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ELIMINATION OF NEGLECTED DISEASES AND OTHER POVERTY-RELATED INFECTIONS

Introduction

1. It is ethically imperative to eliminate infectious diseases for which cost effective tools exist and still afflict the poorest and marginalized people of the Region of the Americas. It is necessary to make a determined effort to go forward in eliminating or drastically reducing the burden and the inequality of these neglected and other poverty-related diseases by 2015.

2. In Latin America and the Caribbean, around 127 million people live in poverty, and this high figure helps to bring about a greater burden of some infectious diseases. Neglected diseases are often restricted to marginalized sections of the population, including the rural poor, slum residents, migrant workers, women, and indigenous people¹. The poor suffer a higher burden of parasitic and other diseases related to an insufficient access to drinking water, sanitation, adequate housing, education, and a lack of access to health services—for them, neglected diseases are both a cause and a consequence of poverty². Most of them cause chronic conditions that can reduce learning capabilities, productivity, and income earning capacity. A comprehensive approach will be required to address these diseases, ensuring access to existing diagnostic and treatment tools and establishing a multi-sectoral agenda that can address these diseases' social determinants. To achieve this goal, however, it is necessary to have a political commitment that ensures a greater availability of resources and international support.

¹ WHO. *Global Plan to Combat Neglected Tropical Diseases 2008-2015*. (WHO/CDS/NTD/2007.3) Geneva: WHO, 2007.

² Hotez Peter. Hookworm and poverty. *Annals of the New York Academy of Sciences* (1136):38-44, 2008.

3. This document aims to call Member States to action in strengthening the efforts to eliminate selected poverty-related, infectious diseases that have already been addressed in previous global or regional resolutions, but that remain as public health problems in the Region.

Background

4. Member States have expressed their political commitment to address public health problems that can be eliminated or drastically reduced through the approval of various mandates and resolutions. Among these are resolutions on: leprosy (1991³), onchocerciasis (1991⁴ and 2008⁵), lymphatic filariasis (1997⁶), Chagas' disease (1998⁷), congenital syphilis (1995⁸), trachoma (1998⁹), schistosomiasis and soil-transmitted helminthiasis (2001¹⁰), human rabies transmitted by dogs (2008¹¹), malaria (2000¹² 2005¹³), and neonatal tetanus (1989¹⁴).

5. This commitment is also reflected in PAHO's Strategic Plan 2008-2012, which proposes fighting the communicable diseases that unduly affect poor and marginalized

³ World Health Organization. Resolution WHA44.9. Elimination of leprosy. 44th World Health Assembly. Geneva: WHO; 1991.

⁴ Pan American Health Organization. Resolution CD35.R14. Status of the eradication/elimination of certain diseases from the Region. XXXV Directing Council of the Pan American Health Organization. Washington, DC: PAHO; 1991.

⁵ Pan American Health Organization. Resolution CD48/10. Toward the elimination of onchocerciasis (River Blindness) in the Americas. XLVIII Directing Council of the Pan American Health Organization. Washington, DC: PAHO; 2008.

⁶ World Health Organization. Resolution WHA50.29. Elimination of lymphatic Filariasis as a public health problem. Fiftieth World Health Assembly. Geneva: WHO; 1997.

⁷ World Health Organization. Resolution WHA51.14. Elimination of transmission of Chagas Disease. Fifty first World Health Assembly. Geneva: WHO; 1998.

⁸ Pan American Health Organization. Resolution CD38.R8. Elimination of Congenital Syphilis in the Americas. Thirty-eighth Directing Council. Washington, DC: PAHO; 1995.

⁹ World Health Organization. Resolution WHA51.11. Global elimination of blinding trachoma. 51st World Health Assembly. Geneva: WHO; 2001.

¹⁰ World Health Organization. Schistosomiasis and Soil-transmitted Helminth Infections. WHA54.19. 54th World Health Assembly. Geneva: WHO; 2001.

¹¹ Pan American Health Organization. 15th Inter-American meeting at ministerial level on health and agriculture (RIMSA): "Agriculture and health: alliance for equity and rural development in the Americas". Resolution CD48.R13. Forty-eighth Directing Council. Washington DC: PAHO; 2008.

¹² Pan American Health Organization. Resolution CD42.R15. Roll Back malaria in the Region of the Americas. Forty-second Directing Council. Washington DC: PAHO; 2000.

¹³ World Health Organization. Resolution WHA58.2. Malaria Control. Fifty-eighth World Health Assembly. Geneva: WHO; 2005.

¹⁴ World Health Organization. Resolution WHA 42.32. Expanded Programme on Immunization. 42nd World Health Assembly. Geneva: WHO; 1989.

populations in the Americas.¹⁵ Furthermore, the recently prepared Health Agenda of the Americas, 2008-2017, calls for reducing the burden of certain communicable diseases that disproportionately affect the poor.

6. The Region of the Americas has had much experience in successfully putting in place elimination and eradication strategies for diseases such as smallpox, polio, and measles. And, thanks to the efforts of Member States, some neglected diseases have come close to being eliminated. For example, encouraging advances have been made in eliminating lymphatic filariasis, whose transmission may have been interrupted in three of the seven endemic countries, and important progress has been attained in the remaining foci. In terms of onchocerciasis, the goal of reaching at least 85% treatment coverage of the at-risk population has been attained in all 13 foci in the 6 endemic countries. In the last two years, transmission has been interrupted in six of the foci, and no new cases of blindness caused by onchocerciasis have been reported in the Region since 1995. In regard to human rabies transmitted by dogs, cases have been reduced by 93% over the past 20 years, and some 45 million dogs are vaccinated every year in endemic countries. Neonatal tetanus has been reduced to such a low level that the disease no longer represents a public health problem in Latin America and the Caribbean, except in Haiti. Vector-borne transmission by the main vectors of Chagas' disease has been interrupted in Uruguay, Brazil, Chile, Paraguay, and some provinces in Argentina, as well as in Guatemala's previously endemic areas; the disease also has been reduced in four other Central American countries. Most Latin American countries are close to reaching the goal of screening for Chagas' in 100% of their blood banks. Finally, the elimination of leprosy as a public health problem has been reached in all Latin American and Caribbean countries, except for Brazil.¹⁶

7. There is broad technical consensus that there are available tools and strategies to combat several neglected tropical diseases that have been included in WHO's 2008-2015 Global Plan to Combat Neglected Tropical Diseases;¹⁷ PAHO is implementing the plan's lines of action.

8. Global donor support to fight neglected diseases and other poverty-related infections has increased recently. Highlights among them include US\$ 350 million from the United States Presidential Initiative for Neglected Tropical Disease Control of 2008

¹⁵ Organización Panamericana de la Salud. *Plan Estratégico 2008-2012*. OPS, Documento Oficial No. 328, Washington DC:PAHO; 2007.

¹⁶ PAHO/HSD/CD. Epidemiological Profiles of Neglected Diseases and Other Infections Related to Poverty in Latin America and the Caribbean. Presented at the Consultation on a Latin American and Caribbean Trust Fund for the Prevention, Control and Elimination of Neglected and Other Infectious Diseases. Washington, DC, 15-16 December 2008. Available at: http://new.paho.org/hq/index.php?option=com_joomlabook&Itemid=259&task=display&id=37

¹⁷ World Health Organization. *Global Plan to Combat Neglected Tropical Diseases 2008-2015*. (WHO/CDS/NTD/2007.3) Geneva: WHO, 2007.

and a grant for \$34 million from the Bill and Melinda Gates Foundation in 2009 to reduce the burden of the most prevalent neglected tropical diseases. These contributions will add force to ongoing efforts such as grants, pharmaceutical donations that are part of bilateral cooperation initiatives, and other sorts of support of the countries' efforts.

9. Reducing the health, social, and economic burden of communicable diseases, including that of neglected diseases and other infectious diseases related to poverty, involves partnerships with other actors and consultations with stakeholders and communities. To this end, in 2008 PAHO joined hands with the Inter-American Development Bank (IDB) and the Global Network for Neglected Tropical Diseases/Sabin Institute to prepare a proposal establishing a trust fund to support the elimination of neglected and other infectious diseases related to poverty at the country level. This proposal was discussed with technical partners and some countries in a meeting held on 15-16 December 2008 at PAHO headquarters in Washington, DC.

Situation analysis and preliminary selection of diseases

Situation Analysis

10. Despite important achievements reached in recent years, a considerable number of people in Latin America continue to be at risk for some of these diseases. A preliminary study that analyzed the situation of 10 selected neglected diseases, which compiled information from secondary sources, found that neglected diseases occur to some degree or another in every Latin American and Caribbean country. The most prevalent are soil transmitted helminthiasis, with an estimated 26 million school-aged children at risk, followed by schistosomiasis (25 million at risk), and lymphatic filariasis (11 million at risk). The study also concluded that there is a considerable amount of available information for most of the neglected diseases, although additional baseline studies that use standardized criteria are still needed.¹⁸

11. For example, an estimated nine million people are chronically infected with Chagas' disease, and there are 40,000 new cases of the disease each year. Chagas' disease occurs in 21 of the Region's countries, affecting mainly rural residents and indigenous people.

12. Lymphatic filariasis occurs in four countries, with up to 11 million persons at risk of infection (90% of Haiti's population is considered at-risk). In Haiti and the Dominican

¹⁸ PAHO. Epidemiological Profiles of Neglected Diseases and Other Infections Related to Poverty in Latin America and the Caribbean. Presented at the Consultation on a Latin American and Caribbean Trust Fund for the Prevention, Control and Elimination of Neglected and Other Infectious Diseases. Washington, DC, 15-16 December 2008. Available at: http://new.paho.org/hq/index.php?option=com_joomlabook&Itemid=259&task=display&id=37

Republic, the disease mainly affects African-descendant populations living in low-income areas.

13. Onchocerciasis has occurred in 13 foci in 6 countries in the last 3 years. An estimated 500,000 people are at risk in the Region, with the largest concentration residing in remote communities in southern Venezuela along the border between that country and Brazil, and in northern Guatemala and southern Mexico. The disease mostly affects indigenous populations and African descendants living in rural or mountainous areas.

14. There are 25 countries in the Region where leprosy has been found in the last three years. In 2007, 49,388 cases of leprosy were reported in the Americas, and 42,000 new cases were detected, most of them in Brazil.

15. There is evidence of trachoma having occurred in three of the Region's countries in the last 10 years. About 7,000 cases have been identified, mostly in Brazil; it should be noted, however, that Brazil is the only country that conducts national prevalence surveys for this disease. Trachoma has been confirmed in Brazil's border states, which makes it necessary to conduct prevalence studies in neighboring countries. Trachoma related blindness is two to four 4 times higher in women than in men.¹⁹

16. The current number of cases of human rabies transmitted by dogs is low, around 16 cases per year, but the risk persists because the virus continues to circulate among canine populations. One or more human cases have been reported in 11 countries in the past 3 years; most of them occurred in poor neighborhoods in the outlying areas of large cities, mostly in Haiti and Bolivia.

17. Neonatal tetanus has been eliminated as a public health problem in all Latin American and Caribbean countries except Haiti, which reports up to 60% of the total number of cases in Latin America every year. In the past three years, the disease's rates in 16 countries have been low enough so that neonatal tetanus is not considered to be a public health problem.

18. There is a scarcity of information on the incidence of congenital syphilis in Latin America and the Caribbean. In 15 countries with available information, 7 report incidence rates above 0.5 cases per 1,000 live births, which is a level considered to be a public health problem.

19. There are 21 malaria-endemic countries in the Region. Some countries have low endemicity (fewer than one case per 1,000 population per year) and well established foci. All Caribbean countries reached malaria elimination due to local epidemiological

¹⁹ Courtright P, West S K. Contribution of sex-linked Biology and Gender Roles to Disparities with Trachoma. *Emerging Infectious Disease*. 2004; 10 (11): 2012-6.

characteristics, except Haiti and the Dominican Republic. In the latter two countries, 26,000 cases were reported in 2007 (90% of them in Haiti), which creates an ongoing risk of exporting the disease to other islands.

20. Schistosomiasis is present in four of the Region's countries. Around 25 million people are estimated to live at risk in the Americas, most of them living in Brazil's coastal states; around 1 to 3 million people are estimated to be infected. The occurrence of the disease has not been confirmed in previously endemic countries in the last 10 years; studies must be conducted to confirm its elimination, however.

21. It is estimated that soil-transmitted helminths are present in all countries in the Region. Regional estimates of the number of school-age children at risk morbidity due to soil-transmitted helminths indicate that some 26 million of these children in Latin America and the Caribbean may need to be dewormed each year.

22. Plague foci occur in five countries in the Region, where the disease persists in wild rodents and where human cases occasionally occur (Bolivia, Brazil, Ecuador, Peru, and the United States). The majority of cases in Latin America in the last five years occurred in Peru (93%); in 2007, all 10 cases reported occurred in Peru. In Latin America, plague occurs in rural populations living in extreme poverty, and in natural foci.

23. *Other diseases.* Leishmaniasis is endemic in many Latin American countries, and the disease is spreading in the Region. The disease's natural history and determinants are well known, but available tools are ineffective and drugs have serious side effects, require intense monitoring, and are not well tolerated. Leptospirosis also is spreading, as a result of an increase in floods due to natural disasters and climate change. Cysticercosis, echinococcosis, and other parasitic diseases also occur in Latin America, but there is not enough data—including a lack of baseline prevalence data—to support elimination goals including lack of baseline prevalence data.

24. The diseases highlighted in the previous paragraphs unduly affect vulnerable populations. And, although not enough gender-sensitive research has been conducted, some studies point out that women suffer a higher burden. Culturally determined distribution of work and duties leave women more exposed to risk factors, resulting in a higher prevalence of the disease among them. Moreover, barriers in access to health care or preventive services and stigma and discrimination that more often affect women result in worse consequences of the disease for women.^{20,21,22} Clearly, more information is needed on how neglected diseases differentially affect other vulnerable populations.

²⁰ Vélez I D, Hendrickx E. Leishmaniosis cutanea en Colombia y género. *Cad. Saúde Pública.*, 2001; 17(1): 171-180, jan-fev, 2001.

²¹ Hartigan P. Enfermedades transmisibles, género y equidad en la salud. Organización Panamericana de la Salud. Publicación Ocasional No.7. 2001.

Cost-effectiveness

25. Cost-effective interventions have been developed and successful control has been achieved for some neglected diseases and other poverty-related diseases. For Chagas' disease, for example, studies on the efficiency of control methods suggest an internal rate of return of nearly 30% in Brazil and more than 60% in the province of Salta, Argentina; for lymphatic filariasis the cost-effectiveness of three major integrated strategies was estimated in different scenarios with very good results in terms of disability adjusted life years (DALYs)²³ saved.²⁴

26. The per capita health-care cost of neglected disease control is modest in absolute terms and in relation to the per capita total health expenditure.²⁵ If living conditions are to be improved in the geo-political areas that have been identified as "hot spots" for neglected diseases (priority areas for interventions because of their epidemiological and socioeconomic status) and if these improvements are to be long-lived, it will be necessary to enter into partnerships to address the social determinants of neglected diseases and other diseases related to poverty, such as access to drinking water and sanitation, adequate housing, and education.

Definition of diseases and criteria for preliminary selection

27. The elimination of a disease—a reduction to zero of the incidence of a given disease in a defined geographic area as a result of deliberate efforts, with continued intervention measures being required;²⁶ elimination of a disease as a public health problem—drastically reducing the disease's burden to a level that is acceptable given the current tools available and the Region's health situation. At this level, the prevalence of the disease does not constrain social productivity and community development.

²² Courtright P, West S K. Contribution of sex-linked Biology and Gender Roles to Disparities with Trachoma. *Emerging infectious Disease*. 2004; 10 (11): 2012-6.

²³ DALYs for a disease or health condition are calculated as the sum of the years of life lost (YLL) owing to premature mortality in the population and the years lost through disability (YLD) for incident cases of the health condition. [http://www.who.int/whr/2004/en/report04_en.pdf].

²⁴ Remme J H F, Feenstra P, Lever PR et al. Tropical diseases targeted for elimination : Chagas disease, Lymphahtic filariasis, onchocerciasis, and leprosy. In Jamison D T, Breman Jg, Measham A R et al. *Disease Control Priorities in Developing Countries* 2ed. Oxford University Press and the World Bank, 2006.

²⁵ Bitrán, Ricardo. *Regional Study to Estimate the Cost of Preventing, Controlling, and Eliminating Selected NTDs in the Americas*. Presented at the Consultation on a Latin American and Caribbean Trust Fund for the Prevention, Control and Elimination of Neglected and Other Infectious Diseases. Washington, DC, 15-16 December 2008. Available at: http://new.paho.org/hq/index.php?option=com_content&task=view&id=1231&Itemid=259.

²⁶ WHO. *Global disease elimination and eradication as public health strategies*. Proceedings of a conference held in Atlanta, GA, 23-25 February 1998. Bulletin of the World Health Organization, 1998, 76 (2): 22–25.

Achievable goals have been established for each disease. In this document, both definitions will be used to select the diseases targeted for elimination, according to previous global and regional mandates.

28. The following criteria were considered in selecting the diseases that could feasibly be eliminated or drastically reduced in the Region: (a) the unfinished agenda—diseases that already had been priority targets for elimination and for which, despite progress made, some areas lagged behind; (b) technical feasibility—including the availability of knowledge and tools for structuring interventions to interrupt or reduce transmission; (c) regional evidence of achievable elimination—existence successful regional experiences in accomplishing elimination at country or sub-national levels; (d) economic criteria—including relatively low unit cost of interventions and demonstrated cost-effectiveness; (e) unequal burden of disease—wherein the more vulnerable populations (such as indigenous and Afro-descendant populations, women, and children who have been historically excluded) suffer from a higher prevalence and social consequences of these diseases, thus perpetuating the cycle of poverty; (f) political relevance—the diseases must be recognized as being of public health importance with a broad international appeal, which could be expressed through existing resolutions approved by the World Health Assembly or PAHO's Directing Council; (g) best practices—including those utilized in primary health care, well-accepted interventions such as mass preventive chemotherapy and high-coverage vaccination campaigns, integrated approaches for vector-borne diseases, and local projects with community participation to improve health through inter-sectoral action. These examples of best practices have already been developed in the Region and will provide the basis for the scale-up of local and national proposals for disease elimination.

29. The selected diseases can be divided into two groups—those with greater potential for being eliminated, and those that can be drastically reduced with available tools. The following paragraphs show the diseases in each group.

30. **Group 1**, diseases that have a greater potential for being eliminated: 'Chagas' disease (vector-borne and transfusional transmission, both as a public health problem); congenital syphilis (as a public health problem); lymphatic filariasis (as a public health problem); onchocerciasis; rabies transmitted by dogs; neonatal tetanus (as a public health problem); trachoma (as a public health problem); leprosy (as a public health problem at the national and first subnational level); malaria (elimination in Haiti and the Dominican Republic and in Mexico and Central America); plague (as a public health problem).

31. **Group 2**, diseases whose burden can be drastically reduced with available tools: schistosomiasis and soil-transmitted helminthiasis.

32. For other infectious diseases, such as leishmaniasis and leptospirosis, the burden of the disease needs to be further assessed, tools need to be developed, and methods and strategies for achieving cost-effective control need to be established. For these diseases and for others that have epidemiological relevance to some of the Region's countries, more operational research needs to be conducted, new tools need to be assessed, and surveillance systems need to be improved, mainly in terms of the current technical capacity in the Region's research centers.

33. Annex A lists the countries where Group 1 and Group 2 diseases occur; Annex B shows these diseases' current situation, as well as possible goals and strategies.

Framework for eliminating neglected diseases and other diseases related to poverty

34. The public health strategies that are used to eliminate or reduce diseases to acceptable levels go beyond routine control measures. In order to strengthen the efforts against diseases related to poverty as a group, Member States could develop integrated plans under the same framework, while considering the following:

- (a) Available plans at the global, Regional, or country level to eliminate or control these diseases.
- (b) Available guidelines for the selected diseases to support the countries in achieving the goals of elimination or control.
- (c) Available tools such as drugs and diagnostic techniques to support surveillance systems.
- (d) Evidence-based decisions for strengthening health surveillance systems, mapping the diseases to identify remaining foci, and identifying overlapping of diseases in geopolitical areas ("hot spots") for integrated action.
- (e) Reducing gaps in tool-ready neglected diseases among areas in the Region.
- (f) Ensuring that the necessary resources are available for the primary care system to help reduce inequalities in health.
- (g) Pursuing inter-programmatic interventions that integrate the various plans into a comprehensive vision based on the social determinants of each area identified for intervention ("hot spot"); interventions should tackle the factors and mechanisms through which social conditions affect the community's health and where possible, address them through social and health policies.
- (h) Pursuing community participation and intersectoral partnerships: the community, stakeholders and all actors and potential partners within and outside the health sector should be enlisted to make actions sustainable.

- (i) Pursuing horizontal cooperation: identify which countries share problems or borders where the selected diseases occur, to promote joint actions and inter-country plans.
- (j) The increased in donor support from global partners in the fight against neglected diseases and other infections related to poverty.

Action by the Executive Committee

35. The Executive Committee is invited to examine the technical document for the Elimination of Neglected Diseases and other Poverty-Related Infections and approve the annexed resolution.

Annexes

Presence of neglected diseases and other infections related to poverty, by country, and total number of countries where each disease occurs in Latin America and the Caribbean, according to the criteria set forth below²⁷

Country	Disease											
	Chagas' Disease	Congenital syphilis	Human rabies transmitted by dogs	Leprosy	Lymphatic filariasis	Malaria	Neonatal tetanus	Onchocerciasis	Plague	Schistosomiasis	Soil- transmitted helminthiasis	Trachoma
Anguilla	-	...	-	-	-	-	-	-	-	-	X	-
Antigua and Barbuda	-	...	-	-	-	-	-	-	-	-	X	-
Argentina	X	X	X	X	-	X	X	-	-	-	X	-
Aruba	-	...	-	-	-	-	-	-	-	-	X	-
Bahamas	-	X	-	-	-	-	-	-	-	-	X	-
Barbados	-	...	-	-	-	-	-	-	-	-	X	-
Belize	X	X	-	-	-	X	-	-	-	-	X	-
Bolivia	X	X	X	X	-	X	X	-	- ^b	-	X	-
Brazil	X	X	X	X ^a	X	X	X	X	X	X	X	X
Cayman Islands	-	...	-	-	-	-	-	-	-	-	X	-
Chile	X	X	-	-	-	-	-	-	-	-	X	-
Colombia	X	X	X	X	-	X	X	X	-	-	X	-
Costa Rica	X	X	-	X	-	X	-	-	-	-	X	-
Cuba	-	X	X	X	-	-	-	-	-	-	X	-
Dominica	-	...	-	-	-	-	-	-	-	-	X	-
Dominican Republic	-	X	X	X	X	X	X	-	-	-	X	-
Ecuador	X	X	-	X	-	X	X	X	X	-	X	-
El Salvador	X	X	X	X	-	X	X	-	-	-	X	-
French Guiana	X	...	-	-	-	X	-	-	-	-	X	-
Grenada	-	...	-	-	-	-	-	-	-	-	X	-
Guadeloupe	-	...	-	-	-	-	-	-	-	-	X	-
Guatemala	X	X	X	X	-	X	X	X	-	-	X	X
Guyana	X	X	-	X	X	X	-	-	-	-	X	-
Haiti	-	X	X	X	X	X	X ^a	-	-	-	X	-
Honduras	X	X	-	X	-	X	X	-	-	-	X	-
Jamaica	-	X	-	X	-	-	-	-	-	-	X	-
Martinique	-	...	-	-	-	-	-	-	-	-	X	-
Mexico	X	X	-	X	-	X	X	X	-	-	X	X
Montserrat	-	...	-	-	-	-	-	-	-	-	X	-
Netherlands Antilles	-	...	-	-	-	-	-	-	-	-	X	-
Nicaragua	X	X	-	X	-	X	X	-	-	-	X	-
Panama	X	X	-	X	-	X	X	-	-	-	X	-
Paraguay	X	X	-	X	-	X	X	-	-	-	X	-
Peru	X	X	X	X	-	X	X	-	X	-	X	-

²⁷ PAHO/HSD/CD. Epidemiological Profiles of Neglected Diseases and Other Infections Related to Poverty in Latin America and the Caribbean. Presented at the Consultation on a Latin American and Caribbean Trust Fund for the Prevention, Control and Elimination of Neglected and Other Infectious Diseases. Washington, DC, 15-16 December 2008. Available at: http://new.paho.org/hq/index.php?option=com_joomlabook&Itemid=259&task=display&id=37.

Country	Disease											
	Chagas' Disease	Congenital syphilis	Human rabies transmitted by dogs	Leprosy	Lymphatic filariasis	Malaria	Neonatal tetanus	Onchocerciasis	Plague	Schistosomiasis	Soil-transmitted helminthiasis	Trachoma
Saint Kitts and Nevis	-	...	-	-	-	-	-	-	-	-	X	-
Saint Lucia	-	...	-	X	-	-	-	-	-	X	X	-
Saint Vincent and the Grenadines	-	...	-	-	-	-	-	-	-	-	X	-
Suriname	X	...	-	X	-	X	-	-	-	X	X	-
Trinidad and Tobago	-	X	-	X	-	-	-	-	-	-	X	-
Turks and Caicos Islands	-	...	-	-	-	-	-	-	-	-	X	-
Uruguay	X	X	-	X	-	-	-	-	-	-	X	-
Virgin Islands (UK)	-	...	-	-	-	-	-	-	-	-	X	-
Virgin Islands (USA)	-	...	-	-	-	-	-	-	-	-	X	-
Venezuela	X	X	X	X	-	X	X	X	-	X	X	-
Total number of Latin American and Caribbean countries where the diseases occur	21	25	11	24	4	21	16	6	3	4	All	3

^a In these countries, the disease is only present as a public health problem

^b Previously endemic area

- No evidence ... No information

Criteria:

Chagas' disease:	Evidence of any type of transmission in the last 10 years. (1998-2007)
Schistosomiasis:	Evidence of the disease in the last 10 years (1998-2007)
Lymphatic filariasis:	Evidence of the disease in the last 3 years (2005-2007)
Soil-transmitted helminths:	Evidence of the disease in the last 10 years (2005-2007)
Leprosy:	Evidence of the disease in the last 3 years (2005-2007)
Onchocerciasis:	Evidence of the disease in the last 3 years (2005-2007)
Human rabies transmitted by dogs:	Evidence of the disease in the last 3 years (2006-2008)
Trachoma:	Evidence of the disease in the last 10 years (1998-2007)
Neonatal tetanus:	Evidence of the disease in the last 3 years (2005-2007)
Congenital syphilis:	Evidence of the disease in the last 3 years (2005-2007)
Malaria	Evidence of continuous local transmission in the last 5 years
Plague	Evidence of the disease in the last 3 years (2006-2008)

Epidemiological situation, elimination goals, and primary elimination strategies for selected neglected diseases and other infections related to poverty.²⁸

GROUP 1: Diseases that have a greater potential for being eliminated (with available cost-effective interventions)			
Disease	Epidemiological situation	Goals	Primary strategy
Chagas' disease	– There was evidence of transmission in 21 countries of Central and South America. – It is estimated that 8 to 9 million people are currently infected. – 40,000 new cases of vector-borne transmission per year. – Vector-borne transmission by the main vectors has been interrupted in several countries (Uruguay, Chile and Brazil, Guatemala) and areas (Argentina and Paraguay). – Most countries in Latin America are close to reaching the goal of implementing screening for Chagas in 100% of their blood banks.	– To interrupt domestic vector-borne transmission of <i>T. cruzi</i> (less than 1% vector-borne transmission, measured by negative seroprevalence in children up to five years of age and less than 1% of seropositive mothers). – To interrupt transfusional transmission of <i>T. cruzi</i> (100% blood screening coverage).²⁹	– To eliminate vectors in the home with the application of insecticide. – Environment management programs. – Information/Education/Communication (IEC). – Screening of blood samples in blood banks to avoid transmission by blood transfusion. – Screening of pregnant women and treatment to avoid congenital transmission. – Good practices on food preparation to avoid oral transmission.

²⁸ PAHO/HSD/CD. Epidemiological Profiles of Neglected Diseases and Other Infections Related to Poverty in Latin America and the Caribbean. Presented at the Consultation on a Latin American and Caribbean Trust Fund for the Prevention, Control and Elimination of Neglected and Other Infectious Diseases. Washington, DC, 15-16 December 2008. Available at: http://new.paho.org/hq/index.php?option=com_joomlabook&Itemid=259&task=display&id=37.

²⁹ Based on: WHO. *Elimination of transmission of Chagas Disease*. WHA51.14. Fifty-first World Health Assembly. 1998.

GROUP 1: Diseases that have a greater potential for being eliminated (with available cost-effective interventions)			
Disease	Epidemiological situation	Goals	Primary strategy
Congenital syphilis	– It is estimated that 250,000 cases of congenital syphilis occur each year in the Region. – In a 2006 survey, 14 countries reported the incidence of congenital syphilis in live births, with a range varying from 0.0 cases per 1,000 live births in Cuba to 1.56 in Brazil.	– To eliminate congenital syphilis as a public health problem (less than 0.5 cases per 1,000 live births).³⁰	– Obligatory notification of syphilis and congenital syphilis for pregnant women. – Universal blood screening during the first prenatal visit (<20 weeks,) during the third trimester, during labor, and following stillbirth and abortion/miscarriage. – Timely and adequate treatment for all expectant mothers with syphilis, and the same for spouses and newborns.
Human rabies transmitted by dogs	– The disease has been present in 11 countries in the past 3 years. – Even though the number of human cases is low (16 in 2008) due to country efforts, the number of people who live in risk areas due to rabies in dogs is still high. – The majority of the cases occurred in Haiti and Bolivia.	– To eliminate human rabies transmitted by dogs (zero cases reported to the Epidemiological Surveillance System for Rabies (SIRVERA) coordinated by PAHO).³¹	– Vaccination of 80% of the canine population in endemic areas. – Care given to 100% of the exposed population at risk with post-exposure prophylaxis when indicated. – Epidemiological surveillance. – Education and communication to increase awareness of the risk of rabies.

³⁰ Based on: OPS. *Plan de Acción para la eliminación de la sífilis congénita*. 116.^a Reunión del Comité Ejecutivo. CE116/14. OPS, 1995.

³¹ Based on: PAHO. *15th Inter-American Meeting at the Ministerial Level on Health and Agriculture (RIMS)*: “Agriculture and Health: Alliance for Equity and Rural Development in the Americas”. CD48.R13. Forty-eighth Directing Council.

GROUP 1: Diseases that have a greater potential for being eliminated (with available cost-effective interventions)			
Disease	Epidemiological situation	Goals	Primary strategy
Leprosy	– There are 24 countries where the disease has been present in the last three years. – Only in Brazil did the national prevalence not reach the “elimination as a public health problem” goal of fewer than one case per 10,000 population. – In 2007, 49,388 cases of leprosy were reported in the Americas, and 42, 000 new cases were detected. – In the same year, 3,400 new cases (8% of the total) were detected with grade-2 disability.	– To eliminate leprosy as a public health problem (less than 1 case per 10,000 people) from the first sub-national political/administrative levels.^{32,33}	– Intensified surveillance of contacts. – Treatment with timely multi-drug therapy in at least 99% of all patients. – Define the appropriated introduction of chemoprophylaxis. – Early detection of grade-2 disabilities.

³² Based on: WHO. Adoption of Multidrug Therapy for Elimination of Leprosy as a Public Health Problem. Forty-fourth World Health Assembly. WHA44.9. Geneva: WHO, 1991.

³³ Based on: WHO. Guide to Eliminate Leprosy as a Public Health Problem. Geneva: WHO, 2000.

GROUP 1: Diseases that have a greater potential for being eliminated (with available cost-effective interventions)			
Disease	Epidemiological situation	Goals	Primary strategy
Lymphatic filariasis	– The disease is present in Brazil, the Dominican Republic, Guyana, and Haiti. – It is estimated that up to 11 million people are at risk of infection. – The population most at-risk is in Haiti (90%).	– To eliminate the disease as a public health problem (less than 1% prevalence of microfilaria in adults in sentinel sites and spot-check sites in the area). – Interrupt its transmission (no children between ages 2 and 4 are antigen-positive). – To prevent and control disability.³⁴	– Mass drug administration (MDA) once a year for at least 5 years with coverage of no less than 75% or consumption of diethylcarbamazine (DEC)-fortified table salt in the daily diet. – Surveillance of LF morbidity by local health surveillance systems. – Morbidity case management. – Integration/coordination of MDA with others strategies. – Communication strategies and education in schools.
Malaria	– There are 21 malaria-endemic countries in the Region. – Some countries, such as Paraguay and Argentina, are of low endemicity (fewer than one case per 1,000 population at risk) and have well established foci. – In the Caribbean, only Haiti and the Dominican Republic are considered endemic, reporting approximately 26,000 cases in 2007 (90% in Haiti).	– To eliminate malaria in areas where interruption of local transmission is feasible (Argentina, the Dominican Republic, Haiti, Mexico, Paraguay, and Central America).³⁵ – Elimination (zero local cases for 3 consecutive years); pre-elimination (slide positivity rate = < 5 % and <1 case / 1,000 population at risk).³⁶	– Prevention, surveillance, early detection and containment of epidemics. – Integrated vector management. – Prompt diagnosis and appropriate treatment of cases. – Intensive pharmacovigilance of possible resistance to treatment and use of results in definition of treatment policy. – Strengthening of primary health care and integration of prevention and control efforts with other health programs. – Community participation.

³⁴ Based on: WHO. Monitoring and epidemiological assessment of the programme to eliminate lymphatic filariasis at implementation unit level. Geneva: WHO; 2005.

³⁵ Based on: PAHO. Malaria: Progress Report. 142nd Session of the Executive Committee. CE142/16. PAHO. 2008.

GROUP 1: Diseases that have a greater potential for being eliminated (with available cost-effective interventions)			
Disease	Epidemiological situation	Goals	Primary strategy
Neonatal tetanus	– The disease has been present in lower rates in 16 countries in the past 3 years. – A total of 63 cases were reported in 2007 (38 in Haiti). – It has been eliminated as a public health problem in all Latin American and Caribbean countries except Haiti.	– To eliminate the disease as a public health problem (fewer than 1 case per 1,000 newborns per year in a municipality or district).³⁷	– Immunization of women of childbearing age with tetanus toxoid. – Identification of high risk areas. – Adequate surveillance. – Clean delivery and post-delivery practices.
Onchocerciasis	– It is estimated that 500,000 people are at risk in the Region. – 13 foci exist in Brazil, Colombia, Ecuador, Guatemala, Mexico, and Venezuela. – In 6 foci, transmission appears to have been interrupted following massive drug administration with a coverage of at least 85% of the eligible population. – They are currently undergoing a three-year post-treatment surveillance prior to certification of elimination.	– To eliminate ocular morbidity and to interrupt transmission.^{38,39}	– Mass drug treatment administration at least twice a year in order to reach at least 85% of the eligible population in each endemic area. – Surveillance for signs of ocular morbidity, microfilaria, nodules. – Dermatological care through the primary health care system in areas where skin infection is a problem.

³⁶ Based on: WHO. *Global Malaria Control and Elimination: Report of a Technical Review*. 17-18 January, 2008. WHO. 2008. p.9.

³⁷ Basado en: Organización Panamericana de la Salud. *Neonatal Tetanus Elimination: Field Guide*, Second edition. Scientific and Technical Publication No. 602, Washington, D.C., 2005.

³⁸ Based on: PAHO. *Toward the Elimination of Onchocerciasis (River Blindness) in the Americas. (CD48/10)*. Forty-eighth Directing Council of the Pan American Health Organization. Washington, DC: PAHO; 2008.

³⁹ Based on: WHO. Certification of elimination of human onchocerciasis: criteria and procedures. Guidelines. WHO; 2001.

GROUP 1: Diseases that have a greater potential for being eliminated (with available cost-effective interventions)			
Disease	Epidemiological situation	Goals	Primary strategy
Plague	– The disease is present in wild foci in 5 countries with sporadic cases: Bolivia (no reported cases during last 10 years), Brazil, Ecuador, Peru and United States. – Currently the number of cases throughout Latin America is low (around 12 cases per year). – Most of the cases reported are in Peru. – Very few are fatal. – The cases usually occur in small rural villages with extreme poverty.	– To eliminate as a public health problem (zero mortality cases and avoid domiciliary outbreaks).	– Early detection and timely case management. – Surveillance of the wild foci. – Housing and sanitation improvements. – Rodent and vector control. – Intersectoral programs for improvement for storage of crops. – Adequate elimination of agricultural waste. – Extra household installations for farming the “cuyes” (type of guinea pigs used for food consumption).
Trachoma	– There is evidence of the presence of the disease in Brazil, Guatemala, and Mexico. – Foci have been confirmed in Brazilian border states but no data was found for neighboring countries. – It is estimated that around 50 million people live in areas at-risk and about 7,000 cases have been identified, mostly in Brazil.	– To eliminate new cases of blindness caused by trachoma (reduction of follicular trachomatous to less than 1 case per 1000 adults and less than 5% prevalence in children (1-9 years)).^{40,41}	– The “SAFE” strategy is used with the following components: • To prevent blindness through eyelid surgery to correct the inversion or entropion of the upper eyelid and trichiasis. • To reduce the transmission in endemic areas by washing of the face and by using antibiotics.

⁴⁰ Based on: WHO. Report of the Global Scientific Meeting on Future Approaches to Trachoma Control. Geneva: WHO; 1996. p. 4-7.

⁴¹ Based on: WHO. Trachoma control: A guide for programme managers. WHO, 2006

GROUP 2: Diseases whose prevalence can be drastically reduced (with available cost-effective interventions)			
Disease	Epidemiological Situation	Goals	Primary Strategy
Schistosomiasis	– The disease is present in: Brazil, Saint Lucia, Suriname, and Venezuela. – Studies are needed to confirm the elimination of previously endemic areas in the Caribbean. – It is estimated that around 25 million people live at risk in the Americas, mostly in Brazil. – Around 1 to 3 million people are estimated to be infected.	– To reduce prevalence and parasite load in high transmission areas to less than 10% prevalence as measured by quantitative egg counts.^{42,43}	– Chemotherapy for at least 75% of at-risk school-age children. – Improvements of excreta disposal systems and access to drinking water, education.
Soil-transmitted helminthiasis	– It is estimated that soil-transmitted helminthiasis is present in all the Region's countries. – Regional estimates put the number of school-age children at risk of the disease at 26.3 million in Latin America and the Caribbean. – 13 of the 14 countries with information available there were one or more areas with prevalence of STH higher than 20%.	– To reduce prevalence among school-age children in high risk areas (prevalence >50%) to less than <20% prevalence as measured by quantitative egg count.⁴⁴	– Regular administration of preventive chemotherapy/or mass drug administration (MDA) for at least 75% of at-risk school-age children. If prevalence of any soil-transmitted helminthiasis infection among school-age children is $\geq 50\%$ (high-risk community), treat all school-age children twice each year. If prevalence of any soil-transmitted helminthiasis infection among at-risk school-age children is $\geq 20\%$ and $< 50\%$ (low-risk community), treat all school-age children once each year. – Promoting access to safe water, sanitation and health education, through intersectoral collaboration.

⁴² Based on: WHO. *Preventive chemotherapy in human helminthiasis*. Geneva: WHO; 2006.

⁴³ Based on: WHO. *Schistosomiasis and soil-transmitted helminth infections*. Fifty-fourth World Health Assembly. WHA54.19. Geneva: WHO, 2001

⁴⁴ Based on: WHO. *Preventive chemotherapy in Human Helminthiasis*. Geneva: WHO; 2006.



PAN AMERICAN HEALTH ORGANIZATION
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CE144/10 (Eng.)
Annex C

ANALYTICAL FORM TO LINK AGENDA ITEM WITH ORGANIZATIONAL AREAS

1. Agenda item: 4.5 Elimination of Neglected Diseases and others Poverty-Related Infections.

2. Responsible unit: HSD/CD

3. Preparing officer: Cristina Schneider

4. List of collaborating centers and national institutions linked to this Agenda item:

- Inter-American Development Bank (IDB)
- Global Network for Neglected Tropical Diseases, a major initiative of the Sabin Vaccine Institute
- The Bill and Melinda Gates Foundation
- Centers for Disease Control and Prevention (CDC)
- USAID
- OEPA
- Alliance for Rabies Control

5. Link between Agenda item and Health Agenda for the Americas 2008-2017:

To address the elimination and control of neglected diseases and poverty alleviation reducing the burden of selected diseases.

6. Link between Agenda item and Strategic Plan 2008-2012:

SO1. To reduce the health, social and economic burden of communicable diseases (RER1.2 and 1.3).

SO2. To combat HIV/AIDS, tuberculosis and malaria (this resolution will be addressing only malaria in Haiti and Dominican Republic) (RER 2.1, 2.3, 2.4, 2.5).

SO12. To ensure improved access, quality and use of medical products and technologies.

7. Best practices in this area and examples from countries within the Region of the Americas:

The Region of the Americas has important experiences in implementing elimination and eradication strategies for diseases such as smallpox, polio, measles and others. Due to the efforts made by the Member States, some neglected diseases have come close to elimination; encouraging advances have been made in lymphatic filariasis, for which transmission seems to be interrupted in three of the seven endemic countries, with important progress in the remaining foci. For onchocerciasis, the goal of 85% coverage of the at-risk population has been reached in all 13 foci in the six endemic countries. Six of the foci have interrupted transmission over the last two years and no new cases of blindness caused by onchocerciasis in the Region have been reported since 1995. Also, cases of human rabies transmitted by dogs have been reduced by 93% over the past 20 years, while around

45 million dogs are vaccinated every year in endemic countries. Neonatal tetanus has been reduced to the level that no longer represents a public health problem in all Latin American and Caribbean countries, except for Haiti. For Chagas disease, vector-borne transmission by the main vectors have been interrupted in Uruguay, Brazil, Chile, Paraguay, and some provinces of Argentina, as well as in the previously endemic areas of Guatemala. It has also been reduced in four others countries in Central America. Most countries in Latin America are close to reaching the goal of implementing screening for Chagas in 100% of their blood banks. For leprosy, the elimination as a public health problem has been reached at the national level in all LAC countries, except for Brazil.⁴⁵

8. Financial implications of Agenda item:

Total cost from 2008 to 2015 for PAHO will be US\$ 2,500,000, excluding the Bill and Melinda Gates Foundation Grant. This grant for \$2 million for 2 years is under negotiation, to scale-up activities.

⁴⁵ PAHO/HSD/CD. Provisional Epidemiological Profiles of Neglected Diseases and Other Infections Related to Poverty in Latin America and the Caribbean. [Unpublished] Presented at the Consultation on a Latin American and Caribbean Trust Fund for the Prevention, Control and Elimination of Neglected and Other Infectious Diseases. Washington, DC, December 15-16, 2008.



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144th SESSION OF THE EXECUTIVE COMMITTEE

Washington, D.C., USA, 22-26 June 2009

CE144/10 (Eng.)
Annex D
ORIGINAL: ENGLISH

PROPOSED RESOLUTION

ELIMINATION OF NEGLECTED DISEASES AND OTHER POVERTY-RELATED INFECTIONS

THE 144th SESSION OF THE EXECUTIVE COMMITTEE,

Having reviewed the document *Elimination of Neglected Diseases and other Poverty-Related Infections* (Document CE144/10),

RESOLVES:

To recommend to the Directing Council that it adopt a resolution along the following lines:

ELIMINATION OF NEGLECTED DISEASES AND OTHER POVERTY-RELATED INFECTIONS

THE 49th DIRECTING COUNCIL,

Having reviewed the document *Elimination of Neglected Diseases and other Poverty-Related Infections* (Document CD49/__) and considering,

- (a) the existence of previous PAHO and WHO mandates and resolutions to address neglected diseases and other infections related to poverty that can be eliminated or drastically reduced;
- (b) the Region of the Americas' extensive experience in implementing elimination strategies for communicable diseases and the encouraging advances in reducing the burden of these diseases;

- (c) the need to fulfill the “unfinished agenda,” since the proportion of those affected remains high among the poorest and most marginalized people of the Americas;
- (d) the need to address the social determinants of health in order to effectively reduce the health, social, and economic burden of neglected diseases and other diseases related to poverty;
- (e) the current opportunity to eliminate or drastically reduce the burden of these diseases with available tools; and
- (f) the ethical duty to eliminate infectious diseases for which adequate and cost-effective public health interventions exist, but which still continue to afflict the peoples of the Americas,

RESOLVES:

1. To urge the Member States to:
 - (a) commit themselves to eliminate or reduce neglected diseases and other infections related to poverty for which tools exist, to levels so that these diseases are no longer considered public health problems by 2015;
 - (b) identify priority neglected diseases, vulnerable populations that have lagged behind, gaps in epidemiological information, and the priority geographic areas for intervention (“hot spots”) at sub-national levels in the countries;
 - (c) review existing specific national plans to control or eliminate these diseases and, where needed, develop new ones that rely on a comprehensive approach and which consider social determinants of health, inter-programmatic strategies, and inter-sectoral action;
 - (d) guarantee that there are sufficient resources available to ensure the sustainability of national and sub-national control programs, including personnel, drug supplies, equipment, and other needs;
 - (e) implement prevention, control, and elimination strategies in an integrated way so that they contribute to the strengthening of national health systems and primary health care;
 - (f) mobilize additional resources and involve potential partners within the countries, as well as bilateral and multilateral development agencies, non-governmental organizations, foundations, and other stakeholders;
 - (g) strengthen the surveillance systems and provide support for research on the development of new and improved tools, methods, and strategies to fight neglected diseases; and

- (h) approve the goals and indicators for the elimination and reduction of neglected diseases and other infections related to poverty listed in Annex A and B.
2. To request the Director to:
- (a) continue advocating for an active mobilization of resources and promote the development of close partnerships to support the implementation of this resolution;
 - (b) provide technical cooperation to the countries for preparing national plans of action;
 - (c) promote the identification, development, and use of evidence-based interventions that are technically and scientifically sound;
 - (d) promote the implementation of current PAHO/WHO guidelines for the prevention and control of the included diseases;
 - (e) promote research for the development of new tools, methods, and strategies;
 - (f) support the strengthening of surveillance systems and the monitoring and evaluation of the national action plans being implemented; and
 - (g) strengthen cross-border collaboration among the countries which share the same diseases.



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CE144/10 (Eng.)
Annex E

**Report on the Financial and Administrative Implications for the
Secretariat of the Resolution Proposed for Adoption**

1. Agenda item: 4.5. Elimination of Neglected Diseases and others Poverty-Related Infections.

2. Linkage to Program Budget 2008-2009:

(a) Area of work: SO1, SO2 and SO12

(b) Expected result: RER 1.2; 1.3; 2.1; 2.3; 2.4; 2.5; 12.1; 12.2

3. Financial implications

(a) Total estimated cost for implementation over the lifecycle of the resolution (estimated to the nearest US\$ 10,000, including staff and activities):

Total cost from 2008 to 2015, excluding a grant under negotiation, will be US\$ 2,500,000. In addition to this, there is currently under negotiation, a grant from the Bill and Melinda Gates Foundation for Neglected Tropical and Other Infectious Diseases in Latin America and the Caribbean for US\$ 2 million for 2 years to scale-up activities.

(b) Estimated cost for the biennium 2008-2009 (estimated to the nearest US\$ 10,000, including staff and activities):

2008: US\$ 230,000

2009: US\$ 340,000

(c) Of the estimated cost noted in (b), what can be subsumed under existing programmed activities?

2008: US\$ 230,000

2009: US\$ 200,000

4. Administrative implications

(a) Indicate the levels of the Organization at which the work will be undertaken:

HSD/CD: General coordination and technical coordination of 8/12 of the selected diseases in the resolution

HSD/VP: Technical coordination of 2/12 of the selected diseases in the resolution

HSD/HA: Providing technical input for data analysis software

FCH/IM: Technical coordination of 1/12 of the selected diseases in the resolution

FCH/CLAP: Technical coordination of 1/12 of the selected diseases in the resolution

THR/HT: Sharing technical coordination of 1/12 of the selected diseases with HSD/CD

THR/EM: Technical coordination of the Revolving Fund

PWR/COL: Sharing technical coordination of 1/12 of the selected diseases with HSD/CD

PWR/PER: Sharing technical coordination of 1/12 of the selected diseases with HSD/CD

Cross cutting subjects: GEH; SDE; HSS

(b) Additional staffing requirements (indicate additional required staff full-time equivalents, noting necessary skills profile):

An additional Infectious disease specialist and technical assistant throughout the implementation of the Resolution would be necessary. Should the Bill and Melinda Gates Foundation grant be approved, additional staff would be added for 18 months to scale-up activities.

(c) Time frames (indicate broad time frames for the implementation and evaluation):

2008-2009: Preparation of the proposal for resolution and technical documentation

2010-2015: Implementation and evaluation