directing council

PAN AMERICAN HEALTH ORGANIZATION

XXXVI Meeting

regional committee

WORLD HEALTH ORGANIZATION

XLIV Meeting

Washington, D.C.
September 1992

Provisional Agenda Item 5.4

CD36/14 (Eng.)
3 August 1992
ORIGINAL: SPANISH

PLAN OF ACTION FOR THE ELIMINATION OF LEPROSY FROM THE AMERICAS

In the consideration of this item at the 109th Meeting of the Executive Committee, the point was made that, because of the stigma associated with leprosy and its potential to produce serious disability, the Region's experts consider that the disease is a much greater public health problem than the prevalence figures alone would indicate. There are approximately 300,000 cases of leprosy in the Region, the case rate being 4.2 per 10,000 population. In 1991, 30,000 new cases were detected. The disease is not uniformly distributed in the Region or in the countries; 80% of all cases are found in Brazil, where the majority of new cases are also detected. Colombia, Mexico, and Venezuela also have more than 10,000 cases each. Leprosy can be considered a public health problem in 21 of the countries.

At present--through multidrug therapy (MDT) with dapsone and rifampicin for paucibacillary cases and with dapsone, clofazimine, and rifampicin for multibacillary cases--it is considered possible to attain the goal of elimination, i.e., less than one case of leprosy per 10,000 population. Unfortunately, MDT has not been as widely used in the Americas as elsewhere in the world. The plan for the elimination of leprosy in the Region emphasizes the need for early detection of cases and increased MDT coverage, and proposes that the required actions be carried out through the local health systems.

In the Committee's discussion of this item, it was mentioned that technical assistance and advisory services should be concentrated in the countries where incidence and prevalence of the disease are high. It was pointed out that there are several potential obstacles to the goal of elimination--for example, the difficulty of determining incidence and detecting cases early, and the possibility that, in countries where leprosy is not very prevalent, the integration of leprosy prevention and control activities into other programs might interfere with accomplishment of the program's goal of reducing prevalence rates. Concern was also expressed about the cost of multidrug therapy.

It was acknowledged that the delegates' concerns were certainly valid and that it would be necessary to step up efforts to improve the capacity of the countries for early diagnosis and for determining the rates of incidence. In addition, more knowledge about the epidemiology of leprosy in the Region is needed. At the same time, it was pointed out that multidrug therapy would reduce the sources of infection. The existing figures on the cost of multidrug therapy are theoretical, since NGOs are expected to provide most of the drugs needed. Finally, it was pointed out that there is a good possibility that the prevalence of leprosy can be reduced within a short time, especially in certain subregions of the Americas.

The Executive Committee adopted the following resolution on the item, which is submitted for consideration by the Directing Council:

RESOLUTION IV

PLAN OF ACTION FOR THE ELIMINATION OF LEPROSY FROM THE AMERICAS

THE 109th MEETING OF THE EXECUTIVE COMMITTEE,

Having seen Document CE109/11, "Plan of Action for the Elimination of Leprosy from the Americas," which presents the situation of leprosy and its trends, and

Considering the targets proposed by the Forty-fourth World Health Assembly (1991) and ratified by the XXXV Meeting of the Directing Council of the Pan American Health Organization (1991),

RESOLVES:

To propose to the XXXVI Meeting of the Directing Council the adoption of a resolution along the following lines:

THE XXXVI MEETING OF THE DIRECTING COUNCIL,

Having seen Document CD36/14, "Plan of Action for the Elimination of Leprosy from the Americas," and considering the mandate of the Forty-fourth World Health Assembly with regard to this subject; and

Recognizing that several Member Countries are close to attaining the target for the year 2000 in advance of that date, and that epidemiological conditions in the various groups of countries and the level of development of their health systems make it feasible to carry out diagnosis, treatment, and surveillance operations,

RESOLVES:

1. To approve the Plan of Action for the Elimination of Leprosy as a public health problem in the Americas presented in Document CD36/14.

2. To urge the Member Governments:

a) To assign political priority to the execution of the regional Plan of Action for the Elimination of Leprosy in all the countries in the Hemisphere where the disease is endemic;

b) To encourage the framing and execution of national plans for elimination of the disease;

c) To promote collaboration and articulation between the various levels of public administration and the private sector;

d) To ensure that the planning and application of methodologies for timely diagnosis, multidrug therapy, and surveillance are based on sufficient epidemiological information so that the social groups affected by leprosy may be stratified and the risk factors involved analyzed in order to take the necessary steps for elimination of the disease;

e) To commit the resources needed for the execution of national plans, and especially for the strengthening of diagnostic and surveillance systems;

f) To incorporate into local health systems activities for the elimination and prevention of leprosy and to promote social participation and local programming and administration so that measures may be carried out comprehensively, synergistically, and without interruption through use of all the human, institutional, and financial resources (local and national) available.

3. To request the Director, within available resources:

a) To promote technical cooperation for the strengthening of epidemiological, diagnostic, information, and surveillance services, the implementation of multidrug therapy, the follow-up of treated patients, and the treatment of disabilities;

b) To support development of the management and administration of programs and the application of epidemiological knowledge to local situations and the stratification process;

c) To promote the mobilization of institutional, human, and financial resources for the development and use of the health infrastructures required to execute the Plan of Action for the Elimination of Leprosy;

d) To encourage biomedical, epidemiological, social, and health services research for the development of more effective intervention measures.

(Adopted at the sixth plenary session,
24 June 1992)

Annex

executive committee of the directing council

PAN AMERICAN HEALTH ORGANIZATION

working party of the regional committee

WORLD HEALTH ORGANIZATION

109th Meeting
Washington, D.C.
June 1992

CD36/14 (Eng.)
ANNEX

Provisional Agenda Item 4.4

CE109/11 (Eng.)
28 April 1992
ORIGINAL: ENGLISH

PLAN OF ACTION FOR THE ELIMINATION OF LEPROSY FROM THE AMERICAS

A frame of reference is presented which includes a review of the leprosy situation and its trends vis-à-vis programs under way in the Region of the Americas, the use of multi-drug therapy (MDT) to control it, and the results obtained. The current prevalence of leprosy in the Region and the feasibility of reaching the targets proposed by the Forty-fourth World Health Assembly (1991) and ratified by the XXXV Meeting of the Directing Council of the Pan American Health Organization (1991) are analyzed. Pursuant to Resolution XIV of the latter meeting, a Plan of Action for the Elimination of Leprosy of the Americas is presented at this time.

The Plan of Action responds to the Organization's collective mandate in terms of both the responsibility of the member countries to implement it and the technical cooperation activities of the Pan American Sanitary Bureau.

The objectives envisage reduction of the prevalence of leprosy to such levels that it no longer constitutes a public health problem--that is, to less than 1 case per 10,000 population. The immediate, short-term, and medium-term targets (for 1992, 1994, and 2000, respectively) emphasize intensive case-finding, epidemiological surveillance, care of disabilities, and treatment using MDT therapy, depending on epidemiological conditions in different groups of countries and the feasibility of carrying out the operations. The plan defines the indicators of elimination and the procedure for certifying its achievement.

The strategies and technical components to be applied by official institutions and nongovernmental organizations, working in concert, include: (a) improvement of the diagnosis of initial and advanced cases (improved coverage, specificity, and sensitivity), strengthening of the public health laboratory network for routine bacteriological diagnosis and referral, and development of the epidemiological surveillance system; (b) timely and regular administration of MDT in all confirmed cases accordance with the scheme proposed by the WHO Expert Committee; (c) training of technical and administrative personnel in the development of decentralized programs that are buttressed locally and integrated into other programs for health promotion; (d) elements for direction, programming, surveillance, evaluation, and certification of the results obtained; and (e) operations research.

It is requested that the Executive Committee examine the Plan of Action with a view to encouraging the Member Governments of the Organization to support its implementation through pertinent political decisions at the national and local level and through allocation of the necessary human resources so that the programs will operate on a sustained basis with the efficiency, effectiveness, and equity that the Plan requires.

CONTENTS

PLAN OF ACTION FOR THE ELIMINATION OF LEPROSY FROM THE AMERICAS

I. FRAME OF REFERENCE

The XXIII Pan American Sanitary Conference (1990) requested the Member Governments and PAHO/WHO to study the feasibility of eliminating leprosy as a public health problem in the Americas. The XXXV Meeting of the Directing Council of PAHO (CD35) concluded that its elimination in the Region is feasible and instructed the Secretariat to formulate a Plan of Action based on a mandate given by the Forty-fourth World Health Assembly (1991) to eliminate leprosy worldwide by the year 2000[1] through timely diagnosis and multi-drug therapy (MDT). Resolution CD35.14 lists leprosy among the communicable diseases whose elimination is feasible in the Region. In October 1991 the conclusions and recommendations of the Conference for the Control of Leprosy in the Americas, which included the participation of most of the Region's countries in which the disease is endemic, identified technical lines and strategies for its control and elimination and agreed to include these recommendations in the present Plan of Action for the Region.

In addition, PAHO considers that, in terms of the Strategic Orientations and Program Priorities for the Quadrennium 1991-1994, the elimination of endemic diseases such as leprosy will enhance the credibility of the health services. In addition, there is interest on the part of numerous nongovernmental organizations (NGOs) in continuing to support activities for the care of leprosy patients. These organizations have now decided to lend their support to basic activities for the elimination of leprosy, as agreed in the conclusions of the Conference for the Control of Leprosy in the Americas (Mexico, 1991). Not only is this undertaking feasible in the technical sense, it has become financially feasible because in most instances the Governments' allocations are being supplemented by contributions from the private sector.

The Plan of Action responds to the Organization's collective mandate in terms of both the responsibility of the member countries to implement it and the technical cooperation activities of the Pan American Sanitary Bureau.

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[1] The elimination of leprosy is defined as the reduction of its prevalence to such levels that it no longer constitutes a public health problem, or less than 1 case per 10,000 inhabitants.

II. ANALYSIS OF THE LEPROSY SITUATION

Leprosy continues to be a serious public health problem in many of the developing countries. Its potential for producing disability and the ensuing social stigma make it a greater public health problem than the figures on its prevalence would indicate.

Approximately 80% of the population in the countries of Latin America live in areas where the prevalence exceeds 1 case per 10,000 population--that is, they are at risk of contracting the disease. The epidemiological problem posed by leprosy in the Region of the Americas may be regarded as intermediate in severity by comparison with other regions of the world. According to information available for 1991, the Region had 301,704 cases on its registers, or 8% of the world total; the number of new cases detected during the year came to 30,543, or 5% of the those detected throughout the world; prevalence came to 4.20 per 10,000 population; and the detection rate was 0.42 per 10,000 population. For an idea of the importance of leprosy on the Hemisphere, Brazil ranks second among the countries of the world in absolute number of cases (266,578) and there are four countries in the Region (Brazil, Colombia, Mexico, and Venezuela) with more than 10,000 cases on their registers. In 21 of the 35 countries of the Region leprosy can still be considered a public health problem, since its prevalence is greater than 1 per 10,000 population.

Endemic leprosy is not uniformly distributed in the Region: there are countries such as Chile where the disease is not endemic at all, while it is hyperendemic in some areas of the Amazon subregion. There are also wide variations in endemicity within a single country, as well as variations in terms of absolute numbers of cases registered and detected, values of the respective rates of prevalence and detection, MDT coverage, and degree of dispersion of the endemic disease. There is the case of Brazil, which had 87% of all the registered cases in the Hemisphere in 1990 and approximately 95% of the new cases detected (28,000 cases), while in nearby Ecuador the prevalence is less than one per 10,000 population, and most of the countries fall between these two extremes.

Of the Caribbean countries and territories--Anguilla, Antigua and Barbuda, the Bahamas, Barbados, Belize, Bermuda, the Cayman Islands, Dominica, Grenada, Guyana, Jamaica, Montserrat, St. Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Suriname, Trinidad and Tobago, Turks and Caicos Islands, and the Virgin Islands--seven have not detected any new cases since 1985 and MDT coverage in the subregion is high. However, leprosy is still considered a problem in Guyana, Saint Lucia, Suriname, and Trinidad and Tobago.

In the countries of Central America, Panama, and Uruguay, the conditions are somewhat similar to those in the Caribbean, with low levels of prevalence. In addition, even in those countries where MDT coverage is inadequate, the conditions for improving it exist.

Another group of countries is characterized by moderate endemicity, variable MDT coverage, and/or concentration of the endemic disease in certain geographical areas. This is true of Argentina, Cuba, the Dominican Republic, Mexico, Paraguay, and Venezuela, where the prevalences are 4.8, 5.4, 1.5, 2.1, 5.8, and 6.0 per 10,000 population, respectively. In Argentina the highest rates are found in the northeastern provinces. In Cuba the highest rates are in provinces on the eastern part of the island. A similar phenomenon is also observed in Mexico, where 87% of the patients are concentrated in 10 states that have 28% of the national population. Although Bolivia, Colombia, Haiti, and Peru might also be included in this group, there are gaps in the available epidemiological information that make it impossible to have a clear picture of the current status of the endemic disease.

The national leprosy control programs in the Region vary in terms of their organization, development strategies, financing, cooperation with nongovernmental organizations, arrangements with related programs, degrees of integration into the general health services network, and integration into the health system. However, they share in common a number of operational problems, such as the difficulty of "cleaning up" and standardizing centralized files so that they can be keyed to the working definition of a leprosy case and the criteria for patient discharge. Several of the national programs are vertical, which underscores the risk that, with integration and competition from other health problems that are more severe or more urgent, leprosy control activities could lose priority and fail to receive the resources they need.

The only effective leprosy control measure that was applied in the 1980s was multidrug therapy (MDT). Its implementation results in a significant decrease in prevalence, sometimes to levels compatible with elimination of the disease.

The rationale for the use of MDT lies in the fact that from the outset the medication acts on a mixed population of Mycobacterium leprae. It is estimated that there are 10^{10} to 10^{11} viable bacilli present in a case of multibacillary leprosy. These bacilli are usually sensitive to rifampicin, dapsone, and clofazimine, except for three small populations of approximately 10^4 bacilli each that are resistant to all three of these drugs. With the WHO/MDT regimen for multibacillary cases, rifampicin will quickly kill the great

majority of bacilli, including those resistant to dapsone and clofazimine. The remaining viable bacilli, which will be sensitive to the three drugs or resistant to rifampicin, will then be killed gradually, at a slower rate, by the bactericidal activity of the dapsone and the clofazimine.

Paucibacillary patients appear to start out with a much lower population of viable bacilli (10^6). The existence of resistant bacilli is unlikely in such cases except for possible primary resistance to dapsone. Although monotherapy with rifampicin should be sufficient for paucibacillary patients, in the chance that there might have been an error in diagnosis or classification, two drugs are recommended. Thus the combination of three drugs for multibacillary patients and two drugs for paucibacillary patients should be sufficient to kill all the live organisms that the patient may be harboring.

Of course, MDT regimens are more expensive than monotherapy with dapsone. However, it should be taken into account that the treatment is completed in a much shorter time. For paucibacillary cases, the cost of dapsone and rifampicin for six months is estimated at US$3.00, whereas with the multibacillary cases the cost of the treatment with dapsone, rifampicin, and clofazimine for two years is $50.00, and each additional year costs $25.00 more. Although the total expenditure for MDT includes other components that increase the total cost of treating a case to $100.00, 50% of this amount corresponds to the cost of the drugs and the rest to the cost of services, including training and treatment.

The logistics of distributing the drugs is a critical factor in the execution of MDT. To avoid operational difficulties, some countries elsewhere in the world have adopted the practice of using dose-dated packets designed specifically for the program. The objective is to safeguard against administration of the wrong drugs or incorrect dosages, prevent rifampicin from being used for other purposes, facilitate inventory control, protect the drugs, and improve treatment compliance on the part of the patient.

With the implementation of MDT at the global level there has been a worldwide reduction in prevalence of approximately 31% in the last five years (from 5.4 million cases in 1985 to 3.7 million in 1990). Currently, global MDT coverage is 55.7%.

In the Region of the Americas, the expansion of MDT coverage has been slow, especially in Brazil. Today coverage in the Region as a whole reaches barely 23.7% of all known cases. However, official data show that thanks to MDT Ecuador has succeeded in attaining a level of prevalence compatible with the elimination of leprosy as a public health problem.

Uruguay, Panama, and the countries of Central America and the English-speaking Caribbean are subregions in which the incidence of leprosy is decreasing, which means that elimination of the endemic is feasible in the short term.

The elimination of leprosy as a public health problem at the Regional level (by reducing prevalence to less than 1 case per 10,000 population) is feasible if there is early case detection and effective treatment (MDT). The sustained application of these measures provides the basis for the elimination of leprosy as a public health problem in some of the countries in the Region by the year 2000. However, attainment of this target will depend on the capacity of control programs to improve their coverage and become integrated into the general health services system.

III. CONTROL OR ELIMINATION OF LEPROSY

Purpose

To eliminate leprosy or attain a level of control such that it no longer constitutes a public health problem on the basis of a four-stage process: immediate, short-term, medium-term, and certification.

Objectives:

- To reduce prevalence.
- To prevent disabilities.
- To achieve a gradual and sustained reduction in incidence.

Targets:

- Immediate (1992): epidemiological surveillance completely organized for the intensive detection of new cases, recurrences, and disabilities, and skills maintained.

- Short-term (1994): MDT completed for more than 80% of all cases and more than 80% of the new cases detected without disabilities.

- Medium-term (2000): MDT completed for more than 95% of all cases and all new cases detected without disabilities.

IV. STRATEGIES AND TECHNICAL COMPONENTS

Implementation of the primary health care strategy offers useful alternatives for the improvement of case-finding, subsequent diagnosis, and timely treatment, and at the same time it opens up possibilities for increasing the program's coverage through decentralization and the strengthening of local health systems. The strategies and technical components include:

a) Improvement in the diagnosis of initial and advanced cases (improved coverage, specificity, and sensitivity), strengthening of the public health laboratory network for routine bacteriological diagnosis and referral, and development of the epidemiological surveillance system.

b) Timely and regular administration of MDT in all suspected and confirmed cases in accordance with the scheme proposed by the WHO Expert Committee.[2]

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[2]Leprosy case: an individual who has clinical signs of leprosy, with or without bacteriological confirmation of the diagnosis, and requires chemotherapy. The cardinal clinical signs of leprosy are: a) one or more cutaneous lesion (hypopigmented or erythematous) not typical of another cutaneous disease, b) loss of sensitivity (to heat, pain, or touch) with or without cutaneous lesions, c) swollen nerve trunks or cutaneous nerves.

The following are considered equivalent to cardinal signs: a) the presence of acid-fast bacilli in cutaneous smears, and b) clear histopathological evidence of leprosy.

Multi-drug therapy is indicated for: a) all new cases, b) all cases already on the register that have signs or symptoms of clinical or bacilloscopic activity, and c) inactive multibacillary cases that have been under observation for less than five years.

The only effective resource available for achieving the elimination of leprosy is the administration of MDT to the largest possible number of patients. The objective of the other strategies and components of the Plan is to obtain complete, regular, efficient coverage with MDT. Local health systems will be responsible for the programming and execution as well as the management and monitoring of the program.

c) Training of technical and administrative personnel in the development of decentralized programs that are buttressed by local health systems and integrated into other programs.

d) Elements for financing, direction, programming, management, surveillance, evaluation, and certification of the results obtained.

e) Operations research.

V. TACTICS

1. Expansion of MDT coverage

For this purpose the PAHO/WHO operational definition of a case will be applied.[3]

2. Improvement of case-finding and follow-up and adoption of treatment

a) Dissemination of basic knowledge about the signs and symptoms of leprosy, as well as procedures for reporting suspected cases, among auxiliary health personnel and in the communities, with a view to increasing the coverage of case-finding and reporting, especially in rural areas and locales that are difficult to reach.

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[3] See footnote 2.

b) Adequate promotion among health services personnel and in the community aimed at encouraging spontaneous consultation, timely identification of carriers with signs suggestive of leprosy, timely utilization of diagnostic resources, and regular compliance with supervised treatment, especially in urban areas, for all cases on the register.

c) Formation of groups and networks of volunteers to support follow-up of regular treatment for patients living in places that are difficult for the health personnel to reach.

d) Inclusion of case-finding activities as part of integrated referral and back-referral procedures in the local health systems.

3. Definition of suspected, early, and advanced leprosy

A suspected case of leprosy is one in which the patient presents only one of the cardinal (or equivalent) signs mentioned above.

Early leprosy is present whenever two cardinal (or equivalent) signs are found and reflected in a limited number of lesions, with no disability.

An advanced case of leprosy is one in which the lesions are extensive and/or there are disabilities.

4. Improvement of technical and managerial capacity

The elimination of leprosy as a public health problem and the maintenance of indications that it has been eliminated call for the strengthening of capacity at the local level to offer and administer the corresponding services. Emphasis should be placed on the training of managers at the local and/or regional levels through modular programs, based on a standardized pedagogical methodology, directed toward the development of capacity to manage the program at the level of local health systems.

5. Strengthening of the network for bacteriological diagnosis

High-quality bacteriological diagnosis of leprosy based on cutaneous smears is essential for the confirmation and classification of multibacillary forms. Also, for purposes of case-finding, it is equivalent to presence of the cardinal clinical signs. In

order to improve diagnostic reliability, bacilloscopic diagnosis will be incorporated into the laboratory activities of the existing general laboratory network as well as the tuberculosis services that perform bacilloscopic examinations, which will help to strengthen them, exercise quality control, and provide training for personnel at the applied level and those responsible for referral.

6. Epidemiological surveillance

In order to increase MDT coverage and get it to patients earlier, as well as to evaluate the impact of this fundamental strategy for elimination of the disease, it is essential to have an epidemiological surveillance system that will lead to early case-finding and provide adequate and timely information for stratification of the risk to human groups and specific areas.

7. Stages of elimination

The principal achievements proposed for each stage of the elimination process are:

Immediate (1992)

- Surveillance for new cases (intensive case-finding)
- Surveillance for recurrences
- Care being provided for disabilities
- Maintenance of skills

Short-term (1992-1994)

- MDT completed for more than 80% of all cases
- More than 80% of the new cases detected without disabilities

Medium-term (1995-2000)

- MDT completed for more than 95% of all cases

- 100% of the new cases detected without disabilities.

8. Research development

Special impetus will be given to operations research applied to health systems, including the epidemiological/social aspect, with a view to achieving results of a practical nature, whenever possible, that can be applied in the short term. Some examples from the research areas identified are:

- Search for alternatives leading to broad and timely case-finding and follow-up of cases undergoing treatment with MDT.

- Study of factors that hinder regular compliance with MDT schemes.

- Identification of economic, social, and cultural risk factors that are conducive to the transmission of leprosy or the failure of MTD.

- Assessment of the reliability of the diagnosis.

- Study of new treatment schemes or prevention alternatives.

9. Surveillance and evaluation

As progress is made toward elimination, the programming of activities will basically emphasize surveillance and the evaluation of programs, and it should include clinical and laboratory aspects that have unwittingly been overlooked in the activities of the existing referral centers, such as those related to the prevalence of resistance to the drugs being used for treatment.

Surveillance and evaluation will be carried out on the basis of the epidemiological indicators generated by the system or by surveys when they are appropriate. This mechanism will be supported by frequent Regional advisory services to the countries plus annual evaluation meetings of national officials responsible for the programs at which they will present results and exchange information.

10. Articulation with other programs

In addition to articulation between the services at the different levels of complexity in the national health systems, intersectoral articulation (between education, science and technology, and the communications media) will be a national-level objective. PAHO cooperation, on the other hand, will involve the promotion of articulation with other programs (TB, AIDS, EPI), especially in such activities as personnel training and logistics for the provision of drugs, etc. In conjunction with the Health Situation and Trend Assessment (HST) program, a project is proposed for the structuring and implementation of an Integrated Information and Epidemiological Surveillance System for Leprosy, and with the Health Services Development (HSD) program, a joint promotion of operations research. The objective is to achieve rapid and effective integration of the leprosy control activities in the general health services systems.

VI. ORGANIZATION AND ADMINISTRATION

1. National organization and administration

It is essential for the countries to strengthen their administrative structures and officially prioritize and support the elimination of leprosy as a public health problem. Accordingly, they should all carry out the following initial actions which constitute the required commitments:

a) Express manifestation of the will to eliminate leprosy as a public health problem by the year 2000.

b) Designate a full-time technical unit for the management of leprosy control activities if such does not already exist. This unit will be assigned the following functions:

- Definition of the elimination plan.

- Financing.

- Provision of drugs and other basic supplies.

- Training of personnel.

- Mass educational activities (radio, TV, etc.).

- Collection and analysis of statistical data (surveillance) and data for research protocols.

- Preparation of research projects.

- Supervision and evaluation.

c) Organization of a national committee to support the elimination of leprosy:

- To adapt the structure of the national control programs to the goals of elimination through the incorporation of diagnostic activities, MDT treatment, and comprehensive care for patients with disabilities within the local health systems, in accordance with local epidemiological and operating characteristics.

- To strengthen technical, operating, and managerial capacity for the application of appropriate technology to the elimination of leprosy.

2. PAHO/WHO technical cooperation

The PAHO/WHO Communicable Diseases Program (HPT) will participate in the development of an information system that will combine national, state, and local data into a database that will allow for stratification of the vulnerable social groups in the countries in which the disease is endemic so that the most effective interventions can be channeled toward the leprosy elimination program. It will also promote the development of subregional, national, state, and jurisdictional data bases so that use of the epidemiological stratification method will reach the countries' interior.

PAHO/WHO will participate in the review and evaluation of research proposals and will collaborate in the identification of sources of funding through national and international agencies that promote science and technology. The governments will be encouraged to give priority to research on leprosy in their national institutions. PAHO/WHO will participate in the transfer of technology when research results generate other effective alternatives that can readily be incorporated into the elimination program.

Strategic guidelines

These guidelines, which are consistent with the functional approaches normally used by PAHO (resource mobilization, information dissemination, policy development, training, research, and direct technical cooperation), may be summarized as follows:

- Promotion of the political decision to implement the Conclusions and Recommendations of the Conference for the Control of Leprosy in the Americas.

- Support for the integration of national programs into the general health services system.

- Support for the formulation, implementation, and evaluation of national and subregional plans for elimination.

- Support for the development of information systems and epidemiological surveillance.

- Promotion of the strengthening of operational capacity in the local health services.

- Support for operations research and training.

- Coordination of cooperation with NGOs and among countries or subregions.

- Search for financial resources to supplement those from the countries and the donor agencies.

Expected outcomes:

a) National control programs, based on the primary health care strategy with activities incorporated into the local health systems and through the mass implementation of MDT, will have either achieved higher levels of control or else eliminated leprosy as a public health problem.

b) Technical, operational, and managerial capacity in the countries will have reached a sufficiently high level to keep the endemic disease under increasing

levels of control and/or under post-elimination epidemiological surveillance with a view to preventing its reappearance.

Surveillance systems

This technical cooperation plan will undergo annual administrative and budgetary programming in accordance with PAHO standards and procedures. The Four-Month Plans of Work spell out the annual program at the level of activities and tasks. Surveillance of their execution is the responsibility of PAHO/WHO technical personnel, and evaluation of the fulfillment of technical cooperation activities is done each year as part of the evaluation of the Communicable Diseases Program.

VII. ANNEXES

ANNEX 1

Bases for Program Development

The table below shows the capacities that need to be developed at the different levels.

LEVEL	CAPACITY
(a) Community	Identification of suspected cases (probable cases according to clinical manifestations). Collaboration to ensure regular compliance with treatment. Support for disabled patients.
(b) Primary (basic health unit)	Passive case detection. Active case-finding among contacts within and outside the household. Provision of MDT. Application of simple techniques for prevention and management of disabilities. Operational participation in research protocols.
(c) Secondary (Outpatient or inpatient)	Intensive search for probable cases in open communities in areas targeted for elimination. Bacteriology. Confirmation of doubtful cases. Management of adverse reactions and effects of treatment. Application of techniques of greater complexity in the prevention and management of disabilities. Participation in the training of primary level personnel. Collection of statistical data for surveillance and for research protocols.

Improvement of Diagnosis

Improvement of detection activities with a view to increasing sensitivity and specificity in the diagnostic confirmation of a clinically suspicious case. This will be accomplished through:

- Training and motivation of general health services personnel as well as development of local referral resources for diagnostic confirmation and the management of complications.

- Utilization of the general laboratory network that supports the regular medical services. In these multipurpose laboratories, with a clear definition of public health, have there is already equipment and personal geared to case-finding and control for tuberculosis based on bacilloscopic examinations using smears treated with acid-fast stain and alcohol. This installed capacity should be enlisted for the confirmation of leprosy diagnoses by training the nursing and laboratory personnel to take samples of suspicious lesions and examine them microscopically.

Mechanisms for the development of decision-making capacity

- Maximum utilization of the resources available at each level of care (and in the referral and back-referral systems) in the local health systems.

- Development of intra- and extrasectoral articulation and community participation at the local and regional levels.

- Incorporation of leprosy control activities with the activities of other teams responsible for the control of endemic diseases related to public health dermatology, tuberculosis, and AIDS.

- Training of health personnel through a program that includes preparation and publication of information on the strategic and tactical aspects of the Plan for the Elimination of Leprosy in the Americas in an annual bulletin that will cover the technical standards and procedures to be followed regularly in the country-level programs for the clinical, epidemiological, and administrative management of leprosy.

Epidemiological surveillance system

The epidemiological surveillance system to be implemented will emphasize the following aspects:

- Mechanisms for case detection: a) application of the definition of a suspected case by auxiliary and community personnel who have been trained, integrated into the referral system, and work under continuous supervision; and b) active case-finding among contacts within and outside the home and in open commun-ities in those countries that are in the final stage of leprosy elimination.

- Notification (registration of cases): a) the auxiliary and community personnel will immediately refer an individual with a suspected case to the health service for diagnostic confirmation by a physician; and b) the health service will report confirmed cases to the next higher level each month. The central epidemiology offices in the countries will also submit this information to PAHO/WHO on a monthly basis.

- Confirmation of cases: a) clinical and laboratory confirmation (bacilloscopic examination) in multibacillary cases; and b) clinical verification by a physician in paucibacillary cases.

- Processing of the information: a) the information will be consolidated and processed for determination of the values of the indicators[4] at the municipal and provincial (or departmental) levels; and b) at the central level.

- Feedback: a) the epidemiology department at the central level will issue a bulletin at least once a year, to be sent to the local levels and to PAHO/WHO, and b) PAHO/WHO will, in turn, issue an annual bulletin on the status of leprosy elimination in the Americas.

Evaluation of the effectiveness of surveillance

Indicators will be developed that reflect achievements in the areas noted, and these will be subject to periodic evaluation.

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[4]Periodically, the countries will submit data on their respective rates and indicators to PAHO/WHO.

Implementation of stratification

Stratification is a fundamental process for setting priorities for intervention based on diagnosis, research, analysis, and interpretation of the information to be used as the basis for methodological categorization of the geoecological areas and the social groups in terms of the risk of contracting leprosy. For this purpose it is essential to have epidemiological and operational information that will make it possible to establish the pertinent strata.

Based in the data available to date, the following tentative grouping of the endemic countries of America is proposed for the Region taking into account existing epidemiological and operational conditions and the outlook for the future (See Annex 2), with specification of the aspects to be developed differently in each group. In the context of the goal of global elimination by the year 2000, the country groups will progressively attain the goals in terms of, inter alia, organization, effectiveness of services, allocation of resources, reduction of the epidemiological problem, and elimination of leprosy before that year.

GROUP I

Countries which, through the use of MTD, have attained operational and epidemiological indicators that are compatible with elimination. Only Ecuador is in this situation.

Such countries are on the verge of immediate elimination, are in a position to certify the results, and are able to maintain post-elimination surveillance; their principal activities in the coming years will be:

- Intensified epidemiological surveillance (intensive detection of new cases, including active case-finding in open communities in areas targeted for elimination);

- Post-treatment surveillance (timely detection of recurrences);

- Support of the timely supply of drugs in adequate quanitities;

- Maintenance of skills, especially for diagnosis;

- Care for the disabled.

GROUP II

Countries or subregions with operational and epidemiological indicators showing that elimination in the short term (by 1994) is feasible.

This category includes the English-speaking countries of the Caribbean, the Central American countries, Panama, and Uruguay. These countries could eliminate leprosy in the short term, which means that their principal activity in the coming years will be the formulation and implementation of the Plan of Action for Elimination.

GROUP III

Countries with epidemiological indicators showing moderate endemicity but with acceptable operational indicators (proportion of patients receiving MDT), or with endemic disease that is restricted to specific areas: Argentina, Cuba, the Dominican Republic, Mexico, and Venezuela.

These countries will be able to achieve indicators showing elimination in the medium term (between 1995 and 2000) and their principal activity in the coming years will be the development of epidemiological stratification.

This group might also include other countries such as Bolivia, Colombia, Haiti, Paraguay, and Peru.

In the first four countries there is a shortage of essential information. The lack of information from these countries reflects certain shortcomings in the organizational and operational aspects of their control programs, although the epidemiological reality may not be serious. The immediate activities required will be:

- Improvement of the program's organization through definition of the line of technical command, assignment of responsibilities, institutional coordination, and standardization of technical criteria.

- Implementation of the epidemiological surveillance system.

Paraguay has an organized program and sufficient information, but the MDT scheme recommended by the WHO Expert Committee is not being used, which makes it impossible to include this country in the forecasts for elimination, which are based on the use of a therapeutic scheme of verified effectiveness which does not have significant harmful effects.

GROUP IV

Brazil's epidemiological indicators point to high endemicity and are coupled with unfavorable operational indicators (low MDT coverage). This country will achieve indicators of elimination in the long term (by the year 2000) and its principal activity in the coming years will be the development of intersectoral projects, on the basis of regional planning, that will involve social security, the university system, the science and technology system, and the mass media.

Certification of elimination

a) Indicators of elimination

The indicator of the elimination of leprosy as a public health problem that has been adopted is a prevalence rate of less than 1 case per 10,000 population.

Associated indicators are in the process of being identified and the following are tentatively suggested: a) maintenance of a prevalence rate of less than 1 case per 10,000 population, at least during the last five years; b) MDT coverage of over 95% of the cases; and c) detection of all of new cases without disabilities in the last two years.

In addition, it is suggested to compare the status of leprosy elimination with an indicator of health system effectiveness normally used in the evaluation of integrated programs, namely coverage of over 80% with the complete DPT vaccination scheme in children under 1 year of age in the previous two years.

b) Formal procedure for certification

The following is also tentatively suggested: the information generated by the epidemiological surveillance system will be evaluated vis-à-vis the indicators of elimination by a National Certification Commission, which will be responsible for certifying elimination in a given country or one of its jurisdictions. In the Americas there will be a Regional Commission that will confirm the certification awarded by the National Commission.

PAHO/WHO technical cooperation

In order to guarantee implementation of the Plan of Action for the Elimination of Leprosy as a Public Health Problem, PAHO/WHO will carry out the following activities:

- An annual evaluation meeting will be held with 10 countries from Groups III and IV together with a group of five experts from these countries and the principal NGOs involved in these countries.

- A biennial evaluation meeting will be held with five countries (or subregions) from Groups I and II together with a group of three experts from these countries and the principal NGOs involved.

- A Committee for the Certification of Elimination, to be made up of individuals at the technical, administrative, and political levels who are not directly involved in the Plan for the Elimination, will meet when as required in order to confirm the countries' indicators vis-à-vis established epidemiological and operational criteria and to certify the elimination officially.

- Direct advisory services will be provided by the Regional Adviser (or Temporary Advisers): two visits a year to Argentina, Brazil, Colombia, and Venezuela; and one visit a year to the other countries of Group III and countries (or subregions) from Groups I and II.

- Subregional and national advisory services. In order to give viability to the technical support for the countries, PAHO/WHO might determine when this is considered necessary for a limited time and provide national and subregional advisory services in the case of one or several of these countries.

a) Human Resources

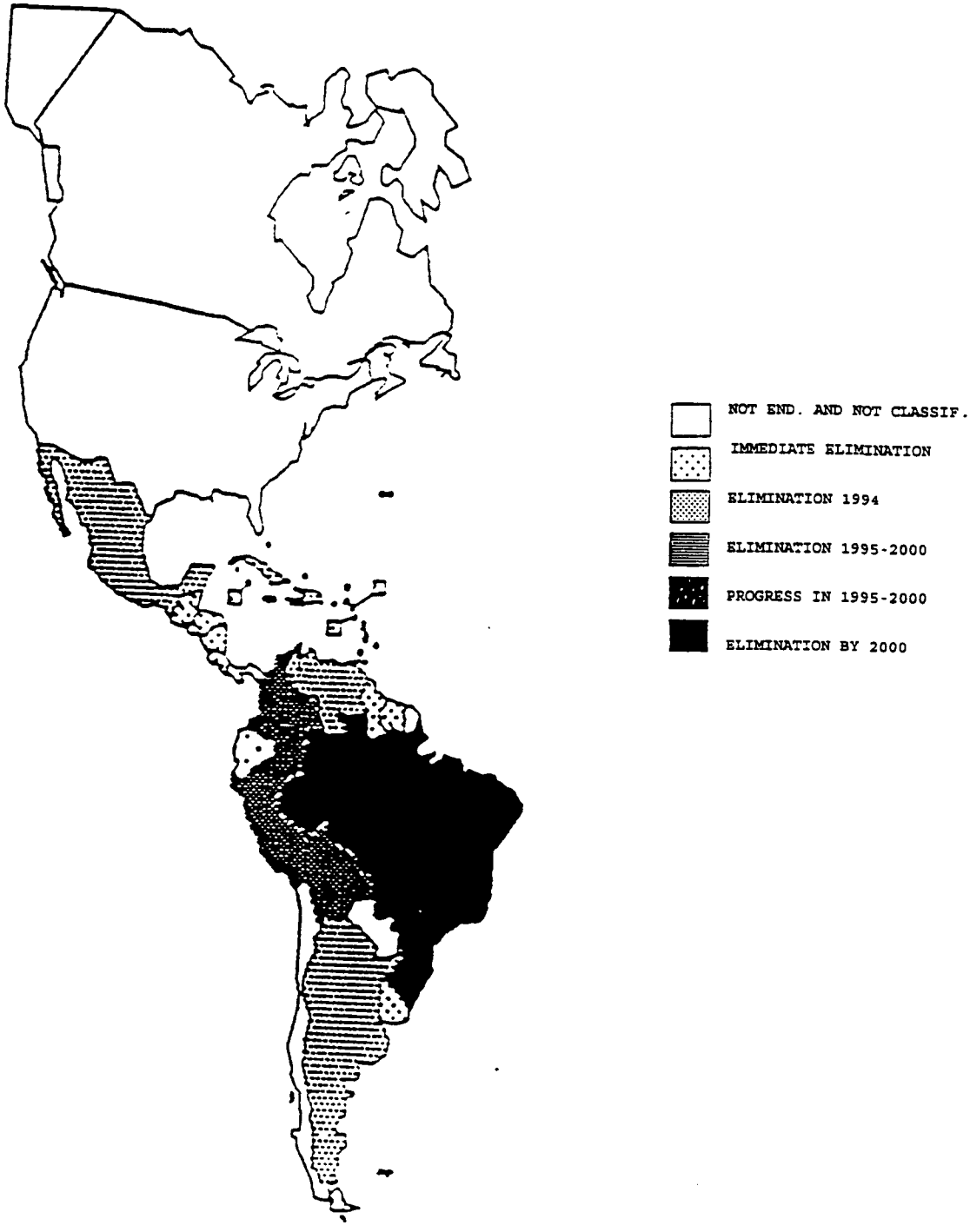
The personnel roster of the Communicable Diseases Program (HPT), including regional and country advisers, constitutes the human resource to be used for technical cooperation in the control and/or elimination of leprosy.

b) Financial Resources

The resources of the LEP project come under the HPT program and are from regular PAHO/WHO funds as well as from extrabudgetary sources donated by nongovernmental organizations in the sector and channeled through PAHO/WHO.

ANNEX 2

Status of Leprosy in the Americas in relation to the elimination process



ANNEX 3

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