

National Survey on Schistosomiasis and Geohelminths in Brazil (2011-2014)

Naftale Katz ¹, Roberto S. Rocha ², Constança Simões Barbosa ³, Fernando S.M. Bezerra ⁴, Paulo Marcos Z. Coelho ¹, Omar dos Santos Carvalho ¹, Carlos Graeff Teixeira ⁵, Dilermando Fazito ⁶ & Jeann Marie Marcelino ⁷

¹Centro de Pesquisas René Rachou, Fiocruz, Belo Horizonte, MG, Brasil

²Centro de Pesquisas Leonidas e Maria Deane, Manaus, AM, Brasil

³Centro de Pesquisas Aggeu Magalhães, Recife, PE, Brasil

⁴Faculdade de Medicina, Universidade Federal do Ceará, CE, Brasil

⁵Faculdade de Biociências, Pontifícia Universidade do Rio Grande do Sul, Porto Alegre, RS, Brasil

⁶Faculdade de Medicina de Barbacena, Barbacena, MG, Brasil

⁷Secretaria de Vigilância em Saúde, Ministério da Saúde, Brasília, DF, Brasil

There are only two nationwide Schistosomiasis surveys carried out in Brazil: the first dated 1949 (Pellon & Teixeira), and the second one named PECE, performed in 1977. In the first survey, geohelminths were also examined. The present survey (INPEG) was planned aiming to exam 220,000 school-children, 7 to 14 years old, using random samples, in 27 states of the country and in the Federal District, comprising 541 municipalities. This project was supported by the Service Health Surveillance, of the Health Ministry ("Serviço de Vigilância da Saúde, do Ministério da Saúde"), and coordinated by the Oswaldo Cruz Foundation. The school-children has been submitted to parasitological stool examination by the Kato-Katz method, the same method used in the second survey. Until now, 90% of the planned exams have been made. The results obtained show a significant decrease of schistosomiasis positivity and of geohelminths. In fact, in some states in northeastern Brazil the positivity rate of geohelminths was higher than 98% in 1949, and currently is around 20%. On the other hand, schistosomiasis also shows a significant decrease in all endemic states, as for instance in the State of Sergipe the positivity rate was 30.14% in 1949, 31.65% in 1965, and currently is 5.49%; in the State of Alagoas the positivity rate varied from 20.48% to 2.39%, in 1949 and 2012, respectively. Comparative data between the three surveys in other states will be also presented. It is possible that this marked decrease in the number of infected individuals by these parasitoses is due to increased sanitation measures in Brazil (supply of household water and waste disposal facilities), as well as treatment facility. From 1977 up to now, it is estimated that more than 15 million treatments for Schistosomiasis were performed in Brazil. In conclusion, the prevalence estimated in Brazil (2011-2014), according to data obtained in our country, is below 1% for schistosomiasis, and around 3% for *Ascaris* hookworm, and *Trichiuris*.