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the directing council**

**working group of
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1. Introduction

Dengue and dengue hemorrhagic fever are becoming an increasingly serious problem in the countries of the Region of the Americas, which have experienced sweeping and explosive epidemics in recent years. Even more alarming has been the emergence of dengue hemorrhagic fever, which appeared with the Cuban epidemic in 1981 and gradually spread to other countries in the Region. Since then more than 40,000 cases of dengue hemorrhagic fever have been reported in 25 countries.

Given the continuing deterioration in the situation, at its XXXVIII Meeting in 1995 the Directing Council of the Organization adopted Resolution CD38.R12 establishing a task force to study the feasibility, timeliness, and appropriateness of preparing a hemispheric plan for the eradication of *Aedes aegypti* in the countries of the Region.

Having seen the document prepared by this task force, the Directing Council of PAHO, at its XXXIX Meeting (1996), adopted Resolution CD39.R11, urging the Member States to draw up national plans to expand and intensify efforts to combat *A. aegypti* with a view to its future eradication and establishing a task force made up of professionals in the field to develop the hemispheric plan.

In compliance with the aforesaid resolution, a task force of experts from several countries met in Caracas, Venezuela, from 21 to 25 April 1997 to draw up the hemispheric plan.

2. Historical Background

The eradication of *A. aegypti* in the Americas has been the subject of debate for at least 20 years. During the I Meeting of the Directing Council of the Pan American Health Organization, held in Buenos Aires in October 1947, the Directing Council supported an eradication proposal and resolved to entrust PAHO with finding a solution to the hemispheric problem and implementing the program. Thus, hemispheric eradication became official policy.

The hemispheric campaign was organized by PAHO, its success reflected in the fact that, by 1962, eradication had been achieved in more than 20 countries.

Thereafter, unfortunately, only three more countries or territories eliminated the vector. More serious, however, was the fact that reinfestation began in the 1960s in the countries where eradication had been achieved. Not every country in the Hemisphere had been willing to eradicate *A. aegypti*. Those that were still infested became sources of reinfestation for those that had eradicated the vector.

The campaigns to combat *A. aegypti* in the Americas also eradicated urban yellow fever several decades ago. However, the ever-widening spread of this vector in the Americas since the 1970s has created the specter of the re-emergence of urban yellow fever in the Region.

Over time, the political importance of programs to combat *A. aegypti* waned, and surveillance of reinfestation gradually declined. After the remarkable successes of the 1950s and 1960s, the program ground to a halt, and now all the countries of the Hemisphere, with the exception of Bermuda, Canada, and Chile, are infested. It is significant that Uruguay was reinfested this year after being free of *A. aegypti* for 39 years.

In 1985 the XXXI Meeting of the Directing Council adopted a resolution on the control or eradication of *A. aegypti* that was interpreted as the end of the policy to eradicate the vector in the Region.

3. Current Situation

3.1 Dengue

Dengue and dengue hemorrhagic fever are becoming an increasingly serious problem in the countries of the Region of the Americas, which have experienced sweeping and explosive epidemics in recent years. Even more alarming has been the emergence of dengue hemorrhagic fever, which appeared with the Cuban epidemic in 1981 and gradually spread to other countries in the Region. Since then more than 40,000 cases of dengue hemorrhagic fever have been reported in 25 countries.

In 1995 major dengue epidemics ravaged Central America, the Caribbean, and South America (particularly Brazil), with a total of 284,483 cases reported by 41 countries—the highest incidence of dengue since 1981. In 1996, 250,707 cases, some 80% of them in Brazil, were reported.

3.2 Dengue Hemorrhagic Fever

The greatest cause for alarm is the advance of the most serious form of the disease, dengue hemorrhagic fever. Cases of dengue hemorrhagic fever have been reported in the Americas every year from 1981 to 1996, with the exception of 1983.

During this period 25 countries reported a total of 41,669 cases of dengue hemorrhagic fever, with 576 deaths. The marked increase in the number of cases in the present decade compared to the past decade should be noted (28,434 versus 13,235).

3.3 Yellow Fever

Although there has been no urban transmission of the yellow fever virus in the Americas for over 40 years, the high density of the *A. aegypti* presence in urban centers located in enzootic areas for this disease poses the potential risk of its urbanization. The outbreak in Peru in 1995, with 492 cases and 192 deaths reported, is clear evidence of that risk.

4. Hemispheric Plan to Combat *A. aegypti*

The plan to combat the *A. aegypti* was based on the national plans that the countries had already drawn up in compliance with the resolution of the Directing Council in 1996. The hemispheric plan is still under review and will be presented at the next session of the Directing Council in September 1997.

The task force took very much into account the analysis of the factors that had led to the failure of the campaigns to combat the vector and resulted in the reinfestation of the countries where eradication had been achieved, and it emphasized the countries' current situation in order to come up with an appropriate eradication strategy. The purpose of the resulting hemispheric plan is to eliminate the circulation of the dengue viruses in the Americas by combating *A. aegypti* in all countries currently infested and increasing surveillance in the countries that remain free of the vector.

The task force noted the differences among the countries with respect to the status of their current programs and the activities to combat *A. aegypti* provided for in their national plans. In most of the countries, the strategies proposed and the resources allocated are inadequate for undertaking a program aimed at combating and eradicating the vector. The hemispheric plan estimates the cost of each operational component to underscore the importance of resources in selecting a strategy to combat *A. aegypti*.

These differences among the countries led the task force to recommend the application of a five-stage regional strategy to combat the vector, moving gradually from initial activities geared toward intensifying and expanding the struggle against *A.. aegypti* to the eradication phase and, finally, to surveillance to prevent reinfestation.

The task force reaffirmed that eventual eradication of the vector will require efforts to solve problems and eliminate the adverse conditions existing in most of the countries, where strengthening the political will and obtaining the resources to support the implementation of this strategy should be granted the highest priority if this undertaking is to meet with success.

5. Total Cost of Implementing the Hemispheric Plan

The table below shows the total cost of implementing the Hemispheric Plan: US$ 1,657,500,000 a year. Direct operations to combat the vector represent 84.5% of the total cost; epidemiological surveillance, 4.3%; social participation and communication, 10.1%; and sanitation, 1.1%. There was consensus among the participants that most of the funds required for the implementation of the plan should be furnished by the countries themselves.

Annual Cost of Executing the Hemispheric Plan

Component	Cost (US$)	Percentage
Direct operations	1,400,000,000	84.5
Epidemiological surveillance	72,000,000	4.3
Social participation, and communication	168,000,000	10.1
Sanitation	17,500,000	1.1
Total	1,657,500,000	100.0