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REGIONAL STRATEGY FOR THE CONTROL OF TUBERCULOSIS FOR 2005-2015

Tuberculosis is preventable and curable, however, it continues to be an important public health problem in the Americas. In 2003, 227,551 cases of tuberculosis were reported in the region, 125,803 of which corresponded to lung forms with positive sputum-smear microscopy. For that same year, it was estimated that 53,800 people died from tuberculosis. TB/HIV coinfection and multidrug-resistant tuberculosis represent a challenge for tuberculosis control and are present in all the countries. In addition to these threats, one must bear in mind the weakening of health sectors in the poorest countries and the impact of health sector reforms.

During the last decade, the internationally recognized strategy for tuberculosis control (DOTS) has been implemented progressively in the Americas, reaching a level of coverage of 78% of the population in 2003. This strategy has made it possible to improve the detection and cure of cases. The Region is well on its way to reaching the indicators and targets set forth under the Millennium Development Goals; however, current results primarily correspond to countries with medium- or high-income levels and with successful, long-standing national tuberculosis programs.

Due to the different development dynamics of the countries and the appearance of new challenges, technical cooperation should address the range of epidemiological, operational, and development situations of the national tuberculosis programs. It should prioritize the more vulnerable programs, in keeping with poverty conditions, incidence and burden of tuberculosis, sanitary response, and the impact of HIV/AIDS and multidrug-resistant tuberculosis. It is in this context that the *Regional Strategic Plan for Tuberculosis Control 2005-2015* has been prepared. This Plan provides the framework for action and differentiated cooperation so as to optimize the control approach, which is designed to improve the quality of care, promote community participation and mobilization, and facilitate compliance with the Millennium Development Goals. The Plan is an attempt on the part of Member States and Partners to expand and consolidate the DOTS strategy, and to apply initiatives within the framework of the DOTS, including multidrug-resistant tuberculosis and HIV/AIDS-associated tuberculosis, in order to reverse the incidence, prevalence, and mortality patterns of tuberculosis.

The Executive Committee examined this document and adopted resolution CE136.R7 (see annex) for the consideration of the Directing Council.

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"**Launching the Strategic Plan of the Regional Tuberculosis Program 2005–2015**"

Introduction

1. Tuberculosis, a disease produced by the *M. tuberculosis,* is preventable and curable; however, it continues to cause suffering and death among the peoples of the Americas. Diagnosing patients in a timely fashion and treating them until they are cured is all that needs to be done in order to reduce transmission of the bacillus in the community. However, tuberculosis control faces difficulties related to the population's access to a network of health services, the need for free care, speedy consultation and diagnosis, patient adherence to treatment, and access to family and community support, which are both frequently lacking due to the social stigma associated with the disease.

2. On average, an untreated patient infects one person per month, resulting in a scenario in which a single patient can produce 24 to 96 new infections, 10% of which will develop into the disease during the person's lifetime.[1] This situation is exacerbated by HIV/AIDS, which increases the risk of developing tuberculosis disease by 5% to 15% per year[2].

3. Tuberculosis is closely associated with social determinants of health that are generated by the various social and economic dynamics pertaining to countries' development. This association leads to significant inequities between and within countries, as a result of poverty, social exclusion and discrimination, among others. These are factors that not only predispose the most disadvantaged populations in a community to tuberculosis, but increase the barriers to accessing quality health care.

Situation of Tuberculosis and Its Control around the World and in the Americas

Global Situation

4. Tuberculosis continues to be a significant public health problem around the world. WHO[3] estimated that in 2003 there were 8.8 million cases of tuberculosis and 1.7 million deaths from tuberculosis.

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[1] Caminero Luna, Jose A. Guía de la Tuberculosis para Médicos Especialistas. International Union against Tuberculosis and Respiratory Diseases. France, 2003.

[2] Raviglioni MC, Harries AD, Msiska R, Wilkinson D, Nunn P. Tuberculosis and HIV: current status in Africa. AIDS 1997; 11 (Suppl B): S115-S123.

[3] Global tuberculosis control: surveillance, planning, financing. WHO 2005 Report. Geneva, World Health Organization (WHO/HTM/TB/2005.349).

5. The global average treatment success rate of patients treated in 2002 was 82%, which is higher than the rate reported in Africa and Europe, partly attributed to TB/HIV coinfection and drug resistance.

6. The tuberculosis incidence rate is on a downward or stable trend in *five* of the six regions of WHO, but has increased globally at a rate of 1.0% annually. This increase was attributed to Africa because of HIV infection rates. If it weren't for the trends observed in Africa, prevalence and mortality rates would be diminishing in the world.[3][4]

Situation in the Americas

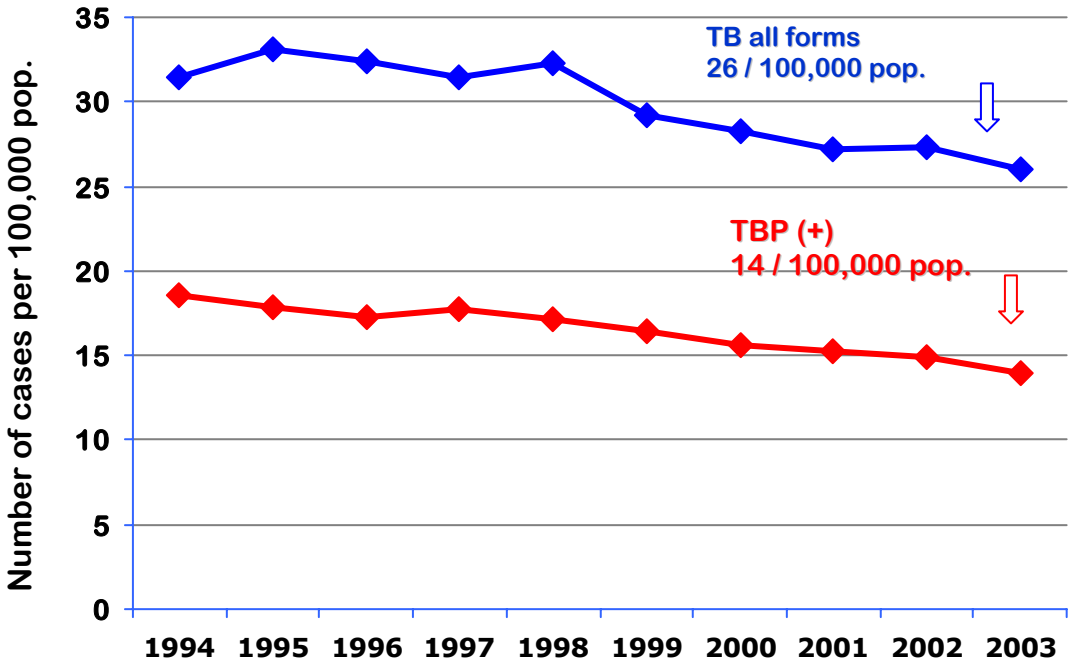
7. In the Region of the Americas, 227,551 cases of tuberculosis were reported in 2003, 125,803 of which corresponded to pulmonary forms with positive sputum-smear microscopy (SS+), with case reporting rates of 26 and 14 per 100,000 respectively. In accordance with WHO estimates, 61% of all TB cases were detected and 76% of SS+.

8. For that same year, it was estimated that 53,800 people died from tuberculosis. That corresponds to a rate of 6 per 100,000 in the Region, with variations from 71/100,000 deaths in Haiti to less than 1 per 100,000 in the United States of America,[5] making tuberculosis one of the leading causes of death in the most affected countries.

9. From 1994 to 2003, a slightly downward trend was recorded in the incidence of tuberculosis corresponding to 1.6% annually for all forms of tuberculosis and 2.6% annually for SS+ (Figure 1). This trend is essentially attributed to fewer cases in Brazil, Chile, Costa Rica, Cuba, Peru, and the United States.

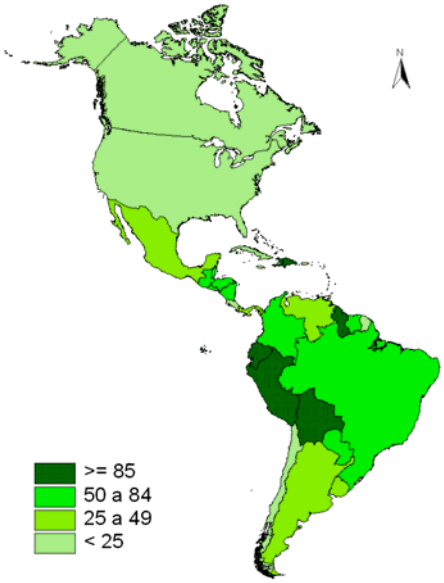
[4] See note 3 above.
[5] CDC. Reported Tuberculosis in the United States, 2003. Atlanta, GA: U.S. Department of Health and Human Services, CDC, September 2004.

Figure 1. Tuberculosis Incidence Rate Reported in the Region of the Americas
(1994–2003)



10. The analysis by countries illustrates the disparities in the tuberculosis burden (Figure 2).

Figure 2. Estimated Tuberculosis Incidence Rate per 100,000 pop. (2003)



11. SS+ TB by age and sex in the Region has predominantly been among the young male population, since 1993, with 60% of cases falling within the 15-44 age group.

12. The TB/HIV coinfection and multidrug-resistant tuberculosis (MDR-TB) situation is characterized as follows:

- Eleven countries have generalized HIV/AIDS epidemics, noteworthy among them the Dominican Republic, Guatemala, Guyana, Haiti and Honduras, which also have a high incidence of tuberculosis.
- Primary MDR-TB is not a serious problem in the Region, as demonstrated by the study on resistance to tuberculosis drugs, except in Ecuador, the Dominican Republic, Guatemala, and Peru, which have MDR rates of higher than 3% of new tuberculosis cases.[6.]

The DOTS Strategy

13. The DOTS strategy (Directly Observed Treatment Short Course Therapy) is the internationally accepted strategy for tuberculosis control and has been identified as one of

[6] TB-MDR Surveillance Report, Anti-tuberculosis Drug Resistance in the World, Report No. 3, Geneva, World Health Organization (WHO/HTM/TB/2004.343).

the most cost-effective public health interventions,[7] consisting of five technical-managerial elements.[8]

- Political commitment to tuberculosis control;
- Access to quality-assured tuberculosis sputum microscopy;
- Uninterrupted supply of quality-assured drugs;
- Standardized short-course treatment and directly-observed taking of medication;
- Recording and reporting system enabling outcome assessments.

14. By 2003 the strategy had been implemented in 33 countries, with different levels of coverage, as a result of which case reporting and success of treatment improved. Treatment success rate for SS+ cases in DOTS areas increased from 77% in the 1994 cohort to 81% in the 2002 cohort.

Impact of Tuberculosis Control on the 2005 WHO Targets and the Millennium Development Goals

15. WHO, through resolutions issued by the *World Health Assemblies*, requested the Member States to give "high priority to the control of TB" and established the targets of: detecting 70% of cases and treating 85% of them (WHA44.8 of 1991); recommended implementation of the DOTS Strategy as a control tool (WHA46.36 of 1993); and urged them to secure a commitment to sustainable financing of the Global Plan 2006-2015, whose purpose is the attainment of the MDGs (WHA58.14) .

16. The latter were backed by *Resolutions of the PAHO Directing Council,* among them CD39.R20 in 1996, which declared tuberculosis a "health priority," convening and committing the countries' governments to giving priority to its control.

Situation of the Region of the Americas regarding the Millennium Development Goals

17. Goal 6 of the Millennium Development Goals, "Combat HIV/AIDS, malaria, and other diseases," establishes the following targets and indicators for tuberculosis:

18. Target 8: Have halted by 2015, and begun to reverse, the incidence of malaria and other major diseases."

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[7] Murray CJL, Styblo K, Rouillon A. Tuberculosis in Developing Countries: burden, intervention, and cost. Bull Int Union Tuberc Lung Dis, 1990, 65:2-20.

[8] What is DOTS? A Guide to Understanding the WHO-Recommended Tuberculosis Control Strategy known as DOTS. Geneva, World Health Organization (WHO/CDS/CPC/TB/99.270)

- According to WHO estimates,[9] the incidence in the Americas began to decrease in 1990, declining from 66 to 43 per 100,000 population by 2003. It should be noted that the decrease is limited in countries with weak control programs.

19. Indicator 23: *Halve tuberculosis prevalence and mortality with respect to 1990 by the year 2015.*

- In 2003 the situation in the Region was as follows:

	Base line (1990)	2003	Target (2015)
TB prevalence *	100	58	50
TB death rate *	10	6	5

* Rate per 100,000 pop.
(WHO estimates)

20. Although the Region of the Americas is close to meeting the targets under the MDGs, it should be underscored that the current results have essentially been achieved in high- or middle-income countries with successful, well-established national tuberculosis programs (NTP) and a steady decline in their indicators. The reduction required to achieve this indicator from 2003 to 2015 will depend on middle- or lower-income counties with a high prevalence or burden of tuberculosis, some of which are wracked by political and social instability, poverty, and the rapid spread of HIV/AIDS. This indicator is expected to be met through implementation of the Regional Strategic Plan.

21. Indicator 24: *Detect 70% of new bacilliferous cases and successfully treat 85% under the DOTS Strategy by 2005*

- By 2003, the Americas had detected 76% of contagious cases, but only 50% under DOTS. Some 81% of these cases were successfully treated.

22. It is estimated that by the end of 2005 the treatment target will have been met and 70% of cases will have been notified under DOTS, thanks to the expansion of the DOTS Strategy in the Member States.

23. Analysis of the leads to the conclusion that while the great strides made from 1996 to 2003 must be preserved, some tasks remain unfinished and others are still pending; therefore, the Regional Tuberculosis Program, in conjunction with the national programs of the Member States, will focus its 2005-2015 control policies (Regional Strategic Plan) on:

[9] See note 3 above.

(a) **Protecting** the *sustainability of the successful expansion of the DOTS strategy*, prioritizing low- or middle-income countries with a high risk of tuberculosis.

(b) **Protecting** an uninterrupted supply of drugs in all the countries;

(c) **Expanding** the DOTS strategy in countries with low coverage;

(d) **Expanding** initiatives within the DOTS aimed at *improving the access of neglected populations to tuberculosis control;*

(e) **Expanding** collaboration activities between *tuberculosis* and *HIV* programs;

(f) **Expanding** treatment of MDR-TB within the DOTS framework;

(g) **Strengthening** development of *human resources* and increasing epidemiological and operations research:

(h) **Facing new challenges** such as the *weakening of the health sector*, health reforms, changing social determinants, and the heterogeneity of the tuberculosis situation in the Americas, by:

- Implementing initiatives that make it possible to improve the quality of care, such as the PAL (Practical Approach to Lung Health) and the universal standards of care for TB patients; incorporating all public and private health care providers (Public-Private Mix Initiative); and implementing community DOTS, which encourages community participation in case-finding and the treatment of TB patients.
- Implementing and/or strengthening mass communication to secure community participation and mobilization, and political commitment.

"Regional Strategic Plan for Tuberculosis Control 2005–2015"

Purpose

24. The Regional Strategic Plan developed by the Regional Program in consensus with experts from the Member States (directors of the NTPs), is a response to:

- The different development dynamic of the countries and the emergence of new challenges for tuberculosis control. Thus, country actions and technical cooperation must take place within a wide variety of epidemiological, operational, and development scenarios in the NTPs, prioritizing the most vulnerable in different contexts, such as poverty, incidence and burden of tuberculosis, health sector response, impact of HIV/AIDS and MDR-TB, and

- Resolution WHA58.14, aimed at securing a commitment to sustainable financing for the Global Plan 2006-2015, noting the need to reduce the TB burden, the rise in MDR-TB, the morbidity and mortality associated with TB/HIV, health systems development, and the integration of all health care providers.

General Objective

25. Member States and Partners are expanding and consolidating the DOTS strategy and applying initiatives outlined within DOTS, including those targeting MDR-TB and tuberculosis associated with HIV/AIDS, in order to lower the incidence, prevalence, and death associated with tuberculosis.

Specific Objectives

- Extend, consolidate, and/or intensify the DOTS strategy to offer equitable, quality TB control to more than 90% of the population.
- Lower the incidence of TB and HIV in populations where both diseases are prevalent, helping reduce mortality from coinfection and increase access to antiretroviral treatment.
- Strengthen tuberculosis laboratory networks in the countries to guarantee timely quality diagnosis, thereby optimizing the DOTS strategy;
- Facilitate implementation of integrated management of MDR-TB within the framework of DOTS (DOTS-Plus strategy) in the Member States;
- Promote the use of Communication strategies for tuberculosis that support the implementation, expansion, and quality of DOTS;
- Promote the preparation and application of human resources development strategies in tuberculosis control as an integral part of the national plans of NTPs and of the activities to strengthen health systems.

Main Targets

- The Region reports more than 70% of new SS+ cases and an 85% cure rate of those cases for 2005 (WHO targets).
- The Region lowers the incidence of tuberculosis in all the countries and cuts mortality and prevalence by 50% over the 1990 figures by 2015.

Lines of Work

Extend, Consolidate, and Strengthen the DOTS Strategy in the Countries of the Region.

26. This line of work aims to accelerate coverage of the quality DOTS strategy in the population of the Americas, using a multisectoral approach and based on the stratification of the countries by Tuberculosis incidence rate and degree of DOTS coverage. The universal standards for the care of TB patients will be adopted in all the countries and new initiatives (PAL, PPM, community DOTS) will be introduced, aimed at the

elimination of tuberculosis, horizontal cooperation between countries, and the integration of all health care providers and new partners.

Table 1. Stratification of Countries by Risk and DOTS Coverage, 2005

GROUP 1 Incidence < 25 DOTS > 90%	GROUP 2 Incidence 25-50 DOTS > 90%	GROUP 3 Incidence > 50 DOTS >90%	GROUP 4 Incidence > 50 DOTS ≤ 70%
English-speaking Caribbean*	Argentina	Bolivia	Dom. Republic
Chile	Belize	El Salvador	Haiti
Costa Rica	Mexico	Guatemala	Ecuador
Cuba	Panama	Honduras	Brazil
Canada	Venezuela	Nicaragua	Guyana
United States		Peru	Paraguay
Puerto Rico			Colombia
Uruguay			Suriname
French territories**			

* English-speaking Caribbean countries with an estimated 5 or more cases annually: Bahamas, Barbados, Dominica, Jamaica, St. Kitts & Nevis, St. Lucia, St. Vincent & the Grenadines, and Trinidad & Tobago
** Guadaloupe, Martinique, and French Guiana

Implement and/or Strengthen Collaborative Activities among the NTPs and NAPs including Surveillance of TB/HIV Coinfection.

27. Based on the gravity of the HIV epidemic and tuberculosis burden in the countries, immediate and medium-term actions will be identified, implementing integrated management of TB/HIV in primary and community care (Building Blocks Strategy), facilitating access to antiretrovirals (3"x5"), and systematically monitoring coinfection within regular TB surveillance.

Strengthen the Laboratory Network and Drug-resistance Monitoring in the Countries of the Region.

28. This line of work is designed to ensure that the tuberculosis laboratory remains a priority. They will work on standardization, compliance with technical-operating standards in the networks, and certification of the countries' national laboratories. Improving management and the use of cultures will be addressed; new techniques and MDR-TB surveillance will be introduced. At the regional level, the "Supranational Laboratory Network" will be formed with participation by supranational laboratories and Collaborating Centers.

Implement and/or Extend the DOTS-PLUS Strategy, Especially in Countries with High Prevalence of MDR- TB.

29. This is aimed at integrated management of MDR-TB patients within the DOTS strategy (DOTS-Plus) and includes the development of standards, the procurement of drugs through the Green Light Committee, strengthening its management, upgrading national drug monitoring laboratories, banning the indiscriminate sale of tuberculosis drugs, etc.

Encourage and Advise on the Implementation of Communication Strategies to Inform the Population about Tuberculosis, as well as Community Participation and Mobilization.

30. This is essentially intended to improve the quality of health care (at office visits and early diagnosis, and adherence to treatment plans), and promote the destigmatization of the disease, the involvement of the community in order to achieve community mobilization, and advocacy that makes tuberculosis control a priority in health policies.

Support Human Resources Education Policies

31. Supporting human resources policies and capacity building aimed at increasing the supply of quality services that will help strengthen the health sector.

Institutional, Economic, and Human Resources

32. The resources available to the Region are:

Institutional Resources

(a) *Supranational Reference Laboratories.* The Region has: Massachusetts State Laboratory Institute, Massachusetts, USA; Mycobacteriology/ Tuberculosis Laboratory CDC, Atlanta, USA; Institute of Public Health of Chile; National Institute of Infectious Diseases of Argentina, and National Epidemiological Reference Institute of Mexico.

These laboratories constitute the Supranational Laboratory Network, in charge of the standardization of techniques in use, national laboratory qualification, supervision and monitoring of laboratory networks.

(b) *PAHO/WHO Collaborating Centers.* Comprised of: Pedro Kouri Institute, Cuba; Emilio Coni National Institute for Respiratory Diseases, Argentina.

Both provide support in the training of human resources; clinical, epidemiological, and operations research; mass communication and the dissemination and exchange of information through regional publications. They became part of the Supranational Laboratory Network in 2005.

33. *Caribbean Epidemiologyl Center* (CAREC) in Port-of-Spain, Trinidad and Tobago, which provides support for tuberculosis surveillance, as well as monitoring and supervision for the mycobateria laboratories in CAREC Member Countries, and the L*atin American and Caribbean Center on Health Sciences Information* (BIREME), in São Paulo, Brazil, provides support for the promotion of technical cooperation in scientific and technical health information with and among the countries of Latin America and the Caribbean.

Financial Resources

34. The Regional Tuberculosis Program has its own economic resources from the Organization's regular budget, as well as resources from bilateral cooperation. In addition, the Regional Strategic Plan includes strategies for the mobilization of greater resources, which will make it possible to accelerate implementation of the various initiatives.

35. At the country level, PAHO will mobilize resources for tuberculosis control in priority countries using its own funds and resources from bilateral and multilateral cooperation.

36. Through the *Global Fund to Fight AIDS, Tuberculosis and Malaria* (GFATM), up until now 11 countries of the Region have been successful with their tuberculosis proposals, obtaining nearly $83 million, earmarked for the period 2003-2009. Table 2 lists the projects approved.

Table 2. Tuberculosis Component of the Projects of the Global Fund to Fight AIDS, Tuberculosis, and Malaria, Region of the Americas, April 2005.

	Period First 2 years	**Quantity** First 2 years US$	**Project Total** **US$**
Bolivia	Jul 2004-Jul 2006	2,381,646	5,688,896
Dominican Republic	Aug 2004-Aug 2006	2,636,816	4,611,816
Ecuador	Signature pending	-	16,353,319
El Salvador	Oct 2003-Oct 2005	1,918,344	3,373,959
Guyana	Signature pending	-	1,351,730
Haiti	Jun 2004-Jun 2006	8,131,836	14,665,170
Honduras	May 2004-May 2005	3,790,500	6,597,014
Nicaragua	Oct 2003-Oct 2005	1,271,820	2,853,065
Panama	Feb 2003-Feb 2005	440,000	570,000
Paraguay	Oct 2004-Oct 2006	1,194,902	2,799,545
Peru	Nov 2003-Nov 2005	20,153,818	24,228,179

Human Resources: For Assistance to the Regional Tuberculosis Program

37. A Technical Advisory Committee will be set up this year for the purpose of having an independent technical perspective to review and advise on the policies, strategies, and action plans of the Regional Tuberculosis Program, and monitor and evaluate the degree of scope of the goals in order to improve Program performance. The technical advisory committee will consist of renowned international and regional experts who represent the main technical and financial partners, as well as the countries with the greatest tuberculosis burden in the Region (Brazil, Mexico, and Peru).

Partners and Resource Mobilization

38. Efforts are under way in the Region of the Americas to create the "Stop TB Partnership," whose base will consist of the technical, financial, and social partners working in the Region PAHO will actively attempt to add on new members and potential partners. The mission of this committee will be to ensure a regional commitment to the execution of the Regional Strategic Plan, which includes resource mobilization, advocacy for political and social commitment, preparation of strategies, and coordination of efforts between members. A tuberculosis ambassador will be appointed to serve as the public figure that will champion in society the fight against tuberculosis in the Americas.

39. PAHO supports establishing Stop TB Committees at the national level. Mexico and Brazil launched their National Stop TB Partnerships in 2004.

Action by the Directing Council

40. The Directing Council is invited to consider the annexed resolution proposed by the Executive Committee.

Annex

PAN AMERICAN HEALTH ORGANIZATION
WORLD HEALTH ORGANIZATION

136th SESSION OF THE EXECUTIVE COMMITTEE

Buenos Aires, Argentina, 20-24 June 2005

CD46/18, Rev. 1 (Eng.)
Annex

RESOLUTION

CE136.R7

REGIONAL STRATEGY FOR TUBERCULOSIS CONTROL FOR 2005-2015

THE 136th SESSION OF THE EXECUTIVE COMMITTEE,

Having seen the document "Regional Strategy for the Control of Tuberculosis for 2005-2015" (Document CE136 /17);

RESOLVES:

To recommend to the Directing Council the adoption of a resolution along the following lines:

THE 46th DIRECTING COUNCIL,

Recognizing that, although preventable and curable, tuberculosis remains an important public health problem in the Americas, as each year it is responsible for more than 230,000 cases and 53,000 deaths;

Considering the diverse epidemiological situation of the Member States, as well as the different characteristics of their health systems and the development levels of their national tuberculosis programs;

Mindful that tuberculosis control faces challenges such as TB/HIV coinfection, multidrug-resistant tuberculosis, and health sector reform;

Considering that the internationally recognized strategy for tuberculosis control is "directly observed treatment, short course" (DOTS), which attained coverage of 78% of

the population of the Americas in 2003 and is making great strides in the detection and management of tuberculosis cases;

Considering the need to step up efforts to meet the indicators and goals for tuberculosis set by the World Health Organization's Stop TB Initiative, as well as those within the framework of the Development Goals contained in the Millennium Declaration set for the year 2015; and

Recognizing World Health Assembly Resolution 58.14 "Sustainable Financing for Tuberculosis Prevention and Control,"

RESOLVES:

1. To urge the Member States to:

(a) confirm tuberculosis control as a priority health program and expand, improve, or maintain implementation of the DOTS strategy;

(b) consider the Regional Plan when formulating national plans, with the objectives of preserving recent gains and attaining the internationally agreed-upon health-related development goals of the Millennium Declaration by the year 2015;

(c) strengthen health systems to implement and reinforce strategies for the control of multidrug-resistant tuberculosis, including DOTS plus, to improve collaboration between tuberculosis and HIV/AIDS programs;

(d) foster collaboration between the public and private sectors, civil society, United Nations agencies, and other interested stakeholders, as well as consider forming national Stop-TB Partnerships in order to maintain and increase support for national tuberculosis programs;

(e) allocate the necessary financial and human resources for tuberculosis control so that tuberculosis patients have access to the universal standard of care based on proper diagnosis, treatment and reporting, consistent with the DOTS strategy.

2. To request the Director to:

(a) consolidate and strengthen PAHO's commitment to supporting the expansion and sustainability of the DOTS strategy in the Region;

(b) cooperate technically with the countries to tackle the new challenges posed by tuberculosis;

(c) encourage partnerships with the public and private sectors and technical and financial agencies that work in tuberculosis control to support the Stop-TB Partnerships in the Americas;

(d) improve the formulation and implementation of comprehensive public health strategies for tuberculosis control through resource allocation, sharing of experiences, and development of evaluative tools.

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