

EXECUTIVE BOARD

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Forty-first Session

ORIGINAL: ENGLISH

SUMMARY RECORD OF THE FOURTH MEETING

WHO Headquarters, Geneva
Wednesday, 24 January 1968, at 3 p.m.

CHAIRMAN: Dr K. N. RAO

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Fourth MeetingWednesday, 24 January 1968, at 3 p.m.

<u>Present</u>	<u>Designating Country</u>
Dr K. N. RAO, <u>Chairman</u>	India
Professor P. MACÚCH, <u>Vice-Chairman</u>	Czechoslovakia
Dr P. D. MARTÍNEZ, <u>Vice-Chairman</u>	Mexico
Dr D. BADAROU, <u>Rapporteur</u>	Dahomey
Dr M. P. OTOLORIN, <u>Rapporteur</u>	Nigeria
Professor E. AUJALEU	France
Dr J. C. AZURIN	Philippines
Dr A. BENYAKHLEF	Morocco
Dr Maria F. DAELEN (alternate to Professor L. von Manger-Koenig)	Federal Republic of Germany
Dr E. A. DUALEH	Somalia
Dr A. ENGEL	Sweden
Dr C. K. HASAN	Pakistan
Dr A. A. AL-HURAIBI	Yemen
Dr H. M. EL-KADI	United Arab Republic
Dr O. KEITA	Guinea
Dr I. KONE (alternate to Dr B. N'Dia Koffi)	Ivory Coast
Professor I. MORARU	Romania
Dr R. A. MORENO	Panama
Dr V. V. OLGUÍN	Argentina
Dr PE KYIN	Burma
Sir William REFSHAUGE	Australia
Dr D. D. VENEDIKTOV	Union of Soviet Socialist Republics
Dr M. VILLA	Peru
Dr J. WATT	United States of America

Secretary: Dr M. G. CANDAU
Director-General

Representatives of Intergovernmental Organizations

United Nations Children's Fund	Sir Herbert BROADLEY
United Nations Relief and Works Agency for Palestine Refugees in the Near East	Dr M. SHARIF
Food and Agriculture Organization	Mr G. DELALANDE
International Atomic Energy Agency	Dr J. SERVANT
International Bank for Reconstruction and Development	Mr H. J. ZIEGLER
Organization of American States	Mr H. L. HERNÁNDEZ

Representatives of Non-governmental Organizations

International Air Transport Association	Mr R. W. BONHOFF
International Committee of Catholic Nurses	Miss L. CHARLES-ROQUES
International Council of Nurses	Miss F. S. BECK
International Dental Federation	Dr S. ROSS Mr G. H. LEATHERMAN
International Planned Parenthood Federation	Mrs F. DENNIS
International Union of Pure and Applied Chemistry	Dr R. MORF
League of Red Cross Societies	Professor A. LIBOV Dr H. ZIELINSKI

1. APPOINTMENT OF THE REGIONAL DIRECTOR FOR SOUTH-EAST ASIA: Item 5.3.2 of the Agenda

The meeting was held in private from 2.30 to 2.50 p.m. and resumed in public session at 3 p.m.

The CHAIRMAN invited the Rapporteur to read out the resolution on the item which the Board had just adopted in private meeting.

Dr OTOLORIN, Rapporteur, read out the resolution in question:¹

The Executive Board,

Considering the provisions of Article 52 of the WHO Constitution and Staff Regulation 4.5; and

Having taken cognizance of the resolution adopted by the Regional Committee for South-East Asia at its twentieth session with regard to the nomination of a Regional Director,

1. APPOINTS Dr V. T. Herat Gunaratne Regional Director for South-East Asia as from 1 March 1968; and
2. AUTHORIZES the Director-General to issue a contract to him for a period of five years, subject to the provisions of the Staff Regulations and the Staff Rules.

2. GENERAL EVALUATION OF THE PRACTICAL USE OF REPORTS OF EXPERT COMMITTEE MEETINGS:
Item 2.2.2 of the Agenda (Document EB41/23, Corr.1 and Add.1) (continued from the third meeting, section 8)

The CHAIRMAN invited the Rapporteur to submit the revised draft resolution on the item.

Dr OTOLORIN, Rapporteur, introduced the revised text, reading as follows:

The Executive Board,

Having reviewed the Director-General's report² on the Evaluation Study of the Practical Use of Reports of Expert Committee Meetings,

1. THANKS the Director-General for his report; and
2. REQUESTS the Director-General to take into account the observations of the Executive Board in his continuing evaluation of the Technical Report Series with a view to gradually improving the series and giving it a wider and more timely distribution; and
3. REQUESTS the Director-General to include in his reports to the Executive Board on expert committee meetings any information showing the results obtained in this respect.

Sir William REFSHAUGE suggested that in operative paragraph 2 of the draft resolution, the word "timely" might be replaced by the word "effective", as an expression more suitable to the context.

Professor AUJALEU thought the request to the Director-General in operative paragraph 2 was somewhat bald. Asking him to improve the Technical Report Series implied criticism of the series in the past. A short tribute to their excellence should at least be included and the Director-General should be requested to continue efforts at improvement.

The CHAIRMAN agreed and suggested that the word "excellent" be inserted before the word "report" in operative paragraph 1.

¹ Resolution EB41.R11.

² Documents EB41/23, Corr.1 and Add.1.

The DIRECTOR-GENERAL pointed out that Professor Aujaleu's comments related to the reports issued in the Technical Report Series and not to his own report on general evaluation of their practical use.

Dr MARTÍNEZ thought both the Director-General's report and the series worthy of commendation.

Professor AUJALEU recalled his remark at the second meeting to the effect that the quality of expert committee reports depended on the experience and quality of the staff members servicing the committees. He would support inclusion of the word "excellent" in operative paragraph 1 and suggest that a new operative paragraph be inserted after paragraph 1, reading: "Notes with satisfaction the present quality of the reports". The remaining two operative paragraphs would then be renumbered.

The CHAIRMAN said the Rapporteurs would make the necessary changes and put forward a revised text for later consideration.

Dr WATT suggested that the Rapporteurs might also bear in mind the suggestion made by Sir William Refshauge.

The CHAIRMAN said that that would be done.

3. MALARIA ERADICATION PROGRAMME: Item 2.3 of the Agenda (Documents EB41/7 and EB41/17) (continued from the third meeting, section 11)

Dr MORENO said he had a few brief comments on the excellent report before the Board (document EB41/7) on the development of the malaria eradication programme. He had noted that the programme had suffered some setbacks in certain regions of the world due, in some cases, to problems of a technical nature which were well analysed in the report. In other cases, administrative and financial problems were responsible. In that regard, he would suggest that in communications to governments, particular emphasis might be placed on the importance of administrative and financial aspects for successful work. He had known of cases in his own part of the world where tremendous setbacks had been caused as a result of shortage of funds and lack of adequate administrative services.

Dr OTOLORIN joined in congratulating the Secretariat on the report, which gave a most concise account of the work being done. The review of activities in research was particularly appreciated.

In discussions the previous year, it had been recognized that the African Region constituted the big problem area in the work. If supporting evidence for that contention was needed, it could clearly be found in Table 1 in the report which showed that in the African Region, with a total population of some 220 millions, over 196 millions were not as yet covered by eradication programmes. Indeed, the African population not as yet covered represented well over half of the total world population in the same category. It therefore seemed to him that more attention than at present must be given to the African Region, the more so as it could be seen from Figure 1 that the proportion of population coming under new activities was steadily shrinking.

Reported successes in malaria eradication, therefore, were merely the fruit of past efforts, and if no new seeds were put in there would be nothing further to come to yield. He accordingly believed that future assessment of the success of the programme should be in terms of what was achieved in the African Region and, to a lesser extent, in the Western Pacific and Eastern Mediterranean Regions.

Something had been said the previous year about a number of States that had failed to start any eradication activities; and he had asked whether the Director-General could investigate the difficulties of those countries which accounted for their not embracing the

new philosophy of eradication. He did not know whether that had already been done, but in section 3 of the report mention was made of a survey being carried out in the African Region of the existing health structure and he wondered whether that survey would cover the countries that had not as yet embarked on eradication activities of any kind.

Following the discussion in the Health Assembly the previous year, it had been decided to shift the emphasis in malaria eradication policy in so far as the African Region was concerned to assistance to the basic health services. It was necessary now to examine the results achieved by that shift. WHO had consistently emphasized that it could do nothing in the absence of government requests; therefore, as he had said, it was necessary to ascertain from governments making no requests in malaria eradication exactly what their difficulties were.

The reason underlying the shift in policy had been the desire to do something constructive in regard to malaria in Africa. If one result of changing over from malaria eradication work to projects on the basic health services was to be the withdrawal of all malariologists from the field, then the African Region would be the worse off. In other words, if the Region was going to receive less assistance from malaria eradication funds, little progress was going to be made. He would therefore like to know whether WHO assistance to basic health services projects in Africa was being financed from malaria eradication funds or entirely under the regular budget. There was no point in channelling all available funds into research work if no effort was to be made to make use of the results obtained.

The Expert Committee on Malaria that had met in 1967 had completed its work and he had noted the Director-General's comments on the results of its discussions. He would be content to await the announcement of the Director-General's further recommendations, but at that stage would like to have some indication of the trend of thought of the experts concerned, bearing in mind their recommendations on field studies on new insecticides or on the combined use of mass drug administration with residual insecticides. The information would be helpful to the discussion.

Lastly, he was pleased to note the effort being made in research on immunization. He would press for much more to be done in that area, for, if anything could provide a short cut in malaria eradication, it would be discovery of some vaccination providing immunity.

Professor MACUCH said the idea of a global programme for the eradication of malaria had at the outset given rise to great hopes but the original optimism had given way somewhat, when with the passage of time a comparison had been made of the results obtained with the resources expended in the struggle. Over the past ten years much had been learned about the nature of the problem and it would seem preferable now to give up speaking of global eradication of the disease. Lack of success encountered in certain areas, particularly in the African Region, indicated that it was of greater value to maintain good control measures. That did not mean that allocations for malaria eradication in Africa should be reduced. Some members of the Board and others taking part in the discussions in the Committee on Programme and Budget at the last Health Assembly had indicated that a strict scientific control should form part of the global programme to bring out the needs as they appeared, together with adjustments required in the methods applied. The idea emitted in the present discussion that research in that area should be promoted was worthy of support. Indeed, it was the only way whereby WHO might avoid wasting money in the programme which, in existing social conditions, was not practicable.

The CHAIRMAN said that many of the new members serving on the Board had not as yet spoken in the discussion; perhaps they would now care to give their ideas on the malaria eradication programme, as one of the Organization's most important activities.

Dr DUALEH, responding to that invitation, joined in the commendation of the excellent report before the Board. He noted that nomadism was mentioned in the report as one of the technical problems delaying progress towards global eradication. In that regard, he would draw attention to the point, which was also noted in the report, that in the region

particularly affected by nomadism some countries had embarked on eradication programmes and others not, thus creating a problem where no natural boundaries existed to keep the nomads from crossing from one country into another. He wondered whether anything had been done or could be done to overcome that difficulty.

Dr BADAROU said his original intention not to speak in the discussion did not imply that he was not interested in the programme. The excellent report before the Board showed the praiseworthy effort made by the Organization to help developing countries, particularly in Africa, to build up a bulwark against diseases besetting their populations, including malaria. Efforts had been made to institute an eradication programme in malaria wherever the conditions so permitted and the governments were decided on such action.

The report aroused some concern for him also because of the peculiar difficulties in attempting eradication in the African, Western Pacific and Eastern Mediterranean Regions, where the disease constituted a major problem. Despite all that had been done hitherto by way of expert and scientific committee meetings and other measures, some scepticism was still apparently felt in Africa about the chances of eventual success in the eradication struggle. In face of that situation and the fact that the African Region could not remain for ever beset by such a major continuing scourge, he would ask that the Organization should endeavour to do still more and that its efforts should be supplemented by countries of goodwill in order that the economic and social development of the African Region might not be compromised.

Dr AL-HURAIABI thanked the Director-General for his lucid and comprehensive report as well as the Secretariat members for the detailed explanations, dealing inter alia with the difficulties facing the countries engaged in malaria eradication.

It was encouraging to note from Figure 1 in the report that population in the maintenance and consolidation phases was increasing with time; it was less promising to find that the attack phase was collapsing. He had been hoping that the preparatory phase would have expanded more and more to offset at least the steady population group as yet uncovered by eradication activities.

Secondly, he greatly appreciated the comments on the significance of detailed research of wider scope on the genetic structure of the parasite and of man and on immunology. On the other hand, he felt that the primary effort should be on tackling the disease itself by technical and fundamental means to reduce its global spread to a more limited scale. Once that objective was achieved, more specific research could be expanded.

One of the basic and fundamental actions was to train personnel in preventive and curative measures, to deal with the massive populations affected by the disease. In his opinion, it was more important that people should be taught how to use disinfectants properly in accordance with the local environment and conditions than to give instruction on the genetic structure of the parasite or of man. It was true that persons having a certain type of sickle cell in their red blood corpuscles were resistant to malaria but, strangely enough, the inhabitants of South-East Asia supposedly with that type of cell were suffering more from malaria than Europeans without it. That meant that high consideration must be given to instituting and improving basic health services. The provisions of resolution EB5.R9 of the Executive Board had a bearing on the question of training and he would like to know what had actually been done in fulfilment of its recommendation that at least one malaria control project should be in operation in every country where malaria is a major problem.

In regard to pre-eradication operations, the report mentioned that twenty-one countries were engaged in such work; the comments on the progress achieved omitted to mention three countries of the Eastern Mediterranean Region and he would also like to know what the position was in regard to those countries.

He greatly appreciated the efforts made in the organizing of seminars on advanced epidemiological methodology. Perhaps he could be given some information on what had transpired from the most recent one, held in New Delhi.

Lastly, the resolution to which he had already referred recommended intensified collaboration with FAO in assisting governments in malaria control, where the disease interfered with agricultural and economic development. No mention was made of FAO in the relevant section of the report under study; perhaps therefore the Secretariat might indicate what part that organization was playing in malaria eradication.

Dr VILLA said he was grateful for the encouragement given to new members to speak in the discussion. He too would like to join in the congratulations to the Director-General and the staff on the excellent report before the Board.

He would like to refer briefly to two points that were already well known but were perhaps worth further stress. Many countries had succeeded in interrupting the transmission of malaria in particular areas, leaving them with the problem of maintenance and epidemiological surveillance to keep the areas free from reinfection. The particular difficulty involved lay in the fact that malaria was essentially a rural area disease and it was in the rural areas that the general health services were either weakest or completely lacking. In order to maintain the benefits achieved, therefore, efforts should be made to establish or make more effective the general health services for rural areas. Helpful results might perhaps be obtained through a programme for the extension of minimum health services to rural areas in co-ordination with the malaria eradication programme. That was an aspect of great interest to Latin America and to his own country in particular. Peru had made great efforts to include malaria eradication work within the regular health services but the objective was difficult to attain in the rural areas where those services were inadequate. Unless the rural health services could take over the responsibility for epidemiological surveillance in the near future, areas already freed of the disease might be reinfected and the country would once again be faced with the problem of instituting a fresh eradication campaign in those areas.

Another aspect of importance was one of an international character, related to border areas where sometimes there was no good co-ordination between the work being done in one country and that being undertaken in the neighbouring one. It was a costly business for one country alone to maintain a "health belt" to prevent reinfection. Efforts should therefore be made to ensure that the operations of neighbouring countries were co-ordinated, since that would benefit both of the countries concerned and the Organization as well.

Dr KONE, joined in the thanks to the Director-General for the excellent report submitted to the Board.

He had no desire to echo earlier speakers regarding the particular difficulties of the African Region. In his opinion, it would take many years before the countries of Africa would be in a position to launch into operations of the scope required by malaria eradication. As one member had already suggested, the solution for the African Region might lie in major progress in the field of immunization, because the sparsely populated areas posed a particularly difficult problem in detecting the disease.

The CHAIRMAN said he would like to join in the general commendation of the Director-General and the staff for the great work being done toward improving man's health through the spearhead attack against malaria.

Between the years 1946 and 1948, many great events had taken place: the end of the Second World War, the revolution of the rising expectations of the peoples of the world, the establishment of WHO and the freedom gained by many countries, starting with his own. It was probably India that had spearheaded the liberation of many other countries previously under colonial domination.

WHO, after settling down to its work, had been the first to start on malaria, the cause of destruction and disablement among numberless people. The shift in policy from control to eradication had taken place in 1958, due entirely to the priority given to the disease by the Director-General to whom alone the credit should go for establishing the strategy of all-out attack against malaria as the spearhead of operations against the communicable diseases in general.

Before that time, India used to have about seventy million sufferers from the disease and nearly one million dead from it each year. As a result of eradication measures, the number of cases had fallen so low that at times it was difficult to find demonstration cases for the education of medical students. About two-thirds of the country was now in the maintenance phase and social and economic gains from the reduction of the disease amounted to about £1 000 000 per year; a substantial acreage of land had been brought into cultivation; general health had improved; expectation of life had risen spectacularly; and infant mortality had been reduced. In fact, a health revolution had taken place. And the credit should go to WHO for bringing about that great health revolution exemplified by India; he was sure it would in time be spread throughout the world as a whole. The contribution to civilization's progress through that revolution was very great, and all connected with WHO should be rightly proud of that great adventure in human history. For his part, he would like to pay tribute to the Director-General and the staff who had trumpeted the cause and stimulated governments to act.

In the strategy applied in the control or eradication of malaria, all essentials might not have been originally foreseen, but over the fifteen-year period many lessons had been learned. The need for maintaining or sustaining the great gains achieved was now recognized as one of the main tasks facing the Organization and the countries concerned. And that could be done only through appropriate vigilance and surveillance. In turn, basic health services were essential for carrying out that task. Throughout the years, the various expert committees called together had made recommendations based on the state of knowledge of the time. The most recent one had recommended that "before initiating new programmes it would be essential to ensure (a) sufficiently high priority in financial allocations throughout the programme; (b) the adoption of a definite strategy for the development of health services in the country, and (c) the existence of proof of the technical and operational feasibility for achieving eradication".¹ That was the final assessment of the situation as it was today. The essentials for future action were well covered by resolution WHA20.14. That resolution, too, showed the general concern that the eradication programme should be extended in the African Region as soon as conditions permitted.

The Board at the current session was engaged in preparing for the decisions to be taken at the forthcoming Health Assembly, which would be celebrating the Organization's twentieth anniversary. It thus was in a unique position in regard to the malaria eradication programme in that it could pay tribute to past achievements but also project strategy for the twenty years ahead. Stress should be laid, first, on the organization of the basic health services, without which the past progress could not be sustained; secondly, on the logistics of malaria eradication - chemicals, drugs, vehicles, etc., - which must be made easy so that every country could be self-sufficient; and, thirdly, on the integration within the basic health services of programmes against all the communicable diseases, including malaria, so that the work might be made more effective at less cost. The experience gained thus far should enable the work to go on apace in the years to come. He was sure the Director-General, in closing the discussion, would have much to offer to the developing countries by way of assistance from WHO in all those endeavours.

Over the years, UNICEF had made a great contribution to the work in malaria eradication and he had pleasure in asking its representative to address the Board.

Sir Herbert BROADLEY (United Nations Children's Fund) said that at the last meeting of the UNICEF Executive Board, which had been held in New York in June 1967, a further review of that organization's participation in the malaria eradication programme had been undertaken on the basis of a paper provided by WHO and of the report of the UNICEF/WHO Joint Committee on Health Policy. That report had endorsed the continuance by UNICEF of its existing policy of co-operation with WHO in malaria eradication, the basis of which was the continuation of existing projects where they were already operating efficiently, where there was full government participation, where they were supported by adequate or developing basic health

¹ Document EB41/17, section 7.3 (i).

services and where malaria represented a serious menace to child health. Bearing in mind reports of waning interest on the part of some governments in the progress of eradication programmes, due in some cases to a fair measure of success without full eradication having been reached and in others to financial difficulties and shortage of adequate administrative and technical staff, the Joint Committee had urged in its report that both WHO and UNICEF should use their influence to the maximum to revive governments' interest so that programmes could be brought to a successful conclusion, and had stated that in the event that countries failed to provide the counterpart funds required for carrying out the programme, the international agencies would not be justified in continuing their assistance. In a number of countries where such a situation had developed, the campaigns had only been kept going through the generous contribution of the United States Government.

As a result of the recommendations of the Joint Committee on Health Policy, UNICEF had written to a number of Member countries drawing attention to the circumstances that had caused concern and expressing the hope that governments would recognize the urgency of reconsidering the problem and reviewing their attitude, thereby enabling the continuing participation of UNICEF in schemes that were satisfactory and were being satisfactorily administered.

UNICEF's contribution to the programme was in supplies and equipment rather than personnel, its financial participation during the past ten years having amounted to a total of over US\$ 70 000 000 - an average of about \$ 7 000 000 a year. The annual amounts had tended to decline, its contribution ten years ago having been between \$ 8 000 000 and \$ 9 000 000.

As would be seen from the detailed figures that were to be distributed, the UNICEF Executive Board had in 1967 allocated \$ 4 120 000 for malaria eradication, and had at the same time allocated \$ 14 000 000 for development and expansion of basic health services - an aspect of the further development of the malaria eradication campaign on which it laid considerable emphasis.

The three conditions the Chairman had read from the document summarizing the report of the recent expert committee, together with the fourth concerning the importance of campaigns from the point of view of children and young people, summed up UNICEF's policy in regard to malaria eradication at the present time.

With regard to the future, and UNICEF's further participation, he read out the following extract from the report of the UNICEF Executive Board's last meeting:

The Deputy Executive Director pointed out that it was natural for UNICEF expenditure on malaria eradication to decline since each year some countries moved from the attack phase to the consolidation phase. However, if the forecast proved wrong and more funds were needed, it might be possible to provide them if the countries were equally ready to do their share.

UNICEF looked forward to the further development of the joint undertaking in association with the governments concerned and with the very generous help from other sources of assistance, so that in due course the objective for which the eradication campaign was established might be achieved.

Dr BERNARD, Assistant Director-General, in reply to Dr Novgorodcev's question concerning the measures taken on operative paragraph 3 of resolution WHA20.14, said that at all stages and levels of the programme close co-operation was maintained with governments in investigating the social and economic implications of malaria and of its eradication. Field personnel, regional offices and the staff of the Malaria Eradication Division at headquarters had kept that aspect of the problem constantly in mind in their contacts with governments. Certain governments had also for their part kept the Organization informed of studies made on the subject at national level, and he cited as examples those made by the Governments of India, Pakistan and Mexico, from which it had been possible to gather a large amount of information of value to other countries.

With regard to Dr Novgorodcev's remark concerning the International Congresses of Tropical Medicine and Malaria to be held in September 1968 in Teheran, he said that WHO, which had traditionally close relations with the Congresses, would be represented by staff of the Malaria Eradication Division, among others, who would make scientific and technical contributions. Such congresses offered a unique opportunity for bringing together experts on the subject from all over the world.

Sir William Refshauge had rightly pointed out that Figure 1 of document EB41/7 (Changes in the distribution of population in the originally malarious areas of the world by phase of malaria eradication between 1958 and 1967) should be interpreted taking into account population growth - a factor that obviously had a great bearing on the question.

A conference document giving the information requested by Sir William concerning expenditure had now been distributed. It had been drawn up in great haste between two meetings and might therefore contain some errors, but was furnished as a general indication of trends.

With regard to Dr Watt's remark concerning the limitations of spraying operations, the Organization had been making constant efforts to develop other methods, through its studies on chemotherapy, by the combination of various methods, and by a more flexible adaptation to local conditions, which would form one of the chief facets of its new strategy.

Professor Moraru and Dr Moreno had mentioned the problem of additional expenditure imposed upon governments by a regression during the maintenance or consolidation phases, even involving a reversion to the attack phase. The problem mentioned by Dr Moreno received the special attention of the project personnel who acted as advisers to national health administrations, of the regional offices, of regional and inter-regional evaluation teams and of visiting personnel from headquarters, since it was obvious that it was important to maintain results already achieved and to bring about desirable tactical adaptations as rapidly as possible. As had been emphasized, it was of course too late to wait until regressive effects appeared before obtaining the necessary funds. Governments should allocate funds in the light of priorities. Early consideration should be given to linking the development of the malaria eradication campaign with a health plan that was in turn linked to economic and social development.

With regard to the remarks of Dr Olguín concerning co-ordination, it would be noted from the document that all the efforts of the Organization were geared to that end, and he was grateful to Dr Olguín for having emphasized its importance.

Dr Keita had emphasized operative paragraph 2 of resolution WHA20.14, which attached particular importance to securing the protection of the peoples of Africa, and had asked what had been done in that connexion. Dr Keita had himself given the best answer to his question in quoting paragraph 5 of the same resolution, which recommended the development of basic health services, and in recalling the action taken in that connexion by the Regional Committee for Africa, which was reflected in the proposed programme and budget estimates that the Board would be discussing. Very active measures had thus been taken.

Dr Keita's second question concerned paragraph 4 of the same resolution, which contained a request to multilateral and bilateral agencies. Sir Herbert Broadley had given details on the question as far as UNICEF was concerned. It must not be forgotten that a part of the funds used by WHO for malaria eradication in the past had come from the Expanded Programme of Technical Assistance and was now coming from the Technical Assistance component of the United Nations Development Programme. Bearing in mind that malaria was a factor of major importance in development, there was no reason why the programme should not continue to be financed from that source to an increasing extent. The Organization was doing everything possible to that end, and it was hoped that the Health Assembly would stimulate requests by governments for such funds for the purpose. As Sir Herbert Broadley had said, bilateral contributions by such organizations as USAID during the past ten years had been of major importance.

Dr Otolorin had mentioned lack of progress in Africa and had asked whether the Director-General intended to study the basic reasons for it. That was in fact one of the chief intentions, as the Director-General had stated to the Health Assembly, and would be one of the main points to be borne in mind in the reorientation of strategy.

Dr Otolorin had also asked whether the importance attached by the Regional Committee for Africa and the Organization as a whole to the development of basic health services and training of public health personnel meant some abandonment of the importance hitherto given to malaria eradication and the training of malariologists. That was not the case. In setting up the basic health services the problem of malaria would not be lost sight of. If it appeared, however, that it had been premature to concentrate exclusively on the training of malaria eradication personnel, the training centres would be reoriented to train personnel for the basic health services, which would have a malariology and malaria control component. Account had to be taken of the problem of malaria morbidity and mortality, which could not wait until an ideal basic health service had come into being.

In reply to Dr Otolorin's question whether the basic health services would always be financed from malaria funds, he said that, as could be seen from the proposed programme and budget estimates, there would be no decrease in the funds provided for malaria eradication in Africa. Training of public health personnel and the public health services generally would continue to be financed as hitherto, and the funds provided for malaria eradication and pre-eradication would continue to be used for such purposes, including training and the development of basic health services as a basis for the malaria eradication programme, and would continue to be accorded the same importance as heretofore.

Dr Dualeh and Dr Villa had spoken about the problem of co-ordination between neighbouring countries, and Dr Dualeh had mentioned the problem of nomadism, which was extremely important. The Organization had encouraged border meetings between India and Pakistan; India and Nepal; India, Pakistan and Burma, and many others, to co-ordinate the measures being taken, and to avoid endangering a programme in one country through the use of less efficient and systematic measures in neighbouring countries.

Dr Al-Huraibi had emphasized the importance of training, to which an entire chapter of the report had been devoted, and Dr Sambasivan (Director, Division of Malaria Eradication) would be giving some details on that point.

With regard to co-operation with FAO, also mentioned by Dr Al-Huraibi, close collaboration was maintained in programmes concerning agricultural and water resources, dam construction and irrigation, most of them financed by the United Nations Development Programme and FAO. WHO was enabled by a sub-contracting procedure to send public health administrators, epidemiologists and health engineers to examine the programmes from the point of view of their possible health risks and to submit a report that could act as a guide to those carrying out development plans to guard against bringing about any increase of malaria potential and, on the other hand, to incorporate measures to reduce the original endemicity.

Dr Villa had emphasized the need for encouraging the development of health services in rural areas in order to avoid the reappearance of malaria. As he had said in his introduction, such development was indispensable both for launching an eradication campaign and for maintaining the results achieved.

Dr Kone had rightly stressed the importance of the African problem and had mentioned the question of immunization and its importance for scattered populations, which posed a difficult problem.

Dr Sambasivan would be able to reply to other questions that had been raised.

Dr SAMBASIVAN, Director, Division of Malaria Eradication, in replying to Drs Novgorodcev, Watt, Olguin and Keita, who had asked what had been done to increase research activities in response to the resolution adopted at the previous World Health Assembly, said that an additional sum of US\$ 33 000 had been allocated out of savings to research. Special attention had been given to research on immunology. The immunity response of rodents and monkeys to irradiated parasites had been studied, as the mechanism of production of antibody in the host was an essential factor in the ultimate development of active immunization against malaria. The effect of injecting single parasites on a host was also under investigation. In the past experimental studies had been handicapped because they had had to be carried out on higher primates, generally splenectomized chimpanzees. The recent discovery of rodent malaria and the discovery in Brazil that small monkeys could be infected with human plasmodia had improved the situation. Studies had been made in Africa on the relation of

Pl. malariae infection to nephrosis. The development of drugs was another branch of research in which considerable work was being done. RC12, a pyrocatechol derivative, developed by Professor Schulemann in Germany, although a poor schizonticide, had been found to be a good prophylactic. In London research had been undertaken on the biochemical changes in parasites exposed to small doses of drugs. In diagnosis, the fluorescent antibody technique had been investigated. That test indicated only the immunity factor. It was impossible to tell from a positive fluorescent antibody test whether the patient was suffering from malaria or had had it before. Nevertheless, in a population survey, it showed the extent of immunity so that it could be used to indicate the amount of infection to which the population had been exposed.

In reply to Sir William Refshauge's remark about the nineteen countries where annual parasite incidence in consolidation areas was higher than prescribed, he agreed that the point was important. The higher incidence was generally due to foci of infection occurring for reasons that differed from place to place and might be, for example, inadequate surveillance, or even the cessation of spraying ordered as a result of erroneous parasitological findings. The matter needed attention. However, it should be remembered that many small outbreaks would have to be dealt with before eradication was completed. Sir William had also asked whether there was any special reason for the fact that most of the certified areas were islands. As a rule the chances of the reintroduction of malaria from cleared islands were obviously less than they would be in the case of continental areas. It was also relatively easier to carry out a programme on an island except when the island was close to the mainland. However, it should be noted that the largest certified tropical area was in Venezuela and also that in the Indian sub-continent over fifty per cent. of the population was in the maintenance phase.

Dr Watt had raised the question of "disappearing malaria". The term, accepted in epidemiology, referred to the later stages of eradication programmes when malaria infection went below the level where it could be detected by routine blood examination. Unless detection methods were made more accurate, many infections would be overlooked. Professor Sergiev, of the Marcinovskij Institute, was working on that question. With reference to the point raised by Dr Watt on the need for developing alternative methods of attack, he would add only one additional comment to what had been explained by Dr Bernard. That referred to the practical application of hybrid sterility in different strains of the A. gambiae complex. The attempt was to exploit the longevity and the ability of the sterile hybrids to compete favourably with the normal male population of A. gambiae. Following limited experimental studies it was proposed to carry out a field trial. For that purpose a consultant had already selected a suitable area.

Dr Otolorin's question regarding assistance to countries for carrying out surveys had been answered in part by Dr Bernard. Assistance had been given for surveys in Chad, Zambia and Niger, countries with no programmes, by project AFRO 204. The Organization could therefore give such assistance and would do so if countries requested it. With regard to the views of the Expert Committee, the findings of the last meeting of the Committee were given in document EB41/17. In short the Committee's views were as follows: (1) no rigid rule should be observed for the duration of the attack phase, which should be adapted to the varying local conditions; (2) while drugs should be made readily available to those who suffer from malaria, indiscriminate distribution of drugs as a prophylactic in communities where nothing was being done to interrupt transmission was neither desirable nor practicable; (3) a discussion of the minimum conditions for the acceptance of malaria programmes had evoked a repetition of earlier recommendations; and (4) further research in chemotherapy was recommended.

Dr Dualeh had referred to the problem of nomadism. In Africa it was most important that future malaria eradication programmes should be planned not on a single country, but on an area basis, taking into account the corresponding epidemiological and demographic characteristics. As Dr Bernard had said, much work had been done on that subject, including an exhaustive study in Iran; it had also been considered at the Washington meeting on the prevention of the introduction of malaria.

In reply to Dr Al-Huraibi, he said that as far as was known the sickle-cell factor, Haemoglobin S, did not prevent malaria infection, but impeded the multiplication of the parasites, thereby reducing the intensity of the infection. Various factors relating to abnormal haemoglobins had been considered; in Technical Report Series No. 338 which was the report of a WHO scientific group on haemoglobinopathies and allied disorders, the position relating to malaria being summarized in a table on page 27. Dr Al-Huraibi had asked for information about the pre-eradication programmes in the Eastern Mediterranean. Pre-eradication programmes were under way in Saudi Arabia, Somalia and Sudan. In Saudi Arabia particular attention was being given to personnel training, and anti-larval measures were being tried out in a demonstration area. In Somalia, owing to the inadequacy of the financial resources, most of the work being done was related to the gradual development of health services, and to palliative measures against any abnormal increase in malaria. In Sudan, a training school had been established and good progress was being made with the development of rural health services.

The epidemiological seminar held in New Delhi at the Regional Office for South-East Asia was an example of the need being met by the Organization for the training of staff in epidemiology. In the earlier stages of the programme, training activities had had to be focused on the techniques, the methodology, logistics, etc. required for its execution. There had been no possibility of organizing courses in epidemiology, which had become increasingly necessary as the programme proceeded.

Dr KEITA said that when he had raised the question of the operative paragraphs of resolution WHA20.14 he had referred particularly to the requirement that global eradication "be resolutely pursued". The answer given him had been that basic health services in the African Region had been strengthened. However, what had to be considered was the date of the resolution and what had been done in the period that had followed its adoption. On page 20 of the report only one country, Guinea, had against it the (a) in the last column indicating that the programme in question was in the planning stage. Remaining programmes dated, he believed, from before the adoption of the resolution. There had been, in short, a change in terminology and action which was simply the continuation of action initiated before the date of the resolution. Section 9 of document EB41/7 indicated the beginning of multi-lateral assistance and the report stated that the Organization had fulfilled its responsibilities, but even those were routine responsibilities and did not derive from the operative paragraphs of the resolution. The meetings referred to would have taken place even if the resolution had not been adopted. Furthermore, in the list of meetings on page 18 there was no mention of Africa, although operative paragraph 2 of the resolution "urges that the global eradication of this disease be resolutely pursued, especially to secure the protection of the peoples of Africa ...". Dr Bernard had referred to the multilateral and international assistance promoted by UNICEF, but he believed that the same assistance had been given for a long time past. Had there been any increase in that assistance? Had any new forms of action been initiated or new contacts made by the Organization with a view to intensifying the fight against malaria? Operative paragraph 7, the last of the resolution, requested the Director-General to study how best to carry out a re-examination of the global strategy of malaria eradication. He saw no response to that paragraph in the report. Strategy implied the consideration and gathering together of all possible means for war as the basis for tactical action mobilizing those means for the attainment of an objective. He wished to know what means had been considered, brought together and studied with a view to their tactical use in intensifying the malaria eradication programme. The methods of the previous twenty years, their virtues and their defects and the successes and failures that had resulted from their use must all be taken into account, and in the light of those successes and failures and of current needs, a new and improved strategy must be elaborated. It was said in the report that the reservoir of malaria responsible for most new outbreaks was Africa. Yet, the new strategy did not appear to be adapted to that situation. The Organization must re-examine the whole question and develop a new strategy in the light of all the new elements of the problem in order to ensure the success of the programme.

The DIRECTOR-GENERAL said that the Organization was in fact doing what it had been asked to do under operative paragraph 7 of resolution WHA20.14, but he reminded Dr Keita that the plan had to be submitted to the Health Assembly for its decision on the

development of the new strategy. Data were being accumulated and several people had been consulted. Programmes which had been successful as well as those that had failed would be analysed in order to see more clearly what should be done in changing the strategy. That certainly would be a matter discussed at the Assembly.

In his opinion it was not entirely accurate to say that Africa was the only reservoir of malaria. In the Americas there were difficulties in the way of eradication of malaria. Certainly, eradication programmes were under way in all the countries of the Americas where malaria was endemic, but there were problem areas in Central America and in Mexico, not to mention the Amazon Valley, which long after all the other areas had been cleared would remain a tremendous problem. In many parts of Asia, too, there were problem areas contiguous to areas that had been freed from malaria. The Health Assembly would have to decide whether the best strategy would be to concentrate first on cleaning up contiguous areas or whether programmes should be undertaken simultaneously in all the malarious areas of the world.

The problem, then, was not confined to Africa. As far as Africa was concerned, however, Dr Keita was aware that after the adoption of the resolution under discussion, it had been necessary to consider where the money could be found to implement the recommendations. The Regional Committee for Africa had taken the resolution into account and had accepted the Regional Director's suggestion that more should be done to build up basic health services; changes had accordingly been made in the programme for 1968 within the budget ceiling approved by the Health Assembly and new projects had been included in the proposed programme and budget estimates for 1969, which now contained, under the heading of malaria, a number of projects for extending basic health services. The concept of intensifying the building-up of basic health services had existed before the Regional Committee had met, but action had not been taken until then, and he thought it was to the credit of the Regional Director that the 1968 and 1969 programmes had been changed in that direction.

Action to implement the Health Assembly's resolution had been taken. Paragraph 2 of that resolution, urging that the global eradication of malaria be resolutely pursued, especially to secure the protection of the peoples of Africa, had been directed not only to the Secretariat but also to the governments represented at the Assembly. A letter had been sent to governments calling their attention to that paragraph and to paragraph 4 which referred to multilateral and bilateral agencies. A circular letter had been sent on 10 August 1967 to members calling their attention to the resolution and in particular to paragraphs 2 and 4. He had also brought the resolution to the attention of the Secretary-General of the United Nations and to the Administrator of the United Nations Development Programme. WHO, however, could do very little to obtain funds from multilateral and bilateral sources. Governments - both receiving and donating governments - could do much more. The Organization could approach UNICEF, but in the case of the United Nations Development Programme it could do no more than stimulate governments to request projects.

There had, he thought, been no more delay in implementing the provisions of the Health Assembly's resolution on malaria than was normally necessary for the implementation of any resolution.

In his opinion no successful outcome to the malaria eradication programme - or to any other eradication programme - could be hoped for until means were found of increasing resources in manpower. And it had to be realized that in some countries malaria eradication was not going to receive the highest priority for some five to ten years, and that the preparatory phase would take a long time.

The malaria eradication programme had nevertheless been a great success, considering that since 1957, when the first contribution to the Malaria Eradication Special Account had been made, more had been learned about malaria than about any other disease. The available weapons had been exploited; the maximum results had been obtained from the available insecticides; and the conclusion had been reached that in many areas chemotherapy would be indispensable as a complement to spraying. Chemotherapy, however, was costly and needed a different type of manpower from that used for spraying operations. In

spite of those problems which had complicated the task of eradication, it would be seen from the extent of the areas cleared of malaria, that the available tools had been used with great effectiveness. It was, however, realized that twenty years previously malariologists had been wrong in thinking that eradication could be achieved everywhere by DDT spraying alone and that much research would be necessary in order to solve the problems in Africa and some areas of the Americas and Asia.

The study on the strategy of malaria was one of the Organization's most important activities at the present time. Certainly, mistakes had been made, but it had to be remembered that much more was known about malaria than had been known some ten or twelve years previously, and it seemed to him that the best use had been made of the knowledge then available. Now the strategy had to be revised in the light of new knowledge if rapid progress in the eradication of malaria was to be made.

The CHAIRMAN said that a draft resolution on the item would be submitted to the Board at a later meeting. (See summary record of the thirteenth meeting, section 5.)

4. GENERAL EVALUATION OF THE PRACTICAL USE OF REPORTS OF EXPERT COMMITTEE MEETINGS:
Item 2.2.2 of the Agenda (Document EB41/23, Corr.1 and Add.1) (resumed)

The CHAIRMAN drew the attention of the Board to an amended text of the draft resolution on the general evaluation of the practical use of reports of expert committee meetings, which read as follows:

The Executive Board,

Having reviewed the Director-General's report¹ on the evaluation study of the practical use of reports of expert committee meetings;

1. THANKS the Director-General for his excellent report;
2. COMMENDS the quality of the reports of expert committee meetings as a whole;
3. REQUESTS the Director-General to take into account the observations of the Executive Board in his continuing evaluation of the Technical Report Series with a view to improving their quality still further and giving them a wider and more rapid distribution; and
4. REQUESTS the Director-General to include in his reports to the Executive Board on expert committee meetings any information showing the results obtained in this respect.

Decision: The draft resolution as thus amended was adopted.²

The meeting rose at 5.30 p.m.

¹ Documents EB41/23, Corr.1 and Add.1.

² Resolution EB41.R12.

EXECUTIVE BOARD

EB41/SR/4

24 January 1968

Forty-first Session

ORIGINAL: ENGLISH

PROVISIONAL SUMMARY RECORD OF THE FOURTH MEETING

WHO Headquarters, Geneva
Wednesday, 24 January 1968, at 3 p.m.



CHAIRMAN: Dr K. N. RAO

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Note: Corrections to this provisional summary record should be submitted in writing to the Chief, Records Service, Room 3108, within 48 hours of its distribution.

Fourth MeetingWednesday, 24 January 1968, at 3 p.m.

<u>Present</u>	<u>Designating Country</u>
Dr K. N. RAO, <u>Chairman</u>	India
Professor P. MACÚCH, <u>Vice-Chairman</u>	Czechoslovakia
Dr P. D. MARTÍNEZ, <u>Vice-Chairman</u>	Mexico
Dr D. BADAROU, <u>Rapporteur</u>	Dahomey
Dr M. P. OTOLORIN, <u>Rapporteur</u>	Nigeria
Professor E. AUJALEU	France
Dr J. C. AZURIN	Philippines
Dr A. BENYAKHLEF	Morocco
Dr E. A. DUALEH	Somalia
Dr A. ENGEL	Sweden
Dr C. K. HASAN	Pakistan
Dr A. A. AL-HURAIABI	Yemen
Dr H. M. EL KADI	United Arab Republic
Dr O. KEITA	Guinea
Dr PE KYIN	Burma
Dr M. F. DAELEN (alternate to Professor L. Von Manger-Koenig)	Federal Republic of Germany
Professor I. MORARU	Romania
Mr R. MORENO	Panama
Dr I. KONE (alternate to Dr B. N'Dia Koffi)	Ivory Coast
Dr V. V. OLGUÍN	Argentina
Sir William REFSHAUGE	Australia
Dr D. D. VENEDIKTOV	Union of Soviet Socialist Republics
Dr M. VILLA	Peru
Dr J. WATT	United States of America

Secretary: Dr M. G. CANDAU
Director-General

Representatives of Intergovernmental Organizations

United Nations Children's Fund	Sir Herbert BROADLEY
United Nations Relief and Works Agency for Palestine Refugees in the Near East	Dr M. SHARIF
Food and Agriculture Organization	Mr G. DELALANDE
International Atomic Energy Agency	Dr J. SERVANT
International Bank for Reconstruction and Development	Mr H. J. ZIEGLER
Organization of American States	Mr H. L. HERNANDEZ

Representatives of Non-governmental Organizations

International Air Transport Association	Mr R. W. BONHOFF
International Committee of Catholic Nurses	Miss L. CHARLES-ROQUES
International Council of Nurses	Miss F. S. BECK
International Dental Federation	Dr S. ROSS Mr G. H. LEATHERMAN
International Planned Parenthood Federation	Mrs F. DENNIS
International Union of Pure and Applied Chemistry	Dr R. MORF
League of Red Cross Societies	Professor A. LIBOV Dr H. ZIELINSKI

1. APPOINTMENT OF THE REGIONAL DIRECTOR FOR SOUTH-EAST ASIA: Item 5.3.2 of the Agenda

The meeting was held in private from 2.30 to 2.50 p.m. and resumed in public session at 3 p.m.

The CHAIRMAN invited the Rapporteur to read out the resolution on the item which the Board had just adopted in private meeting.

Dr OTOLORIN, Rapporteur, read out the resolution in question:

The Executive Board,

Considering the provisions of Article 52 of the WHO Constitution and Staff Regulation 4.5; and

Having taken cognizance of the resolution adopted by the Regional Committee for South-East Asia at its twentieth session with regard to the nomination of a Regional Director,

1. APPOINTS Dr V. T. Herat Gunaratne as Regional Director for South-East Asia as from 1 March 1968; and
2. AUTHORIZES the Director-General to issue a contract to him for a period of five years, subject to the provisions of the Staff Regulations and the Staff Rules.

2. GENERAL EVALUATION OF THE PRACTICAL USE OF REPORTS OF EXPERT COMMITTEE MEETINGS: Item 2.2.2 of the Agenda (Document EB41/23 and Add.1) (continued)

The CHAIRMAN invited the Rapporteur to submit the revised draft resolution on the item.

Dr OTOLORIN, Rapporteur, introduced the revised text, reading as follows:

The Executive Board,

Having reviewed the Director-General's report¹ on the Evaluation Study of the Practical Use of Reports of Expert Committee Meetings,

1. THANKS the Director-General for his report; and
2. REQUESTS the Director-General to take into account the observations of the Executive Board in his continuing evaluation of the Technical Report Series with a view to gradually improving the series and giving it a wider and more timely distribution; and
3. REQUESTS the Director-General to include in his reports to the Executive Board on expert committee meetings any information showing the results obtained in this respect.

Sir William REFSHAUGE suggested that in operative paragraph 2 of the draft resolution, the word "timely" might be replaced by the word "effective", as an expression more suitable to the context.

Professor AUJALEU thought the request to the Director-General in operative paragraph 2 was somewhat bald. Asking him to improve the Technical Report Series implied criticism of the series in the past. A short tribute to their excellence should at least be included and the Director-General should be requested to continue efforts at improvement.

The CHAIRMAN agreed and suggested that the word "excellent" be inserted before the word "report" in operative paragraph 1.

¹ Documents EB41/23 and Add.1.

The DIRECTOR-GENERAL pointed out that Professor Aujaleu's comments related to the reports issued in the Technical Report Series and not to his own report on general evaluation of their practical use.

Dr MARTÍNEZ thought both the Director-General's report and the series worthy of commendation.

Professor AUJALEU recalled his remark at the second meeting to the effect that the quality of expert committee reports depended on the experience and quality of the staff members servicing the committees. He would support inclusion of the word "excellent" in operative paragraph 1 and suggest that a new operative paragraph be inserted after paragraph 1, reading: "Notes with satisfaction the present quality of the reports". The remaining two operative paragraphs would then be renumbered.

The CHAIRMAN said the Rapporteurs would make the necessary changes and put forward a revised text for later consideration.

Dr WATT suggested that the Rapporteurs might also bear in mind the suggestion made by Sir William Refshauge.

The CHAIRMAN said that that would be done.

3. MALARIA ERADICATION PROGRAMME: Item 2.3 of the Agenda (Document EB41/7) (continued)

Mr MORENO said he had a few brief comments on the excellent report before the Board (document EB41/7) on the development of malaria eradication programmes. He had noted that the programmes had suffered some setbacks in certain regions of the world due, in some cases, to problems of a technical nature which were well analysed in the report. In other cases, administrative and financial problems were responsible. In that regard, he would suggest that in communications to governments, particular emphasis might be placed on the importance of administrative and financial aspects for successful work. He had known of cases in his own part of the world where tremendous setbacks had been caused as a result of shortage of funds and lack of adequate administrative services.

Dr OTOLORIN joined in congratulating the Secretariat on the report, which gave a most concise account of the work being done. The review of activities in research was particularly appreciated.

In discussions the previous year, it had been recognized that the African Region constituted the big problem area in the work. If supporting evidence for that contention was needed, it could clearly be found in Table 1 in the report which showed that in the African Region, with a total population of some 220 millions, over 196 millions were not as yet covered by eradication programmes. Indeed, the African population not as yet covered represented well over half of the total world population in the same category. It therefore seemed to him that more attention than at present must be given to the African Region, the more so as it could be seen from Figure 1 that the proportion of population coming under new activities was steadily shrinking.

In reporting on successes in malaria eradication, therefore, what was being harvested was merely the fruit of past efforts and if no new seeds were put in, there would be nothing further to come in yield. He accordingly believed that future assessment of the success of the programme should be in terms of what was achieved in the African Region and, to a lesser extent, in the Western Pacific and the Eastern Mediterranean Regions.

Something had been said the previous year about a number of States that had failed to start any eradication activities; and he had asked whether the Director-General could investigate the difficulties of those countries which accounted for their not embracing the

new philosophy of eradication. He did not know whether that had already been done, but in section 3 of the report mention was made of a survey being carried out in the African Region of the existing health structure and he wondered whether that survey would cover the countries that had not as yet embarked on eradication activities of any kind.

Following the discussion in the Health Assembly the previous year, it had been decided to shift the emphasis in malaria eradication policy in so far as the African Region was concerned to assistance to the basic health services. It was necessary now to examine the results achieved by that shift. WHO had consistently emphasized that it could do nothing in the absence of government requests; therefore, as he had said, it was necessary to ascertain from governments making no requests in malaria eradication exactly what their difficulties were.

The reason underlying the shift in policy had been the desire to do something constructive in regard to malaria in Africa. If one result of changing over from malaria eradication work to projects on the basic health services was to be the withdrawal of all malariologists from the field, then the African Region would be the worse off. In other words, if the Region was going to receive less assistance from malaria eradication funds, little progress was going to be made. He would therefore like to know whether WHO assistance to basic health services projects in Africa was being financed from malaria eradication funds or entirely under the regular budget. There was no point in channelling all available funds into research work if no effort was to be made to make use of the results obtained.

The Expert Committee on Malaria that had met in 1967 had completed its work and he had noted the Director-General's comments on the results of its discussions. He would be content to await the announcement of the Director-General's further recommendations, but at that stage would like to have some indication of the trend of thought of the experts concerned, bearing in mind their recommendations on field studies on new insecticides or on the combined use of mass drug administration with residual insecticides. The information would be helpful to the discussion.

Lastly, he was pleased to note the effort being made in research on immunization. He would press for much more to be done in that area, for, if anything could provide a short cut in malaria eradication, it would be discovery of some vaccination providing immunity.

Professor MACUCH said the idea of a global programme for the eradication of malaria had at the outset given rise to great hopes but the original optimism had given way somewhat, when with the passage of time a comparison had been made of the results obtained with the resources expended in the struggle. Over the past ten years much had been learned about the nature of the problem and it would seem preferable now to give up speaking of global eradication of the disease. Lack of success encountered in certain areas, particularly in the African Region, indicated that it was of greater value to maintain good control measures. That did not mean that allocations for a malaria eradication programme in Africa should be reduced. Some members of the Board and others taking part in the discussions in the Committee on Programme and Budget at the last Health Assembly had indicated that a strict scientific control should form part of the global programme to bring out the needs as they appeared, together with adjustments required in the methods applied. The idea emitted in the present discussion that research in that area should be promoted was worthy of support. Indeed, it was the only way whereby WHO might avoid wasting money in the programme which, in existing social conditions, was not practicable.

The CHAIRMAN said that many of the new members serving on the Board had not as yet spoken in the discussion; perhaps they would now care to give their ideas on the malaria eradication programme, as one of the Organization's most important activities.

Dr DUALEH, responding to that invitation, joined in the commendation of the excellent report before the Board. He noted that nomadism was mentioned in the report as one of the technical problems delaying progress towards global eradication. In that regard, he would draw attention to the point, which was also noted in the report, that in the region particularly affected by that programme some countries had embarked on eradication programme and others not, thus creating a problem where no natural boundaries existed to keep the nomads from crossing from one country into another. He wondered whether anything had been done or could be done to overcome that difficulty.

Dr BADAROU said his original intention not to speak in discussion did not imply that he was not interested in the programme. The excellent report before the Board showed the praiseworthy effort made by the Organization to help developing countries, particularly in Africa, to build up a bulwark against diseases besetting their populations, including malaria. Efforts had been made to institute an eradication programme in malaria wherever the conditions so permitted and the governments were decided on such action.

The report aroused some concern for him also because of the peculiar difficulties in attempting eradication in the African, Western Pacific and Eastern Mediterranean Regions, where the disease constituted a major problem. Despite all that had been done hitherto by way of expert and scientific committee meetings and other measures, some scepticism was still apparently felt in Africa about the chances of eventual success in the eradication struggle. In face of that situation and the fact that the African Region could not remain for ever beset by such a major continuing scourge, he would ask that the Organization should endeavour to do still more and that its efforts should be supplemented by countries of goodwill in order that the economic and social development of the African Region might not be compromised.

Dr AL-HURAIABI thanked the Director-General for his lucid and comprehensive report as well as the Secretariat members for the detailed explanations, dealing inter alia with the difficulties facing the countries engaged in malaria eradication.

It was encouraging to note from Figure I in the report that population in the maintenance and consolidation phases was increasing with time; it was less promising to find that the attack phase was collapsing. He had been hoping that the preparatory phase would have expanded more and more to offset at least the steady population group as yet uncovered by eradication activities.

Secondly, he greatly appreciated the comments on the significance of detailed research of wider scope on the genetic structure of the parasite and of man and on immunology. On the other hand, he felt that the primary effort should be on tackling the disease itself by technical and fundamental means to reduce its global spread to a more limited scale. Once that objective was achieved, more specific research could be expanded.

One of the basic and fundamental actions was to train personnel in preventive and curative measures, to deal with the massive populations affected by the disease. In his opinion, it was more important that people should be taught how to use disinfectants properly in accordance with the local environment and conditions than to give instruction on the genetic structure of the parasite or of man. It was true that persons having a certain type of sickle cell in their red blood corpuscles were resistant to malaria but, strangely enough, the inhabitants of South-East Asia supposedly with that type of cell were suffering more from malaria than Europeans without it. That meant that high consideration must be given to instituting and improving basic health services. The provisions of resolution EB5.R9 had a bearing on the question of training and he would like to know what had actually been done in fulfilment of its recommendation that at least one malaria control project should be in operation in every country where malaria is a major problem.

In regard to pre-eradication operations, the report mentioned that twenty-one countries were engaged in such work; the comments on the progress achieved omitted to mention three countries of the Eastern Mediterranean Region and he would also like to know what the position was in regard to those countries.

He greatly appreciated the efforts made in the organizing of seminars on advanced epidemiological methodology. Perhaps he could be given some information on what had transpired from the most recent one, held in New Delhi.

Lastly, the resolution to which he had already referred recommended intensified collaboration with FAO in assisting governments in malaria control, where the disease interfered with agricultural and economic development. No mention was made of FAO in the relevant section of the report under study; perhaps therefore the Secretariat might indicate what part that organization was playing in malaria eradication.

Dr VILLA said he was grateful for the encouragement given to new members to speak in the discussion. He too would like to join in the congratulations to the Director-General and the staff on the excellent report before the Board.

He would like to refer briefly to two points that were already well known but were perhaps worth further stress. Many countries had succeeded in interrupting the transmission of malaria in particular areas, leaving them with the problem of maintenance and epidemiological surveillance to keep the areas free from reinfection. The particular difficulty involved lay in the fact that malaria was essentially a rural area disease and it was in the rural areas that the general health services were either weakest or completely lacking. In order to maintain the benefits achieved, therefore, efforts should be made to establish or make more effective the general health services for rural areas. Helpful results might perhaps be obtained through a programme for the extension of minimum health services to rural areas in co-ordination with the malaria eradication programme. That was an aspect of great interest to Latin America and to his own country in particular. Peru had made great efforts to include malaria eradication work within the regular health services but the objective was difficult to attain in the rural areas where those services were inadequate. Unless the rural health services could take over the responsibility for epidemiological surveillance in the near future, areas already freed of the disease might be reinfected and the country would once again be faced with the problem of instituting a fresh eradication campaign in those areas.

Another aspect of importance was one of an international character, related to border areas where sometimes there was no good co-ordination between the work being done in one country and that being undertaken in the neighbouring one. It was a costly business for one country alone to maintain a "health belt" to prevent reinfection. Efforts should therefore be made to ensure that the operations of neighbouring countries were co-ordinated, since that would benefit both of the countries concerned and the Organization as well.

Dr KONE, alternate to Dr N'DIA KOFFI, joined in the thanks to the Director-General for the excellent report submitted to the Board.

He had no desire to echo earlier speakers regarding the particular difficulties of the African Region. In his opinion, it would take many years before the countries of Africa would be in a position to launch into operations of the scope required by malaria eradication. As one member had already suggested, the solution for the African Region might lie in major progress in the field of immunization, because the sparsely populated conditions posed a particularly difficult problem in detecting the disease.

The CHAIRMAN said he would like to join in the general commendation of the Director-General and the staff for the great work being done toward improving man's health through the spearhead attack against malaria.

Between the years 1946 and 1948, many great events had taken place: the end of the Second World War, the revolution of the rising expectations of the peoples of the world, the establishment of WHO and the freedom gained by many countries, starting with his own. It was probably India that had spearheaded the liberation of many other countries previously under colonial domination.

WHO, after settling down to its work, had been the first to start on malaria, the cause of destruction and disablement among numberless people. The shift in policy from control to eradication had taken place in 1958, due entirely to the priority given to the disease by the Director-General to whom alone the credit should go for establishing the strategy of all-out attack against malaria as the spearhead of operations against the communicable diseases in general.

Before that time, India used to have about seventy million sufferers from the disease and nearly one million dead from it each year. As a result of eradication measures, the number of cases had fallen so low that at times it was difficult to find demonstration cases for the education of medical students. About two-thirds of the country was now in the maintenance phase and social and economic gains from the reduction of the disease amounted to about £1 000 000 per year; a substantial acreage of land had been brought into cultivation; general health had improved; expectation of life had risen spectacularly; and infant mortality had been reduced. In fact, a health revolution had taken place. And the credit should go to WHO for bringing about that great health revolution exemplified by India; he was sure it would in time be spread throughout the world as a whole. The contribution to civilization's progress through that revolution was very great, and all connected with WHO should be rightly proud of that great adventure in human history. For his part, he would like to pay tribute to the Director-General and the staff who had trumpeted the cause and stimulated governments to act.

In the strategy applied in the control or eradication of malaria, all essentials might not have been originally foreseen, but over the fifteen-year period many lessons had been learned. The need for maintaining or sustaining the great gains achieved was now recognized as one of the main tasks facing the Organization and the countries concerned. And that could be done only through appropriate vigilance and surveillance. In turn, basic health services were essential for carrying out that task. Throughout the years, the various expert committees called together had made recommendations based on the state of knowledge of the time. The most recent one had suggested that, before new programmes were initiated, it was essential to ensure adequate financial provision to carry the programme to completion; to adopt a definite strategy for development of the country's health services; and, lastly, to be assured that eradication was technically and operationally feasible in the country's conditions. That was the final assessment of the situation as it was today. The essentials for future action were well covered by resolution WHA20.14. That resolution, too, showed the general concern that the eradication programme should be extended in the African Region as soon as conditions permitted.

The Board at the current session was engaged in preparing for the decisions to be taken at the forthcoming Health Assembly, which would be celebrating the Organization's twentieth anniversary. It thus was in a unique position in regard to the malaria eradication programme in that it could pay tribute to past achievements but also project strategy for the twenty years ahead. Stress should be laid, first, on the organization of the basic health services, without which the past progress could not be sustained; secondly, on the logistics

of malaria eradication - chemicals, drugs, vehicles, etc., - which must be made easy so that every country could be self-sufficient; and, thirdly, on the integration within the basic health services of programmes against all the communicable diseases, including malaria, so that the work might be made more effective at less cost. The experience gained thus far should enable the work to go on apace in the years to come. He was sure the Director-General, in closing the discussion, would have much to offer to the developing countries by way of assistance from WHO in all those endeavours.

Over the years, UNICEF had made a great contribution to the work in malaria eradication and he had pleasure in asking its representative to address the Board.

Sir Herbert BROADLEY (United Nations Children's Fund) said that at the last meeting of the UNICEF Executive Board, which had been held in New York in June 1967, a further review of that organization's participation in the malaria eradication programme had been undertaken on the basis of a paper provided by WHO and of the report of the UNICEF/WHO Joint Committee on Health Policy. That report had endorsed the continuance by UNICEF of its existing policy of co-operation with WHO in malaria eradication, the basis of which was the continuation of existing projects where they were already operating efficiently, where there was full government participation, where they were supported by adequate or developing basic health services and where malaria represented a serious menace to child health. Bearing in mind reports of waning interest on the part of some governments in the progress of eradication programmes, due in some cases to a fair measure of success without full eradication having been reached and in others to financial difficulties and shortage of adequate administrative and technical staff, the Joint Committee had urged in its report that both WHO and UNICEF should use their influence to the maximum to revive governments' interest so that programmes could be brought to a successful conclusion, and had stated that in the event that countries failed to provide the counterpart funds required for carrying out the programme, the international agencies would not be justified in continuing their assistance. In a number of countries where such waning interest had developed, the campaigns had only been kept going through the generous contribution of the United States Government.

As a result of the recommendations of the Joint Committee on Health Policy, UNICEF had written to a number of Member countries drawing attention to the circumstances that had caused concern and expressing the hope that governments would recognize the urgency of reconsidering the problem and reviewing their attitude, thereby enabling the continuing participation of UNICEF in schemes that were satisfactory and were being satisfactorily administered.

UNICEF's contribution to the programme was in supplies and equipment rather than personnel, its financial participation during the past ten years having amounted to a total of over US\$ 70 000 000 - an average of about \$ 7 000 000 a year. The annual amounts had tended to decline, its contribution ten years ago having been between \$ 8 000 000 and \$ 9 000 000.

As would be seen from the detailed figures that were to be distributed, the UNICEF Executive Board had in 1967 allocated \$ 4 120 000 for malaria eradication, and had at the same time allocated \$ 14 000 000 for development and expansion of basic health services - an aspect of the further development of the malaria eradication campaign on which it laid considerable emphasis.

The three conditions the Chairman had read from the document summarizing the report of the recent expert committee, together with the fourth concerning the importance of campaigns from the point of view of children and young people, summed up UNICEF's policy in regard to malaria eradication at the present time.

With regard to the future, and UNICEF's further participation, he read out the following extract from the report of the UNICEF Executive Board's last meeting:

The Deputy Executive Director pointed out that it was natural for UNICEF expenditure on malaria eradication to decline since each year some countries moved from the attack phase to the consolidation phase. However, if the forecast proved wrong and more funds were needed, it might be possible to provide them if the countries were equally ready to do their share.

UNICEF looked forward to the further development of the joint undertaking in association with the governments concerned and with the very generous help from other sources of assistance, so that in due course the objective for which the eradication campaign was established might be achieved.

Dr BERNARD, Assistant Director-General, in reply to Dr Novgorodcev's question concerning the measures taken on operative paragraph 3 of resolution WHA20.14, said that at all stages and levels of the programme close co-operation was maintained with governments in investigating the social and economic implications of malaria and of its eradication. Field personnel, regional offices and the staff of the Malaria Eradication Division at headquarters had kept that aspect of the problem constantly in mind in their contacts with governments. Certain governments had also for their part kept the Organization informed of studies made on the subject at national level, and he cited as examples those made by the Governments of India, Pakistan and Mexico, from which it had been possible to gather a large amount of information of value to other countries.

With regard to Dr Novgorodcev's second question, concerning the International Congresses of Tropical Medicine and Malaria to be held in September 1968 in Teheran, he said that WHO, which had traditionally close relations with the Congresses, would be represented by staff of the Malaria Eradication Division, among others, who would make scientific and technical contributions. Such congresses offered a unique opportunity for bringing together experts on the subject from all over the world.

Sir William Refshauge had rightly pointed out that Figure 1 of document EB41/7 (Changes in the distribution of population in the originally malarious areas of the world by phase of malaria eradication between 1958 and 1967) should be interpreted taking into account population growth - a factor that obviously had a great bearing on the question.

The conference document requested by Sir William concerning expenditure had now been distributed. It had been drawn up in great haste between two meetings and might therefore contain some errors, but was furnished as a general indication of trends.

With regard to Dr Watt's question concerning the limitations of spraying operations, the Organization had been making constant efforts to develop other methods, through its studies on chemotherapy, by the combination of various methods, and by a more flexible adaptation to local conditions, which would form one of the chief facets of its new strategy.

Dr Moraru and Dr Moreno had mentioned the problem of additional expenditure imposed upon governments by a regression during the maintenance or consolidation phases, even involving a reversion to the attack phase. The problem mentioned by Dr Moreno received the special attention of the project personnel who acted as advisers to national health administrations, of the regional offices, of regional and inter-regional evaluation teams and of visiting personnel from headquarters, since it was obvious that it was important to maintain results already achieved and to bring about desirable tactical adaptations as rapidly as possible. As had been emphasized, it was of course too late to wait until regressive effects appeared before obtaining the necessary funds. Governments should allocate funds in the light of priorities. Early consideration should be given to linking the development of the malaria eradication campaign with a health plan that was in turn linked to economic and social development.

With regard to the remarks of Dr Olguín concerning co-ordination, it would be noted from the document that all the efforts of the Organization were geared to that end, and he was grateful to Dr Olguín for having emphasized its importance.

Dr Keita had emphasized operative paragraph 2 of resolution WHA20.14, which attached particular importance to securing the protection of the peoples of Africa, and had asked what had been done in that connexion. Dr Keita had himself given the best answer to his question in quoting paragraph 5 of the same resolution, which recommended the development of basic health services, and in recalling the action taken in that connexion by the Regional Committee for Africa, which was reflected in the proposed programme and budget estimates that the Board would be discussing. Very active measures had thus been taken.

Dr Keita's second question concerned paragraph 4 of the same resolution, which contained a request to multilateral and bilateral agencies. Sir Herbert Broadley had given details on the question as far as UNICEF was concerned. It must not be forgotten that a part of the funds used by WHO for malaria eradication in the past had come from the Expanded Programme of Technical Assistance and was now coming from the Technical Assistance component of the United Nations Development Programme. Bearing in mind that malaria was a factor of major importance in development, there was no reason why the programme should not continue to be financed from that source to an increasing extent. The Organization was doing everything possible to that end, and it was hoped that the Health Assembly would stimulate requests by governments for such funds for the purpose. As Sir Herbert Broadley had said, bilateral contributions by such organizations as USAID during the past ten years had been of major importance.

Dr Otolorin had mentioned lack of progress in Africa and had asked whether the Director-General intended to study the basic reasons for it. That was in fact one of the chief intentions, as the Director-General had stated to the Health Assembly, and would be one of the main points to be borne in mind in the reorientation of strategy.

Dr Otolorin had also asked whether the importance attached by the Regional Committee for Africa and the Organization as a whole to the development of basic health services and training of public health personnel meant some abandonment of the importance hitherto given to malaria eradication and the training of malariologists. That was not the case. In setting up the basic health services the problem of malaria would not be lost sight of. If it appeared, however, that it had been premature to concentrate exclusively on the training of malaria eradication personnel, the training centres would be reoriented to train personnel for the basic health services, which would have a malariology and malaria control component. Account had to be taken of the problem of malaria morbidity and mortality, which could not wait until an ideal basic health service had come into being.

In reply to Dr Otolorin's question whether the basic health services would always be financed from malaria funds, he said that, as could be seen from the proposed programme and budget estimates, there would be no decrease in the funds provided for malaria eradication in Africa. Training of public health personnel and the public health services generally would continue to be financed as hitherto, and the funds provided for malaria eradication and pre-eradication would continue to be used for such purposes, including training and the development of basic health services as a basis for the malaria eradication programme, and would continue to be accorded the same importance as heretofore.

Dr Dualah and Dr Villa had spoken about the problem of co-ordination between neighbouring countries, and Dr Dualah had mentioned the problem of nomadism, which was extremely important. The Organization had encouraged border meetings between India and Pakistan; India and Nepal; India, Pakistan and Burma, and many others, to co-ordinate the measures being taken, and to avoid endangering a programme in one country through the use of less efficient and systematic measures in neighbouring countries.

Dr Al-Huraibi had emphasized the importance of training, to which an entire chapter of the report had been devoted, and Dr Sambasivan (Director, Division of Malaria Eradication) would be giving some details on that point.

With regard to co-operation with FAO, also mentioned by Dr Al-Huraibi, close collaboration was maintained in programmes concerning agricultural and water resources, dam construction and irrigation, most of them financed by the United Nations Development Programme and FAO. WHO was enabled by a sub-contracting procedure to send public health administrators, epidemiologists and health engineers to examine the programmes from the point of view of their possible health risks and to submit a report that could act as a guide to those carrying out development plans to guard against bringing about any increase of malaria potential and, on the other hand, to incorporate measures to reduce the original endemicity.

Dr Villa had emphasized the need for encouraging the development of health services in rural areas in order to avoid the reappearance of malaria. As he had said in his introduction, such development was indispensable both for launching an eradication campaign and for maintaining the results achieved.

Dr Kone had rightly stressed the importance of the African problem and had mentioned the question of immunization and its importance for scattered populations, which posed a difficult problem.

Dr Sambasivan would be able to reply to other questions that had been raised.

Dr SAMBASIVAN, in replying to Drs Novgorodcev, Watt, Olguín and Keita, who had asked what had been done to increase research activities in response to the resolution adopted at the previous World Health Assembly, said that an additional sum of US\$ 33 000 had been allocated out of savings to research. Special attention had been given to research on immunology. The immunity response of rodents and monkeys to irradiated parasites had been studied, as the mechanism of production of antibody in the host was an essential factor in the ultimate development of active immunization against malaria. The effect of injecting single parasites on a host was also under investigation. In the past experimental studies had been handicapped because they had had to be carried out on higher primates, generally splenectomized chimpanzees. The recent discovery of rodent malaria and the discovery by Professor Deane in Brazil that small monkeys could be infected with human plasmodia had improved the situation. Studies had been made in Africa on the relation of Pl. malariae infection to nephrosis. The development of drugs was another branch of research in which considerable work was being done. RC12, a pyrocatechol derivative, developed by Professor Schulemann in Germany, although a poor schizonticide, had been found to be a good prophylactic. In London research had been undertaken on the biochemical changes in parasites exposed to small doses of drugs. In diagnosis, the fluorescent antibody technique had been investigated. That test indicated only the immunity factor. It was impossible to tell from a positive fluorescent antibody test whether the patient was suffering from malaria or had had it before. Nevertheless, in a population survey, it showed the extent of immunity so that it could be used to indicate the amount of infection to which the population had been exposed.

In reply to Sir William Refshauge's question about the nineteen countries where annual parasite incidence in consolidation areas was higher than the minimum prescribed, he agreed that the point was important because it had to be seen whether it should be interpreted as an indication of progress or the contrary. The higher incidence was generally due to foci of infection occurring for reasons that differed from place to place and might be, for example, inadequate surveillance, or even the cessation of spraying ordered as a result of erroneous parasitological findings. The matter needed attention. However, it should be remembered that many small outbreaks would have to be dealt with before eradication was completed. Sir William had also asked whether there was any special reason for the fact

that most of the certified areas were islands. As a rule the chances of the reintroduction of malaria from cleared islands were obviously less than they would be in the case of continental areas. It was also relatively easier to carry out a programme on an island except when the island was close to the mainland. However, it should be noted that the largest certified tropical area was in Venezuela and also that in the Indian sub-continent over fifty per cent. of the population was in the maintenance phase. With regard to Sir William's remarks about statistics, he could only say that there had been no deliberate attempt to conceal any vital part.

Dr Watt had raised the question of "disappearing malaria". The term, accepted in epidemiology, referred to the later stages of eradication programmes when malaria infection went below the level where it could be detected by routine blood examination. Unless detection methods were made more accurate, many infections would be overlooked. Professor Sergiev, of the Martsinovsky Institute, was working on that question. With reference to the point raised by Dr Watt on the need for developing alternative methods of attack, he would add only one additional comment to what had been explained by Dr Bernard. That referred to the practical application of cytoplasmic incompatibility in different strains of the A. gambiae complex. The attempt was to exploit the longevity and the ability of the sterile hybrids to compete favourably with the normal male population of A. gambiae. Following limited experimental studies it was proposed to carry out a field trial. For that purpose a consultant had already selected a suitable area.

Dr Otolorin's question regarding assistance to countries for carrying out surveys had been answered in part by Dr Bernard. Assistance had been given for surveys in Chad, Zambia and Niger, countries with no programmes, by project AFRO 204. The Organization could therefore give such assistance and would do so if countries requested it. With regard to the views of the Expert Committee, the findings of the last meeting of the Committee were given in document EB41/17. In short the Committee's views were as follows: (1) no rigid rule should be observed for the duration of the attack phase, which should be adapted to the varying local conditions; (2) while drugs should be made readily available to those who suffer from malaria, indiscriminate distribution of drugs as a prophylactic in communities where nothing was being done to interrupt transmission was neither desirable nor practicable; (3) a discussion of the minimum conditions for the acceptance of malaria programmes had evoked a repetition of earlier recommendations; and (4) further research in chemotherapy was recommended.

Dr Dualah had referred to the problem of nomadism. In Africa it was most important that future malaria eradication programmes should be planned not on a single country, but on an area basis, taking into account the corresponding epidemiological and demographic characteristics. As Dr Bernard had said, much work had been done on that subject, including an exhaustive study in Iran; it had also been considered at the Washington meeting on the prevention of the introduction of malaria.

In reply to Dr Al-Huraibi, he said that as far as was known the sickle-cell factor, Haemoglobin S, did not prevent malaria infection, but impeded the multiplication of the parasites, thereby reducing the intensity of the infection. Various factors relating to abnormal haemoglobins had been considered, and Technical Report Series No. 338 contained a special reference to haemoglobinopathies and allied disorders, the position relating to malaria being summarized in a table on page 27. Dr Al-Huraibi had asked for information about the pre-eradication programmes in the Eastern Mediterranean. Pre-eradication programmes were under way in Saudi-Arabia, Somalia and Sudan. In Saudi-Arabia particular attention was being given to personnel training, and anti-larval measures were being tried out in a demonstration area. In Somalia, owing to the inadequacy of the financial resources, most of the work being done was related to the gradual development of health services, and to palliative measures against any abnormal increase in malaria. In Sudan, a training school had been established and good progress was being made with the development of rural health services.

The Epidemiological seminar held in New Delhi at the Regional Office for South-East Asia was an example of the need being met by the Organization for the training of staff in epidemiology. In the earlier stages of the programme, training activities had had to be focused on the techniques, the methodology, logistics, etc. required for its execution. There had been no possibility of organizing courses in epidemiology, which had become increasingly necessary as the programme proceeded.

Dr KEITA said that when he had raised the question of the operative paragraphs of resolution WHA20.14 he had referred particularly to the requirement that global eradication "be resolutely pursued". The answer given him had been that basic health services in the African Region had been strengthened. However, what had to be considered was the date of the resolution and what had been done in the period that had followed its adoption. On page 20 of the report only one country, Guinea, had against it the (a) in the last column indicating that the programme in question was in the planning stage. Remaining programmes dated, he believed, from before the adoption of the resolution. There had been, in short, a change in terminology and action which was simply the continuation of action initiated before the date of the resolution. Paragraph 9, Co-ordination, indicated the beginning of multi-lateral assistance and the report stated that the Organization had fulfilled its responsibilities, but even those were routine responsibilities and did not derive from the operative paragraphs of the resolution. The meetings referred to would have taken place even if the resolution had not been adopted. Furthermore, in the list of meetings on page 18 there was no mention of Africa, although operative paragraph 2 of the resolution "urges that the global eradication of this disease be resolutely pursued, especially to secure the protection of the peoples of Africa ...". Dr Bernard had referred to the multilateral and international assistance promoted by UNICEF, but he believed that the same assistance had been given for a long time past. Had there been any increase in that assistance? Had any new forms of action been initiated or new contacts made by the Organization with a view to intensifying the fight against malaria? Operative paragraph 7, the last of the resolution, requested the Director-General to study how best to carry out a re-examination of the global strategy of malaria eradication. He saw no response to that paragraph in the report. Strategy implied the consideration and gathering together of all possible means for war as the basis for tactical action mobilizing those means for the attainment of an objective. He wished to know what means had been considered, brought together and studied with a view to their tactical use in intensifying the malaria eradication programme. The methods of the previous twenty years, their virtues and their defects and the successes and failures that had resulted from their use must all be taken into account, and in the light of those successes and failures and of current needs, a new and improved strategy must be elaborated. It was said in the report that the reservoir for the virus responsible for most new outbreaks was Africa. Yet, the new strategy did not appear to be adapted to that situation. The Organization must re-examine the whole question and develop a new strategy in the light of all the new elements of the problem in order to ensure the success of the programme.

The DIRECTOR-GENERAL said that the Organization was in fact doing what it had been asked to do under operative paragraph 7 of resolution WHA20.14, but he reminded Dr Keita that the plan had to be submitted to the Health Assembly for its decision on the development of the new strategy. Data were being accumulated and several people had been consulted. Programmes which had been successful as well as those that had failed would be analysed in order to see more clearly what should be done in changing the strategy. That certainly would be a matter discussed at the Assembly.

In his opinion it was not entirely accurate to say that Africa was the only reservoir of malaria. In the Americas there were difficulties in the way of eradication of malaria. Certainly, eradication programmes were under way in all the countries of the Americas where malaria was endemic, but there were problem areas in Central America and in Mexico, not to mention the Amazon Valley, which long after all the other areas had been cleared would remain a tremendous problem. In many parts of Asia, too, there were problem areas contiguous to areas that had been freed from malaria. The Health Assembly would have to decide whether the best strategy would be to concentrate first on cleaning up contiguous areas or whether programmes should be undertaken simultaneously in all the malarious areas of the world.

The problem, then, was not confined to Africa. As far as Africa was concerned, however, Dr Keita was aware that after the adoption of the resolution under discussion, it had been necessary to consider where the money could be found to implement the recommendations. The Regional Committee for Africa had taken the resolution into account and had accepted the Regional Director's suggestion that more should be done to build up basic health services; changes had accordingly been made in the programme for 1968 within the budget ceiling approved by the Health Assembly and new projects had been included in the proposed programme and budget estimates for 1969, which now contained, under the heading of malaria, a number of projects for extending basic health services. The concept of intensifying the building-up of basic health services had existed before the Regional Committee had met, but action had not been taken until then, and he thought it was to the credit of the Regional Director that the 1968 and 1969 programmes had been changed in that direction.

Action to implement the Health Assembly's resolution had been taken. Paragraph 2 of that resolution, urging that the global eradication of malaria be resolutely pursued, especially to secure the protection of the peoples of Africa had been directed not only to the Secretariat but also to the governments represented at the Assembly. A letter had been sent to governments calling their attention to that paragraph and to paragraph 4 which referred to multilateral and bilateral agencies. A circular letter had been sent on 10 August 1967 to members calling their attention to the resolution and in particular to paragraphs 2 and 4. He had also brought the resolution to the attention of the Secretary-General of the United Nations and to the Administrator of the United Nations Development Programme. WHO, however, could do very little to obtain funds from multilateral and bilateral sources. Governments - both receiving and donating governments - could do much more. The Organization could approach UNICEF, but in the case of the United Nations Development Programme it could do no more than stimulate governments to request projects.

There had, he thought, been no more delay in implementing the provisions of the Health Assembly's resolution on malaria than was normally necessary for the implementation of any resolution.

In his opinion no successful outcome to the malaria eradication programme - or to any other eradication programme - could be hoped for until means were found of increasing resources in manpower. And it had to be realized that in some countries malaria eradication was not going to receive the highest priority for some five to ten years, and that the preparatory phase would take a long time.

The malaria eradication programme had nevertheless been a great success, considering that since 1957, when the first contribution to the Malaria Eradication Special Account had been made, more had been learned about malaria than about any other disease. The available weapons had been exploited; the maximum results had been obtained from the available insecticides; and the conclusion had been reached that in many areas chemotherapy would be indispensable as a complement to spraying. Chemotherapy, however, was costly and needed a different type of manpower from that used for spraying operations. In spite of those problems which had complicated the task of eradication, it would be seen from the extent of the areas cleared of malaria, that the available tools had been used with great effectiveness. It was, however, realized that twenty years previously malariologists had been wrong in thinking that eradication could be achieved everywhere by DDT spraying alone and that much research would be necessary in order to solve the problems in Africa and some areas of the Americas and Asia.

The study on the strategy of malaria was one of the Organization's most important activities at the present time. Certainly, mistakes had been made, but it had to be remembered that much more was known about malaria than had been known some ten or twelve years previously, and it seemed to him that the best use had been made of the knowledge then available. Now the strategy had to be revised in the light of new knowledge if rapid progress in the eradication of malaria was to be made.

The CHAIRMAN said that a draft resolution on the item would be submitted to the Board on the following day.

4. GENERAL EVALUATION OF THE PRACTICAL USE OF REPORTS OF EXPERT COMMITTEE MEETINGS:
Item 2.2.2 of the Agenda (Document EB41/23 and Add. 1) (resumed)

The CHAIRMAN drew the attention of the Board to an amended text of the draft resolution on the general evaluation of the practical use of reports of expert committee meetings, which read as follows:

The Executive Board,

Having reviewed the Director-General's report¹ on the evaluation study of the practical use of reports of expert committee meetings;

1. THANKS the Director-General for his excellent report;
2. COMMENDS the quality of the reports of expert committee meetings as a whole;
3. REQUESTS the Director-General to take into account the observations of the Executive Board in his continuing evaluation of the Technical Report Series with a view to improving their quality still further and giving them a wider and more rapid distribution; and
4. REQUESTS the Director-General to include in his reports to the Executive Board on expert committee meetings any information showing the results obtained in this respect.

Decision: The draft resolution as thus amended was adopted.

The meeting rose at 5.30 p.m.

¹ Documents EB41/23 and Add.1.