of the essential paradox of our strategy in any country where leprosy is endemic. The accommodation and maintenance of infective lepers in a segregated place is an essential part of an anti-leprosy campaign, and it is by far the most expensive item in such a campaign. Settlements without surveys will not control leprosy, for that is merely weeding a garden in the dark. Settlements require treatment-attraction, and treatment-attraction is growing every year. But there are financial limits to the number of infective lepers which any country is prepared to house and maintain, and the very efficiency of surveys and treatment-attraction only accelerates the deadlock, where more infective lepers are known than can be cared for in institutions. Attempts to render such institutions self-supporting are fraught with difficulties and do not appear to be a complete answer to the problem. Indeed so long as our therapy requires years of skilled treatment and maintenance, the problem will remain. It is very desirable therefore that continued studies of the role and type of leper settlements should be made in different countries. Only thus can an administration which is seriously tackling leprosy avoid the steady accumulation of expense inherent in certain types of segregation—an accumulation which before the war cost the Philippine Government between a quarter and a third of their total Health vote for the upkeep and treatment of segregated lepers.

THE SOUTH AMERICAN LEPROSY CONFERENCE.
E. Muir.

The second Pan-American Conference on Leprosy opened in Rio de Janeiro on October 19th, 1946. One hundred delegates took part, representing seventeen different countries of the American Continents.

The debates and findings of the Conference are of unusual interest in a number of ways. It is the first major international
assembly of those interested in leprosy since the outbreak of World War II. It met at a peculiarly appropriate time for the interim discussion and elucidation of problems connected with the chemotherapy and terminology of leprosy.

With regard to terminology, the need for revision has long been felt, and the Conference made a definite forward step in proposing a new and practical—if tentative—scheme of classification. The Conference also met at a time ripe for the exchange of views and experiences of the newer drugs. The assessment of these sulphone compounds in treatment may well be regarded as of paramount importance in leprosy at this juncture.

The first Pan-American Conference also was held at Rio de Janeiro in 1922. At this second Conference it was regretted that Colombia, whose contribution to leprosy problems is important, was not represented. It is, however, appropriate that both these Conferences have been held in Brazil, where leprosy is not only endemic but is being controlled with zeal and energy on the most modern lines.

The Conference lasted from October 19th—27th, its work being conducted under the able chairmanship of Dr. Ernani Agricola, the Director of the National Leprosy Service. Meetings were held in the auditorium of the Ministry of Education and Health, a large and modern building in the centre of the city.

Of the papers read at the Conference, perhaps those dealing with chemotherapy may be considered first.

**Diasone and Promin.** Dr. Faget of Carville Leprosarium in a weighty and important contribution reviewed the results he had obtained with these groups over a period of four to five years. About half of his patients under these drugs became bacteriologically negative in a four year period. An interesting point was his finding of steady progressive recovery, instanced by his figures of 25 per cent. in half a year, 60 per cent. in one year, 75 per cent. in three years, and 100 per cent. in four years. He found both drugs similar in therapeutic value, but noted the relative facility of oral administration with diasone, compared with promin which is given intravenously.

Further reports on these two drugs were given by Dr. Laura de Souza Lima, who both reported and demonstrated the results of extensive experience with about four hundred cases on each. It is of special interest that marked clinical and bacteriological improvement was observed in all early lepromatous cases—perhaps the most crucial stage in leprosy. Dr. de Souza Lima, however, felt that longer experience is required before the full therapeutic value of these drugs can be assessed.
_Promizole_. A further paper by Dr. Faget reported on some eighteen months experience with this drug. Its advantage lies in its comparative non-toxicity, patients being able to tolerate as much as 8 grams a day, with a consequent high blood concentration. He considered therefore that enhanced benefit might derive from its relative rapidity of action.

_Streptomycin_. Tentative experimental work with this drug was also reported on by Dr. Faget, using frequent injections. While definite improvement was observed, it was not yet possible to give an experienced opinion on its value. He expressed the view that simultaneous treatment by streptomycin and sulphones might prove of greater therapeutic value than either of these drugs used by itself.

_Hydnocarpus Oil_. A number of delegates reported favourably on intradermal treatment, the value of which is now well-established. Dr. Schujman gave a paper on the enhanced benefits of giving large doses of 30 c.c. or more of the oil per week—a high dosage method that has also been used with success in India and Malaya. Dr. Bechelli and Dr. Rotberg, in a series of papers, gave an historical study of chaulmoogra oil and of the factors (rational or otherwise) which have built up its reputation as the standard treatment in leprosy.

Dr. Faget illustrated his experience with sulphones by a series of before-and-after photographs. While these gave striking pictures of improvement, the danger was realised that, as so often in the past, photographs may record only or partly the natural vicissitudes of the disease.

As might be expected in the present state of our knowledge, there was considerable discussion and difference of opinion, in both the plenary sessions and the commission on treatment, on the relative value of different forms of therapy. No general agreement was obtained either on the real status of chaulmoogra oil, or to what extent the sulphones are likely to replace the older methods of treatment. There was, however, general agreement that the sulphone drugs must still be regarded as experimental, and that their status is not yet such as to constitute a standard treatment for leprosy.

_Pan-American Classification_. Along with therapeutics the other question of primary interest at the Conference was classification. It has long been felt that the Cairo classification of 1938 could not be a lasting basis for international terminology. Certain phases of the disease, for instance, are not recognised in the Cairo classification. It was also felt that a certain discordancy in nomenclature exists with regard to the two main divisions of
The term 'lepromatous' is histological in character, while 'neural' is topographical. It is very satisfactory to record therefore that the Conference was unanimous on three points. An international classification should be (1) a scientific one, based on the histopathology of the disease; (2) the two main contrasting divisions of leprosy should be regarded as "polar" types; (3) the classification should leave room for an interpolar type of leprosy which does not correspond to these two main types.

In the new classification the polar types are therefore designated as tuberculoid and lepromatous. The distinctive features of tuberculoid leprosy are the relative absence of bacilli, the presence of pathological foci containing Langhan's giant cells and epithelioid cells, a positive lepromin reaction, and certain characteristic clinical and macroscopic appearances. The lepromatous type, on the other hand, is typically recognisable by abundance of bacilli, by diffuse granulomatous tissue containing Virchow's foamy cells, by a negative lepromin reaction, and again by its own special clinical course and features. The contrasting pathology of these two types may be found either in cutaneous or neural lesions, so that these latter terms are reserved as purely topographical sub-classifications.

Some difficulty arose over the nomenclature of the interpolar type of the disease which clinically and histologically deviates from the two polar forms. For instance, neither of these forms appears to include the depigmented macule, characterised histologically by unspecialised round-cell infiltration. The term "chronic inflammatory" was after discussion, rejected as being too vague, while "transitional" was also felt to be inadequate as suggesting that these non-polar types are invariably change-over phenomena. The majority of the delegates felt that the non-polar phases should be classified in the meantime as "Incaracteristico" (uncharacteristic or non-characteristic). It was felt, however, that the group should have a less negative name and more in accordance with its own histological entity. In the absence of any more satisfactory suggestion, the terms "Uncharacteristic" or "Indefinite" were adopted.

All delegates felt keenly the importance of this positive contribution towards a nomenclature that can be accepted as common currency among leprosy workers everywhere. A common and accepted international basis of terminology will assist greatly in the elucidation of at least two aspects of the disease which cause divergence of opinion at present. One is the question whether polar forms can change their essential characteristics,
i.e. whether tuberculoid leprosy can evolve into lepromatous. Many delegates were of the opinion that the polar types are essentially contrasting and do not merge. On the other hand, Dr. Lauro de Souza Lima demonstrated at the Conference a small number of lepromatous cases with definite photographic and histological proof of their original tuberculoid condition. A satisfactory classification will also do much to clear the divergences of view among leprosy workers caused by the differences in type-incidence, severity and therapeutics: response in different races. That regional and racial variations in the disease exist, and may be marked, was made evident to many delegates visiting Brazil for the first time.

Epidemiology. The South American report on epidemiology and the number of interesting papers read on this subject at the Conference reveal several definite advances over the findings at Cairo, as a result of added experience over the last eight years. Studies were exhibited of extensive survey work, showing detailed and careful planning implemented by thorough and painstaking execution. These surveys, first extensive and later intensive, from S. America, and particularly from some of the Brazilian States, continue to bring in large numbers of cases and to supply valuable statistics. Delegates were also afforded an opportunity of studying the special leprosy filing systems in Rio de Janeiro and in the States of Sao Paulo, and Minas Gerais. These are probably the most elaborate and thorough in existence.

Lepromin. A number of papers were read on the Lepromin Test, with a general concensus of opinion on its importance in classification and prognosis. It was pointed out, however, that in the present state of our knowledge the lepromin test should not be regarded as an essential or infallible guide.

Visits and Special Lectures. From Rio de Janeiro special visits were arranged to the Leper Colony and to the headquarters of the Federal Leprosy Organisation. This organisation is the directing body in strategic planning and expenditure in the Brazilian anti-leprosy campaign. A visit was also made to the National Academy of Medicine, where the general anti-leprosy work of the countries represented at the Conference was outlined. At the close of the Conference many delegates went to see the anti-leprosy work at Sao Paulo and Minas Gerais, hospitality and airplane passage being generously provided. The Padre Bento Colony was visited, one of five settlements containing about 9,000 patients. Notable amongst the extensive and exceedingly well-planned anti-leprosy activities of Sao Paulo is the library devoted to the disease. The library receives six hundred medical
journals, circulates the titles of articles monthly to all doctors, and undertakes a copy-service of any of these on application.

The Brazilian Society of English Culture also gave lectures on sociological aspects of leprosy work, and on different aspects of the campaign against leprosy throughout the British Empire.

An extremely interesting address was given by Mrs. Eunice Weaver, President of the Federation of Societies for Assistance to Lepers and for Control of Leprosy. This Federation merges the activities of eight private associations, and the care of children is a special feature of its work.

*International Leprosy Association.* The opportunity afforded by the Conference was taken to hold a Council meeting of the International Leprosy Association, and also a general members meeting to which other Conference delegates were invited, and at which forty new Association members were enrolled. It is a pleasure to record that the meeting nominated with applause Dr. H. W. Wade as President of the Association, in place of the late Prof. Marchoux. It was agreed also that Dr. Alberto Oteiza y Setien, Cuban delegate to the Conference, be appointed Councillor in place of Prof. Eduardo Rabello. Arrangements were also made, through the generosity of the American Leprosy Foundation, for the resumption of a regular quarterly issue of the *International Journal of Leprosy.*

It was decided that the next International Leprosy Congress should be held in 1948, either before or after the International Dermatological Congress which is to be held in that year in the U.S.A. An invitation from the Cuban Government was received, and it was therefore proposed that the Leprosy Congress, ten years after the Cairo Congress, should be held at Habana, Cuba.

A unanimous message of sympathy and hopes for a speedy recovery was sent to Dr. Wade.

The general atmosphere of the Conference was one of warm good will. While more studied contributions were presented at the plenary sessions, a great deal of the important discussions took place less formally in more intimate sections or commissions, which dealt separately with the more important subjects. The discussions often lasted late into the night. The social aspects of the Conference were very pleasantly arranged. Visiting delegates were greeted on arrival by informal reception committees who made all transport and hotel arrangements. Lunches and cocktail parties were arranged for delegates and their wives, who also received invitations to a beautifully rendered symphony concert at the magnificent Municipal Theatre.
The Conference was, at this time, a peculiarly appropriate one. It met at a stage in which many of our ideas about the disease are in the melting pot. It represented the resumption, after the preoccupations of a world war, of international linkage against leprosy. In its friendly atmosphere and well-planned arrangements it achieved a number of significant contributions both to mutual understanding and to the furtherance of our control of the disease.

SOME IMPRESSIONS OF SUNGEI BULOH LEPER HOSPITAL UNDER JAPANESE OCCUPATION
GORDON A. RYRIE

On the 8th of January, 1942, Japanese troops occupied the area of Sungei Buloh Leper Hospital in the Federated Malay States. At that point there were 2510 lepers, including 265 children—Malays, Indians, Chinese, and a sprinkling of other nationalities. Thereafter all contact with the outer world ceased. On the 16th September, 1945—after the defeat of Japan and the re-entry of our forces into Malaya—the number of inmates was 660. The number of children left was 21. The rest were dead.

For a number of reasons this tragic period does not yield a great deal of scientific interest. To begin with the Japanese carried off or destroyed all the scientific data of the Hospital—case histories, sections, photographs and long term experimental work still awaiting completion. Much of this can never be replaced. In the second place it was impossible to keep scientific or accurate data under Japanese rule, and this for two reasons. All official figures were 'cooked' in order to prove that public health was at least as good under the Japanese as under the British administration. For example, at an autopsy one might note the presence of grass in the stomach and intestines. But the inclusion of this finding in an official report would merely invite the attentions of the security police. The cause of death