



## EDITORIAL

# Progress towards the control and elimination of neglected tropical diseases in Brazil<sup>☆,☆☆</sup>

## Progresso e direção ao controle e eliminação das doenças tropicais negligenciadas no Brasil

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The study by Aguiar-Santos et al.<sup>1</sup> indicates that, in spite of several years of interventions aimed at eliminating lymphatic filariasis (LF) from Pernambuco, its transmission is still occurring at sustained levels (13.8% mf prevalence); the study also shows that soil-transmitted helminthiasis (STH) is still significantly prevalent among surveyed children (46.5% or 74/159).

High prevalence of lymphatic filariasis (LF) is probably a reflection of the fact that the Pan American Health Organization (PAHO)/World Health Organization (WHO) recommendations<sup>2</sup> related to mass drug administration (MDA) have only been partially followed in the past: this intervention has not been implemented in all endemic areas (individual case-management has instead been applied in low-prevalence areas), and a mono-therapy regimen of diethyl carbamazine (DEC) alone<sup>3</sup> has been used instead of the recommended combination of DEC + albendazole.<sup>2</sup>

High-prevalence of STH is also a reflection of the fact that albendazole was not distributed in the framework of LF

MDA, and that the WHO-recommended strategy suggesting distribution of albendazole or mebendazole to school-age children (SAC) at regular intervals<sup>2</sup> was not followed by the corresponding authorities.

These facts remind us that Brazil remains the country with the largest burden of neglected tropical diseases (NTDs) in terms of individuals requiring preventive chemotherapy (anthelmintic treatment),<sup>4</sup> while acknowledging that it is the largest and most populated country in Latin America. In spite of excellent assistance from the federal authorities and local technical expertise, control and elimination of LF, STH, and (it is important not to overlook) schistosomiasis, has somewhat lagged behind in terms of coverage.<sup>3</sup> This undoubtedly represents a major public health challenge for a leading country like Brazil.

As far as LF and STH are concerned, this situation is at least partially attributable to the decentralization of administrative responsibilities and to the fact that initiative and leadership on health issues is delegated to the states and municipal governments;<sup>5</sup> the result has been that commitment and investments for LF elimination have been different in each municipality as a result of specific priority settings. An example showing what Brazil can do when commitments and investments are made is the onchocerciasis elimination program; in the early 2000s, Brazil started implementing biannual MDA with ivermectin with very high coverage; a few years later, in order to accelerate the efforts towards interruption of transmission, the country decided to intensify treatment and implement MDA every

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<sup>☆☆</sup> See paper by Aguiar-Santos AM et al in pages 250–5.

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three months. This has been done in spite of considerable difficulties associated with the geographical isolation of the endemic area (the Amazonas state) and the cultural specificity of the target population (Yanomami indigenous communities), and at considerable costs.<sup>6</sup>

The onchocerciasis example shows that it can be done, when strong coordination exists among the Brazilian Ministry of Health, the states, and the municipalities in defining the best intervention strategies based on prevailing evidence, both in the planning and execution stages and in the scale-up of commitment and investment for control and elimination of helminth diseases.

The health authorities of Brazil are fully aware of this challenge. In order to properly respond, the Ministry of Health released an integrated plan of strategic actions, in July of 2012,<sup>7</sup> to fight against NTDs, including the four main helminth infections mentioned, with the aim of eliminating LF, onchocercosis, and schistosomiasis, as well as reducing the burden of STH by 2015. The main features of the plan of action include the recommendation to implement: MDA for LF in communities where prevalence equals or exceeds 0.1% (even though mono-therapy with DEC is still recommended); STH deworming of school-age children (5-14 years) in areas where prevalence equals or exceeds 20%; MDA for schistosomiasis in areas where prevalence of infection equals or exceeds 25%; MDA for onchocerciasis in the focus located in the Amazonas state.

The implementation of the plan has already started, and in March of 2013, Brazil performed its first national deworming campaign aimed at treating approximately 10 million school-age children in priority municipalities as defined by socio-economic indicators. We believe that these are all steps in the right direction and, though not fully utilizing WHO recommendations, especially with regard to schistosomiasis, the recommended actions are likely to accelerate the progress towards control and elimination of NTDs and, ultimately, to contribute to the achievement of a Brasil sem

Miséria ("Brazil without poverty", the official presidential slogan).

## Conflicts of interest

The authors declare no conflicts of interest.

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