 2000-2007

Control Measures

Leishmaniasis exhibits endemoepidemic behavior that makes it necessary to program and carry out activities aimed at preventing epidemics in the country. As a result, epidemiological surveillance and control of leishmaniasis should focus on early detection of cases, in addition to ongoing study of transmission foci to obtain reliable information for undertaking prevention, control, and follow-up activities and their evaluation.

As with the majority of diseases, leishmaniasis prevention and control requires planning and the implementation of comprehensive programs with intra- and intersectoral participation, promoting educational aspects and active community participation.

4. CHAGAS’ DISEASE

The risk areas in Ecuador cover 20 provinces, and roughly 3.5 million people are vulnerable (Map 2) owing to their housing conditions or economic situation (Table 1).
Table 1. Risk of Chagas’ Disease transmission in Ecuador: consolidation of demographic-socioeconomic data according to risk strata by cantons.

<table>
<thead>
<tr>
<th>COUNTRY *</th>
<th>Very high</th>
<th>High</th>
<th>Intermediate</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of cantons</td>
<td>94</td>
<td>53</td>
<td>36</td>
<td>183</td>
</tr>
<tr>
<td>Population</td>
<td>6 685 699</td>
<td>965 195</td>
<td>696 140</td>
<td>8 347 034</td>
</tr>
<tr>
<td>Rural area population</td>
<td>2 060 369</td>
<td>633 891</td>
<td>465 098</td>
<td>3 159 358</td>
</tr>
<tr>
<td>Poor population</td>
<td>3 917 023</td>
<td>719 738</td>
<td>532 153</td>
<td>5 168 914</td>
</tr>
<tr>
<td>Number of dwellings</td>
<td>1 341 988</td>
<td>187 124</td>
<td>144 249</td>
<td>1 673 361</td>
</tr>
<tr>
<td>Deficient dwellings</td>
<td>961 352</td>
<td>170 878</td>
<td>125 696</td>
<td>1 257 926</td>
</tr>
<tr>
<td>Inhabitants of deficient dwellings</td>
<td>4 842 633</td>
<td>882 300</td>
<td>605 347</td>
<td>6 330 280</td>
</tr>
</tbody>
</table>

Source: Health Situation of Ecuador, 2006.

Chagas’ disease has been a reportable disease in Ecuador since 1978. Despite weaknesses in active detection, cases were reported in 18 provinces nationwide from 1990 to 2007. Only four Andean provinces (Carchi, Cotopaxi, Tungurahua, and Chimborazo) and the Galapagos did not report any cases. Prevalence rates range from 0.17 to 0.27 per 100,000 population, with a rising trend in cases that can be explained by better reporting of probable and confirmed cases, as well as better control and surveillance measures by the National Program for Chagas’ Disease and personnel from the MPH’s operational units. The provinces with high prevalence rates are: Manabi, El Oro, Loja, Sucumbíos, and Napo; and those with intermediate rates are: Guayas, Los Ríos, Santo Domingo de los Tsachilas, and Orellana.

Figure 5. Trend in Reported Cases and Rate of American Trypanosomiasis (Chagas’ Disease) Ecuador 1990-2007.
The reporting data do not reflect the scope and epidemiological situation of the endemic disease, but do serve as a tracer of the disease for detection by the health services.

Serological studies conducted in Ecuador estimate the prevalence of anti-
*T. cruzi* antibodies in the general population at around 1.38%, meaning that approximately 176,400 individuals are seropositive for anti-*T. cruzi* antibodies.

In 2003, a seroprevalence study was conducted in the Amazon region, analyzing 7,000 blood samples in Sucumbios, Orellana, Napo, and Pastaza Provinces; the results indicated a general seroprevalence of 2.4%. (Grijalva et al. 2003).

**Control Measures**

In 1997, Ecuador joined the Andean Pact Initiative (API) promoted by PAHO/WHO for the control of vector-borne and transfusion transmission of Chagas’ disease. Ecuador also belongs to the Initiative of the Amazon Countries for the Control and Surveillance of Chagas’ Disease (AMCHA).

![Map 4. Initiatives for the Elimination of Triatomines in the Americas.](image)

In 2003 the Ministry of Public Health created the National Program for Control and Surveillance of Chagas’ Disease, under the National Malaria Eradication Service (SNEM).

This program is currently being strengthened, having systematically implemented intermittent epidemiological and entomological surveillance activities in the provinces at highest risk, such as Manabí, Guayas, Los Ríos, El Oro, Santo Domingo de los Tsáchilas, Loja, Zamora, Sucumbios and Orellana.
Prevention strategies include three components: controlling vector-borne transmission, screening blood donations, and treating infected people. Ecuadorian law requires that all blood donations be tested for anti-*T. cruzi* antibodies.

Regarding blood screening, improvements are underway in terms of quality control, and the provision of diagnostic kits, equipment, and reagents.

The Control Program carries out control, monitoring, evaluation, and epidemiological and entomological surveillance activities, in addition to comprehensive activities that have an impact on other diseases such as dengue, bubonic plague, and malaria. The Program also includes a community information and education component.

In 2006, with a view to strengthening control of the disease, the Program launched the strategy for controlling congenital Chagas’ disease, which involves screening the blood of pregnant women while focusing on individuals from high-risk areas, with a view to treating the baby. In order to implement this strategy, equipment was provided (ELISA readers, centrifuges, stoves, microscopes, automatic pipettes, reagents, and laboratory supplies) to provincial hospitals in the Amazon (Sucumbíos, Orellana, Napo, Pastaza, Morona, and Zamora) and coastal region (Manabí, Santo Domingo de los Tsachilas, Los Ríos, El Oro).

Furthermore, the nationwide network of SNEM microscope technicians (237) received training in parasite diagnosis and identifying *T. cruzi*. Many cases of acute Chagas’ disease have been reported by SNEM microscope technicians and treated with Nifurtimox.

A project is currently under way in three provinces (Manábi, El Oro and Loja) with support from PAHO and CIDA-Canada. It includes surveillance activities, vector control and environmental reorganization with community participation, in addition to support from the infectious disease laboratory of the Pontifical Catholic University of Ecuador, University of Ohio, and the Parasitology Institute of the University of Trujillo-Peru.

### 5. ONCHOCERCIASIS

Ecuador is part of the regional initiative represented by the Onchocerciasis Elimination Program for the Americas (OEPA), along with five other Latin American countries, that, pursuant to resolution 14 of the 35th Directing Council of PAHO in 1991, proposed the mission of eliminating onchocerciasis as a public health threat to 4 million people in the Americas by the year 2007, through safe, effective, and locally-sustainable programs for Mectizan® distribution in all endemic localities, within the framework of a coordinated regional strategy that established the minimum coverage as 85% of the eligible population.

Following WHO criteria, the country began a certification process, and an in-depth epidemiological evaluation in 2004 reported “zero” prevalence of skin lesions from onchocerciasis in the Santiago River communities; moreover, the presence of onchocercotic nodules and microfilariae dropped to “zero” in children with no previous treatment who were born after the drug was first distributed in the communities—a clear sign of having interrupted transmission of the disease in seven years of treatment (the first EEP was in 1996). Furthermore, in 2004 the results of the ophthalmologic evaluation revealed “zero” presence of microfilariae in the anterior chamber of the eye and no dotted keratitis, thus declaring the elimination of eye morbidity from onchocerciasis in all foci. As a result, in 2005 the evidence supporting the interruption of transmission in almost all foci was recognized and Ecuador, along with Mexico and Colombia, became a candidate for elimination.
By 2006 a localized endemic focus remained in northern Emeraldas Province, in the Santiago River basin, formed by the Cayapas, Santiago, and Onzole Rivers and their tributaries. Furthermore, there were five satellite foci in the same province resulting from the migration of the indigenous Chachi population, which was infected with onchocerciasis, from the main focus of infection up to the headwaters of the rivers Tululvi, Verde, Viche, Sucio, and Canandé. Parasitological and serological studies revealed the presence of onchocerciasis in two Tsachilas communities (Congoma and Chiguilpe) in the province of Santo Domingo de los Tschalias, but they were cases imported through migration and not indigenous.

In 2007 Mectizan® was distributed to 96% of the eligible population in the principal focus (Cayapa, Onzole, and Santiago) and in the satellite foci (Canandé, Sucio, Tululvi, Viche, Verde, and Santo Domingo de los Tschila), covering a population of 22,256. The latest entomological indicators remain at “zero,” thus confirming the interruption of transmission.

Again in 2007, the PCC (Program Coordinating Committee) recommended that the Ecuadorian MPH order the suspension of treatment in 35 communities along the Santiago River, having technically demonstrated the elimination of transmission.

We can therefore say that today, onchocerciasis—although a neglected disease affecting two forgotten ethnic groups for many years—is now on the verge of elimination in Ecuador.

6. PLAGUE

Over the past 10 years, 17 cases of plague have been reported in Ecuador in Chimborazo Province, 16 of which have been fatal, and the geographical distribution of these cases coincides with the natural foci (Table 2). Plague outbreaks have occurred in vulnerable indigenous populations in Guamote Canton, Chimborazo Province and have been linked to deficient housing and hygiene. They can recur during flooding.
Table 2. Reported Cases and Deaths from Plague, 1998-2008. Chimborazo-Ecuador.

<table>
<thead>
<tr>
<th>Years</th>
<th>Number of Cases</th>
<th>Number of deaths</th>
<th>Locality</th>
</tr>
</thead>
<tbody>
<tr>
<td>1998</td>
<td>13</td>
<td>12</td>
<td>Galte-Laime</td>
</tr>
<tr>
<td>1999</td>
<td>1</td>
<td>1</td>
<td>Saint Lucia Hardy</td>
</tr>
<tr>
<td>2004</td>
<td>2</td>
<td>2</td>
<td>San Pedro de Yacupamba</td>
</tr>
<tr>
<td>2008</td>
<td>1</td>
<td>1</td>
<td>Laime-San Carlos</td>
</tr>
</tbody>
</table>

Control Measures

Control measures have been applied in the area endemic for plague in Chimborazo, however with the appearance of the last case in March 2008, a comprehensive plan for prevention, control, and epidemiological surveillance has been developed in the Guamote health area. This intersectoral plan involves the Ministry of Education, the Polytechnic School of Chimborazo, Ministry of Housing, Ministry of Social Inclusion, Ministry of Agriculture and Livestock, the Provincial Council, the FISE, the “Leopoldo Izquieta Pérez” Institute of Hygiene, and the MPH’s Chimborazo Provincial Health Bureau. The object of this plan is to improve the living conditions of at-risk people and achieve behavioral changes through an education and communication component. It will also include strengthening the laboratories at the Guamote Hospital and the National Institute of Hygiene (INH) in Riobamba so they may conduct ongoing surveillance and epidemiological research on animals and humans.

7. YELLOW FEVER

Yellow fever is a disease subject to immediate and compulsory international reporting due to its epidemic potential. The Epidemiological Surveillance System recorded a major outbreak in 1997 in Pastaza Province, with 31 cases; from that time up to the year 2000 only isolated cases were reported, but no new cases have been confirmed in Ecuador since 2001.

Control Measures

Given the epidemiological situation of the past three years in countries north and south of Ecuador, in 1999 implementation of the following strategies began: the yellow fever vaccine was added to the EPI vaccination series; a contingency plan was developed, intensifying the vaccination of vulnerable populations and increasing coverage of children aged 1 and up. Active case finding is conducted as part of epidemiological surveillance, and the diagnostic capacity of the INH reference laboratory has been improved, given the importance of laboratory confirmation of this pathology.

In 2006, the rapid monitoring of urban and rural vaccination coverage intensified in the east in order to reach 100% of the high-risk population. Furthermore, some 100,000 doses were administered in Emeraldas. In 2005, 320,971 doses of vaccine were administered in the Santo Domingo de los Tsachilas Province, and in 2006 a total of 1,082,512 doses were administered in Manabi Province. In 2007, vaccinations were administered in communities located in the subtropical cantons of the mountainous provinces and 3,351,262 doses were administered in Guayas canton. The sentinel surveillance system is expected to improve the reporting of acute hemorrhagic febrile icteric syndrome linked with yellow fever.
8. CYSTICERCOSIS

The years 2001 and 2002 marked the greatest number of cases reported in the last decade: 259 and 281 respectively; in 2006, the number of reported cases increased over the three previous years and in 2007, 179 cases were reported, largely in the mountains. (Figure 7).

**Figure 7.** Reported Cases of Cysticercosis. Ecuador 1998-2007.

9. TAENIASIS

The number of cases reported by the MPH in 2003 and 2004 was 385 and 475, respectively, the highest in the last 10 years. In 2007, there was an increase in the number of cases reported (216). Although typically, the highest number of cases has occurred in the mountainous provinces, this year Sucumbíos Province (Amazon region) reported the highest number of cases (74).

Low case reporting of this pathology may be related to improvements in the sanitary conditions of pig farming. The country is considering further research, especially in endemic provinces. (Figure 5).

**Figure 8** Reported Cases of Taeniasis. Ecuador 1998-2007.

Source: 2008 Yearbook of Diseases subject to Epidemiological Surveillance. Subprocess of Epidemiology. MPH
10. INFLUENZA

Following the appearance of H5N1 influenza cases in Asia, PAHO/WHO began warning countries about the risk of a pandemic caused by a mutation in the H5N1 virus, and urged member countries to prepare contingency plans.

Ecuador is located in the flight path of migratory birds from North America and has wetlands that heighten its vulnerability. As part of risk response, the MPH set up a multidisciplinary working group and an Intersectoral Commission made up of representatives from the health, agriculture, and environment sectors, and from the poultry company and several cooperation agencies (PAHO, FAO, and USAID); the working group prepared the “Contingency Plan for a Potential Influenza Pandemic.”

The sentinel surveillance system began operations to identify the circulating human influenza virus; a “Surveillance Guide for ICD and SARI” was prepared using the CDC Generic Protocol; a training plan was developed to include the preparation and dissemination of educational materials and the training of educators and provincial personnel on containment measures and rapid response management; the diagnostic laboratory capacity has also been increased; and finally, work is under way on the publication of a phase-by-phase manual of rules and procedures.

Neglected diseases in neglected populations, especially zoonoses, pose a significant challenge to meeting the MDGs and the commitments taken on by the countries—challenges that still remain on the unfinished agenda of Alma-Ata on primary health care (1978). Furthermore, meeting the MDGs also implies improving the living and health conditions of neglected populations.

B. IDENTIFYING NEGLECTED DISEASES THAT REQUIRE MORE URGENT ATTENTION

Even though regionally, many of aforementioned diseases appear to be forgotten, Ecuador is using the latest scientific knowledge and the recommendations of international organizations specializing in this area to address them. Improving the living conditions of the neglected populations who are the most vulnerable to these diseases, as well as information, education, and communication for behavioral change is a challenge. Continued improvement in access to health services, epidemiological surveillance with community participation, and development of the diagnostic capability of laboratories will allow for better characterization of the situation of these diseases and the impact of interventions.

Influenza is among the diseases requiring urgent international and national attention; however, since it is known in the country, with support from international technical cooperation agencies the disease is receiving all the necessary attention. Leptospirosis is another priority, primarily in the wake of natural disasters from floods.

Greater support is required for leishmaniasis. The country has begun strengthening its epidemiological surveillance with more detailed data collection from the last five years; is guaranteeing free access to drugs for treating the disease; is improving the skills of health workers in terms of clinical diagnosis; and allocating funds to a project for strengthening control and surveillance of this disease. The allocation of resources and application of control measures, together with health actions tied to the implementation of plans to improve the living conditions of vulnerable communities, should lead us to a point in the medium term where this disease is no longer considered neglected.
Although we have made progress with the abovementioned diseases, the main challenges ahead are sustaining prevention and control activities, improving access to health care and health services, and enlisting intersectoral participation to improve the living conditions of vulnerable populations.

We are exposed to the effects of globalization, the risks of chaotic urban growth, natural disasters, and the impact of rising food prices, which is why the health response should also address these challenges.

Implementing the International Health Regulations and ensuring that countries comply with them are important for boosting surveillance and response capacity for these diseases and events, as a foundation for guaranteeing global health security.

**Linking Neglected Diseases to Health Promotion, Primary Care Coverage, Human Rights, Social Protection, Gender Equity, and Indigenous Health.**

Ecuador, like many countries in the Region of the Americas, has a large percentage of the population living in poverty or extreme poverty, which is one of the leading causes of inequalities in health status, access to public services, and living conditions, to which we must add the significant impact of rural migration to urban centers, natural disasters, the population explosion, and the presence of emerging and reemerging zoonotic diseases and others that affect the poorest members of society.

The successes with onchocerciasis and yellow fever in Ecuador have shown that implementing comprehensive plans and programs with intra- and intersectoral participation and promoting education, behavioral change, and active community participation will guarantee sustainable and successful control.

These plans should include the expansion of coverage with the primary health care strategy as a project shouldered by society as a whole and not just the government, thereby tying health to community projects and expectations (Moreira, Tognoni, Narváez 2008).

Furthermore, it is necessary to strengthen the structure of the health services and increase the number of trained personnel, as Ecuador’s Ministry of Health has done by forming basic comprehensive health service teams, which will make it possible to solve many of the problems identified primarily among groups living in poverty or critical poverty; to meet the objective of universality and guarantee the right to health for rural and marginal urban communities, indigenous and Afro-Ecuadorian groups, remote communities, and border communities with high levels of migration and refugees, who are the most vulnerable to these diseases. These actions should include medium- and long-term monitoring of both the problem and the people affected if they are to be truly effective (Moreira, Tognoni, Narváez 2008).

Plans to expand coverage should not simply guarantee access to the health services but should also permit access to the treatment of these diseases, which continue to be neglected because of their lower prevalence. Another important measure adopted by the national government has been its increase in the national health budget, a matter on which the government of Ecuador has been consistent and that will make it possible to ensure the delivery of comprehensive health services aimed at reducing preventable morbidity and mortality.

As mentioned earlier, all activities for controlling and eliminating forgotten diseases should entail multisectoral and participatory processes that guarantee the sustainability of these plans—a very important aspect.
C. In what policies can the Ministers of Health and Agriculture take the lead to ensure that the Millennium Development Goals related to health and care for forgotten diseases among neglected groups are met?

In order to guarantee achievement of the Millennium Development Goals, the ministries of health and agriculture, in a strong partnership, should promote hunger elimination and poverty reduction initiatives. Improving the production of quality food can lead to greater availability of animal protein, higher household income, and more job opportunities in rural areas. It is therefore important to ensure that the country has access to safe food in sufficient quantities (nutrients) to achieve and maintain adequate nutritional levels among the entire population, with greater emphasis on groups with fewer economic resources, thus improving the living conditions and health of the population. In addition, it is important to strengthen research activities to identify groups and risk factors to which reduction or elimination interventions can be targeted. Furthermore, as recommended by PAHO, it is imperative that all health-, nutrition- and education-related achievements in Ecuador be protected to continue moving toward this objective.

What intersectoral coordination activities should be considered and strengthened?

- Coordination among technical cooperation agencies in the health and agriculture sectors, with special attention to rural areas;
- Consolidation of existing partnerships between public and private sectors through livestock producer, food producer, and consumer associations, and others; forging of new partnerships with entities that represent the various segments of society to exercise shared responsibility;
- Greater joint efforts with PAHO/WHO Collaborating Centers, universities, and research institutions;
- Implementation of policy decisions reached at regional forums, with political support from the Member States;
- Development of organizational management capacity, chiefly at the local level;
- Upgrading of information and epidemiological surveillance systems and increasing the analysis and use of that information:
- Implementation and/or strengthening of systems for monitoring and evaluating policies, plans, and programs;
- Development of mass communication strategies for national, regional, and local initiatives.