

LEPROSY IN THE STATE OF RIO GRANDE DO SUL*

by

PESSOA MENDES AND GILBERTO MANGEON

Leprosy Service of Brazil

I. CLIMATE AND POPULATION

The State of Rio Grande do Sul is in the extreme south of Brazil and thus it is in the South Temperate Zone. It is bounded on the north by the State of Santa Catarina, on the south by Uruguay, on the east by the Atlantic Ocean, and on the west by Argentina.

There are 92 municipalities in the state. The total area is 285,289 square kilometers and the population, as of January 1946, is estimated as 3,723,690, classified as 27 per cent urban and 73 per cent rural.

The State is divided into eight physiographical regions: Missions, Middle High Plain, Northeast High Plain, Littoral, Southeast Mountain, Open Country, Central Depression, and Mountain Slope.

Missions and the Middle High Plain are areas of low humidity. The altitude of each is about 400 meters. In Missions the average density of population is 11.4 per square kilometer, reaching 24 where agriculture predominates and diminishing to 3 in grazing lands where there are small German and German-Polish colonies and, in one part, Indians. In the Middle High Plain the average density of population is 16 per square kilometer and part of the area has been settled by Italians.

The Northeast High Plain has the best climate of the State with an average temperature of 16° C. Snow is frequent in the winter. There are 9 inhabitants per square kilometer. The principal occupation is cattle-raising. There are large pine forests in this area.

The Littoral being near the ocean has a milder climate. Here cattle-raising predominates and there are great refrigeration establishments. Cattle-raising is likewise the chief industry of the Open Country which has many low hills (100 M.) and only about 6 persons per square kilometer. The rainfall is low and the climate warmer than in the Littoral.

The Central Depression is the hottest area. It is agricultural with a population density of 16. There are German and Italian groups in this area.

In the Mountain Slope, humid and rainy, with low temperature

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and frequent snow in winter especially in the higher regions, agriculture predominates. This is also, excluding the capital, the most industrial part of the State. The population density is 39 to the square kilometer. Taken together, the inhabitants of German and Italian descent constitute the majority of the population.

II. HISTORIC: PENETRATION AND PROPAGATION OF LEPROSY

Although we have no positive data as to how leprosy entered Rio Grande do Sul, there are indications that it came from more than one source. In Vacaria, it seems that leprosy already existed in 1860, perhaps having been introduced from São Paulo.

The patients from Vacaria who were interned in 1940 and 1941, for the most part, were advanced neural cases, and were mainly individuals of more than 30 years of age, which shows that the focus is old. It may be that in Vacaria the climate favors the spread of the disease. The average altitude is 1000 meters, the average temperature is 17 C., the relative humidity is low, and there are constant winds.

From Vacaria, leprosy probably passed to the Mountain Slope where perhaps again there were factors which were favorable—greater density of population, predominance of German and Italian immigrants, and the most humid climate in the State. It is the section, however, where the dietary is the best.

Von Bassewitz, who referred to Brazil as "a depauperized and convulsed social order," affirms that the German immigrants did not bring leprosy to this State, since there was no leprosy in the places from which they came. Nevertheless, he tells of having found Europeans, among them a Frenchman, who arrived here with the disease. If a French victim came in the beginning of the century, and about the same incidence of leprosy existed in Germany as in France, who can say that none came from Germany, especially since these immigrants began to come in great numbers about 1924, when the immigration health authorities were not so careful as they are today. It is probable, also, as Von Bassewitz suggests, that the coming of diseased German elements from Santa Catarina contributed to the greater frequency of the disease in the region.

With reference to the foci of leprosy in the High Middle Plain and Missions, there are indications, according to Madeiros Dantas, that they had their origin in families coming from São Paulo, who perhaps had accompanied the Spanish Jesuits in their retreat from Vacaria.

The foci along the frontier of Argentina probably had origin from that republic, as is indicated by the statements of some pa-

tients and by the nationality of others. The extension of the railway to these localities also probably favored spread of leprosy.

As to Porto Alegre, although it was founded by 200 Azores couples who landed there in 1742, coming from the islands where there was much leprosy, nothing is written about it by the earliest observers who visited and wrote about the "gaucho" land in the beginning of the nineteenth century. At that time cases began to be registered in this capital, probably in persons coming from the interior in a search for treatment. These stayed in the homes of relatives and in boarding houses, and went to public places, thus providing an explanation for the great number we have today among the native settlers.

Certainly the arrival from other countries of immigrants already infected with the disease contributed to the increase and propagation of leprosy in Rio Grande do Sul. Von Bassewitz tells that he certainly saw such cases in Italians, Syrians, Portuguese, Spanish, and other nationalities.

III. EARLY STATISTICS AND PRESENT SITUATION

The first data about the number of persons suffering from leprosy in Rio Grande do Sul are those of Balthazar de Bem who, in 1905, obtaining information from the oldest clinics of the time, concluded that few cases existed.

Jose Athaide da Silva, in 1915, cited cases in various towns, and referred to "several families in Vacaria, with many persons, and almost all lepers."

In 1923, data gathered by the Rabello Dispensary, gave an incomplete census of 164. In 1926, the Department of Health of the State reported 102 cases. In 1937 and 1938, Tristão Escobar of the National Department of Health made a state census of leprosy and registered 331 cases. In 1946, there were 1198 cases on the register.

The State of Rio Grande do Sul now has a known prevalence of 0.32 per 1000 inhabitants, a good record as compared with the other States. Still, because of economic condition, our State is favorable for a greater propagation of the disease, if strong control measures are not put into practice at once.

Clinical types are distributed as follows:

Type	Number of cases	Per cent
Lepromatous	836	69.8
Uncharacterized	161	13.4
Tuberculoid	201	16.8
Total	1198	100.0

With reference to age-groups, the following is found:

Age-groups	Number	Percentage
0 - 4	7	0.5
5 - 9	22	1.8
10 - 14	56	4.6
15 - 19	76	6.3
20 - 29	238	19.8
30 - 39	266	22.2
40 - 49	212	17.6
50 - 59	158	13.1
More than 60	150	12.5
Unknown	13	1.0

With reference to sex:

Masculine	634	52.9
Feminine	564	47.1

As to the civil state of the 1,198 patients, the following is found:

	Unmarried	Married	Widowed	Under 15	Unknown
Number	365	592	151	85	5
Percentage	30.5	49.4	12.6	7.0	.4

With reference to color:

White	1,138	94.9
Mulatto	41	3.4
Negro	19	1.5

As to nationality:

Brazilians	588	49.1
Of foreign descent	522	43.6
Foreigners	88	7.3

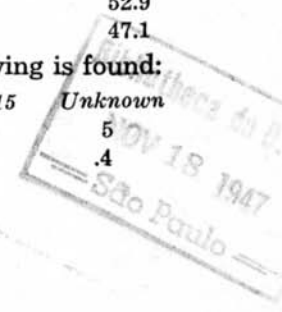
The greater proportion of cases occur among domestic servants, agricultural workers, and others among whom economic conditions are such that good sanitation is lacking and nutrition poor.

During a period of six years 116 patients were paroled as "arrested." In these the disease relapsed in only 5, or 4.3 per cent.

Of the adult contacts, 77 per cent were contacts to infectious cases and of child contacts, 69 per cent. These individuals should be kept under closer supervision. Special regional dispensaries should be provided where periodic examinations of contacts can be made.

IV. THE ANTI-LEPROSY ARMAMENT OF THE STATE

With the reorganization of the Public Health Service in 1938, the State Government began to take the first efficient steps for the eradication of leprosy. In November of that year a special dispensary was opened in the Capital. Slowly Health and Hygiene Centers have been organized during eight years, in 78 of the 92 municipalities. There is a Colony at Itapoa in which many patients are interned.



In 1940 with the inauguration of the Leprosarium and the Preventorium — "Amparo Santa Cruz," — Rio Grande was ready to segregate the infectious patients, counting also on the help of the Dispensary in Porto Alegre. The Preventorium for healthy children of leprous parents is maintained by the Rio Grande Society for Assistance to Lepers, and receives federal aid through the Federation of Societies (S.A.L.) To the end of 1946 it had received 212 children, of whom 111 were, at that time, in residence. Twelve, who were found to be infected, had been transferred to the Colony.

Help for the family is secured through the State Department of Health by the Directory of Social Medical Service which receives an annual grant of \$2,500, a grant which, since its creation, has been steadily increased. The State is aware of its responsibilities but should assume more responsibility for social help for the family of leprous patients.

Realizing the difficulty of the anti-leprosy work in the interior, the Director of the State Department of Health has resolved to install special regional dispensaries. In doing so, two things were considered: the number of contacts and contagious cases, and the facilities for communication and transportation.

In the near future the Leprosy Service in Porto Alegre will have its own building. With the dispensaries, the State will then have facilities for more quickly eradicating leprosy from our midst.

V. SUMMARY

1. Leprosy entered Rio Grande do Sul from various sources in the beginning of the nineteenth century.
2. The first published references to the disease were made in 1905.
3. The State of Rio Grande do Sul, because of its ethnic composition and the economic situation of the rural population, presents conditions favorable for the propagation of leprosy.
4. The prevalence of leprosy is 0.32 per 1000, with a high proportion, 72 per cent, of contagious cases. The proportion of tuberculoid cases is about 17 per cent.
5. Those of foreign origin, descendants of immigrants, together with the foreign born, present the largest per cent of cases — 50.9 per cent.
6. The disease is most frequent in persons of from 20 to 39 years of age.
7. As usual, there is a predominance among males.

8. With reference to occupation, leprosy attacks more those individuals whose occupation does not permit proper attention to personal hygiene, and whose economic condition causes low nutrition.
9. The great majority of the contacts, 75.7 per cent, are exposed to contagious cases, and require constant supervision through specialized dispensaries.
10. The State of Rio Grande do Sul is preparing to give efficient combat to leprosy with its available armament — the Colony, the Preventorium, the Dispensary at the Capital, and four regional dispensaries to be located in the interior. There is also a Section for the Prophylaxis of Leprosy in the Department of Health to direct the work.