



PAN AMERICAN HEALTH ORGANIZATION
WORLD HEALTH ORGANIZATION



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F. TOWARDS THE ELIMINATION OF ONCHOCERCIASIS (RIVER BLINDNESS) IN THE AMERICAS

Background

1. Onchocerciasis is an infection produced by the parasite *Onchocerca volvulus* that is transmitted to humans by bites from flies of the genus *Simulium*. The disease causes itching, dermatological deformations, loss of vision, and blindness. The prevalence and the intensity of microfilaraemia significantly increases with age, but no association has been found in terms of the gender of those affected (1, 2).
2. Onchocerciasis is endemic in 13 foci located in six countries of the Americas (Brazil, Colombia, Ecuador, Guatemala, Mexico, and Venezuela). The number of people exposed to the risk of infection and blindness has gone from more than 550,000 to only 376,601 in 2012 (see Annex A).
3. In 1991, the Directing Council of the Pan American Health Organization (PAHO) adopted Resolution [CD35.R14](#) related to the elimination of onchocerciasis in the Americas. The donation of medicines, carried out through the [Ivermectin Donation Program](#) since 1987, was designed to contribute to the elimination of the disease. In 1992, with the support of PAHO, the [Onchocerciasis Elimination Program for the Americas](#) (OEPA) was created to unite the efforts of associates and partners with a view to achieving the goal of elimination and providing technical and financial assistance to national programs. The goal was reaffirmed in Resolutions [CD48.R12](#) (2008) and [CD49.R19](#) (2009), which set 2012 as the year to achieve the goal of eliminating ocular morbidity and interrupting transmission of the disease in the Region.
4. This Progress Report submitted to the Governing Bodies of PAHO in 2013 sets forth the challenges that must be overcome to attain the goal set for the Region and to sustain the accomplishments achieved to date.

Achievements

5. Blindness caused by onchocerciasis has been considered to be eliminated in the Region of the Americas since 1995, as no new cases have been reported since that year. As a result of the regional initiative, 184,310 persons (33%) are no longer at risk of contracting onchocerciasis, and the eligible population for treatment is 19,133 persons (Annex B). The transmission of onchocerciasis has been eliminated in seven foci and interrupted in four, which means that in these 11 foci, mass drug administration has been suspended (Annexes A, B, and C), and thus the goal established in Resolution CD48.R12 has been reached.

6. Colombia is the first country of the Americas to have eliminated the transmission of onchocerciasis, and it will receive official verification from PAHO/WHO to that effect in 2013. Ecuador confirmed that transmission was eliminated, and it can be the next country in 2013 to formally request verification from PAHO/WHO.

7. Guatemala and Mexico will complete three years of post-treatment epidemiological surveillance in all of their foci in 2014, and could then request verification from PAHO/WHO.

8. In its focus in the Amazon, Brazil has increased the number of treatment rounds in meso-endemic and highly-endemic communities since 2010 in order to accelerate the process of elimination (4x/year) (3), while continuing the traditional regimen (2x/year) in the rest of the communities, which are near the goal of elimination.

9. Venezuela interrupted the transmission in two of its three foci. It will complete three years of post-treatment epidemiological surveillance in its North-Central focus in 2013 and could achieve elimination. Venezuela initiated post-treatment epidemiological surveillance in the Northeastern focus in 2013. In the Southern focus, 185 new endemic Yanomami indigenous communities were identified along the border with Brazil, with 8,591 eligible people for treatment.

10. Through scientific articles published in indexed journals (3-12), the countries moved forward with the dissemination of scientific evidence that supports the achievements attained. In addition, since 1996, corresponding data are published annually in WHO's [*Weekly Epidemiological Record*](#).

11. The guidelines and procedures developed by OEPA with the participation of PAHO were adopted by WHO and used in the countries where onchocerciasis is endemic.

Challenges

12. The Yanomami focus, shared between Brazil (Amazon focus) and Venezuela (Southern focus), is the last obstacle to overcome in order to eliminate onchocerciasis from the Region. It presents particular difficulties: *(a)* It is divided by a border between nations; *(b)* It is a geographic area of difficult access (jungle area); and *(c)* the affected communities are nomadic. Accordingly, the logistics required to reach persons at risk make it difficult to provide them care and involve high operational costs.

13. Another challenge is to ensure that once transmission of the disease has been interrupted, the countries *(a)* continue activities to detect potential recrudescence (13); *(b)* once they reach the elimination that they document the process and request verification from PAHO/WHO, as was done by Colombia; and *(c)* address the challenges of the post-elimination period.

Next Steps

14. In view of the current situation analyzed in this report, the following steps are recommended going forward:

- (a) Issue a firm call for coordinated action in the Yanomami area (Southern focus in Venezuela and the Amazon focus in Brazil) in terms of decision-making at the political level. Furthermore, a plan of operation should be defined for the next five years, and treatment and comprehensive care should be provided in order to meet the goal to interrupt transmission in 2015 and eliminate onchocerciasis in 2019 (Annex C). This should be carried out within the framework of protecting Yanomami territories and employing an intercultural approach (14, 15).
- (b) During the three years of post-treatment epidemiological surveillance, promote the adoption of education and community participation methodologies through the integration of other public health programs and the maintenance of monitoring and evaluation in order to sustain the goal of elimination.
- (c) During the phase of onchocerciasis elimination, maintain an ecosystems approach in terms of health determinants and epidemiological surveillance activities through the integration of activities to address other neglected infectious diseases, and continue to strengthen primary care services and the integrated sectoral and intersectoral approach (access to health services, education, housing, safe water, and basic sanitation).
- (d) Recommend that OEPA, with support from PAHO/WHO and in coordination with the six endemic countries, associates, and partners, lead the impact

assessment of elimination of onchocerciasis from the Region of the Americas and promote the publication of lessons learned so that they can support the elimination of other diseases.

Action by the Executive Committee

15. It is requested that the Executive Committee take note of this Progress Report and formulate additional recommendations that it considers pertinent.

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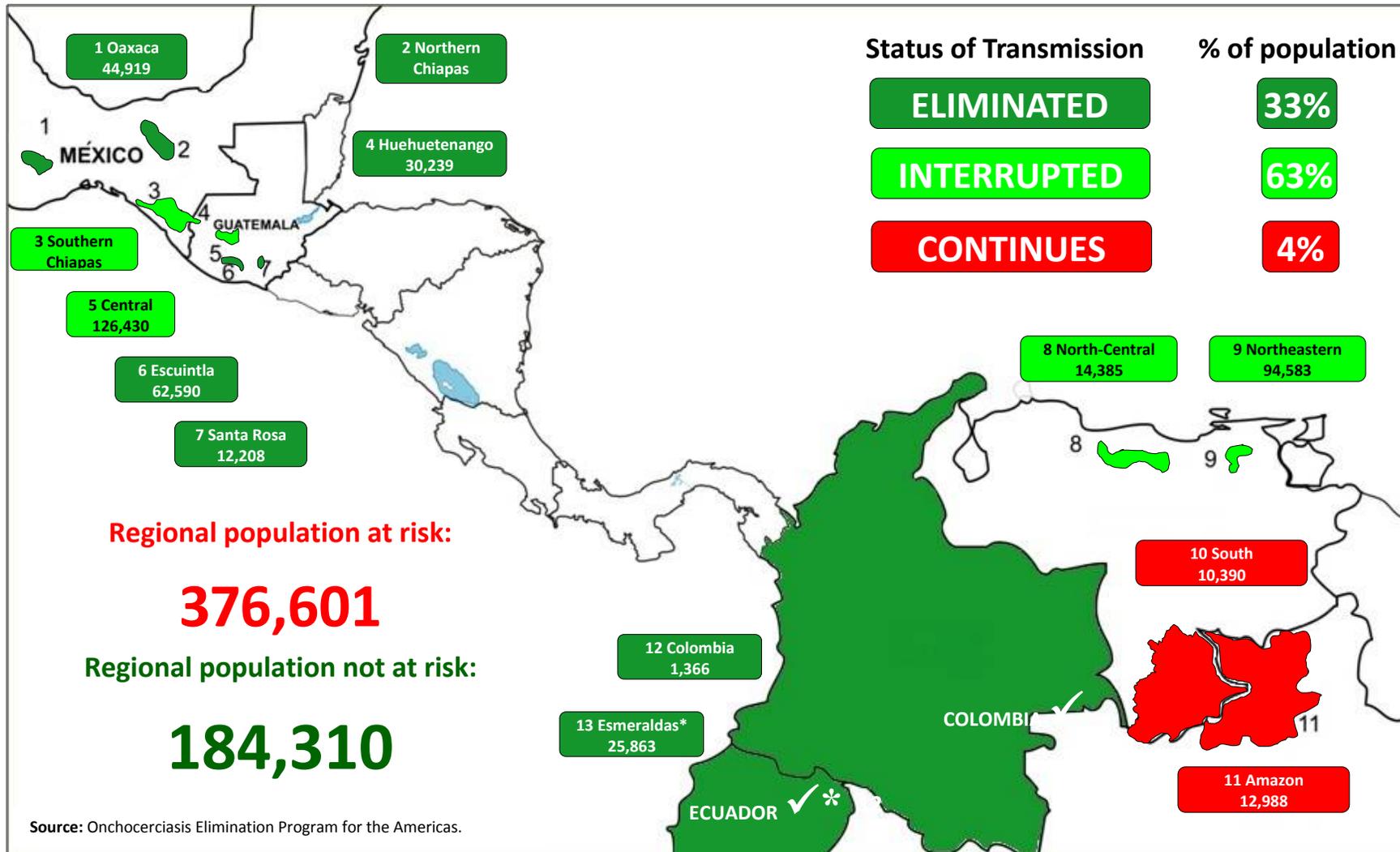
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Annexes

Geographical Distribution of Onchocerciasis and the Status of its Transmission in the Americas, December 2012



*Pending acceptance by governmental authorities of Ecuador.

**Current Status of Ocular Morbidity and Its Transmission in the
Region of the Americas, 2013**

Focus	Endemic communities	Population at risk	Population not at risk	Population under post-treatment epidemiological surveillance	Population eligible for treatment	Status of transmission
Escuintla—GUA	117		62,590			Eliminated
Santa Rosa—GUA	37		12,208			Eliminated
Northern Chiapas—MEX	13		7,125			Eliminated
López de Micay—COL	1		1,366			Eliminated
Huehuetenango—GUA	43		30,239			Eliminated
Oaxaca—MEX	98		44,919			Eliminated
Esmeraldas—ECU	119		25,863*			Eliminated*
Central—GUA	321	126,430		126,430		Interrupted
Southern Chiapas—MEX	559	117,825		117,825		Interrupted
North-Central—VEN	45	14,385		14,385		Interrupted
Northeastern—VEN	465	94,583		94,583		Interrupted
South—VEN	10	10,390			8,591	Continues
Amazon—BRA	22	12,988			10,542	Continues
Total	1,850	376,601	184,310	353,223	19,133	

*Pending acceptance by governmental authorities of Ecuador.

Source: Onchocerciasis Elimination Program for the Americas

Expected Timetable to Achieve the Elimination of Onchocerciasis Transmission in the Endemic Countries in the Americas

Country	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Colombia		VEPT			2011	 The international team designated by PAHO/WHO for verification of onchocerciasis elimination visited Colombia in November 2012.							
Ecuador				VEPT			2013	 The Program Coordinating Committee recommended that Ecuador formally request verification of elimination from PAHO/WHO.					
Guatemala						VEPT			2015				
Mexico						VEPT			2015				
Brazil										VEPT			2019
Venezuela	Yanomami Area									VEPT			2019
	Last year of massive drug administration.												
	Post-treatment epidemiological surveillance phase.												
	Year in which the country could request verification of onchocerciasis elimination from PAHO/WHO.												

Source: Onchocerciasis Elimination Program for the Americas (OEPA).