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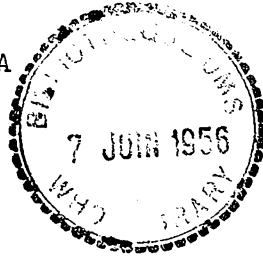
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ECONOMIC AND ADMINISTRATIVE ASPECTS OF  
SPANISH MALARIA CONTROL LEGISLATION

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The economic and administrative system applied by Spain since 1949 in the matter of disinsection, is perhaps unique of its kind in the world among control measures against malaria. We feel justified in thinking that the novelty introduced by this system into the traditional concepts of public health, together with the experience gained in the course of more than six years, during which it has been in force, will represent a positive contribution to the discussion of item 1.2 on the provisional agenda of the Conference. Indeed, this meeting, by reason of the very fact that its aim is to define practical measures concerning territories similar to Spain, cannot fail to be particularly interested in the economic aspects.

Let us therefore consider the problems concerned from the viewpoint of our legislation, the most important text of which - the Ministerial Ordinance on Disinsection - is reproduced in extenso at the end of this document.

For a long time Spain considered public health, and consequently malaria control, as a duty of the State which was responsible for technical control and finance. It is not surprising that the application of this principle, which excludes all private co-operation, sometimes encounters economic problems and, in the long run, insurmountable obstacles arising from the rapid evolution of modern prophylactic techniques.

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In Spain, Clavero, clearly foreseeing future developments in health matters, drew attention many years ago to the fact that State intervention in matters of prevention should be of a complete and universal nature, and showed that such intervention can only be fully effective within the framework of a national and integral organization. On the other hand, in a State with a competitive structure, private initiative cannot fail to leave its mark on the activities of the administration, even when the latter has full responsibility in all times for planning, implementation and supervision of programmes.

Of course, as stated in the preamble to the basic Spanish Law of 24 November 1944 on national health, the adoption of certain measures such as the sanitation of malarious regions and the obligation to carry out disinsection - although these might be considered as an innovation in the field of legislation - had in some cases already been provided for. Thus, the former regulations of the Central Malaria Control Committee, going back to the year 1924, already envisaged private financial assistance for certain sanitation works. It is nevertheless certain that the total expenditure associated with the campaigns continued to be borne by the State, either because the techniques used at this period for destroying insects were difficult to apply, of doubtful efficacy and, in the long run, extremely expensive, or also perhaps, because direct control of the plasmodia, which was practically the only method used from 1920-1943, was not a sufficient burden on the budget to necessitate a change of policy.

In this connexion, we may point out that these regulations also contained provisions relating to antimalarial drugs and to the bearing of expenses by private persons and by the owners of agricultural estates. However, when the system was put into application, such difficulties arose in the control of the disease that it had to be abandoned. At the present time, it is admitted that the Directorate General of Public Health shall be responsible for the free supply of antimalarial drugs and that the regulations shall be applied only in exceptional cases.

This historical survey, which shows the obstacles that any external intervention puts in the way of the smooth running of public health work, will make it clear why the administration wished to encourage co-operation so as to apply techniques which, as in the case of disinsection, proved to be remarkably effective in the campaigns of an exclusively governmental character carried out in Spain before 1949.

Although limited, this preliminary work nevertheless helped to create an atmosphere of confidence; it led to the widespread use of insecticides in the household and the growth in rural districts of the conviction that large-scale application of the same insecticides was an urgent necessity.

In this field, another important reason, of a material nature, ensures that voluntary collaboration will be forthcoming, since, although disinsection and malaria control in general have as final objective the protection of man himself, their results are most visible in the economic sphere. The present transformation of vast stretches which were formerly uncultivated and the extraordinary development of settling and repopulation schemes in fertile valleys, show how much agriculture has benefited and to what extent insecticides have increased the physical well-being of the people.

Despite all this, however, and in opposition to what can be done in veterinary medicine, prophylactic measures for the protection of man can only be enforced if there is a general feeling that they are rightly justified which ensures an easy solution to financial problems.

For example, if the prestige of the profession is to be maintained, it is clearly necessary to avoid the health official merely playing, in the eyes of the people, the role of tax collector. It is also obvious that when fixing the basis of taxation it is necessary to remain within the limits of effective expenditure, so as to prevent any suspicion. Similarly, it should not be forgotten that the proportional distribution of the total burden over the community as a whole, above all in the case of urban centres of population, should be made not only according to the area disinsected, but also according to the advantages resulting from disinsection and the financial position of the direct or indirect beneficiary, factors between which there is often a lack of proportion. When animal stalls and stables are disinsected to exterminate Anopheles atroparvus in the locality, it is the entire population which benefits thereby; consequently it is only logical that all the inhabitants should bear the cost thereof.

We have also felt it necessary to introduce a certain flexibility into the collecting system, by allowing for local production cycles as well as the possibility of a single collection, when several treatments must be given during the same year.

Although it is true that the system of tax collection must be adapted to very varied circumstances, there are in Spain three types of community, with well-defined connecting links, which have greatly simplified our task. These are the villages, the rural zones whose population is spread over a definite local area, and the agricultural estates engaged in single-crop farming, whose exploitation is controlled by a public corporation ("Corporacion Economica Laboral").

In the villages, a municipal official accompanies the malaria control team: he notes down the houses, animal stalls and stables treated; these data, combined with the cost of insecticide and of labour, enable the municipal authorities to divide up the costs proportionately among the inhabitants.

In the second case, the calculation of the sums to be collected is made by the director of the disinsection campaign for each property, on the basis of information supplied by the team leaders. All the invoices drawn up for the local area are transmitted to the authorities for collection of the sums due.

When single-crop farming is practised in the disinfected zone and there is a higher body regulating the production cycle, then this body is responsible for collecting the expenses. This is the case with all large rice fields.

Manual workers in agricultural undertakings and the economically weak in the villages are not obliged to pay disinsection costs. In the latter case, a corresponding allowance is granted to the municipality.

The funds collected are managed by the central or provincial services, according to the particular case.

In addition to this official intervention, the administration authorizes private persons and municipal authorities to carry out disinsection, either on their own, or with the assistance of specialized firms. This is a method encouraged by the official services - except in the event of epidemics - so as to extend malaria control activities beyond the physical possibilities of the Epidemiological Service for Parasite Control. However, the official services always retain control of such operations.

It is, in the first place, the Directorate General of Health which helps to facilitate these activities, in particular by convening the disinsection team leaders to attend courses organized by the National School of Public Health and by the National Malaria Control Institute. Not only the personnel attached to the provincial institutes take part in these courses, but also the officials of the communal administrations, who are then assigned to the sanitation of the commune or attached to the teams of the "central or provincial depots", and made responsible for carrying out plans drawn up by the latter for the respective communal territories.

Because of the nature of the Spanish political and administrative organization, the functions of the malaria control service and, the location of the technical bodies carrying out the work ("disinsection depots") are provincial or national in character according to the geographical area of the region concerned and, above all, according to the importance of the aim in view. This decentralization, which is a sign of the permanent nature of the epidemiological service for parasite control as part of the national health organization, and a witness to the importance which Spain attaches to the control of insect disease vectors, never loses sight of the basic unity, on the national level, of malaria prophylaxis. For this reason, all programmes must first be adapted to the national plan of operations and the activities constantly supervised by the central administration, whatever the zone to be treated, whatever the goal pursued and even if implementation is the responsibility of autonomous health bodies, such as the water and forestry boards of the various river basins (Confederaciones hidrograficas), the Land Settlement Institute, etc.

The declaration that a zone is subject to compulsory disinsection - without which procedure the financial directives to be imposed in the local areas disinsected would lack a legal basis - is also the responsibility of the central administration, which comes to a decision after first consulting the National Health Council.

The declaration that a zone is subject to compulsory disinsection, as provided for in Part IV of the Spanish law on public health ("ley de sanidad"), is one of the most remarkable features of Spanish legislation. This concept, like that of the regulation of trade in antimalarial drugs, was already to be found in the Italian laws at the beginning of the century, although other aims have been added to the

original ones. The purpose of this declaration - apart from any considerations of a fiscal nature - is to maintain disinsection campaigns under constant control so that they have a definite objective and are not dependent solely on the presence of the vectors, in the absence of any disease. Malaria has always been characterized in Spain by the existence of clearly defined foci. Its appearance is closely associated with agricultural irrigation, the courses of certain rivers, the existence of marshy ground and, above all, certain crops and work which calls for the movement of a large labour force. These facts obliged us to consider under what circumstances disinsection should be made compulsory.

Uniformity of the agrarian factors (irrigated fields, non-irrigated terrain, wooded country) and climatic conditions, similarity of customs, identity of the vectors etc., combined with the existence of a source of infection, define what we call a "geo-epidemiological unit", from the viewpoint of disinsection. It is certain that the results obtained are the more complete, the more distinct these characteristics, since it is from these zones, to which it was originally confined, that malaria spread as a result of periodic movements of the population.

We shall conclude this theoretical study of the economic and administrative system established by our malaria control legislation by noting that provisions of a fiscal nature have been largely conditioned by the absence of external economic aid, such as other countries have enjoyed in combating this scourge. Nevertheless, on considering the results obtained with its own resources and at relatively low cost, in comparison with the expenditure of other countries, the Spanish administration finds great satisfaction in having constantly carried on malaria control in accordance with principles which are now regarded by us as exemplary.

In short, we have restricted ourselves to using chlorinated insecticides only in the hyperendemic zones and to eliminating the source of residual infection by organizing the distribution of the most effective synthetic antimalarials, thanks to a dense and well-organized network of dispensaries.

ORDER OF THE MINISTRY OF THE INTERIOR, DATED 15 JULY 1949, ESTABLISHING THE DIRECTIVES TO BE FOLLOWED AS REGARDS DISINFECTION AND DISINSECTION

Article 1. The Directorate General of Health shall establish in Madrid a mobile disinsection depot, provided with all necessary material and technical facilities.

Article 2. The Provincial Institutes of Health shall establish branches of the said depot which shall receive material whose type and quantity shall be fixed by the Central Services.

Article 3. Management of the disinsection depots shall be the responsibility of the malaria control services, which in future shall bear the generic name of "Epidemiological Services for Parasite Control" and shall assume the corresponding functions.

Article 4. In the malarious zones and other endemic zones designated by the Directorate General of Health, disinsection of dwellings, animal stalls and stables, shops and other places serving as shelters for Anopheles or other species of vector arthropods, shall be declared compulsory.

Article 5. In the local areas to which central malaria control dispensaries are attached, the operations shall be carried out by the personnel of the central mobile depot. In the rest of the territory, they shall be carried out by the Provincial Institutes of Health.

Article 6. The Directorate General of Health, after consulting the National Health Council, shall lay down and publish in the form of periodic circulars, the methods to be employed for disinsection and the frequency of these operations. This body shall also fix the corresponding tariffs and the amounts thus laid down shall not exceed, as a maximum, the cost of the insecticide used, the remuneration of the personnel which carries out and directs disinsection, and the cost of transport.

Article 7. In all cases where owners of buildings request disinsection, they shall be charged for the expenses involved; in the event of wage-earners lodged in buildings attached to an undertaking the latter shall be responsible for the said expenses.

Article 8. The municipalities concerned shall check the amounts under the tariffs, and shall make a return at the end of each quarter to the Fund of the Central Malaria Control Services or to the Provincial Health Institutes, as the case may be.

Article 9. The municipalities, duly authorized by the Directorate General of Health, may carry out and organize directly disinsection operations, after first consulting the Provincial Health Inspectorate. They may also, under the same conditions, enter into a contract for carrying out these operations with one or more disinsection firms. In every case, the direction of the work must be entrusted to personnel designated by the Central Malaria Control Services or by the Provincial Directorate of Health.

Article 10. Subject to the provisions of Article 7 of this Order, users or owners, as the case may be, may, either individually or jointly, undertake disinsection operations directly or enter into a contract for this purpose with authorized firms, such operations having to be carried out under the direction of the personnel mentioned in the preceding Article.