

Improving Health and Labor Conditions for Coffee Workers: The Role of the Rockefeller Foundation in the Campaigns Against Hookworm in Colombia, 1919 – 1938

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Hookworm disease received later attention from the Colombian government than it received in other Latin American countries, such as Costa Rica or Brazil.¹ In those countries, the campaigns to combat hookworm were framed within a large national project and had broad support of the government before the arrival of the Rockefeller Foundation (RF).² Although in Colombia doctors began to study the disease in the first decade of the twentieth century, and warned early on about the risks to coffee and sugarcane plantation workers, the government did not take such warnings seriously until the 1920s. At that time, it signed a cooperation agreement with the Rockefeller Foundation to start the fight against tropical anemia.

This report shows a small part of the research I am doing for my Ph.D. thesis. In my review of documents held at the Rockefeller Archive Center (RAC), I found several documents about the work that Rockefeller Foundation officials carried out in Colombia to counteract the effects of hookworm on the rural population, especially in the country's coffee growing areas. These documents, including quarter reports, annual reports, field diaries, biographical files, the correspondence between the directors of the *Departamento de Uncinariasis* in Colombia and the director of the RF's central office in NY, maps, statistical data, press clippings and photographs, served as important resources for my research.

At the end of the 19th century, Colombian doctors believed that hookworm disease was a problem in distant locations, rather than in their own country. Although in 1887 Andrés Posada Arango was one of the first doctors in Colombia to speak about the disease and its impact in the region of Antioquia³, his studies seem to have been forgotten for almost two decades. This delayed the knowledge of the disease's causes and the ways to prevent it, and the early implementation of measures to avoid hookworm's impact on the country's workforce.

Dr. Roberto Franco, a central figure in the professionalization and modernization of medicine in Colombia, played a key role in the study of hookworm in the country. With the beginning of his Tropical Diseases class at the Universidad Nacional de

Colombia, Franco resumed the studies initiated by Posada Arango, and his disciples followed him in studying tropical anemia. They began to study the patients affected by digestive problems and anemia at the San Juan de Dios Hospital.

One of Franco's disciples, Dr. Jorge Martínez Santamaría, who published in 1909 one of the most complete and recognized theses on ankylostomiasis in Colombia, related that in his experience as a student of Dr. Franco in 1905 he saw how, despite Franco's interest in being a good chair of Tropical Medicine, his teachings did not bear fruit because the school and the hospital lacked an appropriate laboratory. It was not until 1906 when a generous donation from Dr. Santiago Samper Brush enabled the clinic to open this indispensable element.⁴

Soon, doctors began to recognize hookworm as one of the tropical diseases that required more attention in the country. In 1909, Dr. Franco commented that "by the number of patients who have until today sought the services of this city's (Bogotá) Hospital, and from those we have had the opportunity to treat, we understand the immense extent of this disease among us and the enormous damages it has caused this country in life, health and wealth." He said that "it is the poor and hardworking people who are more likely to contract the disease and for whom it causes the most damage, undoubtedly because of their poor habits of cleanliness and poor living conditions."⁵

Concerns about the extent of the disease, its relationship with workers and their living conditions, and the damages that uncinariasis would bring to the country's economy, were central issues in Colombia in the first two decades of the twentieth century. They were addressed in medical theses, official documents, and the speeches of the ministers of hygiene and agriculture.

Although at that time the exact geographical distribution of the disease was not known, doctors began to notice in daily medical consultations that the number of

anemic patients was large and that the sick, mostly peasants, had certain characteristics related not only to the climate where they worked but also to their jobs and their living conditions. This is supremely important since uncinariasis, unlike other diseases such as tuberculosis, smallpox, or leprosy, was closely linked to certain professions; in particular, it struck agricultural workers, such as the peasants who worked on coffee and sugarcane farms, miners, and railroad construction workers.

When peasants walked with their bare feet on the mud flats and on the land where excrement and organic matter residues were abundant, such as "the coffee husk deposits, the piles of sugarcane bagasse, the places where the plantain collines, etc."⁶, they were very prone to the parasite entering their bodies through the skin (mainly from the feet) and acquiring the disease. These were the circumstances, Dr. Franco concluded, by which the farmers of all these regions and all the workers and poor people of those climates suffered from hookworm.

The call for a change in peasants' hygienic habits was very important in Colombian doctors' prophylactic campaigns to prevent the disease. Particular attention was paid to individual hygiene and public hygiene, especially the sanitation of the soil and water. Some of the proposed recommendations included "the establishment of general bathrooms, and big dishes or buckets of water in the kitchens for the cleanliness of the feet and hands before meals."⁷ People were advised to wash clothes because "it is carried out in any water well or in a creek, and even in many places it is washed in streams of water that pass through the villages that have already been contaminated, so the handkerchiefs and other garments of intimate use are infected with all kinds of pathogenic bacteria."⁸

Doctors, however, aware that this disease occurred in specific workplaces, like large coffee farms, also sought to persuade landowners to take effective measures to care for their workers. They recommended providing them "with a defense against this disease: the effort that they made in that regard would be compensated

by a much more effective and profitable work."⁹ However, the work to modify the peasants' customs, for example in the use of toilets, footwear, and medical treatments for hookworm, was great. Initial educational propaganda efforts were carried out so that the peasants would be informed about the disease and how to prevent it.

The doctors' concern about the disease is clear in the documents reviewed. In fact, they were aware that dealing with the hookworm problem would not only require changes in working peasants' hygiene habits or measures taken by the landowners. Doctors believed that the big change should come from the government, with the establishment of clear public hygiene policies about the management of diseases. Initially, the government did not pay much attention to issues that had to do with the health of the population. However, the seriousness of this and other diseases that were not epidemic in nature, but would cause the stagnation of the workforce over time, prompted public authorities to begin enacting some public health laws. These laws would be strengthened over time by doctors' demands that they act promptly.

In this way, the first law on hookworm was enacted in 1911 (Law Number 22 of 1911 published in the Official Gazette) to organize the fight against tropical anemia in Colombia. However, despite the law's intention, this was not accomplished. In his memoirs of 1921 and 1923, the Minister of Agriculture recalled: "In 1911 the Congress passed a law that ordered the creation of a Board to organize the campaign against hookworm disease through dispensaries and allocated the sum of \$50,000 for this purpose, but nothing was done."¹⁰

After the law was published, doctors continued to study the disease and make their respective clinical observations but without state support for the campaign. The government was absolutely disinterested in the treatment and prevention of the disease. Despite the doctors' warnings, hookworm continued to be relegated to a second plane.

The Rockefeller Foundation and the campaigns against hookworm disease in Colombia

The project to carry out a campaign against ankylostomiasis finally materialized after the appointment of Jesús del Corral as Minister of Agriculture in 1919, under the government of President Marco Fidel Suárez. He established contact with the Rockefeller Foundation through the International Health Board. At that time, the Foundation's philanthropic work in the southern United States and Puerto Rico was internationally recognized, and the new minister made sure to get the RF's cooperation to start the fight against uncinariasis as soon as possible.

As Minister of Agriculture and Commerce, del Corral wrote a letter to the Rockefeller Foundation, "perhaps the most beneficial institution that exists in the world, in order to ask for its valuable assistance in redemptive and humanitarian work. This Foundation has achieved admirable successes in the main states of the American Union, in the English and Dutch Guianas, in Costa Rica, Guatemala, Nicaragua and Panama (...) and in many other countries where [the Foundation] currently works with recognized efficiency, free of charge, and guided only for humanitarian purposes."¹¹

There is, however, a precedent to this contact. In the documents reviewed at the RAC, I found a document addressed to the National Department of Health in Colombia, dated April 3, 1911, in which the RF requested information from the National Department of Health in Bogotá on the following points:

1. The geographical distribution of ankylostomiasis in your country.
2. An approximate estimate of the degree of infection for each infected area.
3. What your country has been doing to eradicate or alleviate the disease.

I should greatly appreciate any information that you could give concerning your Country on any these points. Perhaps you could suggest the names of officials or reliable persons in some countries to whom I could write for information on these points. Thanking you in advance for any aid you can give me in securing this desired information. I'm very sincerely yours.¹²

The letter was answered by Charles H. Small, Consul in Bogotá, who sought the advice of "the most prominent Colombian doctors" in answering these questions. In general terms, he responded that the degree of infection of tropical anemia was 90% of the population that lived mainly in the warm and temperate zones. The people most affected were workers in the mines and plantations, including coffee, sugarcane, rubber, tobacco, and bananas plantations. Despite this, he said that the government had not acted because it did not consider the disease a threat to the health of the population.¹³

In Dr. del Corral's 1919 letter to the International Health Board, he indicated that he knew well the work that the RF carried out in the fight against the hookworm, and its achievements in countries such as Costa Rica, Guatemala and Nicaragua. Therefore, "as this Republic is invaded alarmingly by that disease, I thought convenient to address the institution that you worthily preside over, to beg you to send data, reports and instructions to organize here the campaign against ankylostomiasis... Finally, I expect from the philanthropy of that Board an effective support to obtain good success in the indicated tasks."¹⁴

Wickliffe Rose, General Director of the International Health Board, answered promptly that the best way to combat the disease was to start with a preliminary study on the geographical distribution of the disease, determine the causes and enable the predominant regions to take the necessary measures. He also noted that, "if your Government wants a study of this kind to be done, we would prepare

ourselves at the invitation of the President, to offer you the facilities of our Society, so that this study will not cost you anything."¹⁵

President Marco Fidel Suarez sent the requested invitation to the Rockefeller Foundation, and in December 1919 Dr. Louis Schapiro was commissioned to begin the study on ankylostomiasis. The region chosen by the Colombian government to begin the survey was Cundinamarca, and the base station where the doctors and microscopists settled was in the municipality of La Mesa, a region considered central to the spread of hookworm. The study lasted about a month and a half, beginning on December 22 and ending on January 31, 1920. The provinces examined were Bogotá, Chocontá, Facatativa, Girardot, Guaduas, Guavio, Oriente, Sumapaz, Tequedama, Ubaté and Zipaquirá.

The survey presented information corresponding to the infection of uncinaria by province, sex, racial incidence, age, occupation and the infection rate in the urban and rural areas. In the rural area, the infection rate was 88.2%, while in the city and villages the prevalence was 70%. The incidence of hookworm by occupation shows that of the 7,300 people classified under this category, 78.6% were infected. The highest rate of 93.9% corresponded to coffee plantation workers and those who worked in agriculture.¹⁶

Dr. Schapiro concluded the report with considerable concern and showed that the study clearly demonstrated that ankylostomiasis was extremely prevalent, not only in the region of Cundinamarca, but also in most regions of Colombia. The main concern was that Colombia had a completely ill rural working population, so in the future there would be unfavorable economic and social consequences for the country's development:

The presence of this disease is a serious retarding influence to the economic, intellectual, moral and social development of the nation and country. The survey indicates that approximately more than sixty percent of the population of Colombia are prevented by this disease from developing into normal individuals. The doctors of Colombia

who have studied this problem estimate that ten percent of the hookworm cases do not and cannot work; thus, the nation is supporting more than three hundred thousand non-productive individuals.¹⁷

After seeing the results of the study in Cundinamarca, Minister del Corral asked Dr. Schapiro for information about how to begin the campaign against hookworm as soon as possible. The project proposed by the International Health Board would last for five years, a period in which it would organize and establish the corresponding departments to carry out the campaign. The Colombian government accepted the agreement with the Board, and in this way both were engaged in specific tasks. The International Sanitation Committee of the Rockefeller Foundation would commission a member to come to Colombia during the period established by the agreement. This member would act as a Director of the Departamento de Uncinariasis and would appoint the personnel and the organization that would be given to that department¹⁸; this department would also have a medical director, an assistant, a secretary, three field directors and ten microscopists, all of them hired in Colombia. The International Health Board would provide the necessary propaganda and laboratory materials, as well as free medicine to treat at least 50,000 cases of hookworm per year.¹⁹

The Colombian government would be responsible for organizing the Department of Uncinariasis in the Ministry of Agriculture, and create a division in charge of soil sanitation; it would also grant the exemption of tariffs on materials or products that were needed, cover the travel expenses of employees, and make the necessary printing expenses. The government promised to cover, in the course of the corresponding five years, "at a rate of 20 per cent per year, the expenses incurred by the Rockefeller Institute's health office up to a certain limit."²⁰

Following the acceptance of the IHD's proposal, the campaigns against uncinariasis began to expand in geographical coverage. They started in Cundinamarca, and in the span of ten years (because five years after the initial contract they agreed to continue the campaigns for five more years), they

continued in Tolima, Huila, Santander, Antioquia and Caldas. The campaign emphasized soil sanitation, the mandatory construction of privies, the use of adequate footwear for workers, and the insistence on the adoption of daily hygiene measures and a healthy and adequate diet.

The annual reports made by the directors of the Department of Uncinariasis emphasized that in the majority of cases the campaigns were supported by the local population, who participated in the conferences and attended en masse the sanitary days for receiving exams and the required treatment.

The reports show that over the years the campaign resulted in improvements in the prevention and treatment of the disease. However, they made little progress in the construction of privies and therefore in soil sanitation. The ten years of work already carried out by the International Health Board in Colombia gave a complete picture of the country in terms of politics, the economy, and society. But above all, it was clear that the policies and government investment aimed at improving the health system were still scarce, either due to fiscal crises or because the health sector had always been a low priority.

For this reason, new consideration was given to the idea that the campaign against tropical anemia should be accompanied by the development of and a process to improve public health. This effort was led by George Bevier (last director in charge of the Uncinariasis Department in Colombia), who said that:

I am quite convinced that the development of public health here can best be accomplished using our hookworm campaign as a basis, that is, once we have an area with complete soil sanitation followed by a treatment campaign, it would be very logical and comparatively easy to create a permanent unit consisting of a health officer, a few sanitary inspectors and, perhaps, some trained visiting nurses.²¹

The creation of these sanitary units would enable a broad effort of general control of infectious diseases, health education, hygiene for children, supervision of the

supply of drinking water, and the correct elimination of wastewater. These aspects were still delayed in several regions of the country, especially in rural regions. Bevier's idea was that the campaign against uncinariasis should now expand its focus and efforts towards other areas of health, to achieve the same type of organization that it had carried out for more than ten years, for example for diseases such as malaria, tuberculosis and leprosy. The long-term plan was for these health units to become not just simple dispensaries to improve this or that disease, but rather to become complete public health centers.

The project was accepted, and the Uncinariasis Department, renamed the Uncinariasis Section, ended up being part of the Rural Sanitation Section of the National Department of Hygiene beginning in the early 1930s. The sanitary units were created and began an important public health project, taking as a reference the experience and work that had been obtained for more than a decade with the campaigns against tropical anemia.

To sum up, the government's concern for hookworm makes sense in the context of the first decades of the 20th century when Colombia experienced "outward economic development" by entering the world market with the production and export of agricultural products, especially coffee. This disease, which was rampant among the workers of coffee plantations, sugarcane and cocoa crops, was a clear manifestation of the social and economic structure of that time. It illuminates an important aspect that should be further examined: the understanding of these diseases as labor diseases. The scope of the campaigns against ankylostomiasis and the impact they had both in terms of the educational, health, and prevention work with rural populations, enabled progress in the structuring of Colombian public health institutions beginning in the late 1930s.²²

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- ² Steven Palmer, *From Popular Medicine to Medical Populism. Doctors, Healers and Public Power in Costa Rica, 1800 – 1940* (Durham: Duke University Press, 2003); Steven Palmer, *Gênese da saúde global: a Fundação Rockefeller no Caribe e na América Latina* (Rio de Janeiro: Editora Fiocruz, 2015); Lina Faria, *Saúde e política: a Fundação Rockefeller e seus parceiros em São Paulo* (Rio de Janeiro: Editora Fiocruz, 2007).
- ³ Andrés Posada Arango, “El tuntun”, *Anales de la Academia de Medicina de Medellín*, Year 1, Nº 8 (1888). The full article is quoted in: Jorge Martínez Santamaría, *Contribución al estudio de la anemia tropical en Colombia* (Bogotá: Imprenta de La Luz, 1909).
- ⁴ Jorge Martínez Santamaría, *Contribución al estudio de la anemia tropical en Colombia* (Bogotá: Imprenta de La Luz, 1909), IX.
- ⁵ Roberto Franco, “Anemia tropical, Uncinariasis ó Anquilostomiasis”, *Repertorio de Medicina y Cirugía*, Vol. 1, Nº 2 (1909), 94 (author’s translation of the quote).
- ⁶ Roberto Franco, “Anemia tropical, Uncinariasis ó Anquilostomiasis”, 256
- ⁷ Jorge Martínez Santamaría, *Contribución al estudio de la anemia tropical*, pp. 216
- ⁸ Bernardo Samper, *Apuntes sobre higiene de las tierras calientes en Colombia* (Bogotá: Arboleda y Valencia, 1914), 61.
- ⁹ Bernardo Samper, *Apuntes sobre higiene de las tierras calientes en Colombia*, 59.
- ¹⁰ República de Colombia, *Memoria del Ministro de Agricultura y Comercio al Congreso de 1921* (Bogotá: Imprenta Nacional, 1921), 6.
- ¹¹ República de Colombia, *Memoria del Ministro de Agricultura y Comercio al Congreso de 1919* (Bogotá: Imprenta Nacional 1919), XIII.
- ¹² Letter to National Department of Health (Bogotá), April 3, 1911, folder 95, box 6, Series 1, RG 5, Correspondence, FA115, Rockefeller Foundation Records, International Health Board/Division, Rockefeller Archive Center.
- ¹³ “Hookworm Infection in Colombia” Letter from Charles H. Small (Vice and Deputy – Consul – General) in reply to the Department’s circular (dated April 3, 1911), June 21, 1911, Folder 164, Box 27, RG 5, Special Reports, 1911, FA115, Rockefeller Foundation Records, International Health Board/Division Records, Rockefeller Archive Center.
- ¹⁴ República de Colombia, *Memoria del Ministro de Agricultura y Comercio al Congreso de 1919* (Bogotá: Imprenta Nacional, 1919), XIV.
- ¹⁵ República de Colombia, *Memoria del Ministro de Agricultura y Comercio al Congreso de 1919*, XIV-XV.
- ¹⁶ Louis Schapiro, “Uncinaria Infection Survey of the State of Cundinamarca, Republic of Colombia, from December 22, 1919, to January 31, 1920”, March 10, 1920, p. 28, Folder 160, Box 27, RG 5, Special Reports, FA115, Rockefeller Foundation Records, International Health Board/Division Records, Rockefeller Archive Center .
- ¹⁷ Schapiro, “Uncinaria Infection Survey ...”, 72-73.
- ¹⁸ Schapiro, “Uncinaria Infection Survey ...”, Appendix No. 5.
- ¹⁹ Schapiro to Jesús del Corral, January 6, 1920, Folder 70, Box 7, Series 311, RG 5, Colombia Hookworm, FA115, Rockefeller Foundation Records, International Health Board/Division Records, Rockefeller Archive Center.
- ²⁰ República de Colombia, *Mensaje del Presidente de la República de Colombia al Congreso Nacional en las sesiones de 1920* (Bogotá: Imprenta Nacional, 1920), 67.
- ²¹ Bevier to H.H. Howard, July 28, 1932, Folder 73, Box 7, Series 311, RG 5, Colombia Hookworm, FA115, Rockefeller Foundation Records, International Health Board/Division Records, Rockefeller Archive Center.
- ²² As I explained at the beginning of the text, this is only a small advance of the research, therefore there is more information that will be presented in the final version of the thesis.