



EXECUTIVE BOARD

Forty-third Session

SUMMARY RECORD OF THE TENTH MEETING

WHO Headquarters, Geneva
Monday, 24 February 1969, at 9 a.m.

CHAIRMAN: Dr D. D. VENEDIKTOV

CONTENTS

	<u>Page</u>
3. Smallpox eradication programme	167

Tenth MeetingMonday, 24 February 1969, at 9 a.m.

<u>Present</u>	<u>Designating Country</u>
Dr D. D. VENEDIKTOV, <u>Chairman</u>	Union of Soviet Socialist Republics
Dr J. C. AZURIN, <u>Vice-Chairman</u>	Philippines
Dr M. P. OTOLORIN, <u>Vice-Chairman</u>	Nigeria
Dr K. B. N'DIA, <u>Rapporteur</u>	Ivory Coast
Dr S. P. W. STREET, <u>Rapporteur</u>	Jamaica
Dr Y. H. AHMED	Somalia
Dr J. ANOUTI	Lebanon
Dr D. BADAROU	Dahomey
Dr B. DEMBEREL	Mongolia
Sir George GODBER	United Kingdom of Great Britain and Northern Ireland
Dr E. GONZÁLEZ	Panama
Professor J. F. GOOSSENS	Belgium
Dr C. K. HASAN	Pakistan
Dr B. JURICIC	Chile
Dr I. S. KADAMA	Uganda
Dr H. M. EL-KADI	United Arab Republic
Dr B. D. B. LAYTON	Canada
Professor L. von MANGER-KOENIG	Federal Republic of Germany
Dr A. F. MONDET	Argentina
Professor I. MORARU	Romania
Mr A. PAVEC (alternate to Professor E. Aujaleu)	France
Dr PE KYIN	Burma
Sir William REFSHAUGE	Australia
Professor B. REXED	Sweden

Secretary: Dr M. G. CANDAU
Director-General

3. SMALLPOX ERADICATION PROGRAMME: Item 2.4 of the Agenda (Resolution WHA21.21; Document EB43/28)

Dr PAYNE, Assistant Director-General, introducing the item, said that information regarding the status and development of the smallpox eradication programme was presented in document EB43/28. Funds provided in the Organization's regular budget, and also contributions to the Special Account and assistance from multilateral and bilateral agencies, had permitted the majority of countries to embark on smallpox eradication programmes. Of twenty-seven countries and territories in which there was endemic smallpox, eighteen had begun preventive programmes and six would initiate programmes during 1969. Of the remaining three, Southern Rhodesia recorded only a few cases each year; Ethiopia and Mozambique, on the other hand, had a moderately high incidence of endemic smallpox. More intensive vaccination programmes had been begun in Mozambique but no special efforts had been reported by Ethiopia. Of forty countries and territories considered to be at special risk of smallpox reintroduction, because of geography and population migration, one-half had initiated special vaccination and surveillance programmes to assure their continued status as smallpox-free areas. As shown in Table 1 of document EB43/28, the incidence of smallpox had declined sharply in 1968. While some 122 000 cases had been recorded in 1967, only 67 482 cases were recorded in 1968. That reduction in incidence had occurred in spite of more complete reporting in most countries. Although eradication programmes undoubtedly served to reduce smallpox incidence, longer-term cyclical variations in disease incidence might be partially responsible for the decline in reported cases.

Countries and territories in which smallpox had been reported during 1968 were shown in Figure 2 of document EB43/28. Of the twenty-seven endemic countries, five were in Asia, twenty-one in Africa and one in South America. During 1968, smallpox had been introduced into twelve additional countries. With the exception of single cases in the United Kingdom and in Belgium, all infected areas were geographically contiguous with endemic countries. Active containment measures had succeeded in each instance in preventing the re-establishment of the endemic disease.

In the overall programme, the countries of western and central Africa showed the most substantial progress to date. During 1967 and 1968, 65 000 000 of the 119 000 000 persons living in that area had been vaccinated. Smallpox incidence had decreased by one-half during 1968. In September 1968, special surveillance teams had been constituted, and all cases were being promptly investigated in an effort to interrupt all chains of transmission. Although troublesome foci of infection persisted in Nigeria, Niger, Togo and Dahomey, the number of cases discovered continued to decline and the infected areas were becoming fewer in number and extent.

In eastern and southern Africa, progress had been slower and more irregular. Programmes in most countries had begun only recently or were scheduled to begin very shortly. Only in Zambia was a fully effective programme operative. In that country, the only cases recorded during 1968 occurred along the Congolese border, suggesting that Zambia might now be experiencing imported smallpox only. Sharp reductions in incidence had also been noted in Kenya, Uganda and Tanzania, all of which had recently commenced the routine use of potent, freeze-dried vaccine. During 1968, however, a marked increase in cases had been reported by the Democratic Republic of the Congo. A WHO-assisted programme in the Congo was gaining momentum, and a portion of the increase in the number of cases might be attributed to better reporting. Of greatest concern was Ethiopia, where reporting was acknowledged to be very incomplete and where no systematic programme of vaccination or surveillance had been started or was planned. The 1968 outbreaks in the Sudan, which had been contained with some difficulty, resulted from importations from Ethiopia; an additional outbreak in January 1969 in the Sudan appeared also to have originated in Ethiopia.

In Latin America, all except three cases had been recorded by Brazil, which was believed to be the only country in the Americas with endemic smallpox. The Brazilian eradication programme, which had begun two years previously, had been intensified during 1968. Despite better reporting, smallpox incidence had declined by over ten per cent. Vaccination activities had steadily increased and almost two million persons per month were being vaccinated in systematic vaccination programmes. Special surveillance teams had been trained and, starting in March 1969, all cases and outbreaks would be promptly investigated in an effort to eliminate the residual foci of smallpox transmission. The difficulties facing a country of the size and geographical complexity of Brazil should not, however, be minimized. In most countries adjacent to Brazil, special vaccination and surveillance programmes were in progress to prevent reintroduction of the disease.

In Asia, the number of reported cases in 1968 had decreased by one-half as compared with 1967, the incidence in most of India and West Pakistan having declined sharply. Although more effective vaccination programmes might, in part, account for that decline, the decrease in cases followed upon a year of very high incidence and thus that decrease might, in part, represent a natural cyclical variation in the disease. Extensive outbreaks had been recorded in 1968 in East Pakistan and bordering areas of India, and cases had been introduced into an adjacent district in Burma. Eradication programmes during 1968 had been in progress in Afghanistan, Indonesia, Nepal and East Pakistan. The fact that all those countries had recorded a larger number of cases in 1968 was believed to be largely the result of more complete reporting. More extensive programmes in West Pakistan and India were expected to begin in 1969.

During 1968, the technical and operational strategy of the eradication programme had been further elaborated. Principles for the implementation of the programme had been set out in the report of the Scientific Group on Smallpox Eradication and in the handbook for smallpox eradication, both of which documents had been widely distributed. During 1969, the handbook for smallpox eradication would be revised in the light of experience gained during the previous two years. A manual dealing with the theory and practice of smallpox surveillance had been prepared during 1968 to facilitate the training and work of surveillance teams. Seminars on programme execution had been conducted in Bangkok in December 1967 for countries in Asia, and in Kinshasa in November 1968 for countries of eastern and southern Africa. Additional seminars were planned in 1969, for the countries of western and central Africa and, in 1970, for endemic countries in Asia. In 1968, for the second year, a four-week course in eradication methodology had been conducted in co-operation with the National Communicable Disease Center, Atlanta; it would be repeated in 1969.

It was gratifying to note that almost all vaccinations now performed in endemic countries employed freeze-dried vaccine which met WHO standards of potency. That represented a considerable advance over two years previously, when not more than one-quarter of vaccinations were being carried out with satisfactory vaccine. Although vaccine production in the endemic countries continued to increase and savings in vaccine were being effected by new vaccination techniques, the need for donations of freeze-dried vaccine was as great as ever because of the intensification of vaccination programmes. Over nineteen million doses had been distributed during 1968 through the Special Account for Smallpox Eradication; that was in addition to contributions under bilateral programmes of about one hundred million doses by the USSR, forty million doses by the United States of America, and several million doses by Brazil and Argentina. To increase both the quantity and quality of the vaccine being produced WHO, in co-operation with UNICEF, provided assistance in the form of consultants, supplies and equipment to over thirty producing laboratories; 167 lots of vaccine had been tested, twice the number tested in 1967. A manual dealing with the production of freeze-dried vaccine had been prepared and distributed.

The bifurcated needle had been adopted for use by most endemic countries. By the end of 1970, virtually all vaccinations in endemic areas would be performed either with jet injector or bifurcated needle, techniques unknown to routine vaccination programme until the beginning of the global eradication effort.

The reporting and investigation of smallpox cases had improved during the previous two years, but much remained to be done. In fact, those questions were receiving and would continue to receive more attention. As noted in section IV of the document (Methodology of eradication), it was important that special surveillance teams to investigate cases and conduct containment operations should be established in all programmes from their inception. When the global eradication programme began, it had been felt that the deployment of such teams would not be useful until systematic vaccination activities had brought down the level of endemic smallpox over substantial areas of a given country. During the previous two years, epidemiological studies had revealed that, in most countries, smallpox reporting was more complete than had been expected, and that the incidence was, in fact, lower than had been originally anticipated. Furthermore, it had been found that the epidemiological behaviour of the disease was such that intensive case investigation and containment activities could be expected to have a significant impact on disease incidence. Those considerations had led to a shift in the strategy of the programme and to the recommendation that small, mobile surveillance teams be constituted to investigate and report cases of smallpox, to search for additional cases in the area, to trace the chain of disease transmission, and to take steps to contain the spread of disease. By systematic vaccination and by containment of the disease itself, it was believed that the period required for a country to become smallpox-free could be considerably reduced. Such teams were active throughout all western and central Africa and in parts of India, Indonesia, Afghanistan, Brazil and Zambia.

To assist and support those surveillance activities, the Organization was establishing a network of diagnostic laboratories. A pictorial manual describing the laboratory techniques in detail had been developed and would be made available soon. Arrangements were being made for requisite antisera and antigens to be prepared and for ancillary supplies to be procured. Courses in laboratory diagnosis would be conducted in all regions during 1969 and 1970. In addition, pictorial material, both in poster and slide form, was being prepared that would assist in the clinical diagnosis of smallpox. Four thousand pictures of patients with smallpox and varicella had been taken in Africa and more would be obtained in Asia. Teaching materials based on those pictures would be available later in 1969.

The participation of almost all endemic countries in the global programme was encouraging. The decline in cases reported in 1969, in spite of improved reporting in many countries, was likewise a hopeful sign. On the other hand, some countries were not yet making a sufficiently intensive effort: not all endemic countries had yet initiated programmes and so continued to pose a constant threat to smallpox-free neighbours. Reporting had improved, but in some countries it probably did not yet exceed ten per cent. of all cases. Although much had been done, greater efforts would be required in the years ahead if the smallpox eradication programme was to succeed.

Dr AZURIN asked what steps would be taken to improve reporting.

Experience in the Philippines showed that the bifurcated needle was quite effective; it had also shown that, since each ampoule of freeze-dried vaccine did the work of eight when bifurcated needles were used, the supplies of vaccine in the Philippines were adequate. His country hoped, therefore, with the help of UNICEF which supplied valuable assistance in the matter, soon to be in a position to supply other countries with vaccine. It would be interesting to know where supplies of bifurcated needles, which were more practical than large injectors, could be obtained.

Dr JURICIC said that it was difficult to express an opinion on the programme since it had only been started in 1967 and data for 1968 were still incomplete. Reference to Table 1 and Fig. 1 of document EB43/28 showed that although the number of cases reported varied from year to year, the situation had remained virtually stationary between 1959 and 1968. Study of the programme by regions showed that the greatest progress had been made in central and west Africa where 52 per cent. of the population in countries where the disease was endemic had been vaccinated. In south and east Africa, vaccination was very slow, with probably no more than

17 or 18 per cent. of the populations of endemic countries being vaccinated. Similarly, despite recent progress in the matter, vaccination was not yet sufficiently widespread in Brazil, the only country in the Americas where the disease was endemic. In Asia, the number of cases reported had fallen by 50 per cent., as a result mainly of a reduction of cases in India. It was not yet known whether that reduction was a real one or attributable to an inter-epidemic year. As a result of more widespread vaccinations, there had been a marked decline in cases in West Pakistan. In East Pakistan, however, where 84 per cent. of the population had been vaccinated in nineteen months, more than 9000 cases had been reported in 1968. That situation called for explanation.

To sum up, therefore, it seemed that the programme had not yet found its appropriate rhythm for, if it was to be completed in five years, 16-18 per cent. of populations should be vaccinated annually.

Sir William REFSHAUGE said that the smallpox eradication campaign differed from the malaria eradication campaign in the sense that, while some countries did not have mosquitos, all were at risk from smallpox. There had been no case of smallpox in Australia for thirty years. That was attributable to the success of the quarantine services and to a great deal of luck. Quarantine services were very costly to maintain and a source of irritation to travellers. It had to be recognized however that the existence of smallpox anywhere in the world constituted a risk to all countries free from the disease. The threat to a non-endemic country varied in accordance with that country's physical relationship with endemic countries. It should be noted, in that connexion, that the relationship had been altered by the introduction of large aircraft carrying several hundred passengers.

It appeared that methods suitable to end smallpox were available. Their success depended, however, on the adequacy of vaccine supplies and on the availability of personnel trained to use the vaccine. The Board had thought, at its 1968 meeting, that supplies of vaccine received through the Special Account for Smallpox Eradication and bilateral programmes would be inadequate. It was heartening to note, therefore, that several countries had been most generous in supplying bilateral aid and that there had been increases in the Special Account for Smallpox Eradication. It would be interesting to know whether those supplies would be continued to an extent sufficient to enable the campaign to be implemented vigorously and successfully. The campaign could be successful in ridding the world of the fear of smallpox and the consequences of the disease.

Dr PE KYIN said that smallpox eradication was comparatively easy in the sense that only human beings were involved in its transmission. An important fact to be borne in mind was that some countries did not manufacture sufficient vaccine. He therefore requested that WHO should take steps to ensure that every country produced sufficient vaccine locally.

Dr MONDET agreed that smallpox should be easier to eradicate than malaria. In Argentina, the problem had initially been one of transport and distribution of vaccine. Recently, however, good quality vaccine, which could be easily distributed and applied, had been produced. Members might be interested to know that bifurcated needles were manufactured in Argentinian psychiatric establishments: he was in a position to state officially that, if it was provided with the necessary material, his country would be able to manufacture such needles for any country requiring them. Similarly, as its needs were decreasing and its production of vaccine increasing, Argentina was in a position to supply vaccine to other countries. He wished to suggest, in conclusion, that rather than open new laboratories, those already in existence should be used for the production of vaccine.

Dr HASAN, referring to Dr Juricic's comments, said that the 1967 outbreak of smallpox in West Pakistan had been controlled by the public health services. Luck had also played a part in effective control in that case. Sufficient quantities of freeze-dried vaccine, the quality of which had been passed by WHO, were now being produced to meet requirements in both East and West Pakistan. In West Pakistan, where the programme was in its early stages, the Government was, with assistance from WHO and other agencies, examining questions relating to the transportation and storage of vaccine.

Sir George GODBER said that the campaign had made an encouraging start - but that was all. Sir William Refshauge had referred to quarantine; the experience of his country was that quarantine, being based on certificates, was not to be relied on. A certificate of revaccination against smallpox certified only that vaccine had been applied to an arm; since it did not record the result of the revaccination it gave no guarantee that the holder was protected against smallpox.

Moreover, vaccination had to be followed through. It was not just a matter of undertaking a campaign for a year or two. Each year there was a population accretion and unless the new arrivals were vaccinated no progress would be made. In 1962 the United Kingdom had had the experience of a two-year-old child with a valid certificate of revaccination and two patients in the older generation, all three of whom had died of smallpox without any of them developing a smallpox rash.

The situation was, however, more hopeful than in the case of malaria, because in the end it should be possible to contain smallpox in ever smaller areas - perhaps in areas from which there was not much movement of population - and to surround those areas with a ring of protected people. Thus, finally, there would be no necessity for creating, year after year, man-made epidemics of vaccinia.

Dr OTOLORIN said that it was encouraging to learn that it had been possible to work on a regional basis and that neighbouring countries had co-operated to ensure the success of the campaign. The willingness of the smallpox teams to adapt their tactics to local conditions were praiseworthy. In Nigeria, efforts were being made to continue the routine vaccination campaign and at the same time to carry out containment exercises around reported cases. He hoped that as a result of the research work being done it would be possible, in the not too distant future, to report great reductions in the number of cases occurring in the Region to which he belonged.

(For continuation of discussion, see summary record of the eleventh meeting, section 3.)

The meeting rose at 12.30 p.m.



EXECUTIVE BOARD

Forty-third Session

SUMMARY RECORD OF THE ELEVENTH MEETING

WHO Headquarters, Geneva
Monday, 24 February 1969 at 3.00 p.m.

CHAIRMAN: Dr D. D. VENEDIKTOV

CONTENTS

Page

3. Smallpox eradication programme (continued from the tenth meeting, section 3) . . . 179

Eleventh MeetingMonday, 24 February 1969 at 3.00 p.m.

<u>Present</u>	<u>Designating Country</u>
Dr D. D. VENEDIKTOV, <u>Chairman</u>	Union of Soviet Socialist Republics
Dr J. C. AZURIN, <u>Vice-Chairman</u>	Philippines
Dr M. P. OTOLORIN, <u>Vice-Chairman</u>	Nigeria
Dr K. B. N'DIA, <u>Rapporteur</u>	Ivory Coast
Dr S. P. W. STREET, <u>Rapporteur</u>	Jamaica
Dr Y. H. AHMED	Somalia
Dr J. ANOUTI	Lebanon
Professor E. AUJALEU	France
Dr D. BADAROU	Dahomey
Dr B. DEMBEREL	Mongolia
Sir George GODBER	United Kingdom of Great Britain and Northern Ireland
Dr E. GONZÁLEZ	Panama
Professor J. F. GOOSSENS	Belgium
Dr C. K. HASAN	Pakistan
Dr B. JURICIC	Chile
Dr I. S. KADAMA	Uganda
Dr M. M. EL-KADI	United Arab Republic
Dr B. D. B. LAYTON	Canada
Professor L. von MANGER-KOENIG	Federal Republic of Germany
Dr A. F. MONDET	Argentina
Professor I. MORARU	Romania
Dr PE KYIN	Burma
Sir William REFSHAUGE	Australia
Professor B. REXED	Sweden

Secretary: Dr M. G. CANDAU
Director-General

3. SMALLPOX ERADICATION PROGRAMME: Item 2.4 of the Agenda (Resolution WHA21.21; Document EB43/28) (continued from the tenth meeting, section 3)

Dr GONZÁLEZ asked whether the quantity of smallpox vaccine being produced was adequate for the requirements of countries carrying out vaccination programmes. His question was prompted by the fact that there were a number of countries, such as his own, that had to rely exclusively on other countries for vaccines. Furthermore, in the Americas, where smallpox had been eradicated from large areas, it was essential to maintain strict surveillance measures and to carry out vaccination programmes if the disease were not to be reintroduced into the area.

Professor TATOČENKO, alternate to Dr Venediktov, said that it was difficult to judge the success of the smallpox eradication programme on the basis of morbidity figures for 1968, since in that year, according to the cyclical variation in smallpox incidence, there should have been a diminution in incidence at least in some parts of the world.

From the Organization's point of view, good work had been accomplished in the development of the eradication campaign. Nevertheless, the position in some places still gave cause for concern, as could be seen from the report before the Board. He asked if a more detailed account could be given of the difficulties encountered, for example in Africa, in the organization of antismallpox activities.

It was important to consider the future of the programme. The strategy of WHO's programme had been drawn up two years previously and the report contained many suggestions for improving it, particularly as regards the organization of the work in foci of infection, even in countries of high endemicity where the disease was widespread.

Moreover, a number of countries from which smallpox had been practically eradicated had not disbanded their eradication services but, on the contrary, had maintained a network of services to perform surveillance operations and take the necessary measures. He asked whether WHO had considered the establishment of a more or less permanent organization, whose nucleus could be the teams, mentioned in the report, at present used for measures to contain outbreaks. Naturally, the future of such an organization in countries where smallpox incidence had been greatly reduced would depend upon how far it had been integrated into the general health services; in some countries it could be the beginning of a national anti-epidemic system that would be useful against other communicable diseases.

The Organization was rightly paying particular attention to training and to the publication of technical information on smallpox, for it was in a position to do a great deal in that respect.

He hoped that the campaign would gain momentum and that WHO's work would continue to be as successful as it had been during the first two years.

Professor GOOSSENS said that, a few months previously, there had been an imported case of smallpox in his country, in a child a few months of age who was covered by a valid vaccination certificate. That the disease had not spread further was due solely to the fact that the doctor who had examined the child - and who, as it so happened, had never seen a case of smallpox before - had immediately realized what the illness might be and had notified the health authorities so that the necessary surveillance and vaccination measures could be

carried out. He recounted that episode to point out that quarantine services by themselves were not adequate, that rapid diagnosis was essential and that it was imperative to provide for prompt notification and appropriate containment measures.

Referring to smallpox vaccination in the less developed areas of the world, he said that President Mobutu of the Democratic Republic of the Congo had initiated an extensive campaign against trypanosomiasis and, to that end, was collaborating closely with certain European organizations, including one in Belgium. The fifteen teams established to combat that disease would also perform smallpox vaccinations. At the same time, all the health organizations in the country were planning to appeal for volunteers to undertake intensive smallpox vaccination programmes.

Dr HENDERSON (Smallpox Eradication) agreed that the problems inherent in smallpox eradication were quite different from those in malaria eradication. Normally, he was inclined to be somewhat conservative about the term "eradication" but he felt that smallpox was one area where it was a valid goal.

Dr Juricic had pointed out, and rightly so, that there was virtually no difference between the years 1960 and 1968 in regard to the incidence of smallpox. In the past two years, however, the Secretariat had concentrated on developing its reporting system, as a result of which at least 25 000 cases had been reported in 1968 that would not have been otherwise. If the emphasis of the programme had been solely on the number of vaccinations performed and no effort had been made to improve reporting, 1968 would perhaps have been a record low year in reported incidence. However, attention had to be paid to the number of cases that occurred, since the aim was to eradicate the disease.

He also agreed that the Organization's programme had not yet achieved the desired tempo: though it was estimated that, in 1968, 20 per cent. of the population in 27 endemic countries, with a total population of approximately one thousand million, would be vaccinated, it was hoped eventually to increase that percentage by half as much again. In Brazil alone, an average of almost two million vaccinations a month were being performed, in addition to some 10 million being carried out in the course of routine and maintenance programmes. In Pakistan, however, which reported a very high rate of vaccination, smallpox continued to occur, clearly illustrating the need for additional measures and for ensuring that those most at risk were vaccinated. Following studies by the Secretariat, it had become apparent that surveillance and containment measures were at least as important as systematic vaccination.

On the question of vaccine supplies which had been raised by several members, he said that it was rather difficult to estimate needs. In view of the fairly heavy investment required for vaccine production, a vaccine laboratory, to be viable, should produce about 10 million doses a year. All endemic countries requiring that much vaccine had vaccine laboratories. It would therefore be better to develop the facilities of existing laboratories to supply neighbouring countries, than to establish new laboratories. The Secretariat considered it vital to ensure sufficient supplies of potent vaccine and had devoted much effort in that direction, but existing supplies were barely adequate: if one or two major vaccine producers ran into difficulties, even for a short time, the position would be very precarious. Additional supplies and donations were therefore urgently needed. The bifurcated needle helped to conserve vaccine but did not provide the whole answer. In that connexion, he mentioned that WHO had bought a large number of bifurcated needles which it could make available to countries upon request. Originally it had been assumed that the bifurcated needle was good for 10 vaccinations only but studies from the field showed that it had been used successfully for more than 200 times and the supplies available would therefore appear to be greater than anticipated.

Referring to Professor Tatočenko's question on persistently troublesome areas in Africa, he said that a meeting dealing with smallpox in West Africa had been held in January 1969. The main problem appeared to be surveillance but that was being dealt with by enlisting the

help of the local health services, missionaries and others to improve the reporting. In West Africa, the problem of surveillance was most difficult in northern Nigeria, where there was a large population. The Democratic Republic of the Congo was a second problem area, that country being the major endemic focus in Central Africa at the present time. WHO was assisting the programme started in the Congo in 1968 but, thus far, insufficient progress had been made and more staff and support were needed. But by far the worst problem - and one whose solution had yet to be found - was posed by Ethiopia where a smallpox eradication programme had not even been planned. In 1968 and 1969, cases of smallpox had spread from that country into Sudan and other adjacent countries. If the Ethiopian situation persisted, it would cause a great deal of disruption in the adjacent countries, where intensive vaccination programmes and surveillance measures would have to be undertaken.

On Professor Tatočenko's question as to the Organization's future strategy, he said that every effort was being made to ensure that, by the time the incidence of the disease dropped, the national health services would have a built-in surveillance component. Such integration should not be too difficult to achieve but it would vary in degree from country to country. As countries became smallpox-free, consideration was also being given to combining smallpox and measles or BCG vaccinations.

In conclusion, he stressed the need for additional financial support for WHO's programme and for more research into all aspects of smallpox control.

The DIRECTOR-GENERAL said that he was always a little concerned about over-optimism. Experience had shown that the operation in question was not a simple one; he doubted whether it could really be said that everything was known about the ecology of smallpox. What was really important was the future of all the services involved. It was not easy to transform those involved in eradication campaigns into permanent health services. Professor Tatočenko had put his finger on the question: smallpox vaccination was a very simple technique; but to transfer the people carrying it out into part of a basic health service would need careful planning, training and development which were not easy. It should not be forgotten that many countries did not regard smallpox as one of the most important national problems, although it was an extremely important problem internationally. He did not wish his remarks to be interpreted as a lack of faith in the importance of smallpox eradication activities but it was essential to be realistic.

Sir George GODBER said that, in the light of the Director-General's remarks, it seemed highly probable that the time would come when, although smallpox would still exist, it would involve countries in comparatively little expenditure and the greater part of the world population would be free from any ostensible threat of smallpox. There would be a time when it was important to maintain some resistance in the population, but when the application of live vaccine - which was uncomfortable and sometimes dangerous - might be difficult to justify. He wondered whether any work was being carried out on a killed antigen which could be combined with other types of immunization.

Dr HENDERSON (Smallpox Eradication) said that some work was being done on inactivated antigen, but concern was felt in the light of what had occurred with measles vaccine, where a killed antigen had been used, followed by a live antigen, with somewhat unpleasant reactions. The present tendency was to look towards a more attenuated strain of the live vaccine. One such strain was at present under study and a large field study was being started. The vaccine in question had not induced as good an antibody response as was induced by vaccines currently in use, but it was possible that the attenuated vaccine might first be given, followed by one of the contemporary vaccines, in a two-stage procedure. Development of such a vaccine would take some time, as would field testing, since it would be necessary to observe a large number of people. Also, concern was felt as to how protective such a vaccine might be and how to test it to ensure that it would protect the individual.

Dr PAYNE, Assistant Director-General, referring to some earlier remarks by Sir George Godber and Sir William Refshauge, said that reliance on international quarantine was an old idea which involved trying to build a barrier round a country by means of vaccination certificates - which were unfortunately known to be of little value. At the present time, with large-capacity jet planes coming into service, 400 or 500 people could move from a smallpox endemic area straight into the centre of another country. What was important was to build up in the medical profession of the countries concerned diagnostic networks and a consciousness of the risk that a certain type of pox disease might be smallpox, together with the necessary laboratory facilities to ensure that the containment services - which already existed in the highly developed countries - came into action promptly. In his opinion - which was confirmed by the new draft international quarantine regulations - the trend should be increasingly towards defence against extraneous disease in depth rather than the idea of maintaining a somewhat ineffectual barrier round the edge of a country.

Dr MONDET asked whether the cases that had been referred to had been confirmed by laboratory diagnosis.

Dr AZURIN said that no mention had been made in the discussions of keeping up a level of immunity in non-endemic countries. Was that being discouraged or was it being overlooked? He wondered whether it would not be desirable for certain areas in non-endemic countries to be designated as priority areas for keeping up a level of immunity. It had been pointed out that importation of cases, which would be a threat to such countries, would continue. That was true. It was also true that certificates would continue to be issued, even in all good faith, which might be useless because of the many factors involved in vaccination, such as storage affecting the quality of the vaccination.

Dr HENDERSON (Smallpox Eradication), replying to Dr Mondet, said that comparatively few cases were confirmed by laboratories. Experience showed that in endemic areas clinical diagnosis was satisfactory and undue laboratory work was not encouraged. It was in countries with very few cases that laboratory work was really important. In a country like Argentina, for example, it was essential to confirm and check every case with a reliable laboratory and to see that the clinical diagnosis was confirmed.

Dr Azurin had touched on a vital point: countries adjacent to endemic areas ran the risk of the introduction of smallpox. The problem for WHO was limited funds; it had studied the problem and felt that priority attention had to be given to attacking the problem at its source in endemic countries, although some assistance was being given to countries at particular risk. One of the best defences for smallpox-free countries was an alert mechanism to investigate suspect cases. Vaccination would impede transmission of the disease in a highly immune population, but no population could be sufficiently immune to prevent spread of the disease completely. The emphasis, therefore, was on a surveillance and containment operation in the countries concerned. In that connexion he mentioned that a survey of the vaccination status in a number of non-endemic south-east Asian countries to ascertain the percentage of people with vaccination scars showed that where cases had been imported the disease had been arrested very promptly. Three of the countries in question, Ceylon, Malaysia and Thailand, were very close to endemic areas and had a very poor vaccination status in some areas - between 10 per cent. and 25 per cent. of children under five years of age being the only ones vaccinated - but still remained free from smallpox. While the situation was one which was not to be advocated, the effect was that even with poor immunity and health services not too well developed, those countries kept free from smallpox by alert containment action.

He agreed with Dr Payne that containment and surveillance were the key aspects and should be given particular attention. Prompt action prevented the spread of the disease.

Dr STREET referred to the problem of building up the level of immunity in non-endemic areas. His country was concerned with maintaining a high level of immunity in the population, particularly in view of the large-capacity jet planes that would soon come into service, since

the country's economy depended to a great extent on incoming traffic. He was particularly concerned about immigrants producing certificates of questionable validity, for example, certificates dated the same day as the administration of the vaccine. He hoped that consideration would be given to the problem of reliability of certificates.

Dr MONDET said that perhaps his question had not been clearly phrased. He wished to know whether, in countries such as Belgium or the United Kingdom, where only imported cases of smallpox were known, those cases were confirmed by laboratory diagnosis. Clinical diagnosis was not easy in such countries, and there was a risk of confusing smallpox with certain forms of chickenpox.

Sir George GODBER, referring to Dr Mondet's question, said that the United Kingdom had arrangements by which electron microscope diagnosis could be made in a matter of minutes, and gel-diffusion tests could be made in a few hours. But reliance was always placed on virus culture for at least the first and second generation cases. He cited the finding of a first case of smallpox in a particular area in a family in which two other children had chickenpox. It was impossible to rely merely on clinical diagnosis. Taped talks were available illustrated by colour slides which could be made available to all doctors in any area where a suspect case of smallpox occurred.

Professor GOOSSENS said that laboratory diagnosis was made in Belgium under the same conditions as those described by Sir George Godber.

The CHAIRMAN said WHO had accomplished a great deal and that the chances of success were greater than in some other cases. Nevertheless, he agreed with the Director-General on the need for caution. He recalled that the programme, which had been adopted two years earlier, was based on a period of 10 years and included in the regular budget. It was clear that methods and strategy would need some modification. The discussion had been both useful and instructive and the Board and the Health Assembly should continue to follow up the development of the programme and be ready to discuss it in detail whenever necessary. He suggested that the Rapporteur and the Secretariat should prepare a draft resolution on the basis of the discussion.

It was so agreed. (See summary record of the twelfth meeting, section 3.)



EXECUTIVE BOARD

Forty-third Session

SUMMARY RECORD OF THE TWELFTH MEETING

WHO Headquarters, Geneva
Tuesday, 25 February 1969, at 9.30 a.m.

CHAIRMAN: Dr J. C. AZURIN

CONTENTS

	<u>Page</u>
3. Smallpox eradication programme (continued from the eleventh meeting, section 3)	196

Twelfth MeetingTuesday, 25 February 1969, at 9.30 a.m.

<u>Present</u>	<u>Designating Country</u>
Dr J. C. AZURIN, <u>Vice-Chairman</u>	Philippines
Dr M. P. OTOLORIN, <u>Vice-Chairman</u>	Nigeria
Dr K. B. N'DIA, <u>Rapporteur</u>	Ivory Coast
Dr S. P. W. STREET, <u>Rapporteur</u>	Jamaica
Dr Y. H. AHMED	Somalia
Dr J. ANOUTI	Lebanon
Professor E. AUJALEU	France
Dr P. DOLGOR (alternate to Dr B. Demberel)	Mongolia
Sir George GODBER	United Kingdom of Great Britain and Northern Ireland
Dr E. GONZÁLEZ	Panama
Professor J. F. GOOSSENS	Belgium
Dr C. K. HASAN	Pakistan
Dr B. JURICIC	Chile
Dr I. S. KADAMA	Uganda
Dr H. M. EL-KADI	United Arab Republic
Dr B. D. B. LAYTON	Canada
Professor L. von MANGER-KOENIG	Federal Republic of Germany
Dr A. F. MONDET	Argentina
Professor I. MORARU	Romania
Dr PE KYIN	Burma
Sir William REFSHAUGE	Australia
Professor B. REXED	Sweden
Professor V. K. TATOČENKO (alternate to Dr D. D. Venediktov)	Union of Soviet Socialist Republics

Secretary: Dr M. G. CANDAU
Director-General

3. SMALLPOX ERADICATION PROGRAMME: Item 2.4 of the Agenda (continued from the eleventh meeting, section 3)

At the CHAIRMAN'S request, Dr STREET, Rapporteur, read out the following text of the proposed draft resolution on smallpox eradication:

¹ Resolution EB43.R20.

The Executive Board,

Having considered the report of the Director-General on the smallpox eradication programme,

Noting that, while significant progress is being made in the eradication effort, not all endemic countries have yet initiated programmes and that in some countries, programmes are not yet proceeding at the pace necessary to assure success in the effort; and

Noting the importance of more complete and prompt reporting of cases and improved surveillance techniques,

1. REITERATES the need for all countries to give the highest possible priority to the provision of funds and personnel to achieve eradication;
2. REQUESTS Member States to provide continued support to the programme, including vaccine, and assistance in the context of bilateral aid;
3. REQUESTS all countries with endemic smallpox to strengthen their programmes through more intensive surveillance, assessment, and case investigation activities;
4. REQUESTS endemic countries in particular to take special care to ensure that only freeze-dried vaccine is employed which meets the potency requirements established by WHO;
5. REQUESTS the Director-General to continue to take all necessary steps to assure the maximum co-ordination of national efforts as well as support provided through international and bilateral agencies, with the objective of achieving smallpox eradication as quickly as possible;
6. REQUESTS the Director-General to report on the progress of the smallpox eradication programme to the Twenty-second World Health Assembly and to the forty-fifth session of the Executive Board.

Dr GONZÁLEZ said that in the Spanish text the words "países de viruela endémica" in the second paragraph of the preamble, and the words "países endémicos" in paragraph 4, should both be replaced by the words "países donde la viruela es endémica".

Sir George GODBER asked if it was necessary in the last operative paragraph to specify the sessions of the Health Assembly and the Executive Board to which the Director-General was to report. He proposed that that be left to the Director-General's discretion.

Dr MONDET supported the comment made by Sir George Godber. The Director-General must have time to evaluate properly the statistics for 1968.

Professor TATOČENKO disagreed with the previous speakers. The report was already complete except for certain figures which could be inserted before the Health Assembly's next session. The report described one of the major programmes undertaken by the Organization and drew Members' attention to a number of problems still to be solved. Operative paragraph 6 should remain unchanged.

The DIRECTOR-GENERAL said that Sir George Godber had raised an important point. If each year there was a request for reports on special items, it would never be possible to reduce the working time of the Health Assembly's Committee on Programme and Budget. Reference to resolution WHA21.21 would show that the Health Assembly had not specified the sessions to which his report was to be submitted. In his opinion, the Secretariat should report to the Health Assembly and the Board when it had something to report. He suggested that in its resolution the Board should adopt the wording of operative paragraph 8(b) of resolution WHA21.21.

The DEPUTY DIRECTOR-GENERAL said that, if Sir George Godber's proposal was adopted, operative paragraph 6 of the draft resolution under consideration should read as follows:

6. REQUESTS the Director-General to report further on the progress of the smallpox eradication programme to the World Health Assembly and the Executive Board.

Dr MONDET said that the text as amended implied that the Director-General would report to the Health Assembly any further information that might be available to him at that time.

The CHAIRMAN put to the vote the text of operative paragraph 6, as amended.

Decision: The amendment was adopted by 19 votes to one with one abstention.

The CHAIRMAN suggested that in the absence of further comments the draft resolution, as amended, should be adopted.

Decision: The draft resolution, as amended, was adopted.¹

¹ Resolution EB43.R21.