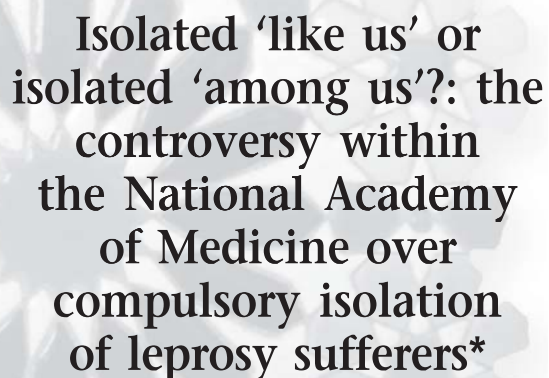

Isolated 'like us' or isolated 'among us'?: the controversy within the National Academy of Medicine over compulsory isolation of leprosy sufferers*

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Abstract

Given Brazilian society's view of leprosy in the early twentieth century, patient segregation was considered the only way to protect the healthy. The policy enforced by the Inspectorship for the Prevention of Leprosy and Venereal Diseases deemed isolation in leprosaria the preferred approach. Belisário Penna criticized the work of the Inspectorship, arguing that the best way to isolate patients would be to create municipalities located a good distance from urban centers. In 1926, Penna came head to head over the subject with Eduardo Rabello, the Inspectorship's former chief. Part of a broader debate on the best way to control leprosy, this controversy sheds light on the changes to leprosy policies introduced in the 1930s.

Keywords: leprosy; compulsory isolation; Belisário Penna (1868-1939); Eduardo Rabello (1876-1940); Brazil.

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The article explores the controversy about leprosy that took place within Brazil's National Academy of Medicine (Academia Nacional de Medicina, or ANM) in 1926, involving Belisário Penna (1868-1939) and Eduardo Rabello (1876-1940). Given how Brazilian society viewed leprosy at that time, segregation of the infirm was defined as the only way to protect the healthy. The models that Belisário Penna and Eduardo Rabello proposed for controlling leprosy were in fact variations on one theme: the compulsory isolation of sufferers. The controversy was part of a broader debate over how best to fight a disease that was proving endemic in a number of Brazilian states.

In the first section, I examine how physicians managed to place the topic of leprosy on the agenda of debate, even though the topic was not a priority during the 1910s sanitation movement. After garnering the support of various medical societies, leprosy became an issue that warranted the attention of national control policies, based on a discourse that stressed its 'dangerous' advance and the challenges of trying to discover its mode of transmission and how to treat it. The 1920 establishment of the Inspectorship for the Prevention of Leprosy and Venereal Diseases (Inspetoria de Profilaxia da Lepra e das Doenças Venéreas, or IPLDV) came in response to this new framing of leprosy as a national problem.

The Inspectorship's prevention approach was the target of numerous criticisms, and one of the most emblematic of the debates occurred within the ANM in 1926. The second section of my article focuses on the clashing positions defended by Belisário Penna and Eduardo Rabello within this context. Though the latter no longer headed the Inspectorship, he supported the agency's action while Belisário Penna was a critic, not because he was against isolation per se but against the way it was implemented.

In the third section, I focus on the key events of the 1930s, which I see as consequences not only of this debate but also of advances in scientific knowledge about the disease and its spreading. We will see how leprosy research benefited from the establishment of Rio de Janeiro's International Leprology Center (Centro Internacional de Leprologia) and the implementation of a nationwide plan to fight leprosy.

Framing leprosy as a national problem: creation of the Inspectorship for the Prevention of Leprosy and Venereal Diseases

During the 1910s sanitation movement, physicians fought for an agenda that would urge the government to address 'rural endemic diseases,' which included a*ncylostomiasis, malaria, and* Chagas disease. This campaign to raise awareness about Brazil's public health situation and the diseases afflicting its people intensified with the advent of the nationalist movement, which in turn gained momentum when World War I came. In 1918, representatives of Brazil's political and intellectual elites founded the Pro-Sanitation League (Liga Pró-Saneamento) under the leadership of Belisário Penna. Sanitarians thought the biggest roadblock to coordinated action against the country's endemic diseases was the relative autonomy enjoyed by states, and they called for the establishment of a Public Health Ministry. But the response to the scientific community's demand was the 1920 creation of the National Public Health Department (Departamento Nacional de Saúde Pública, or DNSP).

Concomitant with this movement, sanitarians and physicians launched a campaign that made Brazil's leprosy problem a topic of discussion. Although leprosy was not included among the diseases then deemed 'national issues,' the 1920 government reform of the nation's sanitary services assigned the illness its own inspectorship, shared only with venereal diseases and cancer. At the same time, diseases already seen as major national problems were assigned to a single technical service called Combating Rural Endemic Diseases (Combate às Endemias Rurais), which was part of the Rural Sanitation Directorship (Diretoria de Saneamento Rural; Brasil, 1923, art.1487-1579). What changes occurred in the late 1910s that would place leprosy among the major diseases encompassed in the 1920 federal sanitation laws?

One factor leading to creation of the IPLDV was the work conducted by the Commission for Leprosy Prevention (Comissão de Profilaxia da Lepra), which met from 1915 through 1919. The Commission's role was to outline leprosy prevention measures at a moment when the idea had taken hold that the disease was causing Brazil great damage. The conclusions reached by this body formed the foundations of a draft law to establish an Inspectorship for Leprosy Prevention (Inspetoria de Profilaxia da Lepra), through which the federal government would assume responsibility for leprosy treatment and control, both of which had lain basically in the hands of religious institutions up until then.

The issue of leprosy also began to figure in scientific meetings held in subsequent years. The First São Paulo Medical Congress, held in 1916, and the Eighth Brazilian Medical Congress, held in 1918, were likewise arenas where leprosy was discussed and it was characterized as a public health issue. Aspects of the etiology, transmissibility, distribution, rates, and prevention of the disease were all debated at these events (Souza-Araújo, 1956, p.166-170).

In each of these forums, attention was drawn to the growing need to address the problem of leprosy in Brazil. Scientific societies appointed some of their members to study specific facets of the disease, reflecting the medical community's growing concern about discussing its form of transmission and recommendations for prevention and control. As a result, medical congresses warned authorities about the urgent need for public policies to control and combat a disease that was gaining frightening proportions.

It can therefore be argued that creation of the IPLDV was a response to the medical movement's call for "federal and state governments to take preventive measures against this malady" (Souza-Araújo, 1956, p.208).[1] The same decree that established the DNSP also established the IPLDV (Brasil, 1920, art. 5, item e).

Specific leprosy legislation, drawn up in 1920 by Eduardo Rabello, not only created a central agency to coordinate and enforce prevention efforts nationwide but also defined basic guidelines, which in fact were often quite detailed. These sanctioned more coercive methods, like the use of police officers to force people suspected of having leprosy to undergo mandatory exams or even to guarantee the compulsory isolation of patients, which became the prime preventive measure (Brasil, 1923, art.143, 4th par.).

The 1920 sanitary legislation underwent a series of changes in response to criticisms; it was finally adopted in definitive form in 1923 and remained in effect throughout the First Republic (Barreto, 1945). According to this new legislation, leprosy control would be achieved

through three means: mandatory reporting, as required for other infectious diseases; periodic examinations of so-called communicators[2], as a way of uncovering new cases; and isolation at a colony or even in the patient's home, as long as a series of conditions were met (Brasil, 1923, art.133-183). Both patients and 'communicators' had to be in strict compliance with the orders set out in legislation and the demands of sanitary authorities. Communicators had to undergo periodic exams until contagion had been established or eliminated as a possibility.

The sanitary code provided for two types of isolation: nosocomial, preferably at an agricultural colony but also at a sanatorium, hospital, or asylum; and domiciliary, which was only applicable to non-contagious cases or when the patient's financial situation allowed him to adopt the necessary preventive measures defined by sanitary authorities. Under the latter type of isolation, constant, diligent vigilance of the patient had to be guaranteed.

Even before establishment of the IPLDV, there were some leprosaria in Brazil, most built by private enterprise before the twentieth century. The first of these was the Lazarus Hospital (Hospital dos Lázaros) in Rio de Janeiro, founded in the neighborhood of São Cristóvão on August 7, 1741, by Gomes Freire de Andrade and supported by him until his death in 1763, at which time the religious order Irmandade do Santíssimo Sacramento da Candelária took over (Agrícola, 1960). Table 1 lists the leprosaria built by private enterprise prior to creation of the IPLDV while Table 2 lists leprosaria opened during the 1920s. These tables indicate an increase in the number of leprosaria built using public funds following establishment of the Inspectorship, a product of the policy of compulsory isolation of patients.

Brazil's federative system prevented the federal government from taking direct actions within each state, and this meant agreements had to be made in order to comply with sanitary laws concerning leprosy prevention. São Paulo was the only state that did not sign an agreement with the federal government, instead enforcing measures independent from the federal government's. In sharp contrast with methods adopted by physicians and authorities in other states, the so-called Paulista model called for the exclusion of all leprosy sufferers, regardless of the stage of their disease or its clinical presentation (Monteiro, 1995, p.217-230).

Following creation of the IPLDV, studies were also conducted on the establishment of new colonies to house patients in isolation. Furthermore, drugs like ethyl *esters* of *chaulmoogra oil* were immediately distributed for treatment purposes. The Inspectorship's

Table 1 – Leprosaria built by private enterprise before the 1920s

Leprosarium	Location	Year
Hospital dos Lázaros, or Frei Antonio	Rio de Janeiro	1741
Hospital dos Lázaros, or D.Rodrigo de Meneses	Bahia	1787
Asilo São João dos Lázaros	Mato Grosso	1815
Asilo do Gavião	Maranhão	1870
Hospital dos Lázaros de Sabará	Minas Gerais	1883
Hospital dos Lázaros de Recife	Pernambuco	Before 1920

Source: Souza-Araújo, 1956, p.533-597.

Table 2 – Leprosaria inaugurated in the 1920s

Leprosarium	Location	Year
Lazarópolis do Prata	Pará	1924
Leprosário São Roque	Paraná	1926
Leprosário Antonio Diogo*	Ceará	1928
Leprosário Santo Ângelo**	São Paulo	1928
Leprosário São Francisco de Assis***	Rio G. do Norte	1929
Hospital Colônia Curupaiti	Federal District	1929

* Built by private enterprise.
** Built solely with state-level funds, without federal assistance.
*** Build by private enterprise with state-level help.
Source: Souza-Araújo, 1956, p.533-597.

next step was to conduct state-level leprosy censuses, accompanied by a clinical and epidemiological study of each detected case. In 1926, Eduardo Rabello, head of the IPLDV, stated that the census carried out by the Inspectorship in all states of Brazil except for Minas Gerais had tallied a total of 11,000 sufferers in the country (Rabello, 1926). The true dimension of the problem was a matter of contention among physicians and sanitarians. That same year, Belisário Penna, a longtime critic of the Inspectorship, calculated that Brazil had more than 33,000 lepers (Souza-Araújo, 1956, p.414-418). Less than one decade later, leprologist Souza-Araújo put the number much higher, that is, at around 50,000 (Souza-Araújo, Feb. 2, 1935).

These discrepancies about the precise number of sufferers derive from the fact that leprosy is easily confused with other skin diseases, which could either inflate or deflate the number of known cases, depending upon the type of false diagnosis. Moreover, and above all, a common strategy among physicians (especially those in Colombia, as shown in research by historian Diana Obregón) was to engage in exaggerated rhetoric that played up the dangers of leprosy and to embellish the numbers in hopes that society would thus accept the medicalization of the disease (Obregón Torres, 2002, p.180-184). This strategy was not limited to Colombia; Brazil and Japan both saw use of similar rhetoric, driving home the idea that the country was turning into a 'nation of lepers' (Souza-Araújo, 1956, p.177).

Whether or not these diagnoses were overblown, the fact was that in conjunction with the social fears kindled by the disease, attention was drawn to the demand that the government take action. The immediate concern was to find the best solution for the leprosy problem in Brazil. Although Brazilian legislation was in tune with international recommendations, especially the need to isolate the ill, the laws were not thoroughly enforced during the early years of the Inspectorship (Scheidt, 1970). With insufficient funds, it was not possible to establish enough leprosaria to isolate all of those afflicted with leprosy, even according to possibly underestimated census figures. Domiciliary isolation was a solution that depended heavily on each patient's financial situation and on diligent surveillance, as prescribed by the Inspectorship for such cases.[3] The adopted prevention approach was the target of criticism by a number of physicians, sanitarians, and politicians, who waged debates through articles or at scientific gatherings. One of the most emblematic took place within the National Academy of Medicine (Academia Nacional de Medicina,

or ANM) and involved Belisário Penna and Eduardo Rabello, as we will see in the next section.

The controversy between Belisário Penna and Eduardo Rabello within the National Academy of Medicine (1926)

One of the leading topics among experts was how the disease was transmitted. Heredity had not been wholly discarded but the biggest disagreements were between those who championed the theory of direct contagion and those supporting the theory of transmission by a vector. In Brazil, the latter idea was spearheaded by the scientist Adolpho Lutz, who until the 1940s held that the disease was transmitted by mosquitoes (Benchimol, Sá, 2003). These debates on scientific matters, some of which grew quite heated, took place mainly at ANM meetings.

In 1926, another dispute supplanted discussions of transmission theories, that is, the controversy between Belisário Penna and Eduardo Rabello regarding the IPLDV's practice of isolating the ill. Penna had supported the cause of rural sanitation during the 1910s and had in fact authored a book presenting the main points of the sanitation movement, published in the wake of the scientific journeys sponsored by the Oswaldo Cruz Institute (Penna, 1918). He then devoted himself to writing articles on ignorance, alcoholism, parasitic worms, and malaria, topics that he believed to be society's 'great evils.'

Prior to the late 1910s, Penna had made no mention of Brazil's leprosy problem in his works. In 1920, following creation of the DNSP, he became head of the Rural Prophylaxis Service (Serviço de Profilaxia Rural), where he learned to appreciate the extent of the leprosy problem in the states of Brazil. At the end of 1922, after stepping down from his post over disagreements about the directions the Department was taking, he devoted himself to the subject and over the course of eight months wrote a series of articles for the newspaper *O Jornal*, where he defended the idea of founding a city where all of Brazil's lepers would live in segregation. He believed that leprosy was Brazil's most pressing public health issue and that it would only be possible to save these victims of the "government's criminal disregard" by enforcing rigorous measures (Penna, n.d.-a).

On the other side of the aisle stood Eduardo Rabello, an important specialist in syphilis dermatology who held government posts and was head of the IPLDV from 1920 to 1926. He was replaced by Oscar da Silva Araújo, who remained head of the Inspectorship until it was shut down. Rabello also played a major role in the February 4, 1912 creation of the Brazilian Society of Dermatology (Sociedade Brasileira de Dermatologia, or SBD), serving alongside Fernando Terra and Werneck Machado on its organizing committee.[4] In 1915, he was appointed Terra's substitute as professor at the Rio de Janeiro Faculty of Medicine and in 1925, when Terra retired, he replaced him both as president of the SBD and as holder of the chair in skin diseases and syphilis at the Faculty of Medicine, where years later he would come to serve as director. Rabello held the post of president of the SBD for fifteen consecutive years, until his death in 1940, when Oscar da Silva Araújo stepped in (Carneiro, 2002, p.61-66). Rabello was in a remarkable position institution-wise: in 1925, he held in his hands the powers of a professorship in dermatology and the study of

syphilis, national leadership of the fight against leprosy and venereal diseases, and the presidency of the SBD.

It is clear that Rabello was directly involved with the problems faced by the Inspectorship and with the activities of a dermatology society that also had a scientific interest in leprosy. Given his position, Rabello was in favor of isolating the ill in leprosaria in order to avoid contagion. With funding tight and a consequent insufficiency in the number of institutions that could house these people, the Inspectorship had no choice but to accept domiciliary isolation as well. Less harsh methods provided for under Brazilian law were consonant with the recommendations of the International Leprosy Conferences that had been held to date.

The fuse that ignited the controversy between Penna and Rabello was the publication of an article by Penna in which he criticized the approach to solving the leprosy problem that had been taken by the government in the 36 years since the declaration of the Republic (Penna, 1926). With no faith in the isolation system enforced by the IPLDV nor in the use of chaulmoogra to treat leprosy, Penna calculated the number of lepers in Brazil and the progress of the disease through the 1940s.

Relying on "data gathered from all over," Belisário Penna (1926, p.22) calculated that there were 33,868 lepers in 1926. Based on the endemic nature of leprosy in Brazil, he estimated that progression of the disease would double the initial figure every four years. This would be accompanied by a 60% drop, representing the number of deaths. In other words, the total number of live lepers would increase 40% every four years. Alongside his calculations of figures for the past, he predicted the status of the disease into the future, at four-year intervals, "keeping very close to the truth," in his words (p.22). His projections put the number of lepers at 47,415 in 1930 and at over 180,000 by 1946 – a disastrous situation (p.23).

Penna blamed the government for these shocking numbers, accusing it of doing "nothing efficient" to stop the advance of the disease. At the close of the article published in the magazine *Eu Sei Tudo*, Penna remarked that although he had been commenting on the subject for four months, no 'authorized voice' had spoken up to contest or alter his figures. "Such silence about a vital national matter signifies either acquiescence, or the absence of any means for wiping out or ameliorating the problem, or – and perhaps this is the case – total indifference or insensitivity, typical of the moral sickness that assails the Brazilian nation" (Pena, 1926, p.23). In June 1926, soon after publication of this article, an 'authorized voice' came forward in the form of Eduardo Rabello (Souza-Araújo, 1956, p.414-418).

In defense of his ideas, Penna presented studies on the disease which had the effect of delegitimizing the role of leprosaria by calling into question their efficacy (Penna, n.d.-b). To support his criticism of leprosaria, he stated that there were lepers on the loose "all over the place," including the nation's capital, where the IPLDV should actually be the most efficient. He went so far as to state that:

> Leprosy is a disease neither of civilized nations nor of savage ones. Leprosy is unknown among the savages. It is characteristic and symbolic of semi-civilized nations. Brazil has the pretension of becoming a civilized nation and makes noise about it daily, sounding

> off at the League of Nations. But it must show itself as it truly is. ... We need not leave the capital itself to find lepers all over. I saw a leper … taking a swim at Post 6 on Copacabana Beach, amidst many people, and everyone was fine with it. … We cannot go on like this; we must erect a barrier against this tidal wave that is sweeping across the whole country (cited by Souza-Araújo, 1956, p.417).

Nor did Penna agree with the leprologists who insisted that chaulmoogra offered a specific treatment for the disease (Penna, n.d.-c). The IPLDV felt that this treatment was of utmost importance in leprosy control, since a cured patient could be permitted to leave the leprosarium. According to medical thinking back then, if application of chaulmoogra oil did away with infectious lesions, contagion was extremely unlikely (Silva, 1926; Pupo, 1926; Dumas, Souza, Siani, 2008). At this point the patient could be certified as clinically cured and he or she could immediately be released from the leprosarium, subject to follow-up tests to detect any relapse (Pupo, 1926).

Based on the status of scientific knowledge at that time, Penna declared that the only safe way of avoiding the spread of leprosy was removal of patients from the society in which they lived. In the 1920s, the official means of achieving this segregation was isolation in hospitals or small colonies. Penna believed hospitalization represented an 'unbearable prison,' since leprosy was a chronic illness that progressed slowly. Although colonies satisfied some of Penna's concerns – like providing a feeling of freedom and possible work in agriculture or manufacturing – they did not present an efficacious solution for Brazil, given the large number of infirm.

To enforce the institutional model defined by the IPLDV, the state would need to build and maintain more colonies to house all patients in Brazil. But financial issues made it patently clear that Brazil would be unable to maintain enough hospitals, asylums, or colonies in each and every state to shelter the entire estimated leper population. As a result, the IPLDV also permitted domiciliary isolation if sanitary authorities judged the case eligible. But Penna was an even harsher critic of this type of isolation. He believed that certain terms found in the legislation – "when possible," "in so far as possible," and "at the discretion of the sanitary authority" – left the doors open for concessions and favors (Penna, n.d.-d).

Armed with these arguments, Penna asserted his opinion on how to solve the leprosy problem:

> The idea that came to me was, instead of colonies, to have one or two municipalities, covering an area roughly that of the Federal District, where most of the lepers from all social classes in Brazil could be placed … The city would offer all the necessary amenities and hygiene, as well as entertainment and leisure options, where lepers themselves – be they either of modest means or rich – could build their homes on lots given them by the government; they would run the city, elect its council members, pursue their political interests as Brazilians are so wont to do, and live in contentment and happiness. There would be justices of the peace, tax collectors – in other words, a complete, organized municipality (cited by Souza-Araújo, 1956, p.417).

For Penna, the most affordable solution for the government would be to build cities that would be called either Municipalities of Redemption (Municípios da Redenção) or

Municipalities of Lepers (Municípios dos Lázaros), places where the infirm could live in freedom and take responsibility for their own political, economic, and administrative interests. Although this world would greatly resemble other towns across Brazil, its people would be completely separate, and leprosy sufferers would have no contact with healthy people. In his correspondence with President Getúlio Vargas, Penna suggested an idea for garnering funds to organize these cities and cover the costs involved in instruction, education, and combating Brazil's main diseases: levying a 'health tax' on alcoholic beverages. But no such tax was ever introduced (Penna, 1931).

The notion of secluded isolation was first advanced by Oswaldo Cruz in his 1904 report to J.J. Seabra, Minister of Justice and Internal Affairs. In the section on leprosy, Oswaldo Cruz (1905) stated that urgent measures were needed to control "an illness that is spreading through the city" (p.67). Isolation in hospitals would be inadvisable, in his view, because leprosy was a long-lasting, chronic disease. The optimum solution would be to 'sequester'[5] patients and commit them to 'leper colonies' where they could work and receive the proper care. He named Ilha Grande as a possible location for the first isolation of patients, since geographic isolation on an island would facilitate surveillance and impede or at least hamper attempts to escape. The proposal was contained in a motion presented by three physicians from São Paulo (Ulysses Paranhos, Alberto Seabra, and Adolpho Lindenberg) at the Sixth Brazilian Congress of Medicine and Surgery, which took place in São Paulo in 1907.

Oswaldo Cruz only returned to the topic of secluded isolation for lepers in 1913, four years after leaving his post as head of public health. In an interview to the newspaper *O Imparcial*, he presented a project to isolate patients at an agricultural and fishing colony to be established on Ilha Grande (Cruz, July 1913).[6]

Penna's notion of a Municipality of Redemption traces its roots to Oswaldo Cruz's 1913 plan. In the articles published by Penna after 1922, he recouped the idea of isolating patients on islands, largely echoing the discourse of the man who was his acknowledged master, right down to the precise location of the municipality: both Oswaldo Cruz and Belisário Penna named Ilha Grande. Certain facilities for housing a large isolation hospital already stood on the island, where Ilha Grande Lazaretto had been built for the purposes of sanitary operations conducted on ships making port in Rio de Janeiro.

In addition to these facilities, others would be built to make patients comfortable and give them the feeling that they were living in a typical Brazilian town. Penna's goal was to have the leper city reproduce the infrastructure necessary to social life, offering the same services, the same job opportunities, the same housing conditions, and, of course, all the necessary medical facilities. This would mean residents should feel no need to travel to the capital or any other city. The overriding target was not just to ensure the patient's well-being but at the same time, and even more importantly, to protect the rest of the population's good health.

In an article about this idea of a Municipality of Lepers, Penna explained how the city should be built:

> offering complete hygienic comfort – sidewalks, electric lights, running water, and sewers, with neighborhoods for the rich, the poor, and those in between, with parks and gardens, in compliance with regulations on housing, construction, and hygiene.

> Asylums should be built for invalids, [along with] a hospital, schools, city administration buildings, a courthouse, public health facilities, a library, a movie house, tennis courts and soccer fields, and a telegraph and post office (Penna, n.d.-e).

In response to Penna's conference at the ANM, Rabello voiced his disapproval of any such city; his primary argument was that these ideas had been tried in other places around the world, like Hawaii, and had met with failure (Souza-Araújo, 1956, p.423-428). When total isolation of patients had been inaugurated on the island of Molokai, the model seemed an ideal solution to the leprosy problem but it proved a tremendous failure instead: although the number of isolated patients did not grow, new cases of leprosy continued to crop up in Hawaii (Obregón Torres, 2002; Tronca, 2000). So treatment based on compulsory isolation on an island did not guarantee a decrease in the number of sufferers. In Hawaii's case, the solution was to go back to less harsh control measures, which included domiciliary isolation.

Moreover, in the opinion of the ex-head of the IPLDV, segregating patients in one or two cities, islands, or territories was not a viable solution. How could you force all those people to move to a city far from everything and everyone, where they would spend the rest of their lives cut off from the rest of society? How could this isolation be enforced, if not without the aid of the police? Rabello argued that it was hard enough to convince a patient that he had to remain in isolation, and harder still to enforce this.

The IPLDV endeavored to follow guidelines based on isolation of patients in leprosaria or at home, while allowing people 'freedom of choice' as long as sanitary regulations were obeyed (Brasil, 1923, art.145). Domiciliary isolation was primarily permitted in the case of patients with non-contagious forms of the disease, as long as strict, diligent surveillance was possible, and in cases when the patient could comply with the demands of prevailing law (art.156). The patient and his or her family was responsible for the expenses related to domiciliary isolation, making the poor ineligible for this leniency (art.157, sole par.).

Domiciliary isolation generally meant that the patient lived separately in a clean, tidy room and avoided contact with other people. Any personal objects should be kept from contact with others living in the same house. The patient was to remain strictly in his own room, especially without contact with any children; his lesions should always be kept clean and covered; and he should be protected from flies and mosquitoes since these insects had not yet been discarded as possible transmitters of leprosy (Brasil, 1923, art.156-168). The patient's family also needed to follow a series of rules, such as maintaining no contact with the patient, not allowing him any visitors, and undergoing periodical exams to see whether family members had been contaminated (Brasil, 1923, art.162).

Any number of physicians criticized this type of leprosy prevention approach for many years. Rabello's response to them was that until all the leprosaria that were needed in order to wholly prevent leprosy could be built, feasible surveillance and domiciliary isolation measures would be enforced (Souza-Araújo, 1956, p.423-428): "The reason behind this is quite simple. The law has provided for domiciliary and nosocomial isolation and, as a punishment for any non-compliance with this isolation, the removal of patients to a leprosarium. Yet we cannot enforce this punishment without enough leprosaria. And it is for this reason alone that our fight against leprosy is not efficient enough" (Rabello, cited by Souza-Araújo, 1956, p.423).

Although the government had already started building such institutions in regions that were considered endemic centers – like the Lazarópolis do Prata in the state of Pará – Rabello stated that the lack of leprosaria hampered the enforcement of nosocomial isolation, pursuant to the terms of the law. This was without taking into account São Paulo, which, although it implemented its own, autonomous policy, could count on the Santo Ângelo leprosarium and was already considering construction of other leprosaria in regions that were likewise considered centers of the disease in this state. Rabello also stated that although the Inspectorship was doing its best to solve the leprosy problem, funds allocated to IPLDV also had to be directed towards the serious problem represented by syphilis (Rabello, 1920).

In an effort to minimize any issues of family or social disintegration caused by compulsory isolation, legislation called for the construction of leprosaria in the regions where the disease was most prevalent whenever possible, so that the patient could remain relatively close to his family (Brasil, 1923, art.139, 2th par.). Rabello felt the most appropriate institutions would be agricultural colonies, since they met many of the requirements: a calm location in the countryside, with plenty of fresh air and no pollution, and, above all, far removed from urban centers, so the rest of the population would feel no fear or insecurity.

The IPLDV conducted leprosy censuses to determine how many sufferers there were in Brazil and what regions were most heavily hit. It was believed that a profile could thus be mapped to ascertain the efficacy of prevention measures and study possible construction of new leprosaria. As much as these surveys were very useful tools, the problems encountered in conducting them made it impossible to organize complete, definitive statistics on leprosy. These obstacles were all the greater because of Brazil's vast size and its inadequate communication channels.

In his 1926 article, Penna interpreted the absence of any critique of his numbers as an acceptance of them, yet it is interesting to note that when he was asked about them at the ANM, for all practical purposes he did not defend his figures. He merely said they were "just calculations," a fact that undoubtedly contributed to the rejection of his statistics, since they were not, after all, grounded in any scientifically established criterion.

> Rabello: How did you arrive at these results?
>
> Penna: They were just calculations.
>
> Rabello: They were calculations that were used for the effect of comparison with our current coefficient. So they were important calculations. But how did you arrive at them?
>
> Penna: I started with 33,500 infirm and just as I calculated twenty years into the future, I calculated thirty years back.
>
> Rabello: I must confess that I wouldn't have predicted that would be the case. But this is a most serious question, because they have to do precisely with our index. … These affirmations should not be made in this manner. You can write this in a lay newspaper, but it cannot be upheld here at a scientific meeting (Souza-Araújo, 1956, p.423-424).

The debate within the ANM raised very important questions about the care given to carriers of an illness that was considered "the oldest daughter of death" (Cruz, July 1913). The main goal was to define the ideal type of establishment for the isolation of patients,

according to the latest scientific knowledge and, especially, taking into account the specific features of the situation in Brazil.

The chief characteristic of the leprosaria built by the IPLDV was their location outside of urban centers, although they were supposed to lie close to them. The residents were supposed to live their lives surrounded by the walls of the leprosarium, in an apparently open place, although they were in fact detained in order to control their disease. Within these walls, the patients could come and go as they pleased, leading an apparently normal life.

In Penna's proposed Municipality of Redemption, the infirm would live in their own homes, enjoying fellowship only with people just like them – that is to say, with lepers. Although they lived in freedom, this freedom was confined to the city's borders, which should never be crossed for any reason. They could have their own careers and get married, always in compliance with the rules of the place where they lived, as stipulated by sanitary authorities. There would not be many of these cities and they would be centrally located so that sufferers from all over the country could easily be sent there.

If we compare the isolation of the infirm in the institutions provided for under law with the segregation proposed by Penna, placing all patients in one sole city, we can see that the proposals are variations on one model. They display the same features and same structure, although on different scales. In either of the two cases, isolation was the most viable, most appropriate way of addressing leprosy, in accordance with the respective 'scientific truths' of the day. Whether the infirm were isolated in asylum-colonies or in cities, they would end up following the daily routine and discipline of these institutions whatever their feelings about it. After all, the ultimate goal was to keep the sick away from the healthy, mainly to protect the latter.

Belisário Penna defended the idea of letting sufferers live 'like us' but in isolation, whereas Eduardo Rabello thought it best to keep them 'among us' in isolation. These nuances were what distinguished the isolation measures proposed by each.

Although these models could and certainly did cause patients and their families embarrassment and hardships, the idea of building agricultural colonies gained a fresh breath of life and continued to be seen as the main isolation model. In the 1930s, a federal government project afforded construction of a series of establishments aimed solely at the isolation of leprosy sufferers. These leprosaria were spread across the country so as to meet demand in the areas most heavily hit by the disease.

Fighting leprosy in the 1930s: the national plan to combat leprosy

The 1930s brought major changes to public policies on leprosy. At least theoretically, the era's administrative reform meant that the federal government wielded greater regulatory power over all political spheres. Under the Provisional Government (1930-1934), no changes were made to structures for fighting leprosy, and even the DNSP's old structure was kept intact, that is, with the same sanitary laws as in the 1920s. Contrary to what happened under the First Republic, an effort was made to normalize the financial assistance that the federal government gave the states in the area of leprosy. Annual growth in such funds and a concern in helping more and more states can in fact be observed.

The public health sector saw administrative changes in 1934. Washington Pires, Minister of Education and Public Health, made reforms to the federal health services, abolishing both the DNSP as well as the IPLDV, the only public agency in charge of coordinating anti-leprosy efforts in Brazil. Its scope of work became the responsibility of individual states, which meant these initiatives were no longer uniform and were also weakened because of the heavy bureaucratization of Vargas's administrative structure.

On the other hand, however, scientific research into leprosy received a boost with the April 20, 1934, creation of the International Leprology Center (Centro Internacional de Leprologia, or CIL).[7] The product of an agreement between the Brazilian government and the League of Nations, the CIL received financial support from Guilherme Guinle; it was first headed by Carlos Chagas, who was replaced shortly after his death, in 1934, by Eduardo Rabello. The CIL's main technical activities included conducting an epidemiological survey of Rio de Janeiro, where its headquarters were located; research into the action of acids isolated from chaulmoogra; and bacteriological and immunological research. In addition, in cooperation with the Rio de Janeiro Faculty of Medicine, the Oswaldo Cruz Institute, and the National Health Department (Departamento Nacional de Saúde), the CIL offered specialization courses from 1936 to 1938 (Barreto, 1938). It closed its doors in June 1939.

When Gustavo Capanema was appointed Minister of Education and Public Health in 1934, public health policy began to enjoy greater stability. Existing leprosaria numbered around twenty, including therein small asylums, a figure deemed insufficient given the huge number of sufferers, which official estimates put at over 30,000 (Barreto, 1935). This statistic evinced the need for more systematic combat and pointed up the lack of specialized hospitals that could receive lepers. Furthermore, the IPLDV was no longer around, nor was there even an action plan providing for more direct, specific government initiatives.

This scenario made apparent the need for a nationwide plan to address the disease. In 1935, Capanema suggested that João de Barros Barreto, federal head of Health and Medical-Social Assistance (Saúde e Assistência Médico-Social), draw up a plan for the control of leprosy patients across Brazil (Barreto, 1935). Coordinating his efforts with Ernani Agrícola, director of State-level Sanitary Services (Serviços Sanitários nos Estados), and Joaquim Motta, assistant at the General Technical Section on Public Health (Seção Técnica Geral de Saúde Pública), Barros Barreto drew up a nationwide plan to address the illness, in an effort to reinstate the centralized nature lost in the previous reform and once again make the fight against leprosy a federal responsibility.

The national anti-leprosy plan, whose first concern was to equip the whole nation with the institutions previously considered fundamental to controlling the disease, was inaugurated in 1935 (Barreto, 1935, 1937). Although the plan was to be oriented by the federal government, this was supposed to be achieved in cooperation with individual states through agreements signed with the federal government. Most of the facilities built under the auspices of this plan only began operating in the 1940s, while the National Leprosy Service (Serviço Nacional de Lepra) had been created in 1941. The Service formulated a 'tripartite'[8] prevention policy that still highlighted the role of leprosaria (Maciel, 2007). We therefore cannot deny that there was a remarkable growth in federal funds for building

and maintaining leprosaria, which gave firm footing to the policy defended by Eduardo Rabello in the controversy waged within the ANM.

NOTES

***** This article is part of my master's thesis, defended at the Graduate Program in the History of the Sciences and of Health, Casa de Oswaldo Cruz, Oswaldo Cruz Foundation, in 2005 (Cunha, 2005).

[1] All quotations from works and documents in Portuguese have been freely translated into English.

[2] For specialists, anyone who had contact with a leper was considered a 'communicator.'

[3] In 1926, Rabello stated that no patients were living in domiciliary isolation (cited by Souza-Araújo, 1956, p.421).

[4] Rabello also worked together with other specialists in drafting the final version of the Society's statutes. Fernando Terra was elected its first president and Rabello, secretary general.

[5] The term 'sequester' encompassed the idea of removing the patient from healthy society and isolating him, even if this required the use of police force.

[6] During this interview, Oswaldo Cruz (1913) explained his notion of how such a leper colony should be built. It would not be a very large city, but it would have its own autonomy. There would be schools, workshops, a library, stores, factories, places of entertainment, hospitals, and asylums. Furthermore, the city could support itself through farming, livestock-raising, commerce, and industry – activities that would be conducted by and for the patients themselves.

[7] The International Leprology Center is the subject of my doctoral dissertation, now in progress at the Graduate Program in the History of the Sciences and of Health at the Oswaldo Cruz Foundation's Casa de Oswaldo Cruz.

[8] This so-called tripartite policy was grounded on the construction and maintenance of prevention facilities (for the healthy children of the infirm), dispensaries (for the examination of communicants), and leprosaria (where the ill would be housed and treated).

REFERENCES

AGRÍCOLA, Ernani.
A lepra no Brasil: resumo histórico. *Boletim do Serviço Nacional de Lepra*, Rio de Janeiro, v.19, n.2, p.143-155. 1960.

BARRETO, João de Barros.
O Departamento Nacional de Saúde Pública em 1944. Rio de Janeiro: Imprensa Nacional. 1945.

BARRETO, João de Barros.
Organização moderna da luta contra a lepra: a campanha no Brasil. *Arquivos de Higiene*, Rio de Janeiro, v.8, n.2, p.245-261. 1938.

BARRETO, João de Barros.
Problemas nacionais: lepra. *Arquivos de Higiene*, Rio de Janeiro, v.7, n.1, p.131-146. 1937.

BARRETO, João de Barros.
Problemas Nacionais: I – lepra. *Arquivos de Higiene*, Rio de Janeiro, v.5, n.1, p.119-130. 1935.

BENCHIMOL, Jaime; SÁ, Magali Romero.
Adolpho Lutz and controversies over the transmission of leprosy by mosquitoes. *História, Ciências, Saúde – Manguinhos*, Rio de Janeiro, v.10, suppl.1. Available at: http://www.scielo.br/scielo.php?script=sci_arttext&pid=S0104-59702003000400004&lng=en&nrm=iso. Access on Aug. 17, 2009. 2003.

BRASIL.
Decreto n.16.300, de 31 de dezembro de 1923. Aprova o regulamento do Departamento Nacional de Saúde Pública. Available at: http://www6.senado.gov.br/legislacao/ListaPublicacoes.action?id=44163. Accessed on: Aug. 17, 2009. 1923.

BRASIL.
Decreto n.3.987, de 2 de janeiro de 1920. Reorganiza os serviços da saúde pública . Available at: http://www6.senado.gov.br/legislacao/ListaPublicacoes.action?id=48173. Accessed on: Aug. 17, 2009. 1920.

CARNEIRO, Glauco.
História da dermatologia no Brasil. Rio de Janeiro: Sociedade Brasileira de Dermatologia. 2002.

CRUZ, Oswaldo.
Uma questão de hygiene social: lepra. *O Imparcial*, Rio de Janeiro, n.211, p.2. July 1913.

CRUZ, Oswaldo.
Relatório apresentado ao Exmo. Sr. Dr. J.J. Seabra, Ministro da Justiça e Negócios Interiores. Rio de Janeiro: Imprensa Nacional. 1905.

CUNHA, Vivian da Silva.
O isolamento compulsório em questão: políticas de combate à lepra no Brasil (1920-1940). Thesis (Master) – Graduate Program in the History of the Sciences and of Health, Casa de Oswaldo Cruz/Fiocruz, Rio de Janeiro. 2005.

DUMAS, Fernando Sergio; SOUZA, Letícia Pumar Alves de; SIANI, Antonio Carlos.
O óleo de chaulmoogra como conhecimento científico: a construção de uma terapêutica antileprótica. *História, Ciências, Saúde – Manguinhos*, Rio de Janeiro, v.15, n.1, p.29-47. 2008.

MACIEL, Laurinda Rosa.
Em proveito dos sãos, perde o lázaro a liberdade: uma história das políticas públicas de combate à lepra no Brasil (1941-1962). Thesis (Master) – Department of History, Universidade Federal Fluminense, Niterói. 2007.

MONTEIRO, Yara Nogueira.
Da maldição divina à exclusão social: um estudo da hanseníase em São Paulo. Dissertation (Doctorade) – Escola de Filosofia, Letras e Ciências Humanas, Universidade de São Paulo, São Paulo. 1995.

OBREGÓN TORRES, Diana.
Batallas contra la lepra: estado, medicina y ciencia en Colombia. Medellín: Fondo Editorial Universidad Eafit. 2002.

PENNA, Belisário.
Correspondência ao Presidente Getúlio Vargas, 2 de Junho de 1931. Fundo pessoal Belisário Penna, série Trajetória Profissional, BP/TP/19141140. (Departamento de Arquivo e Documentação, Casa de Oswaldo Cruz, Fiocruz). 1931.

PENNA, Belisário.
36 anos de lepra. *Eu Sei Tudo*, Rio de Janeiro, v.10, n.1, p.21-23. 1926.

PENNA, Belisário.
O saneamento do Brasil. Rio de Janeiro: Revista dos Tribunais. 1918.

PENNA, Belisário.
[Artigo em 'O Jornal']. Fundo pessoal Belisário Penna, série Produção Intelectual, subsérie Trabalhos Intelectuais, BP/PI/TP/90002040-35. (Departamento de Arquivo e Documentação, Casa de Oswaldo Cruz, Fiocruz). n.d.-a.

PENNA, Belisário.
O problema da lepra: recapitulando XIX. Fundo Pessoal Belisário Penna, série Produção Intelectual, subsérie Trabalhos Próprios, BP/PI/TP/90002040-1. (Departamento de Arquivo e Documentação, Casa de Oswaldo Cruz, Fiocruz). n.d.-b.

PENNA, Belisário.
A lepra e a república. Fundo pessoal Belisário Penna, série Produção Intelectual, subsérie Trabalhos Próprios, BP/PI/TP/90002040-11. (Departamento de Arquivo e Documentação, Casa de Oswaldo Cruz, Fiocruz). n.d.-c.

PENNA, Belisário.
O problema brasileiro da lepra. Fundo pessoal Belisário Penna, série Produção Intelectual, subsérie Trabalhos Próprios, BP/PI/TP/90002040-34(B). (Departamento de Arquivo e Documentação, Casa de Oswaldo Cruz, Fiocruz). n.d.-d.

PENNA, Belisário.
Problema brasileiro da lepra: o município da Redenção. Fundo pessoal Belisário Penna, série Produção Intelectual, subsérie Trabalhos Intelectuais. BP/PI/TP/19310519. (Departamento de Arquivo e Documentação, Casa de Oswaldo Cruz, Fiocruz). n.d.-e.

PUPO, J. Aguiar.
O óleo de chaulmoogra e as flacourtiaceas do Brasil. *Anais Brasileiros de Dermatologia e Sifilografia*, Rio de Janeiro, v.2, n.3, p.1-9. 1926.

RABELLO, Eduardo.
[Sem título]. *Boletim da Academia Nacional de Medicina*, Rio de Janeiro, v.98, n.9, p.263-291. 1926.

RABELLO, Eduardo.
Considerações sobre a profilaxia da lepra, das doenças venéreas e do câncer, a propósito do novo regulamento sanitário. *Correio da Manhã*, Rio de Janeiro, Aug. 14-15, 1920.

SCHEIDT, Ary.
Profilaxia da Lepra. *Boletim da Divisão Nacional de Lepra*, Rio de Janeiro, v.29, n.3- 4, p.85-96. 1970.

SILVA, J. Ramos e.
A chimioterapia da lepra, o seu estado atual. *Anais Brasileiros de Dermatologia e Sifilografia*, Rio de Janeiro, v.2, n.1, p.17-28. 1926.

SOUZA-ARAÚJO, Heráclides Cesar de.
História da lepra no Brasil: período republicano (1890-1952). v.3. Rio de Janeiro: Imprensa Nacional. 1956.

SOUZA-ARAÚJO, Heráclides Cesar de.
Há cincoenta mil leprosos no Brasil!. *Diário Carioca*, Rio de Janeiro. 2 fev. 1935.

TRONCA, Ítalo, A.
As máscaras do medo: lepra e Aids. Campinas: Editora da Unicamp. 2000.