



PAN AMERICAN HEALTH ORGANIZATION
WORLD HEALTH ORGANIZATION



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ORIGINAL: SPANISH

ONCHOCERCIASIS: PROGRESS REPORT

Introduction

1. The initiative for eliminating onchocerciasis from the Americas was a response to Resolution CD35.R14, adopted by the 35th Directing Council of the Pan American Health Organization in 1991, which called for the elimination of certain diseases in the Region—among them, onchocerciasis-related eye disease—by 2007. The resolution sought to take advantage of the donation of Ivermectin (Mectizán®), a safe and effective microfilaricide, by Merck & Co. As a result, in 1992 the Onchocerciasis Elimination Program for the Americas (OEPA) was created with two goals: 1) to eliminate all new (eye) disease caused by *Onchocerca volvulus* infection by 2007, and 2) to eliminate transmission of the parasite in endemic countries or foci, where possible. There have been no new cases of blindness from onchocerciasis in the Region of the Americas, and at the end of 2007, new cases of eye infection and disease had been found in only four of the 13 foci of the six endemic countries. Since there are still four foci with eye infections, and transmission has not been interrupted in all foci, the OEPA proposes that a new date be considered for achieving the goals (2012) in order to encourage the countries to meet them.

Background

2. Onchocerciasis (also known as river blindness or Robles' disease) is found primarily in Africa. However, there are also 13 foci in six Latin American countries: Brazil, Colombia, Ecuador, Guatemala, Mexico, and Venezuela (Annex 1).

3. Around 500,000 people are at risk of contracting the disease in this Hemisphere. River blindness is found in different populations and ecosystems. In Guatemala and Mexico, local populations of European descent and indigenous groups living on coffee plantations are at the greatest risk, while in Ecuador and Colombia, the disease strikes

people living along riverbanks, chiefly Afro-descendants and indigenous populations. The Yanomami, a nomadic indigenous people living along the Brazil-Venezuela border, is one of the most affected groups, since its home is the Amazon jungle, where exposure to the disease is constant. However, the Yanomami represent only 3% of the at-risk population in Latin America, the majority of which (93%) lives in three of the six endemic countries: Guatemala, Mexico, and Venezuela.

4. Headquartered in Guatemala, the OEPA is the entity in charge of the technical operations and coordination of a multinational multiagency coalition. The OEPA partnership includes the six endemic countries, the Pan American Health Organization/World Health Organization (PAHO/WHO) the Carter Center, the Lions Club, the U.S. Centers for Disease Control and Prevention (CDC), the Bill & Melinda Gates Foundation, Merck & Co., and many more. PAHO is a voting member that participates in the OEPA's semiannual meetings.

OEPA Program

5. The strategy of the OEPA has been to strengthen the ministries of health in the six endemic countries, so that they can distribute ivermectin treatments on a massive scale every six months. Under this strategy, treatment should be provided for at least 85% of the eligible population in the 1,808 endemic communities of the 13 regional foci. The program has two main goals, namely:

- *Goal 1:* Eliminate all new morbidity from *Onchocerca volvulus* by 2007. This can also be interpreted as the elimination of onchocerciasis as a public health problem by 2007.
- *Goal 2:* Eliminate transmission of the parasite in countries or foci where it is possible. Although no deadline is specified, elimination implies that the parasite ceases to exist in the area in question.

Progress Report

6. The regional initiative has made great strides, as seen in the annual progress reports published in the *Weekly Epidemiological Record* of WHO. The six countries have field programs in place that distribute treatment in the 13 foci, achieving the required coverage of over 85% twice a year (Annex II), and they have adopted specific guidelines for certifying elimination of the disease. These guidelines were originally developed by WHO and subsequently modified on the basis of experiences in the field, from the

standpoint of interrupting the transmission and elimination of morbidity (referred to here as eye disease).¹

7. There have been no new cases of onchocerciasis-related blindness in the Region of the Americas, and new cases of eye infection and disease have been found in only four of the 13 foci (Annex III). With regard to transmission, the OEPA Coordinating Committee (PCC), and the Ministry of Health of Guatemala have decided to suspend treatment in two foci, Santa Rosa and Escuintla. Following the recommendations of the PCC, Ecuador's Ministry of Health has also suspended treatment in the Río Santiago subfocus in Esmeralda Province; and Colombia's Ministry of Social Protection has agreed to suspend treatment in the country's only endemic focus, López de Micay, making it the first country to interrupt transmission of the disease. It is very likely that treatment will be similarly suspended in other foci in 2009--specifically in Oaxaca, Mexico and Huehuetenango, Guatemala.

The Proposal: New Goals of the Regional OEPA Initiative for the Period 2008-2012

8. Under the terms of an independent agreement reached by the PCC and the country programs during the last Inter-American Conference on Onchocerciasis (IACO), held in Quito, Ecuador in November 2007, the new goals for that period are: to complete the elimination of onchocerciasis-related eye disease in the 13 foci of the six endemic countries by 2012. However, the best way of sustaining the significant progress made in eye health through this initiative is to interrupt transmission of the infection permanently in the Region. The second goal will be to complete the interruption of parasite transmission in the Region by 2012, making that year the last in which treatments would be distributed in the Region, and, in compliance with the certification guidelines, which call for a three-year period of compulsory epidemiological surveillance following the interruption of transmission, making 2015 the deadline for completing the regional elimination of transmission of this disease. These conclusions were also endorsed during the IACO.

9. The *Updated Goals* for onchocerciasis elimination in the Region are therefore:
- a) Eliminate new onchocerciasis-related eye disease in all foci by 2012. This will entail sustaining achievements in the nine foci where eye disease has already been eliminated, achieving complete elimination by 2012 in the four foci where it still exists, as demonstrated by epidemiological evaluations.

¹ World Health Organization. 2001. Certification of Elimination of Human Onchocerciasis: Criteria and Procedures. WHO/CDS/CPE/CEE/2001.18b, WHO, Geneva 2001.

- b) Interrupt onchocerciasis transmission in the 13 foci by 2012 (the last year for the distribution of treatment) and complete the three-year post-treatment epidemiological surveillance phase by 2015.

10. The impact of the program will be assessed by examining the indicators of success (ophthalmological, parasitological, serological, and entomological) listed below. In-depth epidemiological evaluations will be programmed and carried out in 40 sentinel communities in the endemic areas and during post-treatment surveillance; entomological and serological indicators will be measured for the most part.

11. As indicators of success, elimination should be deemed to have been achieved in a country when appropriate monitoring of endemic foci has shown the following:

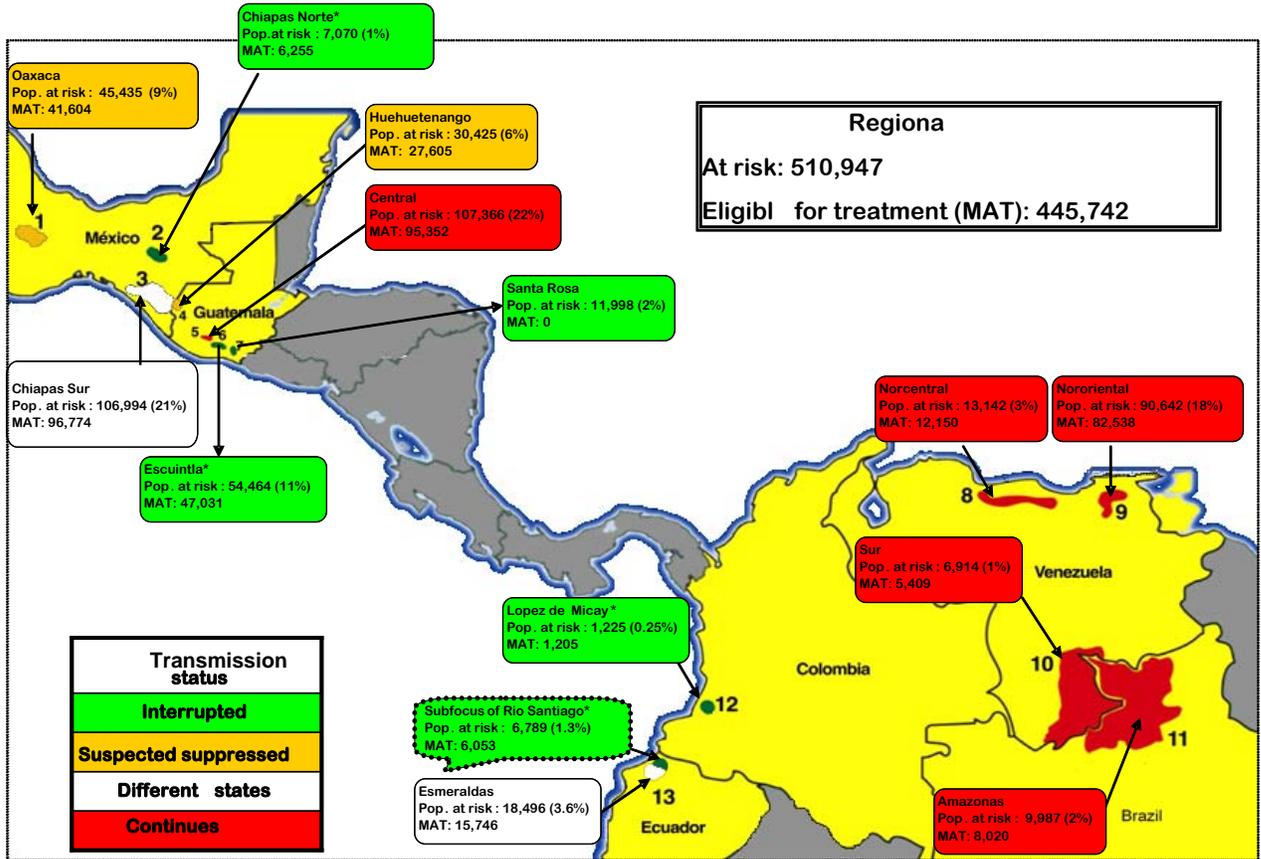
- a) *Elimination of new eye disease*: Permanent onchocerciasis-related eye injuries or blindness are irreversible; thus, they will be present until the person dies. Emphasis will therefore be placed on reversible (new) injuries attributable to *O. volvulus* microfilariae observed in the anterior segment of the eye, defining the absence of disease as less than 1%.
- b) *Elimination of transmission*: There are two indicators: a) less than one larva in the infective stage in a sample of 2,000 flies examined through PCR, and b) the absence of detectable specific antibodies for *O. volvulus* in school-aged children, which will be interpreted as less than one new case per every 1,000 (< 0.1% in children).

Action by the Executive Committee

12. Based on the achievements to date noted in this report, which indicate the possibility of completely eliminating transmission in the Region and the consequent importance of meeting the new goals proposed for 2012 and completing the compulsory post-treatment epidemiological surveillance by 2015, the Executive Committee is requested to accept this progress report and agree on the need for a new resolution to complete the total elimination of this important neglected tropical disease in the Region, in keeping with the original spirit of resolution CD35.R14 of 1991.

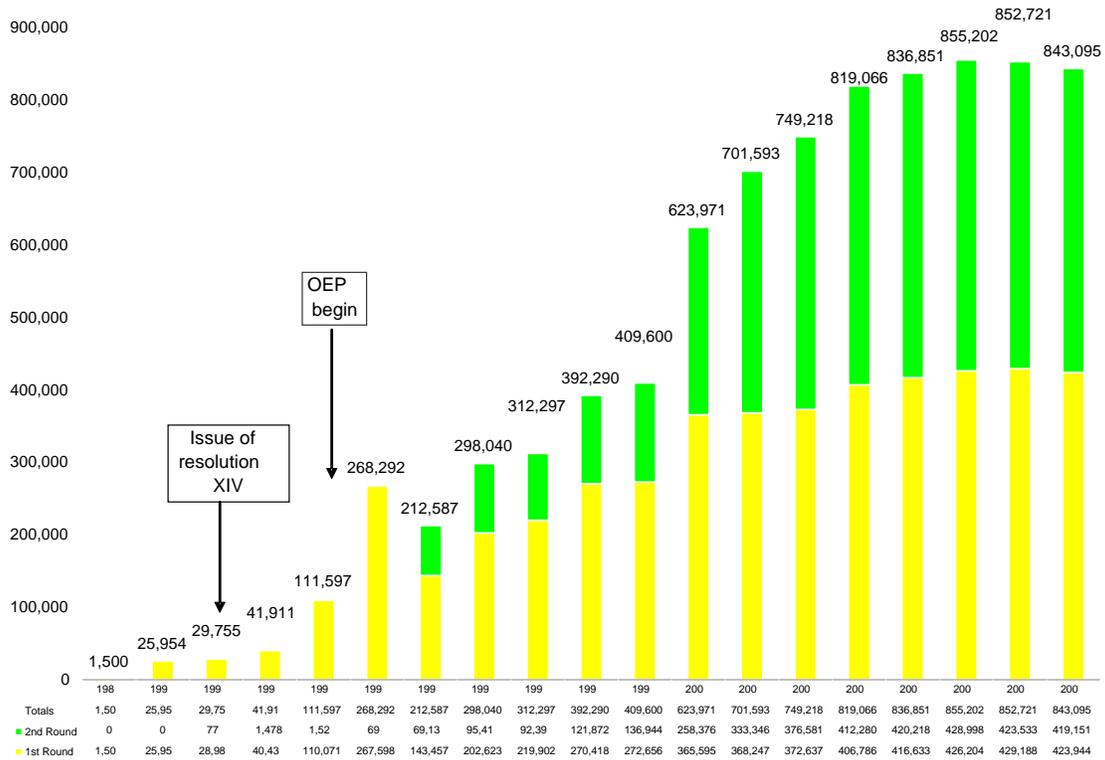
Annexes

**Geographical distribution and status of onchocerciasis transmission
in the 13 foci of the Americas**



*Transmission declared interrupted by OEPA in 2007.

Mectizán® Treatment in the Americas, 1989-2007



Current eye disease and transmission status in the Region of the Americas

Foci	Has blindness been eliminated?	Has eye disease been eliminated?	Transmission Status
Santa Rosa, GU	Yes	Yes	Interrupted in 2006
López de Micay, CO	Yes	Yes	Interrupted in 2007
Escuintla, GU	Yes	Yes	Interrupted in 2007
Northern Chiapas, MX	Yes	Yes	Interrupted in 2007
Huehuetenango, GU	Yes	Yes	Suspected elimination
Oaxaca, MX	Yes	Yes	Suspected elimination
Esmeraldas, EC	Yes	Yes	Interrupted in the Río Santiago subfocus in 2007
			Different states
Southern Chiapas, MX	Yes	Yes	Different states
Central, GU	Yes	Yes	Continues
North-central, VZ	Yes	No (1.7%)	Continues
Northeastern, VZ	Yes	No (4%)	Continues
Amazonas, BR	Yes	No (6.5%)	Continues
South, VZ	Yes	No (24.4%)	Continues

- I. Weekly Epidemiological Record. Onchocerciasis (river blindness): Report from the 16th InterAmerican Conference on Onchocerciasis, Antigua, Guatemala. WER 2007; 82:314-316
- II. Details on the development of assessment criteria (OEPA, 2008)