PLAN OF ACTION FOR THE PREVENTION AND CONTROL OF TUBERCULOSIS

Introduction

1. Since 1996, the Member States and the Pan American Health Organization (PAHO), with support of technical partners, have stepped up tuberculosis control activities in the Region of the Americas with a view to reducing this cause of morbidity and mortality (1). However, tuberculosis continues to pose a major public health problem in the Region. Challenges such as the epidemic of human immunodeficiency virus (HIV), multidrug-resistant tuberculosis (MDR-TB)\(^1\) and extensively drug-resistant tuberculosis (TB-XDR),\(^2\) an epidemiological transition with the rise of noncommunicable diseases (NCDs) (1), and rapid urbanization, are factors conducive to the persistence of epidemic tuberculosis. In 2013, the incidence of tuberculosis in the Region was 29 cases per 100,000 population—still far above the <10 cases per 100,000 population that the World Health Organization (WHO) has set as the rate needed to declare the end of the epidemic.

2. In the PAHO Strategic Plan 2014-2019 (2), tuberculosis is identified as a health priority and one of the Plan’s impact goals is a 24% reduction in mortality due to tuberculosis by 2019 compared to 2014. Outcome indicators reflecting the reduction in tuberculosis incidence and mortality are also included. Similarly, the objective of the WHO Global Strategy and Targets for Tuberculosis Prevention, Care, and Control after 2015 (the Global Strategy), adopted in May 2014 by the 67th World Health Assembly through Resolution WHA67.1, is to accelerate the reduction of incidence and mortality in order to end the epidemic by 2035 (3).

3. The purpose of this Plan of Action is to strengthen and accelerate the implementation of strategic lines and interventions in order to advance toward achieving the goals proposed in the WHO Global Strategy and the impact goal for the reduction in mortality due to tuberculosis stated in the PAHO Strategic Plan 2014-2019.

\(^1\) MDR-TB: form of tuberculosis resistant at least to isoniazid and rifampicin.

\(^2\) XDR-TB: form of tuberculosis resistant at least to isoniazid, rifampicin, and some fluoroquinolones, and at least one of three second-line injectable drugs.
Background

4. In 1996, through Resolution CD39.R10 of the Directing Council, PAHO considered tuberculosis as a health priority due to the high tuberculosis incidence rates and mortality in the Region (4). This resolution urged Member States to adopt the DOTS (directly observed treatment, short-course) strategy—the central component of the strategy recommended by WHO in 1991 (5) and 1994 (5) to strengthen control of the disease (6).

5. Faced with the spreading HIV epidemic, the appearance of drug-resistant strains of tuberculosis, the weakness of health services, and the lack of participation by all health providers, affected persons, and communities, in 2005, the 46th Directing Council adopted the Regional Strategy for Tuberculosis Control, 2005-2015, through Resolution CD46.R12 (7). The Regional Strategy facilitated the implementation of the global Stop TB Strategy 2005-2015 (8), the main objective of which was to maintain and accelerate the reduction in tuberculosis incidence, prevalence, and mortality, in accordance with the targets and indicators of the Millennium Development Goals (MDGs), in particular Goal 6, which defines the reduction of incidence, prevalence, and mortality associated with tuberculosis. Implementation of the Regional Strategy began successfully in 2006 and all the countries incorporated activities for each component of the Global Strategy into their national strategic plans, in accordance with the Regional Plan and adapted to the reality of each country.

6. PAHO, through implementation of the Regional Plan for Tuberculosis Control, 2006-2015 (9), has provided technical cooperation to all the countries of the Region, in collaboration with technical partners and cooperating agencies such as the United States Agency for International Development, the International Union against Tuberculosis, the Centers for Disease Control and Prevention (CDC) of the United States, and the Global Fund to Fight AIDS, Tuberculosis and Malaria, among others. PAHO has carried out monitoring and periodic assessment of the achievement of the goals, targets, and indicators. To this end, and with a view to setting priorities in technical cooperation, the countries of the Region were classified according to four scenarios, (4) based on the epidemiological and operational state of tuberculosis control, in order to provide differentiated technical cooperation and achieve greater mobilization of externally financed resources by partners and cooperating agencies, with a priority focus on the countries with the greatest needs, which are those most affected by tuberculosis.


4 The four scenarios were based on the incidence estimated by WHO in 2003 and on DOTS coverage reported by the countries.
Situation Analysis

7. WHO estimated that in 2013 there were 285,213 new cases of tuberculosis in the Region of the Americas (3% of the global burden of tuberculosis), of which an estimated 6,900 were MDR-TB, and 32,000 had HIV. Of the 285,213 estimated cases, 64% corresponded to four countries: Brazil (33%), Peru (14%), Mexico (9%), and Haiti (8%). For the same year, the estimated incidence of tuberculosis for the entire Region was of 29 cases per 100,000 population, with major variations among countries: from 3.6 cases per 100,000 population in the United States of America to 206 cases per 100,000 population in Haiti. For Bolivia (Plurinational State of), Guyana, Haiti, and Peru, incidence rates were estimated to be higher than 100 cases per 100,000 population.

8. Also in 2013, the countries of the Region reported 220,510 cases of tuberculosis, representing 77% of the number of cases estimated by WHO and 3.8% of cases reported globally. Of the total reported cases, 95% corresponded to people over 15 years of age and 63% to males, with a male:female ratio of 1.7:1. In both sexes, the highest rates were seen in ages 15-44 years (youth and productive age). The data reported by the countries showed that: a) over 65,000 cases were not diagnosed or notified, according to WHO estimates; b) only 75% of new tuberculosis cases were successfully treated, meaning that the global target of 85% was not reached; c) only 69% of reported cases of tuberculosis were aware of their HIV status; and d) 50% of estimated MDR-TB cases were not diagnosed.

9. As a result of the actions carried out within the framework of the Regional Plan for Tuberculosis Control, 2006-2015, great progress has been made:

   a) According to WHO estimates, the Region of the Americas was early in achieving the MDG targets for reduced incidence, prevalence, and mortality associated with tuberculosis. According to WHO, in the period 1990-2013: i) the incidence of tuberculosis in the Region of the Americas dropped by 48.2%, from 56 to 29 cases per 100,000 population; ii) prevalence fell by 57%, from 89 to 38 cases per 100,000 population, exceeding the target of 50% reduction by 2015; and iii) mortality decreased by 63%, from 5.7 to 2.1 cases per 100,000 population, exceeding the established target of 50% by 2015.

   b) The proportion of newly diagnosed cases of tuberculosis (detection rate) increased to 77% of estimated cases in 2013, exceeding the global target of 70% by 2015, set by the Stop TB Partnership.

   c) Management of the national tuberculosis programs has been strengthened by including clinical and programmatic management of MDR-TB and TB/HIV co-infection at the national level in the majority of countries.

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5 Many cases were not diagnosed or reported due to: i) problems involving access to health services or quality of care; and ii) failure to report diagnosed cases (health providers that do not comply with the country’s reporting standards).
d) The coverage of tuberculosis laboratory networks has increased and quality management programs for the techniques in use in the countries have been strengthened.

e) Partnerships with public and private health care providers and with technical and financial partners have been strengthened, and support has been provided for the participation of communities and civil society organizations in tuberculosis control.

f) The 15 countries that report financial information on tuberculosis control reported an increase in national resources, from US$ 93 million\(^6\) in 2006 to $238 million in 2013; however, they also reported a major funding gap of $33 million. This gap responds to more ambitious planning for the implementation and expansion of control activities in general and clinical and programmatic management of multidrug-resistant tuberculosis in particular, with higher costs for program management and second-line drugs (6,10).

10. An initiative successfully implemented at the regional level—exemplifying an approach that transcends the health sector and integrates tuberculosis control into social development policies at the local level—is the Framework for Tuberculosis Control in Large Cities of Latin America and the Caribbean, which makes it possible to focus tuberculosis control activities on populations highly vulnerable to the disease, such as poor populations that live in peripheral areas subject to social inequity, discrimination, and violence, and that have limited access to health services. This initiative takes a comprehensive interprogrammatic approach by including all health care providers and various sectors (multisectoral approach), with active community participation. Implementation began in 2013 in three countries and is currently being expanded across the Region.

11. The main problems facing tuberculosis prevention and control in the Region (10) in recent years are:

a) the fact that, despite successful implementation of the Global Strategy, tuberculosis is not a priority on the domestic health agenda in some countries;

b) rapid urbanization, with an increase in populations vulnerable to tuberculosis;

c) the persistence of transmission of HIV/AIDS, MDR-TB and XDR-TB in the community;

d) the increase in NCDs, such as diabetes mellitus, mental illness, and harmful addictions, which are factors associated with tuberculosis infection and disease;

e) the persistence of budgetary gaps in tuberculosis control, which negatively impacts the focus on the poorest populations and those most vulnerable to the disease;

\(^6\) Unless otherwise indicated, all monetary figures in this report/document are expressed in United States dollars.
f) the need for more policies that protect tuberculosis patients and their families from impoverishment due to direct and indirect expenses generated by the disease;

g) the limited action of other sectors on the social determinants of health;

h) the public perception that there is a low risk of contracting the disease, given the paucity and low effectiveness of health communication strategies.

12. Despite the significant progress made until 2013 through the implementation of the Regional Plan for Tuberculosis Control, 2006-2015 (reported in Tuberculosis in the Americas, 2013) (10), it is observed that the decline in the regional tuberculosis incidence rate has decelerated in the last five years, due in part to the concentration of cases in highly vulnerable populations subject to health inequities and to the increase in comorbidities that facilitate infection and the development of the disease (14,15,16,17).

Plan of Action

13. The Global Strategy and Targets for Tuberculosis Prevention, Care, and Control after 2015 promotes tuberculosis control that does not focus exclusively on the health sector’s response, but also considers the settings in which vulnerable populations live and their socioeconomic conditions, in order to plan interventions that modify the social determinants of health by incorporating sectors other than the health sector. The strategy also puts significant emphasis on researching new vaccines, diagnostic methods, and drugs that will point the way toward the end of the tuberculosis epidemic. This Plan of Action promotes implementation of the Global Strategy (3) appropriate to the context of the Region and each of its countries.

14. The Plan of Action will make it possible to guide the Region toward the achievement of the post-2015 goals defined in the Global Strategy: to reduce the TB incidence rate by 90% and mortality by 95% by 2035, compared with 2015 levels, as a step toward eliminating tuberculosis as a public health problem (3) and achieving the United Nations Sustainable Development Goals by 2030.

15. The Plan of Action is limited to a four-year period so that it is aligned with the goals of the PAHO Strategic Plan 2014-2019 and the recommendations on infectious disease control contained in the Health Agenda for the Americas 2008-2017 (18).

16. Implementation of the Plan of Action will require: a) renewed political commitment on the part of governments (ministries of health and other ministries); b) strengthening of tuberculosis control programs to guarantee universal access to diagnosis and tuberculosis treatment; the adoption of new diagnostic technologies and new drugs for treatment, in accordance with WHO directives; c) health communication strategies to maintain public awareness of the danger of tuberculosis; and d) active community and civil society participation.
Purpose of the Plan of Action

17. The purpose of this Plan is to accelerate the reduction in tuberculosis incidence and mortality, leading to the end of the epidemic in the Region of the Americas. Its implementation will make it possible, by 2019, to meet the following goals stipulated in PAHO Strategic Plan 2014-2019:

Impact Goal

18. Reduce mortality due to tuberculosis by at least 24% by 2019 (0.8 per 100,000 population) compared to 2014 (1.1 per 100,000 population).

Outcome Indicators

a) Cumulative number of patients with bacteriologically confirmed tuberculosis treated successfully in programs that have adopted the strategy recommended by WHO since 1995. Target for 2019: 2,500,000 patients.

b) Annual number of patients with presumed or confirmed MDR-TB, based on WHO definitions (2013), including rifampicin-resistant cases, receiving treatment for MDR-TB in the Region. Target for 2019: 5,490 patients.

c) Percentage of new patients with diagnosed tuberculosis, compared to the total number of incident tuberculosis cases. Target for 2019: 90%.

19. The Plan of Action will consider successful activities carried out in the Region and will become the platform for implementation of the Global Strategy (3) with the following strategic lines of action:

a) Integrated tuberculosis prevention and care, focused on those affected by the disease.

b) Political commitment, social protection, and universal coverage of tuberculosis diagnosis and treatment.

c) Operational research and implementation of innovative initiatives and tools for tuberculosis control.

20. The Plan of Action includes approaches that take into consideration: a) gender, with the inclusion of initiatives to improve women’s health care (19,20); b) ethnicity, aimed at providing care that is appropriate to the specific cultural features of indigenous populations, people of African descent, and other minority groups (21); and c) human rights, boosting and promoting universal access, primary health care, and social protection of the most vulnerable populations, in line with regional and international

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7 Impact goal 6 of the PAHO Strategic Plan 2014-2019.
8 Set of actions that introduce new activities or innovative aspects to address tuberculosis control, based on the characteristics of the target populations.
human rights instruments \((14,22,23)\) and consistent with the recommendations on the ethics of tuberculosis prevention, care, and control adopted by the Organization \((24)\). All this should help to achieve quality health care aimed at tuberculosis prevention and control in the entire population \((15,16)\).

**Strategic Lines of Action**

**Strategic Line of Action 1: Integrated tuberculosis prevention and care, focused on those persons affected by the disease**

21. This strategic line of action will make it necessary to guarantee the provision of health care as part of the Strategy for Universal Access to Health and Universal Health Coverage \((25,26)\), which will, in turn, require:

a) strengthening the technical, programmatic, and management capacity of national tuberculosis control programs;

b) promoting early diagnosis both of drug-susceptible and drug-resistant tuberculosis, and active detection of the disease in high-risk populations;

c) treating both drug-susceptible and drug-resistant tuberculosis on a timely basis, with social support \((27)\);

d) addressing TB/HIV co-infection inter-programmatically \((28,29,30)\);

e) providing comprehensive care to patients with other comorbidities associated with tuberculosis \((31,32,33,34,35,36)\); and

f) treating latent tuberculosis infection in people at high risk of developing the disease \((37)\).

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<tr>
<td>1. Strengthen integrated prevention and care of tuberculosis, focused on those persons affected by the disease, in accordance with international standards for tuberculosis care</td>
<td>1.1 Number of countries that diagnose and treat tuberculosis in accordance with international standards for tuberculosis care</td>
<td>20</td>
<td>35</td>
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<td>1.2 Number of countries that carry out systematic preventive therapy for contacts (under age 5) of active tuberculosis cases</td>
<td>5</td>
<td>20</td>
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<td>1.3 Number of countries that carry out systematic preventive therapy of TB/HIV co-infection, in accordance with national guidelines</td>
<td>5</td>
<td>10</td>
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<td></td>
<td>1.4 Number of countries that diagnose over 85% of estimated cases of MDR-TB among reported tuberculosis cases</td>
<td>6</td>
<td>16</td>
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<tr>
<td>1.5</td>
<td>Number of countries that initiate treatment of 100% of reported cases of MDR-TB</td>
<td>6</td>
<td>12</td>
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<td>1.6</td>
<td>Number of countries where 100% of cases of TB/HIV co-infection receive antiretroviral therapy</td>
<td>6</td>
<td>15</td>
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**Objective**

1.5 Number of countries that initiate treatment of 100% of reported cases of MDR-TB

**Target**

12

1.6 Number of countries where 100% of cases of TB/HIV co-infection receive antiretroviral therapy

**Target**

15

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**Strategic Line of Action 2: Political commitment, social protection, and universal coverage of tuberculosis diagnosis and treatment**

22. The Global Strategy and the Plan of Action introduce essential components for the implementation of technical, political, and social elements aimed at:

a) political commitment with adequate resources for tuberculosis care and prevention;

b) active participation of communities, affected people, civil society organizations, and public and private health providers;

c) inclusion of tuberculosis in the priority health programs in countries, together with the regulation of drug quality and rational use of medicines;

d) infection control to prevent transmission of the TB bacillus in health facilities and in the community;

e) compliance with the regulatory frameworks for tuberculosis case reporting and vital registries;

f) inclusion of people affected by tuberculosis in social protection and poverty reduction programs, and in actions on the determinants of health (38,39).

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<td>2.</td>
<td>Formulate and implement, in accordance with the Global Strategy, national tuberculosis control plans that strengthen political commitment and an integrated approach to tuberculosis control, within the framework of the Strategy for Universal Access to</td>
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<tr>
<td>2.1</td>
<td>Number of countries that have implemented updated plans in accordance with the Global Strategy</td>
<td>0</td>
<td>30</td>
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<tr>
<td>2.2</td>
<td>Number of countries that have financed their updated strategic plans in accordance with the Global Strategy</td>
<td>0</td>
<td>30</td>
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<tr>
<td>2.3</td>
<td>Number of countries that have community networks working in tuberculosis control</td>
<td>3</td>
<td>10</td>
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<tr>
<td>2.4</td>
<td>Number of countries with established regulations on the registry, importation, and manufacture of medical products</td>
<td>28</td>
<td>30</td>
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### Strategic Line of Action 3: Operational research and implementation of innovative initiatives and tools for tuberculosis prevention and control

23. Ending the tuberculosis epidemic will require new diagnostic techniques, drugs that shorten the duration of treatment, and vaccines, as well as an increase in the capacity of countries to properly assimilate these new technologies. Among the activities in tuberculosis control programs, research is an important component that makes it possible to assess the contribution and impact of new technologies and initiatives to be implemented. This strategic line will require: a) introducing new diagnostic tools, drugs, and vaccines; b) preparing operational research plans based on the needs of each country; and c) carrying out innovative initiatives for better tuberculosis control in the countries.

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<td>Health and Universal Health Coverage, and social protection</td>
<td>2.5 Number of countries that include people affected by tuberculosis in social protection programs</td>
<td>5</td>
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### Monitoring and Evaluation

24. The monitoring and evaluation of the Plan of Action for the Prevention and Control of Tuberculosis for 2016-2019 are essential elements to measure the effectiveness and efficiency of interventions to achieve the Plan’s objectives, indicators, and targets. Periodic evaluation and analysis will allow adjustments to the plan and will help strengthen interventions. There will be a mid-term evaluation in 2017, and in 2020 a final evaluation will be presented.

25. The Pan American Sanitary Bureau will prepare a working document for implementation of the Plan of Action in the countries. This document will detail the interventions and activities necessary in each strategic line of action in order to achieve the Plan’s objectives, indicators, and targets, as well as the intermediate targets and impact goals of the Global Strategy.
26. Monitoring and qualitative/quantitative analysis of the achievement of the Plan will be carried out annually, according to the processes and methods established by the Organization, based on high-quality data and sources.

27. PAHO’s Regional Tuberculosis Program, jointly with the countries, will be responsible for data collection and analysis, whether from established sources or from epidemiological or social research, in order to have reliable data based on scientific evidence. In order to validate the baseline data of some of the indicators, it will be necessary to conduct surveys, previously coordinated with the countries.

28. The main sources of information will be:

a) WHO Global Tuberculosis Report, which collects epidemiological and operational data from all countries;

b) reports on monitoring and evaluation visits to tuberculosis control programs in the countries of the Region, carried out by PAHO/WHO and other organizations, partners, and donors;

c) reports on regional and local meetings, seminars, and workshops that assess the progress made in tuberculosis control; on aspects of MDR-TB, TB/HIV co-infection, and the laboratory network; or from the Global Fund to Fight AIDS, Tuberculosis, and Malaria;

d) results of operational research and country surveys;

e) reports on activities evaluating tuberculosis control in specific populations (persons deprived of their liberty, indigenous people, Afro-descendant populations, patients with mental health problems, and other population groups) or in specific areas such as health systems and tuberculosis, gender, human rights, social determinants of health, and health equity, among others.

Financial Implications

29. It is calculated that the total cost, including activities and current and additional personnel of the Pan American Sanitary Bureau, will be $10.1 million over the four years of this Plan. The cost of current personnel covered by PAHO’s regular budget is approximately $1,040,000 for the four years, which requires the mobilization of a total of $9,060,000, of which $4,160,000 will be used for regional and subregional staff costs to support the implementation of the Plan of Action in the countries and $4,900,000 for operations at the regional and subregional levels, and for technical cooperation with the countries. The activities undertaken by the countries and partners should be financed through multisectoral initiatives at the local level, to which PAHO can offer technical advice at the regional and country levels.
Action by the Executive Committee

30. The Executive Committee is requested to review the Plan of Action for the Prevention and Control of Tuberculosis and to consider approving the proposed Resolution (Annex A), formulating the comments and recommendations it deems relevant.

Annexes

References


PROPOSED RESOLUTION

PLAN OF ACTION FOR THE PREVENTION AND CONTROL OF TUBERCULOSIS

THE 156th SESSION OF THE EXECUTIVE COMMITTEE

Having reviewed the proposed Plan of Action for the Prevention and Control of Tuberculosis for 2016-2019 (Document CE156/16).

RESOLVES:

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

PLAN OF ACTION FOR THE PREVENTION AND CONTROL OF TUBERCULOSIS

THE 54th DIRECTING COUNCIL,

(PP1) Having considered the Plan of Action for the Prevention and Control of Tuberculosis (Document CD54/__) which proposes accelerating the control efforts in order to advance toward ending the tuberculosis epidemic, and to achieve proposed targets for 2019 of the PAHO Strategic Plan 2014-2019;

(PP2) Recognizing the important achievements made in tuberculosis control in the Region of the Americas—reflected in the early achievement of the targets set in the Millennium Development Goals—thanks to the efforts of the Member States to implement DOTS and the Stop TB Strategy;

(PP3) Aware that in spite of the achievements, tuberculosis remains a serious public health problem in the Region of the Americas, with more than 280,000 estimated new cases each year, of which more than 65,000 are not diagnosed or reported;
(PP4) Aware that tuberculosis control in the Region currently faces new challenges linked to the epidemiological transition that the population is experiencing, with an increase in noncommunicable diseases conducive to tuberculosis infection and disease (such as diabetes mellitus, mental illness, and harmful addictions); the persistent transmission of human immunodeficiency virus (HIV/AIDS) and forms of multidrug-resistant and extensively drug-resistant tuberculosis; rapid urbanization with increased social and health inequities in the poor populations of peripheral areas; and the lack of necessary economic resources to target tuberculosis control activities in the most disadvantaged populations;

(PP5) Considering Resolution WHA67.1 of the World Health Assembly, which adopts the Global Strategy and Targets for Tuberculosis Prevention, Care, and Control After 2015, which includes ambitious goals to end the tuberculosis epidemic, introducing health sector interventions with a multisectoral approach, technical innovation, and adequate financing;

(PP6) Recognizing that this Plan of Action is a platform for the implementation of the Global Strategy;

RESOLVES:

(OP) 1. To approve the Plan of Action for the Prevention and Control of Tuberculosis (Document CD54/__).

(OP) 2. To urge the Member States to:

a) confirm tuberculosis control as a priority in health programs;

b) renew their political commitment with the consequent allocation of sufficient financing and the human resources necessary to achieve the goals set in the national plans;

c) consider this Plan of Action when updating their national strategic plans, which will guide the implementation of the Global Strategy in accordance with their national contexts;

d) strengthen specific measures relating to tuberculosis control in the health sector, in accordance with international standards for tuberculosis care as framed in the Strategy for Universal Access to Health and Universal Health Coverage, and with the primary health care strategy;

e) take an interprogrammatic and multisectoral approach to tuberculosis control, as proposed in the Global Strategy;

f) introduce specific tuberculosis control interventions in vulnerable urban populations in accordance with the PAHO/WHO framework for tuberculosis control in large cities;
g) facilitate protective measures to prevent poverty caused by disease in people affected by tuberculosis and their families, through their affiliation in existing social protection programs in the countries;

h) involve communities, people affected by the disease, civil society organizations, and national and international technical and financial partners in activities to prevent and control the disease.

(OP) 3. Request the Director to:

a) provide technical assistance to the Member States in the preparation of national strategic plans that incorporate the Global Strategy with the necessary adaptations to national contexts;

b) advise on the implementation of the national strategic plans;

c) evaluate the targets proposed in this Plan for 2019;

d) promote the incorporation of new technologies and drugs for the diagnosis, prevention, and treatment of tuberculosis;

e) report to the Governing Bodies on the progress of the implementation of the Plan of Action and the achievement of its goals.
Report on the Financial and Administrative Implications of the Proposed Resolution for PASB

1. **Agenda item: 4.7 - Plan of Action for the Prevention and Control of Tuberculosis**

2. **Linkage to Program and Budget 2014-2015:**
   a) **Categories:** 1, Communicable diseases
   b) **Program areas and outcomes:** 1.2, Tuberculosis

3. **Financial implications:**
   a) **Total estimated cost for implementation over the lifecycle of the resolution (including staff and activities):**
   
   The total expenditure on personnel and activities for the four-year duration of the regional Plan of Action for the Prevention and Control of Tuberculosis 2016-2019 has been calculated at US$ 10.1 million,\(^1\) with $5.2 million for personnel and $4.9 million for activities.

   b) **Estimated cost for the 2016-2017 biennium (including staff and activities):**
   
   The estimated cost for the 2016-2017 biennium is $5,050,000, with an estimated $2,600,000 for personnel and $2,450,000 for activities.

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

   Currently, the cost of the personnel covered by PAHO’s regular budget corresponds to a regional advisor on tuberculosis (P4) and an administrative assistant (G4), shared between several programs of Communicable Diseases and Health Analysis/HIV, Hepatitis, Tuberculosis and Sexually Transmitted Infections (CHA/HT): approximately $260,000 annually or $1,040,000 for the four years. The support of an administrative assistant specifically devoted to tuberculosis is also necessary.

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\(^1\) Unless otherwise indicated, all monetary figures in this document are expressed in United States dollars.
4. Administrative implications:
   
a) Indicate the levels of the Organization at which the work will be undertaken:

   The work will be undertaken at the regional and subregional levels and in the different countries.

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

   - It is a priority to maintain the existing personnel at headquarters and at the subregional level, using PAHO resources. The cost of additional personnel consists of a regional advisor (P4), two subregional advisors (P4), and the project manager (P2) (approximately $700,000 per year), currently guaranteed with financing from the United States Agency for International Development (USAID) until September 2016, and a regional advisor (P4), currently classified as a short-term professional with resources from an agreement with the Global Fund to Fight AIDS, Tuberculosis, and Malaria. This professional should have a post of limited duration, due to the importance of the duties performed, which means there is a need to mobilize additional resources (approximately $220,000 per year).

   - In addition to the existing personnel in Regional Tuberculosis Program, an epidemiologist (P3) is required to support: epidemiological analysis at the regional and country levels; preparation of documents for implementation of the new Global Strategy; the evaluation of new initiatives implemented in the Region, such as tuberculosis control in cities, tuberculosis elimination, and control initiatives among indigenous populations and people deprived of their liberty, among others. The support of an administrative assistant specifically devoted to tuberculosis is also necessary.

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

   - 2015: Approval of the Plan of Action by the Directing Council
   - 2015: Initial implementation of the Plan of Action
   - 2017: Biennial evaluation and presentation of a progress report to the Governing Bodies
   - 2020: Final evaluation and presentation of a final report to the Governing Bodies
ANALYTICAL FORM TO LINK AGENDA ITEM WITH ORGANIZATIONAL MANDATES

1. **Agenda item**: 4.7 - Plan of Action for the Prevention and Control of Tuberculosis

2. **Responsible unit**: Communicable Diseases and Health Analysis / HIV, Hepatitis, Tuberculosis, and Sexually Transmitted Infections (CHA/HT)

3. **Preparing officer**: Mirtha del Granado

4. **Link between Agenda item and Health Agenda for the Americas 2008-2017**: The Plan of Action takes into account the recommendations of the Health Agenda for the Americas 2008-2017 with regard to communicable diseases that disproportionately affect developing countries and are the result of poverty, and the specific recommendations made in paragraphs 47, 48, and 49 of the Health Agenda’s areas of action.

5. **Link between Agenda item and the PAHO Strategic Plan 2014-2019**: The Plan of Action is closely linked to the PAHO Strategic Plan 2014-2019 in Category 1 (communicable diseases) and Program Area 1.2. The Plan of Action incorporates components aimed at accelerating the reduction in incidence and mortality in order to guarantee the achievement of the impact goal and the outcome indicators of PAHO Strategic Plan 2014-2019.

6. **List of collaborating centers and national institutions linked to this Agenda item**:
   - The Collaborating Center of the Emilio Coni National Institute (Santa Fe, Argentina) works with the Regional Tuberculosis Program on aspects related to evaluation, training, and technical assistance for national tuberculosis laboratory networks and supports epidemiological studies and the development of protocols for epidemiological analysis.
   - At present, the Pedro Kouri Tropical Medicine Institute (Havana, Cuba) is in the process of being designated as a collaborating center for tuberculosis elimination.

7. **Best practices in this area and examples from countries in the Region of the Americas**:
   a) Framework for tuberculosis control in large cities: targeting TB control in vulnerable urban populations, with a multisectoral approach, comprehensive care, and the inclusion of tuberculosis in local development plans.

   This initiative is being implemented successfully in Guarulhos, Brazil; Bogotá, Colombia; Lima, Peru; and Montevideo, Uruguay. The main results common to the four countries is the appropriation of the initiative as their own, local government participation, the involvement of public, private and community providers, the affiliation of people affected by tuberculosis and their families to social protection programs, and the expansion of the initiative to other cities in three of the countries, using national resources.

   b) Tuberculosis control in people deprived of their liberty: taking a multisectoral approach, with integrated care inside and outside of prisons, and close coordination between prison
health services and the ministry of health, resulting in compliance with national standards on tuberculosis.

Honduras is an example of tuberculosis work in prisons, with significant participation by prison system authorities and prison directors, who lead tuberculosis control in the institutions. Tuberculosis control results, measured by detection indicators and the cure rate, are optimal, according to the international goals that have been set.

c) Tuberculosis control in indigenous population, with an ethnic and participatory approach to the community, and the adaptation of services to the cultural patterns of the population.

Brazil, Chile, Colombia, Ecuador, Guatemala, Mexico, Peru, and Venezuela have implemented specific initiatives for tuberculosis control in indigenous populations, including the adaptation of health care to cultural patterns, participatory planning of control programs with the community, training of technical health workers in the indigenous population, community initiatives in solidarity with people affected by the disease and community participation in the assessment of results.

d) Implementation of action plans toward tuberculosis elimination in Member States and Associated States with low incidence.

Canada, Chile, Costa Rica, Cuba, Puerto Rico, the United States, and Uruguay have implemented national plans to accelerate the reduction of incidence and mortality, and to establish prevention programs focused on control activities in populations highly vulnerable to tuberculosis, integrated case management, and the expanded management of latent tuberculosis infection in high-risk groups, in accordance with the national context and international recommendations.

8. Financial implications of this Agenda item:

The total cost for the implementation of the Plan of Action 2016-2019 is approximately $10.1 million. The estimated cost for the 2016-2017 biennium is $5,050,000.

The Plan’s success requires technical and financial cooperation from all collaborating organizations, institutions, and centers.