PROVISIONAL SUMMARY RECORD OF THE SEVENTH MEETING

Palais des Nations, Geneva
Thursday, 16 May 1968, at 2.30 p.m.

CHAIRMAN: Professor J. F. GOOSSENS (Belgium)

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Note: Corrections to this provisional summary record should be submitted in writing to the Chief, Records Service, Room A.843, within 48 hours of its distribution.

Programme Activities (continued)

Section 4,4,2 - Venereal Diseases and Treponematoses (continued)

Dr TOTTIE (Sweden) said he believed that his country had the highest reported incidence of gonorrhoea in the world - three per thousand population. He would therefore like to stress the importance of the problem of venereal diseases. He had been much impressed by the remarks made by the representative of the United Kingdom of Great Britain and Northern Ireland on the previous day, and by the statement just made by the President of the International Union against the Venereal Diseases and the Treponematoses.

The Swedish Government had in 1968 enacted a new law, which would come into force on 1 January 1969, under which tuberculosis, venereal and other infectious diseases were to be regarded as one group. It was hoped that that measure would lead to more complete reporting of a number of infectious diseases, to better epidemiological surveillance and improved control. The authorities in Sweden, in close collaboration with those of one other Member State and with WHO, were planning a pilot project the aim of which was to supplement physicians' case reports with reporting of laboratory test results, the information obtained to be analysed by the computer. It was hoped that the project would speed up the whole system of reporting and lead to intensified action against diseases with such a short incubation period as gonorrhoea. He expressed the hope that the experience gained from the project would be of value to WHO and to other Member States.

New tools were needed in epidemiological work; it would be of interest if WHO could inform them of any new development in the field of immunology concerning gonorrhoea, as such information could be used for case-finding.

Dr AL AWADI (Kuwait) said that his delegation felt great concern about the high incidence and spread of the venereal diseases. It was no doubt a reflection of the current era of increased sexual promiscuity and freedom in various sections of the community. The point had been reached where serious thought must be given to the problem, as such diseases were likely to prove increasingly important. His delegation was also concerned about the problem of non-specific urethritis, which was becoming more common than it had hitherto been. More facts about the disease were becoming known and he enquired what research work had been done in that field.

Dr TRAORE (Upper Volta) said that he would like to make some comments of specific relevance to African countries south of the Sahara. His delegation fully supported the work of WHO in the treponematoses and venereal diseases, but it considered that insufficient priority had been given to those infections. However, his delegation appreciated the help given by the Organization, which had provided the services of a consultant at the request of a number of governments in the region. Moreover, WHO and UNICEF had given considerable support to mass campaigns against yaws and endemic syphilis; in fact, WHO had allocated more than US$ 1.5 million for those campaigns on the African continent. Long-acting penicillin had reduced transmission, and almost eradicated the diseases in certain areas. That had generated an optimism which had led to the diseases now being given a lower priority in health programmes. Countries south of the Sahara were still suffering from under-development but were at the same time experiencing the difficulties of development, a situation which hindered epidemiological post-campaign surveillance and further action, as the President of the International Union against the Venereal Diseases and the Treponematoses had pointed out. As a result syphilitic foci and other venereal diseases had increased on the African continent. His delegation hoped that more attention would be given in the future to surveillance and epidemiological studies in those diseases in Africa, so that the work accomplished and the investments made in the past two decades might be consolidated.
Dr OBAME NGUEMA (Gabon) said that in his country the treponematoses were considered particularly in the light of their gynaecological effects. Gabon had a very low birth rate, which caused great concern to its health authorities. Although some surveys had been carried out by WHO, there had been insufficient action against the problem, largely because the national statistic office in Gabon could not supply sufficiently accurate data to carry out reliable surveys. He strongly supported the plea of the delegate of Upper Volta that there should be no relaxation of effort in the work on the treponematoses, with special emphasis on sterility.

Dr VIOLAKI-PARASKEVA (Greece) said that the problem of the venereal diseases required not only a medical approach but also a study of the ecological, social and economic factors which caused the spread of the infection. No doubt public health educational campaigns could play an important role in that connexion.

Dr QUAMINA (Trinidad and Tobago) supported the view expressed by the delegate of Greece. There was a great need for educational literature, of a kind that could easily be read by young people, in campaigns against venereal diseases. During the Second World War, the health authorities in the United Kingdom had conducted a highly successful campaign with the use of pamphlets and well-designed posters, but that material had become obsolete. WHO could indeed play a role in stimulating the production of such educational material.

Dr GUTHE (Venereal Diseases and Treponematoses), replying first on the observations of the delegate of Sweden, said that the incidence of gonococcal infections had risen in many other countries also. Moreover, surveys in some countries indicated that more than two-thirds of fresh cases were not reported by physicians to the health authorities as required by legislation. In the field of immunology a serological testing procedure had been developed by the Communicable Disease Center of the United States Public Health Service in Atlanta, United States of America. The usefulness of haemagglutination techniques was being investigated in another country in co-operation with WHO. Preliminary results suggested that those new procedures might diagnose gonorrhoea within a few days after infection and might also pick up latent female "carriers". It appeared that as much as 60 per cent. of that latent reservoir could be picked up by those procedures. If confirmed in independent investigations, those new techniques could become useful tools to public health authorities, as they would improve case-finding in the female reservoir of infection. With regard to immunoprophylaxis, there were no new developments to justify a hope for an effective vaccine becoming available in the near future, but basic research was being supported by WHO.

The delegate of Kuwait had pointed to the prevalence of non-specific urethritis as a health problem. As much as 50 per cent. of urethritis cases in one country had proved to be of non-gonococcal origin. A chemotherapeutic remedy - Flagyl - was now available against trichomoniasis, which condition was of the greatest importance in the group of non-gonococcal urethritis. Flagyl was highly effective in individual cases, and important in the preventive treatment of asymptomatic contact partners. WHO's terms of reference had so far been to focus attention on the major treponemal diseases (yaws, pinta, syphilis) and on gonorrhoea. It had also followed, however, developments in minor infections including non-gonococcal urethritis, but had not so far supported research in that field.

Section 4.4.3 - Bacterial Diseases

Dr NICHOLSON (Guyana) said that a joint study by the United Kingdom Government, the Walter Reed Army Research Medical Center and the Government of his own country, with the assistance of WHO, had been conducted between 1960 and 1967 to ascertain the efficacy of two antityphoid vaccines. The two vaccines were the old phenol-killed vaccine and a new acetone-
killed vaccine prepared by the Walter Reed Center. A third vaccine, a tetanus toxoid, had been used as a control. After two years it had been found that the acetone-killed vaccine was 90 per cent. and the phenol-killed vaccine 75 per cent. protective. As regards the duration of effectiveness, it was found that after seven years both vaccines were giving a significant degree of protection, although there were signs that the effects of the phenol vaccine were beginning to wane. Parallel studies had been carried out in Yugoslavia with similar results. The initial report on the two sets of studies had been published in the WHO Bulletin, and a further report had been recently published in the Lancet.

He asked whether WHO or Member States were aware of any steps being taken to produce the acetone-killed vaccine in commercial quantities, and to make it available to countries where typhoid fever was endemic. If the vaccine was not yet available, would WHO be prepared to promote such large-scale production?

Dr ARIF (Iraq) said that cerebrospinal meningitis was a problem of paramount importance to his country. The tendency of the disease to become epidemic at rather long intervals, of ten to twelve years - and for outbreaks to last two or three years - had become quite firmly established in his country. In the last outbreak, in December 1965, the number of patients had exceeded the usual seasonal increase; the outbreak had continued throughout 1966 and 1967, the seasonal distribution being the same as in other parts of the world and the same in epidemic as in endemic years.

The importance of cerebrospinal fever lay not in its high morbidity rate (only 300 500 cases had been registered in Iraq in endemic years, and in epidemic years three to four times more): it was serious because of the lack of efficient control measures. The highest incidence was found in children and adolescents, owing to crowded conditions and ease of contact in schools. Chemoprophylaxis with sulphonamides, in selected groups of the population at high risk, was an emergency measure; but it was not the method of choice, since repetition increased the danger of resistant strains emerging. It was clear that a new approach to the control of cerebrospinal fever could only come from an increased knowledge of the epidemiology of the disease; WHO should strengthen research in that field, and on cerebrospinal meningitis in general.

Professor KOSTREZEWSKI (Poland) said that WHO-assisted studies on typhoid vaccine had been carried out in Poland several years earlier and had included tests on the acetone-killed dried vaccine; it had proved effective - but so was the easily produced formol-killed vaccine. And the acetone-killed vaccine was complicated to produce. Probably for hot climates the dried vaccine was required, but elsewhere the formol-killed phenol-preserved vaccine would be just as suitable.

Dr SULIANTI SAROSO (Indonesia) said that diarrhoeal diseases were a major cause of infant mortality in Indonesia; her delegation was therefore most interested in the diarrhoeal disease control programmes conducted in Latin America. What were WHO's intentions as regards dehydration prevention programmes for the control of diarrhoeal diseases in infants?

Secondly, as regards plague, an outbreak had recently occurred in Indonesia. The Director-General's Report stated that similar outbreaks had occurred in four other countries during 1967. She would like to know whether those outbreaks had similar aspects to the one which had occurred in Indonesia.

Dr CVJETANOVIC (Bacterial Diseases), replied to points which had been raised on bacterial diseases.
With regard to the production of acetone-killed dried vaccine, which had proved so effective in the field, he could confirm the statement of the delegate of Poland: it was particularly suitable for hot climates. WHO had given assistance to various countries. It had sent a consultant to India, to the Haffkine Public Health Institute in Bombay, which was now preparing such a vaccine; it was also being produced in Hungary and Yugoslavia, and was under consideration in the United Kingdom. WHO had awarded fellowships to countries of South-East Asia and the Western Pacific for the study of the production of acetone-killed vaccine, which had the advantage of long-lasting protection. As the one- and two-dose groups in the Guyana studies, had not been entirely comparable, the study had been repeated in Tonga: preliminary results indicated that one dose gave as much protection as two. Similar studies carried out in Yugoslavia had shown that protection could last for seven years or longer.

On the point raised by the delegate of Iraq, he said that cerebrospinal meningitis was increasing not only in the so-called meningitis belt in Africa but in other parts of the world (there had been a big epidemic in Iran the previous year). The efforts of WHO in that field were limited owing to lack of funds. Studies had been carried out in Upper Volta to test the efficacy of two types of vaccine, but the results had not been conclusive. Some progress had been made in laboratory studies by the WHO International Reference Laboratory in Marseilles. One of the serological tests which might perhaps be used to predict the efficacy of the vaccine, and also be used in serological screening, was under study. The increase in resistance of the meningococci was becoming a serious problem: the WHO International Reference Laboratory collecting strains from various countries had observed a notable rise, recently in the African Region also, in Chad. Chemoprophylaxis with sulphonamides had certain drawbacks. Experience gained from such programmes in Morocco indicated that the long-acting sulphonamides in mass prophylaxis, in spite of all precautions, were often misused and abused, causing untoward effects, sometimes even death.

Diarrhoeal diseases, to which the delegate of Indonesia had referred, were a world-wide problem. The regional offices and headquarters had organized a number of meetings, courses and field studies in recent years. All proved conclusively that the best prevention lay in improved sanitation, health education and, to prevent deaths, facilities for rehydration. WHO was providing countries with facilities for the production of rehydrating fluid, which could be used for treatment of cholera as well.

As regards plague, it had been believed that the disease had disappeared from certain countries, including Indonesia, but the facts unfortunately showed that such was not the case. Research into the reasons for its recurrence indicated that areas (natural foci) which had once been affected must be kept under close surveillance for many decades.

Section 4.4.4 Parasitic Diseases

Dr BUTERA (Rwanda) said that more than seventy per cent. of the population of his country suffered from intestinal worms - a situation that was aggravated by malnutrition, lack of hygiene and environmental sanitation. The help of WHO was badly needed to solve that serious problem. He expressed appreciation of the Director-General's report and hoped that the emphasis which it placed on the training of public health personnel would, in time, help the authorities to deal with a number of urgent public health problems, including the treponematoses and venereal diseases, tuberculosis and other communicable diseases.

Dr NICHOLSON (Guyana) said that in his country filariasis was one of the endemic diseases, the main vector being Culex pipiens quinquefasciatus, and the parasite Wuchereria bancrofti. The Culex found a prolific breeding place in the low-lying coastal strip, where ninety per cent. of the population lived, and where it was difficult to prevent accumulation of water in pit privies - the main faeces disposal system in rural areas. Even if Culex were eliminated from privies by larvicidal measures, measures would still be needed to deal with the vector when it bred in barrels of water near dwellings: water was stored in barrels for ready use since it was delivered by a system of stand-pipes, spaced at 1/4 - 1/2 mile intervals, and the people had to fetch it for domestic purposes.
Thus far, an attempt had been made to deal with the situation mainly by administering diethyl-carbamazine to positive cases so as to interrupt transmission, the results had however been unsatisfactory. The conditions for a research study were ideal in Guyana and his Government would welcome such a study by WHO.

Dr IMAM (United Arab Republic), referring to schistosomiasis control in his country, said that the past five years' activities under project United Arab Republic 49 were being evaluated. Following collection of epidemiological data, attempts had been made to control the disease, particularly by the application of molluscicides in the project area. Another major control trial was planned for late 1968 in Fayoum Province, with blanket application of Bayluscide and mass treatment of the infected population. In the Kalioub area, the younger age-groups were undergoing mass treatment of the disease for the third consecutive year.

Evaluation of the new anti-schistosomal compound Niridazele after use on 2000 patients of different age-groups and at various clinical stages of infection, had shown that the remarkable schistosomicidal activity of the drug was handicapped by its side effects on the central nervous system, which occurred predominantly in adult patients suffering from hepatic or hepatosplenic forms of the disease. Trials were underway to ascertain whether it was possible to alleviate, or obviate, such side effects by spaced dosage treatment and to assess the corrective or suppressive effects of such treatment. A new Miracil derivative, Hycanthone, which had proved its efficacy in animals, was undergoing trial for possible schistosomicidal action in humans.

The results obtained in Brazil through extra-corporeal filtering of the portal blood had changed the older concept of the intensity of bilharzial infection. In that connexion the relationship between worm loads, egg counts and the pathogenicity of the different species of the schistosomes should be determined. The grave pathological damage occurring in younger age-groups of patients infected with S. haematobium in east and west Africa, only recently acknowledged, was similar to the visceral complications manifested by workers in Egypt over the past 30 years. The presence of secondary bacterial infection in such cases was another complicating factor and further investigation was needed on the relationship between urinary bilharzial infection and the Salmonella carrier state in many endemic areas.

Recent discoveries of new foci of schistosomiasis in Africa and the Far East, and the suspected existence of foci in Argentina, showed that the disease was prevalent in areas where hitherto it had been unknown. The introduction of new irrigation schemes, roads and means of transport in developing countries would certainly spread the disease in endemic areas. More control efforts were therefore needed, as well as therapeutically active drugs, safe for mass treatment, and less expensive molluscicides. The application of clinical and laboratory methods by WHO, carried out in cross-secondary and longitudinal studies, would determine the public health importance of the disease.

Professor OMAR (Afghanistan) said that parasitic diseases, such as helminth infections and amoebiasis, were most prevalent in countries where the drinking water was not purified, organic fertilizers were used for agriculture and where wells with infected water were to be found close to clean water wells. Moreover, most of the populations in developing countries were engaged in agriculture and livestock breeding which gave rise to the problem of anthrozoonosis. His Government would like to have WHO's assistance in carrying out a study on ways to prevent parasitic diseases.

Dr ARIF (Iraq) said that one of the protozoan diseases receiving more attention recently in Iraq was cutaneous leishmaniasis. Prior to 1940, the disease had been very common but, with the advent of malaria eradication and the consequent introduction of insecticides on a wide scale, the number of cases had started to decline and by 1966 Leishmania tropica had virtually disappeared. Early in 1968, however, some 400 primary school students, in a town
to the north of Baghdad, had been found to be suffering from suspected skin lesions. Following a field investigation in the area carried out by the Directorate-General of Preventive Medicine together with the Dermatological Department of Baghdad University, 76 per cent. of the tests made had been clinically positive. The leishmania intradermal skin test performed on the clinically diagnosed cases had been positive in 70 per cent. of the cases. Upon epidemiological enquiry, it had been found that the disease had spread following the migration of an appreciable number of cattle breeders into the area, together with their stock, which had possibly caused an increase in the number of sandflies breeding. Three plans had then been formulated: first, to study the distribution of the disease in the province in question, as well as elsewhere in Iraq; secondly, to conduct an epidemiological study of the sandflies so as to determine, as far as possible, the actual vector of the disease; and thirdly, to detect the reservoir and source of infection in animals. An independent leishmaniasis unit had been established, as part of the Endemic Diseases Institute, and it was hoped that the epidemiological studies it would carry out would indicate the steps to be taken to control Leishmania tropica in Iraq.

Dr DURAISWAMI (India) said that the research studies into the immunology of human filariosis being conducted in his country included the preparation of the antigen from the homologous parasite, together with its analysis, characterization and comparison with the antigen prepared from the heterologous parasite. It was significant to note that the specificity of the antigen from the homologous source was far higher than that from the heterologous source. Research studies were also being carried out to determine the chemical identity of the specific fractions in the antigenic mosaic of the homologous preparations, together with the characterization of the antibodies produced in response. Studies of the transmission-dynamics of filarial infection suggested a relationship between the quantum of microfilarial population in human blood and the reproduction success of the transmitting vector.

Dr N'DIAYE (Senegal) said that, for the past year, a new drug had been used in Senegal for the treatment of schistosomiasis. That drug, though highly effective, could not be administered as ambulatory treatment but required hospitalization and medical supervision. It was, moreover, very expensive. He asked whether other countries had used the drug and whether they considered it could be used for mass treatment.

Dr GOMEZ LINCE (Ecuador) said that he wished to call the Committee's attention to Chagas' disease, which was assuming growing importance not only in Ecuador but throughout the whole of South America. It was a dangerous illness because of the lack of effective therapy; in its acute phase it could cause sudden death and in the chronic could lead to heart disease which was often serious and even fatal.

The epidemiological studies carried out by the National Institute of Hygiene in Guayaquil had proved that triatoma dimidiata was the sole transmission agent for trypanosoma cruzi. Infestation with triatoma was so high that the trypano-triatominic index was approximately 50 per cent.

Serological tests carried out on 4000 people taken at random in Guayaquil, and using Machado Querreiro's complement fixation reaction, had given positive results in 0.6 per cent. of the cases. Two hundred cases of the disease were recorded annually. Electrocardiograms carried out on apparently health individuals taken at random, to discover cardiopathic illness resulting from Chagas' disease, revealed the high positive index of 1.5 per cent. All that pointed to a health problem meriting close attention, both in Ecuador and in other Latin American countries.
The studies carried out in Guayaquil showed that the *triatoma dimidiata* was sensitive not only to DDT but also to Baygon, a new product which had had considerable success in Peru.

In his opinion, WHO should concern itself with the problem in view of its seriousness for America.

Dr DIZON (Philippines) said that the significance of a disease could not be measured by its magnitude alone; other factors had to be taken into account. A new parasitic disease had occurred in the Philippines in the past year which, because of the intestinal nature of its clinical manifestations, had been tentatively termed intestinal capillariasis. Of the approximately 200 known species of capillaria, only three had been found to relate to human disease. There had, however, been reports in medical literature of ten authenticated cases of capillaria hepatica, one of cutaneous capillariasis and one of lung capillariasis. 1,000 cases of intestinal capillariasis had been confirmed in the Philippines during 1967 and were believed to be the first ever reported. Research studies, covering the epidemiological, parasitological, clinical and control aspects of the disease were presently being undertaken by the Government, but thus far had not given very encouraging results, especially in regard to transmission and treatment. For that reason, his Government wished to bring the problem to the notice of WHO - as it had to the attention of the Surgeon-General of the United States Public Health Service. His Government would be glad to discuss its findings in further detail with the Organization.

Dr GOECKEL (Parasitic Diseases), replying to points raised, said that the delegate of Rwanda had asked what could be done to help countries in the fight against intestinal helminths. In that connexion, WHO had organized two training courses on treponematoses, in the English and French languages respectively, and another on general epidemiological survey methods for the African region; further courses of the same kind were planned for other regions. All were designed to make the most modern techniques known to governments.

Filariasis, which had been mentioned by several speakers, received the Organization's close attention. Several pilot projects had been set up in the field, including one in Western Samoa. WHO's programme, although concerned with vector control, concentrated mainly on chemotherapy. There was still much to learn about filariasis, particularly from the epidemiological point of view and a budgetary allocation had therefore been made for a research but the area of its activity had still to be decided. What was needed was a place where there had been no interference in the epidemiology of the disease to ensure that the team could start its work on a natural epidemiological situation. At present preparations were being made for a survey in several countries of South America to ascertain the most suitable place for a long-term study. The immunology of the disease was, of course, also very important and the Organization was particularly interested in skin test studies, which had been initiated in various countries.

Schistosomiasis was one of the Organization's oldest programmes. An attempt was being made at present to work out a mathematical model on which to study all the factors of the disease, in order to determine the best methods for its control. Apart from the WHO schistosomiasis research team in Africa, the Organization lent its support to many other research activities. Several meetings had been held on the public health importance of schistosomiasis and progress had been made.

The Organization's activities in respect of leishmaniasis were relatively recent and somewhat limited but a programme was being developed to study the immunological aspects. One important factor was the effect of malaria eradication on the distribution and level of the endemity of leishmaniasis. A reference centre for strains of the parasite had been established by WHO and a travelling seminar to Russia in 1967 had done much to stimulate interest in leishmaniasis.
The new drug to which reference had also been made was still at the field investigation stage but the results were, in general, very promising. The occurrence of occasional side effects still required further trials.

Lastly, he assured the delegate of Ecuador that the Organization was fully aware of the importance of Chagas disease in the American hemisphere. In order to stimulate research on the disease, a scientific group had been convened in 1967 on comparative studies of American and African trypanosomiasis.

The meeting rose at 3.55 p.m.
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Page 8, twenty-second line

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