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## Progress towards elimination of onchocerciasis in the WHO Region of the Americas: recent serological analyses in certain parts of the Yanomami area, indicating progress towards interruption of transmission, 2018-2022

Onchocerciasis (river blindness) is provoked by *Onchocerca volvulus*, a parasitic worm transmitted by sandflies (*Simulium*) which reproduce in rivers and streams. Adult *O. volvulus* feed on humans and animals. The parasite causes blindness and other serious complications. The Yanomami area in northern Brazil is one of the most endemic areas in the Americas. The present study was conducted in the Yanomami area to assess the impact of a mass drug administration (MDA) campaign on the transmission of *O. volvulus*. The study was carried out in 2018-2022. The results show that the prevalence of *O. volvulus* antibodies has decreased significantly since 2018. This indicates that the MDA campaign is having a positive impact on the transmission of the parasite. The study also found that the prevalence of antibodies against the parasite's microfilariae has decreased significantly since 2018. This indicates that the MDA campaign is having a positive impact on the interruption of transmission of the parasite. The study concludes that the MDA campaign is an effective way to reduce the burden of onchocerciasis in the Yanomami area.

has donated since 1987 to control or eliminate onchocerciasis in the Yanomami area. The study was carried out in the Yanomami area in 2018-2022. The results show that the prevalence of antibodies against the parasite has decreased significantly since 2018. This indicates that the MDA campaign is having a positive impact on the transmission of the parasite. The study also found that the prevalence of antibodies against the parasite's microfilariae has decreased significantly since 2018. This indicates that the MDA campaign is having a positive impact on the interruption of transmission of the parasite. The study concludes that the MDA campaign is an effective way to reduce the burden of onchocerciasis in the Yanomami area.

<sup>1</sup> K... & C... (WHO) ...

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UddfcUWzA YAfrc[ fUa a YEa cghEYUWYXZhgAj YFU YE  
 [cUAf] b[ A YAfrc hFYUa Ybhci bXh' 1 LAbXKXgE  
 ]bAh YEgWbXh \*1 E'AbAh YEi Uhm mEhYUa YbhE  
 UddfcUWzA YE+AE] \ df]cf]hAa a i b]hYgAf] YhXE  
 Xi f]b[ A YAfrc hEbXgYWbXhEi Uhm gEzS&A YhA YE  
 [cUAfEW]j ]b[ A] 1 AbXh\*1 Aj YU YzEgYm]j YmE  
 Si f]b[ A YgWbXhEzEzS&AEX]hcbUAfchUzEhE  
 \] \ df]cf]hAa a i b]hYgE YfYh] YhXZcfEi Uhm mE  
 hFYUa YbhZcj YFU YEgYgE WgZ zEW]j ]b[ A 1 A  
 UbXE, 1 Aj YFU YAbA YhA ]fXAbXhEi fhEi Uhm gE  
 respectively.

bU hfgEi ]Aj UYbhEfbfUWfAYE S&Aci fbYgAZUWgKYhU  
 hA YbhBUBgEYAWYhE AfUj hA YbhGya Ygf]YzEhAm j Yh fyE  
 VWYEAfYgei YhfEh]bh h UAgY h h

### Serological assessments in the Yanomami Focus Area from 2018 to 2022

Gfc`c[ ]WAEgYga Yb]gEYAWbXh WXhE ]hA YhE@G5AE  
 Cj %AU]bcg]hWgE

#### Venezuela South Focus

-bAS&ZfY]a ]b]fmeYg hgZca Efc`c[ ]WAEg]b[ EZE  
 &AW] XfYbA] YXh - AUfg]bA EZE% Aa a i b]hYg]bE  
 ' A] VUFYgEYUfA YbU] ]UbAcfXfA] ckYXh UhE`AE  
 hcgyAghXhE YfYg]cbY] Uj YhTable 1). The results  
 cZfEgYga Yb]g]bA) Aa a i b]hYg]bE h Yf] VUFYgE  
 ]bAS&A] `AVYdfYg]bXh]b]bcj Ya VfAS&A hE YE  
 -bh5a Y]WbAEcbZfYbWAcAbWcWVU]g]hE57CLE  
 a Yh]b]bAei UhA UU

#### Brazil Amazonas Focus

Gfc`c[ ]WAEgYga Yb]gEYAWbXh WXhE]bAS% i S&AE  
 ]bAS&A] XfYbA] YXh - AUfg]bA EZE YhE] VUFYgE  
 ]bAYZ WgETable 2). Preliminary results showed an

### 1 Preliminary results of Ov16 serological assessments in children aged 1–9 years in 3 subareas of the Venezuela South Focus (May–July 2022)

Table 1. Résultats préliminaires des évaluations sérologiques Ov16 chez les enfants âgés de 1-9 ans dans 3 sous-zones du foyer sud du Venezuela (mai-juillet 2022)

Subarea or sector – Sous-zone ou secteur	No. of children aged 1–5 years assessed – Nbre d'enfants âgés de 1-5 ans testés	No. of positive samples in children aged 1–5 years – Nbre d'échantillons positifs chez les enfants âgés de 1-5 ans	Prevalence in children aged 1–5 years (%) – Prévalence chez les enfants âgés de 1-5 ans (%)	No. of children aged 6–9 years assessed – Nbre d'enfants âgés de 6-9 ans testés	No. of positive samples in children aged 6–9 years – Nbre d'échantillons positifs chez les enfants âgés de 6-9 ans	Prevalence in children aged 6–9 years (%) – Prévalence chez les enfants âgés de 6-9 ans (%)	Total no. of children assessed – Nbre total d'enfants testés	Total no. of positive samples – Nbre total d'échantillons positifs	Total prevalence (%) – Prévalence totale (%)	No. of treatment rounds with 85% coverage – Nbre de tournées de traitement avec une couverture 85%
At. Cal-a / Ka. qáa ٢٠٠	18	0	0.0	22	0	0.0	40	0	0.0	10
At. Cal-a / ٨ ٤ ٢٠٠	35	0	0.0	25	0	0.0	60	0	0.0	14
٨ ٢٠٠ / Cal ١ ٢٠٠	38	0	0.0	20	0	0.0	58	0	0.0	6
٨ ٢٠٠ / At ٨ ٢٠٠	19	0	0.0	11	0	0.0	30	0	0.0	11
Ua ad / Ua ad	20	0	0.0	4	0	0.0	24	0	0.0	14
<b>Total no. of samples processed – Nbre total d'échantillons analysés</b>	<b>130</b>	<b>0</b>	<b>0.0</b>	<b>82</b>	<b>0</b>	<b>0.0</b>	<b>212</b>	<b>0</b>	<b>0.0</b>	

2 Preliminary results of Ov16 serological assessment of children aged 1–9 years in 19 subareas of the Brazil Amazonas Focus, 2018–2022

5.2 Résultats préliminaires des évaluations sérologiques Ov16 chez les enfants âgés de 1-9 ans dans 19 sous-zones du foyer de l'Amazonas au Brésil, 2018-2022

Subarea or sector – Sous-zone ou secteur	No. of children aged 1–5 years assessed – Nbre d'enfants âgés de 1-5 ans testés	No. of positive samples in children aged 1–5 years – Nbre d'échantillons positifs chez les enfants âgés de 1-5 ans	Prevalence in children aged 1–5 years (%) – Prévalence chez les enfants âgés de 1-5 ans (%)	No. of children aged 6–9 years assessed – Nbre d'enfants âgés de 6-9 ans testés	No. of positive samples in children aged 6–9 years – Nbre d'échantillons positifs chez les enfants âgés de 6-9 ans	Prevalence in children aged 6–9 years (%) – Prévalence chez les enfants âgés de 6-9 ans (%)	Total no. of children assessed – Nbre total d'enfants testés	Total no. of positive samples – Nbre total d'échantillons positifs	Total prevalence (%) – Prévalence totale (%)	No. of treatment rounds with 85% coverage – Nbre de tournées de traitement avec une couverture 85%
Alta...	424	7	1.7	285	19	6.7	709	26	3.7	21
S...	349	5	1.4	282	13	4.6	631	18	2.9	19
Xe...	203	2	1.0	162	8	4.9	365	10	2.7	36
H...	24	0	0.0	18	1	5.6	42	1	2.4	31
A.d...	85	2	2.4	53	1	1.9	138	3	2.2	28
Ha...	82	0	0.0	61	3	4.9	143	3	2.1	36
Ba.a...	73	0	0.0	44	1	2.3	117	1	0.9	43
Ha...	161	2	1.2	109	0	0.0	270	2	0.7	37
T t t b...	58	0	0.0	15	0	0.0	73	0	0.0	48
At. Pa...	32	0	0.0	18	0	0.0	50	0	0.0	21
At. Ca...	13	0	0.0	5	0	0.0	18	0	0.0	38
Ka a...	8	0	0.0	5	0	0.0	13	0	0.0	25
N B...	83	0	0.0	28	0	0.0	111	0	0.0	38
Wa...	37	0	0.0	23	0	0.0	60	0	0.0	29
Pa...	23	0	0.0	24	0	0.0	47	0	0.0	38
Pa.a...	2	0	0.0	3	0	0.0	5	0	0.0	40
Ma...ca Pa...	18	0	0.0	15	0	0.0	33	0	0.0	35
Wa...	31	0	0.0	17	0	0.0	48	0	0.0	33
Sa-ba	18	0	0.0	11	0	0.0	29	0	0.0	25
<b>Total no. of samples processed – Nbre total d'échantillons analysés</b>	<b>1724</b>	<b>18</b>	<b>1.0</b>	<b>1178</b>	<b>46</b>	<b>3.9</b>	<b>2902</b>	<b>64</b>	<b>2.2</b>	

Table 2. Preliminary results of Ov16 serological assessment of children aged 1–9 years in 19 subareas of the Brazil Amazonas Focus, 2018–2022. The table shows the number of children assessed, the number of positive samples, the prevalence in children aged 1–5 years and 6–9 years, the total number of children assessed, the total number of positive samples, the total prevalence, and the number of treatment rounds with 85% coverage for each subarea or sector.

Editorial note

The results of the Ov16 serological assessment of children aged 1–9 years in 19 subareas of the Brazil Amazonas Focus, 2018–2022, are presented in this article. The results show that the prevalence of Ov16 in children aged 1–5 years and 6–9 years is low, ranging from 0.0% to 6.7%. The total prevalence of Ov16 in children aged 1–9 years is 2.2%. The number of treatment rounds with 85% coverage varies by subarea or sector, ranging from 19 to 48.

