

## LEPROSY IN SPAIN<sup>1</sup>

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### NUMBER OF CASES

In Spain, with an approximate population of twenty-four millions, there are less than 1,000 known cases of leprosy. Official censuses have been made at intervals since 1851; the dates and numbers of cases recorded are shown in Text-fig. 1. The last of these, made in 1932, revealed 883 cases. In 1934 I personally collected data on 928 cases. This census, which is included in the text-figure, is unofficial.

Calculated on the basis of this last figure the rate of incidence would be 1 case for every 26,000 inhabitants, or nearly 0.04 per thousand. However, it is probable that here, as elsewhere, such inquiries fail to elicit information of anything like all of the cases actually existing. I estimate that at present there are not less than 2,000 cases in Spain, approaching one case per ten thousand people. As will be seen, however, the disease is irregularly distributed, so that the actual rates are considerably higher in the regions most affected.

Of the 928 patients included in my census, 486 or 52.4 per cent are hospitalized. But if we calculate that there are actually 2,000 cases, the percentage of hospitalization of all cases is barely 25 per cent.

### DISTRIBUTION OF CASES

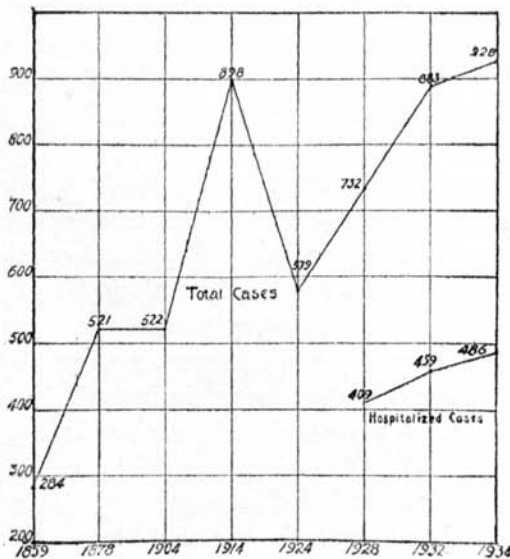
The geographical distribution of the known cases can be seen from the map reproduced here (Text-fig. 2). From this it is evident that the disease is most prevalent in four principal foci.

*Focus of Levante.*—This comprises the provinces of Gerona, Barcelona, Tarragona, Castellón, Valencia, Alicante and Murcia. Here according to my data there are 363 patients, but we estimate that actually there are 700. For the segregation of patients in this

<sup>1</sup>From a translation from the Spanish by Mr. S. Peña.

region there are two leprosaria, the National Leprosarium of Fontilles, in Alicante, with a capacity of 350 patients, and that of Massdeu, in Barcelona, with a capacity of about 50. In total these two leprosaria can accommodate some 400 cases, but with minor changes the capacity can easily be doubled.

*Focus of Andalucia.*—This comprises the provinces of Almeria, Granada, Jaén, Córdoba, Cádiz, Sevilla, Huelva, Badajoz and Ciudad-Real. In this focus, according to my statistics, there are 315 cases, but I believe that there are actually some 500 cases here. At present there is only one leprosarium in this region, that of San Lazaro, in



TEXT-FIG. 1. Graph showing numbers of cases of leprosy in Spain as revealed by official censuses and (1934) by the author's inquiry.

Granada, with a capacity of about 30 patients, but it is planned to construct one or two others. One was actually constructed in Granada, but for political reasons when it was finished it was converted into an asylum for other purposes.

*Focus of Gallego.*—This comprises the four provinces of Lugo, Orense, Pontevedra and Coruña, with an official census of 85 cases but an estimated total of some 600. In this region there is but one leprosarium, that in Santiago (Coruña), which has poor facilities and can only accommodate about 20 patients. In Galicia it was

planned to construct a large leprosarium in the province of Orense, but the project was not carried out. Now it is planned to construct an institution of large capacity on an island in one of the rivers of Pontevedra.

*Focus of Canarias.*—This comprises all the islands of the Canary archipelago, for which my data records 119 cases but in which I calculate that there actually exist 200 cases. In Las Palmas there is a fine leprosarium constructed recently by the local administration with the aid of the State. In it there are at present 60 patients, though the institution can accommodate one hundred.



TEXT-FIG. 2. Map of Spain showing distribution of known cases of leprosy.

We have indicated the leprosy foci and the provisions made for combating the disease. From this it is seen that the problem of leprosy in Spain has been given considerable attention in the last few years, and it is hoped that with further efforts something can be accomplished. There has recently been promulgated an official regulation which provides that patients found bacteriologically negative may be isolated in their own homes on permission of the health authorities. In Spain the horror of the disease is such that the greater part of the declared cases are segregated at their own re-

quest, or at that of their families or neighbors. However, if that is not done the health authorities can require open cases to be confined in the leprosaria.

#### TREATMENT AND ITS RESULTS

The drug most used in Spain is the ethyl esters of chaulmoogra oil. Also used on a large scale are sodium hydnicarpate, the collobiase of chaulmoogra, and others. For local treatment of the lesions preference is given to carbon dioxide snow, cauterization, thermocautery, or trichloroacetic acid. As adjuvant treatment arsenical and vitaminic products are used. We have obtained surprising results in the treatment of lepra reactions with pyramidon, used in fractional doses as in typhoid fever.

The results obtained in Spain with these treatments differ greatly from those published in other countries. In the leprosarium of Fontilles there have been confined during the last twenty-five years some 893 patients, of which only 75 have been released as socially cured. This gives an approximate rate of 8.4 per cent cured, but of these 75 patients 15 have relapsed—20 per cent of this group or 1.7 per cent of the whole. Consequently, only 6.7 per cent of the patients confined in the leprosarium have been actually released as socially cured. These figures are low in comparison with those obtained in similar institutions in other countries, but this is due principally to the fact that in the majority of cases the patients enter the hospital in a very advanced stage of the disease when treatment is, I believe, contraindicated.

It is hoped that this will be corrected with the enforcement of the decree of September, 1933. This gives to the many antivenereal dispensaries that are being formed everywhere in the country responsibility for the treatment and supervision of persons affected with leprosy within their zones who are not hospitalized. If in the vicinity of these cases there is made, as I have insistently recommended, a detailed epidemiological survey, it will be easy to discover the early cases of leprosy in which the efficacy of the treatment is beyond doubt, and with this we will be able to secure reliable statistics. With such a survey, and the construction of two leprosaria in Andalucia and Galicia, this disease should in a short time be under control in this country.