OFFICIAL RECORDS
OF THE
WORLD HEALTH ORGANIZATION
No. 169

TWENTY-FIRST WORLD HEALTH ASSEMBLY

GENEVA, 6-24 MAY 1968

PART II

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WORLD HEALTH ORGANIZATION
GENEVA
December 1968

MEMBERSHIP OF THE HEALTH ASSEMBLY

LIST OF DELEGATES AND OTHER PARTICIPANTS

DELEGATIONS OF MEMBER STATES

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Delegates:
- Professor A. OMAR, President, Institute of Public Health, Kabul (Chief Delegate)
- Dr S. WEISS, President, General Medical Department

ALGERIA

Delegates:
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- Dr D. MAMMERI, Director of Public Health
- Dr M. EL-KAMAL, Inspector-General of Health

Alternates:
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- Mr O. BENZITOUNI, Attaché, Permanent Mission of Algeria to the United Nations Office and to the Specialized Agencies at Geneva
- Mr M. BENALIOUA, Chief, Pharmacy Department, Ministry of Public Health and Population

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AUSTRALIA

Delegates:
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- Dr J. S. BOXALL, Director of International Health, Department of Health
- Miss J. H. BARNETT, First Secretary, Permanent Mission of Australia to the United Nations Office at Geneva

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Delegates:
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- Dr R. HAVLASEK, Counsellor, Federal Ministry for Social Affairs
- Dr K. HERNDL, Counsellor; Deputy Permanent Representative of Austria to the United Nations Office and to the Specialized Agencies at Geneva

BARBADOS

Delegate:
- Mr C. E. TALMA, Minister of Health and Community Development

BELGIUM

Delegates:
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- Dr jur. J. DE CONINCK, Counsellor; Chief, International Relations Department, Ministry of Public Health and Family Welfare
- Dr M. KIVITS, Medical Adviser, Ministry of Foreign Affairs and Trade (Technical Co-operation)

Advisers:
- Mr H. WENMAEKERS, Counsellor, International Organizations Department, Ministry of Foreign Affairs and Trade
- Mr G. L. STUYCK, Deputy Permanent Delegate of Belgium to the United Nations Office and to the Specialized Agencies at Geneva
- Mr A. WILLOT, First Secretary, Permanent Delegation of Belgium to the United Nations Office and to the Specialized Agencies at Geneva

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Delegates:
- Dr J. ASBUN ZUGBI, Minister of Public Health (Chief Delegate)
- Mr R. CAPRILES RICO, Ambassador; Permanent Representative of Bolivia to the United Nations Office and to the Other International Organizations at Geneva

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Delegates:
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- Professor A. SCORZELLI, Director-General, National Department of Health
- Dr E. T. BLOIS, President, Foundation of Public Health Teaching

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BULGARIA

Delegates:
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- Dr M. I. ČALĂKOV, Chief of Department, Ministry of Public Health and Welfare
- Mr D. STAMBOLIEV, Counsellor, Permanent Representation of Bulgaria to the United Nations Office and to the International Organizations at Geneva

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Delegates:
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- Dr HLA PE, Officer on Special Duty, Ministry of Health
- Dr U THA TUN, Assistant Director, South-West Division, Directorate of Health Services

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Delegates:
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- Dr C. BITARIHO, Director-General, Ministry of Public Health
- Mr L. SIMBANDUMWE, Director, Department of Medical Organization and Assistance, Ministry of Public Health

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CAMBODIA

Delegates:
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- Dr KADEVA HAN, Preah Ket Mealea Hospital, Phnom-Penh

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- Mr P. BEB a DON, Ambassador of Cameroon to Switzerland (Deputy Chief Delegate)
- Dr E. ELOM NTOUZOO, Deputy Assistant Director, Major Endemic Diseases and Rural Medicine Service

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- Dr B. D. B. LAYTON, Principal Medical Officer, International Health, Department of National Health and Welfare (Deputy Chief Delegate)[1]
- Mr J.-L. DELISLE, Ambassador; Permanent Representative of Canada to the United Nations Office at Geneva[2]
- Mr N. THERIAULT, Minister of Health, Province of New Brunswick

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- Mrs M. RIDEOUT, Parliamentary Secretary to the Minister of National Health and Welfare
- Dr O. H. CURTIS, Deputy Minister of Health, Province of Prince Edward Island
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- Dr R. B. GOYETTE, Director, Hospital Insurance and Diagnostic Services, Department of National Health and Welfare

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- Mr J. CORBEIL, Second Secretary, Permanent Mission of Canada to the United Nations Office at Geneva

[2] Deputy Chief Delegate as from 11 May.

CENTRAL AFRICAN REPUBLIC

Delegates:
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Dr S. BÉDAYA-NGARO, Director, Institut national d'Enseignement médico-social de Santé publique
Dr R. CHICAL, Technical Assistant for Health Education to the Director of Public Health

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Dr P. K. RATNASINGHAM, Deputy Director of Health Services

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[1] Chief Delegate as from 17 May.

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Dr A. MAHNEKE, Secretary, National Health Service

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Mr O. FORSTING, Secretary, Ministry of the Interior

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EL SALVADOR

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[1] Chief Delegate as from 13 May.

[2] Delegate as from 13 May.

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Mr A. PAVEC, First Secretary, Permanent Mission of France to the United Nations Office and to the Specialized Agencies at Geneva
Professor R. SENAULT, Faculty of Medicine, University of Nancy
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GABON

Delegates:
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Dr P. OBAME-NGUÉMA, Chief, Population and International Relations Office, Ministry of Public Health and Population
Dr J. P. MARTINAZZO, Chief Medical Officer, Technical Office, and Counsellor, Ministry of Public Health and Population

GHANA

Delegates:
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Dr M. A. BADDOO, Senior Medical Officer, Ministry of Health (Deputy Chief Delegate)
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Mr A. L. E. DUPONT-WILLEMIN, Vice-Consul of Guatemala in Geneva

GUINEA

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GUYANA

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Dr L. S. CHÉRY, Vice-President, Legislative Assembly

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Mr J. SAS, First Secretary, Permanent Mission of Hungary to the United Nations Office and to the Other International Organizations at Geneva

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ICELAND

Delegate:
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Extraordinary Counsellor for the Celebration of the Twentieth Anniversary of WHO:
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IVORY COAST

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2. SMALLPOX ERADICATION PROGRAMME Agenda, 2.6

Dr PAYNE, Assistant Director-General, introducing the item, said that the report on the status and development of the smallpox eradication programme had been compiled by the Director-General in compliance with resolutions WHA20.15 and EB41.R18.

The interest of both the endemic and non-endemic countries during 1967 - the first year of the intensified global programme - had indeed been gratifying. Of the twenty-nine countries where, it was believed, endemic smallpox currently prevailed, sixteen had initiated planned programmes of eradi-

cation in 1967 and six others would do so in 1968. Of the thirty-eight countries at special risk geographically or because of population migrations, almost half had embarked on special vaccination and surveillance programmes to ensure that they remained free of smallpox. It was hoped that by 1969 eradication programmes would be fully operative in all smallpox endemic countries.

Despite the fact that the number of countries with endemic smallpox had not increased in 1967, notified cases of the disease had risen sharply, as would be seen from Tables 1 and 2 in the report. Notifications received after compilation of those data had raised the 1967 total to 121 612 cases - virtually the same as in 1963 and the highest figure recorded in the past decade. While that increase was due, in part, to better reporting, the main factor was the widespread and severe outbreaks in India and Pakistan. Reporting in most endemic countries was still most unsatisfactory, since probably not more than ten per cent. of all cases were presently reported. A conservative estimate was that more than a million cases had occurred in the past year.

The need for a co-ordinated eradication effort had been well illustrated in 1967: in that year the disease had been imported into eight smallpox-free countries, contiguous to endemic areas, and introduced into five other, more geographically remote, countries. Fortunately, surveillance and containment measures had succeeded, in all cases, in preventing the disease from being re-established endemically.

Significant progress was being made in all regions but was best in the African Region, where programmes had begun, or were about to begin, in twenty-six countries. Over 30 million of the 150 million population of the nineteen countries in West and Central Africa had been vaccinated since January 1967, and in that connexion jet injectors had been widely and successfully used. Coverage rates in those programmes consistently exceeded 80 per cent. and in many areas reached 90-95 per cent. Take rates among primary vaccinations were consistently 95 per cent. or over.

In South America, endemic smallpox was prevalent only in Brazil, according to present data, although repeated introduction of the disease had been recorded in Argentina and certain of its neighbouring countries. Under the programme in Brazil, which had been developed as a national programme, almost 10 million people had been vaccinated. The surveillance system had been considerably strengthened and plans had been developed to intensify the programme.

In the Eastern Mediterranean Region, smallpox was confined to Pakistan and Ethiopia. Programmes had been planned for East and West Pakistan and were due to start in 1968. An intensified programme had been initiated in Sudan and it was hoped that, later in 1968, programmes would be inaugurated in Ethiopia, Somalia and other countries bordering on endemic areas.

In South-East Asia, the WHO-supported programmes in Nepal and Afghanistan were being strengthened, and a programme was scheduled to start in Indonesia in June 1968. Burma, which had initiated an eradication programme in 1964, had reported no cases of the disease in 1967. Of greatest concern was the programme in India where, during 1967, more cases of smallpox had been recorded than for any other year except 1958. That high incidence had been recorded at the end of a three-year mass vaccination effort, during which over 500 million vaccinations had been performed. WHO and the Indian Government had carried out an intensive assessment of the programme, the results of which were under study.

Among the measures taken during the year to develop a sound technical and operational strategy for the programme were the publication of a handbook for smallpox eradication programmes in endemic areas and the convening of a scientific group on smallpox eradication, whose report would shortly be available. Also a travelling seminar had been organized, during which a manual had been drawn up on the various production methods for freeze-dried vaccine produced on animal skin. That manual would be available in about three months' time and another, on the basic techniques for laboratory diagnosis of smallpox, would be available in October 1968. A seminar on smallpox eradication had been held for Asian countries in December 1967 in Bangkok, and seminars were planned for countries in other regions in 1968 and 1969. Lastly, special courses in smallpox eradication and in the laboratory diagnosis of the disease were planned for later in 1968 and in 1969.

Referring to the production and quality of freeze-dried vaccine, he said that virtually all endemic and many non-endemic countries had abandoned the use of liquid vaccine. As a result of the provision of equipment by WHO and UNICEF, vaccine production in endemic countries was on the increase, and the quality of the vaccine had improved considerably. While in 1965 WHO had tested only twelve lots of vaccine, in 1967 over a hundred had been tested. The need for donations of freeze-dried vaccine was greater than ever. As shown in Table 9 of the report, 13 million doses of vaccine had been distributed by WHO in 1967, as compared with three million doses in 1966. The anticipated needs for 1968 and 1969 were 56 million and 60 million doses respectively - which needs were additional to the requirements presently being met by the Soviet Union and the United States of America on a bilateral basis, the former providing over 110 million doses annually and the latter 40 million doses.

The development of the jet injector and bifurcated needle might help to alleviate some of the acute needs for vaccine. Jet injectors required a more purified vaccine than that used for

conventional vaccination but could extend the coverage of a given supply of vaccine because of the smaller dosage required. Use of the bifurcated needle, which allowed removal from the vial of a smaller but nevertheless adequate quantity of vaccine, might extend supplies by two to five times. Vaccination programmes still required careful planning, however, to ensure that an adequate number of persons could be vaccinated each day and thus that the savings made possible by the use of the jet injector and bifurcated needle were effected.

Directing attention to part IV of the report, which set forth the eradication methodology proposed by the Scientific Group on Smallpox Eradication in October 1967, he said that the Group had stressed, as equally important, the need both to carry out systematic vaccination programmes and to establish a case-detection and surveillance system from the outset, in order to ensure prompt application of containment measures.

The Group also considered that the programme should proceed through well-defined attack, consolidation and maintenance stages, and had proposed guidelines and criteria in that respect.

In conclusion he said that, while there were grounds for cautious optimism with respect to the future success of the eradication programme, the difficulties should not be underestimated - especially in the endemic areas in India, Pakistan and Indonesia. Sustained effort was needed and due consideration should be given to the task in hand, the fulfilment of which depended exclusively on the will and determination of all Member States.

Dr RAO, Representative of the Executive Board, speaking at the invitation of the CHAIRMAN, directed the Committee's attention to resolution EB41.R18, in which the Executive Board had recommended that the Assembly note that smallpox continued to represent a serious world health problem to both endemic and non-endemic countries and reiterate that the worldwide eradication of the disease should be one of the Organization's main objectives. In the same resolution, the Board recommended that the Health Assembly should request all Member States to lend greater support to the programme in the form, for example, of contributions of freeze-dried vaccine and transport, to ensure the rapid execution of the programme. It further recommended that all governments be requested to place special emphasis on the complete reporting of smallpox cases and on the institution of active containment measures for each outbreak. Lastly, the Board recommended that the Director-General continue all necessary measures to ensure maximum co-ordination of national efforts and provision of contributions from international and bilateral agencies.

(For continuation of discussion, see summary record of the twelfth meeting, section 2.)

The meeting rose at 11.45 a.m.

2. SMALLPOX ERADICATION PROGRAMME (continued from the fourth meeting, section 2) Agenda, 2.6

Dr AL-ABDUL RAZZAK (Kuwait), noting that a number of delegates had withdrawn their request to speak, asked whether prepared statements not delivered could be included in the summary record.

The CHAIRMAN said that the Legal Office had indicated that it was not possible.

Dr GONZÁLEZ (Venezuela), recalling the interest his delegation had shown at the Twentieth World Health Assembly in the Director-General's report on the smallpox eradication programme, expressed its further satisfaction with the present report, which was concise yet informative.

Although eradication was theoretically feasible, persistent efforts and constant vigilance were needed to achieve it. The general health services had an essential role to play in exercising the necessary epidemiological vigilance.

He hoped that the report of the Scientific Group on Smallpox Eradication, referred to in part IV of the report on the smallpox eradication programme would soon be available. In the part reproduced, no mention was made of the role to be played by the general health services in the execution of the programme. It was important from the outset to see that the programme came within those services. The problems encountered in the execution of the malaria eradication programme had emphasized the need for that concept.

The continuing nature of the programme should help to avoid recurring epidemics.

Mr NGANDU (Democratic Republic of the Congo) said that his country was among the African countries that had put in hand a smallpox eradication programme by bilateral agreement between the Government and WHO. The plan envisaged smallpox vaccination in conjunction with BCG vaccination for all children up to the age of fourteen, thus covering about eight million children. The size of the programme had given rise to the opinion in certain quarters that it might be preferable temporarily to halt the BCG programme to ensure that it did not interfere with the carrying out of a normal smallpox eradication programme. Activities were as yet barely under way, since the dual vaccination programme had only begun in March 1968. No doubt resolutions WHA19.16 and WHA20.15 of the Nineteenth and Twentieth World Health Assemblies respectively, related to smallpox alone, but his Government had a particular interest in an integrated campaign to include BCG vaccination, and he hoped the Director-General and the Regional Director could intervene to reassure those who had expressed doubts on the subject.

During 1967, there had been 1500 cases of smallpox in his country with 112 deaths. Developing countries that had made great sacrifices in order to put in hand a vaccination plan with the aim of progressive total coverage had difficulty in finding the supplementary resources necessary for control of epidemic foci in isolated regions, where no eradication teams were in operation. He hoped that WHO could assist with extra vaccine and transport. It was also imperative for WHO to supply, at the request of Member governments and within the framework of the operational plan, staff familiar with the material problems and able to carry out necessary repairs to vaccination equipment. Without such assistance the medical officer's task became complicated by supplementary tasks, which had given rise to great difficulties in certain programmes. He hoped that WHO would give particular attention to his country's problems.

Professor PENSO (Italy) said that the problem of smallpox was closely connected with the efficacy and innocuity of the vaccine used. The introduction of freeze-dried vaccine had facilitated storage and practical use, but had not solved the problem of the quality of the vaccine itself. Laboratory research had shown that there were a number of varieties of vaccinia virus of which the immunological value and pathogenicity were unknown.

His delegation had drawn the Director-General's attention to that problem at the Twentieth World Health Assembly,[1] and was pleased to note that the Director-General now envisaged a comparative study of vaccine strains with a view to determining those with the most suitable characteristics. The Istituto Superiore di Sanità in Rome had collected a large number of vaccines prepared in various parts of the world, and had studied them on a comparative basis. It had observed that the various vaccines were prepared with heterologous vaccine viruses. At least two or three groups could easily be distinguished by ordinary virological techniques such as "T-markers".

His delegation considered it essential to reach a more advanced stage of standardization of vaccines by specifying the strains from which they had been prepared, as in the case of other vaccines. The viruses to be chosen should have two main characteristics: high antigenicity and low pathogenicity.

[1] See Off. Rec. Wld Hlth Org., 161, 245.

The various vaccinal viruses in use throughout the world produced on the chorioallantoic membrane of chick embryos simple pustules or haemorrhagic pustules ringed with more or less haemorrhagic circles. The question was which viruses to choose in preparing smallpox vaccine.

His delegation considered that WHO should encourage or organize research on those problems with priority over other types of research, with a view to a determination by the Expert Committee on Biological Standardization of a vaccinal virus strain particularly indicated for preparation of a standard smallpox vaccine.

Dr MTAWALI (United Republic of Tanzania) said that Table 5 in the report on the smallpox eradication programme showed that, of the countries in eastern and southern Africa, Tanzania had had the second highest incidence of smallpox in 1964 and 1965 and the highest in 1966 and 1967. It had therefore accorded top priority to smallpox eradication.

It would appear that, following a long period during which the disease had occurred only in its mild form, the present generation, particularly in rural areas, were unaware of its seriousness and reluctant to present themselves for vaccination, some even having run away to escape the vaccination teams. Routine measures had therefore failed to contain the disease, which had now appeared in the severe form of variola major.

It had therefore been decided to launch a mass vaccination campaign with the assistance of WHO, whose prompt response had been greatly appreciated. Staff, equipment and transport were already arriving in the country and the project should soon be under way, starting in one of the worst districts.

Professor MOGA (Romania) said that WHO's efforts for the global eradication of smallpox were of particular importance in view of the fact that the disease was still a cause of considerable morbidity and mortality.

Romania was continuing to operate a strict programme to prevent importation. Measures were being applied by frontier authorities in pursuance of the International Sanitary Regulations. An immunization campaign was being carried out to cover all children from three to fifteen months of age, with re-vaccination in primary schools. All nationals travelling to countries where the disease was endemic were also re-vaccinated.

Dr TEKLE (Ethiopia) said that smallpox was endemic in Ethiopia, where the clinical diagnosis of the normally mild form of the disease had only recently been confirmed by laboratory tests. He stressed the need for good diagnostic laboratory services to supplement the efforts of vaccination teams using potent freeze-dried vaccines. Another essential was good reporting.

The vaccine production unit in Ethiopia had a capacity of 50 million doses per year, but currently only produced three million, which were distributed through the proper channels to health services, which performed vaccinations in all health institutions, including army hospitals and school health services. In spite of satisfactory results, batches sent to a WHO reference centre had proved a little less potent than required, but since the visit of an expert, all subsequent batches checked had been found to fulfil WHO standard requirements. A month earlier two trials - one on 10 000 adults in an army camp, the other on 5000 children - had revealed a take-rate of over 90 per cent.

Further studies were needed to confirm that cases in Ethiopia were due to a milder strain, and to relate it to other African and non-African strains. He asked that the Regional Office study smallpox vaccine production to determine the vaccine most suitable for use in the Region.

Dr KONE (Ivory Coast) said that in 1960, the year of the Ivory Coast's accession to independence, there had been more than four hundred cases of smallpox notified. The eradication programme had started in 1961, and the Institute of Hygiene's two groups of five vaccination teams had conducted a mass campaign which terminated in 1962. In 1964, only eleven cases had been diagnosed; in 1965, eight; in 1966, none, and in 1967, two, both of which were imported. The programme was now in the maintenance phase. The vaccination rate was over 80 per cent. The ten millionth vaccination had been performed in 1968. Two five-year surveillance periods were planned to start in 1969, and considerable efforts were being made to integrate vaccination into the routine activities of the health services. Vaccination every four years had been obligatory since 1961.

The difficulties encountered in the programme were of two kinds: financial difficulties, including the renewal and maintenance of the supply of vehicles, seven of which had gratefully been received from the United States Agency for International Development - together with supplies of freeze-dried vaccine - in 1967; and difficulties of control at frontiers, where many people used little-known tracks to cross. Those people were sometimes not vaccinated.

He requested WHO assistance in the elaboration of a common strategy for his own and neighbouring countries, as well as in the purchase and maintenance of vehicles.

Professor BURGASOV (Union of Soviet Socialist Republics) said that the delegate of Italy had touched on the important problem of immunogenesis. Delegates should, however, not have the impression that the smallpox vaccines at present in use were not, or were only slightly, immunogenic. Excessive pessimism over the quality of the vaccines used would cast doubts on the feasibility of eradicating smallpox. He recalled that in many countries of the world smallpox had been eradicated with liquid vaccines less effective than the freeze-dried vaccines currently used, although the task had been a difficult one. In the USSR it had taken ten years, after the decree promulgated in 1922 by Lenin making smallpox vaccination compulsory, to eradicate the disease from the country, where it had been endemic. That experience convinced him of the need to believe in the possibility of eradication and to give support to the WHO programme. Without proper organization and financing and - most important in his view - training of national staff, the programme could not be implemented. Just to vaccinate once was not enough; a complete system of vaccination and of revaccination of certain age-groups had to be set up, and that could not be done without the help of WHO. His delegation fully supported the programme, and the assistance his country could give in supplying vaccine and training personnel had by no means been exhausted.

Mr ISSA (Niger) said that his government would try to carry out the wise recommendations included in the Director-General's report. Although there were no distinct foci of smallpox in Niger, the disease affected sixty to 120 people in eight to ten regions in seasonal outbreaks, giving an average of between 400 and 1200 cases a year. That situation could be explained by three factors: frequent migratory movements, lack of co-ordinated vaccination until 1967, and the difficulty of carrying out vaccination in far-removed parts of the country owing to poor communications and nomadism, particularly in the north. With the increase from thirty cases with four deaths in 1964 to 1187 cases with forty-six deaths in 1967, a mass vaccination campaign had been undertaken with the assistance of the United States Agency for International Development, the Organization for Co-ordination and Co-operation in the Control of Major Endemic Diseases, and WHO. The aim was to vaccinate the whole population in three years. Thanks to the mobile epidemiological teams, two main foci were discovered: one in a narrow band along the border with Northern Nigeria; the other in an area used by shepherds for passing between Upper Volta, Mali and Niger. Control in those places was very difficult. A concerted effort was necessary to ensure the vaccination of nomads, even if it meant that a vaccination team must be given permission to penetrate up to fifty kilometres into foreign territory. There should also be a grouping of information on the movements of nomads.

To deal with the problem of maintaining permanent immunity, Niger was using freeze-dried vaccine which could be kept for three months to be used for administration with a bifurcated needle in medical centres. Mobile teams were responsible for ensuring re-vaccination every three years, and persons admitted to hospitals for communicable diseases were vaccinated systematically.

Preparations had been made for the maintenance phase, but there were important material problems owing to the bad state of the roads, vehicles and camp supplies, including refrigeration equipment. Jet injectors had proved easy to handle, dismantle and repair, however.

In 1968, for which year the vaccination target was one million, less densely populated areas were being attacked, and the first results were encouraging since - in spite of the interruptions due to the cerebrospinal meningitis outbreaks - 360 000 people had been vaccinated by the end of March. Thanks were due to the assisting organizations he had mentioned.

Dr DOUBEK (Czechoslovakia) congratulated the Director-General on his report, especially that part dealing with eradication methodology related to the different epidemiological conditions in various parts of the world. He was sure that if WHO managed to spread the available resources in the right way, definite progress would be observable within three to four years. Smallpox eradication was a challenge to international co-operation. Czechoslovakia had always supported the Organization in its programme, and he was pleased to announce a donation of 500 000 doses of freeze-dried vaccine for the programme in 1968.

Dr KIVITS (Belgium) announced that his government was to donate 100 000 doses of freeze-dried vaccine, independent of bilateral aid, which would be continued.

Dr BADDOO (Ghana) said that since the launching of the smallpox eradication campaign in his country and eighteen other African countries in 1967, 1 300 000 Ghanaians had been vaccinated by jet injector. There had been a rise in incidence in 1967, with 114 cases and sixteen deaths. So far in 1968 there had only been two cases.

Consolidation and maintenance would be more difficult since the continuity of supplies and staff would have to be greater, with the additional strain on health services of surveillance and vigilance activities. He hoped that the necessary assistance would be forthcoming, in particular with the

establishment of vaccine production units in Africa and the provision of spare parts for vehicles and equipment, so as to avoid a recrudescence of the kind experienced in some countries with malaria.

Dr SMITH (United States of America) announced that in view of the progress achieved and the efforts made in the Director-General's realistic programme, the United States Government had decided to establish a special reserve of 20 million doses of freeze-dried vaccine suitable for use in jet injectors to meet situations in which supplies of vaccine were unexpectedly needed. The vaccine would be employed in support of the global eradication programme and would be in addition to existing United States bilateral assistance.

Dr AUBENAS (Dahomey) said that his country was one of those with the highest incidence of smallpox in 1967, considering its small size. The eradication programme begun in 1967 was proceeding according to plan thanks to United States assistance, with 791 000 vaccinations in the first year. He stressed the importance of the co-operative character of the programme and those in Togo, Upper Volta, Niger and Nigeria. That was essential in epidemiological terms, especially for neighbouring countries with almost non-existent health surveillance at frontiers. Collaboration between the countries would become indispensable in the consolidation and maintenance phases. It would be desirable for the Regional Office for Africa to advise governments in due time.

Dr ARIF (Iraq) said he had noted with satisfaction the number of eradication programmes initiated in recent years, but was concerned at the increased incidence of the disease.

He said that the case of smallpox mentioned in Table 8 in the report had in fact never entered the country, since it had been detected and diagnosed on the ship, where all passengers were kept in quarantine.

He suggested that WHO sponsor inter-country border meetings on smallpox like those on malaria.

Dr FOMBA (Mali) said that the eradication campaign in his country was based on geographical, social and ethnological studies with particular regard to conditions in flood areas and to the need for ensuring vaccination in the six main regions, as well as vaccination of the nomadic population. The campaign was proceeding satisfactorily and should cover the whole country by 1969. In 1968 there had so far been only 164 cases - less than five per 100 000 population.

He associated himself with the remarks of previous speakers on the need for co-ordination in the frontier areas and for more assistance in the maintenance phase, including the preparation of rural health services for surveillance work.

Professor OMAR (Afghanistan) said that in spite of the 15 million vaccinations covering a population of 16 million since 1958, an increase in the number of cases from 0.5 to 5 per 100 000 had occurred in recent years in Afghanistan, due especially to lack of adequate resources and transport and a shortage of good vaccine. Children had been particularly affected. The solution lay in the concentration of assistance in the production of freeze-dried vaccine and in transport facilities.

Dr TABAA (Saudi Arabia) said that his Government felt that the programme would be more effective with inter-country co-operation, and he supported the remarks of previous speakers in that connexion, stressing the possible role of WHO.

Dr DURAISWAMI (India) said that the eradication campaign in his country had been launched in 1962 and covered all the States and Union Territories by March 1963; the estimated population was now 524 million, some 80 per cent. living in villages with no proper roads. About 87 980 000 primary vaccinations and 496 960 000 re-vaccinations had been performed to date. An assessment conducted in 1967 with WHO assistance, after 80 174 cases of smallpox had been reported as against 32 616 in 1966, had revealed problems in supervision, planning and implementation owing to difficult ecological conditions including population movements, as well as difficulties of storage and transport. There had also been unnecessary re-vaccination in some cases. He expressed gratitude for the 750 million doses of freeze-dried vaccine supplied by the USSR between 1961 and 1968 and for another 100 million doses promised. Other countries had also given supplies. Production capacity in the four centres in India was about 60 million doses, which was to be increased. Requirements were estimated at 200 million doses a year for vaccination of the newborn and for re-vaccination.

UNICEF was also to be thanked for the offer of US$ 380 000 for the purchase of equipment and for assistance, with WHO, in training staff for vaccine production. One of the senior officers responsible for the programme had attended the inter-regional seminar for Asian countries on smallpox eradication held in Bangkok in December 1967.

Dr DE MEDEIROS (Togo) said that the smallpox eradication campaign in Togo was progressing satisfactorily in spite of the occurrence of some 300 cases in 1967 and certain other difficulties, which were of two types. The Regional Director had already been informed of the financial difficulties, but there was another: an unusually severe epidemic of chickenpox had made diagnosis difficult. Laboratory assistance in diagnosis was required. In the long-term view, attention must be paid to the development of the health infrastructure, since it was not known whether it would be adequate for the maintenance phase.

Dr KENNEDY (New Zealand) announced a donation of 250 000 doses of vaccine to WHO for use in Indonesia.

Dr DIZON (Philippines) said that although the Philippines was a country free from smallpox it formed part of a region where the disease was endemic. He stressed the need for group responsibility for diagnosis, and for WHO training courses, including a practical element to give experience in the field.

He warned against the tendency to neglect smallpox vaccination in favour of control of other communicable diseases. He spoke of the need to make available the most effective vaccines, to use them efficiently and to employ up-to-date vaccination techniques. Full-time efforts should be directed at smallpox eradication, with priority for places where people were most exposed to the disease. He thanked UNICEF and WHO for their co-operation.

Dr VIOLAKI-PARASKEVA (Greece) said that smallpox had never been endemic in Greece, but in 1950 there had been an outbreak in a village outside Athens caused by a visitor with a valid smallpox vaccination certificate. Since 1936 vaccination had been compulsory and must be completed before the age of one year, in order to avoid the possibility of post-vaccinal encephalitis. The lymph for the vaccine was prepared in Greece, and was distributed by the health departments without charge to private physicians. Vaccination was performed extensively by polyclinics, rural dispensaries, maternal and child health centres and school health services.

It was essential, in view of the international importance of smallpox, to establish surveillance systems in all countries, as well as effective vaccination programmes.

DR OTOLORIN (Nigeria) referred delegates to the remarks on smallpox eradication made by the Commissioner of Health of Nigeria in the plenary Assembly (see page 154).

Dr CHICAL (Central African Republic) said that the programme in his country, for the eradication of measles and tuberculosis as well as smallpox, was to end in 1969. Three million vaccinations against smallpox had been carried out in nine years. The last focus had been reported in 1962. The only remaining danger was importation. In the Sub-Committee on International Quarantine the delegate of his country had associated himself with those of countries that had raised the question of control at frontiers in the African Region. As well as nomads, there were lorry drivers and shepherds contributing to that problem, and he would ask WHO to invite States to give priority to those persons in vaccination programmes.

Professor SCORZELLI (Brazil) said that his country with its population of 86 million had the highest incidence of smallpox in the Americas, although the cases were mostly of the milder form. An assessment had revealed 14 000 cases between 1964 and 1967 - that was 94 per cent. of the registered cases in the Region. The disease was more prevalent in the north-east and the south, less frequent in the north. In 1967 São Paulo had revealed an increase of reported cases over the north-east. That was probably due to the internal migration and the intensive vaccination in the north-east.

The target of the eradication campaign was to vaccinate 90 per cent. of the population in three years, using highly potent freeze-dried vaccine. Jet injectors were being used in areas with a concentrated population. Multi-puncture was being used in other areas. There was good co-ordination between federal and local health services.

Brazilian freeze-dried vaccine production had reached 48 million doses a year, which could be increased if necessary. The *per capita* cost of vaccination was US$ 0.11.

His country was grateful to WHO for its valuable co-operation, and to the United States Agency for International Development for financial assistance.

Dr U KO KO (Burma) said that his country had nearly eradicated smallpox after over ten years of a programme started following the resolution of the Eighth World Health Assembly.

He pointed out that, although universal in importance and highly prevalent in a few countries, smallpox was not as widespread as many other diseases; countries with more than five cases per 100 000 population could be counted on the fingers of one hand. Nevertheless, it would be some time before eradication could be achieved.

On section 2 of part III of the report, which should be considered together with Table 10, he said that, while agreeing in principle, he had reservations on the general statement that the development of effective programmes of smallpox surveillance in every country was as important as the vaccination programme itself. Surveillance was extremely important in the final phases of the programme, but it was equally important in countries free from smallpox but exposed to it from outside, and in countries with a low incidence, even in the early stages. However, in countries with a high incidence and with limited resources where vital and health statistics and notification systems were poor, he suggested that mass vaccinations should have priority.

On eradication methodology (part IV of the report) he said that for the field worker smallpox eradication was more an administrative than a technical problem. Technical matters such as vaccine production methodology, vaccine devices and the advantages and disadvantages of combined vaccination might be reserved for high-level administrators and research workers. For a developing country with limited resources, the obtaining of potent vaccine was the most important need of the programme. After that, the greatest need was for the health administration to see that the right people were vaccinated, at the right time and place.

In a smallpox eradication programme, unlike other disease programmes, requirements of supplies and equipment were relatively small. Burma had started with only vaccine. From the report it would be seen that out of seventy-one countries with a total population of 1352 million, five countries with a population of 872 million constituted the major problem. Out of the other sixty-six, many were free from the disease already. He suggested that without prejudice to the programme in the five large countries, WHO might concentrate support on the smaller countries and complete the attack phase as soon as possible. He recalled that Dr Payne, Assistant Director-General, had said in his introductory speech that there were sixteen countries with programmes and six about to start. By concentrating on the smaller countries and removing them from the list of smallpox endemic countries, it would be possible to clear the stage for major operations.

Dr ELOM NTOUZOO (Cameroon) said that in spite of a vaccination campaign, there had been sixty notified cases of smallpox in Cameroon in 1967, as against three in 1966. That was due, no doubt, partly to better notification but also to the difficulty of giving full coverage to the population, particularly in mountain regions among people with nomadic habits and suspicious of vaccination. Properly trained staff and a basis of health education were necessary to change the social behaviour of the people. He associated himself with the remarks of other African delegates on the need for co-operation and co-ordination without which the efforts of his country were doomed to failure. It had the same problem of frontier control and importation as they had mentioned, as had been revealed by an epidemiological study carried out by the United States Agency for International Development.

The meeting rose at 5.10 p.m.

THIRTEENTH MEETING

Monday 20 May 1968, at 8.30 p.m.

Chairman: Professor J. F. GOOSSENS (Belgium)

1. SMALLPOX ERADICATION PROGRAMME (continued) Agenda, 2.6

Dr HENDERSON, (Smallpox Eradication), replying, at the request of the CHAIRMAN, to delegates' comments on the smallpox eradication programme, said that the many points raised had been noted; he would refer only to a few of the major issues.

The delegate of Venezuela had mentioned the role of the general health services and the need for their participation in vigilance and surveillance, and several delegates had expressed concern that the programme might develop as a separate scheme, not involving the general health services. In contrast to the malaria eradication programme, the smallpox programme was based on a vaccination programme already in existence in every country. The objective of the programme was to intensify existing activities - in contrast to the malaria programme, in which a number of new activities had to be

introduced (such as spraying, slide examinations, etc.). In the smallpox programme efforts had been made to evolve programmes suited to the development of the health services in the various countries - including more intensive vaccination activities, in some countries involving special or mobile units, and the development of surveillance and the containment operations to the extent that the smallpox reservoir could be reduced. Those efforts were guided by the report of a WHO study group on the integration of mass campaigns against specific diseases into the general health services.[1] WHO was acutely aware of the danger that had been mentioned; however, it did not seem to present a problem in the various programmes to date.

The delegate of the Democratic Republic of the Congo had referred to the simultaneous administration of BCG and smallpox vaccines. It was known that smallpox and BCG vaccine could be administered simultaneously with safety and efficacy; however, there were problems in the addition of BCG to any smallpox programme, BCG vaccine was less stable than smallpox vaccine, so that more refrigeration facilities were required. Secondly, BCG vaccine must generally be administered by needle and syringe; thus, in programmes where teams were working rapidly either with jet injectors or with multiple puncture methods the inclusion of BCG required additional personnel so that the pace of the programme could be maintained. The Organization felt that in general it was best to begin with smallpox vaccine alone, and to add to that after the programme had been well established.

The delegate of Italy had referred to the need for studies on vaccine strains. For some years past important studies in this field had been undertaken, and were continuing, particularly in the USSR. A number of laboratory studies had been made of vaccine strains from many different countries. At the present time the studies were being extended to the evaluation in human populations of the vaccines that looked best under laboratory conditions. In the Netherlands studies were also being made with regard to the production characteristics of various vaccine strains (to establish, as it were, which strains produced the most virus on the least amount of animal). Interim information showed that the Lister and the EM-63 strain were best from the standpoint of the preliminary laboratory studies. These two strains were now in use in approximately one-third of the vaccine-producing laboratories in the world. These studies would have to be extended, and the Organization would be pleased to discuss with Italy methods of co-operation and collaboration in further study of this important problem.

Several delegates had raised the problems of frontier areas - the spread of smallpox from one area to another, the need for rapid exchange of information, and the problems of nomads carrying the disease. They illustrated the need for the smallpox programme to be considered as a broad regional, if not a global, programme, so that the vaccination activities on both sides of a border were co-ordinated, reporting from one country to another was rapid, and efforts were made to contact and vaccinate nomad groups moving from one country to another. The problem had been discussed at some length, and it was anticipated that it would be tackled considerably more vigorously in the coming year.

The delegate of the Union of Soviet Socialist Republics had raised the point that there was greater need for the training of national personnel; the Secretariat heartily concurred in this. There was clearly also a need for developing methods and techniques with respect to the conduct of immunization programmes, but, more important, there was a real need with respect to methods for developing surveillance programmes and the various aspects related to assessment of programmes. During the coming year considerably more attention would also be given to this particular phase.

The Organization greatly appreciated the many gifts of vaccine announced during the course of the meeting. All of the vaccine donated would certainly be used. As a point of interest, eighteen months previously, virtually no endemic countries had been using freeze-dried vaccine exclusively, and in fact very few of them had been using freeze-dried vaccine at all; today, freeze-dried vaccine was being used almost exclusively - thanks to the many donations made to the Organization. This was a very important step forward.

The delegate of Burma had commented that, given the freeze-dried vaccine, the job was not a problem. That seemed to be quite true - there seemed to be no problem, provided one could vaccinate as extensively as possible and rather completely. However, during the past year it had been observed in Brazil, India and Pakistan that smallpox even in very highly endemic areas was not randomly distributed across a large geographical area, but occurred as clusters of cases in a comparatively few villages or areas. In fact, in many supposedly highly endemic areas as few as 2 to 5 per cent. of the villages might experience smallpox during the course of a year. Thus, smallpox outbreaks had terminated very promptly as a result of containment activities of a very simple nature, and it was felt that greater emphasis on surveillance and rapid containment of outbreaks should certainly shorten the period of time in which an area or a country became smallpox-free - maybe by as much as a year or more.

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[1] Wld Hlth Org. techn. Rep. Ser., 1965, 294.

Regarding diagnosis, a plan was being elaborated for the development of a network of laboratory services, and considerable progress had been made in the drafting of a manual on the laboratory diagnosis of smallpox and the development of antigens and antisera for the various tests required. By means of training programmes, including seminars, etc., it was hoped to develop within the next eighteen months a reasonably comprehensive diagnostic network to support the smallpox programme.

The CHAIRMAN read to the Committee the following draft resolution recommended by the Executive Board in resolution EB41.R18:

> The Twenty-first World Health Assembly,
>
> Having considered the report of the Director-General on the smallpox eradication programme submitted in accordance with paragraph 4 of resolution WHA20.15;
>
> Noting that, while progress in the eradication effort is now being made, smallpox continues to represent a serious health problem both to endemic and non-endemic countries; and
>
> Recognizing the need for full and active participation by all endemic countries if eradication is to be achieved, and for the maximum of co-ordination in their efforts,
>
> 1. REITERATES that the worldwide eradication of smallpox is one of the major objectives of the Organization;
>
> 2. URGES again that:
>
> (a) countries having smallpox, and no eradication programmes, give the highest possible priority to the provision of funds and personnel to achieve eradication; and
>
> (b) those countries where eradication programmes are progressing slowly intensify their eradication efforts;
>
> 3. REQUESTS that those countries where smallpox has been eradicated should continue their vaccination programmes so as to maintain a sufficient level of immunity in their populations;
>
> 4. REQUESTS all Member States to give the programme greater support in the form of contributions, such as vaccine and transport, so that the programme may be executed as rapidly as possible;
>
> 5. REQUESTS countries providing bilateral aid in the health field to include in their activities assistance in the context of the global smallpox eradication programme;
>
> 6. REQUESTS all governments to place particular emphasis on:
>
> (a) complete reporting of smallpox cases; and
>
> (b) the institution of active containment measures for each outbreak;
>
> 7. REQUESTS all governments producing freeze-dried smallpox vaccine to take special care in its preparation so as to ensure that vaccine meets the WHO potency and purity requirements; and
>
> 8. REQUESTS the Director-General:
>
> (a) to continue to take all necessary steps to assure the maximum co-ordination of national efforts and provision of contributions from international and bilateral agencies with the objective of achieving smallpox eradication as quickly as possible;
>
> (b) to report further to the Executive Board and the World Health Assembly.

Decision: The draft resolution was approved.[1]

[1] Transmitted to the Health Assembly in the Committee's third report and adopted as resolution WHA21.21.