The following abbreviations are used in the *Official Records of the World Health Organization*:

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<tr>
<td>ACABQ</td>
<td>Advisory Committee on Administrative and Budgetary Questions</td>
</tr>
<tr>
<td>ACC</td>
<td>Administrative Committee on Co-ordination</td>
</tr>
<tr>
<td>CCTA</td>
<td>Commission for Technical Cooperation in Africa</td>
</tr>
<tr>
<td>CIOMS</td>
<td>Council for International Organizations of Medical Sciences</td>
</tr>
<tr>
<td>ECA</td>
<td>Economic Commission for Africa</td>
</tr>
<tr>
<td>ECAFE</td>
<td>Economic Commission for Asia and the Far East</td>
</tr>
<tr>
<td>ECE</td>
<td>Economic Commission for Europe</td>
</tr>
<tr>
<td>ECLA</td>
<td>Economic Commission for Latin America</td>
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<tr>
<td>EPTA</td>
<td>Expanded Programme of Technical Assistance</td>
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<tr>
<td>FAO</td>
<td>Food and Agriculture Organization</td>
</tr>
<tr>
<td>IAEA</td>
<td>International Atomic Energy Agency</td>
</tr>
<tr>
<td>ICAO</td>
<td>International Civil Aviation Organization</td>
</tr>
<tr>
<td>ILO</td>
<td>International Labour Organisation (Office)</td>
</tr>
<tr>
<td>IMCO</td>
<td>Inter-Governmental Maritime Consultative Organization</td>
</tr>
<tr>
<td>ITU</td>
<td>International Telecommunication Union</td>
</tr>
<tr>
<td>PAHO</td>
<td>Pan American Health Organization</td>
</tr>
<tr>
<td>PASB</td>
<td>Pan American Sanitary Bureau</td>
</tr>
<tr>
<td>TAB</td>
<td>Technical Assistance Board</td>
</tr>
<tr>
<td>TAC</td>
<td>Technical Assistance Committee</td>
</tr>
<tr>
<td>UNESCO</td>
<td>United Nations Educational, Scientific and Cultural Organization</td>
</tr>
<tr>
<td>UNICEF</td>
<td>United Nations Children's Fund</td>
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<tr>
<td>UNRWA</td>
<td>United Nations Relief and Works Agency for Palestine Refugees in the Near East</td>
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<tr>
<td>UNSCEAR</td>
<td>United Nations Scientific Committee on the Effects of Atomic Radiation</td>
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<tr>
<td>WFUNA</td>
<td>World Federation of United Nations Associations</td>
</tr>
<tr>
<td>WMO</td>
<td>World Meteorological Organization</td>
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The designations employed and the presentation of the material in the *Official Records of the World Health Organization* do not imply the expression of any opinion whatsoever on the part of the Director-General concerning the legal status of any country or territory or of its authorities, or concerning the delimitation of its frontiers.
The Eighteenth World Health Assembly, held at the Palais des Nations, Geneva, from 4 to 21 May 1965, was convened in accordance with resolution WHA17.28 of the Seventeenth World Health Assembly and resolution EB34.R14 of the Executive Board (thirty-fourth session).

The proceedings of the Eighteenth World Health Assembly are being published in two parts. The resolutions, with annexes, are contained in this volume. The records of plenary and committee meetings will be printed, along with the list of participants, agenda and other material, in Official Records No. 144.
In this volume the resolutions are reproduced in the numerical order in which they were adopted. However, in order to facilitate the use of the volume in conjunction with the *Handbook of Resolutions and Decisions*, they have been grouped by title in the table of contents under the subject headings of the *Handbook*. There has also been added, beneath each resolution, a reference to the section of the *Handbook* containing previous resolutions on the same subject. The seventh edition of the *Handbook*—which is indexed both by subject and by resolution symbol—contains most of the resolutions adopted up to and including the Sixteenth World Health Assembly and the thirty-second session of the Executive Board. An eighth edition is in preparation.

The following reference list of sessions of the Health Assembly and Executive Board shows the resolution symbol applicable to each session and the *Official Records* volume in which the resolutions were originally published.

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WHA18.1 Provisional Amendments to the Rules of Procedure of the World Health Assembly

The Eighteenth World Health Assembly

PROVISIONALLY ADOPTS the following amendments to its Rules of Procedure, subject to such reconsideration of the text of these amendments as may be necessary in the course of the session:

Rule 75 (bis)

When the Health Assembly votes by secret ballot, the ballot itself and the check of the number of ballot papers shall take place in plenary meeting. Unless the Health Assembly determines otherwise the counting of votes shall take place in a separate room to which delegations may have access. This counting shall take place under the supervision of the President or of one of the Vice-Presidents of the Health Assembly. The Health Assembly may proceed with its work during the period before the results of the ballot can be announced.

Rule 80

Subject to any decision of the Health Assembly the procedure governing the conduct of business and voting by committees shall conform as far as practicable to the Rules relative to the conduct of business and voting in plenary meetings. One third of the members of a committee shall constitute a quorum. The presence of a majority of a committee shall, however, be required for a question to be put to a vote.

Third plenary meeting, 5 May 1965

WHA18.2 Award of a Prize for Research Work on Mental Subnormality

The Eighteenth World Health Assembly,

Recalling resolution EB34.R22 of the Executive Board; and
Noting the report of the Selection Committee,

DECIDES to award the prize of Dutch florins 2200, for work in the field of research on mental subnormality, to Professor L. S. Penrose.

Fifth plenary meeting, 6 May 1965

WHA18.3 Development of the Malaria Eradication Programme

The Eighteenth World Health Assembly,

Having considered the report of the Director-General;

Noting that the population of the areas in the maintenance and consolidation phases freed from the risk of endemic malaria now amounts to about 813 millions or 52 per cent. of the population of the originally malarious areas of the world;

1 See also resolution WHA18.22.
3 Words in italics indicate the amendments.
4 See Annex 4.
5 See Annex 11.
Noting the progress that has been made in pre-eradication programmes and the stimulus these programmes have given towards the development of a network of rural health services in the countries concerned;

Appreciating the steps that have been taken to intensify investigations with a view to determining the means of fully interrupting the transmission of malaria in problem areas; and

Recognizing that, as malaria ceases to constitute a public health problem in a country, there is still a need for constant vigilance and for an awareness of the danger of re-establishment of the disease,

1. **URGES** governments undertaking pre-eradication programmes to give priority to the country-wide development of a network of rural health services to sustain the malaria eradication programme;

2. **URGES** international agencies and governments providing bilateral assistance to give priority support to meet the extensive needs of such programmes, particularly in the training of personnel and the provision of supplies;

3. **REQUESTS** the Director-General to bring up to date his report on the financial part of the study of the malaria eradication programme carried out in accordance with paragraph 4 of resolution WHA16.23, for submission to a future Health Assembly, bringing out the need for continued assistance from WHO during the maintenance phase of malaria eradication programmes;

4. **REQUESTS** the Director-General to increase the amount of the budget for research with a view to intensifying investigations for determining the means of fully interrupting the transmission of malaria in problem areas;

5. **URGES** governments of countries which have reached an advanced stage in their malaria eradication programmes to take steps to encourage or ensure the collaboration of all medical and health personnel in vigilance against the re-establishment of the disease; and

6. **URGES** governments of all countries to ensure adequate teaching on both the clinical and public health aspects of malaria and requests the co-operation of universities and schools of medicine and public health in this regard.

Handb. Res., 7th ed., 1.4.2

**Eighth plenary meeting, 12 May 1965 (Committee on Programme and Budget, first report)**

**WHA18.4 Committee on International Quarantine: Thirteenth Report**

The Eighteenth World Health Assembly,

Having considered the thirteenth report of the Committee on International Quarantine,¹

1. **THANKS** the members of the Committee for their work; and

2. **ADOPTS** the thirteenth report of the Committee on International Quarantine.

Handb. Res., 7th ed., 1.5.8.4

**Eighth plenary meeting, 12 May 1965 (Committee on Programme and Budget, first report)**

**WHA18.5 Additional Regulations of 12 May 1965 amending the International Sanitary Regulations, in particular with respect to Disinsecting of Ships and Aircraft, and Appendices 3 and 4 (Forms of the International Certificates of Vaccination or Revaccination against Yellow Fever and against Smallpox)**

The Eighteenth World Health Assembly,

Considering the need for the amendment of certain of the provisions of the International Sanitary Regulations; and

Having regard to Articles 2(k), 21(a) and 22 of the Constitution of the World Health Organization,

ADOPTS, this 12 May 1965, the following Additional Regulations:

¹ See Annex 1.
ARTICLE 1

In the following articles and in Appendices 3 and 4 of the International Sanitary Regulations, there shall be made the amendments listed below:

Article 73
(The English text remains unchanged.)

Article 96
In paragraph 1, after the words “shall ascertain the state of health on board, and”, insert the words: “, except when a health administration does not require it,”.
In paragraph 2, delete the word “further”.

Article 97
In paragraph 2, delete the word “further”.

Article 102 (deleted by the Additional Regulations of 1956)
Insert as a new Article 102 the following:

1. Every ship or aircraft leaving a local area where transmission of malaria or other mosquito-borne disease is occurring, or where insecticide-resistant mosquito vectors of disease are present, shall be disinfected under the control of the health authority as near as possible to the time of its departure but in sufficient time to avoid delaying such departure.

2. On arrival in an area where malaria or other mosquito-borne disease could develop from imported vectors, the ship or aircraft mentioned in paragraph 1 of this Article may be disinfected if the health authority is not satisfied with the disinfestation carried out in accordance with paragraph 1 of this Article or it finds live mosquitos on board.

3. The States concerned may accept the disinfestation in flight of the parts of the aircraft which can be so disinfected.

Article 105
In paragraph 1(j), delete the words “except paragraph 2 of Article XVII”.

Appendix 3: International Certificate of Vaccination or Revaccination against Yellow Fever

After the words “The validity of this certificate shall extend for a period of”, delete the words “six years” and insert the words “ten years”.

After the words “within such period of”, delete the words “six years” and insert the words “ten years”.

After the words “La validité de ce certificat couvre une période de”, delete the words “six ans” and insert the words “dix ans”.

After the words “au cours de cette période de”, delete the words “six ans” and insert the words “dix ans”.

Appendix 4: International Certificate of Vaccination or Revaccination against Smallpox

After the words “has on the date indicated been vaccinated or revaccinated against smallpox”, insert the words “with a freeze-dried or liquid vaccine certified to fulfil the recommended requirements of the World Health Organization”.

After the words “a été vacciné(e) ou revacciné(e) contre la variole à la date indiquée”, insert the words “ci-dessous, avec un vaccin lyophilisé ou liquide certifié conforme aux normes recommandées par l’Organisation mondiale de la Santé”.

Delete the “box” in this Appendix and replace by:

1 See Annex 2.
ARTICLE II

1. The period of validity of an international certificate of vaccination or revaccination against yellow fever issued before the entry-into-force of these Additional Regulations is hereby extended from six years to ten years.

2. Upon the entry-into-force of these Additional Regulations, the form of certificate of vaccination or revaccination against smallpox set forth in Appendix 4 of the International Sanitary Regulations may continue to be issued until the first day of January 1967. A certificate of vaccination so issued shall thereafter continue to be valid for the period for which it was previously valid.

ARTICLE III

The period provided in execution of Article 22 of the Constitution of the Organization for rejection or reservation shall be three months from the date of the notification by the Director-General of the adoption of these Additional Regulations by the World Health Assembly.

ARTICLE IV

These Additional Regulations shall come into force on the first day of January 1966.

ARTICLE V

The following final provisions of the International Sanitary Regulations shall apply to these Additional Regulations: paragraph 3 of Article 106, paragraphs 1 and 2 and the first sentence of paragraph 5 of 107, 108 and paragraph 2 of 109, substituting the date mentioned in Article IV of these Additional Regulations for that mentioned therein, 110 to 113 inclusive.

IN FAITH WHEREOF we have set our hands at Geneva this twelfth day of May 1965.

V. V. OLGUÍN
President of the Eighteenth World Health Assembly

M. G. CANDAU
Director-General of the World Health Organization


Eighth plenary meeting, 12 May 1965 (Committee on Programme and Budget, first report)
WHA18.6 Joint FAO/WHO Food Standards Programme (Codex Alimentarius)

The Eighteenth World Health Assembly,

Having considered the report of the Director-General on the Joint FAO/WHO Food Standards Programme (Codex Alimentarius) presented to the Executive Board at its thirty-fifth session,

DECIDES that, following the recommendation of the Executive Board at its thirty-fifth session (resolution EB35.R11), the cost of WHO’s share of the Joint FAO/WHO Food Standards Programme should be provided for in the regular budget of the Organization beginning with the financial year 1966.

Handb. Res., 7th ed., 1.7.3.2 Eighth plenary meeting, 12 May 1965 (Committee on Programme and Budget, first report)

WHA18.7 International Standards and Units for Biological Substances

The Eighteenth World Health Assembly,

Considering Articles 2(u), 21(d) and (e) and 23 of the Constitution; and

Considering resolution WHA3.8 adopted by the Third World Health Assembly, recommending the adoption of certain international standards and units for biological substances,

1. RECOMMENDS

(a) that Member States of the Organization recognize officially the international standards and units enumerated in the list below, which supersedes the list recommended in resolution WHA3.8:

<table>
<thead>
<tr>
<th>International Standards</th>
<th>International Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Old tuberculin (Second Standard)</td>
<td>0.0100 µl</td>
</tr>
<tr>
<td>Purified protein derivative of avian tuberculin</td>
<td>0.0000726 mg</td>
</tr>
<tr>
<td>Tetanus toxoid, plain</td>
<td>0.03 mg</td>
</tr>
<tr>
<td>Diphtheria toxoid, plain</td>
<td>0.50 mg</td>
</tr>
<tr>
<td>Diphtheria toxoid, adsorbed</td>
<td>0.75 mg</td>
</tr>
<tr>
<td>Schick test toxin (diphtheria)</td>
<td>0.0042 mg</td>
</tr>
<tr>
<td>Pertussis vaccine</td>
<td>1.5 mg</td>
</tr>
<tr>
<td>Swine erysipelas vaccine</td>
<td>0.50 mg</td>
</tr>
<tr>
<td>Newcastle disease vaccine (inactivated)</td>
<td>1.0 mg</td>
</tr>
<tr>
<td>Tetanus antitoxin</td>
<td>0.3094 mg</td>
</tr>
<tr>
<td>Diphtheria antitoxin</td>
<td>0.0628 mg</td>
</tr>
<tr>
<td>Antidysentery serum (Shiga)</td>
<td>0.05 mg</td>
</tr>
<tr>
<td>Gas-gangrene antitoxin (perfringens)</td>
<td></td>
</tr>
<tr>
<td>Type A antitoxin (Fifth Standard)</td>
<td>0.3346 mg</td>
</tr>
<tr>
<td>Gas-gangrene antitoxin (vibrio septique)</td>
<td>0.118 mg</td>
</tr>
<tr>
<td>Gas-gangrene antitoxin (oedematiens)</td>
<td>0.1135 mg</td>
</tr>
<tr>
<td>Gas-gangrene antitoxin (histolyticus)</td>
<td>0.2 mg</td>
</tr>
<tr>
<td>Gas-gangrene antitoxin (Sordelli)</td>
<td>0.1334 mg</td>
</tr>
<tr>
<td>Staphylococcus α antitoxin (Second Standard)</td>
<td>0.2376 mg</td>
</tr>
<tr>
<td>Scarlet fever streptococcus antitoxin</td>
<td>0.049 mg</td>
</tr>
<tr>
<td>Antipneumococcus serum (Type 1)</td>
<td>0.0886 mg</td>
</tr>
<tr>
<td>Antipneumococcus serum (Type 2)</td>
<td>0.0894 mg</td>
</tr>
<tr>
<td>Anti-streptolysin O</td>
<td>0.0213 mg</td>
</tr>
<tr>
<td>Anti-Q-fever serum</td>
<td>0.1017 mg</td>
</tr>
<tr>
<td>Antirabies serum</td>
<td>1.0 mg</td>
</tr>
<tr>
<td>Anti-A blood-typing serum</td>
<td>0.3465 mg</td>
</tr>
<tr>
<td>Anti-B blood-typing serum</td>
<td>0.3520 mg</td>
</tr>
<tr>
<td>Syphilitic human serum</td>
<td>3.617 mg</td>
</tr>
<tr>
<td>Antipoliovirus serum (Type 1)</td>
<td>10.78 mg</td>
</tr>
<tr>
<td>Antipoliovirus serum (Type 2)</td>
<td>10.46 mg</td>
</tr>
<tr>
<td>Antipoliovirus serum (Type 3)</td>
<td>10.48 mg</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>International Standards</th>
<th>International Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clostridium botulinum Type A antitoxin</td>
<td>0.1360 mg</td>
</tr>
<tr>
<td>Clostridium botulinum Type B antitoxin</td>
<td>0.1740 mg</td>
</tr>
<tr>
<td>Clostridium botulinum Type C antitoxin</td>
<td>0.0800 mg</td>
</tr>
<tr>
<td>Clostridium botulinum Type D antitoxin</td>
<td>0.0121 mg</td>
</tr>
<tr>
<td>Clostridium botulinum Type E antitoxin</td>
<td>0.0691 mg</td>
</tr>
<tr>
<td>Naja antivenin</td>
<td>2.69 mg</td>
</tr>
<tr>
<td>Clostridium welchii (perfringens) Type B antitoxin</td>
<td>0.0137 mg</td>
</tr>
<tr>
<td>Clostridium welchii (perfringens) Type D antitoxin</td>
<td>0.0657 mg</td>
</tr>
<tr>
<td>Swine erysipelas serum (anti-N)</td>
<td>0.14 mg</td>
</tr>
<tr>
<td>Anti-Brucella abortus serum</td>
<td>0.091 mg</td>
</tr>
<tr>
<td>Anti-swine-fever serum</td>
<td>0.89 mg</td>
</tr>
<tr>
<td>Penicillin (Second Standard)</td>
<td>0.0005988 mg</td>
</tr>
<tr>
<td>Phenoxymethylpenicillin</td>
<td>0.00059 mg</td>
</tr>
<tr>
<td>Streptomycin (Second Standard)</td>
<td>0.001282 mg</td>
</tr>
<tr>
<td>Dihydrostreptomycin</td>
<td>0.001316 mg</td>
</tr>
<tr>
<td>Bacitracin (Second Standard)</td>
<td>0.01351 mg</td>
</tr>
<tr>
<td>Tetracycline</td>
<td>0.00101 mg</td>
</tr>
<tr>
<td>Chlortetracycline</td>
<td>0.001 mg</td>
</tr>
<tr>
<td>Oxytetracycline</td>
<td>0.00111 mg</td>
</tr>
<tr>
<td>Erythromycin</td>
<td>0.001053 mg</td>
</tr>
<tr>
<td>Polymyxin B</td>
<td>0.000127 mg</td>
</tr>
<tr>
<td>Nystatin</td>
<td>0.000333 mg</td>
</tr>
<tr>
<td>Amphotericin B</td>
<td>0.001064 mg</td>
</tr>
<tr>
<td>Vancomycin</td>
<td>0.000993 mg</td>
</tr>
<tr>
<td>Oleandomycin</td>
<td>0.001176 mg</td>
</tr>
<tr>
<td>Oxytocic, vasopressor and anti-diuretic substances (Third Standard)</td>
<td>0.5 mg</td>
</tr>
<tr>
<td>Prolactin (Second Standard)</td>
<td>0.04545 mg</td>
</tr>
<tr>
<td>Corticotrophin (Third Standard)</td>
<td>1.0 mg</td>
</tr>
<tr>
<td>Thyrotrophin</td>
<td>13.5 mg</td>
</tr>
<tr>
<td>Growth hormone</td>
<td>1.0 mg</td>
</tr>
<tr>
<td>Serum gonadotrophin</td>
<td>0.25 mg</td>
</tr>
<tr>
<td>Chorionic gonadotrophin (Second Standard)</td>
<td>0.001279 mg</td>
</tr>
<tr>
<td>Insulin (Fourth Standard)</td>
<td>0.04167 mg</td>
</tr>
<tr>
<td>Heparin (Second Standard)</td>
<td>0.0077 mg</td>
</tr>
<tr>
<td>Vitamin D$_3$ (Second Standard)</td>
<td>0.00025 mg</td>
</tr>
<tr>
<td>Hyaluronidase</td>
<td>0.1 mg</td>
</tr>
<tr>
<td>Digitalis (Third Standard)</td>
<td>76.0 mg</td>
</tr>
</tbody>
</table>

(b) that these standards and units or their equivalents be cited in the relevant national pharmacopoeias;

(c) that where applicable, these standards and units or their equivalents be recognized in relevant national regulations;

(d) that in those countries which do not possess a national pharmacopoiea or national standards the potency appearing on the labels of biological products be expressed in international units;

2. invites the Director-General to inquire periodically from Members regarding the use being made of international standards in their countries.

Handb. Res., 7th ed., 1.3.1.1


The Eighteenth World Health Assembly,

Having examined the Financial Report of the Director-General for the period 1 January to 31 December 1963 and the Report of the External Auditor for the same financial period, as contained in Official Records No. 134; and

Having considered the report of the Executive Board on its examination of these reports,


Eighth plenary meeting, 12 May 1965 (Committee on Administration, Finance and Legal Matters, first report)


The Eighteenth World Health Assembly,

Having examined the Financial Report of the Director-General for the period 1 January to 31 December 1964 and the Report of the External Auditor for the same financial period, as contained in Official Records No. 142; and

Having considered the report ¹ of the Ad Hoc Committee of the Executive Board on its examination of these reports,


Eighth plenary meeting, 12 May 1965 (Committee on Administration, Finance and Legal Matters, first report)

WHĀ18.10  Status of Collection of Annual Contributions and of Advances to the Working Capital Fund

The Eighteenth World Health Assembly

1. NOTES with satisfaction the status, as at 30 April 1965, of the collection of annual contributions and of advances to the Working Capital Fund, as reported by the Director-General;

2. CALLS THE ATTENTION of Members to the importance of paying their annual contributions as early as possible in the Organization's financial year, in order that the approved annual programme can be carried out as planned;

3. URGES Members in arrears to make special efforts to liquidate their arrears during 1965; and

4. REQUESTS the Director-General to communicate this resolution to Members in arrears and to draw attention to the fact that continued delay in payment could have serious financial implications for the Organization.

Handb. Res., 7th ed., 7.1.2.4

Eighth plenary meeting, 12 May 1965 (Committee on Administration, Finance and Legal Matters, first report)

WHĀ18.11  Supplementary Budget Estimates for 1965

The Eighteenth World Health Assembly,

Having considered the proposals of the Director-General and the recommendations of the Executive Board concerning supplementary budget estimates for 1965,²

1. APPROVES the supplementary estimates for 1965;

¹ See Annex 5.
2. DECIDES to amend the Appropriation Resolution for 1965 (resolution WHA17.18) by including under Part IV (Other Purposes) an additional section: "Appropriation Section 12 — African Regional Office Building Fund"; by renumbering Appropriation Section 12 (Undistributed Reserve) under Part V (Reserve) as "Appropriation Section 13 — Undistributed Reserve"; and by increasing the amounts voted under paragraph I as follows:

<table>
<thead>
<tr>
<th>Appropriation Section</th>
<th>Purpose of Appropriation</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>US $</td>
</tr>
<tr>
<td><strong>PART I: ORGANIZATIONAL MEETINGS</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.</td>
<td>World Health Assembly</td>
<td>15 200</td>
</tr>
<tr>
<td>2.</td>
<td>Executive Board and its Committees</td>
<td>11 300</td>
</tr>
<tr>
<td></td>
<td><strong>Total — Part I</strong></td>
<td>26 500</td>
</tr>
<tr>
<td><strong>PART II: OPERATING PROGRAMME</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>Programme Activities</td>
<td>115 300</td>
</tr>
<tr>
<td>5.</td>
<td>Regional Offices</td>
<td>18 900</td>
</tr>
<tr>
<td>6.</td>
<td>Expert Committees</td>
<td>11 000</td>
</tr>
<tr>
<td>7.</td>
<td>Other Statutory Staff Costs</td>
<td>287 950</td>
</tr>
<tr>
<td></td>
<td><strong>Total — Part II</strong></td>
<td>433 150</td>
</tr>
<tr>
<td><strong>PART III: ADMINISTRATIVE SERVICES</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td>Administrative Services</td>
<td>55 000</td>
</tr>
<tr>
<td>9.</td>
<td>Other Statutory Staff Costs</td>
<td>32 350</td>
</tr>
<tr>
<td></td>
<td><strong>Total — Part III</strong></td>
<td>87 350</td>
</tr>
<tr>
<td><strong>PART IV: OTHER PURPOSES</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12.</td>
<td>African Regional Office Building Fund</td>
<td>600 000</td>
</tr>
<tr>
<td></td>
<td><strong>Total — Part IV</strong></td>
<td>600 000</td>
</tr>
<tr>
<td></td>
<td><strong>TOTAL — PARTS I, II, III AND IV</strong></td>
<td>1 147 000</td>
</tr>
</tbody>
</table>

3. DECIDES further to amend paragraph III of resolution WHA17.18 by increasing the amounts under sub-paragraphs (iii) and (iv) by US $323 893 and US $823 107 respectively.

Handb. Res., 7th ed., 2.1

Eighth plenary meeting, 12 May 1965 (Committee on Administration, Finance and Legal Matters, first report)

WHA18.12 Accommodation for the Regional Office for Africa

The Eighteenth World Health Assembly,

Having considered the cost estimates for the extension of the African regional office building as reported by the Director-General in connexion with the supplementary budget estimates for 1965,1

1 See Annex 6.
INVITES all the Members in the African Region to make voluntary contributions as soon as possible to the African Regional Office Building Fund towards meeting the cost of the extension of the regional office accommodation.¹

Handb. Res., 7th ed., 5.2.1.2; 2.1  
Eighth plenary meeting, 12 May 1965 (Committee on Administration, Finance and Legal Matters, first report)

WHA18.13 Amendments to the Financial Regulations

The Eighteenth World Health Assembly

ADOPTS the amendment to Financial Regulation 6.2 as proposed by the Director-General, as revised and recommended by the Executive Board.²

Eighth plenary meeting, 12 May 1965 (Committee on Administration, Finance and Legal Matters, first report)

WHA18.14 Scale of Assessment for and Amount of the Working Capital Fund

The Eighteenth World Health Assembly,

Having considered the recommendations of the Executive Board on the Working Capital Fund;³ and

Having amended Financial Regulation 6.2 as recommended by the Board,⁴

A

1. DECIDES that:

   (1) Part I of the Working Capital Fund, composed of advances assessed on Members, shall be established as from 1 January 1966 in the amount of US $5,000,000, to which shall be added the assessments of any Members joining the Organization after 30 April 1965;

   (2) the advances to the Working Capital Fund shall be assessed on the basis of the 1966 scale of assessment;

   (3) the additional advances shall be due and payable prior to 31 December 1967; and

   (4) the credits due to Members shall be refunded on 1 January 1966 by applying these credits to any contributions outstanding on that date, or to the 1966 assessments;

2. REQUESTS the Member States concerned to provide in their national budgets for the payment of additional advances before 31 December 1967; and

3. AUTHORIZES the Director-General to credit the annual contributions to the budget for the years 1966 and 1967 to the budgetary income for those years notwithstanding the provisions of Financial Regulation 5.6;

B

1. DECIDES that Part II of the Working Capital Fund shall, subject to the provisions of paragraph 2 below, consist of amounts which are required to supplement the amount provided in Part I of the Working Capital Fund in order that the Fund will, at the beginning of each financial year, be equal to, but not exceed, 20 per cent. of the effective working budget for the year;

⁴ See resolution WHA18.13.
2. AUTHORIZES the Director-General to transfer from casual income to Part II of the Working Capital Fund such amounts as are necessary to bring the Working Capital Fund to the level authorized in paragraph 1 above as soon as practicable in the light of the availability of casual income; and further

3. AUTHORIZES the immediate transfer, from available casual income, of an amount of US $500,000 to Part II of the Working Capital Fund;

C

1. AUTHORIZES the Director-General to advance from the Working Capital Fund:

(1) such funds as may be necessary to finance the annual appropriations pending receipt of contributions from Members; sums so advanced shall be reimbursed to the Working Capital Fund as contributions become available;

(2) such sums as may be necessary to meet unforeseen or extraordinary expenses and to increase the relevant appropriation sections accordingly; provided that not more than US $250,000 is used for such purposes, except that with the prior concurrence of the Executive Board a total of US $1,000,000 may be used; and

(3) such sums as may be necessary for the provision of emergency supplies to Member States on a reimbursable basis; sums so advanced shall be reimbursed to the Working Capital Fund when payments are received from the Member States; provided that the total amount so withdrawn shall not exceed US $100,000 at any one time; and provided further that the credit extended to any one Member shall not exceed US $25,000 at any one time; and

2. REQUESTS the Director-General to report annually to the Health Assembly:

(1) all advances made under the authority vested in him to meet unforeseen or extraordinary expenses and the circumstances relating thereto, and to make provision in the estimates for the reimbursement of the Working Capital Fund except when such advances are recoverable from other sources; and

(2) all advances made under the authority of paragraph C1(3) for the provision of emergency supplies to Member States, together with the status of reimbursement by Members;

D

REQUESTS the Executive Board to review the assessment of advances to the Working Capital Fund at its first session in 1970 and to submit a report to the Health Assembly.

WHA18.15 Adjustment in the Scales of Assessment for 1964 and 1965: United Republic of Tanzania

The Eighteenth World Health Assembly,

Having noted the report of the Executive Board on the assessment of the United Republic of Tanzania;¹ and

Recalling that the former States of Tanganyika and Zanzibar had been assessed individually by the Health Assembly for the years 1964 and 1965,

DECIDES

(1) to cancel the present separate assessments of the former States of Tanganyika and Zanzibar for the years 1964 and 1965 and to fix the assessment of the United Republic of Tanzania for those same years at 0.04 per cent.; and

(2) to revise paragraph III of the Appropriation Resolution for 1965 (WHA17.18) by increasing the amount under sub-paragraph (iii) by US $15 760 from miscellaneous income available for that purpose and by decreasing the assessments against Members by US $15 760.

Handb. Res., 7th ed., 7.1.2.2

Eighth plenary meeting, 12 May 1965 (Committee on Administration, Finance and Legal Matters, first report)

WHA18.16 Assessment of New Members for 1965

The Eighteenth World Health Assembly,

Noting that Malawi, Malta and Zambia became Members of the Organization during 1965 by depositing with the Secretary-General of the United Nations a formal instrument of acceptance of the WHO Constitution,

DECIDES that these Members shall be assessed as follows:

<table>
<thead>
<tr>
<th>Member State</th>
<th>1965 per cent.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Malawi</td>
<td>0.04</td>
</tr>
<tr>
<td>Malta</td>
<td>0.04</td>
</tr>
<tr>
<td>Zambia</td>
<td>0.04</td>
</tr>
</tbody>
</table>

Handb. Res., 7th ed., 7.1.2.2

Eighth plenary meeting, 12 May 1965 (Committee on Administration, Finance and Legal Matters, first report)

WHA18.17 Scale of Assessment for 1966

The Eighteenth World Health Assembly

1

DECIDES that the scale of assessment for 1966 shall be as follows:

<table>
<thead>
<tr>
<th>Member</th>
<th>Scale (percentage)</th>
<th>Member</th>
<th>Scale (percentage)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Afghanistan</td>
<td>0.05</td>
<td>Cuba</td>
<td>0.18</td>
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### Table: Member Scale (percentage)

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<td></td>
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<td>Total 100.00</td>
</tr>
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</table>

### II

Considering that the WHO scale of assessment for 1966 is based on the latest available scale recommended by the United Nations Committee on Contributions,

DECIDES that, if the General Assembly of the United Nations adopts prior to 31 December 1965 a scale of assessment for 1965 different from that recommended by the United Nations Committee on Contributions, the WHO scale of assessment for 1966 should be similarly adjusted, provided, however, that such adjustments shall be taken into account in calculating the contributions to be paid by Members in respect of the budget of the Organization for the year 1967.

Handb. Res., 7th ed., 7.1.2.1

Eighth plenary meeting, 12 May 1965 (Committee on Administration, Finance and Legal Matters, second report)

### WHA18.18 Election of Members entitled to designate a Person to serve on the Executive Board

The Eighteenth World Health Assembly,

Having considered the nominations of the General Committee,¹

¹ For report of the General Committee, see Off. Rec. Wld Hlth Org. 144.
ELECTS the following as Members entitled to designate a person to serve on the Executive Board: Czechoslovakia, Guinea, India, Mexico, Morocco, Peru, United States of America, and Yemen.

Handb. Res., 7th ed., 4.2.1

Eighth plenary meeting, 12 May 1965

WHA18.19 Effective Working Budget and Budget Level for 1966

The Eighteenth World Health Assembly

DECIDES that:

(1) the effective working budget for 1966 shall be US $42,442,000;
(2) the budget level shall be established in an amount equal to the effective working budget as provided in paragraph (1) above, plus the assessments represented by the Undistributed Reserve; and
(3) the budget for 1966 shall be financed by assessments on Members after deducting
   (i) the amount of US $985,000 available by reimbursement from the Special Account of the Expanded Programme of Technical Assistance; and
   (ii) the amount of US $552,000 available as casual income for 1966.

Handb. Res., 7th ed., 2.1

Ninth plenary meeting, 13 May 1965 (Committee on Programme and Budget, third report)

WHA18.20 Annual Report of the Director-General for 1964

The Eighteenth World Health Assembly,

Having reviewed the Report of the Director-General on the work of WHO during 1964,¹

1. NOTES with satisfaction the manner in which the programme was planned and carried out in 1964, in accordance with the established policies of the Organization; and
2. COMMENDS the Director-General for the work accomplished.


Ninth plenary meeting, 13 May 1965

WHA18.21 Members in Arrears in the Payment of their Contributions to an Extent which may invoke Article 7 of the Constitution

The Eighteenth World Health Assembly,

Having considered the reports of the Executive Board and of its Ad Hoc Committee on Member States in arrears in the payment of their contributions to an extent which may invoke Article 7 of the Constitution;

Noting the explanations provided by the Member States in arrears subsequent to the report of the Ad Hoc Committee; and

Reiterating the provisions of resolutions WHA8.13, WHA16.20 and WHA17.33,

1. DECIDES not to suspend the voting rights of Haiti and Uruguay at the Eighteenth World Health Assembly;

¹ Off. Rec. Wld Hlth Org. 139.
² See Annex 7.
2. **EXPRESSIONS** the conviction that these Member States will regularize their situation so that it need not be considered once again at the Nineteenth World Health Assembly; and

3. **REQUESTS** the Director-General to communicate the text of this resolution to the Member States concerned.

Handb. Res., 7th ed., 7.1.2.4

*Tenth plenary meeting, 17 May 1965 (Committee on Administration, Finance and Legal Matters, third report)*

**WHA18.22 Amendments to the Rules of Procedure of the World Health Assembly**

The Eighteenth World Health Assembly,

Having considered the amendments to the Rules of Procedure of the World Health Assembly as proposed by the Executive Board at its thirty-fifth session,

ADOPTS the amendments to the Rules of Procedure\(^1\) as well as the Guiding Principles for the conduct of elections by secret ballot set forth below.\(^2\)

**Rule 61**

A delegate or a representative of an Associate Member may at any time move the closure of the debate on the item under discussion whether or not any other delegate or representative of an Associate Member has signified his wish to speak. If request is made for permission to speak against closure, it may be accorded to not more than two speakers, after which the motion shall be immediately put to the vote. If the Health Assembly decides in favour of closure, the President shall declare the debate closed. *The Health Assembly shall thereafter vote only on the one or more proposals moved before the closure.*

**Rule 69**

Each Member shall have one vote in the Health Assembly. For the purposes of these Rules, the phrase "Members present and voting" means Members casting a *valid* affirmative or negative vote. Members abstaining from voting are considered as not voting.

**Rule 72**

The Health Assembly shall normally vote by show of hands, except that any delegate may request a roll-call, which shall then be taken in the English or French alphabetical order of the names of the Members, *in alternate years*. The name of the Member to vote first shall be determined by lot.

**Rule 75 (bis)**

*When the Health Assembly votes by secret ballot, the ballot itself and the check of the number of ballot papers shall take place in plenary meeting. Unless the Health Assembly determines otherwise the counting of votes shall take place in a separate room to which delegations shall have access. This counting shall take place under the supervision of the President or of one of the Vice-Presidents of the Health Assembly. The Health Assembly may proceed with its work during the period before the results of the ballot can be announced.*

**Rule 78 (bis)**

*In an election each Member, unless he abstains, shall vote for that number of candidates equal to the number of elective places to be filled. Any ballot paper on which there are more or fewer names than there are elective places to be filled shall be null and void.*

\(^1\) **Basic Documents**, 15th ed., 97-124.

\(^2\) Words in italics indicate the amendments.
Rule 79

If during an election one or more elective places cannot be filled by reason of an equal number of votes having been obtained by two or more candidates, a ballot shall be held among such candidates to determine which of them will be elected. This procedure may be repeated if necessary. If the votes are equally divided on a matter other than an election, the proposal shall be regarded as not adopted.

Rule 80

Subject to any decision of the Health Assembly the procedure governing the conduct of business and voting by committees shall conform as far as practicable to the Rules relative to the conduct of business and voting in plenary meetings. One third of the members of a committee shall constitute a quorum. The presence of a majority of a committee shall, however, be required for a question to be put to a vote.

Rule 100

Delete this Rule.

Rule 101

Delete this Rule.

GUIDING PRINCIPLES FOR THE CONDUCT OF ELECTIONS BY SECRET BALLOT

1. Before voting begins, the President shall hand to the two tellers appointed by him the list of Members entitled to vote and the list of candidates. For the elections of Members entitled to designate persons to serve on the Executive Board or of the Director-General, the list of candidates shall include only those nominations submitted to the World Health Assembly in accordance with the procedure laid down in Rules 98 and 108 respectively of the Rules of Procedure of the World Health Assembly.

2. The Secretariat shall distribute a ballot paper to each delegation. Every ballot paper shall be of the same size and colour without distinguishing marks.

3. The tellers shall satisfy themselves that the ballot box is empty and, having locked it, shall hand the key to the President.

4. Members shall be called in turn to vote in the required alphabetical order of their names, beginning with the name of a Member which shall have been drawn by lot. The call shall be made in English, French, Russian and Spanish.

5. The secretary of the meeting and the tellers shall record each Member's vote by marking the margin of the list of Members entitled to vote opposite to the name of the Member in question.

6. At the conclusion of the calling of Members, the President shall ensure that all the Members present and entitled to vote have been called. He shall then declare the voting closed and announce that the votes are to be counted.

7. When the ballot box has been opened, the tellers shall count the number of ballot papers. If the number is not equal to that of the voters, the President shall declare the vote invalid and another ballot shall be held.

8. Where the counting of votes takes place outside the Assembly Hall, the ballot papers shall be returned to the ballot box which shall be taken by the tellers to the room where the votes are to be counted.

9. One of the tellers shall then read aloud the names which are on the ballot paper. The number of votes obtained by each of the candidates mentioned shall be written opposite their names by the other teller on a document drawn up for this purpose.

10. A ballot paper on which no names are written or which bears the word “abstention” shall be considered as signifying an abstention.

11. The following shall be considered null and void:

(a) ballot papers on which there are more or fewer names than there are elective places to be filled or on which the name of any candidate appears more than once;

1 Under Rule 72 of the Rules of Procedure of the World Health Assembly.
(b) ballot papers in which the voters have revealed their identity, in particular by apposing their signature or mentioning the name of the Member they represent;

(c) where the Rules of Procedure so require, ballot papers bearing the names of candidates other than those nominated in accordance with the provisions of those Rules.

12. When the counting of the votes is completed, the tellers shall indicate the results in a document drawn up for this purpose, which they shall sign and hand to the President. The latter, in plenary meeting, shall announce the results in the following order: number of Members entitled to vote; number absent; number of abstentions; number of ballot papers null and void; number of Members present and voting; number required for a majority; names of candidates and the number of votes secured by each of them, in descending order of the number of votes.

13. For the purposes of these provisions, the following definitions shall apply:

(a) "Absent" — Members entitled to vote but whose representatives are not present at the meeting at which the secret ballot takes place;

(b) "Number of Members present and voting" — the difference between the number of Members with the right to vote and the total number of absentees, abstentions and invalid ballot papers.

14. The President shall declare elected candidates who have obtained the required majority.

15. The list signed by the tellers and on which the results of the vote have been recorded shall constitute the official record of the count of the ballot and shall be retained in the Organization’s files. The ballot papers shall be destroyed immediately after the declaration of the results of the ballot.

Handb. Res., 7th ed., 4.1.4 Tenth plenary meeting, 17 May 1965 (Committee on Administration, Finance and Legal Matters, third report)

WHA18.23 WHO Participation in the Expanded Programme of Technical Assistance

The Eighteenth World Health Assembly,

Having considered the report of the Ad Hoc Committee of the Executive Board on the participation of the World Health Organization in the Expanded Programme of Technical Assistance,¹

NOTES with appreciation the improvement since January in the financial situation of the Programme.

Handb. Res., 7th ed., 3.4 Tenth plenary meeting, 17 May 1965 (Committee on Administration, Finance and Legal Matters, third report)

WHA18.24 Extension of the Agreement with the United Nations Relief and Works Agency for Palestine Refugees in the Near East

The Eighteenth World Health Assembly,

Considering that, on 29 September 1950, an agreement was concluded between the Director-General of the World Health Organization and the Director of the United Nations Relief and Works Agency for Palestine Refugees in the Near East (UNRWA) on the basis of principles established by the Third World Health Assembly;

Considering that the Sixteenth World Health Assembly, in resolution WHA16.41, extended the duration of this agreement until 30 June 1965;

¹ See Annex 9.
Considering that, subsequently, the General Assembly of the United Nations, at its nineteenth session,\(^1\) extended the mandate of UNRWA until 30 June 1966; and

Considering that the World Health Organization should continue the technical direction of the health programme administered by UNRWA,

AUTHORIZES the Director-General to extend the duration of the agreement with UNRWA until 30 June 1966.

Handb. Res., 7th ed., 8.1.5.1

\(^1\) United Nations General Assembly resolution 2002 (XIX).
WHA18.28 Headquarters Accommodation: Financing

The Eighteenth World Health Assembly,

Having considered the report of the Ad Hoc Committee of the Executive Board concerning headquarters accommodation, together with the annexed reports of the Standing Committee on Headquarters Accommodation and of the Director-General,¹

1. NOTES the increase in the architect's estimate of the total cost of the building project as a consequence of the necessary corrections in the heating and air-conditioning installation;

2. NOTES that, notwithstanding this latest increase which brings the total estimated cost to a figure higher than the presently authorized credits and thus makes it necessary to seek additional sums, these sums can be found without great difficulty through a combination of the already planned budgetary provisions for the years 1966, 1967 and 1968, and the fact that the first repayment on the loan from the Republic and Canton of Geneva will be made only in 1969;

3. AUTHORIZES the Director-General, notwithstanding the provisions of paragraph 3 of resolution WHA16.22, to proceed with the building project in accordance with the architect's current estimate and the plan of financing described in his report to the Ad Hoc Committee of the Executive Board;² and

4. REQUESTS the Director-General to report further, through the Executive Board and the Standing Committee on Headquarters Accommodation, to the Nineteenth World Health Assembly on the financing of the building project.

Handb. Res., 7th ed., 7.4.2.1

Tenth plenary meeting, 17 May 1965 (Committee on Administration, Finance and Legal Matters, third report)

WHA18.29 Inaugural Ceremony for the New Headquarters Building

The Eighteenth World Health Assembly,

Noting with satisfaction that by the time of the next Health Assembly the headquarters building is expected to be completed and the secretariat installed therein;

Considering that this represents another significant step in the development of the Organization; and

Considering, further, that such an event in the life of the Organization should be formally observed,

1. REQUESTS the Executive Board and the Director-General to arrange for a suitable inaugural ceremony at the time of the Nineteenth World Health Assembly and to take such other measures as may be appropriate to mark the occasion;

2. SUGGESTS that the inaugural ceremony might include a token presentation by Members, symbolic of the voluntary gifts which they have made to the construction and furnishing of the building; and

3. AUTHORIZES the Executive Board to take, on behalf of the Health Assembly, decisions necessary to celebrate the completion of the World Health Organization's headquarters building.

Handb. Res., 7th ed., 7.4.2

Tenth plenary meeting, 17 May 1965 (Committee on Administration, Finance and Legal Matters, third report)

¹ See Annex 8.
² See Annex 8, part 2.
WHA18.30 Headquarters Accommodation: Voluntary Contributions from Governments

The Eighteenth World Health Assembly,

Having been informed of the gifts which have been made by Member States towards the construction and furnishing of the headquarters building, 1

1. EXPRESSES its appreciation to those governments that have so generously made voluntary contributions to the headquarters building; and

2. INVITES governments not yet having made a voluntary contribution for the headquarters building to consider making a contribution to the Headquarters Building Fund or donating gifts for furnishings, decorations and equipment which the Director-General indicates to be needed.

Handb. Res., 7th ed., 7.4.2

Tenth plenary meeting, 17 May 1965 (Committee on Administration, Finance and Legal Matters, third report)

ANNEX

GIFTS FROM GOVERNMENTS FOR THE HEADQUARTERS BUILDING
as at 15 May 1965

1. Gifts already received or in transit

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<th>Country</th>
<th>Gift(s) Description</th>
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<td>Afghanistan</td>
<td>two carpets of 8.75 m² each</td>
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<tr>
<td>Burma</td>
<td>20.78 tons of teak wood</td>
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<tr>
<td>Cameroon</td>
<td>20 tons of bubinga wood</td>
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<tr>
<td>Central African Republic</td>
<td>US $410 for purchase of a television set and record-player for the staff rest-room</td>
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<tr>
<td>Ceylon</td>
<td>17 m² of gammalu wood</td>
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<tr>
<td>Federal Republic of Germany</td>
<td>equipment for the medical service</td>
</tr>
<tr>
<td>Ghana</td>
<td>US $2800</td>
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<td>Iraq</td>
<td>US $7000 for furnishing of a reading room in the library</td>
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<td>US $4998</td>
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<td>Poland</td>
<td>bust of Marie Curie-Sklodowska</td>
</tr>
<tr>
<td>Sierra Leone</td>
<td>US $2800</td>
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<tr>
<td>Sudan</td>
<td>7 m³ of mahogany</td>
</tr>
<tr>
<td>Sweden</td>
<td>US $1943 for the decoration of the building</td>
</tr>
<tr>
<td>Thailand</td>
<td>770 m² of silk for the curtains of four committee rooms</td>
</tr>
<tr>
<td>Turkey</td>
<td>three carpets (two silk carpets measuring 2.22 m² and 2.16 m² respectively and one woollen carpet measuring 9.12 m²)</td>
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<td>(former) Federation of Rhodesia and Nyasaland</td>
<td>US $161</td>
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2. Gifts offered

<table>
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<tr>
<th>Country</th>
<th>Gift(s) Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brazil</td>
<td>a decorative panel, painted on wood (49 m²)</td>
</tr>
<tr>
<td>Cambodia</td>
<td>a triptych of carved wood</td>
</tr>
<tr>
<td>Cyprus</td>
<td>curtains and parquet</td>
</tr>
<tr>
<td>Czechoslovakia</td>
<td>crystal panel</td>
</tr>
<tr>
<td>Finland</td>
<td>furnishing and decoration for the Director-General's office and a staff rest-room</td>
</tr>
<tr>
<td>Ghana</td>
<td>a mural painting</td>
</tr>
<tr>
<td>Iran</td>
<td>a carpet</td>
</tr>
<tr>
<td>Iraq</td>
<td>cast of antique statue</td>
</tr>
<tr>
<td>Luxembourg</td>
<td>US $2000 for the purchase of ceramic and tiles</td>
</tr>
<tr>
<td>Netherlands</td>
<td>furnishing and decoration for a lounge</td>
</tr>
<tr>
<td>New Zealand</td>
<td>wooden panelling for the office of the Chairman of the Executive Board</td>
</tr>
<tr>
<td>Pakistan</td>
<td>marble for facing two lift shafts</td>
</tr>
<tr>
<td>Peru</td>
<td>a carpet</td>
</tr>
<tr>
<td>Portugal</td>
<td>furniture for a committee room</td>
</tr>
<tr>
<td>Rwanda</td>
<td>a leopard skin, a zebra hide and two drums</td>
</tr>
<tr>
<td>Switzerland</td>
<td>a tapestry</td>
</tr>
<tr>
<td>Tunisia</td>
<td>ceramic panel</td>
</tr>
<tr>
<td>United Kingdom of Great Britain and Northern Ireland</td>
<td>a bronze statue</td>
</tr>
<tr>
<td>Viet-Nam</td>
<td>a decorative lacquered panel, 460 × 260 cm</td>
</tr>
<tr>
<td>Yugoslavia</td>
<td>a fresco, a statue and another gift in kind</td>
</tr>
</tbody>
</table>

Discussions are in progress with certain other governments about possible gifts.

1 Listed in the Annex to this resolution.
WHA18.31 Voluntary Fund for Health Promotion: World Health Foundations

The Eighteenth World Health Assembly,

Having noted with interest the report regarding the establishment of world health foundations;
Recognizing the benefits which would result from additional funds becoming available for international health work;
Aware of the important repercussions of financial problems on the implementation of health projects;
Believing that the establishment of world health foundations, to be financed by voluntary contributions from private and other non-governmental sources, will serve to demonstrate to governments the interest of the people of their countries in world health;
Considering that such foundations could make an important contribution towards the furtherance of the fundamental objective of WHO, namely “the attainment by all peoples of the highest possible level of health”; and
Believing that it is the responsibility of WHO to arouse and stimulate at all levels interest in international health work,
1. APPRECIATES the actions taken with a view to the establishment of world health foundations in several Member countries;
2. ENCOURAGES the efforts which are being pursued and which will be undertaken towards this end; and
3. REQUESTS the Director-General to report regularly to the World Health Assembly on the progress made and work carried out in regard to the establishment and operation of world health foundations.


Tenth plenary meeting, 17 May 1965 (Committee on Administration, Finance and Legal Matters, fourth report)

WHA18.32 Decisions of the United Nations, Specialized Agencies and the International Atomic Energy Agency affecting WHO’s Activities: Administrative, Budgetary and Financial Matters

The Eighteenth World Health Assembly

NOTES the report of the Director-General ¹ on decisions of the United Nations, specialized agencies and the International Atomic Energy Agency affecting WHO’s activities on administrative and financial questions.


Tenth plenary meeting, 17 May 1965 (Committee on Administration, Finance and Legal Matters, fourth report)

WHA18.33 Fourth General Programme of Work covering a Specific Period: 1967-1971

The Eighteenth World Health Assembly,

Considering Article 28(g) of the Constitution; and
Noting resolution EB35.R45 of the Executive Board,

¹ See Annex 10.
APPROVES the fourth general programme of work for the specific period 1967-1971 inclusive, as prepared by the Executive Board and submitted by it at its thirty-fifth session.1


Tenth plenary meeting, 17 May 1965 (Committee on Programme and Budget, fourth report)

WHA18.34 Programme and Budget Estimates for 1966: Voluntary Fund for Health Promotion

The Eighteenth World Health Assembly,

Considering that the programmes planned under the Voluntary Fund for Health Promotion as set forth in Official Records No. 138, Annex 3, are satisfactory; and

Noting that the programmes are complementary to the programmes included in the regular budget of the Organization,

1. EXPRESSES the hope that more contributions will be made to the Voluntary Fund for Health Promotion;

2. REQUESTS the Director-General to implement the planned programmes, as contained in Annex 3 of Official Records No. 138, within the broad concept of the third general programme of work for a specific period, to the extent that funds become available through voluntary contributions to the Voluntary Fund for Health Promotion; and

3. INVITES the Director-General to take such further action as would most effectively contribute to the development of these programmes.


Tenth plenary meeting, 17 May 1965 (Committee on Programme and Budget, fourth report)

WHA18.35 Appropriation Resolution for the Financial Year 1966 2

The Eighteenth World Health Assembly

RESOLVES to appropriate for the financial year 1966 an amount of US $45 057 590 as follows:

<table>
<thead>
<tr>
<th>Appropriation Section</th>
<th>Purpose of Appropriation</th>
<th>Amount US $</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PART I : ORGANIZATIONAL MEETINGS</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. World Health Assembly</td>
<td></td>
<td>372 200</td>
</tr>
<tr>
<td>2. Executive Board and its Committees</td>
<td></td>
<td>191 300</td>
</tr>
<tr>
<td>3. Regional Committees</td>
<td></td>
<td>110 700</td>
</tr>
<tr>
<td><strong>Total — Part I</strong></td>
<td></td>
<td>674 200</td>
</tr>
<tr>
<td><strong>PART II : OPERATING PROGRAMME</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Programme Activities</td>
<td></td>
<td>25 898 909</td>
</tr>
<tr>
<td>5. Regional Offices</td>
<td></td>
<td>3 147 385</td>
</tr>
<tr>
<td>6. Expert Committees</td>
<td></td>
<td>261 100</td>
</tr>
<tr>
<td>7. Other Statutory Staff Costs</td>
<td></td>
<td>8 814 490</td>
</tr>
<tr>
<td><strong>Total — Part II</strong></td>
<td></td>
<td>38 121 884</td>
</tr>
</tbody>
</table>

1 See Annex 3.

2 For analysis of these appropriations under chapters, see Annex 12.
**PART III: ADMINISTRATIVE SERVICES**

<table>
<thead>
<tr>
<th>Section</th>
<th>Purpose of Appropriation</th>
<th>Amount US $</th>
</tr>
</thead>
<tbody>
<tr>
<td>8.</td>
<td>Administrative Services</td>
<td>2 381 167</td>
</tr>
<tr>
<td>9.</td>
<td>Other Statutory Staff Costs</td>
<td>764 749</td>
</tr>
<tr>
<td></td>
<td><strong>Total — Part III</strong></td>
<td><strong>3 145 916</strong></td>
</tr>
</tbody>
</table>

**PART IV: OTHER PURPOSES**

<table>
<thead>
<tr>
<th>Section</th>
<th>Purpose of Appropriation</th>
<th>Amount US $</th>
</tr>
</thead>
<tbody>
<tr>
<td>10.</td>
<td>Headquarters Building Fund</td>
<td>500 000</td>
</tr>
<tr>
<td></td>
<td><strong>Total — Part IV</strong></td>
<td><strong>500 000</strong></td>
</tr>
<tr>
<td></td>
<td><strong>SUB-TOTAL — PARTS I, II, III AND IV</strong></td>
<td><strong>42 442 000</strong></td>
</tr>
</tbody>
</table>

**PART V: RESERVE**

<table>
<thead>
<tr>
<th>Section</th>
<th>Purpose of Appropriation</th>
<th>Amount US $</th>
</tr>
</thead>
<tbody>
<tr>
<td>11.</td>
<td>Undistributed Reserve</td>
<td>2 615 590</td>
</tr>
<tr>
<td></td>
<td><strong>Total — Part V</strong></td>
<td><strong>2 615 590</strong></td>
</tr>
</tbody>
</table>

**TOTAL — ALL PARTS** 45 057 590

II. Amounts not exceeding the appropriations voted under paragraph I shall be available for the payment of obligations incurred during the period 1 January to 31 December 1966 in accordance with the provisions of the Financial Regulations.

Notwithstanding the provisions of this paragraph, the Director-General shall limit the obligations to be incurred during the financial year 1966 to the effective working budget established by the World Health Assembly, i.e., Parts I, II, III and IV.

III. The appropriations voted under paragraph I shall be financed by contributions from Members after deduction of:

(i) the amount of US $985 000 available by reimbursement from the Special Account of the Expanded Programme of Technical Assistance

(ii) the amount of US $ 34 700 representing assessments on new Members from previous years

(iii) the amount of US $517 300 representing miscellaneous income available for the purpose

Total US $1 537 000

thus resulting in assessments against Members of US $43 520 590.

WHA18.36 Quality Control of Pharmaceutical Preparations

The Eighteenth World Health Assembly,

Recalling resolution WHA17.41 on the compliance of exported pharmaceutical preparations with the requirements applying to pharmaceutical preparations for domestic use;
Having examined the report of the Director-General on the quality control of pharmaceutical preparations, setting out an unsatisfactory situation in regard to the quality control of pharmaceutical preparations moving in international commerce;

Noting that large parts of the world population make use of pharmaceutical preparations without having in their countries adequate facilities for prior quality control; and

Recalling the provisions of Articles 2 and 21 of the Constitution,

1. INVITES governments to take the necessary measures to subject pharmaceutical preparations, imported or locally manufactured, to adequate quality control;

2. REQUESTS the Director-General:
   (a) to continue to assist Member States to develop their own laboratory facilities or to secure access to such facilities elsewhere;
   (b) to continue to study methods of securing, in the countries of origin, control of the quality of pharmaceutical preparations intended for export; and
   (c) to pursue the establishment of internationally accepted principles and specifications for the control of the quality of pharmaceutical preparations; and further

3. REQUESTS the Director-General to report to the Executive Board and to the Nineteenth World Health Assembly on the possibilities of the Organization's playing an even more active role in the quality control of pharmaceutical preparations.

Handb. Res., 7th ed., 1.3.2.3

Eleventh plenary meeting, 19 May 1965 (Committee on Programme and Budget, fifth report)

WHA18.37 Organizational Study of the Executive Board: Methods of Planning and Execution of Projects

The Eighteenth World Health Assembly,

Having studied the report of the Executive Board on its organizational study “Methods of planning and execution of projects”; ²

Noting that the study covers mainly the period of planning and initial implementation of projects and that the study is confined to their administrative and managerial aspects; and

Considering that the study was carried out on the basis of a broad sample of projects,

1. EMPHASIZES the importance of the Organization's playing an active role in the development of requests for projects and in their planning;

2. NOTES the major causes of delays in starting projects and the measures taken by the Director-General for reducing such of the delays as are within the control of the Organization; and

3. CALLS ATTENTION to the relationship between the effectiveness of the Organization's assistance and the readiness of governments to carry out their share of the responsibility for WHO-assisted projects, including the provision of adequate supporting staff and work facilities.

Handb. Res., 7th ed., 7.5.8

Eleventh plenary meeting, 19 May 1965 (Committee on Programme and Budget, fifth report)

WHA18.38 Smallpox Eradication Programme

The Eighteenth World Health Assembly,

Having examined the report of the Director-General on the present status of smallpox in the world, and the results achieved;¹

Noting with concern that, though some recently endemic countries have eradicated the disease as a result of well organized campaigns, progress in general is slow and major endemic foci remain in Asia, Africa and the Americas;

Noting that the Director-General has estimated that smallpox might be eradicated within ten years for an estimated international expenditure of from US $23 500 000 to US $31 000 000 in addition to the provision which the countries having endemic smallpox themselves can make;

Believing that strong reaffirmation of the intent to eradicate smallpox would present a challenge and a stimulus to the world to mobilize resources to achieve the objective, and that the support required is available within the international and national programmes devoted to world social and economic development; and

Recognizing the need to review the technical and administrative requirements of programmes, to ensure the extensive use of freeze-dried vaccine and the development of its production in endemic areas and to provide annually for the mass phase of the campaign up to 50 million doses of freeze-dried vaccine in addition to supplies locally produced or already being provided in bilateral agreements, or through voluntary contributions,

1. DECLARES the world-wide eradication of smallpox to be one of the major objectives of the Organization;
2. REQUESTS the countries having smallpox but no eradication programmes to initiate them and the countries with programmes to intensify them;
3. REQUESTS Member States to give the programme greater support than in the past and to provide the substantial contributions essential for its execution;
4. REQUESTS governments which carry on bilateral programmes of aid to include smallpox eradication in their programmes of assistance;
5. REQUESTS governments to take early steps to establish basic health services for the maintenance phase which would also serve for the eradication of other communicable diseases;
6. REQUESTS the Director-General to seek anew the necessary financial and other resources required to achieve world-wide smallpox eradication with special reference to resources that might be made available through voluntary contributions and bilateral programmes, as well as through programmes such as those of UNICEF and the United Nations Expanded Programme of Technical Assistance; and
7. REQUESTS the Director-General to make available the increased amount of technical guidance and advisory services necessary to accelerate the programme as well as to assist countries in obtaining the necessary vaccine, transport and other equipment, and to report on the progress achieved to future sessions of the World Health Assembly.

Handb. Res., 7th ed., 1.5.4.1

WHA18.39 Proposal for the Establishment of a Revolving Fund for Teaching and Laboratory Equipment for Medical Education and Training

The Eighteenth World Health Assembly,

Recognizing that manpower requirements are of fundamental importance for health programmes, and realizing that the shortage of teaching and laboratory equipment in medical and paramedical schools is a great handicap in imparting medical education, especially in the developing countries; and

¹ See Annex 19.
Having considered the proposal for the establishment of a revolving fund to finance, on a reimbursement basis, teaching and laboratory equipment for medical and paramedical education and training,

REQUESTS the Executive Board, bearing in mind the discussions in the Committee on Administration, Finance and Legal Matters, to study the proposal and to report to the Nineteenth World Health Assembly.

Handb. Res., 7th ed., 1.9; 7.1.10

WHA18.40 Report on Operative Paragraph 2 of Resolution WHA17.50

The Eighteenth World Health Assembly

NOTES the report ¹ of the Director-General and of the representatives of the Executive Board on operative paragraph 2 of resolution WHA17.50.


WHA18.41 Reports of the Executive Board on its Thirty-fourth and Thirty-fifth Sessions

The Eighteenth World Health Assembly

1. NOTES the reports of the Executive Board on its thirty-fourth ² and thirty-fifth sessions; ³ and

2. COMMENDS the Board on the work it has performed.

Handb. Res., 7th ed., 4.2.5.2

WHA18.42 Adverse Drug Reaction Monitoring System

The Eighteenth World Health Assembly,

Considering resolutions WHA15.41, WHA16.36 and WHA17.39 of the Fifteenth, Sixteenth and Seventeenth World Health Assemblies on the importance of systematic collection, evaluation, and dissemination of information on adverse drug reactions;

Recalling the reports of the several groups of experts convened to consider and study the feasibility and desirability of instituting an adverse drug reaction monitoring programme on an international basis;

Convinced of the urgent need for the international collection and distribution of information on adverse drug reactions; and

Looking with favour upon the offer of the Government of the United States of America to provide facilities for the processing of information on adverse drug reactions, under the auspices of the World Health Organization,

1. REQUESTS the Director-General to study further the requirements of an international programme for the collection, analysis, and dissemination to Member States of information on adverse drug reactions;

¹ See Annex 13.
³ Off. Rec. Wld Hlth Org. 140; 141.
2. **INVITES** Member States to develop as soon as possible national monitoring systems for adverse drug reactions, with a view to taking part in an international system under the aegis of WHO;

3. **REQUESTS** the Director-General to examine the offer of the United States of America and of any other governments of data processing facilities as a part of an international monitoring system for adverse drug reactions, and to report on the matter to the Nineteenth World Health Assembly; and

4. **THANKS** the Government of the United States of America for its offer.

Handb. Res., 7th ed., 1.3.2.3

Twelfth plenary meeting, 20 May 1965 (Committee on Programme and Budget, sixth report)

**WHA18.43 Proposal for the Establishment of a World Health Research Centre**

The Eighteenth World Health Assembly,

Having examined the proposal of the Director-General for the establishment of a World Health Research Centre ¹ and the recommendation of the Executive Board thereon; ²

Recognizing the need for a planned development of WHO activities to promote, co-ordinate, support and conduct medical research and research training on major world health problems;

Considering that such contributions, particularly in the fields of epidemiology and the application of communications sciences to health and biomedical problems, could best be made by an international research programme involving collaboration with and development of regional and national institutions;

Believing that early attention should be given to control of communicable diseases, to monitoring of adverse reactions to drugs, and to environmental contaminants; and

Believing that the establishment of a World Health Research Centre on the lines proposed by the Director-General requires further study and consideration,

1. **THANKS** the Director-General and his scientific advisers for the study conducted;

2. **REQUESTS** the Director-General to take the action necessary to develop WHO research activities and services in epidemiology and the application of communications sciences and the system of reference centres as a step for the extension of WHO activities in the field of health research;

3. **REQUESTS** the Director-General to prepare a detailed programme for the achievement of the purposes of this resolution, to be submitted to the thirty-seventh session of the Executive Board;

4. **INVITES** the Director-General to continue studying the role of the Organization in promoting medical research, especially with regard to world needs for centres devoted to research on health problems and the ways in which they can be associated with WHO, and to facilitate the intensification of national or regional research activities on specific problems; and

5. **REQUESTS** the Director-General to report to the Executive Board and to the Nineteenth World Health Assembly on progress made under the programme.


Twelfth plenary meeting, 20 May 1965 (Committee on Programme and Budget, sixth report)

**WHA18.44 Establishment of an International Agency for Research on Cancer**

The Eighteenth World Health Assembly,

Cognizant of Article 18 of the Constitution which provides, *inter alia*, that one of the functions of the Health Assembly shall be to establish such other institutions as it may consider desirable, with a view to promoting and carrying on research;

¹ See Annex 16.

Considering that the Governments of the Federal Republic of Germany, France, Italy, the United Kingdom of Great Britain and Northern Ireland, and the United States of America have agreed to sponsor the creation and to participate in the functioning of an International Agency for Research on Cancer in accordance with the provisions of its Statute;

Considering that many governments have expressed their interest in the creation of such an Agency; and

Considering resolution WHA17.49 of the Seventeenth World Health Assembly,

DECEDES to establish an International Agency for Research on Cancer which shall carry on its functions in accordance with the provisions of its Statute (annexed).

Handb. Res., 7th ed., 1.7.6; 1.11

Twelfth plenary meeting, 20 May 1965 (Committee on Programme and Budget, sixth report)

ANNEX

STATUTE OF INTERNATIONAL AGENCY FOR RESEARCH ON CANCER

Article I — Objective

The objective of the International Agency for Research on Cancer shall be to promote international collaboration in cancer research. The Agency shall serve as a means through which Participating States and the World Health Organization, in liaison with the International Union against Cancer and other interested international organizations, may co-operate in the stimulation and support of all phases of research related to the problem of cancer.

Article II — Functions

In order to achieve its objectives, the Agency shall have the following functions:

1. The Agency shall make provision for planning, promoting and developing research in all phases of the causation, treatment and prevention of cancer.

2. The Agency shall carry out a programme of permanent activities. These activities shall include:
   
   (a) the collection and dissemination of information on epidemiology of cancer, on cancer research and on the causation and prevention of cancer throughout the world;
   
   (b) the consideration of proposals and preparation of plans for projects in, or in support of, cancer research; such projects should be designed to make the best possible use of any scientific and financial resources and special opportunities for studies of the natural history of cancer which may arise;
   
   (c) the education and training of personnel for cancer research.

3. The Agency may arrange for the carrying out of special projects; however, such special projects shall be initiated only upon the specific approval of the Governing Council, based upon the recommendation of the Scientific Council.

4. Such special projects may include:
   
   (a) activities complementary to the permanent programme;
   
   (b) the demonstration of pilot cancer prevention activities;
   
   (c) the encouragement of, and the giving of assistance to, research at the national level, if necessary by the direct establishment of research organizations.

5. In carrying out its programme of permanent services or any special projects the Agency may collaborate with any other entity.

1 See Annex 17.
Article III — Participating States

Any Member of the World Health Organization may, subject to the provisions of Article XII, participate actively in the Agency by undertaking, in a notification to the Director-General of the World Health Organization, to observe and apply the provisions of this Statute. In this Statute, Members which have made such a notification are termed “Participating States”.

Article IV — Structure

The Agency shall comprise:
(a) the Governing Council;
(b) the Scientific Council;
(c) the Secretariat.

Article V — The Governing Council

1. The Governing Council shall be composed of one representative of each Participating State and the Director-General of the World Health Organization, who may be accompanied by alternates or advisers.

2. Each member of the Governing Council shall have one vote.

3. The Governing Council shall:
   (a) adopt the budget;
   (b) adopt financial regulations;
   (c) control expenditure;
   (d) decide on the size of the Secretariat;
   (e) elect its officers;
   (f) adopt its own rules of procedure.

4. The Governing Council, after considering the recommendations of the Scientific Council, shall:
   (a) adopt the programme of permanent activities;
   (b) approve any special project;
   (c) decide upon any supplementary programme.

5. Decisions of the Governing Council under sub-paragraphs (a) and (b) of paragraph 3 of this Article shall be made by a two-thirds majority of its members who are representatives of Participating States.

6. Decisions of the Governing Council shall be taken by a simple majority of members present and voting, except as otherwise provided in this Statute. A majority of members shall constitute a quorum.

7. The Governing Council shall meet in ordinary session at least once in each year. It may also meet in extraordinary session at the request of one-third of its members.

8. The Governing Council may appoint sub-committees and working groups.

Article VI — The Scientific Council

1. The Scientific Council shall be composed of twelve highly qualified scientists, selected on the basis of their technical competence in cancer research and allied fields.

2. The members of the Scientific Council shall be appointed by the Governing Council. The Director-General of the World Health Organization, after consultation with qualified scientific organizations, shall propose a list of experts to the Governing Council.
3. Each member of the Scientific Council shall serve for a term of three years. However, of the members first appointed, the terms of four members shall expire at the end of one year, and the terms of four more members shall expire at the end of two years. The members whose terms are to expire at the end of one year and the members whose terms are to expire at the end of two years shall be chosen by lot to be drawn by the Director-General of the World Health Organization immediately after the first appointments have been made.

Any member leaving the Scientific Council can be re-appointed only after at least one year has elapsed, except those who have been chosen by lot in accordance with the above procedure.

4. The Scientific Council shall be responsible for:
   
   (a) adopting its own rules of procedure;
   (b) the periodical evaluation of the activities of the Agency;
   (c) recommending programmes of permanent activities and preparing special projects for submission to the Governing Council;
   (d) the periodical evaluation of special projects sponsored by the Agency;
   (e) reporting to the Governing Council, for consideration at the time that body considers the programme and budget, upon the matters dealt with in sub-paragraphs (b), (c) and (d) above.

**Article VII — Secretariat**

1. Subject to the general authority of the Director-General of the World Health Organization, the Secretariat shall be the administrative and technical organ of the Agency. It shall in addition carry out the decisions of the Governing Council and the Scientific Council.

2. The Secretariat shall consist of the Director of the Agency and such technical and administrative staff as may be required.

3. The Director of the Agency shall be selected by the Governing Council. The appointment shall be effected by the Director-General of the World Health Organization on such terms as the Governing Council may determine.

4. The staff of the Agency shall be appointed in a manner to be determined by agreement between the Director-General of the World Health Organization and the Director of the Agency.

5. The Director of the Agency shall be the chief executive officer of the Agency. He shall be responsible for:
   
   (a) preparing the future programme and the budget estimates;
   (b) supervising the execution of the programme and the scientific activities;
   (c) directing administrative and financial matters.

6. The Director of the Agency shall submit a report on the progress of the Agency and the budget estimates for the next financial year to each Participating State and to the Director-General of the World Health Organization, which shall be distributed to reach them at least thirty days before the regular annual meeting of the Governing Council.

**Article VIII — Finance**

1. The administrative services and permanent activities of the Agency shall be financed by equal annual contributions by each Participating State.

2. These annual contributions shall be due on 1 January of each year and must be paid not later than 31 December of that year.

3. These annual contributions shall be $150,000.

4. The amount of these contributions shall not be changed for five years except by unanimous decision of the Governing Council. After that period, any decision to change the amount shall require a two-thirds majority of the members of the Governing Council who are representatives of Participating States.
5. A Participating State which is in arrears in the payment of its annual contribution shall have no vote in the Governing Council if the amount of its arrears equals or exceeds the amount of contributions due from it for the preceding financial year.

6. The Governing Council may establish a working capital fund and decide its amount.

7. The Governing Council shall be empowered to accept grants or special contributions from any individual, body or government.

   The special projects of the Agency shall be financed from such grants or special contributions.

8. The funds and assets of the Agency shall be treated as trust funds under Article VI (6.6 and 6.7) of the Financial Regulations of the World Health Organization. They shall be accounted for separately from the funds and assets of the World Health Organization and administered in accordance with the financial regulations adopted by the Governing Council.

   **Article IX — Headquarters**

   The site of the headquarters of the Agency shall be determined by the Governing Council.

   **Article X — Amendments**

   Except as provided in Article VIII, 4, amendments to this Statute shall come into force when adopted by the Governing Council by a two-thirds majority of its members who are representatives of Participating States and accepted by the World Health Assembly.

   **Article XI — Entry into Force**

   The provisions of this Statute shall enter into force when five of the States which took the initiative in proposing the International Agency for Research on Cancer have given the undertaking referred to in Article III to observe and apply the provisions of the present Statute.

   **Article XII — New Participating States**

   After the entry into force of this Statute, any State Member of the World Health Organization may be admitted as a Participating State, provided that:

   (a) the Governing Council, by a two-thirds majority of its members who are representatives of Participating States, considers that the State is able to contribute effectively to the scientific and technical work of the Agency;

   (b) and thereafter, the State gives the undertaking referred to in Article III.

   **Article XIII — Withdrawal from Participation**

   A Participating State may withdraw from participation in the operation of the Agency by notifying the Director-General of the World Health Organization of its intention to withdraw. Such a notification shall take effect six months after its receipt by the Director-General of the World Health Organization.

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**WHA18.45 Decisions of the United Nations, Specialized Agencies and the International Atomic Energy Agency affecting WHO’s Activities: Programme Matters**

The Eighteenth World Health Assembly,

Having considered the report of the Director-General on decisions of the United Nations, specialized agencies and IAEA on matters affecting WHO’s activities on programme matters; and

Recalling resolution WHA17.20 concerning large-scale development programmes,
1. NOTES the report of the Director-General;

2. REITERATES the importance of governments' giving special attention to the health implications of large-scale development programmes; and

3. EXPRESSES its satisfaction with the harmonious co-operation and effective collaboration with UNICEF.


Twelfth plenary meeting, 20 May 1965 (Committee on Programme and Budget, sixth report)

WHA18.46   Single Convention on Narcotic Drugs, 1961

The Eighteenth World Health Assembly,

Having considered the report of the Director-General¹ and resolution EB35.R33 adopted by the Executive Board at its thirty-fifth session concerning the Single Convention on Narcotic Drugs, 1961;

Noting resolution WHA7.6 and in particular its paragraph (3);

Noting the recent entry-into-force of that convention and the ensuing changes in respect of the functions assigned to the World Health Organization; and

Believing that the effective application of the Single Convention on Narcotic Drugs, 1961, requires the accession of all Members of the Organization,

1. AUTHORIZES the Director-General

(a) to consult with the United Nations organs for narcotics control on the desirability of amending Article 3 of the Single Convention to the effect that decisions on the control status of drugs shall be taken by the World Health Organization, and to report to the Health Assembly on the result of such consultations; and meanwhile

(b) to continue to forward to the Secretary-General of the United Nations such notifications as WHO is called upon to make under the Single Convention on Narcotic Drugs, 1961; and

2. URGES Member States not yet parties to the Single Convention to take the necessary steps to accede to this convention and thereby progressively to ensure the universality of its application.

Handb. Res., 7th ed., 1.3.3.3

Twelfth plenary meeting, 20 May 1965 (Committee on Programme and Budget, sixth report)

WHA18.47   Control Measures for Certain Dependence-producing Drugs

The Eighteenth World Health Assembly,

Recalling that international narcotics control has been operating successfully for several decades;

Noting with great concern the increasing frequency of abuse of sedatives or stimulants not classified internationally as narcotic drugs, as has also been noted by the United Nations Commission on Narcotic Drugs, and being aware of the epidemic-like spreading of this abuse, particularly among young persons in certain countries;

Referring to the repeated recommendations of the WHO Expert Committee on Dependence-producing Drugs concerning the need for control of certain sedatives and stimulants;

Convinced that an important factor in fighting the abuse of narcotics and other dependence-producing drugs is, by means of international conventions, to limit their availability to legitimate medical purposes only; and

Realizing that national efforts to control this health problem are often insufficient,

¹ See Annex 15.
1. CONCLUDES that control of widely abused sedatives and stimulants, such as barbiturates, tranquillizers and amphetamines, is desirable;

2. RECOMMENDS that Member States which have not already done so place such drugs on medical prescription;

3. RECOMMENDS that Member States promote an intensive health education action with regard to the dangers of the abuse of sedatives and stimulants;

4. RECOMMENDS the promotion of further research into the epidemiology of drug dependence; and

5. REQUESTS the Director-General to study the advisability and feasibility of international measures for control of sedatives and stimulants.

Handb. Res., 7th ed., 1.3.3

WHA18.48 Amendments to Article 7 of the Constitution

The Eighteenth World Health Assembly,

Considering the proposal made by the Government of the Ivory Coast for the amendment of Article 7 of the Constitution;\(^1\) and

Noting that the provision of Article 73 of the Constitution, which requires that the texts of proposed amendments to the Constitution shall be communicated to Members at least six months before consideration by the Health Assembly, has been duly complied with,

I

1. ADOPTS the amendments to the Constitution set forth in the Annexes to this resolution, and which shall form an integral part of this resolution, the texts in the Chinese, English, French, Russian and Spanish languages being equally authentic;

2. DECIDES that two copies of this resolution shall be authenticated by the signatures of the President of the Eighteenth World Health Assembly and the Director-General of the World Health Organization, of which one copy shall be transmitted to the Secretary-General of the United Nations, depositary of the Constitution, and one copy retained in the archives of the World Health Organization;

II

Considering that the aforesaid amendments to the Constitution shall come into force for all Members when accepted by two-thirds of the Members in accordance with their respective constitutional processes, as provided for in Article 73 of the Constitution,

DECIDES that the notification of such acceptance shall be effected by the deposit of a formal instrument with the Secretary-General of the United Nations, as required for acceptance of the Constitution by Article 79(b) of the Constitution.


\(^1\) See Annex 14.
Annex A

Chinese text

第七條 - 刪除並代以

第七條

(一) 如會員國不履行其對本組織所擔負之財政義務，或遇有其他特別情形，衛生大會認為情形適當時，得停止該會員國所享有之選舉特權及便利，衛生大會並有權恢復此種選舉特權及便利。

(二) 如會員國忽視本組織法所定之人道原則及宗旨，故意施行種族歧視政策，衛生大會得予以停權或開除其在世界衛生組織之會籍。

但如有詳細報告，證明該國已放棄原先引致其停權或開除之歧視政策，衛生大會得依據執行委員會之建議，恢復其權利，特權及會籍。

Annex B

English text

Article 7 — Delete and replace by

Article 7

(a) If a Member fails to meet its financial obligations to the Organization or in any other exceptional circumstances, the Health Assembly may, on such conditions as it thinks proper, suspend the voting privileges and services to which a Member is entitled. The Health Assembly shall have the authority to restore such voting privileges and services.

(b) If a Member ignores the humanitarian principles and the objectives laid down in the Constitution, by deliberately practising a policy of racial discrimination, the Health Assembly may suspend it or exclude it from the World Health Organization.

Nevertheless, its rights and privileges, as well as its membership, may be restored by the Health Assembly on the proposal of the Executive Board following a detailed report proving that the State in question has renounced the policy of discrimination which gave rise to its suspension or exclusion.
ANNEX C

FRENCH TEXT

Article 7 — Supprimer et remplacer par

Article 7

a) Lorsqu’un Etat Membre ne remplit pas ses obligations financières vis-à-vis de l’Organisation, ou dans d’autres circonstances exceptionnelles, l’Assemblée de la Santé peut, aux conditions jugées par elle opportunes, suspendre les privilèges attachés au droit de vote et les services dont bénéficie l’Etat Membre. L’Assemblée de la Santé aura pouvoir de rétablir ces privilèges afférents au droit de vote et ces services.

b) Lorsqu’un Etat Membre ne tient pas compte des principes humanitaires et des objectifs énoncés dans la Constitution, applique délibérément une politique de discrimination raciale, l’Assemblée de la Santé peut prononcer sa suspension ou son exclusion de l’Organisation mondiale de la Santé.

Toutefois, les droits et privilèges, ainsi que la qualité d’Etat Membre, peuvent être rétablis par l’Assemblée de la Santé sur proposition du Conseil exécutif à la suite d’un rapport circonstancié prouvant que l’Etat en question a renoncé à la politique de discrimination ayant motivé sa suspension ou son exclusion.

ANNEX D

RUSSIAN TEXT

Статья 7 — Аннулировать и заменить

Статья 7

a) В случае невыполнения членом Организации своих финансовых обязательств по отношению Организации, или при других исключительных обстоятельствах, Ассамблея здравоохранения может, на тех условиях, которые она сочтет правильными, временно лишить члена Организации принадлежащего ему права голоса и права на обслуживание. Ассамблея здравоохранения полномочна восстанавливать означенные право голоса и право на обслуживание.

b) Когда страна-член не следует изложенным в уставе гуманистическим принципам и целям путем преднамеренного проведения политики расовой дискриминации, Ассамблея здравоохранения может временно лишить эту страну ее прав или исключить ее из Всемирной организации здравоохранения.

Однако, ее права и привилегии, а также членство могут быть восстановлены Ассамблеей здравоохранения по предложению Исполнительного комитета в соответствии с подробным докладом, доказывающим, что данная страна отказалась от политики дискриминации, вызвавшей временное лишение ее прав или исключение.

ANNEX E

SPANISH TEXT

Artículo 7 — Sustitúyase por

Artículo 7

(a) Si un Miembro deja de cumplir con las obligaciones financieras para con la Organización, o en otras circunstancias excepcionales, la Asamblea de la Salud podrá, en las condiciones que juzgue apropiadas, suspender los privilegios de voto y los servicios a que tenga derecho tal Miembro. La Asamblea de la Salud tendrá autoridad para restablecer tales privilegios de voto y servicios.

(b) Si un Estado Miembro hace caso omiso de los principios humanitarios y de los objetivos enunciados en la Constitución practicando deliberadamente una política de discriminación racial, la Asamblea de la Salud podrá suspender o excluir de la Organización a dicho Miembro.

Ello no obstante, la Asamblea de la Salud podrá restablecer al Miembro de que se trate en el ejercicio de sus derechos y privilegios y, a propuesta del Consejo Ejecutivo, readmitirlo en la Organización si del oportuno informe circunstanciado resultara que el citado Miembro había renunciado a la política discriminatoria sancionada con la suspensión o la exclusión.
WHA18.49  Programme Activities in the Health Aspects of World Population which might be developed by WHO

The Eighteenth World Health Assembly,

Having considered the report of the Director-General on programme activities in the health aspects of world population which might be developed by WHO, 1

Bearing in mind Article 2 (1) of the Constitution which reads: “In order to achieve its objective, the functions of the Organization shall be... to promote maternal and child health and welfare and to foster the ability to live harmoniously in a changing total environment”;

Noting resolution 1048 (XXXVII) adopted by the Economic and Social Council at its thirty-seventh session, in August 1964;

Believing that demographic problems require the consideration of economic, social, cultural, psychological and health factors in their proper perspective;

Noting that the United Nations Population Commission at its thirteenth session, in April 1965, attached high priority to the research and other activities in the field of fertility;

Considering that the changes in the size and structure of the population have repercussions on health conditions;

Recognizing that problems of human reproduction involve the family unit as well as society as a whole, and that the size of the family should be the free choice of each individual family;

Bearing in mind that it is a matter for national administrations to decide whether and to what extent they should support the provision of information and services to their people on the health aspects of human reproduction;

Accepting that it is not the responsibility of WHO to endorse or promote any particular population policy; and

Noting that the scientific knowledge with regard to the biology of human reproduction and the medical aspects of fertility control is insufficient,

1. APPROVES the report of the Director-General on programme activities in the health aspects of world population which might be developed by WHO; 

2. REQUESTS the Director-General to develop further the programme proposed:

(a) in the fields of reference services, studies on medical aspects of sterility and fertility control methods and health aspects of population dynamics; and

(b) in the field of advisory services as outlined in Part III, paragraph 3, of his report, on the understanding that such services are related, within the responsibilities of WHO, to technical advice on the health aspects of human reproduction and should not involve operational activities; and

3. REQUESTS the Director-General to report to the Nineteenth World Health Assembly on the programme of WHO in the field of human reproduction.

Handb. Res., 7th ed., 1.6.6; 8.1.2.4

Thirteenth plenary meeting, 21 May 1965 (Committee on Programme and Budget, seventh report)

1 See Annex 18.
PROCEDURAL DECISIONS

(i) Composition of the Committee on Credentials

The Eighteenth World Health Assembly appointed a Committee on Credentials consisting of delegates of the following twelve Members: Brazil, Dahomey, Iran, Ireland, Italy, Lebanon, Nigeria, Philippines, Romania, Switzerland, Thailand, Venezuela.

First plenary meeting, 4 May 1965

(ii) Composition of the Committee on Nominations

The Eighteenth World Health Assembly appointed a Committee on Nominations consisting of delegates of the following twenty-four Members: Afghanistan, Argentina, Australia, Austria, Cameroon, Chile, Denmark, Ecuador, Ethiopia, France, Ghana, India, Japan, Panama, Poland, Saudi Arabia, Senegal, Sudan, Syria, Turkey, Union of Soviet Socialist Republics, United Kingdom of Great Britain and Northern Ireland, United Republic of Tanzania, United States of America.

First plenary meeting, 4 May 1965

(iii) Verification of Credentials

The Eighteenth World Health Assembly recognized the validity of the credentials of the following delegations:

Members

Afghanistan, Albania, Algeria, Argentina, Australia, Austria, Belgium, Bolivia, Brazil, Bulgaria, Burma, Burundi,1 Cambodia, Cameroon, Canada, Central African Republic, Ceylon, Chad, Chile, China, Colombia, Congo (Brazzaville), Costa Rica, Cuba, Cyprus, Czechoslovakia, Dahomey, Democratic Republic of the Congo, Denmark, Dominican Republic, Ecuador, El Salvador, Ethiopia, Federal Republic of Germany, Finland, France, Gabon, Ghana, Greece, Guatemala, Guinea, Honduras, Hungary, Iceland, India, Indonesia, Iran, Iraq, Ireland, Israel, Italy, Ivory Coast, Jamaica, Japan, Jordan, Kenya, Kuwait, Laos, Lebanon, Liberia, Libya, Luxembourg,2 Madagascar, Malawi, Malaysia, Mali, Malta, Mauritania, Mexico, Monaco, Mongolia, Morocco, Nepal, Netherlands, New Zealand, Nicaragua, Niger, Nigeria, Norway, Pakistan, Panama, Paraguay, Peru, Philippines, Poland, Portugal, Republic of Korea, Romania, Rwanda, Saudi Arabia, Senegal, Sierra Leone, Somalia,1 Spain, Sudan, Sweden, Switzerland, Syria, Thailand, Togo, Trinidad and Tobago, Tunisia, Turkey, Uganda, Union of Soviet Socialist Republics, United Arab Republic, United Kingdom of Great Britain and Northern Ireland, United Republic of Tanzania, United States of America, Upper Volta, Uruguay, Venezuela, Viet-Nam, Western Samoa, Yemen, Yugoslavia, Zambia.

Associate Members

Mauritius, Qatar, Southern Rhodesia.

First, eighth and twelfth plenary meetings, 4, 12 and 20 May 1965

1 Credentials provisionally accepted.
2 Additional credentials provisionally accepted.
(iv) **Election of Officers of the Eighteenth World Health Assembly**

The Eighteenth World Health Assembly, after considering the report of the Committee on Nominations, elected the following officers:

*President:* Dr V. V. Olguín (Argentina);
*Vice-Presidents:* Dr S. Al-Sammarrai (Iraq), Dr A. Engel (Sweden), Mr O. Owusu-Afriyie (Ghana).

*Second plenary meeting, 4 May 1965*

(v) **Election of Officers of the Main Committees**

The Eighteenth World Health Assembly, after considering the report of the Committee on Nominations, elected the following officers of the main committees:

*Committee on Programme and Budget:* Chairman, Dr A. L. Mudaliar (India);
*Committee on Administration, Finance and Legal Matters:* Chairman, Professor R. Vannugli (Italy).

*Second plenary meeting, 4 May 1965*

The main committees subsequently elected the following officers:

*Committee on Programme and Budget:* Vice-Chairman, Professor R. Gerić (Yugoslavia); Rapporteur, Dr V. M. Vovor (Togo); later, Dr J.-C. Happi (Cameroon);
*Committee on Administration, Finance and Legal Matters:* Vice-Chairman, Mr Y. Saito (Japan); Rapporteur, Mr J. de Coninck (Belgium).

(vi) **Establishment of the General Committee**

The Eighteenth World Health Assembly, after considering the recommendations of the Committee on Nominations, elected the delegates of the following fourteen countries as members of the General Committee: Ethiopia, France, Guinea, Ivory Coast, Japan, Kenya, Mali, Mexico, Pakistan, Peru, Union of Soviet Socialist Republics, United Kingdom of Great Britain and Northern Ireland, United States of America, Venezuela.

*Second plenary meeting, 4 May 1965*

(vii) **Adoption of the Agenda**

The Eighteenth World Health Assembly adopted the provisional agenda prepared by the Executive Board at its thirty-fifth session with the deletion of two items and the inclusion of two supplementary items.¹

*Third and eighth plenary meetings, 5 and 12 May 1965*

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¹ Item 3.13.2 (Working Capital Fund: Advances to meet unforeseen or extraordinary expenses) and item 3.13.3 (Working Capital Fund: Advances made for the provision of emergency supplies to Member States) were deleted because they were not necessary.
ANNEXES
Composition of the Committee

Dr J. C. Azurin, Director of Quarantine, Manila, Philippines
Dr M. S. Haque, Director-General of Health; Joint Secretary, Ministry of Health, Labour and Social Welfare, Islamabad, Pakistan
Dr L. Jacobs, Medical Director, Division of Foreign Quarantine, United States Public Health Service, Department of Health, Education and Welfare, Washington, D.C., United States of America

Dr J. Lembrez, Director of Sanitary Control at Frontiers, Marseilles, France
Dr V. V. Olguín, Director, International Health and Welfare Relations, Ministry of Social Welfare and Public Health, Buenos Aires, Argentina
Dr G. D. Ostrovskij, Section Chief, Central Directorate of Sanitation and Epidemiology, Ministry of Health, Moscow, Union of Soviet Socialist Republics

Representatives of other Organizations

Mr H. A. Seidelmann, International Civil Aviation Organization

--- 41 ---
Mr N. Merani, Inter-Governmental Maritime Consultative Organization

Mr R. W. Bonhoff and Dr H. Gartmann, International Air Transport Association

Secretariat

Dr R. I. Hood, Chief Medical Officer, International Quarantine, Division of Communicable Diseases (Secretary)

The Committee met on the morning of 22 February 1965. Dr M. G. Candau, Director-General, opened the meeting. He welcomed the members to Geneva and the thirteenth meeting of the Committee on International Quarantine: Dr Azurin, Dr Lembrez and Dr Ostrovskij had served on the Committee before; the new members were Dr Haque, Dr Jacobs and Dr Olguín. He also welcomed the representatives of ICAO (Mr H. A. Seidelmann), IMCO (Mr N. Merani), and IATA (Mr R. W. Bonhoff and Dr H. Gartmann). Especially for the new members of the Committee, he recalled that members served in their individual capacity as experts; they did not represent their governments. He reminded members that the report of the Committee would be presented to the World Health Assembly in May 1965.

The Director-General recalled that the principal duties of the Committee were: (a) to review the application of the International Sanitary Regulations; (b) to recommend amendments to the Regulations, as necessary; (c) to submit recommendations on practice, methods and procedure relating to international sanitary and quarantine matters; (d) to advise the Health Assembly and the Director-General on any matter referred by them to the Committee.

He stated that one of the more important agenda items was to review again the proposal for amending the International Certificate of Vaccination or Revaccination against Smallpox and to make recommendations for consideration by the Health Assembly. The proposal made by the Committee in 1964 had resulted in a good deal of discussion at the Seventeenth World Health Assembly which decided to defer a decision on the proposed amendment to the Regulations. As requested by the Assembly, the Director-General had sought the views of States and these had been reproduced in one of the working papers.¹ He recalled that States had the right to reject or make reservations to amendments to the Regulations adopted by the Assembly. However, if the smallpox vaccination certificate should be amended, then formal rejections or reservations would have little, if any, practical effect. States which rejected the amendment would still need to issue the amended certificate for residents undertaking an international voyage, in order to meet the requirements of other countries.

Preliminary observations on controlled cholera vaccine trials were available for the Committee. He stated that there appeared to be insufficient evidence as yet to warrant amending the cholera provisions of the Regulations.

Dr V. V. Olguín was unanimously elected Chairman and Dr G. D. Ostrovskij Vice-Chairman. The Chairman was requested to act as Rapporteur.

The draft agenda was approved.

The Committee considered the annual report by the Director-General on the functioning of the International Sanitary Regulations during the period from 1 July 1963 to 30 June 1964. This report is reproduced below, the various sections being followed, where appropriate, by the comments and recommendations of the Committee (in italics).

INTRODUCTION

1. This report on the functioning of the International Sanitary Regulations and their effects on international traffic is prepared in accordance with the provisions of Article 13, paragraph 2, of the Regulations. It covers the period from 1 July 1963 to 30 June 1964.

2. Previous reports² cover the period beginning with the time of entry-into-force of the Regulations (1 October 1952).

3. This report follows the same general lines as its predecessors and considers the application of the Regulations from three aspects: as seen by the Organization in its administrative role of applying the Regulations; as reported by Member States in accordance with Article 62 of the Constitution of the Organization and Article 13, paragraph 1, of the Regulations; and as reported by other organizations directly concerned with the application of the Regulations. For ease of reference the three aspects are consolidated and presented in the numerical order of the articles of the Regulations.

4. By reason either of their importance or of the procedure leading to their study, other questions have necessitated the preparation of special documents,¹

¹ Unpublished.
² Off. Rec. Wld Hlth Org. 56, 3; 64, 1; 72, 3; 79, 493; 87, 397; 95, 471; 102, 35; 110, 31; 118, 35; 127, 27; 135, 29.
independently of this report. They are nevertheless briefly mentioned in it.

5. The twelfth report of the Committee on International Quarantine was adopted by the Seventeenth World Health Assembly on 19 March 1964 (resolution WHA17.42) with the exception of the proposed amendments to Appendix 4 of the International Sanitary Regulations (International Certificate of Vaccination or Revaccination against Smallpox), the Assembly having decided to defer consideration of these proposed amendments and to request the Director-General to obtain the observations of Member States and report thereon to the Eighteenth World Health Assembly. The twelfth report of the Committee on International Quarantine and the proceedings of the Assembly relating to international quarantine were published in Official Records Nos. 135 and 136 respectively. An offprint of the twelfth report of the Committee on International Quarantine is available.

GENERAL ASPECTS

Additional Regulations of 23 May 1963, amending the International Sanitary Regulations, in particular with respect to Notifications

6. These Additional Regulations entered into force on 1 October 1963 for all countries bound by the International Sanitary Regulations, 1951, except for four countries—the Federal Republic of Germany, India, Indonesia, and the Union of Soviet Socialist Republics—from which reservations had been received. On 22 February 1964 and on 19 March 1964 respectively the Union of Soviet Socialist Republics and Indonesia, having withdrawn their reservations, became bound by these Additional Regulations. India became bound on 19 March 1964 with the following reservation to Article 1:

The Government of India reserves the right to consider the whole territory of a country as infected with yellow fever whenever a case of yellow fever is reported from that country in terms of paragraphs (a) or (c) of the definition of “infected local area” in the Additional Regulations.

The Federal Republic of Germany is not bound by these Additional Regulations.

Position of States and Territories under the International Sanitary Regulations

7. Information showing the position of States and territories under the Regulations, as of 1 January 1964, was included in Weekly Epidemiological Record No. 3, of 17 January 1964.

States and Territories not bound by the International Sanitary Regulations

8. Australia, Burma, Chile and Singapore, although not party to the Regulations, apply their provisions in nearly all respects.

International Protection against Malaria

9. The Committee was informed of progress of malaria eradication and especially of information already published in the Weekly Epidemiological Record. It appreciates that efforts will be increasingly needed to prevent the introduction of malaria into areas freed of the disease, and reaffirms its opinion expressed in its twelfth report.

Mosquito Vectors of Disease, and Aircraft Disinsection

10. Information on the Aedes aegypti situation at international airports was published in Weekly Epidemiological Record, 1963, No. 47, and 1964, No. 32. Further information is given in a separate document.

The Committee recalls that States have an obligation to keep the area within the perimeter of airports free from Aedes aegypti in its larval and adult stages.

The Committee notes that a number of States regularly inform the Organization on the Aedes aegypti situation at their international airports, and it urges other States in areas where this vector may be present to report periodically. Regular reporting based on competent periodic surveys gives airport health authorities in receptive areas the confidence they need for proper application of quarantine measures.

The Committee notes the progress of dichlorvos (DDVP) trials with apparatus installed on a passenger aircraft engaged in scheduled passenger flights. It notes with satisfaction the co-operation of health administrations and the airline concerned in these trials which are being undertaken by the United States Public Health Service with the collaboration of the Organization. It notes particularly that disinsection of aircraft by means of dichlorvos vapour has been given toxicological clearance by a WHO informal group on the toxicology of pesticides (20-24 April 1964).

3 See sections 39, 49, 68, 76, 87 and 104.
4 See section 97.
6 Unpublished.
The Committee notes the opinion of experts that the operation referred to as "blocks away" disinsection with aerosols is biologically effective. The Committee recommends that the Director-General be requested:

(a) to urge health authorities and operators to use this procedure when aircraft disinsection is required, and

(b) to urge health authorities to accept this type of aircraft disinsection when it has been carried out in accordance with WHO recommendations.

The Committee urges that all practical steps be taken to inform airport health authorities and air crews on the advantages and the practical steps for implementation of this procedure for aircraft disinsection.

The Committee recommends that the Regulations be amended by inserting a new article essentially embodying the obligation and rights of States now covered by paragraph 2 of Article XVII of the International Sanitary Convention for Aerial Navigation, 1944, modifying the International Sanitary Convention of 12 April 1933, opened for signature in Washington on 15 December 1944.

Co-operation with other Organizations

11. Continuing close co-operation between WHO and the International Civil Aviation Organization, the International Air Transport Association (IATA) and the International Union of Official Travel Organisations is maintained on matters related to the application of the Regulations, especially in the broad field of facilitation. The essential aim of the Regulations being "to ensure the maximum security against the international spread of diseases with the minimum interference with world traffic", WHO also has a responsibility for facilitating international traffic. Assistance was given to the Inter-Governmental Maritime Consultative Organization (IMCO) in developing a convention on facilitation of international maritime traffic and as regards quarantine signals for the international code of signals being revised by IMCO.

12. Information was received from IATA that airlines do not appear to experience any particular difficulty in relation to the Regulations, except as concerns some aspects of their application.

THE INTERNATIONAL SANITARY REGULATIONS

PART II. NOTIFICATIONS AND EPIDEMIOLOGICAL INFORMATION

13. No notifications required by the Regulations (Articles 3 to 6 and Article 8) have been received from:

(a) China (mainland) (since March 1951);
(b) North Korea (since 1956);
(c) North Viet-Nam (since 1955).

Article 6

14. Ethiopia. The Government reports that its quarantine service is often blamed for imposing on departing travellers measures required by countries which continue to consider Ethiopia as a yellow-fever infected area or an endemic zone. Travellers do not understand why they have not been requested to be vaccinated before leaving North America or Europe while vaccination is required on departure from Ethiopia for any of the countries which consider Ethiopia as an endemic zone.1

15. France. The Government reports that Ceylon and India continue to consider French Somaliland as a yellow-fever infected area and apply the provisions of the Regulations to travellers and crews of ships embarking at Jibuti.

In its twelfth report,8 the Committee, noting this anomalous position, requested the Director-General to communicate with the governments concerned to clarify the situation and to keep the Committee informed of the result of these consultations at a subsequent meeting.8

Article 11

16. The Weekly Epidemiological Record, in the section "Epidemiological Notes", published the annual summary, including maps, of the reported occurrence of cholera,4 plague,5 smallpox,6 and yellow fever7 during 1963. Information on imported cases and outbreaks of quarantinable and other communicable diseases in the following countries was also published in this section:

Cholera: in Cambodia, Hong Kong, India, Indonesia, Japan, Macao, Malaysia, Republic of Korea, Republic of Viet-Nam, and Thailand;

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1 See also section 61.

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9 The Organization is in communication with the governments concerned, but has not yet obtained the withdrawal of the measures taken vis-à-vis French Somaliland.
5 Wkly epidem. Rec. 1964, 43.
7 Wkly epidem. Rec. 1964, 46.
Plague: in Tanganyika and the United States of America;
Smallpox: in Dahomey, Eastern Germany, Hungary,
Nepal, Peru, Poland, South Africa, Sweden and
Switzerland;
Yellow fever: in Ethiopia and Uganda;
Typhus: in Burundi;
Dengue fever: in the United States of America;
Haemorrhagic fever: in Thailand.

The section “Epidemiological Notes” continued to include summaries of reports on influenza outbreaks.

Information on the status of malaria eradication as at 30 June 1963 (illustrated by a map) and during the second semester of 1963 was published in Weekly Epidemiological Record, 1963, No. 50, and 1964, No. 41.

17. Separate publications were:
(i) Yellow-fever Vaccinating Centres for International Travel: Situation as on 12 July 1963;
(ii) Airports designated in application of the International Sanitary Regulations: Situation as on 4 October 1963;
(iii) Vaccination Certificate Requirements for International Travel: Situation as on 20 December 1963; Situation as on 18 December 1964;
(iv) Ports designated in application of the International Sanitary Regulations: Situation as on 10 July 1964;
(v) Addenda of 25 November 1963 to the Bilingual Decoding and English Coding Sections and to the French Coding Section of CODEPID.

Amendments to publications (i), (ii), (iii) and (iv) appeared as usual in the Weekly Epidemiological Record (WER). In addition, lists of amendments to Vaccination Certificate Requirements for International Travel were issued for those addressees (mainly travel agencies) that do not receive the Record.

18. After a survey on reception of the several transmissions by Geneva-Prangins of the daily epidemiological radiotelegraphic bulletin (DERB), several were discontinued. Two teleprinter transmissions were added, beginning on 1 October 1964, one intended for Europe (HBG) and one for North America (HBO 34).

19. Italy. The Government reports that the method adopted by the Organization of keeping health administrations informed of all details on the development of smallpox foci, by means of memoranda, has been found particularly useful.

Articles 3 to 11
20. Japan. The Government reports that the smooth operation of its quarantine service continues to be hampered by delays in the notification of quarantinable diseases.1 When cholera cases were reported from Korea in September 1963, Japanese officers had to be sent to Korea to obtain information on the extent of the outbreak. It is the wish of the Government that the Organization, in addition to urging countries, particularly those in the South-East Asia and Western Pacific Regions, to report promptly and completely, should try to improve its methods of dissemination of notifications.2

The Committee recalls that in its twelfth report it suggested that, while appreciating that it is the responsibility of the health administration to notify the Organization, in an effort to avoid delays, health administrations might consider having certain health authorities, e.g. those at ports and airports and at cities adjacent thereto, notify the Organization directly.

The Committee was informed that one health administration had already authorized health authorities at its major ports and airports, and at cities adjacent thereto, to notify the Organization directly, and that this had resulted in more prompt notifications.

Article 13
21. In accordance with Article 13, paragraph 1 of the Regulations and Article 62 of the Constitution, the following 137 States and territories have submitted information concerning the occurrence of quarantinable diseases due to or carried by international

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2 The dates of notifications in the cholera outbreak in Korea in September 1963 were as follows:

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<table>
<thead>
<tr>
<th>Date</th>
<th>Mean of notification</th>
<th>Tele-</th>
<th>DERB</th>
<th>WER</th>
</tr>
</thead>
<tbody>
<tr>
<td>21 Sept. 1963 (Saturday)</td>
<td>First case at Pusan 17 Sept.; 39 cases, 10 deaths, up to 21 Sept.; declared infected 21 Sept.</td>
<td>23 Sept. (Monday)</td>
<td>24 Sept.</td>
<td>No. 39 (27 Sept.)</td>
</tr>
</tbody>
</table>

---

* Daily epidemiological radiotelegraphic bulletin.
** Weekly Epidemiological Record.
traffic, and/or on the functioning of the Regulations and difficulties encountered in their application:

Aden and Protectorate of South Arabia
Albania
Angola
Argentina
Australia
Austria
Bahamas
Barbados
Basutoland
Bechuanaland
Belgium
Bermuda
British Honduras
British Solomon Islands Protectorate
Brunei
Burma
Burundi
Cambodia
Cameroon
Canada
Cape Verde Islands
Cayman Islands
Central African Republic
Ceylon
Chile
China (Taiwan)
Colombia
Comoro Archipelago
Congo (Brazzaville)
Cook Islands
Costa Rica
Cuba
Cyprus
Czechoslovakia
Democratic Republic of the Congo

Denmark
Dominican Republic
El Salvador
Ethiopia
Falkland Islands
Federal Republic of Germany
Fiji Islands and dependency
Finland
France (including French Guiana, Guadeloupe, Martinique and Réunion)
French Polynesia
Gambia
Gabon
Greece
Grenada
Guatemala
Hong Kong
India
Iran
Israel
Italy
Ivory Coast
Jamaica
Japan
Jordan
Kenya
Kingdom of the Netherlands (including Netherlands, Surinam and Netherlands Antilles)

Kuwait
Laos
Lebanon
Libya
Luxembourg
Macao
Madagascar
Malawi
Malaysia
Mali
Malta
Morocc
Mozambique
New Caledonia
New Hebrides
New Zealand
Niger
Nigeria
Norway
Pakistan
Panama
Philippines
Poland
Portugal
Portuguese Guinea
Portuguese Timor
Qatar
Republic of Korea
Republic of Viet-Nam
Romania
São Tomé and Príncipe
Saudi Arabia
Senegal
Seychelles
Sierra Leone
Somalia
South Africa
Southern Rhodesia
Spain
St Kitts-Nevis-Anguilla
St Lucia
St Pierre and Miquelon
Sudan
Swaziland
Switzerland
Syria
Tanganyika
Thailand
Togo
Tonga Islands
Trinidad and Tobago
Turkey
Union of Soviet Socialist Republics
United Kingdom of Great Britain and Northern Ireland
United States of America
Upper Volta
Venezuela
Western Samoa
Yemen
Yugoslavia
Zambia
Zanzibar

Details of cases of quarantinable diseases due to or carried by international traffic are given in Part V and in the appendix.

PART III. SANITARY ORGANIZATION

22. In its eighth report the Committee recommended "that the Director-General study the question of developing recommendations for sanitary construction and operation of ships". The Committee "envisaged the possibility of a companion report to that of the Expert Committee on Hygiene and Sanitation in Aviation".2

A draft Guide to Vessel Sanitation (prepared in December 1964) is presented for information in a separate document.

The Committee reviewed the draft Guide to Vessel Sanitation, finds it compatible with the provisions of the Regulations, and is of the opinion that it contains useful recommendations for health administrations, port health authorities and others concerned.

1 As from the end of October 1964: United Republic of Tanzania.
2 Off. Rec. Wld Hlth Org. 110, 42, section 44.

The Committee recalls that the Guide to Hygiene and Sanitation in Aviation2 dealt also with ground installations at airports, and is of the opinion that a document giving recommendations for hygiene and sanitation in ports would assist port health authorities and others concerned.

Article 14

23. In its sixth report, the Committee stated that "pure drinking-water" should be of a quality not less than that described in the WHO publication International Standards for Drinking-Water (published 1958), especially as concerns bacteriological requirements (section 2), and chemical and physical require-

ments (sections 3.1, 3.2.1 and 3.2.2). The WHO publication International Standards for Drinking-Water has been revised and a second edition issued in 1963. In following the Standards, States should refer to corresponding sections of the second edition of 1963.

24. Netherlands. The Government submits the following communication from a shipping company:

"On Friday 13 September 1963, the captain of one of our ships requested the...agent for immunization of two crew members against yellow fever, in connexion with the information just received that he had to leave with his ship to Luanda in Angola, and after that to Lobito, also in Angola. The Vaccination Certificate Requirements for International Travel...states that for Angola vaccination against yellow fever is recommended. All crew members, except the two mentioned above, were in possession of a valid vaccination certificate against yellow fever. To everybody’s astonishment the official body in charge of the vaccination against yellow fever refused to co-operate. The vaccination did not take place, not even when they were offered complete compensation for the ampoule containing a dose for five persons instead of payment for the rate for two. The agent informed the captain as follows: ‘Regarding your request for the vaccination of two crew members against yellow fever, we hereby confirm that neither the public health authorities, the port health authorities nor any private medical institution is able to comply with the request due to the negligible demand for this kind of inoculation.’...however, is on the list of yellow-fever vaccination centres. The captain got the impression that one simply had no inclination to vaccinate on other days than on the appointed Tuesdays and Thursdays. For shipping, however, it is unacceptable that one should act so formalistically. Therefore, we should be very pleased if the Royal Netherlands Shipowners Association could approach WHO with the request to point out to all vaccination centres that requests from captains of ships for vaccination of crew must be complied with at any time. Moreover, it would be useful to intimate that at present there are also yellow-fever ampoules containing one dose instead of the old-fashioned ampoules for five.”

The Committee is of the opinion that masters of ships and aircraft operators should make every effort to maintain appropriate vaccination status of crew members so that emergency requests for vaccination would be reduced to a minimum.

25. Cayman Islands. The Government reports as follows:

"Owing to a shortage of technical staff some difficulty has been experienced in enforcing the International Sanitary Regulations in the past year, but a Caymanian health officer is now undergoing postgraduate training in quarantine work in Jamaica and, on his return in the near future, he will conduct routine quarantine examinations in the Cayman Islands.”

26. Costa Rica. The Government reports that the control at frontiers is not carried out as it ought to be, financial resources being insufficient to send health officers to these areas. Ships arriving in Limon are inspected by customs officials and not by a health officer. Meetings have taken place with a view to improving the situation.

Articles 14 and 22

27. The Sixth World Health Assembly in accepting the reservation made on behalf of Dominica stated as follows:

"Pending the completion of a new hospital, work on which is about to begin, the health administration of Dominica shall have the right not to provide facilities for the prompt isolation and care of infected persons as provided for in Articles 15, 38 and paragraph 2 of Article 44.”

In reply to an inquiry made by the Director-General in June 1964, the Government of the United Kingdom of Great Britain and Northern Ireland informed the Organization on 18 December 1964 that Dominica wishes to insist on the reservation made to the above articles, as facilities for a quarantine station cannot be provided at present; every effort will, however, be made so that it might be possible in the near future to withdraw this reservation.

The Committee recommends to the Health Assembly that it continue its acceptance of the reservation to Articles 15, 38 and 44, paragraph 2, made on behalf of Dominica.

Articles 15, 38 and 44

28. The Sixth World Health Assembly in accepting the reservations made on behalf of Brunei, Falkland Islands, Gambia, Sarawak, Somaliland Protectorate and Surinam stated as follows:


"The Assembly reserves the right to re-examine its acceptance of this reservation from time to time, depending on the development of the international traffic of the territory, without prejudice to the right of the-reserving State to withdraw the reservation at any time and subject to any relevant amendment by the Assembly to the Articles to which the reservation refers."  

On inquiry made in 1957, the Director-General was informed by the health administrations of the Netherlands and of the United Kingdom of Great Britain and Northern Ireland that each of the named territories wished to maintain its reservation for the reasons given when the reservation was made. In its fifth report, the Committee on International Quarantine recommended therefore to the Health Assembly that it continue its acceptance of these reservations.  

In reply to a further inquiry made by the Director-General in June 1964, the governments concerned have expressed the following views:

(1) Gambia. The Government wishes to maintain the reservation for a further period for the following reasons; it will, however, keep the situation under constant review:

(a) no vessels engaged in international traffic begin or end their voyages in Gambia;
(b) all such vessels call at Gambian ports either in ballast or with full holds—which makes it difficult to inspect or derat the ship prior to the issue of a Deratting Exemption Certificate or a Deratting Certificate;
(c) during the past ten years no ship without a valid Deratting Certificate or Deratting Exemption Certificate entered the territorial waters of Gambia. It seems therefore most unlikely that, if available, facilities for deratting would be used;
(d) since the reservation was accepted by the Assembly there has been no significant change in the number of vessels making use of the facilities available at the ports of Gambia.

(2) Netherlands. The Government of Surinam wishes to maintain its reservation to Article 17, since shipping traffic to and from that area is still too insignificant to justify expensive deratting machinery.

(3) Somalia. The Government wishes to maintain the reservation of the former Somaliland Protectorate in view of the absence of developed ports and port health services.

(4) United Kingdom of Great Britain and Northern Ireland. Brunei and the Falkland Islands wish to maintain their reservation for the reasons given in 1953 which are still valid.

(5) Malaysia. No reply has been received from the Government of Malaysia (concerning the reservation of Sarawak).

The Committee recommends to the Health Assembly that it continue its acceptance of the reservations to Article 17 made with respect to Brunei, the Falkland Islands, Gambia, Somalia (Northern Region) and Surinam.

29. France. The Government reports as follows (translation from the French):

"The list of French ports approved in accordance with Article 17 of the Regulations has undergone some changes during the period under consideration. The port of Caen is now authorized to issue Deratting Certificates. On the other hand, the ports of Brest, Cherbourg, La Rochelle-Pallice and Sète are now authorized to issue Deratting Exemption Certificates only. These changes represent the general tendency at the present time. In fact, the companies specializing in the deratting of ships are gradually discontinuing their activities in certain secondary ports since health authorities require more and more rarely the deratting of ships by the use of gases. Nevertheless, the deratting of ships is still effected in a sufficient number of French ports (eleven in all)."

Article 20

30. See section 10.

Article 21

31. Health administrations of 106 States and territories have notified the Organization that 671 ports have been approved under Article 17 for the issue of Deratting Certificates and/or Deratting Exemption Certificates; of those, 162 have been approved for the issue of Deratting Exemption Certificates only.

32. Notifications of 239 sanitary airports have been received from 101 health administrations. Airports with direct transit areas number thirty-eight in twenty-eight States and territories.

Article 22

33. See sections 25 and 26.

2 Off. Rec. Wld Hlth Org. 87, 411, section 76.
4 See also section 46.
PART IV. SANITARY MEASURES AND PROCEDURE

Chapter I. General Provisions

Article 24

34. The Organization was informed that, during the first six months of 1964, fifty-eight travellers having diplomatic status arrived at a Mediterranean airport without the required smallpox vaccination certificate.1

The Committee recalls that there are no provisions of the Regulations which exempt international travellers with diplomatic status from the application of the Regulations.

Sanitary and quarantine measures—e.g. examination of vaccination certificates—carried out in accordance with the Regulations have as their object the protection of health and are to be dissociated from other measures of an administrative or police nature regulating entry into and sojourn in a country and from which persons with diplomatic status may be exempt.

As a consequence, the Regulations are applicable to international travellers with diplomatic status and, depending on the circumstances, such travellers may be placed under medical surveillance or isolation if, for example, they do not possess the necessary valid international certificates of vaccination.

The Committee recommends that the Director-General be requested to bring this to the notice of Member States.

35. Greece. The Government mentions in its report that military units are not subjected to sanitary control.

Article 27

36. Canada. The Government continues to report that surveillance, as provided in Article 27 of the Regulations, is extremely difficult to enforce in Canada owing to geographical features of the country.2

37. Greece. The Government reports that it is difficult to keep under surveillance tourists who are moving all over the country and asks whether a more effective system for such surveillance could be suggested.

Sections 36-37. The Committee was informed that surveillance procedures are often not very successful and that in a number of countries surveillance procedures required the arriving traveller to report to a physician in the event of his becoming ill within a stated number of days. The Committee recalls that surveillance procedures are a matter for national legislation.

Chapter II. Sanitary Measures on Departure

Article 30

38. Philippines. The Government reports as follows:

"...this Bureau encounters difficulty in requiring all arrivals from cholera-infected areas to possess valid cholera vaccination certificates. This is due to the fact that a number of airlines book passengers from such infected areas for the Philippines although they do not possess the required immunization certificates."

39. Australia.3 The Government reports that 475 persons who arrived from infected areas without vaccination certificates had to be vaccinated.4

40. Ethiopia. The Government asks under what circumstances and for what reasons a person could be permitted to leave a country without the required vaccination certificate(s).

The Committee is of the opinion that, under the provision of Article 30, only an infected person or a suspect may be prevented from departure.

Health administrations are urged to take all practical measures to inform the travelling public and travel agencies of the vaccination certificate requirements of all countries to which a traveller is proceeding.

The Committee recommends that the Director-General be requested to bring these matters to the attention of health administrations, and of aircraft operators and shipowners.

The Committee recalls that the Standard in paragraph 3.26 of the fifth edition of the ICAO Annex 9 to the Convention on International Civil Aviation reads in part as follows:

Operators shall take precautions to the end that passengers hold any control documents required by Contracting States.

Chapter IV. Sanitary Measures on Arrival

Article 37

41. Greece. The Government mentions that it is difficult to limit the application of sanitary measures to arrivals from an infected local area who embark at an airport situated in another local area which...
may be free of infection. During the smallpox outbreak in Essex (United Kingdom), for example, all arrivals from London airport had to be submitted to sanitary measures on account of smallpox in Essex.

The Committee recalls that, under the provisions of Article 83, any health administration may require a smallpox vaccination certificate on arrival from any traveller coming from any place. For travellers without such certificate certain sanitary measures are permitted, and these measures depend on whether or not the traveller has come from a smallpox-infected local area.

Chapter V. Measures concerning the International Transport of Goods, Baggage, and Mail

Article 48

42. Israel. The Government reports that some countries require a disinfection certificate for parcels containing old clothes, and that this measure, when applied to parcels from Israel—a country free from quarantinable diseases—would appear to be in excess of the Regulations.

In replying to this query it was stated that the intent of Article 48 is clear from the wording of the Article: parcels containing old clothes may only be subject to disinfection if there is a risk of the spread of a quarantinable disease, and in the case of parcels from Israel it is agreed that, in the absence of the possibility of contamination in transit, the application of sanitary measures does not appear to be in conformity with the Regulations.

The Committee is in agreement with the opinion expressed above.

PART V. SPECIAL PROVISIONS RELATING TO EACH OF THE QUARANTINABLE DISEASES

Chapter I. Plague

43. Iran. The Government reports that one case of plague, confirmed by laboratory, occurred at the Pasteur Institute of Teheran on 19 November 1963. This case was due to a laboratory accident.

44. Republic of Viet-Nam. The Government reports that the disease is still endemic in certain areas, in spite of the strict measures taken (systematic deratting of places which might be infected, mass vaccination campaigns). During the period under review, 256 confirmed cases were reported, including 47 deaths. In Saigon, where the rats captured by the health service are systematically examined, no infected flea has ever been found. The flea index for 1963 was around 1.4 per cent.

45. United States of America. The Government reports as follows:

"There was no case of quarantinable disease in the United States except one case of bubonic plague in a sheep-herder in Houck, Arizona, who had contact with rabbits on 2 December 1963 and died 7 December 1963. Apache County, Arizona, was declared the infected local area. Field investigations of animals and rodents in this mountainous area were negative for plague; the county was removed from the infected local area list of the World Health Organization on 17 January 1964.

"Plague in rodents and wild life was reported in two other mountainous areas of western United States where studies were under way. A sick rat (Rattus norvegicus) picked up on 16 May 1964 in the San Bruno Mountain area near Colma, San Mateo County, California, was found positive for plague. One hundred and twenty-seven other rodents that were examined were all negative for plague. The area was declared free of infection on 1 July 1964.

"A late report was received of an epizootic among prairie dogs in South Park, Park County Colorado, during 1963. A rodent extermination programme in all active prairie dog colonies and a flea control programme followed. Continuous surveillance of this area and the area in San Bruno Mountain, California, is being maintained.

"None of the three areas was significant to international travel."

Article 52

46. France. The Government reports that the new procedures in ship-building make it possible to provide better protection against murine infestation, and that the use of anticoagulants justifies the more and more frequent issue of Deratting Exemption Certificates. In any case, the French health authorities issue Deratting Certificates only where gas has been used.

47. United States of America. The Government reports that there was a significant increase in the percentage of rat-infested ships entering the country.

Chapter II. Cholera

48. Recent activities of the Organization as regards cholera are reported in a separate document. ²

1 See also section 29.
² Unpublished.
49. **Burma.** The Government reports that 42,335 anticholera vaccinations were performed at Rangoon during the year. Among those vaccinated were officials working in the port and the population living on boats on the Rangoon River and found unprotected against cholera during the epidemic. At Mingaladon Airport the number of anticholera vaccinations carried out was 2048.

50. **Japan.** The Government reports that there is each year an increase in the number of aircraft arriving in Japan and, consequently, in the number of travellers coming from infected areas. It is difficult, under these circumstances, to apply strictly the Regulations and, at the same time, ensure the protection of the country against the importation of cholera. For this reason, arrivals from infected local areas are requested to give their destination address (in accordance with Article 36). A questionnaire is distributed during the flight to familiarize the passengers with the questioning on arrival and limit the time taken by quarantine formalities. In addition, a health card is given to arrivals from infected areas as well as to those who travelled on the same flight, advising them to consult a local physician should they show any sign of illness. These measures ensure the early discovery and treatment of cholera cases.

The Government emphasizes the real difficulty of ensuring at the same time smooth international air and sea traffic, and adequate protection of Japan and other countries against the importation of cholera, as 70 per cent. of the ships and 40 per cent. of the aircraft arrive from countries where quarantinable diseases occur either permanently or sporadically.

51. The Government of Japan further reports that fourteen cases of cholera El Tor, plus one carrier, were imported by sea and one by air, and confirms the difficulties experienced in detecting these cases who had only slight symptoms. The Government, being convinced of the inadequacy of Article 69, requests that a further study be made with a view to amending the Regulations.

Sections 48-51. The Committee was informed of the preliminary results of the studies on cholera vaccine in India, Pakistan and the Philippines, and on the possible role of carriers. It notes from the controlled vaccine trials that most cholera vaccines used are effective, although in a lower degree than would be considered satisfactory, and the duration of effectiveness appears to be not longer than six months. The efficacy of one vaccine prepared from classical Vibrio cholerae against El Tor vibrio infection was somewhat lower than the efficacy of El Tor vibrio vaccine. The efficacy of El Tor vibrio vaccine against infection with classical V. cholerae is not yet known. Studies to improve the effectiveness of cholera vaccine, including the duration of immunity, are under way.

The Committee notes that the inter-country transfer of cholera by carriers has not been demonstrated. Further, within any one country, the mode of transmission of cholera vibrios by carriers is not yet sufficiently known to provide a satisfactory explanation for the role played by carriers, if any, in the transmission of the infection.

The Committee is of the opinion that standards for cholera vaccine referred to in Article 61, paragraph 2, should not be less than those contained in World Health Organization Technical Report Series No. 179, Annex 2.

The Committee notes that excretion of vibrios by carriers has been observed to be intermittent and that the significance of a low number of vibrios excreted by carriers in contrast to a large number of vibrios excreted by cases has not yet been determined.

The Committee was informed of studies on the survival of vibrio in contaminated foodstuffs. It was noted that fish caught at sea immediately frozen and properly preserved are not a danger.

The Committee recalls that elimination of cholera from many areas of the world has coincided with improvement of environmental sanitation and is of the opinion that such improvement is at least of equal importance to any specific preventive measures. At the same time, the Committee appreciates that improvement of environmental sanitation in many areas will require many years and meanwhile specific preventive measures, e.g. a more effective vaccine, must be found.

The Committee is, therefore, of the opinion that there is insufficient evidence to consider amending the cholera provisions of the Regulations at this time.

52. **Japan.** In connection with the discovery, in August 1964, of one fatal non-imported case of cholera in Okubo Precinct, Narashino City, Chiba Prefecture, and of one healthy carrier, the following information has been received. The patient fell ill on 23 August at 5 a.m.; he was isolated at 1 p.m. with a diagnosis of suspected cholera. All necessary prophylactic measures were taken and no further case occurred. Including the population of Narashino City (58,000), 264,041 persons were vaccinated. Three hundred and fifty contacts were traced and submitted to stool examination. Out of these, 150 were either placed in isolation or ordered to remain in their home or place of resi-
dence, and had to undergo two to five consecutive stool examinations. In addition, 10,988 persons, including 1421 restaurant workers and dealers in food-stuff, underwent stool examinations. As a result of these stool examinations, one healthy carrier was discovered.

53. Macao. The Government reports that small foci of cholera were observed between June and November 1963. In 1963, thirty-eight cases, including six deaths, were reported. For the first part of 1964, one case only was recorded (in April).

54. Republic of Korea. The Government reports the occurrence of 414 cases of cholera, including thirty-six deaths.

55. Republic of Viet-Nam. The Government reports as follows (translation from the French):

“Since 1954 the country has been regarded as free from cholera. Nevertheless, during the first half of January 1964 a cholera epidemic commenced in the provinces bordering on Cambodia shortly (about two weeks) after the appearance of a cholera epidemic in that country.

“Bacteriological studies carried out by the Saigon Pasteur Institute have shown that the micro-organisms isolated from patients hospitalized in Choquan Hospital are in fact cholera vibrios. Their morphology, cultural and biochemical characteristics prove that they are Vibrio cholerae with, however, some of the characteristics of the El Tor vibrio, namely: positive Voges-Proskauer reaction; haemagglutination of chicken red cells; no haemolytic action on sheep red cells, either on isolation or after sub-culturing.

“Lysotyping shows that the vibrio isolated belongs to Type I, which also includes the vibrios isolated in Cambodia in December 1963, those isolated in Thailand in 1963, and Hong Kong and Philippines strains. The latter strains are typical El Tor vibrios, while those isolated in Cambodia are strictly similar to our own and pose the same problem as to variety—i.e. they do not produce the characteristic exotoxin in Watanabe and Felsenfeld medium. In the light of these results we have grounds for believing that the disease has been spread either by river traffic or by land traffic between Cambodia and our country. However, it is impossible for us to trace the route of propagation, since there are no natural frontiers between the two countries and there is no frontier health control service. From the border provinces, the epidemic gradually spread to Saigon, then to the southern provinces and finally to the central provinces, despite all the hygienic and preventive measures applied. We would mention that 10 million doses of vaccine have been used to immunize more than 80 per cent. of the population. Vaccination against cholera has been made compulsory by ministerial decree, and we now advise all travellers arriving in or leaving Viet-Nam to have themselves immunized.

“The total number of suspect cases registered by the Bureau of Epidemiology since the outbreak of the epidemic (from 7 January to 30 June 1964) is 16,707, including 817 deaths. The geographical distribution of these cases is summarized in the following table:

<table>
<thead>
<tr>
<th>Cases</th>
<th>Deaths</th>
<th>Percentage mortality</th>
</tr>
</thead>
<tbody>
<tr>
<td>Saigon and neighbouring regions</td>
<td>10,148</td>
<td>251</td>
</tr>
<tr>
<td>Provinces</td>
<td>6,559</td>
<td>566</td>
</tr>
<tr>
<td>Total</td>
<td>16,707</td>
<td>817</td>
</tr>
</tbody>
</table>

“The percentage of suspect cases which were confirmed was about 60 per cent. during the acute stage of the epidemic. When the latter entered the endemic stage, the rate fell, varying around 20 per cent. Despite the fairly high incidence of the cases notified the mortality rate has been relatively low, thanks to strict application of the standard treatment advocated by... of NAMRU 2 Team, in Taiwan.”

Article 68

56. United States of America. The Government reports as follows:

“A directive was issued permitting importation of raw water-chestnuts or water-nuts from cholera-infected areas only if adequate processing by boiling or steaming, after entry, could be assured. After samples from shipments had been cultured and found negative for the cholera vibrio and laboratory tests had been made concerning potentialities for survival of the vibrio in these foodstuffs, this directive was modified. Raw water-chestnuts or water-nuts from cholera-infected areas are now admitted if (a) seven days have elapsed since shipment from such areas, (b) they are carried in non-air-tight containers, and (c) water has not been added during this period.

“Action has been withheld as to issuance of a directive providing general controls on certain classes of foodstuffs from cholera-infected areas, pending studies to define the hazard more explicitly.”

Article 69

57. Netherlands. The Government submits the following communication from a shipping company:

“The captain of the steamer..., in his report of 4 February 1964 from Penang, informed us that
during the outward voyage from Rotterdam, crew and passengers were compelled, in Kaohsiung, to submit to what is referred to as 'rectal swabbing' in Article 69, paragraph 1, of the International Sanitary Regulations, although this paragraph runs: 'No person shall be required to submit to rectal swabbing.'

The steamer visited the following cholera-infected ports: Singapore, departure 24 December 1963; Manila, departure 28 December; Hong Kong, departure 31 December; Taiwan, arrival 2 January 1964. The captain of the steamer described the outward voyage experienced the following on his arrival at Rangoon on 13 September 1963. After the steamer had left Madras, on 10 September 1963, two officers had fever, headache, vomiting and diarrhoea, on 13 and 14 September respectively. On arrival in Rangoon, the Port Medical Officer demanded that both officers should submit to an examination for cholera. Should these officers shirk this examination, the ship would be placed under quarantine. The Port Medical Officer took the two officers to the Rangoon City Hospital where they were admitted. After both patients had spent over one day in this hospital, it appeared that they were not suffering from cholera and could be discharged from hospital. We approve of the Medical Officer's opinion that both patients could be considered cholera suspects...

The Committee notes the report of rectal swabbing carried out at Kaohsiung, China (Taiwan) and recalls that the Government of China (Taiwan) has an obligation to follow the provisions of Article 69.

The Committee invites attention to its comments under sections 48-51 above and recalls that Article 23 states:

The sanitary measures permitted by these Regulations are the maximum measures applicable to international traffic, which a State may require for the protection of its territory against the quarantinable diseases.

Chapter III. Yellow Fever

Article 70

58. Notifications of areas considered as receptive or no longer receptive under Article 70 were published in the Weekly Epidemiological Record. An up-to-date list of yellow-fever receptive areas appeared in Weekly Epidemiological Record, 1964, No. 3, and in Vaccination Certificate Requirements for International Travel, 1964 and 1965.


Article 70 (unamended)

60. In accordance with paragraph 2 of Article 70 (unamended), the locality of Cayenne is no longer excluded from the endemic zone, the Aedes aegypti in this locality exceeding one per cent.

61. Ethiopia. The Government reports that it is planned to submit a request for a redelineation of the yellow-fever zone, as soon as the results of the yellow-fever survey which is being carried out in Ethiopia under the aegis of the Organization are known.

The Government further reports that the mouse-protection tests found to be positive and interpreted as being due to yellow-fever endemcity have been found to be caused by other viruses.

The Committee notes that the area concerned is Assab, a local area removed in 1962 from the yellow-fever endemic zone under the provisions of unamended Article 70, paragraph 2.

62. France. The Government reports that Pakistan continues to consider French Somaliland as part of the yellow-fever endemic zone and applies the provisions of the Regulations to travellers and crews of ships embarking at Jibuti.

The Committee was informed that Pakistan has now ceased to consider French Somaliland as part of the yellow-fever endemic zone.

Article 73

63. Several instances have been reported of ships bringing Aedes aegypti to ports where Aedes aegypti has been eradicated. The health administrations of ports concerned have been reminded of their obligations under Article 73, sub-paragraph 3:

3. Every ship... leaving a port... where Aedes aegypti still exists, bound for a port... where Aedes aegypti has been eradicated, shall be similarly disinfected.

64. The attention of the Committee was drawn to an error in the French text of paragraph 3 of Article 73.

The Committee recommends that the following amendment be made to this text:

first line: substitution of the words "quittant un port ou un aéroport" for the words "en provenance d'un port ou d'un aéroport."

1 Wkly epidem. Rec. 1964, 13, 152.
2 See also section 14.
Chapter IV. Smallpox

65. Angola. The Government reports that only nine cases of smallpox, including one death, were reported during the period under review. All were imported from the Democratic Republic of the Congo.

66. Argentina. The Government reports that three confirmed cases of alastrim were observed from 11 to 18 May in Jujuy Province, in persons coming from Bolivia, who entered the country together with members of their families, under contract to work in the sugar-cane harvest.

67. Bechuanaland. The Government reports as follows:

"(1) One African male adult developed variola minor at Mochudi (Southern Medical Region) on 24 February 1964. He arrived from Johannesburg area, Republic of South Africa, on 11 February...

"(2) Two Africans developed smallpox on 9 March near Kasane, Northern Medical Division. As smallpox has not occurred in this area for a considerable time, they must have developed the disease from an imported case, presumably from Northern Rhodesia.

"(3) Between 2 and 16 June, eighteen cases of smallpox were reported in the Kasane area of the Northern Medical Division. They appeared to be connected with the two previous cases in this area and may have contracted the disease from an imported case from Northern Rhodesia.

"(4) On 14 May, four children were found to have smallpox at Maitengwe, a small village near the Southern Rhodesia boundary, 100 miles north-west of Francistown in the Eastern Medical Region. These people apparently contracted the disease from a visitor from Bulawayo, Southern Rhodesia."

68. Burma.\(^1\) The Government reports that 17,926 vaccinations against smallpox were performed during the year at the port of Rangoon.

69. Ghana. The Government reports that none of the seven cases observed in various districts of the country during the year under review was due to international traffic.

70. Iran. The Government reports as follows:

"On 17 September 1963, five clinical suspected cases imported from Pakistan were reported in Gorz and Andeh villages, Khosh Sub-District, Zahedan District, Baluchistan and Sistan Province. Strict preventive measures were taken.

"On 3 December 1963, one imported case was reported from Khajeh-Ahmad village, Shab Sub-District, Zabol District, Baluchistan and Sistan Province. The disease was probably imported from the eastern neighbouring country. This case was confirmed by laboratory. Four secondary cases were reported in the same area, and precautionary measures were immediately taken.

"On 1 April 1964, four cases were reported from Mohammadabad village, Shab Sub-District, Zabol District, Baluchistan and Sistan Province. All cases were confirmed by laboratory. The eastern neighbouring country was known to be the source of infection."

71. Poland. The Government reports that ninety-nine cases\(^2\) of smallpox occurred in Poland between 29 May and 10 August 1963.\(^3\)

72. Southern Rhodesia. The Government reports that during the period under review the following cases of smallpox were reported as being carried by international traffic: eight from Portuguese East Africa; seventeen from Zambia; one from Malawi, and one from South Africa.

73. Sweden. The Government reports that twenty-seven cases,\(^4\) including four deaths, were observed during the epidemic of smallpox in Great-Stockholm in 1963.\(^5\)

74. Switzerland. The Government reports one imported case of smallpox in Zurich.\(^5\)

75. Zambia. The Government reports that 2711 cases of smallpox, including 313 deaths, occurred in the country, and that in some cases the disease might have been imported by land traffic at non-official frontier points of entry.

\(^1\) Country not bound by the Regulations.

\(^2\) Revised figure.

\(^3\) For details see Wkly epidem. Rec. 1963, 29, 31-33, 35 and 36; 1964, 31; also Off. Rec. Wld Hlth Org. 135, 45, section 69, and 51, Appendix 1.


\(^5\) See Appendix (p. 62).
Article 83

76. *Australia.* The Government reports as follows:

"... 1293 people arriving in Australia did not possess valid international certificates of vaccination and were vaccinated at the airport of arrival. In addition, it was necessary to detain sixteen persons in quarantine because they had arrived by air unvaccinated and had refused to be vaccinated."

77. *Denmark.* The Government reports as follows:

"During the epidemic of smallpox in Stockholm, Sweden, May-July 1963, we did not find it practical, because of the intensive communication between Sweden and Denmark, especially the heavy frontier traffic between the southern part of Sweden and the Copenhagen area, to impose too strict smallpox quarantine on the Stockholm area, but in co-operation with the Swedish health authorities we restricted our measures to strongly urging all travellers to and from the Stockholm area to be vaccinated or revaccinated against smallpox well in advance of travel. Strict control of all travellers from Sweden in order to distinguish between persons coming from Stockholm or other parts of Sweden and then control of the vaccination status of travellers from Stockholm would have caused enormous delay and a lot of trouble, especially at Copenhagen and Elsinore where a heavy one-day traffic between Sweden and Denmark and vice versa takes place. The checking of vaccination status of air travellers from Stockholm revealed that all carried valid vaccination certificates."

78. *Netherlands.* The Government reports as follows:

"As a result of smallpox in Sweden, Poland and Hungary, a large number of travellers arriving from these countries at Schiphol Airport (Amsterdam) were checked on valid vaccination certificates (Article 83,2). The greater part of these travellers were overtaken by the situation and arrived at Schiphol Airport with certificates of very recent vaccinations. Although these vaccination certificates must be accepted as a proof of sufficient protection (Appendix 4), this procedure is in fact not quite correct. The fact is that, if such a traveller, being in the second half of his incubation period, has himself revaccinated thirty or forty years after his vaccination, this revaccination cannot prevent an outbreak of smallpox. Nevertheless, such travellers should be admitted without possibility of keeping them under surveillance in virtue of Article 83,2. It does not seem correct to apply here Article 39, since such persons cannot be considered as 'suspects' as meant in Article 1. It would appear that the International Sanitary Regulations do not offer other possibilities. In such cases one must rely on the travellers' willingness to act upon the directions on the so-called warning card.

"The same problem holds with regard to travellers arriving from the well-known infected areas, but to a far lesser degree, since such travellers have themselves revaccinated regularly. Consequently, it seems desirable to amend Appendix 4, in the following sense:

A certificate of revaccination will immediately be valid if the person revaccinated did not stay in a smallpox-infected area during the last fourteen days. Otherwise the certificate comes into effect eight days after revaccination." ²

79. *United States of America.* The Government reports as follows:

"The outbreaks of smallpox in Europe caused by importation of the disease from endemic areas of the world resulted in the detention of several persons arriving at Kennedy International Airport, in New York, who, during the preceding fourteen-day period, had been in the infected areas of Europe. These persons were unvaccinated or did not have valid certificates of vaccination. One unvaccinated person who was detained appealed her case. A Federal District Court upheld the authority of the United States Public Health Service to place in isolation a traveller arriving in the United States from a smallpox infected area without valid documentary proof of vaccination."

Chapter V. Typhus

80. *Basutoland.* The Government reports as follows:

"One case of typhus (louse-borne) was diagnosed serologically. The patient had been in the Republic of South Africa, but no contact with persons in infected areas there was established and no further cases resulted."

81. *Iran.* The Government reports that one case of tick-borne typhus was observed on 17 October 1963 at Shahrkord, Esfahan District. No other cases were notified.

82. *Republic of Korea.* The Government reports that thirty-four cases of typhus occurred during the year.

¹ Country not bound by the Regulations.

² See section 97.
PART VI. SANITARY DOCUMENTS

Article 96

83. The Committee considered the following proposal of the Government of the Federal Republic of Germany and the comments of the Government of Denmark concerning an amendment to Article 96:

Letter from the Government of the Federal Republic of Germany dated 8 July 1964

"...In connexion with the implementation of the International Sanitary Regulations it has been noted that the Regulations do not cover the following special case.

"According to their exact terms, the provisions of the International Sanitary Regulations also apply to the regular ferry-boats of the ferry traffic line Puttgarden-Røddy-Faerge which was established last year.

"In accordance with Article 96 of the International Sanitary Regulations also, the master of a ferry-boat has to complete the Maritime Declaration of Health and to deliver it to the health authority of the port of destination. In the afore-mentioned case, the delivery of the Maritime Declaration of Health remains a mere formality. As the voyage only lasts about one hour, the master is not in a position to ascertain the state of health of his passengers. In my opinion, the delivery of a Maritime Declaration of Health should be dispensed with in this case. The dispensation is, however, opposed by the wording of Article 96, which does not allow any exception. I should be grateful if you would consider whether Article 96, paragraph 1, could be supplemented by the addition of the following sentence after the words 'if one is carried':

The delivery of the Maritime Declaration of Health may be renounced if deemed unnecessary by the relevant port health authority.

"May I, in this connexion, refer to the fact that on 23 May 1963 the World Health Assembly has already similarly amended Article 97 containing the relevant provisions for aircraft."

Letter from the Government of Denmark dated 21 December 1964

"In reply to your letter of 6 November... I beg to inform you that the National Health Service (Sundhedsstyrelsen) has recommended the proposed amendment to Article 96 of the International Sanitary Regulations in its answer to the Ministry of the Interior."

The Committee appreciates that there are similar situations in other parts of the world, recalls that the Health Assembly had adopted an amendment to Article 97 along similar lines to the proposal, and recommends that Article 96 be amended in the first paragraph by addition of the words "except when a health administration does not require it" before the words "he shall".

The Committee recommends as a consequential amendment the deletion of the word "further" in paragraph 2 of Article 96.

The Committee is of the opinion that it would be the right of a health administration, if it decided to dispense with routine submission of the Maritime Declaration of Health, to inform shipowners that:

(a) the Maritime Declaration of Health will not be required from any arriving ships; or
(b) it will be required only when ships arrive from certain stated areas;
(c) notwithstanding the provisions of (a) or (b), it will be required when there is positive information to report.

Article 97

84. The Committee, referring to the amendment to the first paragraph of this article, adopted on 23 May 1963, recommends that a consequential amendment should also be made in paragraph 2 by deleting the word "further".

85. France. The Government reports that, although the health part of the Aircraft General Declaration is required only from aircraft arriving from areas in which quarantinable diseases are endemic, it is not always completed, or there is delay in delivering the document.

The Committee was informed that when the health part of the Aircraft General Declaration is required by health administrations it is not uncommon practice to find that it is not completed, or is completed by authorized agents on the ground before arrival of the aircraft, without knowledge of health conditions on board. The Committee invites the attention of aircraft operators to their obligations under Article 97 and recalls that health administrations and specifically airport health authorities have the right to require full compliance with the provisions of Article 97.

Article 100

86. The International Air Transport Association reports as follows:

"A matter of concern is the passenger health questionnaire—the requirement to complete such forms in Japan and the proposal to introduce them in Germany. The IATA position has been made clear in correspondence which you have had. We hope that no changes to the International Sanitary Regulations would be proposed in this connexion."

1 See comments of the Committee under sections 48-51.
“IATA has also been concerned about the suggested 'malaria card'. If the suggested card were required to be completed upon arrival it would undoubtedly create passenger clearance delays. On the other hand, it would be difficult for the airlines to arrange for distribution of such a card in flight; cabin staff would have to inquire from passengers the duration of their stay and would probably be required to explain to passengers other points in connexion with the requirement.”

PART VII. SANITARY CHARGES

87. Australia. The Government informed the Organization on 10 December 1963 that, under the Australian Quarantine Act, carriers are responsible for expenses of isolation of all travellers who disembark and (a) come from an area considered by Australia as infected with cholera and do not possess a cholera vaccination certificate, or (b) come from an endemic zone and do not possess a yellow-fever vaccination certificate, or (c) arrive by air without smallpox vaccination certificate and refuse to be vaccinated on arrival.

88. Greece. The Government is of the opinion that airline companies carrying travellers who are not in possession of the required valid certificates of vaccination should be charged for the expenses incurred in isolating travellers.

The Committee recalls its opinion expressed in its twelfth report that “It is true that an airline, as the employer of the disembarking crew, might be held responsible for isolation expenses of its own employees (crew). However, isolation expenses for other international travellers cannot be the subject of a charge against the carrier; these expenses are for the international traveller himself or for the country of disembarkation to pay.” It further notes that the Standard in paragraph 3.26 of the fifth edition of the ICAO Annex 9 to the Convention on International Civil Aviation reads as follows:

Operators shall not be fined in the event that any control documents in possession of a passenger are found by a Contracting State to be inadequate or if, for any other reason, the passenger is found to be inadmissible to the State. Operators shall take precautions to the end that passengers hold any control documents required by Contracting States.

89. Netherlands. The Government reports that complaints continue to be received concerning sanitary charges made by port health authorities in excess of Article 101.

PART VIII. VARIOUS PROVISIONS

Article 104

90. The arrangements in force under this article remain as listed in the twelfth report of the Committee.

91. Without formal arrangements several States and territories in Asia where cholera El Tor has been occurring have distributed weekly epidemiological reports to the health administrations of neighbouring countries.

92. Zambia. The Government reports that close liaison is maintained with neighbouring countries with which information on the occurrence of quarantinable diseases is exchanged.

APPENDICES

Appendices 2, 3 and 4

93. Several governments (Australia, Ethiopia, France, Greece, Iran, Lebanon, New Zealand, Panama, South Africa, United Kingdom of Great Britain and Northern Ireland, United Republic of Tanzania, United States of America) report that difficulties continue to be experienced by the health authorities of arrival: travellers or crews of cargo ships are not always in possession of the required certificates of vaccination or revaccination; a number of certificates are not issued on the international form, or are not

2 Country not bound by the Regulations.
5 The matter was referred to the health administration of the countries concerned.
printed in English and French, or are not fully completed in English or French, or the date is not recorded in the prescribed sequence of day, month and year, or the month is indicated by figures instead of letters; certificates are sometimes signed by unauthorized medical practitioners and do not bear the approved stamp; collective and fraudulent certificates continue to be issued.

94. Panama. The Government suggests that the Committee takes appropriate measures for the standardization of such certificates and recommends countries to comply with the provisions of the Regulations applicable on arrival and on departure.

Sections 93-94. The Committee is concerned about the number of false certificates given and recommends that governments should undertake all practicable measures to institute more specific control within their territories to ensure that false certificates are not issued.

95. Greece. The Government reports as follows (translation from the French):

"Cases in which vaccination is contra-indicated give rise to the following questions:

(a) What diseases should be regarded as contra-indicating vaccination? Please list such diseases.

(b) What form should the contra-indication certificate take? We suggest the following model:

Certificate for the Contra-Indication of Smallpox Vaccination

I, the undersigned, certify that the holder of this certificate
Name and first name (in block letters)
Date of birth Sex
Domicile
suffers from and that vaccination against is therefore contra-indicated.
Date Director of the health authority Official Stamp

(c) Should the holder of an official contra-indication certificate be subjected to isolation or to surveillance?"

The Committee recalls its opinion, stated in its first report: 1

If a vaccinator is of the opinion that vaccination is contra-indicated on medical grounds, he should provide the person with written reasons underlying that opinion, which the health authority of arrival may take into account. Decision on a claim for exemption from the requirement to be in possession of a certificate lies solely with the health authority of arrival.

Appendices 2 and 4

96. Greece. The Government reports that it is not always clear whether the vaccination certificate has been signed by the medical officer of the health authority or by the medical officer of the airline company, and is of the opinion that health authorities only should have the right to issue vaccination certificates.

The Committee recalls that it rests solely with each health administration to decide which physicians in its own territory may sign and issue international certificates of vaccination. It also rests solely with each health administration to decide in what form the approved stamp shall be for international vaccination certificates issued in its own territory. It recommends, however, that States study the possibility of issuing or requiring a standard approved stamp for the whole territory.

Appendix 4: Proposed Amendment

97. The Seventeenth World Health Assembly, in resolution WHA17.42, decided to defer consideration of the proposed amendments to Appendix 4, 2 and requested the Director-General to obtain the views of States and report to the Eighteenth World Health Assembly. The Committee is requested to review the situation; details are given in a separate document. 3 Comments made by governments in their annual report on the opportunity of amending Appendix 4 have been included in the separate document. 3

The Committee reviewed the replies of States to Circular Letter 29, 1964 (28 July 1964) 3 and the results of smallpox vaccine trials carried out by the United States Public Health Service and in India and Geneva under the aegis of the Organization. It wishes to emphasize that information on smallpox vaccine trials was not available to it at its twelfth meeting and this information has not yet been available to States. It understands that this information on vaccine trials and replies of States to Circular Letter 29 will be sent to States before the Eighteenth World Health Assembly. 4

The Committee notes that on the trials carried out in India on repeat vaccinations, seven days apart, on


3 Unpublished.

4 Circulated in mimeographed document A18/P&B/6 of 6 April 1965.
2161 persons, the over-all additional success rate when vaccinations were repeated on the seventh day was of the order of 2.4 per cent. The Committee concludes that this small percentage of additional persons protected does not warrant adopting a procedure for repeated revaccination after seven days, in view of the many practical difficulties both for physicians and for travellers.

It notes that, when potent vaccines were used, there was practically no difference in the success rate when either a single insertion or a double insertion was made. It therefore concludes that, when potent vaccines are used, two simultaneous insertions are not necessary to provide successful immunization against smallpox. The Committee notes that, when two simultaneous insertions of vaccine were made, severe reactions were not observed.

The Committee notes from the smallpox vaccine trials that the most important factor in obtaining successful vaccinations was the use of a potent freeze-dried vaccine and proper vaccination technique. Freeze-dried vaccines have the distinct advantage of stability over liquid lymph vaccines.

The Committee therefore recommends that the International Certificate of Vaccination or Revaccination against Smallpox should be amended, as indicated in the model set out below.

The additional phrases proposed are in italics in the model. The other recommended addition is a series of boxes to record the origin and batch number of the vaccine used.

The Committee is of the opinion that its proposals for amending this vaccination certificate will result in better evidence that the certificate represents protection against smallpox and that the proposal will be essentially universally acceptable. After review of the newly available smallpox vaccine trials and the comments of States, the Committee is of the opinion that, on the other hand, the proposals contained in its twelfth report would not give better evidence that the certificate represents immunity to smallpox and, furthermore, it is clear that this previous proposal would not be universally acceptable.

The Committee considers that recording of the origin and batch number of the vaccine used permits checking by the health administration responsible for vaccinations performed in its territory that a potent vaccine was used. Origin and batch numbers recorded are clearly not intended for the use of health authorities of other territories.

The Committee stresses the importance of smallpox eradication in all countries where it exists and the continuing need for other countries to maintain vaccination and revaccination of their own populations.

If the Assembly accepts the recommendation of the Committee to amend the smallpox vaccination certificate, the Committee recommends that countries be allowed a reasonable time to make arrangements, as necessary, to obtain freeze-dried vaccine and to use up stocks of old certificates. It envisages that the amended vaccination certificate might come finally into force on or about 1 January 1967.1

INTERNATIONAL CERTIFICATE OF VACCINATION OR REVACCINATION AGAINST SMALLPOX

CERTIFICAT INTERNATIONAL DE VACCINATION OU DE REVACCINATION CONTRE LA VARIOLE

This is to certify that ______________________________ date of birth ______________________________ sex

____________________________________________________ sex

whose signature follows ______________________________

dont la signature suit ______________________________

has on the date indicated been vaccinated or revaccinated against smallpox with a freeze-dried vaccine certified to fulfil the recommended requirements of the World Health Organization.

a été vacciné(e) ou revacciné(e) contre la variole, à la date indiquée ci-dessous, avec un vaccin lyophilisé. Il est certifié que ce vaccin répond aux normes recommandées par l'Organisation mondiale de la Santé.

1 For amendments adopted by the Eighteenth World Health Assembly, see resolution WHA18.5.
Under instructions to physicians in a booklet on vaccines, or on the reverse side of the smallpox vaccination certificate, the following notes on techniques of smallpox vaccination should be added:

In the multiple pressure technique a small drop of vaccine is placed on the skin and a series of pressures is made within the smallest possible skin area (not more than 1/8 inch or 3 mm in diameter) with the side of a sharp needle held tangentially to the skin. The pressures are made with the side of the needle, not the point. For revaccination, 30 strokes are completed in a few seconds, using an up-and-down motion perpendicular to the skin. For primary vaccinations, not more than 10 strokes are necessary. No signs of bleeding should occur. No dressing should be used.¹

The scratch technique consists of a single linear scratch not more than 1/4 inch or 6 mm in length performed through the vaccine with a needle or another suitable instrument. The scratch should not be too superficial. The needle should not draw blood but the scratch should be deep enough so that slight oozing occurs after a few seconds. The vaccine is rubbed into the scratch with the side of the needle, and no dressing is necessary.²

Chemical agents should not be used for the preparation of the skin for vaccination. If necessary, the skin can be cleansed with soap and water. Care should be taken that the skin is dry when the vaccination is made.

The needle or vaccinostyle used to perform the vaccination should be sterile. The vaccinator should ensure that the instrument has cooled before being used.

98. Burundi. The Government reports again ² that certain health authorities in a neighbouring country require a smallpox vaccination certificate issued during the year.³

99. Lebanon. The Government wishes to know whether international certificates of revaccination against smallpox may be issued to travellers possessing certificates invalid in international traffic, when there is evidence of a recent successful vaccination (typical reaction), the date of entry into the country being entered as the date of vaccination.

The Committee is not prepared to accept the above suggested practice. It recalls that international certificates of revaccination against smallpox are to be issued by the physician responsible for the vaccination in the territory where the vaccination is performed.

OTHER MATTERS

Dengue and Haemorrhagic Fever transmitted by Mosquitos

100. In its twelfth report the Committee requested the Director-General to keep it informed of developments in dengue and haemorrhagic fever.⁴ Details are given in a separate document.⁵

³ The matter was referred to the health administration of the country concerned.
⁵ Unpublished.
The Committee was informed of developments in relation to dengue and haemorrhagic fever including the WHO seminar held in Bangkok in 1964 and the Organization's global epidemiological surveillance programme.

It notes that States in the Western Pacific, South-East Asia and Eastern Mediterranean Regions have already been requested to submit periodic reports on these two diseases. The Committee appreciates the importance of the reporting of these two diseases and recommends that other States and territories where the disease occurs or may occur should be encouraged to report in a similar manner.

The Committee notes that health administrations having areas where Aedes aegypti are present may wish, as a preventive measure, to consider issuing a warning card to arriving international travellers coming from areas where dengue or haemorrhagic fever is reported to be present. Such a warning card would not be incompatible with the provisions of the Regulations.

101. United States of America. The Government reports as follows:

"Outbreaks of dengue in Puerto Rico, Jamaica and Antigua required the United States to alert arriving persons, especially those entering or destined for southern continental United States where the Aedes aegypti mosquito is present, to report to their physician or local health officer should a febrile illness occur within the succeeding fifteen days. Twenty-eight imported cases of dengue were reported by eight states throughout the country in late 1963 and early 1964."

Legislation

102. Trinidad and Tobago. The Government reports that the quarantine legislation of the country requires revision, and that this is being made with the assistance of advisers from the Organization.

Mecca Pilgrimage

103. The health administration informed the Organization on 25 April 1964 that the Mecca Pilgrimage for 1964 (year 1383 of the Hegira) remained free of quarantinable disease.

Training

104. Australia.1 The Government reports as follows:

"Australian quarantine medical officers visited Madras early in 1964 for a training course in smallpox diagnosis. The experience gained from this course should prove invaluable in the early detection of smallpox. The rapid and early identification of smallpox is an additional safeguard against its introduction into this country."

The Committee concludes that for smooth and sound functioning of quarantine practice at ports, and especially airports, adequate services are required. Port and airport medical officers and quarantine inspectors need special training; quarantine personnel need to have confidence that their colleagues in other and especially nearby countries are applying sanitary control measures in strict accordance with the provisions of the Regulations. This confidence could be obtained by periodic visits to other countries and by periodic meetings of quarantine personnel from neighbouring countries.

Appendix

CASES OF QUARANTINABLE DISEASES IMPORTED BY SHIP AND AIRCRAFT
from 1 July 1963 to 30 June 1964

1. Cholera

<table>
<thead>
<tr>
<th>Ship or aircraft</th>
<th>Date of arrival</th>
<th>Port of arrival</th>
<th>From</th>
<th>Number of cases and probable source of infection</th>
<th>Remarks (No secondary cases)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1963</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SU-CHUAN</td>
<td>?</td>
<td>China (Taiwan)</td>
<td>Hong Kong</td>
<td>1 case — Hong Kong</td>
<td>Male aged 35; cholera diagnosed on 8 August.</td>
</tr>
<tr>
<td>GUNUNG-KERINITJI</td>
<td>16 Sept.</td>
<td>Yokohama</td>
<td>Djakarta (20 Aug.) Hong Kong (9 Sept.)</td>
<td>1 case</td>
<td>Member of crew; case discovered on 18 September; was in possession of a vaccination certificate.</td>
</tr>
</tbody>
</table>

1 Country not bound by the Regulations.
### EIGHTEENTH WORLD HEALTH ASSEMBLY, PART I

<table>
<thead>
<tr>
<th>Ship or aircraft</th>
<th>Date of arrival</th>
<th>Port of arrival</th>
<th>From</th>
<th>Number of cases and probable source of infection</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1963</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>EUNYANG</strong></td>
<td>29 Sept.</td>
<td>Miike</td>
<td>Pusan (28 Sept.)</td>
<td>1 case — Pusan</td>
<td>Member of crew; case discovered on 30 September; was in possession of a vaccination certificate.</td>
</tr>
<tr>
<td><strong>JINAM No. 3</strong></td>
<td>29 Sept.</td>
<td>Moji</td>
<td>Pusan (28 Sept.)</td>
<td>1 case — Pusan</td>
<td>Member of crew; case discovered on 1 October; was in possession of a vaccination certificate.</td>
</tr>
<tr>
<td><strong>DONG-HAE</strong></td>
<td>29 Sept.</td>
<td>Moji</td>
<td>Pusan (28 Sept.)</td>
<td>2 cases — Pusan</td>
<td>Members of crew; cases discovered on 1 October; were in possession of vaccination certificates.</td>
</tr>
<tr>
<td><strong>DAI-YIUNG No. 6</strong></td>
<td>6 Oct.</td>
<td>Moji</td>
<td>Yosu (5 Oct.)</td>
<td>1 case</td>
<td>Member of crew; case discovered on 8 October; was in possession of a vaccination certificate.</td>
</tr>
<tr>
<td><strong>SEIZAN-MARU</strong></td>
<td>26 Oct.</td>
<td>Karatsu</td>
<td>Pusan (25 Oct.)</td>
<td>4 cases — Pusan</td>
<td>Members of crew; cases discovered on 27 October; were in possession of vaccination certificates.</td>
</tr>
<tr>
<td><strong>ASMARI</strong></td>
<td>27 Oct.</td>
<td>Moji</td>
<td>Bangkok (17 Oct.) Hong Kong (23 Oct.)</td>
<td>1 case — Hong Kong</td>
<td>Member of crew; case discovered on 29 October; was in possession of a vaccination certificate.</td>
</tr>
<tr>
<td><strong>Aircraft</strong></td>
<td>9 Nov. (Fukuoka airport)</td>
<td>Itazuke</td>
<td>Hong Kong (3-7 Nov.) Okinawa (Ryukyu Is.)</td>
<td>1 case — Hong Kong</td>
<td>Case discovered on 10 November; patient was one of 24 American tourists; was in possession of a vaccination certificate.</td>
</tr>
<tr>
<td><strong>FENGNING</strong></td>
<td>22 Nov.</td>
<td>Yokohama</td>
<td>Hong Kong (14 Nov.)</td>
<td>1 case — Hong Kong</td>
<td>Passenger; case discovered on 23 November; was in possession of a vaccination certificate.</td>
</tr>
<tr>
<td><strong>MUKHO</strong></td>
<td>4 Dec.</td>
<td>Hakata</td>
<td>Singapore (11 Nov.) Hong Kong (25 Nov.)</td>
<td>2 cases — Hong Kong</td>
<td>Members of crew; cases discovered on 5 December; were in possession of vaccination certificates.</td>
</tr>
</tbody>
</table>

2. SMALLPOX

<table>
<thead>
<tr>
<th>Ship or aircraft</th>
<th>Date of arrival</th>
<th>Port of arrival</th>
<th>From</th>
<th>Number of cases and probable source of infection</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1963</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Aircraft</strong></td>
<td>17 Aug.</td>
<td>Zurich</td>
<td>Port-Gentil (8 Aug.) Libreville (10-12 Aug.) Paris-Bordeaux (13-17 Aug.)</td>
<td>1 confirmed case</td>
<td>Swiss nurse revaccinated against smallpox at the beginning of July before her departure for Lambarene (Gabon).</td>
</tr>
<tr>
<td><strong>Aircraft</strong></td>
<td>?</td>
<td>East Berlin</td>
<td>?</td>
<td>1 suspected case</td>
<td>Notified to the Organization on 7 September.</td>
</tr>
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</table>
Annex 2

EXTENSION OF MAXIMUM VALIDITY OF INTERNATIONAL CERTIFICATE OF VACCINATION OR REVACCINATION AGAINST YELLOW FEVER

Report by the Director-General

The maximum validity period of the International Certificate of Vaccination or Revaccination against Yellow Fever (Appendix 3 of the International Sanitary Regulations) is six years. The Expert Committee on Yellow Fever in its second report, in 1953, recommended that this validity period be extended to nine years. The Committee on International Quarantine in its first report accepted this recommendation. At the Seventh World Health Assembly, this matter was discussed together with other yellow-fever provisions of the Regulations. It was then decided to refer this matter back to the Committee on International Quarantine for consideration with other proposed changes in the yellow-fever provisions. The Committee on International Quarantine in its second report, while recommending other changes in the yellow-fever provisions, was of the opinion that as yet there was insufficient evidence on which to base an extension of the validity period from six to nine years.

At its seventh meeting, in 1959, the Committee on International Quarantine considered a paper subsequently published under the title Neutralizing and haemagglutination-inhibiting antibodies to yellow fever seventeen years after vaccination with 17D vaccine, and noted the results obtained. It reported the presence of yellow-fever neutralizing antibodies for seventeen years after vaccination with 17D vaccine in 97 per cent. of 108 persons living in an area where yellow fever had never been reported.

In a more recent paper Rosenzweig, Babione and Wisseman report their findings of yellow-fever neutralizing antibodies in individuals vaccinated up to nineteen years previously.

The Director-General has consulted, by correspondence, nine well-known yellow-fever experts as to their views about extending the maximum validity of the yellow-fever vaccination certificate up to ten years. All agreed that a ten-year maximum validity would be a sound practice; several of them gave the opinion that immunity after vaccination may very well be life-long.

The health administration of the United States of America has recently recommended to the Director-General that consideration be given to amending Appendix 3 of the International Sanitary Regulations to extend the maximum validity of the International Certificate of Vaccination or Revaccination against Yellow Fever from six to ten years.

The Director-General has consulted the health administrations of several yellow-fever receptive countries which use the yellow-fever endemic zone concept for application of the International Sanitary Regulations. They have all agreed that they would have no objections to extension of the maximum validity of this certificate to ten years.

The Health Assembly may wish to consider incorporating into Additional Regulations amending the International Sanitary Regulations the following provisions as regards the validity of Appendix 3.

1. In Appendix 3 of the International Sanitary Regulations (International Certificate of Vaccination or Revaccination against Yellow Fever) there shall be made the following amendments:

   Delete the words “six years” and insert “ten years”;

   Delete the words “six ans” and insert “dix ans”.

2. The period of validity of an international certificate of vaccination or revaccination against yellow fever issued before the entry-into-force of these Additional Regulations is hereby extended from six years to ten years.

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1 See resolution WHA18.5.
4 Off. Rec. Wild Hlth Org. 56, 91 and resolution WHA7.56.
5 Off. Rec. Wild Hlth Org. 64, 37.
7 Off. Rec. Wild Hlth Org. 102, 51 (section 82).
1. Introduction

Article 28(g) of the Constitution of the World Health Organization requires its Executive Board "to submit to the Health Assembly for consideration and approval a general programme of work covering a specific period". At its fourth session the Executive Board decided that five years was the maximum period for which such a programme should be considered.

2. Earlier Programmes of Work

2.1 This function of the Executive Board has been discharged on three occasions, resulting in the first (1952-1956), second (1957-1961) and third (1962-1966) programmes of work whose main objectives were in consonance with the principle of the Constitution that "the enjoyment of the highest attainable standard of health is one of the fundamental rights of every human being".

2.2 Certain objectives were common to all three earlier programmes; these included the strengthening of national health services, professional and technical education, and measures against the communicable diseases, and certain non-communicable ones; the provision of permanent world-wide advisory and technical services of general international interest; medical research, and the co-ordination of health with other economic and social activities. The pursuit of these objectives will continue as outlined hereunder.

3. The Context of the Programme for 1967-1971

3.1 Those general principles which governed the application of the three preceding programmes will continue to guide the implementation of this fourth programme of work for the period 1967-1971, which in fact seeks to consolidate and to extend their gains.

3.2 The preparation of this fourth programme has been guided by WHO's prospective responsibilities to an increasing number of Members with their various national health needs arising from the rapid growth of their population and from their socio-economic development plans and aspirations, as well as from current and expected advances in the medical and allied fields. Particular attention has been paid to the health needs of countries that have recently acceded to independence.

4. Principles and Criteria

4.1 The data in the Annual Epidemiological and Vital Statistics and the information in the series of reports on the world health situation provided by Member States and Associate Members on their most important health problems in the context of their social and economic conditions, when integrated with the reported experience from the projects receiving technical assistance, constitute an information system which is invaluable for the planning of the programme, since it enables the Organization to discern those common and recurrent health problems that it must seek to solve.

4.2 The criteria for the selection of projects to be assisted by the Organization were outlined in the first programme of work (1952-1956), and are still generally valid. Experience gained since then has shown the advantages accruing from the placement of a particular project within its proper context—that of existing health services and, when it exists, of a national health plan; and from the establishment, whenever possible, of baselines and targets consistent with a certain desirable flexibility of action.

4.3 The introduction of evaluation criteria into the plans of programmes will facilitate both the assessment of their evolution and their retrospective analysis. A continuing review of projects and the experience gained in the field, including follow-up studies of past assistance, should provide the basis on which programme formulation and project planning can be better developed. Efforts will also be made to advance the understanding of the interplay of health factors and economic development in countries.

5. Strengthening of Health Services

5.1 National health planning has as its objective the orderly, organized development of all the services which are concerned with the promotion of health and
he prevention of disease. It is part of the dynamic and comprehensive attack on the country's general economic and social problems, which is implied in planning for economic and social development. It is typically designed to produce a comprehensive health service, but circumstances may limit its scope to the strengthening or extension of certain constituent services. WHO will continue to assist countries in any form of health planning, more particularly by the provision of advisers and consultants. Maximum effectiveness is obtained when the investigations and proposals of the economic and health planners are either carried out conjointly or closely co-ordinated. The experience gained by the Organization in this field will in due course enable it to prepare a statement of the broad principles of this type of planning and to describe its several methodologies.

5.2 Experience has shown that for the success of mass campaigns it has been frequently necessary to assimilate their machinery, with its limited objectives, into the more comprehensive general health service, which at times had to be developed for the purpose. This integration of the mass campaign organization within the general health services facilitates the extension of those services to the peripheral areas of a country, and avoids the centralization which tends to prevent progress in territories with rural characteristics and a scattered distribution of population. Health services should reach the people in a constellate pattern of organization, in which hospitals are extended to health centres and health units staffed in accordance with the manpower resources available to provide preventive and curative services of diminishing organizational complexity.

6. Measures against the Communicable Diseases

6.1 The Organization's programme with regard to the communicable diseases will continue to be influenced by the necessity of maintaining and developing epidemiological surveillance on a global and regional basis, and the need to achieve control or even eradication of the major diseases at least on a local basis, wherever it may be technically and economically feasible to do so, utilizing wherever possible the general health services for the purpose.

6.2 The experience already gained should provide the basis for the eradication of smallpox, and for WHO to help countries to accelerate their efforts in this direction, establishing timed objectives wherever possible. The importance attached to the world-wide malaria eradication programme will be maintained. The attempts to resolve the difficulties raised by "problem areas" where a combination of factors operates to perpetuate transmission of the disease should accelerate the already considerable progress of this programme. While malaria is the disease most detrimental to economic development, others, of which African trypanosomiasis is an outstanding example, are still relatively uncontrolled in certain territories. Bilharziasis, too, is a serious problem, and in some localities it is an embarrassing sequel to faulty irrigation and use of water resources.

6.3 The tuberculosis programme will continue to seek the application of the findings of epidemiological, immunological and chemotherapeutic research to standardized mass treatment under adverse socio-economic conditions. Ways will also be sought of continuing to make leprosy control programmes more suitable for developing countries. Meanwhile, the low-cost mass penicillin campaigns against the rural endemic treponematoses will be continued and integrated wherever possible into the work of developing rural health services. The control of venereal syphilis and of gonorrhoea will require more determined case- and contact-finding as well as national and international epidemiological surveillance. Work in the veterinary public health field will concentrate on zoonoses control, food hygiene and comparative medicine.

6.4 The Organization will devote increasing attention to, inter alia, the recurrence of diseases in certain areas, notable examples being cholera and plague, and, especially in Africa, cerebrospinal meningitis.

The programme on virus diseases will continue to collect, analyse and distribute information on viruses, collaborate with virus centres, establish virus laboratory facilities, and train virologists. It will seek to elucidate the ecology of viruses, their reservoirs and modes of transmission, and their relation to human illness, especially cancer. Virus vaccines declared safe, acceptable and effective will be utilized for disease control. Special attention will be given to measles, especially in tropical countries, and to trachoma.

7. Measures against the Non-communicable Diseases

The non-communicable diseases of major importance include those which are frequently prominent as causes of death, morbidity and incapacity, and epidemiological and sociological investigations are needed in the study of all the factors concerning their causation. As public health problems they loom more largely in developed regions of the world, but are beginning to make themselves felt also in the developing countries.

7.1 The complexity and urgency of the problem of the cancers need not be reiterated to justify the inten-
sification of the Organization's efforts in this field. The collection and dissemination of information, the standardization of nomenclature and the establishment of reference centres will be pursued. Support will be given to studies in the domain of comparative oncology, cancer epidemiology and geographical pathology, and the investigation of carcinogenic agents.

7.2 The problem of devising methods to improve the care of the mentally ill, and to formulate effective ways of preventing such illness wherever possible, is acquiring increasing urgency. The goal is to create possibilities for dealing effectively with those factors that threaten mental well-being. Its attainment must rely on epidemiological research, on standardization of nomenclature, on the development of an internationally acceptable classification of mental disorders, and on the intensification of adequate training of the non-psychiatrist physician as well as the specialist and auxiliary staff in this field. The programme will continue to foster team-work and to endeavour to provide better facilities for early diagnosis and treatment by psychiatrists in schemes of comprehensive, flexible community care of the mentally ill. This objective gains in importance now that it has become possible to control the acute phases of many mental disorders and to treat them extra-murally.

7.3 The cardiovascular diseases are taking an ever-growing toll of life and remain responsible for much chronic invalidism. The Organization will therefore continue to co-ordinate activities in this field, undertaking comparative population studies of an epidemiological/pathological nature. Wherever possible, social, clinical and biochemical studies will be combined with autopsy findings in the same population groups in the investigation of the influence of nutritional, physical, mental, occupational and other environmental factors on the circulation from the physiological and pathological points of view.

7.4 The nutritional diseases and deficiencies in the developing countries continue to require epidemiological investigation. Applied nutrition programmes and the organization of nutrition services are needed to provide for the education of the community, particularly of mothers, and for the proper care of the malnourished child, who is often the victim of aggravating gastro-intestinal and other infections. Special attention should be given to the importance of the adequate training of specialized and auxiliary staff in different parts of the world and to the need to coordinate, at international and national levels, the nutritional activities in the health, agriculture and education sectors, to ensure adequate integration of the programmes.

8. Environmental Health

8.1 The unquestioned fundamental character of environmental sanitation dictates its high priority in the Organization's programme of work. The adoption of national health planning and the general development of peripheral health services on the one hand, and on the other the pace of urbanization and industrialization and the widespread micro-contamination of the environment are among the circumstances of the present-day world which necessitate a reshaping and elaboration of a number of sanitary concepts and practices hitherto accepted as sufficient. For the most part, however, changes of emphasis rather than radical amendments of earlier programmes are implied.

8.2 During the period covered by the fourth programme of work, assistance will be given to governments to strengthen their sanitation services or prepare national plans in this field. In common with housing and urban and rural development, large-scale water supply systems and sewage disposal works have to be planned at high level—regional or national—because of the technical, organizational and material resources required, and also because environmental services are a necessary element of socio-economic development. The environmental health problems arising from urbanization will continue to receive attention.

8.3 It will be the responsibility of WHO to ensure that relevant education and training programmes are designed to forge stronger links between personal and environmental services at central and local levels. Special attention will be paid to the training of professional and auxiliary sanitary personnel as members of local health teams, and to the training of other health personnel in the elements of sanitation.

8.4 The Organization will continue to collect and collate information and to encourage necessary studies and research, as well as providing advisory services to requesting governments on such subjects as community water supply, sewage disposal, the disposal of garbage and refuse, and atmospheric pollution.

8.5 In the research programme in this field, studies will continue on problems related to the control of environmental biological hazards, including the toxic, carcinogenic and mutagenic effects of micro-contaminants of the environment (such as pesticides, herbicides, food additives, radioactive residues and the like), and the control of physical hazards such as noise and vibration.

9. Education and Training

9.1 Whatever the form of assistance rendered by the Organization to individual countries to strengthen
their educational programmes, either through the award of fellowships for the expatriate training of their staff, or through advice and support in the establishment of schools or other training facilities, the objective is to enable assisted countries to have as rapidly as possible their own cadres of well-prepared staff in all fields of health, which is the only real and lasting solution to their health problems.

9.2 The education and training of health staff holds for all Member States a universality of interest in that it is basic to their total health endeavours. The programme will continue to cover the undergraduate, post-graduate and specialist fields of medical education, as well as the education and training of nurses, sanitary engineers, midwives, health visitors, health educators, public health inspectors, and all types of auxiliaries, and will reserve for the preparation and improvement of the teacher a very special place, especially in the award of fellowships.

9.3 National health planning and education and training are subjects closely linked together, for the implementation of any national health plan is conditioned by the manpower which the existing system of education can provide. In fact, the form and content of medical education are governed not only by the state of medical knowledge, but also by such factors as the prevailing educational levels and the state of political, economic, social and cultural development. Many countries are currently strengthening their educational organization at various levels, and WHO will continue to stimulate and assist governments to establish as early as feasible new institutions, or to improve existing ones at which the training of the various categories of professional and auxiliary health personnel can be carried out.

9.4 The need for many more medical schools is evident in many parts of the world, and the need is matched by a widespread desire among countries to open new schools as quickly as resources permit. In many instances, at any rate temporarily, it will be difficult to meet national aspirations in the field of professional education, but WHO could assist in the planning and co-ordination of the establishment of educational institutions on an inter-country basis. These could form the focal point for staff training and eventually for the preparation of teachers—a prerequisite for the expansion of training facilities in general.

9.5 The programme of post-graduate education in the field of public health should continue to seek to adapt the teaching to future public health needs and to provide opportunities for post-graduate training of administrators of health services. More schools of public health are required to train health personnel in the scientific disciplines and in the principles of administration which are necessary for directing and co-ordinating health services at the national and local levels. The Organization will continue to rely on courses, seminars and other educational meetings to promote knowledge regarding the latest developments in the various health and allied fields.

9.6 The demand for health services in many parts of the world exceeds the availability of staff, and auxiliaries are therefore utilized to staff medical and public health services. This situation is not restricted to the developing countries, but it is of greater significance there. In those countries where medical staff is very scarce and which make little or no provision of their own for medical education, it will be necessary to devise training programmes for auxiliaries and their supervisors so that initially a skeleton service is established, staffed by adequately supervised aides. This can subsequently be steadily extended as professional and paramedical personnel become available.

10. Subjects of General International Health Interest

10.1 The Organization will continue to discharge functions concerned with subjects of world-wide interest, such as international epidemiology and quarantine, the collation, analysis and presentation of statistical material provided by governments, the establishment of biological standards, and the preparation and maintenance of the International Pharmacopoeia and the International Statistical Classification of Diseases, Injuries and Causes of Death.

10.2 During the period of the fourth programme of work opportunities will be found at the regional levels to extend the collection of epidemiological and statistical information and to improve its quality. The provision of a comprehensive, continuous intelligence service, however, will necessitate a central repository for this type of information.

10.3 The disquieting problem of adverse drug reactions induced the Fifteenth World Health Assembly in 1962 to put forward the programme for the promotion and co-ordination of rational and reliable procedures for evaluating the safety and efficacy of drugs. In consonance with these intentions, WHO will seek to formulate internationally acceptable principles and requirements for drug evaluation, to promote the exchange of information on drug safety and efficacy, and to seek ways of rapid dissemination of information on serious adverse drug reactions.
11. Research

11.1 The intensified medical research programme of the Organization, conceived in 1958, is rapidly becoming an important factor in international medical research. Efforts will continue towards developing its promotive and co-ordinating role. Emphasis will be placed on those aspects of medical research which are of international interest and therefore best befitting the scope of the programme. The third programme gave an outline of the types of research most suitable for international co-operation. These objectives will continue to guide the Organization during its fourth programme, which will therefore concentrate on problems of a world-wide character or requiring comparisons of health and illness in contrasting environments. It will seek to standardize nomenclature, techniques and procedures, aim at the pooling of knowledge, and co-ordinate the investigations carried out in different countries.

11.2 The programme will in particular promote better exchange of information between scientists engaged in research. The training and exchange of research workers and assistance to these upon their request, and the establishment of research facilities as part of the education and training programme of developing countries requesting such assistance, will remain important objectives.

11.3 Recent advances in science and the rapid development, for example, in the application of mathematics and technology to biomedical and health research, will undoubtedly accelerate the rate of progress in the resolution of major world health problems in the coming years. The Organization should therefore be prepared to adapt itself to cope adequately with new and increased responsibilities in many fields such as epidemiology, communications science, adverse reactions caused by drugs and environmental contaminants, cancer, human reproduction, and world population trends.

12. Programme Co-ordination

12.1 The third general programme of work identified four areas of programme co-ordination, namely: (i) the United Nations, the specialized agencies, the International Atomic Energy Agency and other organizations of the United Nations system; (ii) the intergovernmental and governmental agencies working in the health field; (iii) non-governmental organizations interested in health problems; and (iv) other organizations and institutions, official and private, involved in health work.

12.2 The essential purpose of all the efforts of the Organization in this field is twofold. There is a need to co-ordinate activities in the health field with other economic and social development activities, thus bringing into focus the importance of the health element in balanced national socio-economic development. Meanwhile, the Organization must also exercise its constitutional function as the co-ordinating authority on international health work and therefore collaborate closely with all those agencies, intergovernmental, governmental and non-governmental, which work in the health field. The existing mechanisms for such co-operation must remain flexible and effective and be extended to meet increasing needs, for it is necessary that national planners and economists become aware of the importance of health as a factor in national development, and of the untoward consequences of neglecting it. The need for co-operation also arises from the rapid progress of medical science, which calls for closer ties with all technical bodies, particularly non-governmental organizations, in order to ensure that the impact of their work is fully reflected in international health programmes.

12.3 It is at the national level that co-ordination of health activities is most effective. In the ultimate analysis it is for national health authorities to integrate all sources of aid—international, bilateral and private—for the fulfilment of stated health objectives, and for harmonizing the national and international work in the agricultural, educational, industrial and social sectors. In this respect the Organization will rely increasingly on the part played by WHO representatives. In all this field of endeavour the Organization will continue to foster and rely upon the mutual understanding, goodwill and respect of all those whose work has a direct or indirect bearing on the health of nations.

13. Conclusion

The completion of the fourth general programme of work will find the Organization near the end of the first quarter-century of its history. In view of this, the programme seeks to increase the impetus which so far has characterized the growth of the Organization’s range of interests and responsibilities. It therefore indicates ways in which the Organization can continue to be of benefit to its Member States.
Annex 4

AWARD OF A PRIZE FOR RESEARCH WORK ON MENTAL SUBNORMALITY

[1A8/2 — 9 March 1965]

1. REPORT BY THE DIRECTOR-GENERAL

The Executive Board, in accepting a gift of Dutch florins 2200 (equivalent as at 1 February 1965 to US $611) made available to WHO to be used for the award of a prize for work in the field of research on mental subnormality, requested the Léon Bernard Foundation Committee to act as a selection committee in the choice of a scientist whose work had made, inter alia, an important contribution to a deeper insight into the nature and causes of mental subnormality.

The Léon Bernard Foundation Committee met on Saturday, 23 January 1965, to act as a selection committee, as requested, and the report by the Chairman is reproduced below.

2. REPORT OF THE LÉON BERNARD FOUNDATION COMMITTEE

ACTING AS A SELECTION COMMITTEE FOR THE AWARD OF A PRIZE FOR RESEARCH ON MENTAL SUBNORMALITY

The Léon Bernard Foundation Committee 2 met on Saturday, 23 January 1965, to act as a selection committee for the award of a prize for research work on mental disability, as requested by the Executive Board at its thirty-fourth session, in its resolution EB34.R22 of 27 May 1964.

In that resolution, the Executive Board decided, pursuant to Article 57 of the Constitution, to accept a gift of Dutch florins 2200, equivalent to US $611, made available to WHO by Dr A. J. H. Bartels, of the Netherlands, to be used for the award of a prize for work in the field of research on mental disability. The Executive Board at the same time requested the Léon Bernard Foundation Committee to act as a selection committee in the choice of a scientist whose work has made, inter alia, an important contribution to a deeper insight into the nature and causes of mental subnormality. Furthermore, the Director-General was requested by the Executive Board to establish the procedure for the award of this prize.

Accordingly the Director-General sent a letter dated 15 October 1964 (C.L.41.1964) to all Members and Associate Members asking them to submit not later than 4 December 1964 nominations of candidates for the prize, together with a full justification of their proposal. In that letter the Director-General indicated that in this context the term "mental disability" was to be understood to mean "mental subnormality".

To that letter thirty Members replied, and of these seven proposed a candidate. Two of these nominations were received later than the expiry date (4 December 1964), but the Léon Bernard Foundation Committee decided to consider these two late entries nevertheless.

The Committee therefore considered seven candidates and was faced with the difficult task of selecting one among these seven, who were all of a high calibre and included some very eminent scientists who had made significant contributions in one way or another to the understanding of the problems of mental illness and mental health.

After due deliberation the Committee decided unanimously to select Professor Lionel Sharples Penrose, M.A., M.D., D.Sc., F.R.C.P., F.R.S., for his lifetime dedication to research on mental subnormality, the breadth of coverage of his work in this field, its high scientific quality and its impact on the better understanding of the nature and causes of mental subnormality.
Annex 5

FINANCIAL REPORT ON THE ACCOUNTS OF WHO FOR 1964 AND REPORT OF THE EXTERNAL AUDITOR

First Report of the Ad Hoc Committee of the Executive Board

1. At its thirty-fifth session, the Executive Board, by resolution EB35.R43, established an Ad Hoc Committee consisting of Professor E. Aujaleu, Dr J. Amouzegar and Dr H. B. Turbott to meet on 3 May 1965 to consider the report of the External Auditor on the accounts of the Organization for the year 1964, and to submit to the Eighteenth World Health Assembly, on behalf of the Board, such comments as it deemed necessary.

2. The Committee met on 3 May 1965 in the Palais des Nations and Dr J. Amouzegar was elected Chairman.


4. The Committee then reviewed the report of the External Auditor in detail and received, either from the External Auditor or from representatives of the Director-General, explanations on various points raised by the members of the Committee.

5. On the basis of its review, the Committee desires to bring the following excerpts from the External Auditor's report to the particular attention of the Assembly:

   5.1 In paragraph 1 of his report, the External Auditor comments on the scope and character of his audit and states:

   1.1 The audit of the accounts of the World Health Organization for the financial year 1964 has been carried out in accordance with Article XII of the Financial Regulations and the appendix thereto, which set forth the basic principles governing the external audit.

   The scope and character of my audit in 1964 has been essentially the same as in earlier years. Transactions, accounts and inventories were examined to the extent necessary to satisfy myself as to their correctness. The financial statements submitted to me for audit have been certified accordingly. In connexion with the 1964 audit, I wish to state specifically that to my knowledge there have been no cases of fraud or presumptive fraud.

   1.2 I have reviewed the programme of work of Internal Audit and examined its reports and I am satisfied with the work carried out by this office.

   1.3 During 1964 I visited three regional offices and formed the opinion that the financial and administrative work in these offices was being well performed.

   1.4 The result of my audit leads me to confirm again that the accounts of the Organization are well kept and comply with established policies, rules and regulations of the Organization and the Health Assembly.

5.2 In paragraphs 5.3 and 5.4 of his report, the External Auditor states:

5.3 In my report on the audit of the accounts for 1963 I drew particular attention to the status and size of the Working Capital Fund of the Organization and I do not consider it necessary to repeat all the reasons that lead me to suggest "that the question of the size of the Working Capital Fund be given very serious consideration by the Health Assembly in the light of the review which the Executive Board has been directed to undertake at its thirty-fifth session". It will suffice if I state that the same reasons are still valid, and that in my view there is a definite need to increase the size of the Working Capital Fund in order to avoid the Organization being placed, in the future, in an embarrassing financial position.

5.4 At the time this report was written, the Executive Board had completed its review of the Working Capital Fund. Keeping in mind the importance of this matter and knowing the interest of Members in maintaining the sound financial position in which the Organization has been in the past, I feel it my duty to submit to the Health Assembly the following brief comment as a result of my study of the documentation before the Board and the Board’s proposed action concerning the Working Capital Fund, while recognizing that it is going somewhat beyond the strict audit of the 1964 accounts. I believe that the report of the Director-General to the Executive Board provides evidence that an increase in the size of the Working Capital Fund is clearly

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1 See resolution WHA18.9.
necessary. The solution which the Executive Board is proposing in its resolution EB35.R23, and which I understand is acceptable to the Director-General, is in my opinion a very good one; and it is particularly gratifying to me to note the proposal for linking the size of the Working Capital Fund to the size of the effective working budget of the Organization by a percentage relationship. The establishment of such a relationship meets the point which I made in my audit report for 1963 when stating: "It is quite evident to me that with the increasing size of the budget the Working Capital Fund should keep pace...".

5.3 Referring to his audit of the Voluntary Fund for Health Promotion, the External Auditor states in paragraph 7:

7.1 In 1964 the Malaria Eradication Special Account was incorporated as a sub-account in the Voluntary Fund for Health Promotion. My audit of the transactions of the Fund as a whole has been carried out in the same manner as the rest of my audit. The total income received during the year from contributions in cash and in kind amounted to $7,210,311, and the total obligations incurred amounted to $6,961,379, leaving a balance at the end of 1964 of $4,697,181.

7.2 During the audit, particular attention has been given to the grants, bequests and gifts received for specific purposes, including those received from the United States of America (National Institutes of Health), and I am satisfied that the obligations have been incurred for the purposes specified and in accordance with established procedures.

5.4 The External Auditor completes his report in paragraph 8, stating:

Finally I wish to state that the control exercised over the funds of the Organization continues to be efficient, that the accounts are in good order, and that the various funds continue to be well managed.

6. The Committee wishes to commend the External Auditor on his report and to express its appreciation of the explanations given by him and by the representatives of the Director-General during the review of the report.

7. The Committee recommends to the Eighteenth World Health Assembly the adoption of the following resolution:

The Eighteenth World Health Assembly,
Having examined the Financial Report of the Director-General for the period 1 January to 31 December 1964 and the Report of the External Auditor for the same financial period, as contained in *Official Records* No. 142; and

Having considered the report of the Ad Hoc Committee of the Executive Board on its examination of these reports,


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**Annex 6**

**SUPPLEMENTARY BUDGET ESTIMATES FOR 1965**

1. **SECOND REPORT OF THE AD HOC COMMITTEE OF THE EXECUTIVE BOARD**

1. At its thirty-fifth session the Executive Board, in resolution EB35.R43, established an Ad Hoc Committee consisting of Dr H. B. Turbott, Dr J. Amouzegar and Professor E. Aujaleu to meet on 3 May 1965 to consider, *inter alia*, the supplementary estimates for 1965; and in resolution EB35.R8 the Board recommended "subject to such adjustments as may be considered appropriate by its Ad Hoc Committee, that the Eighteenth World Health Assembly approve the supplementary estimates for 1965 and their financing as proposed by the Director-General".

2. The Committee met on 3 May 1965 in the Palais des Nations, Geneva. Dr J. Amouzegar was elected Chairman.

3. When it reviewed the supplementary estimates for 1965, the Ad Hoc Committee had before it a report by the Director-General (reproduced below) on developments affecting the estimates which had taken place since the thirty-fifth session of the Board. In the light of this report the Committee was satisfied that the estimates as submitted to the Executive Board required to be adjusted:

   (a) to take account of the decision of the General Assembly of the United Nations to adopt, with effect from 1 March instead of 1 January 1965, the recommendation of the United Nations Joint Staff Pension Board that contributions to the Pension Fund should be calculated on the basis of gross salaries.

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1 See resolutions WHA18.11 and WHA18.12.

salaries, resulting in the amount of the estimated additional cost to WHO for 1965 being reduced from $220 000, as considered by the Executive Board at its thirty-fifth session, to $185 000 (i.e., a reduction of $35 000);

(b) to take account of the fact that further increases in the Swiss wage index for office workers have necessitated or are expected to necessitate increases in the salary scales for general service staff with effect from 1 March and 1 July 1965 respectively instead of 1 April and 1 September, with the result that the provision for this purpose needs to be increased by $39 000 to $91 000 for 1965; and

(c) to meet the major portion of the costs of the extensions to the African Regional Office building in excess of the credits available.

4. When it reviewed the increased requirements for salaries of general service staff in Geneva, the Committee recalled that the Executive Board, at its thirty-fifth session, had noted that the supplementary estimates for 1965 as submitted by the Director-General at that time included provision in the amount of $52 000 in the expectation that a further increase in the salary scales for general service staff would become effective as from 1 September 1965.1 However, the movement in the Swiss wage index for office workers was such that it was clear that this increase would become effective from 1 July instead of 1 September, necessitating increased requirements amounting to $26 000. The movement in the index had also resulted in the previous increase (provided for in the estimates as already approved by the Seventeenth World Health Assembly, with effect from 1 April 1965) becoming effective as from 1 March at an additional cost of $13 000. The Committee therefore was satisfied that the provision included in the supplementary estimates as submitted to the Executive Board at its thirty-fifth session should be increased by $39 000 to $91 000.

5. In considering the provision to be included in the supplementary estimates as a further credit to the African Regional Office Building Fund the Committee noted that, on the basis of the lowest bid recently received, the total estimated cost of construction of the extensions to the African Regional Office building would amount to approximately $1 450 000, or $723 000 in excess of the credits available. The Committee also noted that the estimated total cost included estimates for the installation of air-conditioning equipment, lifts, movable partitions, and certain other services, for which separate bids have to be obtained. The Committee agreed that there had not been sufficient time since the thirty-fifth session of the Board in January 1965 for Member States in the Region to consider the Board’s invitation to make additional voluntary contributions to the African Regional Office Building Fund. In the light of this situation, the Committee decided to recommend that the amount to be included in the supplementary estimates for 1965 as a further credit to the Building Fund should be limited to $600 000. On the basis of the present estimates there would remain a shortfall of $123 000 which it is expected might be met by additional voluntary contributions, by more favourable bids and, possibly, some changes in the building project resulting in reduced costs.

6. Considering that sufficient casual income would be available to finance the supplementary estimates for 1965 as adjusted (inclusive of the additional $600 000 proposed as a credit to the African Regional Office Building Fund), thereby avoiding the need to make any additional assessments on Members, the Ad Hoc Committee decided to recommend to the Eighteenth World Health Assembly that it adopt the following resolution:

The Eighteenth World Health Assembly,

Having considered the proposals of the Director-General and the recommendations of the Executive Board concerning supplementary budget estimates for 1965,

1. Approves the supplementary estimates for 1965;

2. Decides to amend the Appropriation Resolution for 1965 (resolution WHA17.18) by including under Part IV (Other Purposes) an additional section: "Appropriation Section 12 —African Regional Office Building Fund"; by renumbering Appropriation Section 12 (Undistributed Reserve) under Part V (Reserve) as "Appropriation Section 13—Undistributed Reserve"; and by increasing the amounts voted under paragraph I as follows:

<table>
<thead>
<tr>
<th>Appropriation Section</th>
<th>Purpose of Appropriation</th>
<th>Amount US $</th>
</tr>
</thead>
<tbody>
<tr>
<td>PART I: ORGANIZATIONAL MEETINGS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. World Health Assembly</td>
<td>15 200</td>
<td></td>
</tr>
<tr>
<td>2. Executive Board and its Committees</td>
<td>11 300</td>
<td></td>
</tr>
<tr>
<td>Total — Part I</td>
<td>26 500</td>
<td></td>
</tr>
<tr>
<td>PART II: OPERATING PROGRAMME</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Programme Activities</td>
<td>115 300</td>
<td></td>
</tr>
<tr>
<td>5. Regional Offices</td>
<td>18 900</td>
<td></td>
</tr>
<tr>
<td>6. Expert Committees</td>
<td>11 000</td>
<td></td>
</tr>
<tr>
<td>7. Other Statutory Staff Costs</td>
<td>287 950</td>
<td></td>
</tr>
<tr>
<td>Total — Part II</td>
<td>433 150</td>
<td></td>
</tr>
<tr>
<td>PART III: ADMINISTRATIVE SERVICES</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Administrative Services</td>
<td>55 000</td>
<td></td>
</tr>
<tr>
<td>9. Other Statutory Staff Costs</td>
<td>32 350</td>
<td></td>
</tr>
<tr>
<td>Total — Part III</td>
<td>87 350</td>
<td></td>
</tr>
<tr>
<td>PART IV: OTHER PURPOSES</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12. African Regional Office Building Fund</td>
<td>600 000</td>
<td></td>
</tr>
<tr>
<td>Total — Part IV</td>
<td>600 000</td>
<td></td>
</tr>
<tr>
<td>TOTAL — PARTS I, II, III AND IV</td>
<td>1 147 000</td>
<td></td>
</tr>
</tbody>
</table>

3. Decides further to amend paragraph III of resolution WHA17.18 by increasing the amounts under sub-paragraphs (iii) and (iv) by US $323 893 and US $823 107 respectively.

1 See Off. Rec. Wld Hlth Org. 140, 47.
2. REPORT BY THE DIRECTOR-GENERAL TO THE AD HOC COMMITTEE OF THE EXECUTIVE BOARD

[3 May 1965]

1. Pursuant to resolution EB35.R8, in which the Executive Board at its thirty-fifth session recommended "subject to such adjustments as may be considered appropriate by its Ad Hoc Committee, that the Eighteenth World Health Assembly approve the supplementary estimates for 1965 and their financing as proposed by the Director-General ", the Director-General calls the attention of the Ad Hoc Committee to Annex 9 of Official Records No. 140, containing the supplementary estimates for 1965 as proposed by the Director-General in the amount of $543,000, and submits the following additional information.

2. In resolution EB35.R5, the Executive Board requested the Director-General to include in his supplementary estimates for 1965 provision for that part of the cost of the extension of the African Regional Office building which would be in excess of the available credits and requested the Ad Hoc Committee of the Executive Board " to recommend to the Health Assembly the precise amount to be included in the supplementary estimates for 1965 for this purpose in the light of additional information to be submitted by the Director-General..."

3. The adjustments to the estimates set forth in Annex 9 to Official Records No. 140 which the Director-General now proposes relate to a reduction in the amount of the increased Pension Fund contributions payable by WHO; the increases in the salary scales for general service staff in Geneva; and the cost of the extension of the African Regional Office building in excess of the available credits. Details of these adjustments are set forth below.

3.1 Increased Pension Fund Contributions

The General Assembly of the United Nations, after considering the recommendation of the Joint Staff Pension Board that contributions to the Fund should be calculated on the basis of gross salaries, decided to adopt the recommendation for implementation with effect from 1 March instead of 1 January 1965. As the estimate of the additional cost to WHO amounting to $220,000 was based on the assumption that the change would take effect from 1 January, the amount included in the original supplementary estimates should now be reduced by $35,000 to $185,000.

3.2 Increased Salary Scales for General Service Staff

Since the supplementary estimates were prepared and considered by the Executive Board, increases in the Swiss wage index for office workers have taken place. In the original estimates as approved by the Seventeenth World Health Assembly, provision was included to cover an increase in the salary scales for general service staff with effect from 1 April 1965. This increase has in fact become effective from 1 March 1965 and it is now expected that the next increase will become effective from 1 July instead of 1 September 1965 as was foreseen at the time when the supplementary estimates were considered by the Executive Board. Because of these developments, the provision of $52,000 included for this purpose in the supplementary estimates requires to be increased by $39,000 to $91,000.

3.3 Additional Requirements for the African Regional Office Building

3.3.1 When the Executive Board at its thirty-fifth session considered the progress report by the Director-General with regard to accommodation for the Regional Office for Africa, it noted (in resolution EB35.R5) that "the anticipated cost of the extension of the regional office building, as now estimated by the architect, would exceed the credits available " and that "the cost of the extension will be estimated with greater precision following the receipt of bids ". On the basis of the lowest bid recently received the total estimated cost of construction would amount to approximately $1,450,000 or about $723,000 in excess of the credits available.

3.3.2 However, the total cost includes estimated amounts for the installation of air-conditioning equipment, lifts, movable partitions and certain other services, for which separate bids have to be obtained. These amounts may, therefore, be subject to adjustment.

3.3.3 The Executive Board at its thirty-fifth session in January 1965 invited "all the Members in the African Region that have not yet done so to make voluntary contributions for the extension of the regional office accommodation ". The Director-General believes that there has not yet been sufficient time for Member States in the Region (several of which have only relatively recently become Members of the Organization) to consider the Board's invitation and to make voluntary contributions to the African Regional Office Building Fund. As will be seen from the Financial Report for 1964, fifteen Members in

the African Region had contributed to the Fund as at 31 December 1964. Another two Members have made or pledged contributions in 1965 up to the present time. There are thus thirteen Members in the Region that have so far not made any contributions.

3.3.4 Furthermore, the Director-General, having examined the bids received for the main construction work in the light of the estimates made by the architect of the Organization late last year, decided that it would be in the best interest of the Organization to reject all bids and to reopen the bidding procedure, which is now being done.

3.3.5 In view of the situation described in paragraphs 3.3.2 to 3.3.4 the Director-General suggests that the amount to be included in the supplementary estimates as a further credit to the African Regional Office Building Fund be $600,000. The total amount of credits available in the Fund as at 31 December 1964 was $726,955. Should this proposal be adopted the total would be $1,326,955, to which would be added such further voluntary contributions as may be forthcoming. Although the total available and proposed credits of the Fund would fall short of the latest estimated total cost of the extension of the Regional Office building by $123,000, the Director-General hopes that this gap in financing might be met by additional voluntary contributions, by some adjustments in the estimates referred to in paragraph 3.3.2, and as a result of the new bids referred to in paragraph 3.3.4. Should it become necessary, the Director-General will study the possibility of some adjustment to the building project, in order to reduce its total costs.

4. Total Supplementary Estimates and Financing thereof

4.1 The amount of the supplementary estimates would amount to $1,147,000 as set forth in Appendices 1, 2 and 3 to this report.

4.2 As sufficient casual income is available, the Director-General recommends that these supplementary estimates be financed from casual income, made up of $323,893 available from miscellaneous income and $823,107 available by transfer from the cash portion of the Assembly Suspense Account.

Appendix 1

SUPPLEMENTARY ESTIMATES FOR 1965: SUMMARY

<table>
<thead>
<tr>
<th>Total</th>
<th>Appropriation Section</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Increased contributions to the United Nations Joint Staff Pension Fund, calculated on the basis of gross salaries</td>
<td>185,000</td>
</tr>
<tr>
<td>(b)</td>
<td>US $</td>
</tr>
<tr>
<td>Increased contributions to the Pension Fund based on pensionable remuneration plus 5%</td>
<td>79,000</td>
</tr>
<tr>
<td>(c)</td>
<td>US $</td>
</tr>
<tr>
<td>Increased United Nations charges for rental and maintenance of premises and equipment and other services in the Palais des Nations</td>
<td>110,000</td>
</tr>
<tr>
<td>(d)</td>
<td>US $</td>
</tr>
<tr>
<td>Increased salary scales for general service staff at headquarters and in Copenhagen, New Delhi and Washington</td>
<td>119,000</td>
</tr>
<tr>
<td>(e)</td>
<td>US $</td>
</tr>
<tr>
<td>Increased dependant's allowance for general service staff in Geneva</td>
<td>7,000</td>
</tr>
<tr>
<td>(f)</td>
<td>US $</td>
</tr>
<tr>
<td>Increased post-adjustment classification for New Delhi</td>
<td>32,000</td>
</tr>
<tr>
<td>(g)</td>
<td>US $</td>
</tr>
<tr>
<td>Committee on International Quarantine</td>
<td>11,000</td>
</tr>
</tbody>
</table>

### Appendix 2

**SUPPLEMENTARY ESTIMATES FOR 1965:**
**SUMMARY BY APPROPRIATION SECTION AND PURPOSE OF EXPENDITURE**

#### PART I. ORGANIZATIONAL MEETINGS

**SECTION 1: WORLD HEALTH ASSEMBLY**

<table>
<thead>
<tr>
<th>Chapter 20</th>
<th>Travel and Transportation</th>
<th>Estimated Obligations US $</th>
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</thead>
<tbody>
<tr>
<td>25</td>
<td>Travel of delegates</td>
<td>4 000</td>
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**TOTAL — SECTION 1**

15 200

**SECTION 2: EXECUTIVE BOARD AND ITS COMMITTEES**

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<thead>
<tr>
<th>Chapter 30</th>
<th>Space and Equipment Services</th>
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</thead>
<tbody>
<tr>
<td>31</td>
<td>Rental and maintenance of premises</td>
</tr>
<tr>
<td>32</td>
<td>Rental and maintenance of equipment</td>
</tr>
</tbody>
</table>

**TOTAL — CHAPTER 30**

1 900

**TOTAL — PART I**

26 500

#### PART II. OPERATING PROGRAMME

**SECTION 4: PROGRAMME ACTIVITIES**

<table>
<thead>
<tr>
<th>Chapter 00</th>
<th>Personal Services</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>Salaries and wages</td>
</tr>
</tbody>
</table>

**TOTAL — CHAPTER 00**

54 800

**SECTION 5: REGIONAL OFFICES**

<table>
<thead>
<tr>
<th>Chapter 00</th>
<th>Personal Services</th>
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</thead>
<tbody>
<tr>
<td>01</td>
<td>Salaries and wages</td>
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</tbody>
</table>

**TOTAL — CHAPTER 00**

18 900

**SECTION 6: EXPERT COMMITTEES**

<table>
<thead>
<tr>
<th>Chapter 00</th>
<th>Personal Services</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>Salaries and wages (temporary staff)</td>
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</tbody>
</table>

**TOTAL — CHAPTER 00**

1 580
### EIGHTEENTH WORLD HEALTH ASSEMBLY, PART I

#### Estimated Obligations

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Purpose of Appropriation</th>
<th>Estimated Obligations US$</th>
</tr>
</thead>
<tbody>
<tr>
<td>20</td>
<td>Travel and Transportation</td>
<td></td>
</tr>
<tr>
<td>25</td>
<td>Travel and subsistence of members</td>
<td>6 400</td>
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<td></td>
<td>Total — Chapter 20</td>
<td>6 400</td>
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<tr>
<td>40</td>
<td>Other Costs</td>
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<td>43</td>
<td>Other contractual services</td>
<td>900</td>
</tr>
<tr>
<td></td>
<td>Total — Chapter 40</td>
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<tr>
<td>50</td>
<td>Supplies and Materials</td>
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</tr>
<tr>
<td>51</td>
<td>Printing</td>
<td>2 000</td>
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<tr>
<td></td>
<td>Total — Chapter 50</td>
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</tr>
<tr>
<td>60</td>
<td>Fixed Charges and Claims</td>
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</tr>
<tr>
<td>62</td>
<td>Insurance</td>
<td>120</td>
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<tr>
<td></td>
<td>Total — Chapter 60</td>
<td>120</td>
</tr>
<tr>
<td></td>
<td>Total — Section 6</td>
<td>11 000</td>
</tr>
<tr>
<td>10</td>
<td>Personal Allowances</td>
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</tr>
<tr>
<td>12</td>
<td>Pension fund</td>
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</tr>
<tr>
<td>13</td>
<td>Staff insurance</td>
<td>1 040</td>
</tr>
<tr>
<td>15</td>
<td>Other allowances</td>
<td>35 850</td>
</tr>
<tr>
<td></td>
<td>Total — Chapter 10</td>
<td>287 950</td>
</tr>
<tr>
<td></td>
<td>Total — Section 7</td>
<td>287 950</td>
</tr>
<tr>
<td></td>
<td>Total — Part II</td>
<td>433 150</td>
</tr>
</tbody>
</table>

#### PART III. ADMINISTRATIVE SERVICES

#### Section 8: Administrative Services

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Purpose of Appropriation</th>
<th>Estimated Obligations US$</th>
</tr>
</thead>
<tbody>
<tr>
<td>00</td>
<td>Personal Services</td>
<td></td>
</tr>
<tr>
<td>01</td>
<td>Salaries and wages</td>
<td>28 000</td>
</tr>
<tr>
<td></td>
<td>Total — Chapter 00</td>
<td>28 000</td>
</tr>
</tbody>
</table>

### Appendix 3

**STATEMENT SHOWING, BY APPROPRIATION SECTIONS, THE APPROVED ESTIMATED OBLIGATIONS, THE PROPOSED SUPPLEMENTARY ESTIMATES AND THE TOTAL REVISED ESTIMATED OBLIGATIONS FOR 1965**

<table>
<thead>
<tr>
<th>Appropriation section</th>
<th>Purpose of appropriation</th>
<th>Approved estimated obligations US$</th>
<th>Supplementary estimates US$</th>
<th>Total revised estimated obligations US$</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PART I: ORGANIZATIONAL MEETINGS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. World Health Assembly</td>
<td></td>
<td>365 630</td>
<td>15 200</td>
<td>380 830</td>
</tr>
<tr>
<td>2. Executive Board and its Committees</td>
<td></td>
<td>201 440</td>
<td>11 300</td>
<td>212 740</td>
</tr>
<tr>
<td>3. Regional Committees</td>
<td></td>
<td>105 500</td>
<td>—</td>
<td>105 500</td>
</tr>
<tr>
<td><strong>Total — Part I</strong></td>
<td></td>
<td>672 570</td>
<td>26 500</td>
<td>699 070</td>
</tr>
</tbody>
</table>

**PART IV. OTHER PURPOSES**

**SECTION 12: AFRICAN REGIONAL OFFICE BUILDING FUND**

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Purpose of Appropriation</th>
<th>Estimated Obligations US$</th>
</tr>
</thead>
<tbody>
<tr>
<td>80</td>
<td>Acquisition of Capital Assets</td>
<td></td>
</tr>
<tr>
<td>83</td>
<td>Land and buildings</td>
<td>600 000</td>
</tr>
<tr>
<td></td>
<td>Total — Chapter 80</td>
<td>600 000</td>
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<tr>
<td></td>
<td>Total — Section 12</td>
<td>600 000</td>
</tr>
<tr>
<td></td>
<td>Total — PART IV</td>
<td>600 000</td>
</tr>
<tr>
<td></td>
<td>TOTAL — PARTS I, II, III AND IV</td>
<td>1 147 000</td>
</tr>
</tbody>
</table>
### ANNEX 6, APPENDIX 3

**PART II: OPERATING PROGRAMME**

<table>
<thead>
<tr>
<th>Appropriation section</th>
<th>Purpose of appropriation</th>
<th>Approved estimated obligations US $</th>
<th>Supplementary estimates US $</th>
<th>Total revised estimated obligations US $</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.</td>
<td>Programme Activities</td>
<td>23,421,927</td>
<td>115,300</td>
<td>23,537,227</td>
</tr>
<tr>
<td>5.</td>
<td>Regional Offices</td>
<td>2,978,399</td>
<td>18,900</td>
<td>2,997,299</td>
</tr>
<tr>
<td>6.</td>
<td>Expert Committees</td>
<td>231,600</td>
<td>11,000</td>
<td>242,600</td>
</tr>
<tr>
<td>7.</td>
<td>Other Statutory Staff Costs</td>
<td>7,555,637</td>
<td>287,950</td>
<td>7,843,587</td>
</tr>
</tbody>
</table>

Total — Part II 34,187,563 | 433,150 | 34,620,713

**PART III: ADMINISTRATIVE SERVICES**

<table>
<thead>
<tr>
<th>Appropriation section</th>
<th>Purpose of appropriation</th>
<th>Approved estimated obligations US $</th>
<th>Supplementary estimates US $</th>
<th>Total revised estimated obligations US $</th>
</tr>
</thead>
<tbody>
<tr>
<td>8.</td>
<td>Administrative Services</td>
<td>2,227,402</td>
<td>55,000</td>
<td>2,282,402</td>
</tr>
<tr>
<td>9.</td>
<td>Other Statutory Staff Costs</td>
<td>672,465</td>
<td>32,350</td>
<td>704,815</td>
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</table>

Total — Part III 2,899,867 | 87,350 | 2,987,217

**PART IV: OTHER PURPOSES**

<table>
<thead>
<tr>
<th>Appropriation section</th>
<th>Purpose of appropriation</th>
<th>Approved estimated obligations US $</th>
<th>Supplementary estimates US $</th>
<th>Total revised estimated obligations US $</th>
</tr>
</thead>
<tbody>
<tr>
<td>10.</td>
<td>Headquarters Building Fund</td>
<td>500,000</td>
<td></td>
<td>500,000</td>
</tr>
<tr>
<td>11.</td>
<td>Reimbursement of the Working Capital Fund</td>
<td>100,000</td>
<td></td>
<td>100,000</td>
</tr>
<tr>
<td>12.</td>
<td>African Regional Office Building Fund</td>
<td>—</td>
<td>600,000</td>
<td>600,000</td>
</tr>
</tbody>
</table>

Total — Part IV 600,000 | 600,000 | 1,200,000

Sub-total — Parts I, II, III and IV 38,360,000 | 1,147,000 | 39,507,000

**PART V: RESERVE**

<table>
<thead>
<tr>
<th>Appropriation section</th>
<th>Purpose of appropriation</th>
<th>Approved estimated obligations US $</th>
<th>Supplementary estimates US $</th>
<th>Total revised estimated obligations US $</th>
</tr>
</thead>
<tbody>
<tr>
<td>13.</td>
<td>Undistributed Reserve</td>
<td>2,521,370</td>
<td></td>
<td>2,521,370</td>
</tr>
</tbody>
</table>

Total — Part V 2,521,370 | 2,521,370

TOTAL — ALL PARTS 40,881,370 | 1,147,000 | 42,028,370

Less: Reimbursement from the Special Account of the Expanded Programme of Technical Assistance 985,000 | — | 985,000

Less: Casual Income:
- Assessment on new Members from previous years 77,580 | — | 77,580
- Miscellaneous Income * 143,622 | 323,893 | 467,515
- Available by transfer from the cash portion of the Assembly Suspense Account 278,798 | 823,107 | 1,101,905

Total — Casual Income * 500,000 | 1,147,000 | 1,647,000

Total — Deductions * 1,485,000 | 1,147,000 | 2,632,000

Total — Assessments on Members * 39,396,370 | — | 39,396,370

* In resolution WHA18.15 the Eighteenth World Health Assembly decided "to revise paragraph III of the Appropriation Resolution for 1965 (WHA17.18) by increasing the amount under sub-paragraph (iii) by US $15,760 from miscellaneous income available for that purpose and by decreasing the assessments against Members by US $15,760".

Annex 7

MEMBERS IN ARREARS IN PAYMENT OF THEIR CONTRIBUTIONS TO AN EXTENT WHICH MAY INVOKEx ARTICLES 7 OF THE CONSTITUTION

1. Third Report of the Ad Hoc Committee of the Executive Board

[51/A18/AFL/11 — 3 May 1965]

1. At its thirty-fifth session the Executive Board, by resolution EB35.R43, established an Ad Hoc Committee consisting of Professor E. Aujaleu, Dr J. Amouzegar and Dr H. B. Turbott, to meet on 3 May 1965. The Committee, in accordance with resolution EB35.R30, was to "consider the difficulties of those Members remaining in arrears in the payment of their contributions to an extent which may invoke Article 7 of the Constitution at that time and to submit to the Eighteenth World Health Assembly on behalf of the Board such recommendations as it deems desirable."

2. The Committee met on 3 May in the Palais des Nations. Dr J. Amouzegar was elected Chairman.

3. The Committee recalled that when the Standing Committee on Administration and Finance of the Executive Board dealt with this item prior to the thirty-fifth session of the Board, the Standing Committee requested the Director-General to cable the Members concerned urging them to expedite payment of their arrears or furnish reasons for non-payment before the opening of the thirty-fifth session of the Board. This was done but no replies were received.

4. The Committee noted that, following the adoption of resolution EB35.R30 by the Board, the Director-General also had communicated that resolution to the Members concerned, informing them of the Board's action, urging payment of their outstanding arrears by 3 May or, if that was not possible, inviting them to forward any information they might wish to have brought to the attention of the Committee.

5. The Committee was informed that, at the time of its meeting, Haiti, Paraguay and Uruguay were in arrears to the extent that might invoke Article 7 of the Constitution. The Committee noted that a communication had been received from Paraguay stating that a payment of US $20,000 was being dispatched. This communication is appended to this report. The Committee was informed that when received this payment would reduce the arrears of Paraguay to less than the contributions for two full years. No communication had been received from Haiti or Uruguay.

6. The Committee noted that a number of resolutions had been adopted by the Assembly and the Executive Board in the past, urging Members in arrears to take the steps necessary for the payment of arrears and inviting the Director-General to bring this matter to the attention of the Members concerned.

7. Before adopting its resolution WHA17.33, the Seventeenth World Health Assembly had given careful consideration to the desirability of invoking the provisions of Article 7 of the Constitution with respect to the Members in arrears at that time. The Assembly did not suspend the voting rights of any Members at the Seventeenth World Health Assembly, in the light of the explanations given by them and assurances that payments would be made as soon as possible. The Committee noted that following the Seventeenth World Health Assembly, Uruguay had made a payment in 1964 of US $34,090 which at that time reduced its arrears to less than the contributions for two full years. However, on 1 January 1965 the arrears of Uruguay again exceeded two full years of contributions.

8. At its thirty-fifth session, the Executive Board, recognizing the possibility that some Members then in arrears might make payment before the opening of the Eighteenth World Health Assembly, decided to refer this matter to its Ad Hoc Committee. While there has been additional time since the thirty-fifth session of the Board in which to liquidate their arrears, two Members—Haiti and Uruguay—have made no payment nor have they submitted any explanations of their difficulties in making payment. In these circumstances, the Committee, on behalf of the Executive Board, recommends that, if payments are not received or satisfactory reasons for non-payment given to the Health Assembly prior to Tuesday, 11 May 1965, the Assembly adopt the following resolution:

The Eighteenth World Health Assembly,

Having considered the reports of the Executive Board and its Ad Hoc Committee on Members in arrears for the payment of their contributions to

1 See resolution WHA18.21.

an extent which may invoke the provisions of Article 7 of the Constitution;

Noting that . . . . . . . . . . . . . . . . are in arrears to the extent that it is necessary for the Assembly to consider, in accordance with the provisions of Article 7 of the Constitution and the provisions of paragraph 2 of resolution WHA8.13, whether or not their right to vote should be suspended at the Eighteenth World Health Assembly;

Recalling the provisions of resolutions WHA16.20 and WHA17.33; and

Believing that the Members concerned have had sufficient time in which to liquidate their arrears,

DECIDES to suspend the voting rights of . . . . at the Eighteenth World Health Assembly.

9. The Committee has requested the Director-General to communicate this recommendation to the Members concerned. The Committee expresses the hope that the Members concerned will find it possible either to meet their obligations or to provide acceptable explanations of the circumstances which have temporarily prevented them from paying their contributions, thus making it unnecessary for the above resolution to be considered.

10. The names of the Members concerned would be inserted in the above resolution at the time the Eighteenth World Health Assembly deals with this agenda item. Subject to the replies received the Assembly may wish to include both Haiti and Uruguay, but in view of the payment made during 1964 by Uruguay the Committee believes that the Assembly should consider whether it is desirable to include that Member in the above resolution. However, the Committee urges that Haiti should be included in the resolution, since no payments or communications regarding intention of payment have been received from that Member since the closure of the Seventeenth World Health Assembly and its arrears date as far back as 1961.

APPENDIX

The Director-General received the following communication from the Government of Paraguay on 3 May 1965 (translation from the Spanish):

TODAY TRANSFERRED TWENTY THOUSAND US DOLLARS CARE CITY BANK OF NEW YORK CORRESPONDING PARAGUAY'S CONTRIBUTION.

The Director-General received on 6 May 1965 the following communication from the Government of Haiti (translation from the French):

REFERENCE YOUR CABLEGRAMS OF 17 MARCH AND 21 APRIL 1965, HAVE HONOUR TO INFORM YOU ADVERSE EFFECTS HURRICANES FLORA AND CLEO ON HAITIAN ECONOMY HAVE PREVENTED PAYMENT HAITIAN GOVERNMENT'S ARREARS OF CONTRIBUTIONS WHO. PROSPECTS IMPROVEMENT FINANCIAL SITUATION ALLOW UNDERTAKING PAYMENT MINIMUM TWO (2) YEARS OWED NEXT FINANCIAL YEAR. HAITIAN GOVERNMENT, ACCORDING TRADITION, WILL HONOUR UNDERTAKING. YOURS FAITHFULLY DR ADRIEN RAYMOND UNDERSECRETARY OF STATE.
of the building project and requested the Standing Committee "to report on the cost estimates to the Ad Hoc Committee of the Board...".

2. The Committee met on 3 May 1965 in the Palais des Nations. Dr J. Amouzegar was elected Chairman.

3. In accordance with the provisions of resolution EB35.R28 the Committee had before it a report of the Standing Committee on Headquarters Accommodation which had been transmitted to it by the Director-General together with his own report. Both of these documents are reproduced with this report for the information of the Assembly.¹

4. As will be seen from these documents, the Architect's latest estimate of the total cost of the headquarters building project amounts to Sw.fr. 62 500 000 as a result of increases in costs because of necessary corrections in the heating and air-conditioning installation. The Committee noted from the Director-General's report (reproduced below) that the increase in the estimated expenditure was expected to be covered by credits available or likely to become available in the Headquarters Building Fund for the reasons explained in his report. Final adjustment of the figures could be made at the Nineteenth World Health Assembly.

5. The total costs involved, however, exceed the financial authorizations established by the World Health Assembly in resolutions WHA13.46, paragraph 1 and WHA16.22, paragraph 3.

6. The Committee therefore recommends to the World Health Assembly that it adopt a resolution along the following lines:

The Eighteenth World Health Assembly,

Having considered the report of the Ad Hoc Committee of the Executive Board concerning headquarters accommodation, together with the annexed reports of the Standing Committee on Headquarters Accommodation and of the Director-General,

1. NOTES the increase in the Architect's estimate of the total cost of the building project as a consequence of the necessary corrections in the heating and air-conditioning installation;

2. NOTES that, notwithstanding this latest increase which brings the total estimated cost to a figure higher than the presently authorized credits and thus makes it necessary to seek additional sums, these sums can be found without great difficulty through a combination of the already planned budgetary provisions for the years 1966, 1967 and 1968, and the fact that the first repayment on the loan from the Republic and Canton of Geneva will be made only in 1969;

3. AUTHORIZES the Director-General, notwithstanding the provisions of paragraph 3 of resolution WHA16.22, to proceed with the building project in accordance with the Architect's current estimate and the plan of financing described in his report to the Ad Hoc Committee of the Executive Board;

4. REQUESTS the Director-General to report further, through the Executive Board and the Standing Committee on Headquarters Accommodation, to the Nineteenth World Health Assembly on the financing of the building project.

2. REPORT BY THE DIRECTOR-GENERAL TO THE AD HOC COMMITTEE OF THE EXECUTIVE BOARD

[3 May 1965]

1. During its thirty-fifth session, the Executive Board considered the report of the tenth session of the Standing Committee on Headquarters Accommodation.² In this report, the Standing Committee mentioned that an important increase in the total cost of the building was to be feared, although it was not yet possible to give the amount of this increase with any accuracy. The Executive Board (in resolution EB35.R28) noted that the Standing Committee would be reviewing further, at the earliest practicable date, the cost estimates for the completion of the building project, and requested the Standing Committee, should the information be available, to report on the cost estimates to the Ad Hoc Committee of the Board which would meet prior to the Eighteenth World Health Assembly. The Standing Committee on Headquarters Accommodation held its eleventh session on 19 February 1965 and a copy of its report is reproduced below.³

2. It will be noted from the Standing Committee's report that the latest cost estimates of the Architect for the completion of the headquarters building project amount in total to Sw.fr. 62 500 000. This estimate is based upon contracts awarded to date, plus the estimated cost for a few contracts yet to be awarded, plus the anticipated increases in the cost

¹ See parts 2 and 3 of this annex.
³ See part 3 of this annex.
of construction between the present time and the completion of the work. This figure also includes a sum of Sw.fr. 733 255 for miscellaneous and unforeseen items which may arise in the final months of the construction programme. The estimate does not include any amount in relation to the litigation now in progress between the Organization and the Compagnie française d’Entreprises mentioned in the Standing Committee’s report of its tenth session 1 apart from the sums already recognized by the Organization as due to the Company.

3. As reflected in the Financial Report for the year 1964 the credits to the Headquarters Building Fund up to 31 December 1964, apart from voluntary contributions and interest earned to which reference is made below, were US $12 580 741 (Sw.fr. 54 328 801).2 The budgets for 1965 and 1966 each include an additional appropriation of US $500 000, bringing the credits to the Fund, in Swiss francs, to 58 648 801.

4. In accordance with the financing plan presented to the Seventeenth World Health Assembly,3 a further credit to the Headquarters Building Fund of US $500 000 (Sw.fr. 2 160 000) will be included in the 1967 budget estimates, thus raising the credits to Sw.fr. 60 808 801. Annual appropriations in about the same amount will be required over a period of twenty years to meet the repayments of the loans in accordance with the agreements with the Swiss Confederation and with the Republic and Canton of Geneva. However, under the revised agreements executed in 1964, while the first payment to the Confederation will be due in 1968,4 the initial repayment to the Republic and Canton of Geneva will fall due only in 1969.5 (Since the final payments to contractors are not made until two years after completion of the building, the final drawing of the credits under the Cantonal loan will not be made until 1968 and therefore the first repayment will be made in 1969.) On the assumption that an amount of US $500 000 will be included in the proposed programme and budget estimates for 1968, US $306 714 would be needed to meet the first repayment of the loan from the Swiss Confederation and US $193 286 (approximately Sw.fr. 837 000) would be available for meeting the costs of the building.

5. This sum would bring the credits to Sw.fr. 61 645 801. In addition, there were in the Headquarters Building Fund at 31 March 1965 supplementary credits (voluntary contributions and interest earned) amounting to US $179 320 (Sw.fr. 774 662). The total amount of credits which would thus become available is Sw.fr. 62 420 463, or approximately the amount of the Architect’s current estimate of the total cost. Since the Architect’s figure can represent only an approximation at this date and, further, since there may be other small credits to the Headquarters Building Fund in the form of government contributions and interest, one may consider that so far as can be known at this date the credits becoming available will be sufficient to finance the building. Such adjustments as may be necessary as a result of the actual requirements in relation to the credits could be dealt with at the Nineteenth World Health Assembly.

6. The Director-General believes that the Ad Hoc Committee may wish to draw the attention of the Assembly to the financial considerations described and to propose a form of resolution to the Health Assembly to authorize the Director-General, notwithstanding the provisions of paragraph 3 of resolution WHA16.22, to proceed with the building project in accordance with the Architect’s current estimate and the plan of financing as described in this report.


[EB/HQA/30 — 23 Feb. 1965]

1. The Standing Committee on Headquarters Accommodation, established under the terms of resolution EB26.R13, held its eleventh session in Geneva on 19 February 1965.

2. The following members were present: Professor E. Aujaleu (Chairman), Dr L. Molitor. Mr Brady was prevented from attending by his official engagements, but gave his views by telephone after receiving from the representative of the Director-General the same information as that submitted to the members present. The telegram announcing the convening of the meeting sent to Dr H. B. Turbott, Chairman of the Executive Board and ex officio member of the Standing Committee, did not reach him until too late.

3. During this session, the Standing Committee considered and analysed in detail the report submitted to it by the Director-General on the cost of the
building. It also took cognizance of the information given verbally by the representative of the Director-General and by the Architect.

4. The Cost of the Building

4.1 At its tenth session, the Standing Committee had been informed by the Director-General that it was unfortunately likely that, as the result of the changes which it had been necessary to make in the project for the heating and air-conditioning installations, the total cost of the building as a whole would exceed the total financial authorization. In the absence of a detailed estimate indicating the amount of the excess, the Standing Committee had asked the Director-General to keep it informed on this matter and to convene another meeting as soon as details should be available.

4.2 On 2 February 1965 the consulting engineers for heating and air-conditioning handed over to WHO a very detailed report, from which it appeared that they had had to make quite substantial changes in the installations as envisaged by their predecessors, who had themselves redrafted their original project several times. The changes proposed involved not only the design of the installations and the number of units to be installed, but also the calculation of the necessary heating and cooling capacities. Thus the installed heating capacity had had to be increased from 4,470,000 Kcal/hour to 8,000,000 Kcal/hour and the installed cooling capacity from 1,530,000 frigories/hour to 2,160,000 frigories/hour. The Standing Committee noted that the revised installed capacities made allowance for the installations in the restaurant, and, as far as heating was concerned, in the garages. The features of these installations were not known at the time when the new engineers were commissioned to do this work. Indeed at that time the restaurant installations were still in the design stage, and the size of the underground garages had not yet been determined. The increases in total capacities because of these installations are about 1,314,750 Kcal/hour for the restaurant and garage, and 260,000 frigories/hour for the restaurant.

4.2.1 The Standing Committee noted that the original consulting engineers had greatly underestimated requirements even after making due allowances for the capacities needed for the restaurant and garage installations which although planned at that time could not be calculated exactly. The Standing Committee expressed its surprise at the extent of the underestima-

\[ \text{Sw. Fr.} \]

<table>
<thead>
<tr>
<th>Item</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contract and codicils (cost on the basis of the unit prices in the original contract)</td>
<td>4,539,428</td>
</tr>
<tr>
<td>Increases due to design changes (cost on the basis of the unit prices in the original contract)</td>
<td>1,146,302</td>
</tr>
<tr>
<td>New total (increase of approximately 25%)</td>
<td>5,685,730</td>
</tr>
<tr>
<td>Heating and air-conditioning in the restaurant</td>
<td>420,000</td>
</tr>
<tr>
<td>Revised total of the contract (cost on the basis of the unit prices in the original contract)</td>
<td>6,105,730</td>
</tr>
</tbody>
</table>


4.3 In step with the studies by the consulting engineers, the Contractor revised the working plans, a large proportion of which had to be re-done to bring them into line with the engineers’ calculations. The considerable amount of work involved was successfully accomplished without delaying general progress on the site.

4.4 When the engineers’ studies had been completed and all the working plans had been amended by the Contractor, the latter drew up a fresh cost estimate, calculated completely anew in accordance with the new data. The various estimates can be classified into three distinct groups:

(a) the equipment and its installation, the revised cost of which has been calculated wherever possible on the basis of the unit prices in the original contract;

(b) the extra design costs which the Contractor had actually incurred as a result of the revision of the plan for the installations and the cost of drawing new plans, both being by prior agreement with the Building Owner;

(c) compensation which the Contractor considered due on various grounds, particularly on the ground that the duration of the work had been unduly extended.

After a detailed examination of this estimate by the consulting engineers, who made representations to the Contractor on the matter, the Contractor announced on 11 February 1965 that he waived his claim to the compensation mentioned under (c) above. From the estimate thus revised and approved by the consulting engineers, it appears that the total cost of the heating and air-conditioning installations, excluding architect’s and engineers’ fees, can be estimated as follows:

Sw. Fr.
Price increases which occurred before 31 December 1964: Sw. Fr. 1,374,000
Price increases to be anticipated before the completion of the work: Sw. Fr. 306,000

Expenses to be reimbursed to the Contractor for the revision of the studies and plans: Sw. Fr. 7,785,730

Total estimate of the cost of the installations at the prices ruling on completion of the work: Sw. Fr. 8,310,365

Estimates of 2 November 1962:
- Contract: Sw. Fr. 4,422,052
- Reserves to cover work for which contracts had not yet been awarded (kitchens, restaurants, etc.): Sw. Fr. 600,000
- Reserves for contingencies (5%) and price increases up to November 1965 (5% per annum): Sw. Fr. 1,326,456

Total increase to be anticipated in the cost of the heating and air-conditioning installations: Sw. Fr. 1,961,857

These sums do not include the installations of heating and ventilation in the garage, nor the cooling towers which are incorporated in its structure. The cost of these items has been included in the estimate for the garage.

4.5 The Standing Committee noted that, on the basis of the 1962 prices, the total of the initial contract was to be increased by about 25 per cent. because of the revisions of the study, but that in fact the final cost of the heating and air-conditioning installations, including price increases which had already occurred or were to be anticipated, would exceed the amount originally envisaged by Sw. fr. 1,961,857. If the fees involved, i.e. Sw. fr. 201,300, are added to this sum, the original estimate for these installations will be exceeded by Sw. fr. 2,163,157.

4.6 The Standing Committee recognized from the information supplied by the representative of the Director-General and by the Architect that if considerable delays and extra expenses were not to be incurred it was now necessary to regularize at the earliest possible moment a factual position which had been unavoidable. Indeed for over a year now, to avoid delaying the progress of the building work as a whole, the Contractor for heating and air-conditioning had carried out the instructions of the consulting engineers as they came to him, without waiting for completion of the review of the original study, the drawing up and approval of new estimates and the addition of codicils to his contract to bring it up to date. The Standing Committee therefore noted that the Director-General intended to regularize the contractual position forthwith by drawing up codicils to the contract.

4.7 The Standing Committee noted that the overall cost estimate, as revised by the Architect on 12 February 1965 after inclusion of the new estimates of the cost of the heating and air-conditioning installations, amounted to Sw. fr. 62,500,000. The amount available at present is Sw. fr. 60,770,000, including cash gifts and interest. The estimated expenditure therefore exceeds the amount available by Sw. fr. 1,730,000. This excess is subject to certain changes either through increases in the amount of money available as a result of cash gifts or through reductions in expenditure due to gifts in kind. This excess of Sw. fr. 1,730,000 is Sw. fr. 433,157 lower than the increase in the estimate for heating and air-conditioning installations mentioned above in 4.5. Obviously it has only been possible to achieve this result by making corresponding savings on other items.

5. Transmittal of Report

5.1 As requested by the Executive Board (by resolution EB35.R28), the Standing Committee invited the Director-General to transmit this report to the Ad Hoc Committee of the Board, which will meet before the Eighteenth World Health Assembly. It noted that the Director-General intended to submit to the Ad Hoc Committee suggestions on the financing of this excess expenditure.

6. Date of the Next Session

6.1 The Standing Committee left it to the Director-General to convene the Committee whenever it should be necessary.

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1 Figures taken from the estimate of which the totals were given in Off. Rec. Wild Hlth Org. 124, 61.
Annex 9

WHO PARTICIPATION IN THE EXPANDED PROGRAMME OF TECHNICAL ASSISTANCE

[A18/AFL/9 — 3 May 1965]

1. FIFTH REPORT OF THE AD HOC COMMITTEE OF THE EXECUTIVE BOARD

1. At its thirty-fifth session the Executive Board, in resolution EB35.R43, established an Ad Hoc Committee consisting of Dr H. B. Turbott, Dr J. Amouzegar and Professor E. Aujaleu to meet on 3 May 1965; and in resolution EB35.R42 the Executive Board requested the Director-General "to report on the developments in the financial situation of the Expanded Programme of Technical Assistance to the Ad Hoc Committee of the Board ".

2. The Committee met on 3 May 1965 in the Palais des Nations. Dr J. Amouzegar was elected Chairman.

3. The Ad Hoc Committee had before it the report of the Director-General on the participation of the World Health Organization in the Expanded Programme of Technical Assistance, which is reproduced below.

4. Having reviewed the report, the Ad Hoc Committee considers that no special action is needed by the World Health Assembly. It therefore recommends to the World Health Assembly the adoption of the following resolution:

The Eighteenth World Health Assembly,
Having considered the report of the Ad Hoc Committee of the Executive Board on the participation of the World Health Organization in the Expanded Programme of Technical Assistance,

NOTES with appreciation the improvement since January in the financial situation of the Programme.

2. REPORT BY THE DIRECTOR-GENERAL TO THE AD HOC COMMITTEE OF THE EXECUTIVE BOARD

[3 May 1965]

1. In his report 2 to the Executive Board at its thirty-fifth session, the Director-General informed the Board that at that time the initial earmarking of funds to WHO for the 1965 Expanded Programme of Technical Assistance represented 60 per cent. of the allocation approved by the Technical Assistance Committee.

2. The Executive Board, in resolution EB35.R42, requested the Director-General "to continue to carry out the programme approved by the Technical Assistance Committee for 1965, pending clarification of the financial situation and in the light of his best judgement of what is indicated by the requirements of prudent financial management" and "to report on the developments in the financial situation of the Expanded Programme of Technical Assistance to the Ad Hoc Committee ".

3. Early in March 1965, the Executive Chairman of the Technical Assistance Board informed all participating organizations that in the light of the firm pledges which had been made at that time he was increasing the 1965 earmarkings to 90 per cent. of the Technical Assistance Committee's allocation, pending full consideration of the situation by the Technical Assistance Board in April 1965.

4. At its sixty-first session, held in New York from 7 to 9 April 1965, the Technical Assistance Board reviewed the availability of funds for the 1965 programme and increased the earmarkings to the participating organizations to 92 per cent. of half of the programme approved for the 1965-1966 biennium. In the case of WHO the net shortfall as compared to the allocation for 1965 is some US $531 000 or 5.7 per cent.

5. In the light of his review of the situation, the Director-General believes that there is no necessity at this time to reduce the level of programme activities. In arriving at this conclusion, the Director-General has recalled that on several occasions in the past the Expanded Programme has been implemented within an earmarking less than the approved programme allocation. He has also taken account of the fact that on the basis of our past experience some economies are likely to accrue in the implementation of new

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1 See resolution WHA18.23.
Annex 10

DECISIONS OF THE UNITED NATIONS, SPECIALIZED AGENCIES
AND THE INTERNATIONAL ATOMIC ENERGY AGENCY AFFECTING WHO'S ACTIVITIES
(ADMINISTRATIVE, BUDGETARY AND FINANCIAL MATTERS)

REPORT BY THE DIRECTOR-GENERAL

1. The Director-General reported to the thirty-fifth session of the Executive Board on matters of administrative, budgetary and financial co-ordination. The report of the Fifth Committee of the General Assembly of the United Nations and the decisions of the General Assembly on the report of the Advisory Committee on Administrative and Budgetary Questions have still not been made. The Director-General will therefore report to the Executive Board at such time as they are available.

2. The Administrative Committee on Co-ordination held its thirty-ninth session on 28 and 29 April 1965. The report has just been received, and the paragraphs of the report dealing with administrative, budgetary and financial questions are reproduced in the Appendix below.

Appendix

EXCERPT FROM THE THIRTY-FIRST REPORT OF THE ADMINISTRATIVE COMMITTEE ON CO-ORDINATION

[XV. MEETING WITH THE CHAIRMAN OF THE ADVISORY COMMITTEE ON ADMINISTRATIVE AND BUDGETARY QUESTIONS]

78. The Chairman of the Advisory Committee on Administrative and Budgetary Questions was invited to meet with the ACC during its thirty-ninth session for the purpose of exchanging views on current and future matters of interest to both Committees and with the hope of improving mutual understanding and cooperation. There was general appreciation at the meeting that the work of the ACABQ was closely connected with the programme aspects of the activities of the different organizations in the United Nations system.

79. Among specific questions on which exchange of views took place were reimbursement to agencies of overhead costs of EPTA and Special Fund projects, preparation and submission of agency budgets (Council resolution 1044 (XXXVII)) and inter-agency co-ordination in the use of computers.

80. On the first question the members of the ACC representing executing agencies suggested that it would seem reasonable to apply the increased rate of reimbursement not only in respect of new Special Fund projects approved in and after June 1965 but also, subject to adjustment as appropriate, in respect of all operations to be carried out under projects already approved.

81. On the second point, the Chairman of ACABQ agreed with the view that the preparation and presentation of agency budgets on a uniform basis to their respective legislative bodies was not practical.

[XVI. PREPARATION AND SUBMISSION OF AGENCY BUDGETS]

82. The ACC considered, in accordance with a request contained in Economic and Social Council resolution 1044 (XXXVII), to what extent the specialized agencies and the International Atomic Energy Agency could be requested to
use a uniform layout for the preparation and presentation of their respective budgets. It was understood that this request was not to be taken as applying to the budget of the Fund or the Bank and its affiliated agencies.

83. ACC had previously arranged for this question to be examined by financial and budget officers of the United Nations, the specialized agencies and the International Atomic Energy Agency, who held two ad hoc meetings in Geneva in December 1964 and January 1965. As the resolution had asked that the ACC's consideration of the question be carried out in consultation with the Advisory Committee on Administrative and Budgetary Questions, arrangements were made for preliminary consultations to be undertaken between the financial and budget officers and the Chairman of the ACABQ. These consultations took place at the second of these meetings.

84. The ACC first considered the intent of the resolution, which it took to reflect a desire of the Economic and Social Council to be provided with information which would assist it in meeting its responsibilities as a co-ordinating body under Article 63 of the United Nations Charter. More specifically, it felt that the Council might wish to have information on the expenditures by the various organizations on programmes of activity which would help it:

(a) to see at a glance the purpose for which funds are spent by the organizations in fields of interest to the Council, and to follow the trends of this expenditure;
(b) to encourage, to the extent practicable, the development of activities in areas to which it attaches particular importance; and
(c) to draw attention to possible areas of duplication of activities.

The ACC considered that, to be of the greatest assistance to the Council, the information provided should cover the relevant activities of the United Nations as well as those of the specialized agencies and the International Atomic Energy Agency.

85. The ACC noted that the programmes and budgets of the organizations differed widely in presentation, since each had been developed to meet specific needs. Each had been designed to take into account the review processes and the particular requirements of the bodies to which it was submitted for approval and these requirements differed from one organization to another. For this reason, it did not seem feasible to standardize the form in which the budgets were submitted for such approval, and the ACC would suggest that the organizations could best assist the Council by submitting information of interest to it in the form of an ACC document designed especially for this purpose. The form and content of the document could be reviewed from time to time as might be required with a view to meeting any change in the needs of the Council.

86. The ACC considers that, if this suggestion were accepted by the Council, the main component of the information to be submitted might perhaps consist of a listing, in convenient form, of the activities of the various organizations in fields of interest to the Council, with an indication of the expenditures involved. In drawing up the list of headings to be used, account would be taken of existing classifications of activities. The listing would be accompanied by figures showing related expenditures which could not be readily identified with particular programmes. The totals of all expenditures would also be shown. In order to give the Council as complete a picture as possible, the information would cover expenditures both under regular budgets and under extra-budgetary programmes including the Expanded Programme of Technical Assistance and the Special Fund.

87. It is the opinion of the ACC that in submissions of this kind the organizations should aim at giving information which would cover a period of at least three years. The information would be based on expenditures incurred or budgets approved by the competent authorities. Accordingly, the latest year for which information would be provided would be the last year for which approval budgets for all the organizations were available, except that any organization which was in a position to do so might also include in its report approved figures going beyond that year. Once the procedure had been agreed upon, the Council could thus expect to receive in time for its summer session information covering in respect of all organizations the approved figures up to the end of the current year.

88. Preliminary arrangements have been made for the further work which will be required if the above proposals are acceptable to the Council, and which involves in particular the question of the headings under which the expenditures of the organizations might be grouped, including the headings to be used to cover their various programmes of activity.

XVII. OTHER ADMINISTRATIVE AND FINANCIAL QUESTIONS

89. The normal inter-organization consultations on administrative matters have continued. The principal items of note are:

90. Common grading standards. To speed up the work of preparation of common grading standards for posts in the professional category in all organizations in the United Nations common system, ACC has decided to borrow, on a shared cost basis, for a period of up to one year, one or two classification experts from national civil service commissions. The experts will review existing grading and grading standards in four fields of work which are relatively common to all organizations, and will make recommendations for common standards.

91. Compensation for service-incurred injuries, etc. Further progress has been made in agreeing common rules and practices on compensation for service-incurred illness, injury or death. Agreement has been reached on, inter alia, the scope of such rules and the criteria to be applied in dealing with certain difficult types of cases, such as nervous disorders or diseases endemic to particular areas.

92. Review of base salary scales for the professional and higher categories. A study has been completed within the ACC framework of the movement of salaries in a number of the larger national civil services since 1960, which was the last year taken into account when present United Nations salary scales were reviewed in 1961. The scope of this study was discussed in 1964 with the International Civil Service Advisory Board. The study will be transmitted to the Board at its thirteenth session, in May 1965.

93. Conditions of service for field staff. A study has been made of conditions of service of experts employed in bilateral aid programmes. Its results will be utilized in further longer-term studies of such problems as assignment and related allowances and the provision of housing and related amenities for field staff—problems which continue to exercise ACC in view of difficulties in recruitment for field programmes.
1. **GENERAL PROGRESS**

The global malaria eradication programme continues to pursue its objective. During the year 1964, the number of people living in areas where transmission has been stopped or final eradication achieved has increased by over 102 million compared with 1963. This progress may be better appreciated when reviewed from a wider standpoint and over a longer period. A comparison between the present status of the programmes and that of 1960 shows the considerable increase of 50 per cent. in the figures for population in the maintenance phase, and a fivefold increase in the figures for population in the consolidation phase. This has, of course, been achieved by the effectiveness of the malaria eradication operations, allowing for the progressive movement of programmes from the attack to the consolidation phase and from the consolidation to the maintenance phase. However, the rate at which new areas are entering the attack phase is now obviously slower than the rate of progress from attack to consolidation (see Fig. 1).

As far as the foreseeable prospects of eradication are concerned, the malarious areas of the world may be broadly classified into three main categories.

First, there are those very large areas of the world where the vector is amenable to insecticidal attack and where suitable administrative facilities are present. Here the effort has continued to be directed towards the methodical accomplishment of eradication, following the already accepted, classical lines.

In the second category there are those areas where the insecticide alone has proved unable to interrupt transmission owing to the presence of special technical problems. These so-called "problem areas" require an investigative approach and a concentrated effort to establish the true nature of the causative factors and to develop remedial measures. An expanded programme of field and applied research is being pursued to that end.

The third category includes the countries or areas where the present administrative facilities are not

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1 See resolution WHA18.3.
2 Since the report covers the period up to 31 December 1964, it does not reflect changes in the political status of countries and territories that have taken place since the end of this period.
FIG. 1. POPULATION AT MALARIA RISK IN AREAS UNDER VARIOUS PHASES OF ERADICATION at 31 December 1962, 30 September 1963 and 31 December 1964
(population in millions)

<table>
<thead>
<tr>
<th>YEAR</th>
<th>PREPARATORY PHASE</th>
<th>ATTACK PHASE</th>
<th>CONSOLIDATION PHASE</th>
<th>MAINTENANCE PHASE</th>
<th>NOT COVERED BY ERADICATION OPERATIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1962</td>
<td>33.3</td>
<td>461.1</td>
<td>243.2</td>
<td>329.1</td>
<td>405.8</td>
</tr>
<tr>
<td>1963</td>
<td>48.8</td>
<td>359.1</td>
<td>353.6</td>
<td>343.4</td>
<td>396.8</td>
</tr>
<tr>
<td>1964</td>
<td>66.5</td>
<td>301.9</td>
<td>354.9</td>
<td>444.4</td>
<td>392.6</td>
</tr>
</tbody>
</table>

1 Including countries with pre-eradication programmes and other antimalaria activities not classed as eradication operations.

TABLE 1. SUMMARY OF STATUS OF MALARIA ERADICATION, BY REGION, AS AT 31 DECEMBER 1964
(population in thousands)

<table>
<thead>
<tr>
<th>Region</th>
<th>Total population</th>
<th>Population in areas</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(1)</td>
<td>(2) (3) (4) (5) (6) (7) (8) (9)</td>
</tr>
<tr>
<td>Africa</td>
<td>207 178</td>
<td>16 260</td>
</tr>
<tr>
<td>The Americas</td>
<td>452 205</td>
<td>292 600</td>
</tr>
<tr>
<td>South-East Asia</td>
<td>671 264</td>
<td>37 573</td>
</tr>
<tr>
<td>Europe</td>
<td>727 116</td>
<td>403 451</td>
</tr>
<tr>
<td>Eastern Mediterranean</td>
<td>224 384</td>
<td>53 505</td>
</tr>
<tr>
<td>Western Pacific</td>
<td>228 191</td>
<td>146 543</td>
</tr>
<tr>
<td>Total</td>
<td>2 510 338</td>
<td>949 932</td>
</tr>
</tbody>
</table>

* From the United Nations Demographic Yearbook, 1963, with adjustments for subsequent population increases.
** The figure in brackets includes the estimated population (783 315 000) of China (mainland), North Korea and North Viet-Nam from which no other information is available.
sufficiently developed to give the necessary support to such a meticulous and time-limited operation as a malaria eradication programme, or which do not have the required public health structure to sustain a malaria eradication programme or to maintain freedom from malaria if eradication were achieved. For those countries, projects of a promotional nature, called pre-eradication programmes, are being gradually implemented.

It may be pertinent to say that failures to interrupt transmission in some limited areas do not and should not discourage our endeavour to achieve global eradication. In such a large battlefield, exceeding the whole tropical belt of the world, some local and temporary obstacles may not only be expected, but can be considered as normal and as a stimulating challenge to the ingenuity of national and international staff.

Thus, the global malaria eradication programme may be considered in two parts in order to enable the extent and the pace of progress to be appraised. The first, where eradication has progressed or is progressing according to the normal pattern of expected evolution, covers three-quarters of the population living in malarious areas, and includes the areas defined above as in the first category. The other part, which covers the areas of the second and third categories and contains the remaining quarter of the population at risk, will advance on the road towards eradication according to the availability of staff and money and the time required to solve the technical problems and build up the indispensable administrative facilities, principally the basic health services.

The details of individual country programmes are given in the Appendix (Status of Malaria Eradication, by Region), and country population figures are given in the concluding tables (see page 123). Since the end of September 1963 the population in the maintenance phase has increased by 101 million. Much of this increase is due to the continued success of the malaria programme in India where the population in this phase now amounts to over 93 million, but the successful operation of programmes in Israel, Jordan, Lebanon and Syria (in the Eastern Mediterranean Region) has contributed to the increase by nearly three million. Increases in the areas in the maintenance phase have also been recorded in Bulgaria, Greece, Romania and the USSR in the European Region, and in China (Taiwan) and the Ryukyu Islands in the Western Pacific Region. On the other hand, decreases have been notified by Brazil, where the programme has been re-phased, and by Albania and Yugoslavia, where stricter criteria for entry into the maintenance phase were applied during 1964.

Two further countries, Hungary and Spain, have been entered on the official register of areas where malaria eradication has been achieved.

While, as indicated, large populations have moved from consolidation into maintenance, similarly large populations have moved from attack to consolidation, with the result that the total population in the consolidation phase has remained approximately the same as in 1963. Thus, there have been advances in the South-East Asia Region where, in addition to increases in the consolidation phase in India, the first areas in the Indonesian programme, with a population of nearly 18 million, have been transferred into this phase. The whole of the island of Ceylon is now in the consolidation phase and further areas have been placed in this phase in Afghanistan. In the Americas, additions have been made to consolidation-phase areas in Argentina, Colombia, Costa Rica and Ecuador, and in the African Region in Mauritius and South Africa. However, there have been set-backs in Honduras, Iraq and Mexico and a reappraisal of the programmes in Brazil and the Philippines, with the result that populations previously recorded as being in consolidation areas have reverted to the attack phase.

The Pakistan programme, which is being developed by stages, continued to progress: the zones that were in the preparatory phase in 1963 came into that of spraying operations in 1964.

In global terms (as can be seen from Table 1 and Fig. 1), of the estimated population totalling 1560 million in the originally malarious areas of the world from which information is available, 1168 million people (75 per cent.) live in areas where malaria has been eradicated or where eradication programmes are in progress. The population of the areas in the maintenance and consolidation phases freed from the risk of endemic malaria is now 799 million, or 51 per cent. of the population of the originally malarious areas of the world.

The population living in areas where eradication programmes have not yet started—shown as 393 million—actually includes 80 million people not yet protected in countries that are conducting their eradication programmes by stages, and 195 million living in countries where twenty-six pre-eradication programmes are being undertaken. Thirteen pre-eradication programmes are in operation in the African Region—in Cameroon, Dahomey, Ghana, Liberia, Mauritania, Mozambique, Eastern Nigeria, Northern Nigeria, Western Nigeria, Sierra Leone, Southern Rhodesia, Togo and Uganda; one in South-East Asia—in West Irian (Indonesia); two in the European Region—in Algeria and Morocco; five in the Eastern Mediterranean Region—in Ethiopia, Saudi Arabia, Somalia, Sudan and Yemen; and five
* The epidemiological situation shown above for India is as at 31 December 1964.
in the Western Pacific Region—in Brunei, Cambodia, Korea, Malaya (Malaysia) and Viet-Nam.

In addition, at the end of 1964 plans for programmes covering populations amounting to 39 million were under discussion with governments: eight in the African Region—Congo (Brazzaville), Gabon, Guinea, Madagascar, Réunion, Senegal, Spanish Guinea and Zambia; one in the South-East Asia Region—Maldive Islands; two in the Eastern Mediterranean Region—Aden and Protectorate of South Arabia, and the United Arab Republic; and one in the Western Pacific Region—British Solomon Islands Protectorate.

With the continuing advance of national programmes, WHO assistance is being reorientated to meet changing needs; for example, for areas entering the consolidation phase, considerable emphasis has been laid on the development of the epidemiological services necessary for the surveillance activities of the programme.

The Expert Committee on Malaria in its tenth report¹ made a number of recommendations for improvements in the methodology of epidemiological assessment in all phases of the programme, and these recommendations have been implemented in programmes where their application is appropriate.

The employment of the more rigid criteria recommended for the commencement of the consolidation phase has prolonged the attack phase in some countries and has necessitated respraying of areas in a few other countries. However, it is expected that, owing to the stricter application of the technical criteria, future gains will be more durable.

Although the world-wide programme for the eradication of malaria has been outstandingly successful in many areas, difficulties are not unexpectedly encountered in pursuing the programme to its goal in certain other areas. In many instances these are due to operational factors such as the inadequate financial support and priority given to the programme, which result in progress being slowed down or halted or even in retrogression taking place; or political instability and insecurity may undermine the country's determination to proceed with eradication and may disrupt the essential continuity of operations. In other cases there are technical factors which, by reducing the effectiveness of residual insecticides in interrupting transmission, have delayed the progress of the programmes. These "problem areas" have occurred in parts of countries in Central and South America and in southern Iran. Much research effort is being devoted to overcoming these factors, which may require an all-out attack by a combination of methods adapted to the needs of each locality.

It may be noted that the population in the problem areas, where residual insecticide spraying alone has been shown to be insufficient for interruption of transmission, amounts to about one per cent. of the total population covered by malaria eradication operations. These areas have, however, attracted much more attention than the large areas where there is uninterrupted progress towards the goal of eradication.

In Africa a special situation exists which must be met by appropriate means, and which now calls for energetic action and much co-operative effort. The present availability of trained personnel, finance and materials falls far below the over-all needs of these rapidly developing countries, and the minimum basic health services necessary for the support of malaria eradication programmes are not as yet generally adequate. In addition, technical problems exist in some parts, particularly in savannah areas, where wide-scale interruption of transmission has not so far been achieved by the techniques at present commonly employed. Serious attention has been paid to this whole complex problem, and the time has come for a great intensification of effort in this important area of high malaria endemicity.

Pre-eradication programmes have already been initiated in a number of countries (as mentioned above) and more need to be developed, priority being given to those forest areas where the means of interrupting transmission are already known and where there therefore appears to be no technical hindrance to malaria eradication.

In pre-eradication programmes, particular emphasis needs to be placed on the development of a network of health posts on a total coverage basis, with proper co-ordination and an adequate supervisory system. Since malaria constitutes the predominant infection in tropical Africa, one of the first tasks of the developing rural health infrastructure must be to make available to all sufferers from malaria appropriate treatment facilities; pending this development of rural health services, drugs for treatment should be made available through any existing reliable agency, such as village headmen, schools, etc., serving as interim health posts. Thus an early reduction of malaria morbidity and mortality, which is particularly severe in children, may be achieved.

Plans are being developed for pilot projects both in a Sudanese savannah area and in an area of southern scrub savannah, in order that solutions to the present technical problems may be speedily found.

It must be recognized that very considerable assistance, both material and technical, is likely to be required for some years to come for the prosecution of malaria eradication in Africa.

2. OPERATIONAL ASPECTS

2.1 Eradication Programmes

2.1.1 Planning, Organization and Management

The importance of careful, realistic and detailed advance planning, of sound organization and of efficient management in malaria eradication programmes needs to be constantly re-emphasized. For countries which are not yet in a position to embark on programmes of malaria eradication, the pre-eradication programme has been envisaged to develop the essential administrative and organizational maturity, as described in section 2.2 below. When a programme of malaria eradication is undertaken, comprehensive planning is vital in order that the full implications of the undertaking can be seen and that measures can be taken to provide for the necessary financing, manpower, supplies and equipment, together with adequate organizational facilities to support the operations to be undertaken; and also to ensure—that adequate training and supervision at all levels—that the quality of the work to be carried out is of the highest. In very many countries there are often substantial and frequently competitive calls on the limited resources at the government’s disposal. In the year under review, many programmes in the Americas and some in other regions have experienced set-backs and delays due to financial stringency which prevented the attainment of targets. In some countries, inflationary trends have resulted in the loss to malaria eradication operations of numbers of trained workers, because of the relatively low rate of government wage scales as compared with those offered by other employers. This factor has resulted, in some countries, in an exceptionally high turnover of personnel and it has proved very difficult to attract workers in sufficient numbers to maintain essential levels of manpower.

There has been a marked tendency in 1964 for certain national administrations to underestimate the financial consequences of the malaria operations planned, with the result that under-financing has prevented some unprotected areas from being brought under attack operations. Chronic uncertainties as to the availability of funds have delayed the implementation of the developments planned in many countries and resulted in a tangible reduction in the potential of the means for attack. It is also evident that the traditional patterns of government budgeting and fiscal administration in many countries are not sufficiently flexible to provide speedily the funds which may be required to meet operational contingencies that cannot be foreseen at the planning stage of a programme. When such contingencies arise, it frequently happens that funds for these “problem areas” are withdrawn from amounts earmarked for previously planned operations, with consequent disruption of the programme.

In many countries, there is a critical shortage of suitably qualified workers and, in order to make the best use of the limited personnel available and avoid wastage, it is imperative that long-range and detailed plans be developed and implemented in proper order. There is sometimes evidence of lack of realism in the consideration of the time factors involved in efficient management of the programme: for example, before a plan of action for a specified period of time has been accepted by all echelons of the government concerned, the period covered by the plan may have already elapsed. Consequently, the efficiency of the forward planning and the management of the material and manpower resources needed for programme execution are quite seriously curtailed.

Knowledge of techniques which can ensure the interruption of malaria transmission, the availability of appropriate insecticides, drugs, equipment, and suitable transport, cannot assure the success of a programme in places where pay scales for the malaria service are too low to attract and retain the right type of worker, where wages are paid months in arrears, where poor management and administrative delays result in postponement of field operations to periods of the year when mobility is most difficult, if not outright impossible, or where the programme lacks a systematic and effective supervisory mechanism with full awareness of the critical and fundamental importance of these problems. The Organization is collaborating closely with the national authorities in efforts to improve the basic planning, organization and management of malaria projects.

2.1.2 General Health Services and Malaria Eradication Programmes

The necessity for the full participation of the public health services in malaria eradication programmes is receiving much attention.

A study group on the integration of mass campaigns against specific diseases into general health services was convened by the Organization in Geneva from 27 April to 2 May 1964. The deliberations of this group have brought into better perspective the desirable relationship between mass campaigns and basic health services.

In the African Region, a meeting of WHO public health advisers (basic public health services) assigned to malaria pre-eradication programmes was held in Lomé, Togo, from 8 to 13 March 1964.

The first international seminar to be held in the Americas on the role of general health services in malaria eradication took place in Poços de Caldas, Brazil, from 28 June to 4 July 1964 and was attended by seventy-three participants from eight South American countries, including ministers of health, chiefs of health departments and directors of malaria eradication services, together with members of the staff of WHO/PAHO and observers including representatives of UNICEF and the United States Agency for International Development. The seminar agreed that malaria is a public health problem for which there is a definitive solution—eradication; and that an eradication programme, although conducted generally by a specialized service, requires permanent co-ordination between this service and the general health service. The role that could and should be played by the general health services in each phase of the eradication programme was considered in detail. The seminar also drew attention to the importance of medical schools’ placing greater emphasis in their teaching programmes on public health subjects including malaria. A similar seminar for countries of Central America, Mexico, Panama and the Caribbean was arranged to take place in February and March 1965.

In Peru, the Ministry of Health has set up a commission to study the needs for surveillance and for vigilance in the maintenance phase. In Jamaica and in Trinidad and Tobago, where the achievement of eradication is claimed, steps are being taken to incorporate malaria staff into the general health services.

In countries of the South-East Asia Region with eradication programmes, the involvement in malaria eradication of existing health services is increasing and where those services are inadequate their active development is in hand. In India, a special committee has been formed to plan and arrange for the transfer of responsibilities from the national malaria eradication service to the state health services for those areas entering the maintenance phase and the staff of the national malaria eradication service after suitable training is being incorporated into the state public health services, in order to expand and augment the rural health services to meet the vigilance needs of malaria eradication. The rural health services in Nepal are included in the plan for fourteen panchayat development zones and seventy-five development districts. In Thailand, a pilot project has been set up whereby a multipurpose health worker is assigned for every 5000 of the population.

In Turkey, phased integration of the national malaria eradication service into the general health services is being undertaken and total coverage basic health services are being developed in pilot provinces.

It must be said that while in some countries the participation of the public health services in malaria eradication activities is excellent, in a good many the essential relationship still needs to be better understood and practical co-ordination for greater efficiency needs to be worked out.

2.1.3 Attack Operations

Spraying with residual type insecticides remains the primary attack measure, and DDT remains the most widely used insecticide for this purpose. From data supplied elsewhere in this report, it is evident that this method is still very effective in large areas of the world where the insecticides are being applied. For such areas, it is sufficient, in order to interrupt transmission, to continue to carry out spraying operations with a well-supervised, total coverage of malarious localities. However, it is now well recognized that there are some areas where special circumstances have delayed or prevented the interruption of transmission by this means alone. Administrative or operational inadequacies, poor supervision and/or insufficient financial resources have been major obstacles to the achievement of interruption of transmission by residual spraying. To meet such situations, the Organization is continuing to foster the intensification of field operations, better organization, techniques, equipment and supervision. Intensification of field operations includes improved planning and insistence on comprehensive preparatory work in order to prevent houses being missed, and provides for inter-round spraying of newly constructed and renovated living quarters where the number of these is significant. Special attention is also being given to the adequacy and timing of spraying rounds in areas where there appears to be a hard core of actual or potential transmission, such as occurs seasonally in many rice-growing areas. In such areas, spraying needs to be carried out immediately before the major transmission seasons, and in the shortest possible time, in order to obtain the optimum effect of the insecticidal properties.

Other factors that have delayed or prevented interruption of transmission are such aspects of human ecology as nomadism, or mosquito behaviour peculiar to particular areas. In these circumstances, other attack measures, often combined with spraying, have been employed with varying degrees of success.

In some areas the development of resistance to DDT in bed-bugs or other domestic insects has made it necessary to add HCH or an organophosphorus insec-
ticide to the DDT in order to restore popular support of the spraying programme.

Experience with antilarval measures in the past has provided varying results, depending on how well such measures were planned and carried out. Difficult access to breeding places and lack of adequate finances have proved major obstacles. However, where it has been possible to carry out the work thoroughly and regularly there has been success, as was the case in Jordan, and in Ecuador, where the large city of Guayaquil has reached the consolidation phase by the use of larvicides. Larviciding is also being used in certain urban areas in Afghanistan and India and also in parts of Iran, Iraq and Mexico. In rural areas, larviciding is used in Brazil, El Salvador, Nicaragua, Syria and Turkey in conjunction with other attack measures. The Organization is giving increased attention to the most effective use of antilarval measures, both alone and in combination with drugs and/or anti-imagae measures. Space spraying of insecticides, including fogging, when judiciously employed has a place in some areas.

Although a number of trials of mass drug administration have been made, the practical difficulties encountered in administering drugs to a population sufficiently regularly to stop the transmission of malaria limit the scope of this method. In some circumscribed instances in Central America, it was possible to reach up to 75 or 90 per cent. of the population regularly, and under these conditions clear successes were attained in eliminating malaria. In other larger schemes in the same area, where there was from 50 to 80 per cent. coverage of the population, malaria cases were greatly reduced. In trials in Thailand, 65 per cent. coverage has been obtained. Despite the comparatively higher cost involved, increased emphasis is being placed on the use of drugs, particularly in combination with other measures.

The use of medicated salt is still preventing the transmission of malaria in most of the hinterland of British Guiana, in spite of the fact that the distribution of the salt was unavoidably interrupted for a period of three months during which time non-medicated salt was reintroduced into the area. The method is also being used in the neighbouring country of Surinam. Another example of the use of this method to meet a special situation is the trial being made in southern Iran in a population that includes a high proportion of nomadic tribal groups. Medicated salt may be utilized in other areas where the proper conditions for its probable success exist. Of these conditions the basic essentials are, first, that common salt in ground form is, or can become, a normal and regular element of the diet of the population concerned; and, second, that it is possible to ensure that no salt other than medicated salt reaches the population. Experience has shown that situations where this second condition can be met are comparatively rare. A further essential for the effective application of this method is the regular distribution of adequate supplies of dry medicated salt, and this poses considerable administrative and logistic problems.

2.1.4 Epidemiological Evaluation and Surveillance Operations

The entire planning of the malaria eradication programme is based on continuous assessment. Although during the early part of the attack phase classical malariometric methods are still used, it is now well recognized that surveillance operations should be commenced during the attack phase as soon as the over-all programme has developed sufficiently to support such operations. These surveillance operations (which consist of active and passive case-detection, radical treatment of confirmed cases of malaria, epidemiological investigation of confirmed cases, and elimination of foci of transmission) are in fact the sole activity after spraying has been discontinued.

Previously, in many countries, passive case-detection was not sufficiently developed to take its full part in surveillance operations; however, during the past year, with the increasing emphasis that has been placed on the importance of fully utilizing and expanding the basic health services, considerable improvement has been noted in the coverage obtained by this form of case-detection. For example, the proportion of slides collected in this way to the total number collected by all means rose, in the South-East Asia Region, from 14.7 per cent. in 1963 to 20.3 per cent. in 1964. There has been considerable improvement in epidemiological investigations and follow-up of positive cases reported, but in some countries still more effort is required. The average ratio of blood slides collected during the epidemiological investigations arising from a positive case varies considerably: at the highest it is 720 slides per case, and at the lowest 1.5 slides per case. Where the ratio is very high, it appears to be due to the fact that large-scale mass surveys have been included in the epidemiological investigations of positive cases. Improvements in the epidemiological investigations and follow-up of positive cases, as revealed by the numbers of blood slides collected, have been observed in countries in each of the regions, although the desired standard has not yet been reached everywhere.

The headquarters special team for epidemiological investigations and the independent assessment teams have been contributing increasingly to epidemiological progress, the former by investigating the persistence
of transmission, and the latter through the epidemiological assessment of operations.

In its eleventh report the Expert Committee on Malaria\textsuperscript{1} gave detailed consideration to the role entomology can play in epidemiological assessment. The Committee recognized that the interruption of transmission, or its persistence at a low level, cannot normally be confirmed by entomological means. On the other hand, certain entomological observations, in association with known parasitological facts, permit assessment of the malaria reproduction rate and may offer the best means of predicting the trend of transmission, during the attack phase. And in the consolidation phase entomology could define the areas that are epidemiologically vulnerable, in the light of observations of the vectorial capacity of the known vector species. Thirdly, where transmission is resumed or if found to persist, entomology has an important part to play in determining the causes and in finding appropriate remedies.

There are indications that an increasing number of malaria eradication programmes are endeavouring to give effect to the Expert Committee's recommendation "that entomological activities be fully integrated with the epidemiological evaluation throughout all the phases of malaria eradication and that adequate provision in terms of personnel and resources be made for this purpose ".

2.2 Pre-eradication Programmes

2.2.1 Planning

In planning for new pre-eradication programmes, it may be said that it is never premature to implement a pre-eradication programme in a malarious country, for such a programme is the essential and logical first step in any country "in which the general administration and health services have not yet reached a level that would enable it to undertake a malaria eradication programme ". This is because, although its ultimate objectives are clear and precise, a pre-eradication programme can be tailored to meet the needs of any local situation and to suit the available resources in each case. The time-table for the concurrent development of the health infrastructure and the malaria service, which are the basic foundations of a malaria eradication programme, must be planned strictly in accordance with the existing facilities and the potential for development in each country concerned. For this reason, the initial plan of operations commits the government to a rational development of its basic essential health services, which must eventually attain effective coverage of the total population, and to a gradual creation of a malaria service; but it does not attempt to give in any detail the actual plan of action which will be undertaken to meet these commitments, as this can only be worked out after a careful \textit{in situ} study of the local situation. A general picture of existing facilities and development potential should be completed within the first six months of the programme to allow a more detailed plan of action to be elaborated for the remaining eighteen months of the two-year period covered by the initial plan of operations, and it may only be during this period that the full country-wide development plan can be elaborated according to a realistic time-table. Whether the pre-eradication programme can be completed within two years or so, as may be the case where the health and malaria services have only a few lacunae to fill, or whether it must inevitably be much more protracted, it is always important to lay down a definite schedule with target dates, not only so as to provide a yardstick for the assessment of progress, but also to allow the programme to be fitted into the government's over-all development plans. The upper limit of time will need to take into account both the resources of the country concerned and its international responsibility for co-ordination with similar action in neighbouring States.

2.2.2 Development of the Health Infrastructure

The health infrastructure is that network of health posts, together with the essential supporting supervisory and co-ordinating mechanisms, which will be needed to provide effective contact with the whole population of the malarious areas so that it can assure, at least by the latter half of the attack phase of the eradication programme, the detection and treatment of cases. In some instances appropriate elements of the basic health services may undertake other malaria eradication activities.

In the pre-eradication programmes already in operation the development of the health infrastructure has been in general slower than had been hoped, though in a number of cases sound comprehensive plans for this activity have been or are now being elaborated and a start has been made on the training or retraining of the auxiliary personnel who will staff the health posts. In the African Region public health advisers have been assigned to pre-eradication programmes to assist in the development of the health infrastructure. In Cameroon recommendations have been made for the standardization of various health activities, the unification of the health services, the organization of proper supervision, and the training and organization of personnel. In Dahomey similar activities will shortly be initiated. In Ghana an over-all

plan has been completed and the details of its implementa-
tion are being considered; a national training centre for multipurpose rural health workers is in operation. In Liberia and Mauritania progress is slow. In Northern Nigeria the survey of health facilities has been completed, plans for development have been prepared and their implementation is expected shortly. In Eastern Nigeria action is under way, but a WHO public health adviser was assigned there only recently. In Sierra Leone the WHO team started work in February 1964 along similar lines. In Togo the survey of health facilities has also been completed and the plan for development prepared and submitted to the Government; training and retraining activities have been initiated. In Uganda similar developments are to be expected following the assignment of a WHO public health adviser at the end of 1964.

In most of the thirteen pre-eradication programmes in other regions, it has not been found necessary to provide the countries with additional WHO public health advisers. In South-East Asia the plan of operations for the pre-eradication programme in West Irian (Indonesia) provides for the development of an integrated rural health service that will deal with malaria, yaws, leprosy, tuberculosis, smallpox vaccination and environmental sanitation. In Kali- mantan (Indonesia) three basic medical training schools exist, as well as schools for nurse aides and midwives; thirty-three doctors and 530 other health personnel are already available, and a total of eighty-six health centres and 376 subcentres is planned.

In the two countries in the European Region where pre-eradication programmes are in operation—Algeria and Morocco—the development of basic health services is well in hand. In Algeria an extensive programme for the training of health aides and other categories is being energetically prosecuted, and a centre with an associated demonstration area has been set up to provide them with special malaria training; it should be possible to launch an eradication programme by the end of 1967. In Morocco, where the pre-eradication programme started much earlier, there have been budgetary and administrative delays. However, training facilities exist: there are twenty schools for nurses and five rural health schools and, although only a little under 50 per cent. of the required staff were in position by September 1964, it should be possible for the basic health service coverage to be completed by the end of 1966.

In the Eastern Mediterranean Region, a public health adviser is being recruited for the pre-eradication programme in Ethiopia and some progress has already been made in collecting information on existing facilities. This shows that the existing health infrastructure is far from adequate. The programme in Sudan has recently started: an assessment of existing facilities has been made in three provinces, where the rural health services have been found to be fair, but total coverage has not yet been reached. Good training facilities are available. In Saudi Arabia and Somalia public health advice is available from specialists assigned to other projects.

In the five pre-eradication programmes in the Western Pacific Region, attention has been concentrated on the development of operational facilities more directly related to the future malaria eradication programme rather than on the development of the health infrastructure as such. However, in Brunei, Cambodia and Viet-Nam the malaria service has been instrumental in establishing rural health facilities. In Brunei, where the chief emphasis has hitherto been on medical care, greater attention is now being paid to health activities. In Cambodia the malaria service has established forty sectors covering 100 000 population in the forest areas, the malaria technicians have taken on elementary health duties, and further development is envisaged in the next five-year plan. In Viet-Nam the previous Administration-General for Malaria Eradication has recently been converted into the Administration-General for Health Development and this is expected to give the needed impetus to the development of the health infrastructure.

2.2.3 Development of the National Malaria Service

The malaria service is the technical service which must in due course become the malaria eradication service, with the skill and resources necessary for the prosecution of the eventual eradication programme. For the purpose of building up this service, training and demonstration areas are being set up as and when required in the pre-eradication programmes in the African and European Regions. In South-East Asia, the Eastern Mediterranean and the Western Pacific, antimalaria activities that were already in operation are being maintained, at least in part, and thus provide the necessary field training for technical and operational staff. Technical personnel are also sent for training to national or international malaria eradication training centres as appropriate. As a fully elaborated plan of operations for the ensuing malaria eradication programme is to be prepared by the end of the life of a pre-eradication programme, it is incumbent upon the developing malaria service to accumulate all the relevant epidemiological and logistical information, including a detailed malaria map of the whole country.

Apart from this long-term activity, there is the fundamental and immediate responsibility of instituting “appropriate antimalaria measures to reduce mortality and morbidity, particularly in children”,
as recommended by the Seventeenth World Health Assembly in its resolution WHA17.22, particularly by ensuring the availability of antimalarial drugs for all suspected cases of malaria. As far as possible this should be accompanied by the gradual building up of facilities for microscope diagnosis of the disease. Effective action has already been taken in this regard in many pre-eradication programmes and in other such services as are being developed.

2.3 Co-ordination

It has been recognized from the beginning of the world-wide malaria eradication programme that co-ordination of programmes among neighbouring countries was important. However, now that many countries have, or soon will have, significant areas in the consolidation or the maintenance phase, the importance of such close co-ordination is clearly evident. Countries need to participate in a collective effort to eliminate the danger of reinfection of areas by the importation of the disease into one country or continent from another, a danger which is very real with modern transportation facilities and which is clearly evident, even in areas still under attack, from the high percentage of imported cases discovered through epidemiological assessment.

The Organization has assisted in the development of a plan for the co-ordination of antimalarial activities in the countries of Lebanon, Syria, Jordan and Iraq; it is expected that the neighbouring countries, Iran and Turkey, will also participate in this co-ordinated plan which follows the general principles of the plans for co-ordination previously completed for Europe and for Central America. The setting up of a Co-ordination Board by Jordan, Lebanon and Syria has been proposed.

An agreement has been signed between Ecuador and Peru for co-operation incommunicable disease control with primary emphasis on malaria. A new step in inter-country co-ordination was taken with the setting up of the Malaria Eradication Service for the Isthmus of Central America, the agreement for which was signed by the governments concerned in July 1963.

In the Western Pacific Region, Brunei, Sabah and Sarawak carry out co-ordination through exchange of reports and staff visits. There is good practical co-ordination between the Territory of Papua and New Guinea and the British Solomon Islands Protectorate; border areas in the Protectorate are sprayed by personnel from the Territory, and training facilities in the Territory are also made available to personnel from the Protectorate.

Programme co-ordination is fostered also by means of the inter-regional and regional meetings that are sponsored by the Organization. An inter-regional conference was held during 1964 with participants from Eastern Mediterranean and some European countries. Regional meetings also took place in South and Central America.

Inter-country meetings play an especially important role in fostering co-ordination. During the year, the following inter-country meetings were held: India-Nepal, Pakistan-India, Mexico-Guatemala, Mexico-British Honduras, Iran-Iraq, Lebanon-Syria, Jordan-Saudi Arabia, Syria-Jordan, Syria-Turkey-Lebanon, Colombia-Venezuela, Ecuador-Peru, and Burma-India-Pakistan.

Particular attention has been paid during the year to establishing better co-ordination between malaria workers and those of the public health services, by means of conferences, seminars and training courses.

Collaboration between the different international and bilateral agencies continues to be excellent. Representatives of UNICEF and of bilateral agencies have participated in inter-regional and regional malaria conferences.

3. REGISTRATION OF AREAS WHERE MALARIA HAS BEEN ERADICATED

The World Health Organization maintains two registers of those areas in the world that are free from malaria: (1) the Official Register of areas where malaria eradication has been achieved; (2) a Supplementary List of countries or areas where malaria never existed or has disappeared without specific measures. These two registers are kept up to date and are reproduced twice yearly in the Weekly Epidemiological Record.¹

Entry on the Official Register entails the visit of a WHO certification team of experts to the country concerned (in conformity with resolution WHA13.55

¹ For registers at 31 December 1963, see Wkly epidem. Rec., 1964, 41, 519.
of the Thirteenth World Health Assembly), with a view to establishing the absence of malaria in accordance with the criteria laid down by the Expert Committee on Malaria in its eighth report and supplemented in its tenth report. The prerequisites for such certification may be summarized as follows: (i) proof of the adequacy of the surveillance mechanism; (ii) evidence that during the last consecutive three years (the last two of which being without attack operations) no indigenous cases of malaria, originating within that time, have been discovered; (iii) evidence of a register of all malaria infections discovered during that time; (iv) evidence of an adequate vigilance system that is capable of carrying out rapid and appropriate measures against any imported or introduced cases.

By the date of this report, five countries had been entered on the Official Register (three in the Region of the Americas, two in Europe—see Table 2), and a further four countries (three in Europe, one in the Western Pacific Region) had applied for certification of eradication. In addition, fourteen other countries and territories that at present have all their originally malarious areas in the maintenance phase will shortly be in a position to apply for entry on the Official Register.

The Supplementary List came into being at the end of 1962 as a means of disseminating information on those countries where malaria has never existed or has disappeared without specific measures. At the present date, thirty-seven countries or territories are listed (one in the South-East Asia Region, sixteen in the European Region, one in the Eastern Mediterranean, and nineteen in the Western Pacific Region).

### 4. PROTECTION OF AREAS FREED FROM MALARIA

In the strict definition of the term, a malaria eradication programme is limited in time and, with the certification of the eradication of the disease from the country, the programme as such should cease. However, as long as there are malarious areas in the world from which malaria may be imported into these cleared areas, there is need for maintaining vigilance to ensure prompt detection and treatment of imported and introduced cases. This maintenance of malaria eradication is a responsibility of the national health service of the country concerned. In the United States of America, where the disease has been eradicated for some years, 102 imported and secondary cases of malaria were detected and treated by the health authorities during 1964.

The prevention of the reintroduction of malaria has become increasingly important with the increase of the number of areas now free from the disease. For this reason, and because of the close link between the global eradication programme and the preservation of freedom from malaria, the situation has been closely considered by the Expert Committee on Malaria in its ninth and tenth reports.

The reintroduction of the parasites into an area where the disease has been eradicated may arise from the importation of infected mosquitos and/or the introduction of sources of infection (i.e. people with parasites in their blood). China (Taiwan) may be quoted as a good example of the adequacy of an efficient public health network in detecting imported cases of the disease and thus making a special anti-malaria service unnecessary. The first possibility, that of the importation of infected vectors, concerns countries in the consolidation or maintenance phase which adjoin malarious areas, or which have ports or airports to which the mosquitos may be carried from more distant malarious areas.

The World Health Assembly adopted the recommendations of the Committee on International Quarantine that appropriate steps should be taken

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**Table 2. Official Register of Areas Where Malaria Eradication Has Been Achieved**

<table>
<thead>
<tr>
<th>Country</th>
<th>Area</th>
<th>Population December 1964</th>
<th>Date of registration</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Region of the Americas</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Venezuela</td>
<td>400 000 km²</td>
<td>5 000 000</td>
<td>June 1961</td>
</tr>
<tr>
<td>Grenada and Carriacou, St Lucia</td>
<td>Island</td>
<td>93 000</td>
<td>November 1962</td>
</tr>
<tr>
<td><strong>European Region</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hungary</td>
<td>93 000 km²</td>
<td>10 149 000</td>
<td>March 1964</td>
</tr>
<tr>
<td>Spain</td>
<td>506 787 km²</td>
<td>31 451 000</td>
<td>September 1964</td>
</tr>
</tbody>
</table>

---

against mosquitoes in frontier zones, and that in the international frontier zones of the countries concerned common control measures should be adopted to prevent the disease being carried from one country to another. As the flight range of the vector is limited, the use of insecticidal measures in the border areas affected, with the inter-country collaboration of the respective national personnel, may suffice.

The importation of cases through the movement of population from malarious areas to areas that are malaria-free, however, presents a more complex problem. This category covers both international travellers (who may have contracted the disease in transit), and migratory groups or seasonal workers crossing a border. The recommendations contained in the fifth report of the Committee on International Quarantine and reiterated in its twelfth report, adopted in 1964 by the Seventeenth World Health Assembly (resolution WHA17.42), were in part as follows:

1. persons on international journeys should not be subjected to any special sanitary measures;
2. special measures should be applied to various groups (migrants and seasonal workers);
3. a system of full exchange of information on the movement of population groups and on the susceptibility and resistance of anopheline vectors to insecticides should be instituted.

The Expert Committee on Malaria, having closely studied these points, further suggested, in its tenth report, that all health administrations should apply strict antimosquito measures at international ports and airports, and that appropriate measures should be taken by the national health administrations for the medical control and treatment of seasonal workers and migrants, the crews of ships and aircraft. In addition it recommended that a special card should be used, to be completed by international travellers with details of any malaria history, and to inform travellers of the danger of the disease being imported to malaria-free areas. However, the Seventeenth World Health Assembly accepted the opinion of the Committee on International Quarantine that a warning card should be used rather than the combination questionnaire and information card proposed by the Expert Committee. The report of the Expert Committee on Malaria further recommended that the Organization should provide further information in this respect, through a twice-yearly publication in the Weekly Epidemiological Record. With regard to these recommendations, lists have been published in the Record showing : malaria cases imported into countries in the maintenance phase, classifying the cases according to the species of parasites and the country of origin; and localities where chloroquine-resistant strains of parasite have been described. The possibility of publishing a list of international ports and airports which, although located in malarious zones, do not in themselves present risk of transmission, requires further study in order to ensure that such a list would be presented in the most comprehensive and valid form.

However, the dissemination of information on an international level, as outlined above, does not entirely meet the problem. As malaria ceases to be endemic in more countries, medical officers in those countries begin to forget the disease as a possible diagnosis. On the individual plane, this can and does result in fatalities from time to time; and on the public health plane the failure to diagnose what is actually a case of malaria may result in a resumption of transmission, at least in a limited focus.

In order to meet this situation not only will it be necessary constantly to remind the national health services of the danger of reimportation of the disease, but it is also essential that the medical profession as a whole should be kept aware of malaria as a disease entity, of the necessity of taking blood films from suspected cases, and of the urgency of the disease being diagnosed immediately so that the appropriate radical cure may be given. For this reason, all schools of medicine and public health must continue to give due attention to the adequate teaching of both the clinical and the public health aspects of malaria, and emphasis should be placed particularly on the importance of a blood-film examination of all cases of fever not obviously due to causes other than malaria.

5. PROBLEMS IN MALARIA ERADICATION AND APPROACH TO THEIR SOLUTION

5.1 Problem Areas

The Seventeenth World Health Assembly, in resolution WHA17.22, noted with concern that in some malaria eradication programmes the transmission of malaria persists in spite of the measures applied, creating the so-called “problem areas”, the perpetuation of which endangers the programmes and results in their undue prolongation; urged the governments of countries with problem areas to undertake

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1 OfT. Rec. Wld Hlth Org. 135, 33.
intensive studies of the factors responsible and to take such steps as may be necessary to effect the complete interruption of transmission, including, where necessary, the setting-up of special teams for study and operations; and requested the Director-General to continue and intensify programmes of basic and applied research and to furnish the interested governments with advice and technical assistance with a view to the early solution of technical difficulties found in problem areas or which may exist in countries which have not yet undertaken malaria eradication campaigns.

The general causative factors of problem areas may be expressed as those due to man, the vector and the parasite. Only in one area, with a population of 9000, has the parasite factor developed to such a degree as to be considered a practical cause of problem areas: in Rupununi, British Guiana, medicated salt failed owing to the tolerance of *P. falciparum* to chloroquine, and attack by DDT was introduced with promising results. Elsewhere the mosquito factor is by far the most important, though movements of man, sleeping habits, and types of houses do have some effect. A comprehensive list of these causative factors and the methodology for studying them were given in the tenth report of the Expert Committee on Malaria, and the entomological methods for investigation of problem areas were considered further in the eleventh report.

Although up to now the extent of recognized and defined problem areas is relatively small (involving about 4.3 million people in Mexico, 0.3 million in El Salvador and 0.5 million in Guatemala, 0.8 million in Nicaragua, 0.1 million in Honduras, 0.3 million in Venezuela, 44 000 in Haiti, 9000 in British Guiana and 4.3 million in Iran, and representing only a small part of the total territory under the eradication programme in each country) these areas have an untoward effect on the country programme out of all proportion to their size.

The countries mentioned include only those in which prolonged insecticidal attack has failed to interrupt transmission. Over wide areas, notably in the dry savannah zones of Africa and in the Nile Delta, where no such attack operations have yet been mounted, the results of pilot projects have not thus far demonstrated the feasibility of interrupting transmission by means of spraying with the standard insecticides. The factors responsible for this appear to be broadly the same as those listed for the defined problem areas.

In El Salvador, Guatemala, Nicaragua and Honduras, the problem is a complex one of double resistance, DDT excito-repellency and exophily in *A. albimanus*, and in Iran there is an analogous situation with *A. stephensi*. In Mexico, the main factor appears to be the behaviour of *A. albimanus* and *A. pseudopunctipennis* to DDT (coupled with potential dieldrin resistance), while in Venezuela outdoor biting and resting in *A. aquasalis* and *A. nuneztovari*, and also movement of the human population, are responsible.

The Organization has assisted in the investigation of most of these problem areas and has made recommendations. Amongst the remedial measures being employed, more strategic timing of spraying and variations in the dosage and frequency of application of the insecticide have been used in Mexico and El Salvador. Peridomestic spraying, combined with radical treatment of cases, is proving effective in northeastern Venezuela. Newer insecticides have been used or are being tested in parts of Central America and in Iran with varying results; and, also in Central America, mass drug administration has been tried out. Field trials of new insecticides are being carried out and a full-scale pilot project is being set up in the West African savannah zones. A number of new larvicides are now becoming available and these are being tested in special situations.

In problem areas more than one factor is usually involved, and experience has shown that one remedial measure alone will rarely solve the problem. Integrated remedial action will be necessary, and in large problem areas pilot projects will be needed to demonstrate the effectiveness of this integrated action. Such a pilot project is being undertaken in an area on the Pacific coast of Mexico, covering a population of 220 000. In this problem area, a combination of DDT (2g/m²) thrice yearly, total coverage case-detection at monthly intervals, and individual radical treatment of each case is being used; in addition, mass radical treatment is being given in those villages where persistent transmission is found.

A special malaria eradication epidemiology team has been set up to assist in bringing a definitive solution to the problem in Mexico and will be available in due course to assist where necessary in Central American countries. A similar team has been set up in the Eastern Mediterranean Region and is giving its immediate attention to the situation in southern Iran. Provision will be made for other teams of this nature as and when required.

5.2 Resistance of Malaria Parasites to Drugs

In its report, the Scientific Group on Resistance of Malaria Parasites to Drugs, which met in October 1964, has given the following definition of drug resistance as adequate for practical purposes:

“Ability of a parasite strain to survive and/or to multiply despite the administration and absorption of a drug given in doses equal to or higher than those usually recommended but within the limits of tolerance of the subject.”

Differences in the response to drugs of different strains belonging to the same parasite species have been observed since the end of the last century, and extensive work during the nineteen-forties provided many further examples. Reduced susceptibility of malaria parasites to proguanil has been observed since 1948, and to pyrimethamine since 1953. In the case of 4-aminoquinolines, decreased susceptibility on the part of the malaria parasite was first reported in 1960.

Any confirmed drug resistance to chloroquine and other 4-aminoquinolines may create a potentially serious problem for a malaria eradication programme. The Scientific Group stressed that at the present time the areas where evidence of chloroquine resistance has been obtained are few and that some observations still await confirmation. Chloroquine and other 4-aminoquinolines are the most valuable drugs used in all phases of malaria eradication, and there is no evidence that the over-all situation with regard to the usefulness of these drugs has shown any significant change.

The primary problem encountered in the field is the early recognition of true resistance on the basis of results of treatment. Criteria for recognition in the field of possible resistance to chloroquine and other 4-aminoquinolines have been proposed by the Scientific Group. It is essential that the recommended two-stage field test be applied uniformly with strict attention to details. In the case of failure of the asexual parasitaemia to respond to the test dose of chloroquine, resistance to this drug should be suspected.

The final conclusion that drug resistance of the parasite is occurring can be arrived at only by demonstrating the persistence of parasitaemia, despite adequate treatment, after the parasite has been transferred to a new and susceptible individual, either by sub-inoculation of infected blood or by the bite of a mosquito infected from the original subject. Such an investigation is not practicable in the field but can be carried out in a research centre where “resistant” parasites detected in field surveys can be studied with precision. The Laboratory of Parasite Chemotherapy at the National Institute of Allergy and Infectious Diseases, National Institutes of Health, Bethesda, United States of America, which was designated in 1961 as a WHO international malaria reference centre, is carrying out such investigations, and other investigations are being undertaken by the National Institute of Communicable Diseases, New Delhi, India, which was designated as a WHO regional malaria reference centre in 1964.

5.3 Vector Reaction to Insecticides

Both resistance of the vector mosquito to insecticides and behaviour responses of the vector that render the insecticide ineffective can be the cause of failures to interrupt transmission, and the early recognition of these vector reactions is of great importance to enable alternative attack measures to be instituted.

Resistance to DDT alone is recorded in only one vector species (A. nuneztovari, Venezuela), but resistance to the dieldrin/HCH group alone is recorded in twelve vector species. The latest addition to these is a major vector in Africa, A. funestus, in which resistance has appeared in parts of Northern Nigeria and eastern Ghana, areas where the same condition has been known for some years in A. gambiae. In the northern savannah areas of Africa, the single resistance of A. gambiae to dieldrin/HCH has produced technical problems since it appears that DDT used as the sole attack measure is unable, for complex ecological and ethological reasons, to interrupt transmission by this vector. On the other hand, in different conditions (Greece, India), DDT remains the chief weapon of successful attack on malaria transmission, in spite of the resistance to DDT of vectors in certain areas of those countries.

Double resistance to DDT and dieldrin/HCH groups of insecticides has been found in recent years in seven vectors of malaria. The vector species showing double resistance are:

<table>
<thead>
<tr>
<th>Species</th>
<th>Countries</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. aconitus</td>
<td>Indonesia (Java)</td>
</tr>
<tr>
<td>A. albimanus</td>
<td>El Salvador, Guatemala, Honduras, Mexico, Nicaragua</td>
</tr>
<tr>
<td>A. albitarsis</td>
<td>Colombia</td>
</tr>
<tr>
<td>A. pharoensis</td>
<td>United Arab Republic (Nile Delta)</td>
</tr>
<tr>
<td>A. quadrimaculatus</td>
<td>Mexico, United States of America</td>
</tr>
<tr>
<td>A. sacharovi</td>
<td>Greece</td>
</tr>
<tr>
<td>A. stephensi</td>
<td>India (Madras), Iran (south), Iraq (south)</td>
</tr>
</tbody>
</table>

In two major vector species, *A. culicifacies* and *A. sundaicus*, resistance to the DDT group and the dieldrin/HCH group has been confirmed, but so far not in the same area. The area of the island of Java (Indonesia) where resistance is found in *A. sundaicus* overlaps in part the area where there is double resistance in *A. aconitus*. Double resistance has led to difficulties in using the chlorinated hydrocarbon group of insecticides in some of the countries mentioned above, and other attack measures have had to be employed.

Studies on the behavioural responses of malaria vectors in the field to residual insecticides are no less essential than the prompt detection of incipient physiological resistance. A distinction is made between two types of response: the mosquito's natural response to a repellent or irritant insecticide (such as DDT), which may result in the avoidance of a lethal dose; and an induced response, or change of behaviour in a vector population, resulting from insecticidal selection pressure.

The vector's natural response to DDT is receiving increased attention in many projects and programmes, and it is recognized that DDT sometimes does not achieve or maintain a high kill among the vector females which enter treated structures. This fact, which in areas of unstable malaria with seasonal transmission by an inefficient vector may merely retard its interruption by means of DDT, may elsewhere prove a decisive obstacle to a successful attack with that insecticide.

Induced responses might be reflected by observed changes in DDT irritability, in exophily, exophagy or zoophily. It has been shown under experimental conditions in Tanzania that one form of *A. gambiae* is polymorphic for host preference, thus providing a basis on which selection for behavioural changes might operate. It is extremely difficult, however, to demonstrate any such change arising from operational selection pressure, especially in view of the suspicion that most of the major, widespread vector species may (like *A. gambiae*) consist of genetically distinct forms, two or more of which, differing in behaviour, can co-exist in nature.

Evidence from trap-huts at Acatlipa, Mexico, suggests that prolonged DDT pressure may have led to a loss of deterrence in *A. pseudopunctipennis*. With this possible exception, no selected change of behaviour has been satisfactorily demonstrated.

### 6. PROMOTION OF TECHNICAL METHODOLOGY AND PROCEDURES

In order to carry out its role of technical leadership in malaria eradication, the Organization provides the means by which technical policies, methodology and procedures may be reviewed at frequent intervals against the background of the progress and the problems experienced in the global programme. This is effected primarily through meetings of expert committees and study groups. Malaria conferences and technical meetings serve a multiple purpose: they provide a platform from which new concepts and policies may be disseminated and their application discussed, and a forum in which experiences may be shared and in which problems and their solution may be studied.

In addition, technical information and advice is furnished through the preparation and distribution of technical literature, both printed and mimeographed, as well as through the services of the Organization's technical staff.

The Expert Committee on Malaria, at its meeting in Geneva from 16 to 22 June 1964, appraised the value of entomological techniques and interpretation of the data derived therefrom and considered effective means of integrating entomological procedures fully into epidemiological evaluation. It also reviewed the non-response of some vectors to insecticidal attack, studied the current status of new insecticides and other mosquito control measures to be used in malaria eradication, and concerned itself with the adequacy of the training of entomologists and entomological staff and with the entomological research required for malaria eradication.

The Committee considered that, although a number of entomological techniques were now in use, studies were needed to determine which techniques were of most value for supplying required information in any particular area; it also considered that priorities should be established for the utilization of these techniques. The importance of estimating the amount of, and changes in, the man-mosquito contact was stressed, particularly in problem areas. The Committee outlined a series of research projects required for malaria eradication and pointed out the need to provide more adequate training and experience in malaria entomology for more persons. The report
of this meeting was published in the *World Health Organization Technical Report Series*.\(^1\)

In view of reports on drug resistance of malaria parasites in some areas, a Scientific Group on Resistance of Malaria Parasites to Drugs was convened by the Organization in Geneva from 13 to 20 October 1964. This group of scientists reviewed the situation with regard to reported cases of resistance, formulated criteria of resistance, and outlined procedures for assessing the response of malaria parasites to treatment. The Group also recommended measures to be undertaken if drug resistance was encountered. It was considered that a special team of experts should be available to study and advise when foci of resistance are reported. The Scientific Group's report has also been published in the *Technical Report Series*.\(^2\)

An inter-regional malaria conference was held in Tripoli, Libya, from 28 November to 6 December 1964; it was attended by representatives of countries in the Eastern Mediterranean Region and of Algeria, Morocco and Turkey in the European Region. Since many of the countries are well advanced in malaria eradication, whereas others are just beginning with pre-eradication programmes, the agenda provided an opportunity for the discussion of a wide variety of associated problems. The meeting also gave an opportunity for malarologists to exchange information on the progress of the programme in their countries. Co-ordination of neighbouring programmes was greatly benefited by these exchanges and by the plans made for regular exchange of information among countries. The training of general health workers and malaria personnel, with a view to eventual integration being carried out smoothly, came in for considerable discussion. At the conclusion of the inter-regional conference, a number of epidemiologists participated in a special working group on epidemiology, specifically designed to bring about an intensification of effort in evaluating programmes.

Two meetings of directors of the national malaria eradication programmes of South America, Central America, the Caribbean, Mexico and Panama were convened to consider the particular problems of those areas. Associated with both meetings were special discussions on co-ordination of effort by the malaria eradication services and the public health services. National public health service personnel as well as malarologists took an active part in these discussions.

The tenth report of the Expert Committee on Malaria, which met in Rio de Janeiro, Brazil, in September 1963, was published during 1964.\(^3\) The French, Russian and Spanish editions of the *Terminology of Malaria and of Malaria Eradication* also appeared during the year. In addition to the narrative and glossary of the English edition, the French and Spanish editions contain a list of the English, French and Spanish equivalents of terms used in malariology. The early dissemination of technical information has been continued in a series of mimeographed documents, of which fifty-nine were issued in 1964. Special reports on a number of aspects of malaria eradication have been distributed to field personnel. A draft of a document on health education in malaria programmes has been completed, commented upon by a number of field workers, and is now being edited for publication. A system has been established to facilitate the exchange of information and of training aids among the international and national training centres.

7. RESEARCH

The general policy of the Organization in the matter of malaria research is to give priority to problems that have a direct, almost immediate bearing on malaria eradication. Thus attention has recently been directed to such matters as the quantitative approach to malaria transmission, the study of the epidemiology of the disappearing disease, the development of new immunological techniques of potential value for case-detection, investigation of the relationship between human and simian malaria, investigations of new systematics of *Anopheles* species with different bi- nomics in various areas of their geographical distribution (*A. gambiae* complex), further studies of resistance of mosquitos to insecticides and of malaria parasites to drugs, and development and field trials of new antimalaria compounds.

An important aspect of the malaria research programme that is stimulated, co-ordinated and assisted by the Organization, within the limits of its financial and other resources, is its flexibility and rapid adaptation to new and often unexpected happenings in the field. A brief, and perforce general, outline of research in progress is given below.

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7.1 Epidemiology

Research on epidemiological problems of malaria is to a large extent linked with the well-known phases of the eradication of this disease.

Work in the field is now in progress to study the epidemiological pattern of disappearing malaria. Difficulties in tracing failures to interrupt transmission in areas of stable malaria are partly due to the inadequacy of the appraisal method. Improvement of the classical techniques or the discovery of new ones is needed for the collection, classification and analysis of all data necessary for adequate case-detection in highly malarious areas in which the basic health services provide inadequate coverage. The assessment of the value of the inoculation rate and of the infant parasite rate respectively as a measure of the amount of transmission and as a guide to the assessment of malaria eradication is in progress in Pakistan and Tanzania. Other field evaluations have shown that the interruption of transmission can be assessed by observing the rate of decrease of *P. falciparum* infections.

Investigations on the importance of blood transfusion as a cause of malaria infections in countries where malaria has been eradicated and in those where eradication programmes are in the consolidation phase have been undertaken in Romania, the USSR and Yugoslavia. Most infections were due to *P. malariae*, but infections due to *P. vivax* and *P. falciparum* have also been observed. Methods have been developed for the prevention of accidental malaria infection subsequent to blood transfusion. More research on this problem is now being carried out in Romania, where transmission through mosquitos is also being investigated.

The relationship of *P. malariae* infections to the distribution of the syndrome of idiopathic splenomegaly in indigenous populations of East Africa is under active study. The impact of congenital malaria on the African newborn, particularly with regard to low birth-weight of the baby and high perinatal mortality, is being studied in Nigeria and Uganda, and the results may provide illuminating information for the assessment of the demographic impact of holoendemic malaria on some communities.

The study of genetic factors in relation to malaria is of increasing interest. It seems that the presence of certain haemoglobin types has a protective effect on *P. falciparum* infections. An intensive study in Thailand indicates that higher frequencies of Hb E are found mainly in malarious areas of the country and that the protective effect of this haemoglobin is evident in infants. The same is also true with regard to Hb S in West Africa. There is no complete agreement on the postulated protective effect of glucose-6-phosphate dehydrogenase deficiency in malaria: the work being carried out in Nigeria and Thailand does not so far support this contention. The relationship between the frequency of the Hb C gene and erythrocyte fragility has been found in Nigeria, where the incidence of this factor is very high.

7.2 Parasitology and Immunology

Among the many practical needs in malaria eradication, particularly in the consolidation phase, is a rapid and reliable method for detecting plasmodia in blood films, especially when the parasites are scanty. Of the methods investigated, those using fluorescent stains and enrichment of blood slides have given results that are not better than those obtained by the routine method of staining and examination of thick films. A new method of differential centrifugation, using an ingenious Swedish device suitable for the field, is now being tested in Nigeria, the United Kingdom and elsewhere.

In the realm of immunological studies considerable attention has been paid to the identification of sporozoite infections. Investigations carried out in Italy have shown that the fluorescent antibody technique is of value, though its practical application in the field awaits the development of simpler equipment. Studies for the development of techniques for measuring immunity in malaria are in progress in Gambia, Malaysia and in the United Kingdom. The promising technique using the tanned formalized red cell haemagglutination test developed in Malaysia is still under assessment in a field survey in the Territory of Papua and New Guinea. The advantage of the technique is that it uses low antibody concentrations and small antigen quantities and therefore presents obvious advantages.

It is known that oocysts do not develop in mosquitos naturally resistant to malaria infection. In order to investigate the possibility that this is due to some enzymatic or other biochemical factor, studies on the cytology and cytochemistry of malaria parasites have been continued in Switzerland and have led to the discovery of some previously unknown morphological structures of the midgut of anophelines and culicines.

The practical advantages for chemotherapeutic studies that would result if it were possible to obtain cyclical transmission of malaria parasites through a vector into suitable laboratory animals are well known. Successful attempts to this effect have been made recently in the United States of America with *P. berghei* through *A. quadrimaculatus*, and attempts to discover some experimentally promising plasmodia of rodents and other small mammals are now being made in Africa, particularly in the Congo (Brazzaville).
The relationship between simian and human malaria and the importance of simian malaria in malaria eradication have continued to receive much attention. Studies in progress in Brazil, China (Taiwan) and Ceylon tend, however, to confirm that simian malaria is not an obstacle to malaria eradication.

7.3 Entomology

The success of malaria eradication projects in which residual insecticides (or any other antimosquito measures) play a major role depends largely on a good understanding of the identity, biology and behaviour of the vector, and on close evaluation of its response to the attack.

Questions of systematics related to mosquito behaviour have assumed some importance during the last two years. It is now known that the *A. gambiae* complex in Africa is composed of at least five forms or sub-species, between which there is a sterility barrier. This is important not only for students of the genetics of insecticide resistance, but also for the entomologist doing operational work; co-existing forms are found to differ in feeding preference and resting behaviour, and in consequence respond differently to the presence of an insecticide in the houses. Quantitative evaluation of the vector’s response is rendered more difficult because these forms are not distinguishable at sight. Research projects are now in progress in Italy, Southern Rhodesia and the United Kingdom in order to solve the difficulties of identification and assess the degrees of genetic isolation between the forms. At the same time a chromatographic study of systematic relationships within the *A. gambiae* complex is being made in the United States of America.

Two important aspects of the study of the malaria vectorial capacity of mosquitoes are the incidence and the degree of their contact with man. The degree of contact is estimated by identifying the origin of fresh blood-meals collected from females in the field. Over the past seven years some 78,000 precipitin tests on anopheline blood-meals from many countries were carried out by an institute in the United Kingdom. The results of this large collaborative study have been analysed and consolidated. It represents a contribution of scientific and practical value to knowledge of the vector status of about fifty species of *Anopheles*. Nevertheless, further research is still needed to improve the techniques of sampling mosquito populations for the human blood index, particularly in sprayed areas.

On the question of estimating the incidence of man-mosquito contact, field research (e.g. in Colombia, Malaysia, Nigeria, Southern Rhodesia, Upper Volta) has concentrated on comparing the improving alternative methods, such as the direct all-night biting catch on human baits, the morning knock-down spray plus outlet-trap catch, and the overnight bed-trap catch. While each of these methods may be useful in revealing the trends and fluctuations in vector biting densities, none is yet satisfactory in giving a measure of the average number of bites per inhabitant in unit time. Such an index is badly needed for assessing vectorial capacity and the daily malaria reproduction rate in sprayed areas, and investigations to establish it are in progress in Madagascar and Upper Volta.

Applied and incidental research has been continued (e.g. in Iran, Madagascar, Tanzania, Upper Volta) on means of determining the third constituent of vectorial capacity: the mosquito’s expectation of infective life. In sprayed areas the change in this parameter should provide the most sensitive index of insecticidal impact on the malaria reproduction rate. Unfortunately no means of direct observation of mosquito longevity in the field have yet been found, and in most operational work it has to be computed (not without risk of serious error) from observations on the proportion of parous females. Once again sampling problems arise. Investigations are continuing on this subject in Tanzania and in the United Arab Republic. The work in Upper Volta and elsewhere indicates that biting (or freshly fed) females, collected through the night, may provide the most representative index for estimating the probability of survival of the potentially infected female through a known period. It is emphasized that the epidemiological value of this type of observation in a sprayed area depends very much on the adequacy of the comparable observations made before the attack.

Resistance of malaria vectors to residual insecticides has stimulated much research work on this phenomenon. The over-all geographical pattern of resistance suggests that agricultural use of DDT, HCH and dieldrin has often been a more potent agent than the spraying of houses in exerting selection pressure on malaria vectors. Double resistance to the dieldrin and DDT groups of insecticides has been found in populations of seven vector species (see section 5.3). Material from several of these species has been colonized and studied in the United Kingdom, and they have been found to include homozygous and heterozygous individuals for each type of resistance, and other individuals possessing the factors for both types, which are carried on separate genes.

The early recognition of physiological resistance became possible with the development by the Organization of standard methods for testing insecticide susceptibility. Tests with the kits supplied by WHO
have been carried out on a world-wide basis in recent years, and they continue to play a vital part in telling us how far resistance has developed (or receded) in vector populations subject to malaria eradication attack.

Some residual insecticides, and DDT in particular, have the property of irritating mosquitoes in contact with them and sometimes that of deterring mosquitoes from entering the sprayed structures. Under certain conditions the mosquitoes may remain long enough to pick up a lethal dose of insecticide; but under other conditions they may be irritated before acquiring a lethal dose, and so escape unharmed. Research on the problem of irritability has been carried out in Israel, Nigeria, Southern Rhodesia, the Territory of Papua and New Guinea, Upper Volta and elsewhere, using a standard WHO method for testing this type of response.

For evaluating the promise and performance of residual insecticides, the combined effects of the mosquitoes' physiological and behavioural responses are more relevant than the measurement of any one response. In the field, estimates of room-kill are made by means of baited trap-huts, the design and operation of which continue to form a subject of experimental work in many countries. But the results of those observations may be diversely interpreted owing to the many uncontrolled variable factors operating, and a need is felt for a standard test-method that will simulate in the laboratory some of the conditions encountered by the "free" vector in a sprayed house. A test-method of this kind, which has been under development in the United States of America and in El Salvador for the past two years, is now being further developed by laboratories in other regions, prior to adoption as a standard test-method.

7.4 Chemotherapy

Most antimalarial drugs at present in general use have resulted from the intensive investigations carried out more than a quarter of a century ago. Only a few of the active compounds gained lasting importance; these were amodiaquine, chloroquine, primaquine, proguanil and pyrimethamine; at the present time these are still the best antimalariais available. No single drug is at present known which acts with equal effectiveness upon all species and all developmental stages of malaria parasites. Moreover, all existing drugs have a relatively short action.

Work on antimalarial compounds has been carried out for some time, not only in large pharmaceutical laboratories but also by individual scientists, and several investigations carried out by independent research workers are of particular interest and pro-

mise. Work on two compounds provisionally designated RC-12 and B-505 has been carried out in the Federal Republic of Germany. Preliminary tests carried out with RC-12 (a pyrocatechol derivative) in India on P. cynomolgi infections in monkeys, and on man in Romania and in the United States of America, were encouraging. Promising results were obtained in limited trials with B-505 (a substituted 6-aminquinoline derivative) on P. cynomolgi infections in monkeys in India, but the relative toxicity of this compound precludes at this time any attempt at clinical studies on man. A relatively new group of compounds, substituted phenylamine ureas and guanyl derivatives, has been prepared in Poland and has shown some promise. Further assessment of the activity of this series is being carried out in the United Kingdom.

It has been known for a number of years that various sulfonamides and sulfones have antimalarial activity. Investigations carried out in India have shown that diaminodiphenyl sulfone (DDS) has a considerable schizontocidal activity in P. knowlesi and particularly in P. cynomolgi infections. Further work showed that the addition of a small dose of pyrimethamine to DDS had a potentiation effect. A research project on the mechanism and dynamics of induced resistance of rodents and simian malaria parasites to drugs is showing satisfactory progress in India.

In order to assess the technical and operational problems related to the distribution of medicated salt (Pinotti's method), a field trial of this method, using chloroquine, was set up in Tanzania to cover a reasonably isolated population of 3000. After six months' distribution of the medicated salt, the parasite rate showed a striking decrease in older children and in adults; however, in infants and children up to two years, the decrease in parasite rate was very slow. The results obtained from this trial show that medicated salt can be used in hyperendemic areas, but the choice of area and careful planning and execution are of primary importance.

Another trial with medicated salt, for workers and their families on plantations in Uganda, indicated the beneficial effect of this method by the decrease of sickness and absenteeism attributed to malaria.

Experience has shown that, in highly endemic areas, drug administration alone cannot be expected to interrupt transmission unless it is continuous and unless total coverage of the population is ensured. This conclusion underlines the need for new long-lasting antimalariais. The antimalarial action of a long-acting injectable cycloguanil (CI 501), di-hydrotriazine pamoate, developed in a pharmaceutical laboratory in the United States of America, is at present under
in large-scale field trials in Tanzania and in the Territory of Papua and New Guinea; in both places, results so far are encouraging. However, di-hydrotriazine is a derivative of proguanil, and plasmodia strains resistant to antifolic drugs do not respond to the cycloguanil compound.

8. INSECTICIDE FIELD TRIALS

The programme established by the Organization for the research and evaluation of new promising insecticides as alternatives to the chlorinated hydrocarbon insecticides has sanctioned the use for large-scale assessment of the following compounds: malathion (OMS-1), dichlorvos (OMS-14), 0,0-dimethyl 0-(4-nitro-m-tolyl) phosphorothioate (OMS-43) and 2-isopropoxylphenyl-N-methylcarbamate (OMS-33). The last, a carbamate, was approved for field testing by the directors of laboratories collaborating in the insecticide scheme at their meeting in February 1965.

Malathion has been evaluated as a residual insecticide in Uganda, in an area of approximately 500 km², with a population of around 25 000 people. Although the final evaluation has not yet been completed, it is evident that the numbers of vector mosquitoes were decreased to almost zero in the central index area, and that the general parasite rate in humans was reduced to a small fraction of the previous rates. This was accomplished in spite of the influx of large numbers of heavily infected persons (refugees from neighbouring areas, seasonal labourers, etc.) and the presence of a high proportion of mud-wall houses in which sorption of the insecticide is generally rapid. This insecticide has been used in smaller-scale projects in El Salvador (in an area of approximately 10 000 population) and malaria transmission has not been interrupted, owing partly to the small size of the areas. In Honduras, an area where A. albimanus is resistant to chlorinated insecticides, approximately 20 000 houses with a 100 000 population have been treated since July 1963 with malathion. From the epidemiological information thus far available it appears that malaria transmission may have been interrupted.

Malathion is considered ready for use in malaria eradication programmes in areas where residual insecticides can be expected to interrupt transmission and could, therefore, be used where the chlorinated hydrocarbons are no longer effective. However, in areas where there is a significant amount of wall surface constructed with mud, a trial should be carried out to determine the duration of effectiveness of this insecticide.

Dichlorvos is a fumigant insecticide which exerts a vapour effect by constant release from an appropriate dispenser. Two formulations of the product have been assessed in Northern Nigeria, using both a solid and a liquid type of dispenser. The trial was terminated after one year on the evidence that malaria transmission could not be interrupted except, possibly, by using a great number of dispensers, with consequent operational complications and at an excessive cost. The results of the trial have led to the elucidation of operational and technical requirements, and have stressed in particular the practical importance of ventilation and also, to a large extent, of temperature; the majority of houses in Northern Nigeria were found to have a high ventilation. As the product is effective against insects at given concentrations of vapour, it is essential that such concentrations should be maintained throughout the period during which dispensers are used. It follows that the type of house has a definite bearing on the effectiveness of the product, and thus the selection of the area must be made taking this fact into consideration. From the methodological standpoint, and for their practical implications, the results of the trial in Northern Nigeria are important.

In a trial in Haiti, dichlorvos did not completely interrupt transmission. Further trials of this insecticide are being carried out in Pakistan and are planned for Iran.

OMS-43 is another organophosphorus insecticide now being evaluated in the Kankiya area of Northern Nigeria. The project started in June 1964 and it is too early to draw conclusions. However, at this stage the toxicological observations, including determination of blood cholinesterase, have shown that, provided adequate protective precautions are taken, the application of OMS-43 in the field does not harm either the operators or the population. This confirms results obtained previously in the laboratory and in village trials.

OMS-33. Negotiations are at present under way to establish a WHO trial of OMS-33.
9. TRAINING OF NATIONAL MALARIA ERADICATION STAFF

The training of personnel in malaria eradication activities, which is the key to effective implementation of malaria eradication programmes, has continued to receive emphasis. During 1964, assistance was given locally in many countries in the training of junior and intermediate-level national personnel; and the international malaria eradication training centres are available for senior and selected intermediate-level staff.

These international malaria eradication training centres—in Nigeria, the Philippines and Togo—continue to play an important role. The total WHO advisory staff assigned to these centres numbers sixteen, including the director-malarialogists and officers specialized in epidemiology, parasitology, entomology, engineering, sanitation, laboratory techniques and administration. To this group of full-time staff should be added visiting lecturers specialized in a variety of subjects, such as public health, health education and public relations, biostatistics, meteorology, etc.

While the international malaria eradication training centres have fulfilled a real need, it must be stated that the number of trainees coming forward does not seem to be adequate to meet the requirements of the national health services. This applies in particular to the professional group, and the question has arisen whether the training centres should offer courses for sub-professional national staff, who may need to be used to a greater extent in countries where the number of medical officers falls far short of the total needs.

A brief summary of the work of the international training centres is given below.

**Lagos, Nigeria.** This WHO centre, organized with the collaboration of the Government of Nigeria, has been running for two years and gives senior, junior and specialized courses. Field training is carried out at Birnin Kebbi, some 960 kilometres from Lagos, where well-developed anti-malaria activities are in operation in the training and demonstration area of the pre-eradication programme in Northern Nigeria.

**Lomé, Togo.** This WHO centre, organized with the collaboration of the Government of Togo, opened in February 1964 with a junior course, followed later by a senior course for national staff. Field training is given some fifty kilometres from Lomé in the training and demonstration area of the pre-eradication programme.

**Manila, Philippines.** This centre has been organized as a collaborative activity by the Government of the Philippines, the United States Agency for International Development, and the Organization. The WHO director of the centre was appointed on 1 May 1964. The first senior course for national staff was followed by field training and a three-week visit to the Indian malaria eradication programme.

**Maracay, Venezuela.** Courses have been held at the School of Malaria and Environmental Sanitation Centre since 1944. The School has a large and experienced teaching staff.

**São Paulo, Brazil.** Courses are given in close cooperation with the Department of Parasitology at the School of Public Health and Hygiene, University of São Paulo, and field practice is provided at a centre 300 kilometres from São Paulo.

Both the Maracay and the São Paulo centres enjoy the assistance of the Pan American Health Organization.

Table 3 gives the number of courses held in 1964 and the number of national trainees from some fifty countries who have attended such courses at the above centres.

**TABLE 3. COURSES AT TRAINING CENTRES ATTENDED BY STAFF OF NATIONAL MALARIA SERVICES IN 1964**

<table>
<thead>
<tr>
<th>Training centre</th>
<th>Type of course</th>
<th>Number of courses</th>
<th>Language of instruction</th>
<th>Number attending</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lagos *</td>
<td>Senior</td>
<td>1</td>
<td>English</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>Junior</td>
<td>1</td>
<td>English</td>
<td>17</td>
</tr>
<tr>
<td>Lomé *</td>
<td>Senior</td>
<td>1</td>
<td>French</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>Junior</td>
<td>1</td>
<td>French</td>
<td>19</td>
</tr>
<tr>
<td>Manila *</td>
<td>Senior</td>
<td>1</td>
<td>English</td>
<td>28</td>
</tr>
<tr>
<td></td>
<td>Advanced epidemiology</td>
<td>1</td>
<td>English</td>
<td>22</td>
</tr>
<tr>
<td></td>
<td>Parasitology</td>
<td>1</td>
<td>English</td>
<td>23</td>
</tr>
<tr>
<td></td>
<td>Junior</td>
<td>1</td>
<td>English</td>
<td>27</td>
</tr>
<tr>
<td>Maracay</td>
<td>Senior</td>
<td>1</td>
<td>Spanish</td>
<td>32</td>
</tr>
<tr>
<td>São Paulo</td>
<td>Senior</td>
<td>1</td>
<td>Portuguese</td>
<td>11</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>10</td>
<td></td>
<td>203</td>
</tr>
</tbody>
</table>

*WHO staff and trainees also received instruction at these centres in separate courses.

In the early part of 1964 a consultant was appointed to visit training centres and to analyse the curricula of the courses for training professional personnel. These curricula are now under review to ensure that adequate attention is paid to the requirements of...
pre-eradication programmes as well as to the epidemiological problems which arise particularly during the later stages of malaria eradication programmes.

Another form of training which is of great importance is that of practical in-service training in well-organized malaria eradication programmes. Steps are being taken to arrange such training in the malaria eradication programme in India, which is now approaching its logical and satisfactory termination, so that the last two or three years of active operations in the consolidation phase in this programme may be utilized for the training of younger and less experienced malariaologists who would benefit from this type of experience.

Fellowships for training in malaria eradication were awarded by the Organization to 199 national technical staff from fifty-seven countries, of whom 194 were under MESA funds, two under the WHO regular budget and three under the Expanded Programme of Technical Assistance.

During 1964, the national training centres in Ethiopia, India, Indonesia, Iran, Pakistan and Sudan continued to receive the support of the Organization in the form of advisory services, equipment, supplies, etc. A member of the technical staff of the Division of Malaria Eradication lectured at the malaria eradication course for professional personnel at the Prince Leopold Institute of Tropical Medicine, Antwerp, Belgium.

In Iran, the Institute of Parasitology, Tropical Medicine and Hygiene (formerly the Institute of Parasitology and Malariology), which has provided a large majority of the higher echelons of personnel now employed by the malaria eradication organization, is continuing to fulfil this function.

During 1964, in Dacca, East Pakistan, eleven courses were given to 256 trainees, consisting of 15 senior and 85 junior personnel, 116 microscopists and 15 senior microscopists, 9 health educators and 16 entomological technicians. In Lahore, West Pakistan, eight courses were conducted for a total of 207 successful trainees, including 46 senior and 92 junior personnel, 49 microscopists and 20 health educators. Since training started in 1961, a total of twenty-five different courses has been given in East Pakistan to 524 successful candidates, and in West Pakistan, thirty-one different courses to 761 successful candidates.

In the training centre of Nazareth, Ethiopia, two courses for technicians were completed during 1964 with 63 successful trainees, and a third specialized training course (started in 1963 but completed in 1964) ended with 26 successful trainees.

The training centre at Sennar, Sudan, held its first course for 15 sanitary overseers.

The training centre in Delhi, the National Institute of Communicable Diseases (previously known as the Malaria Institute) has been carrying out training in malariology for over fifty years. The centre gives courses for medical officers and for others with at least some years of post-graduate experience. There are also facilities for refresher courses and specialized orientation courses. Amongst others, a course in epidemiology was conducted for the benefit of senior national malarialogists in charge of epidemiology and evaluation. Training for other categories of staff is also available at the centre, 354 laboratory technicians being trained during the year. In addition to this central activity, training facilities are also available at the offices of the regional co-ordinating organizations as well as at state level and, for example, 50 malaria inspectors had a special orientation course in Assam.

The Indonesian centre at Tjiloto continued its training activities, with emphasis on epidemiology. During the year, of the 27 doctors trained, 10 were assigned to the malaria programme. In addition, 62 other personnel received instruction. In the provinces, 6 zone chiefs, 13 malaria technicians, 19 sector chiefs, 7 sanitarians, 76 deputy sector chiefs, 2600 surveillance agents, 514 supervisors and 163 microscopists followed courses.

In addition to the above centres, training has continued in many other countries with the assistance of the WHO country advisory staff. For example, in Afghanistan, 151 junior inspectors, entomological assistants, microscopists and supervisors attended courses; in Nepal, instruction was given to almost 6000 men on spraying operations, and some 337 people received training in geographical reconnaissance and surveillance measures; and in Thailand, in-service training or refresher courses were given to malarialogists, senior microscopists, zone and sector chiefs. Forty-six health trainees graduated from a one-year course for sector chiefs, and a group of 1500 volunteers (house visitors) was given a malaria orientation course. During the months of March/April some 4000 spraymen and temporary squad chiefs were also trained. A lecture on programme planning for health education was given to 28 MPH students in the School of Public Health, Bangkok. In Mexico, courses were given to 192 doctors, engineers, sector chiefs, assistant epidemiologists and instructors.

In connexion with pre-eradication programmes, it is essential that many general public health personnel should be trained in malaria eradication and case-
detection techniques. In Algeria and Morocco, the whole staff of the public health services is being trained prior to the implementation of eradication. The Organization is actively assisting in this work by courses and seminars and by providing fellowships. In Korea, over 120 public health workers were trained in those aspects of malaria eradication which they will be required to carry out when the programme begins, and nearly 3000 voluntary collaborators received instruction.

The training of public health workers for their role in the maintenance phase is under way or is planned in several countries. Such training is being carried out in Turkey with the assistance of the Organization. Associated with the integration of malaria work into the public health services of India, orientation seminars were arranged for about 70 district medical officers from areas which entered the maintenance phase in 1964. Also in preparation for the maintenance phase in India and elsewhere, malaria eradication personnel are scheduled for refresher training in basic health services, in order to facilitate their integration into the health services.

A number of senior national personnel who have been working in malaria have been able to visit other country eradication programmes under the exchange of scientific workers scheme. Such visits not only benefit the travellers, who see how situations and problems are met in other programmes, but also benefit the staff of the visited countries through the exchange of ideas. Under the scheme, 22 senior professional staff from seventeen countries were granted awards in 1964.

10. WHO TECHNICAL ADVISORY SERVICES

Advisory services have continued to be given at country and inter-country level by the regular technical staff of the Organization and by short-term consultants.

An indication of the number of established posts for WHO staff working in the malaria eradication programme is given in Table 4, from which it may be seen that these have increased considerably since December 1958. Every endeavour continues to be made to recruit suitable candidates and, depending on their experience, some are given additional training at one of the international malaria eradication training centres and receive intensive in-service training prior to field assignment. The advisory staff at regional and headquarters level consists of forty-six established posts in the professional grade.

To broaden the experience of its advisory staff, the Organization arranges for a certain number to undertake carefully designed study tours. Thirty-seven such tours were arranged for staff serving in five regions. In addition, the opportunity has also been provided for WHO staff from different regions to participate in assessments of the national malaria eradication programmes in different countries.

| TABLE 4. COMPARATIVE FIGURES FOR WHO PROJECT ADVISORY STAFF (INCLUDING PAHO), 1958 AND 1964 |
|-----------------------------------------------|-----------------------------------------------|
| Category                        | December 1958 | December 1964 |
|-----------------------------------------------|-----------------------------------------------|
| Medical officers                  | 74            | 109            |
| Epidemiologists                   | 2             | 11             |
| Parasitologists                   | 1             | 2              |
| Public health advisers            |               | 12             |
| Engineers                        | 19            | 38             |
| Entomologists                     | 31            | 52             |
| Sanitarians                      | 68            | 104            |
| Technicians                       | 31            | 37             |
| Administrative officers           |               | 14             |
| Others *                         | 18            | 14             |
|-----------------------------------------------|-----------------------------------------------|
| Total                            | 244           | 393            |

* Statisticians, health educators, administrative assistants, etc.
Appendix

STATUS OF MALARIA ERADICATION, BY REGION

1. African Region

(i) Countries and territories with malaria eradication programmes or advanced antimalaria activities

Cape Verde Islands. The Government has reported that malaria has been eradicated from two islands and some islands are undertaking attack operations.

Mauritius. With the progress of the malaria eradication programme as revealed through continuous epidemiological evaluation, the number of people living in the area under direct insecticide protection had further decreased by the end of 1964 from 155,000 to 89,000. It is expected that this area, which is in the Black River District, will enter the consolidation phase by 1966. The number of those living in the consolidation zone at the end of 1964 was 363,000 and those in the maintenance zone 301,000.

The malaria activities, formerly the responsibility of the Vector-Borne Diseases Division, have been decentralized since July 1964, and integrated with the general public health services. These divide the island into three zones, each under the direction of a medical officer of health, with a principal medical officer at the central level co-ordinating their work.

Surveillance activities commenced in April 1960. Up to the end of 1964, a total of 2,363 malaria cases were detected: 1,135 cases during the period April-December 1960; 955 during 1961; 226 during 1962; thirty during 1963 and seventeen in 1964. In 1963 there were seventeen indigenous cases, all of which occurred during the transmission season in three neighbouring small villages on the west coast of the island. In 1964 only two indigenous cases of *P. falciparum* were detected. These originated in the same locality—still in the attack phase—in which the indigenous cases occurred in 1963. The other malaria cases in 1964 were classified as follows: seven induced; five imported from abroad; three cryptic. It is of interest to note that a single blood donor was shown to be the source of infection of three of the seven induced cases.

To draw attention to the dangers of reimportation of malaria, the Government is proposing to distribute warning notices to passengers at points of entry to the country.

South Africa. It has been reported that the area in the attack phase in Natal and Zululand now only covers a population of 50,000, the remaining originally malarious areas of the country being in the consolidation or maintenance phases.

Swaziland. Recent reports have not yet been received from the Government, but earlier information indicated that all the malarious areas of the country were in the consolidation or the maintenance phase.

United Republic of Tanzania. The malaria eradication programme in the islands of Pemba and Zanzibar continued in the attack phase.

As a result of the recent development of the new plan of action, spraying rounds will be shortened; in addition, spraymen in each island will work as flying squads responsible for spraying all missed and new or disturbed structures.

The annual average parasite rates for 1964 (4.8 per cent. and 0.7 per cent. for Zanzibar and Pemba respectively) indicate a certain degree of progress compared with the previous year. There is clear indication of some transmission taking place with peaks in February and June for Zanzibar and only in February for Pemba.

Arrangements are designed to ensure close integration of the malaria eradication programme with the general public health service at the periphery, where 40 medical aides already perform combined duties in curative and preventive medicine. However, in northern Zanzibar, where 60 per cent. of the population lives in the rice-growing area, the number of dispensaries is not adequate. In the north of Pemba, patients have to walk great distances to reach dispensaries. Despite these deficiencies, the dispensers in their stationary posts have been contributing well to passive case-detection activities.

(ii) Countries and territories with pre-eradication programmes in operation or planned

Cameroun. In the pre-eradication programme detailed studies of the existing basic health service facilities are continuing. The results of these have revealed the general picture in the southern forest areas of the country, but the over-all assessment of the situation in the whole country has yet to be formulated.

The antimalaria activities have continued in the form of training of laboratory technicians of dispensaries in the area of the former Yaoundé pilot project, distribution of antimalaria drugs and examination at the central malaria laboratory of blood films of the patients who have received presumptive treatment, and insecticide spraying in those localities of the former pilot project where outbreaks of malaria have occurred. The project has also included participation in the malarometric survey of the schoolchildren in northern Cameroon who were provided with malaria chemoprophylaxis using chloroquine under bilateral aid from the French Government. This malarometric survey is being repeated in 1965 in order to ascertain the benefit deriving from this measure. Collection of epidemiological baseline data in indicator districts will continue.

The project activities have been, and still are, continually hampered by government financial difficulties. Plans have been made for a demonstration area in the two circumscriptions of Nyong Senaga and Nyong Kili. This area will serve for combined basic health service and antimalaria operations.

Congo (Brazzaville). Budgetary provision by the Organization for assistance with a pre-eradication programme was made in 1964, but implementation was deferred.

Dahomey. The first draft addendum (on basic health service development) to the plan of operations for a pre-eradication programme has been submitted, but it is anticipated that progress in the project will be slow.

Democratic Republic of the Congo. The Organization provides a team of four staff members, who have carried out surveys of the malaria situation and the health facilities available in the country.

Gabon. Discussions have taken place with the Government regarding the implementation of a pre-eradication programme towards the end of 1965.
Ghana. The pre-eradication programme was started in January 1963. The chief malarialogist of the National Malaria Service reports directly to the Regional Service Division and to the International Relations Division of the Ministry of Health. The Service is composed of six sections dealing with epidemiology, health education, field operations, transport, training and administration.

Training facilities in the headquarters at Ho are adequate, but recruitment of personnel for in-service training has been discontinued because some amendments to the "scheme of service" are not yet finalized, and in view of the unlikelihood of the personnel being utilized in the near future. Efforts have been concentrated on serial epidemiological observations of indicator districts in the prospective pilot project area, as well as in the basin of the Volta Dam Project where the formation of the new lake is likely to affect the malaria ecology of the area. Chemo- prophylaxis trials on state farm employees and schoolchildren and presumptive malaria treatment of fever cases through voluntary collaborators are scheduled for the next year.

Guinea. The Government has indicated its interest in implementing a pre-eradication programme which is planned to start in 1965.

Liberia. The Government has recently indicated that progress in the pre-eradication programme will be retarded until 1966. The collection of data and drafting of a plan for the development of basic health services are still under way. An apparent non-response of malaria infections to standard dosages of chloroquine has been reported and investigations of the possibility of a resistant strain of *P. falciparum* in the Kpän area are being carried out.

Madagascar. Discussions have been held with the Government but no agreement has yet been reached regarding the implementation of a pre-eradication programme.

Mauritania. The work of the pre-eradication programme has continued with malarialmetric surveys, distribution of antimalarial drugs and plans for the development of basic health services. A reorientation course for health workers attached to rural dispensaries is scheduled at Kaedi for 1965. It is, however, anticipated that progress in this programme will be slow.

Mozambique. The activities are concentrated in the demonstration area of the pre-eradication programme located in the most southerly part of the country where spraying operations have been in progress since 1961. Geographical reconnaissance of adjacent areas has been completed, and this is being extended to the suburban part of Lourenço Marques. Collection of epidemiological baseline data has continued in various localities with a view to carrying out serial parasite surveys and to establishing a mass drug administration trial.

Nigeria. In the pre-eradication programme in the Northern Region, the plan for the development of basic health services has been accepted in principle at ministry of health level. The schedule for this development extends over twelve years, but firm plans for operative regionalization are yet to be adopted.

In the demonstration and training area, as a result of the extension of the Birnin Kebbi Mass Malaria Control Campaign and a readjustment of the timing of the spraying rounds, it appears that interruption of transmission in the settled community has probably been achieved. The established pattern of semi-nomadism in the Fulani tribes overlapping with the population of the demonstration area still causes a problem of continued malaria transmission. Remedial measures have been planned by making use of special spraying squads to ensure the coverage of Fulani camps.

In the Eastern Region surveys of the health facilities and malarialmetric surveys have continued. The plan of operations for the pre-eradication programme in the Western Region was signed by the Government in September 1964 and a WHO team is being assigned.

An insecticide field research project is being carried out in Kankiya, Northern Nigeria (see chapter 8, page 107).

The international malaria eradication centre at Lagos conducted two senior and one junior course during 1964 with a total of thirty-seven participants (see chapter 9, page 108).

Réunion. A plan of operation for a pre-eradication survey in the island was finalized and submitted to the Government at the end of 1964.

Senegal. Following discussions with the Government a draft plan of operations for a pre-eradication programme was submitted in February 1963 but has not yet been signed.

Southern Rhodesia. The plan of operations for a pre-eradication programme was signed in October 1964 and the programme will be brought into operation in 1965.

Spanish Guinea. A plan of operations for a pre-eradication programme was submitted to the Government in April 1964 after discussions, but has not yet been signed.

Togo. The pre-eradication programme is at an advanced stage. Courses for reorientation of medical and paramedical personnel have been attended by nationals and expatriates employed by the Government, and in the demonstration area in the south spraying activities will start in 1965.

The plan for the development of health services at the peripheral level includes the construction of fifty-one new health posts over a period of seven years, the repair of the existing structures, their constant maintenance and the establishment of one health centre for every five health posts. Training of all personnel will include yearly seminars for doctors, reorientation courses for *agents techniques* and midwives, periodical re-training and reorientation for nurses and auxiliaries. Special laboratory techniques for malaria have been under way since early 1964 for laboratory technicians assigned to hospitals. A first training course for visiting dressers took place between September and December 1964. In October 1964 a presidential decree made provision for all local government authorities to allocate 6 per cent. of their budget to the development of the basic health services.

The National Malaria Service is directly under the responsibility of the Director of Public Health and enjoys, therefore, a certain administrative, financial and operational autonomy. A senior malarialogist is the chief of the service, and there are four sections: administration, epidemiology, field operations and evaluation. During 1964 geographical reconnaissance and collection of baseline data were completed in the demonstration zone. The plan of action makes provision for two six-monthly spraying cycles with spraying rounds of three-and-a-half months. The existing staff is considered sufficient for the activities of the project, which are being carried out in the demonstration zone.

Sufficient quantities of antimalarial drugs have been made available in all districts and diagnostic facilities for malaria are being improved. To this end, two or three peripheral health service laboratory technicians at a time are assigned for two months' training at the central malaria laboratory.

During 1964, three courses (two senior and one junior) were held at the international malaria eradication training centre at Lomé with a total of forty participants (see chapter 9, page 108).

Uganda. The pre-eradication programme in Uganda started in November 1962 following upon the pilot project at Kigezi. At the end of 1963 the headquarters were moved to Jinja, and
throughout 1964 the project staff conducted malarriometric and entomological surveys in various parts of the country.

An insecticides field research project operating from Masaka continued the trial of the residual insecticide, malathion (see chapter 8, page 107).

**Zambia.** The Government has indicated that it would be willing to undertake a pre-eradication programme and it is hoped to implement this in 1965.

(iii) Countries and territories without WHO-supported anti-malaria projects

The Governments of the following have not yet indicated their interest in developing antimalaria projects:

- Angola  Malawi
- Bechuanaland  Mali
- Burundi  Niger
- Central African Republic  Portuguese Guinea
- Chad  Rwanda
- Comoro Islands  São Tomé and Príncipe
- Gambia  South-West Africa
- Ivory Coast  Upper Volta
- Kenya

2. Region of the Americas

**Argentina.** Although 60 per cent. of the population of the originally malarious areas of the country are in the maintenance and consolidation phases, chronic underfinancing has prevented the malaria eradication programme from bringing the remaining unprotected areas in Chaco and Formosa under attack, and these areas continue to cause outbreaks in other parts of the country. Provided adequate financial provision were made, eradication of malaria throughout the country should present no problems.

**Bolivia.** The budget of the National Malaria Eradication Service was cut by 33 per cent. from 1 January 1964. Personnel was reduced far below the necessary operational level, and the repercussions on the programme will be felt for some years to come.

A breakdown of surveillance activities occasioned by the cutting-off of funds allowed outbreaks of malaria to reach alarming proportions, with over 600 cases in one focus. In 1964, over 3300 cases of malaria were reported in areas in the attack phase with a population of 212,000. In the remaining 85 per cent. of the originally malarious areas of the country which are in the consolidation phase only 139 cases were reported, more than half of them imported from the attack phase areas. This crisis has been overcome for the time being, and the programme is now operating on a nearly adequate level, but the eradication of malaria from the country has certainly been delayed.

**Brazil.** Both administrative and economic problems continue to obstruct the campaign in Brazil. An evaluation of the programme was carried out in late 1964 by a team from PAHO/WHO and the United States Agency for International Development (USAID), and a loan has been negotiated to cover costs of imported supplies and equipment for the next two years.

In the State of São Paulo the operations are proceeding well and it is expected that the consolidation phase will be completed in 1967. In other parts of Brazil, following the reappraisal of the programme in 1963, large areas have reverted from the maintenance and consolidation phases to the attack phase, as inadequate surveillance has made it impossible to ascertain accurately the true status of many regions with respect to malaria transmission and prevalence. Complete coverage of the malarious areas of the country may not be obtained until 1967.

The Faculty of Hygiene and Public Health of the University of São Paulo, Brazil, conducted its ninth malaria eradication course and eleventh course in medical entomology (with emphasis on malaria).

**British Guiana.** Transmission has been interrupted in areas inhabited by 93 per cent. of the population originally at risk, only two imported cases being reported from these areas in 1964. The remaining population in the interior areas is covered by a medicated salt programme which continues to have excellent results, one relapse case being reported in 1964. However, the Rupununi area continues to produce cases (222 in 1964), and here spraying has been resumed after chloroquine-resistant strains of *P. falciparum* were reported. There is now evidence that some strains of *Plasmodium* are resistant to pyrimethamine as well as tolerant to chloroquine, and quinine is being used to treat cases infected with these strains.

**British Honduras.** The whole country is in the consolidation phase. During 1964, one outbreak was reported on the Mexican border which became a focus of thirty-five cases because of tardiness in control measures. This may delay entry into the maintenance phase which was scheduled for 1965.

**Colombia.** Administration was greatly improved during 1964, and prospects of success are generally good except for areas of political instability. Nearly two-thirds of the population of the originally malarious areas (some 9,600,000 are in consolidation areas and a further 1,200,000 people are being placed in this phase. Outdoor transmission causes difficulties in some regions. The areas with chloroquine-resistant plasmodia are very limited.

**Costa Rica.** The programme is well administered but is retarded by the general financial difficulties experienced by the Government.

A programme of mass drug treatment in eight areas of persistent transmission was begun in 1962 and 1963 with PAHO financial support. In five areas treatment was stopped at the beginning of 1964, funds having been exhausted. The results were good, though incomplete. No case had been found for three months in the other three areas at the time the programme was terminated in September 1964.

**Cuba.** The operations in this programme are proceeding according to plan. It is expected that the whole malarious area of the country will be in the consolidation phase by 1967.

**Dominica.** The consolidation phase is progressing very well, with excellent surveillance operations. No case has been found since December 1961 and an assessment of the programme with a view to certification of eradication is planned for 1965.

**Dominican Republic.** The whole country is in the attack phase and is expected to enter the consolidation phase in 1966. Surveillance activities have been intensified and a progressive reduction of cases of malaria has been recorded in each of the last three years. A report of resistance of *A. albimanus* to DDT was received in March 1964.

**Ecuador.** Little obvious progress was made in 1964 but the financial difficulties were alleviated in November 1964 by the signing of an agreement between the Government of Ecuador and the United States of America covering financing for 1965. Two co-directors of the programme were nominated and the programme was given administrative and technical autonomy. Special epidemiological studies are being carried out in the northern high-positive areas, including detailed surveys of the population, entomological studies and intercyclical spraying of new houses. Entomological investigations have also revealed the presence of some species of the sub-genus *Kerteszia* in the eastern region of Ecuador.
El Salvador. Due to double resistance of the vector *A. albimanus*, spraying was suspended in areas with a population of some 1 200 000 and the parasite rate rose to over 14 per cent, by September 1964 in those areas in the lowlands not covered by mass drug treatment. The drug programme was expanded but financial conditions did not permit its expansion to all the areas requiring this measure.

The first drug programme, which was started in 1963 and which covered 57 000 persons, was very successful. A second programme covering 60 000 persons, begun in February 1964 with less adequate financing, inadequate supervision and unsatisfactory preliminary health education, has been less successful. A large influx of cases from untreated areas nearby has adversely affected the second programme, and it is evident that simultaneous attack on all transmission areas must be made.

French Guiana. The majority of the country is in the attack phase but transmission continues in the interior, mostly in border areas, forty-five cases being reported up to November 1964. Equipment and drugs were furnished by the Organization during the year and the services of a sanitarian have been offered.

Grenada and Carriacou. No cases of malaria were reported from these islands during 1964. Certification of eradication was registered in 1962.

Guatemala. Incidence rose both in the problem areas and in consolidation areas; some of the latter areas have been returned to the attack phase.

A pilot drug programme covered 38 000 persons during 1964; though plans had been made to treat 350 000 people, this could not be done because of lack of funds, but it is scheduled to cover this population in 1965 with mass drug administration, using chloroquine-primaquine tablets.

Haiti. An evaluation of the status of the programme made in July 1964 indicated that transmission is persisting in some parts of Haiti despite thorough DDT spraying in the standard six-monthly cycle. Quarterly cycles of DDT at 1 g/m² have been instituted in areas of persistent transmission. In order to release personnel to carry out these extra cycles, spraying has been discontinued in areas with a population of two million where transmission appears to have been interrupted.

Entomological studies have shown a considerable degree of outdoor biting, and these studies are being pursued to provide more information on the habits of the vector. An initial evaluation of the trial using the fumigant insecticide dichlorvos which was carried out during 1963 and 1964 has indicated that dichlorvos was no more successful than DDT under the conditions of the test.

A pilot drug programme was started in October 1964 in a population of 50 000, using combined chloroquine-primaquine tablets in three-weekly cycles, with a dosage of 600 mg chloroquine and 49.5 mg pyrimethamine for persons from ten years of age upward, with smaller doses for younger children. The pilot programme is primarily designed to provide information on techniques of administration, and extension of collective treatment to over a million persons is being considered. A therapeutic trial with pyrimethamine has also been commenced to test pyrimethamine resistance in *P. falciparum*, which is predominant in Haiti.

Honduras. A financial crisis beginning at the end of 1963 hampered operations seriously throughout the first half of 1964. Case detection fell off, and seven outbreaks occurred in consolidation areas, one of which caused the affected area to be returned to the attack phase. However, at the end of the year a general improvement was reported in the consolidation and non-problem attack areas.

Although malathion spraying was begun in 1963 in the southern problem area where double resistance of vectors to DDT and dieldrin exists, financial difficulties interrupted the schedule in early 1964 and cycles were not regular in the first half of the year. A mass drug programme to treat 137 000 people in these problem areas has been substituted in 1965 for spraying with malathion, which was not found very effective on the mud-walled houses of the area.

Jamaica. The consolidation phase progressed smoothly and the maintenance phase for the whole island started in 1965. The last indigenous case of malaria was found in the third quarter of 1961. A small number of *P. malariae* cases occurred in 1962 and 1963 and one relapsing *P. malariae* case was discovered in 1964.

An appraisal of the programme with a view to certification of eradication has been made and there is no doubt that the adequate malaria vigilance system will remain in existence. Airport and seaport protection and the continuation of an active and passive case-finding system are under consideration. Continued efforts will be made to integrate the malaria case-finding system into the central and parochial health departments, and a laboratory and laboratory staff will remain operative.

Mexico. Apart from the problem areas with a population of over 4 300 000 corresponding roughly to the distribution of *A. albimanus* on the Pacific side of the country, the main difficulties in carrying out the programme are financial. Lack of adequate surveillance in consolidation areas in previous years necessitated their reversion to the attack phase. It is anticipated that, in 1965, transmission will once again be interrupted in some of these areas, and that they can be placed in the consolidation phase.

A number of experiments are being carried out in the problem areas to find a successful method of attack. Four-monthly cycles of DDT at 2 g/m² sprayed over the entire interior surfaces—or up to six metres in a very high building—are now being tried. In one area a pilot plan of integrated attack has been initiated, providing for four-monthly cycles of DDT spraying with intensive case-finding and radical treatment of all cases; if this should prove insufficient to interrupt transmission, other methods will be added. Larviciding trials are also being carried out in three zones.

An experimental mass drug programme using five-day treatment with primaquine was carried out in a population of 10 627 in May and June 1964. Preliminary evaluation of the results is not promising, but final evaluation must await the season of high transmission.

Nicaragua. Inadequate funds prevented full attack operations in all areas with persistent transmission, with the result that in those areas where attack measures have been temporarily withdrawn, increased transmission occurred and some areas in the consolidation phase were reinfected and had to be returned to the attack phase.

Malathion has been used in the programme in Nicaragua for several years in four-monthly cycles in selected high-transmission areas where most of the houses are of wood. During 1964, it was decided that malathion alone could not interrupt transmission in localities where less than 75 per cent. of the houses are of wood, and in these areas it has been supplemented by mass drug treatment.

Mass drug treatment was successfully terminated in programmes covering a population of 46 000, and the resources thus released were utilized to begin programmes in other areas.

Panama. Administrative problems continue in this programme, but progress was made in large areas. DDT excit-repellency of the vector exists and an experiment was made with six-
monthly cycles of dieldrin at 0.3 g/m² in one of four areas of continuing high incidence. Colonization of new lands is a major factor in continued transmission in these areas.

**Paraguay.** Although a new plan of operations has been completed it has not yet been put into operation and the programme remains in the preparatory phase. A sharp outbreak of malaria in one area was dealt with by mass drug treatment, and geographical reconnaissance was carried out in this department since it was required for this purpose; this was the only implementation of the new plan of operations so far. Entomological work has shown that *A. darlingi* is present in all departments of the country, and *A. albifarbis* in some areas, with high density inside houses.

**Peru.** One of the fruits of the seminar on the role of local health services in malaria eradication, held at Poces de Caldas, Brazil, (see chapter 2, page 93), has been the appointment in December 1964 by the Minister of Public Health of a commission to study the situation of the various health areas of the country in relation to the needs for malaria surveillance and eventually for maintenance of eradication. Peru has already one small area in which maintenance is being carried out by local health authorities; it also has three provinces in the Department of Lima which are ready to enter this phase but which have been kept in the consolidation phase because of the inability of the corresponding health area to carry out adequate surveillance.

Two serious outbreaks of malaria occurred, one in Yauca in the southern portion of the western-slope consolidation area, with 110 cases, and one in the north in Colonización San Lorenzo, which, with neighbouring localities, produced eighty-three cases; both attained such large proportions owing to their late discovery.

**St Lucia.** Five cases of malaria—four relapses and one imported—all *P. malariae*, were reported in 1964. The island was certified as having eradicated malaria in 1962.

**Surinam.** In areas in the consolidation phase only six cases of malaria were recorded during the year, five imported from the interior and one from abroad. But in areas in the attack phase, with a total population of 67,000, there has been increased hostility among the people of the interior to spraying operations in one region, while internal political events prevented spraying in another. Refusals by tribes in the interior to permit spraying were intensified during 1964 by two events: the enforced evacuation of population as a result of the formation of a lake behind the new Brokopondo dam (which increased the hostility of the population toward the programmes), and the death of an important chieftain (which entailed, as part of the ceremonies of succession, suspension of spraying for a lengthy period in another river valley). A plan to hire inhabitants in each locality to spray in their own village has been tried on a small scale, relying on the desire of the local population to earn some cash. A similar position has prevented interruption of transmission in some areas of Nangarhar.

The National Malaria Training Centre is at the Malaria Institute, Kabul, and is supplemented by other training centres in Kunduz and Kandahar. These centres trained 151 sub-professional staff in 1964, including supervisors, junior inspectors, microscopists and entomological assistants.

An assessment of the Afghanistan programme was carried out in 1964, but the recommendations have not yet been accepted by the Government. Nevertheless, the report of the assessment team has helped in producing better supervision in all aspects of operations.

The prospects of the Afghanistan programme, planned for completion in 1970, are good, provided the recommendations made by the assessment team are followed. Although the general health services are not yet capable of ensuring the vigilance activities necessary for the maintenance phase, every effort is being made to overcome this deficiency, starting in the Laghman valley. There are no technical problems and the transmission season is limited to four months. The vector is highly susceptible to DDT. The shortcomings are due to poor spraying, inadequate supervision and inadequate examination of blood slides in certain areas.

**Burma.** Out of an estimated population of 24,300,000, some 6,600,000 are in the attack phase and 12 million in the consolidation phase. Owing to their inaccessibility, 3,100,000 are not covered by operations. Spraying operations are carried out by voluntary labour in areas with good communications and by paid spraymen in areas of difficult approach and accessibility.

A total of 423,000 slides were examined during 1964, out of which 155,000 came from active case detection, 697,000 from passive case detection and the remainder from epidemiological follow-up. Of the 423,000 slides, 231,000 came from consolidation areas giving an annual blood examination rate of 2 per cent., which is below the acceptable standard. However, directives have been issued by the Ministry of Health to dispensaries for the compulsory taking of blood films from all fever cases.

Venezuela. Most of the population live in areas from which malaria is certified as having been eradicated, 93 per cent. of the population of the originally malarious areas of the country being in the maintenance phase. There are, however, three areas—one along the Colombian border in the north-west, a second one in the north-east and a third in the forest area of the south—where transmission has not yet been totally interrupted. Energetic measures are being taken to eliminate transmission in these areas and a degree of success is being obtained in the north-eastern areas.

The twenty-first international course on malaria and environmental sanitation was held at Maracay from January to August 1964 for thirty-two participants.

**3. South-East Asia Region**

In general the entire Region has shown a steady improvement during the year in the malaria eradication programmes.

**Afghanistan.** In this seventh year of the programme which commenced in 1957, the total population under risk of malaria is 5,968,000, of which 5,271,000 are covered by the attack phase, including 200,000 covered for the first time in 1964, and 697,000 by consolidation. Pulikhumri entered this later phase in 1964.

Active case detection is in operation all over the country and is steadily improving, but passive surveillance has made little progress except in Kabul City and the Shewaki health centre. Plans are being formulated to build up special teams for epidemiological investigation and for radical treatment.

One of the problems occurring in the Jalalabad and Shewa consolidation areas is the continuous importation of malaria, due to the movements of nomads. A similar position has prevented interruption of transmission in some areas of Nangarhar.

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The training of malaria assistants and laboratory technicians was carried out in the Central Malaria Institute.

At the request of the Government, WHO assistance has been confined to visits by the Regional Office staff, and fellowships. It is difficult to forecast when the programme will come to its conclusion, but the national authorities have hopes that it will be in 1970.

Ceylon. The entire population of almost 11 million came under the consolidation phase from 1 May 1964, and up to the middle of November the position was very satisfactory. In the first three quarters of 1964, 20 cases were recorded, of which 9 were indigenous (\textit{P. malariae}), 10 imported and one a relapse. During the fourth quarter foci of transmission with a total of 123 cases were found in certain villages in the centre of the island, which may delay entry into the maintenance phase, which had been expected to occur in 1966.

The main source of importation of malaria cases is the Maldives Islands. Most of the cases were Ceylonese nationals returning from the Maldives Islands to Ceylon and Maldivians visiting Ceylon. As all persons coming from the Maldives pass through Colombo, they are screened on entry and blood films are taken.

The assessment team which visited Ceylon at the end of 1963 drew specific attention to the lacunae which occur in the surveillance machinery. The future prospects, however, remain good, provided these gaps in surveillance are adequately filled.

India. This great programme covers a population of 475 million and, in consequence, changes in various phases of the eradication programme affect considerably the results of the entire global programme. The country is divided into 392 units, each with an average population of over one million (one of which, Bhutan, has recently been established) and the present position of phasing is as follows: preparatory—1.00 unit; attack—31.06 units; pre-consolidation—73.70 units; consolidation—207.23 units; maintenance—79.01 units. There is a proposal to allocate another 1.25 units for Jammu and Kashmir to carry out investigations and operations at heights over 5000 feet (1525 m).

For the proper co-ordination, planning and organization at the central level, a special working committee exists under the chairmanship of the Director General of Health Services. This committee decides on all important matters and consists of representatives from the Ministry of Health, Defence Services, the Railways and the international organizations and bilateral agencies. The Director of the National Malaria Eradication Programme is the Secretary of the committee. There is complete co-ordination between the centre and the states, and the organization is considered adequate and satisfactory.

Public health education has been an integral part of the programme, even though no large-scale publicity or public health education organization exists separately and exclusively for the eradication programme. However, there is a nucleus for public health education at the centre and in most of the states. Malarialists are trained at the National Institute of Communicable Diseases, Delhi. This centre, which has excellent facilities and experienced staff, receives trainees from other countries in the Region.

Training facilities for all other staff are available at the National Institute of Communicable Diseases, at state level, and at the offices of the regional co-ordinating organizations. Specialized orientation courses in general public health were held to prepare malaria unit officers for their new duties in the maintenance phase.

Surveillance operations were in progress in 376.75 units out of 391 units in the country (excluding Bhutan) during 1964. In the remaining 14.25 units designated as border and problem area units, surveillance operations are expected to be instituted during 1965. From 1 January to 31 October 1964, a total of nearly 32 million blood slides were examined, of which 73,000 were found positive for malaria.

Hospitals, dispensaries and other health units are contributing to a great extent to passive surveillance, but considerable improvements are still required.

Extensive preparations have been made for the planning and expansion of the present health services to undertake vigilance in the maintenance phase. A special committee to study this question and formulate measures has been set up.

The main danger lies in the importation of cases from neighbouring countries where the malaria programme is less advanced, and also from other states within the country for the same reasons. In connexion with the former, border meetings take place yearly with Burma, Nepal and Pakistan.

Persistence of transmission still occurs in the forest areas in certain states. \textit{A. culicifacies} is resistant or highly tolerant to DDT in parts of the following states: Andhra Pradesh, Bihar, Gujrat, Madhya Pradesh, Maharashtra, Mysore and Rajasthan.

HCH has been used in Gujrat and Maharashtra because of this resistance and now instances of resistance to HCH have been reported from these two states. In the other states, DDT has continued to be used in higher doses, or more frequently, and the transmission of malaria has been or is being interrupted in spite of the resistance. Because of the resistance of \textit{A. stephensi} to DDT and dieldrin in Madras and urban areas of Andhra Pradesh, larvicides such as Paris green and lead-free petrol are being used and supported by mass chemoprophylaxis. Anti-larval measures in Andhra Pradesh appear to be yielding good results and these have been extended to Madras state.

In order to make spraying more acceptable to inhabitants in Andhra Pradesh, Mysore, Madras, Orissa and Hyderabad, small quantities of diazinon have been added to DDT, and this mixture has successfully dealt with the bed-bug problem.

A further annual appraisal of the programme was carried out in January and February 1965. Since the start of these annual joint appraisals, there have been very few instances of units or sub-units having to revert to the attack phase.

The prospect for eradication of malaria in the greater part of the country is good, but it may be delayed in areas bordering on other countries where the programme is not so advanced.

To assist the Bhutan authorities, who do not have the necessary facilities and trained personnel, a National Malaria Eradication Programme (NMEP) unit has been placed at the disposal of Bhutan by the Government of India. Necessary technical and administrative staff is being procured from the malaria eradication organization of neighbouring Indian states and action has also been taken for the supply of material and equipment by the Government of India.

Indonesia. The malaria eradication programme is at present in operation in the central group of islands, i.e. Bali, Java and South Sumatra (Lampong zone). For West Irian, a plan of operations for a pre-eradication programme was signed in August 1964 by the Government, UNICEF and WHO. A plan of operations for the setting-up of a rural health service for South Kalimantan has been signed, as a prerequisite for a malaria programme.

The malaria eradication programme has been affected by socio-economic factors. Under the present circumstances every effort is being made at least to maintain the status quo of the malaria eradication programme until such time as the country is able to progress further towards eradication. WHO is actively assisting the Government of Indonesia in this aim. The programme's future will depend on the determination of the Government to pursue it vigorously.

Spraying operations have not been entirely satisfactory in all zones, the main weakness being lack of supervision and insuffi-
cient applications of DDT. This applies particularly to areas on the south coast of eastern Java, where outbreaks of malaria occurred during 1964. To overcome these outbreaks, the number of spraying teams was increased and more attention given to supervision. At the same time the spraying was complemented by chemoprophylaxis. Since May 1964, spraying has been stopped in fifteen zones in Java, and further zones were placed in the consolidation phase at the end of 1964. Malaria in the area of Bali has given rise to much anxiety ever since the eruption of the volcano Gunang Agung disrupted the programme, and about 2000 cases occurred between April and September 1964.

Active case detection covered forty-one out of the forty-two zones, and accounted for 3 200 000 out of a total of 3 900 000 slides examined up to the end of September 1964. Passive case detection accounted for less than 500 000 slides. Radical treatment has been hampered to some extent by the shortage of drugs and the consequent use of quinine in place of chloroquine.

Importation of cases appears to be a serious problem and the position may further deteriorate. A large number of cases are imported from outer islands and from adjacent malarious zones into zones in which spraying has stopped. Efforts to establish control posts and to check points of entry are only partly successful as the ports are too numerous.

Double resistance in *A. aconitus* continued to spread in Central Java during 1964. Now the entire province is affected except Pati, Pekalongan, where this species is resistant to dieldrin only, and the Wonogiri zone, where only DDT resistance has been demonstrated.

Experimental hut trials using malathion in areas of Central Java infested with *A. aconitus* and *A. sundaicus* have given promising results. They indicate that the dosage of 2 g/m², may be expected to give excellent protection for a four-month period on the walls of houses built with local materials, i.e. split bamboo.

The training of staff at the National Centre in Tjiloto continued, with emphasis on epidemiology. During the year, 27 doctors were trained but only 10 were assigned to the malaria programme. In addition, 62 other personnel received instruction at this centre. In the provinces, 6 zone chiefs, 13 malaria technicians, 19 sector chiefs, 7 sanitarians, 76 deputy sector chiefs, 2600 surveillance agents, 514 supervisors and 163 medical personnel underwent training courses.

**Maldive Islands.** The lack of any form of antimalarial operations in the Maldive Islands has resulted in importation of malaria cases into both Ceylon and southern India. A scheme for a pre-eradication programme together with community health development has been drawn up to commence in 1965; it includes a malaria pilot project in Male atoll.

**Mongolia.** At the request of the Government, Mongolia has been included in the supplementary list of countries where malaria has never existed or has disappeared without specific eradication measures.

**Nepal.** In the central zone, the attack phase has entered the sixth year. The eastern zone, with a population in malarious areas estimated at 800 000, has also been brought under attack. The preparatory phase in the western zone is continuing.

The Government has plans for the development of the health services over the next fifteen years. In the meantime, an effort is being made to promote the use of passive case detection in the central zone. In the next five-year plan the Health Ministry is expected to expand the rural health services with a multi-purpose home visiting service.

Surveillance activities were expanded during 1964 over most of the central zone. Three areas with a population of 1 200 000 are expected to enter the consolidation phase after the first cycle of spraying in 1965. Out of the total of 232 000 slides examined up to August 1964 in the central zone, none came from passive case detection. Importation of cases of malaria occurred mostly in the eastern zone which only entered the attack phase during 1964.

There are no technical problems at present although preliminary reports suggest that there may be resistance by *A. culicifacies* to DDT in the eastern and western zones of Nepal where, however, the vectorial role of this species is doubtful. The greatest difficulties in the programme, which is planned to be completed by 1972, are poor communications and indifferent supervision.

**Thailand.** The malaria eradication programme has in the past been hampered by its dependence upon the availability of funds. With the funds now being made available by the Government for the eradication programme, it will be possible to cover the entire population at malaria risk. The exact population figures relating to the attack and consolidation phases will be apparent in 1965 when the epidemiological assessment of those areas which went into consolidation without going through the attack phase is completed. It is probable that many of these areas will have to be subjected to routine attack phase measures.

Epidemiological evaluation during 1964 showed a distinct improvement over the previous year, the average blood examination rate increasing from 5 per cent. Of the 710 000 slides examined, active case detection accounted for 542 000, passive case detection 16 000 and epidemiological investigations 152 000.

During 1964 two training centres at Prabudhabad and Chiengmai were in operation. Forty-six trainees graduated from a course of sector chiefs. Training was also given at the regional malaria training centres and at headquarters. Senior paramedical personnel are given a week’s refresher training every six months.

A pilot project in Patsunuloke Province is being developed for the training of multi-purpose workers who will each cover a population of 5000. Their duties will include the taking of blood films from fever cases and presumptive treatment.

A strain of *P. falciparum* resistant to chloroquine was first reported from Thailand after observations made in November 1960. Further investigations indicated that the actual areas affected appear to be localized in Cholburi, Saraburi, Ubolrathani and Packchong of Nakorajim. This work is being followed up by the national authorities.

The future success of the programme, which is expected to be completed by 1973 except in border areas, is dependent on close supervision of all aspects of the programme, particularly in those areas where *A. balabacensis* and *A. minima* exist or co-exist as vectors, and on epidemiological/entomological study of the difficult areas leading to efficient attack measures for a rapid interruption of transmission. In addition, the problem of drug resistance of *P. falciparum* reported from certain areas will require close attention.

4. **European Region**

**Albania.** Of the originally malarious areas of the country, almost half are now in the maintenance phase and the remainder in the consolidation phase. It is expected that the whole country will be in the maintenance phase by the end of 1965. During the first six months of 1964, seventeen cases of malaria were found, none of which was indigenous.

**Algeria.** A plan of operation for a pre-eradication programme was signed in October 1963 and the first addendum in December 1964. The pre-eradication programme is expected to last until the end of 1967 when the rural health infrastructure will have been developed sufficiently and the operational maturity of the malaria service will permit the launching of an eradication programme.
A surveillance system is being created in the epidemiologically more dangerous zones, and free distribution of antimalarial drugs is being made to the population living in these zones. The Director of the Malaria Service is also Director of the Equipes mobiles départementales d'Action sanitaire de Masse. Each of these mobile teams has an epidemiologist attached to it.

There is a demonstration and training area with a population of about 60 000 which covers four health circumscriptions in which the epidemiology of malaria is being studied and methods of attack tried out.

Training courses are being undertaken for medical assistants, laboratory assistants and sanitariums. A new malaria training centre for all categories of personnel for the rural health infrastructure has been opened at Ténès (province of Orléansville). The first course is due to start in 1965.

**Bulgaria.** The whole country is now in the maintenance phase. Only five cases of malaria were reported in 1964, four of them induced and one imported. The Government has not yet requested a visit by the WHO regional evaluation team with a view to certification of eradication.

**Greece.** Two-thirds of the originally malarious areas of the country are in the maintenance phase and the remainder are in the consolidation phase. During the first nine months of 1964, a total of seventy-nine cases of malaria were recorded, forty-five of which were indigenous. The chief cause of the persistence of foci of transmission seems to be the habit of the people on farms in certain areas of sleeping outside during the summer.

With a view to the eventual certification of eradication in the islands of Crete, the Dodecanese and the Cyclades, a visit was made to evaluate the conditions in these islands and a report is in preparation.

**Hungary.** The People's Republic of Hungary was certified as having eradicated malaria in March 1964.

**Italy.** An evaluation of the position in Italy with a view to recording eradication of malaria is expected to be made in 1965.

**Morocco.** The pre-eradication programme started in 1961 and it was planned that the development of the rural health infrastructure would be sufficiently advanced by 1966 for a malaria eradication programme to be started. However, the programme is not proceeding as rapidly as expected owing to budgetary limitations and administrative difficulties; only 50 per cent. of the required personnel for the health infrastructure had been trained by September 1964. It is considered that the start of the preparatory phase of the eradication programme may have to be delayed until 1967. Nevertheless, a considerable infrastructure already exists and, were a programme by stages planned, an earlier start to the eradication programme would be feasible.

Work has continued in the three demonstration and training areas, including geographical reconnaissance and spraying operations. El Kaiba is mountainous and further studies are needed into the population movements which are a feature of this area. Erfoud, in the south of the country, has provided the required information for operational purposes. It is proposed to close the area at El Kelaa and establish a new demonstration and training area in Al Huceima. Malaria eradication techniques are being taught in the twenty nursing schools and in the five rural training centres. As a form of in-service training, the personnel in the peripheral posts have started geographical reconnaissance in their sectors, and surveillance circuits have been established.

**Netherlands.** Consultations took place with the Government regarding the possibility of certification of eradication of malaria and it was decided that this should be reconsidered at the end of 1965.

**Poland.** A preliminary visit was made to discuss with the Government the data required for certification of eradication of malaria.

**Portugal.** About 30 per cent. of the originally malarious areas are still in the consolidation phase, but it is expected that they will enter the maintenance phase in 1965. As a measure of control against importation of malaria, a special system of surveillance is maintained at the seaports. Of the twenty-five cases of malaria reported during the first six months of 1964 in maintenance phase areas, twenty-four were imported and the remaining case was a relapse.

**Romania.** It is expected that the consolidation phase areas, which amount to 15 per cent. of the originally malarious areas of the country, will enter the maintenance phase at the end of 1965. Only seven cases of malaria were reported in 1964, all due to *P. malariae*; two of these were relapses and five were induced following blood transfusions.

**Spain.** The certification of eradication of malaria was registered in September 1964. Special surveillance measures have continued for immigrants from North Africa.

**Turkey.** The attack phase areas, which amount to 28 per cent. of the originally malarious areas, are found in the south-west and south-east of the country. It is expected that many of these areas will enter the consolidation phase in 1965 and the remainder in 1966. It is envisaged that the whole country will reach the maintenance phase by 1968. A total of 4545 cases of malaria were reported in the country during the year up to the end of October 1964. Of the 205 cases occurring in areas in the consolidation phase, seventy-eight were recorded as indigenous. Eighty per cent. of the 4340 cases reported from the attack phase areas occurred in only four of the twenty-one zones under attack—Antalya in the south-west and Diyarbakir, Marлин and Şırı in the south-east near the border with Syria.

In the south-west area of the country, larviciding has been used on a considerable scale on account of exophily of the vector *A. superpictus* in those areas. In areas of DDT resistance in *A. sacharovi*, dieldrin has been successfully employed instead. The special national entomological team is being increased in 1965 to a total of twenty technicians so that further studies can be carried out on the vectors.

There is satisfactory development of the rural health infrastructure in the pilot provinces, which will ensure adequate vigilance during the maintenance phase. The integration of the personnel of the malaria eradication service with the general public health service continues in the regions approaching the maintenance phase. Further steps have been taken for the general public health service to play an active part in the surveillance activities.

Quarterly meetings are held between the zone malarialogists and the headquarters of the malaria eradication programme. Training courses in 1964 were given to 30 medical officers, 28 microscopists, and refresher courses were attended by a further 53 microscopists.

Inter-country border meetings were organized in 1964 with Lebanon and Syria, and a similar border meeting between Turkey and Iran is planned for 1965.

**Union of Soviet Socialist Republics.** Some 600 000 people live in areas in the consolidation phase; the rest of the country is in the maintenance phase. It is expected that the whole country will be in this phase by the end of 1965.

A total of 89 cases of malaria were reported during the first three quarters of 1964, 42 of which were recorded as imported and 34 as relapses.
Eastern Mediterranean Region

Aden and Protectorate of South Arabia. Aden State is considered to have eradicated malaria. The Organization has made provision for assistance to a pre-eradication programme to cover the other states in 1965.

Cyprus. The country has been in the maintenance phase since 1950—larviciding is continued on a reduced scale in order to keep mosquito density at a negligible level. The coverage of the country with rural health facilities has been further strengthened, thus affording means for effective vigilance.

Ethiopia. An assessment of the basic health services has been completed, and an addendum to the plan of operations of the pre-eradication programme prepared indicating the need for the co-ordinated development of the rural health services and the national malaria service. The establishment of the latter improved during 1964, and the staffing has gained in quality. The rural health services, on the other hand, have made little progress, owing mainly to lack of adequate funds for the accelerated development and to the limited resources for training the auxiliary staff required. The development of these services had to be reconsidered realistically, taking into account the financial resources of the country and the availability of suitable candidates for training.

Special emphasis was laid on the completion of geographical reconnaissance as the basis for complete coverage of the anti-malaria activities, which were consequently not extended during the year. Nevertheless, with the assistance of the United States Agency for International Development, a population of over 1 250 000 is covered by spraying operations.

The Malaria Eradication Training Centre at Nazareth continued to be guided by a co-ordination committee under the supervision of the Ministry of Health, in which are represented the national malaria service and the international and bilateral agencies concerned. Three courses were completed during the year and 89 students received training.

French Somaliland and the Gaza Strip are stated to have eradicated malaria.

Iran. The constant movement of the population, combined with the difficult accessibility and large number of temporary houses, has greatly hampered the eradication programme. Although in the northern part of the country, where over seven million people are in the consolidation phase, some areas could have been advanced into the maintenance phase, the number of imported cases from the malarious southern part of the country necessitated the continuation of surveillance activities.

In southern Iran, where *A. stephensi* is resistant to dieldrin and tolerant to DDT, and where there are nomadic and other types of movements of the population, interruption of transmission of malaria has not been achieved. In order to find a solution to these problems, pilot projects using organophosphorus insecticides and medicated salt are in operation.

Encouraging results were obtained in a village-scale malathion trial, and a field project was established in Bandar-Abbas in October 1964 to cover a population of approximately 100 000, using malathion four times a year at a dosage of 2 g/m².

The chloroquinized salt pilot project has been continued in the Kazeroun area covering approximately 11 000 of the tribal and 6000 of the static population. The chloroquine dosage of 1200 mg per month is based on an average daily salt intake estimated at 20 g among the tribal and 15 g among the static population. Monthly blood surveys showed that over the last six months of 1964 no positive cases were detected in children under two years, and the average monthly parasite rate among those over two years was only 0.07 per cent. The results are encouraging and the possibility is being considered of extending the use of chloroquinized salt as a method of attack for the protection of the country’s tribal population of one million.

The Institute of Parasitology, Tropical Medicine and Hygiene (formerly the Institute of Parasitology and Malariology) continues to provide training facilities for the staff for the malaria eradication programme.

Iraq. The set-back which occurred in the consolidation phase areas in southern Iraq in 1963, when an epidemic of malaria broke out, and local disturbances in the north of the country, where total coverage has not been obtained in spraying operations, have affected the malaria eradication operations throughout the country. In 1964, areas with a population of over 1 500 000 reverted from the consolidation to the attack phase.

During 1964, resumption of focal transmission occurred in the central region of Iraq. The area was more or less freed from malaria through extensive eradication operations in the previous years, but the disease has been reintroduced primarily by immigrants from both the north and south of the country. It is anticipated that attack measures will have to be re-implemented to cover the whole region in 1965.

However, encouraging results have been obtained in southern Iraq from DDT spraying—supplemented by larviciding in Basrah City—in spite of low susceptibility of the local vector, *A. stephensi*, to this insecticide. Even with merely fair spraying coverage (80 per cent.), no seasonal peak of transmission was observed, no *P. falciparum* infections were detected during the transmission season, and the incidence of malaria was reduced in the entirety of the three liwas except the port area at Fao. Here spraying was done by the port authorities, who achieved a coverage of less than 30 per cent. Consequently, the epidemiological picture in that area presented a clear contrast to the general one; transmission continued throughout the year, with seasonal peaks following the natural pattern, and the incidence of malaria was many times higher than in 1963.

The plan of operation for the Iraq malaria eradication programme is being revised in the light of the prevailing epidemiological situation.

Israel. Areas with a population of 104 000 are still in the consolidation phase but should join the rest of the country in the maintenance phase in 1966. No active foci of transmission were detected in 1964 and of the twenty cases of malaria recorded eighteen were imported.

A strict follow-up is being carried out amongst immigrants and visitors, together with examination of blood from large groups of the population. As a result of such activities, no introduced cases were reported during the year under review.

Jordan. Over half the malarious areas of the country were in the maintenance phase and the remainder in the consolidation phase in 1964. No indigenous cases were reported from the maintenance areas, but owing to premature withdrawal of larviciding in some areas recently admitted to the consolidation phase transmission was so widespread that attack measures will have to be re-applied during 1965 to the whole Jordan valley, except Jericho town and refugee camps, in order to eliminate the foci...
of transmission. In 1964, 664 cases occurred compared with 225 cases in 1963.

The checking of immigrants and repatriates through the immigration offices has brought to light over thirty imported cases and has greatly contributed towards the prevention of reintroduction of malaria into freed areas.

Kuwait. Reported to be naturally free of malaria.

Lebanon. Two-thirds of the population of the originally malarious areas of this country are in the maintenance phase and the remaining third should enter this phase in 1966. Of the fourteen cases of malaria reported in 1964, twelve were imported and two induced.

Libya. During 1964, the remaining attack areas in the country were placed in the consolidation phase. This was found to be premature, as 272 cases of malaria occurred, 254 of them due to P. falciparum. The extent of the transmission in the Fezzan area indicated that attack measures will have to be re-applied in order to eliminate the foci which have occurred. A review of the programme is to be undertaken in 1965.

Muscat and Oman. No malaria eradication programme has yet been planned.

Pakistan. Progress in this large malaria eradication programme has been regular and is proceeding according to expectations, except that some of the new zones were not opened on schedule. This delay in setting up the zone offices and sector offices was attributed to the recent floods, and two induced.

During 1964, the population covered by attack measures amounted to 25 719 000 and a further 19 370 000 were in the pre-preparatory phase, compared with 13 237 000 and 12 280 000 respectively at the end of September 1963.

In East Pakistan, there was a large-scale field trial of disc flow regulators, and the results appeared to be encouraging as far as the rate of flow was concerned. However, an appreciable reduction in swath width was observed.

Mass drug administration has been carried out as the only measure against malaria in the sericulture areas of zone 5 (West Rajshahi) in East Pakistan. Difficulties have been encountered in achieving a good coverage of the population, especially in the later rounds of distribution.

The resistance of A. culicifacies in West Pakistan to DDT was detected for the first time in November 1963 in Sialkot on the India-Pakistan border. Susceptibility tests carried out in the summer of 1964 revealed that it was restricted to a limited area. Tests conducted on this vector species using dieldrin indicated that it was susceptible to this insecticide. DDT spraying was continued in the area during 1964, and no evidence of transmission was detected by the intensified active case-finding operations.

Two WHO-assisted malaria eradication training centres are in operation, one in each province. As the programme is expanding, the number of trainees increased by 150 in 1965, and two trainees in 1966/67.

During 1964, in East Pakistan, a total of eleven courses were given, with 256 successful trainees, while in West Pakistan, eight courses were conducted, with 207 successful trainees.

Qatar. No request has yet been made for assistance with a malaria eradication programme.

Saudi Arabia. Progress has been slow in this pre-eradication programme. The Government has continued malaria control activities in a number of areas and the efficacy of these operations in the Mecca and Medina areas will be put to the test in coming years when the pilgrimage coincides with the malaria transmission season.

Somalia. An addendum to the pre-eradication programme has been prepared, covering a period of two years, with a plan of action for one year only, in order to permit an early appraisal of the progress and improvements made by the programme.

The development of the rural health infrastructure did not make the progress expected in 1964. Training of auxiliary personnel is taking place in the UNICEF/WHO assisted training school in Mogadishu, the basic health services training centre in Balad, and the training centre for public health nurses in Hargeisa.

Sudan. The pre-eradication programme has been actively developed.

The malaria service has almost completed the collection of baseline information for the malaria eradication demonstration and training area near Sennar, where the Malaria Eradication Training Centre has been established. A study on the duration of the effectiveness of technical DDT at 2 g/m² on mud and straw under local conditions was initiated in October. The resistance of A. gambiae to dieldrin in Sudan was first reported in October 1964 in a cotton-growing area near Sennar.

Assessment of the rural health services was completed in three provinces during 1964, and it is expected that a further three provinces will be covered by the middle of 1965. The results confirm that Sudan already has a rural health service infrastructure of considerable extent; its coverage of the population, however, differs considerably from region to region.

Training facilities for medical and auxiliary personnel are locally available. The Faculty of Medicine at Khartoum produces forty to fifty medical graduates a year, and a medical students' association's school at Omdurman produces about 50 medical graduates a year. Dressers are trained at each hospital according to needs; during 1964, about 150 received training. Should the rural health services develop according to the Ten-Year Development Plan, training for doctors and dressers seems to be sufficient; but about fifty medical assistants should be trained yearly instead of twenty.

The Malaria Eradication Training Centre at Sennar started its first course in October 1964 for fifteen sanitary overseers. For 1965, regular reorientation courses are planned for senior and junior staff of the public health and rural health services.

Syria. Nearly 70 per cent. of the originally malarious areas of the country are in the maintenance phase, and it is anticipated that the remaining areas in the consolidation phase should reach the final phase by 1967. Focal spraying is being carried out to eliminate the foci of infection in consolidation phase areas, and there was a significant drop in the number of cases reported in these areas.

Tunisia. A WHO short-term consultant visited Tunisia in June and July 1964 in order to evaluate the epidemiological situation and to advise the Government on the development of a malaria eradication programme. It appears that, with the steady progress in the development of rural health services and with regular malaria control activities, the country will be able to launch an eradication programme by the beginning of 1967.

United Arab Republic. A formal request has been received from the Government for assistance with the launching of malaria eradication activities in 1965. The Government is considering the feasibility of introducing a new eradication strategy in the country, in order to permit an early appraisal of the progress and improvements made by the programme.

The Government is making budgetary provision for malaria eradication in the country's Second Five-Year Development Plan for the period July 1965 to June 1970, over and above all expenses of malaria control and rural health service activities.

Yemen. Following an exchange of letters, a WHO malaria adviser has been assigned to the country, and a pre-eradication programme was started in October 1964.

6. Western Pacific Region

British Solomon Islands Protectorate. The malaria eradication pilot project started by the end of 1961 and terminated in
December 1964. The objectives were to study the possibility of stopping malaria transmission under the prevailing epidemiological conditions with the available methods and to train national staff. The population covered was approximately 35,000 in Guadalcanal and in the New Georgia group of islands (a quarter of the whole population of the Protectorate); in both areas malaria was hyperendemic.

The method of attack used was indoor residual spraying with DDT water-dispersible powder at the rate of 2 g/m² twice a year, except in the island of Savo (approximately 1100 people), where mass drug administration (chloroquine/pyrimethamine and primaquine) was carried out once a week for eight weeks and followed by radical treatment of positive cases.

Parasitological assessments indicated that transmission was interrupted in New Georgia by late 1963, by which time active and passive detection was instituted. In Savo, transmission was also stopped and it was proved that radical treatment of *P. vivax* (South-West Pacific strain) was effective.

In Guadalcanal, although there were indications that transmission was stopped in several areas, it continued in others mainly due to the large and uncontrolled importation of positive cases from unprotected areas outside the project, which emphasized the urgent need to provide an adequate surveillance system.

In view of these encouraging results, the Government requested continuation of WHO assistance for a pre-eradication programme, which started in January 1965. Subject to the fulfilment of all the necessary conditions, not least the development of adequate rural health facilities, a malaria eradication programme could be started in 1970.

**Brunei.** The pre-eradication programme became fully operational during 1964 and rapid progress was made. It is hoped that by the end of 1965 it will be possible to prepare a plan of operations for a malaria eradication programme to start in 1966. In view of the limited malaria problem in Brunei, interruption of transmission should quickly be achieved once attack measures are commenced. The three contiguous states of Brunei and Sabah and Sarawak (Malaysia) will then be able to follow a coordinated development of malaria eradication.

**Cambodia.** The pre-eradication programme has suffered from financial and organizational difficulties, in spite of which progress has been accomplished particularly in the first steps to develop rural health services in some vulnerable areas.

Malaria technicians have been assigned to highly malarious areas (Snuol and Pailin) where they constitute the first nuclei of a rural health infrastructure, and this method is being extended also to malarious coastal areas. The results achieved so far have encouraged the Government to support this policy.

In the Snuol area, forty malaria rural health posts have been established, staffed with malaria technicians and provided with various levels of supervision, as a preliminary step to the establishment of a pilot project in an area where the highly exophagic *A. balabacensis* is the main vector. It is expected that this project will be implemented in 1965. In the Pailin area in the north-west, which is also an *A. balabacensis* area, thorough spraying three times a year, supported by drug administration at the time of spraying, has produced very encouraging results.

An important achievement during 1964 was the delimitation of malarious areas. A country-wide parasitic survey has been completed and results are now available, showing that the population exposed to malaria risk is well over 2,700,000, much higher than previously estimated. For the first time, documented data are available which provide a malaria map of the country giving the epidemiology of the disease.

Provided adequate facilities for the malaria and rural health services are available, and if other necessary conditions are fulfilled, it may be possible to foresee the beginning of a malaria eradication programme in 1969.

**China (Taiwan).** By mid-1964, all the vigilance activities of the maintenance phase were being carried out by the public health services after detailed individual plans of operation with each health bureau had been finalized. Additional staff required by the regular health services were given training by the national malaria staff. The health services were considered to be adequate for the task.

During 1964, thirty-nine cases of malaria were reported, fourteen of which were imported and thirteen introduced; no cases were classified as indigenous though one was considered as cryptic.

On 22 July 1964, the Government of the Republic of China submitted a request to the Regional Office for the certification of achieved malaria eradication in Taiwan. A WHO team was sent to Taiwan from 9 November to 18 December 1964.

**Hong Kong.** The few cases of malaria reported from Hong Kong are stated to be mostly imported.

**Japan.** Malaria appears to have almost completely disappeared without specific antimalaria measures. The Government has not yet requested certification of eradication.

**Laos.** It has not been possible to carry out any organized antimalaria activity in Laos due to insecurity.

**Macao.** The new cases of malaria reported are stated to be mostly imported.

**Malaysia.**

(i) **Malaya.** The malaria eradication pilot project (Malaysia 20), with its headquarters in Kuala Lumpur, started in March 1960 and ended in June 1964. It was located in the Selanger State and covered a population of approximately 110,000 in an area of 1300 km². The purpose of the project was to find out if it was possible to stop malaria transmission by available methods and to train national staff. Spraying with DDT emulsion concentrate at 2 g/m² was carried out twice a year. The first cycle started in March 1961 and the last in January 1964.

Periodical parasitological assessments indicated that transmission had ceased by August 1962, and that the last indigenous *P. falciparum* case was recorded in May 1962. Active and passive case-detection measures were instituted in October 1962, with the assistance of the well-developed rural health service (fifty-seven rural health institutions). The annual blood examination rate was maintained at satisfactory levels (approximately 30 per cent.). A pre-eradication programme was started in July 1964 on a country-wide basis. If the development of this programme is not delayed by financial shortages a malaria eradication programme could start in 1969.

(ii) **Sabah.** Apart from the island of Labuan which is in the consolidation phase, the whole of the rest of the state is in the attack phase. An effective case-detection system has been organized for the pre-consolidation areas that cover approximately two-thirds of the state, in which it may be possible to cease spraying operations at an early date.

(iii) **Sarawak.** Antimalaria activities started in 1953. The majority of the country is in the consolidation phase; only 20 per cent. of the originally malarious population are still in the attack phase, most of them along the border with Kalimantan (Indonesia). Throughout the country, including the attack phase areas, an extensive case-detection system with both active and passive elements has been built up and produced a very high annual blood examination rate in most parts of the state. The passive case-detection system alone
achieved an annual blood examination rate of about 10 per cent. in 1964.

However, further improvement is still needed, specially in certain areas, before the general health services are in a position to fulfil adequately their duties in the maintenance phase.

(iv) Singapore. Malaria is reported to have disappeared from Singapore.

New Hebrides. No programme has started yet, mainly due to lack of facilities, but if a pre-eradication programme were to start in 1968 it is possible that by 1971 a malaria eradication programme could be launched.

Papua and New Guinea. An intensive campaign of malaria control on a large scale is in progress.

Philippines. Efforts have been made, with increased support from the United States Agency for International Development and from WHO, to follow in 1964 the programme established in the plan of operation signed in 1963. In view of the financial, administrative and operational difficulties experienced by this programme, an assessment was made early in 1964 and, as a result, the Under-Secretary for Health and Medical Services was appointed as administrator of the programme, helped by an executive assistant and advised by the technical staff of the Central Malaria Division. This brought about some improvement, but there is no real full-time leader of the programme. The malaria service is still suffering from the sudden decentralization of the health services into eight regions which took place in 1959. Although the number of professional staff (sixty-seven) is adequate, there is need for retraining and assignment of definite responsibilities.

The rural health services are reasonably well developed and staffed and are continuously expanding. Each rural health unit usually includes one physician, one nurse, one midwife and one sanitary inspector. There are 406 rural health units in the consolidation phase area and 835 in the attack phase area. However, adequate orientation of the general health workers and close co-ordination with malaria workers have not been sufficiently developed yet.

A redefinition of malarious areas has been made and some areas reverted from the consolidation to the attack phase. The situation has been carefully assessed with a view to finding appropriate solutions. Remedial steps are being taken, but improved results may not be immediately visible. Unless corrective measures are applied effectively and soon, the completion of the attack phase will be delayed and the target of having the whole country in the consolidation phase by 1967 and in the maintenance phase by 1969 will not be realized.

Republic of Korea. Malaria is not considered a public health problem of great importance. However, even though the endemicity is low, it is widespread in the rural areas.

The development of the public health services in general and of the health infrastructure in particular is being vigorously pursued. At the city and county levels there are almost 200 health centres. At the district (myon) level there is a network of government clinics with a number of health workers. It is estimated that there is one physician for every 30,000 people.

The pre-eradication programme has concentrated on the development of passive case-detection posts which include hospitals, health centres, private practitioners, school health teachers, village chiefs, influential citizens, youth club leaders, etc. Almost 3000 persons were trained in 1964 for this purpose. An extension of this network is expected in 1965 and further support may be forthcoming when the rural health service is better developed.

The malarious areas of the country are being delimited and various methods of attack are being tried out. The conversion of the pre-eradication programme to malaria eradication is likely to be delayed by financial difficulties but it could take place in 1967.

Republic of Viet-Nam. The whole malaria organization has recently been transformed into an Administration-General for Health Development. The head of the malaria service has become the Minister of Health, his deputy has been posted to the direction of the Administration-General for Health Development; the epidemiology and operations sections maintain their malaria identity, while other sections (logistics, administration, personnel, etc.) provide assistance to both malaria and other rural health activities. However, field studies and anti-malaria operations have been hampered by insecurity and until the situation improves it is not possible to make a constructive forecast on the development of the pre-eradication programme.

Ryukyu Islands. The malaria service in the group of islands covered by the malaria eradication programme is well integrated in the local health services and there are no problems of financing, supply, etc. Epidemiological assessments have continued to reveal freedom from indigenous cases in the absence of attack measures. It is reported that malaria has been absent for several years from the rest of the Ryukyu Islands, including Okinawa, the largest island, with approximately 800,000 inhabitants, where the health services appear to be adequately developed.

A request was received from the Government of the Ryukyu Islands for a WHO evaluation team to certify achievement of eradication. The Government was informed of the data to be collected and of the facilities required. It is planned that the team will visit the Ryukyu Islands in 1965.

Timor. No information has been received on the malaria situation.
7. DETAILED STATUS OF MALARIA ERADICATION, BY REGION, AS AT 31 DECEMBER 1964

AFRICAN REGION

(population in thousands)

<table>
<thead>
<tr>
<th>Country or other political unit</th>
<th>Total population</th>
<th>Where malaria never indigenous or disappeared without specific antimalaria measures</th>
<th>Other malaria eradication programmes in progress</th>
<th>Where eradication programmes not yet started</th>
</tr>
</thead>
<tbody>
<tr>
<td>Angola</td>
<td>5 196</td>
<td>5 196</td>
<td>5 196</td>
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</tr>
<tr>
<td>Basutoland</td>
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<td>747</td>
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<td>340</td>
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<tr>
<td>Bechuanaland</td>
<td>340</td>
<td>340</td>
<td>340</td>
<td></td>
</tr>
<tr>
<td>Burundi</td>
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<td>Cameroon</td>
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<td>4 688</td>
<td>4 688</td>
<td>4 688</td>
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<td>Cape Verde Islands</td>
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<td>1 310</td>
<td>1 310</td>
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<td>Chad</td>
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<td>2 796</td>
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<td>Comoro Islands</td>
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<td>189</td>
<td>189</td>
<td></td>
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<td>2 304</td>
<td>2 304</td>
<td>2 304</td>
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<td>Democratic Republic of the Congo</td>
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<td>15 551</td>
<td>15 551</td>
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<td>Guinea</td>
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<td>3 509</td>
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<td>Ivory Coast</td>
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<td>Kenya</td>
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<td>8 825</td>
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<td>Liberia</td>
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<td>4 651</td>
<td>4 651</td>
<td></td>
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<tr>
<td>Madagascar</td>
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<td>6 192</td>
<td>6 192</td>
<td>6 192</td>
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<tr>
<td>Mali</td>
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<td>872</td>
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<tr>
<td>Mauritania</td>
<td>753</td>
<td>753</td>
<td>753</td>
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<tr>
<td>Mozambique</td>
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<td>7 093</td>
<td>7 093</td>
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<tr>
<td>Niger</td>
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<td>3 259</td>
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</tr>
</tbody>
</table>

PEP: Preparatory Phase
E: Attack Phase
C: Consolidation Phase
AFRICAN REGION (continued)

<table>
<thead>
<tr>
<th>Country or other political unit</th>
<th>Total population a</th>
<th>Population in areas</th>
<th>Other malaria eradication projects in operation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>where malaria never indigenous or disappeared</td>
<td>which were originally malarious</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(maintenance phase)</td>
<td>consolidation phase</td>
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<tr>
<td>Nigeria</td>
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<td>—</td>
<td>56 209</td>
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<tr>
<td>Portuguese Guinea</td>
<td>575</td>
<td>—</td>
<td>575</td>
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<tr>
<td>Réunion</td>
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<tr>
<td>Rwanda</td>
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<tr>
<td>São Tomé and Principe</td>
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<td>61</td>
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<tr>
<td>Senegal</td>
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<td>3,455</td>
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</tr>
<tr>
<td>Sidi Ifni</td>
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<tr>
<td>Sierra Leone</td>
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<tr>
<td>South Africa</td>
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<tr>
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<td>9,168</td>
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<td>334</td>
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<td><strong>TOTALS</strong></td>
<td>207,178</td>
<td>16,260</td>
<td>190,918</td>
</tr>
</tbody>
</table>

---

FRP Field research project.
METC Malaria eradication training centre.
PEP Pre-eradication programme.
PES Pre-eradication survey.

1 Since the terms "preparatory", "attack" and "consolidation" are applied specifically to malaria eradication programmes, the figures shown in the relevant parts of this table do not include the antimalaria activities, often considerable, of countries and other political units in which eradication programmes as such have not yet been implemented.
### REGION OF THE AMERICAS
#### DETAILED STATUS OF MALARIA ERADICATION AS AT 31 DECEMBER 1964

*(population in thousands)*

<table>
<thead>
<tr>
<th>Country or other political unit</th>
<th>Total population <em>a</em></th>
<th>Population in areas</th>
<th>Other malaria eradication projects in operation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>where malaria never indigenous or disappeared without specific antimalaria measures</td>
<td>which were originally malarious</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>where eradication claimed (maintenance phase)</td>
</tr>
<tr>
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<td>60</td>
<td>60</td>
<td>1 021</td>
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<tr>
<td>Argentina</td>
<td>22 287</td>
<td>19 549</td>
<td>2 738</td>
</tr>
<tr>
<td>Bahamas</td>
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<td>114</td>
<td>232</td>
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<tr>
<td>Barbados</td>
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<td>4</td>
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<td>47</td>
<td>47</td>
<td>1 141</td>
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<td>2 913</td>
<td>1 353</td>
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<td>40 291</td>
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<td>19 548</td>
<td>19 548</td>
</tr>
<tr>
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<td>134</td>
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<tr>
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<td>964</td>
<td>423</td>
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<td>7 420</td>
<td>5 181</td>
<td>2 239</td>
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<td>48</td>
<td>14</td>
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<td>2 830</td>
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<tr>
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<td>928</td>
<td>1 900</td>
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<tr>
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<td>35</td>
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<td>Grenada and Carriacou</td>
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<td>54</td>
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<td>278</td>
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<td>2 359</td>
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<td>1 380</td>
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<tr>
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<td>Nicaragua</td>
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<td>1 671</td>
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<td>Panama Canal Zone</td>
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<td>51</td>
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</table>

*Note: *a* indicates the total population in thousands.*
REGION OF THE AMERICAS (continued)

<table>
<thead>
<tr>
<th>Country or other political unit</th>
<th>Total population a</th>
<th>where malaria never indigenous or disappeared without specific antimalaria measures</th>
<th>which were originally malarious</th>
<th>where eradication programmes in progress</th>
<th>Other malaria eradication projects in operation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>consolidation phase</td>
<td>attack phase</td>
</tr>
<tr>
<td>Paraguay</td>
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<td>333</td>
<td>1,638</td>
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<td>962</td>
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<td>2,111</td>
<td>6,225</td>
<td>5,822</td>
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<td>Virgin Islands (United Kingdom)</td>
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<td>8</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Virgin Islands (United States of America)</td>
<td>37</td>
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<td>Totals</td>
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<td>159,605</td>
<td>58,037</td>
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</table>

SOUTH-EAST ASIA REGION

DETAILED STATUS OF MALARIA ERADICATION AS AT 31 DECEMBER 1964

(population in thousands)

<table>
<thead>
<tr>
<th>Country or other political unit</th>
<th>Total population a</th>
<th>where malaria never indigenous or disappeared without specific antimalaria measures</th>
<th>which were originally malarious</th>
<th>where eradication programmes in progress</th>
<th>Other malaria eradication projects in operation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>consolidation phase</td>
<td>attack phase</td>
</tr>
<tr>
<td>Afghanistan</td>
<td>15,608</td>
<td>9,640</td>
<td>5,968</td>
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<td>697</td>
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<tr>
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<td>2,630</td>
<td>21,625</td>
<td>—</td>
<td>11,960</td>
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<tr>
<td>Ceylon</td>
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<td>7,125</td>
<td>1,521</td>
<td>5,604</td>
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<tr>
<td>India (including Bhutan)</td>
<td>475,463</td>
<td>15,454</td>
<td>460,009</td>
<td>93,117b</td>
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<td>—</td>
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<td>3,950</td>
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<td>633,691</td>
<td>94,638</td>
<td>274,741</td>
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</table>

— Not applicable or none.

a Latest available figures.

b Epidemiologically satisfying the criteria for entry into the maintenance phase.

c includes a pre-eradication programme in the province of West Irian.
## EUROPEAN REGION

### DETAILED STATUS OF MALARIA ERADICATION AS AT 31 DECEMBER 1964

(population in thousands)

<table>
<thead>
<tr>
<th>Country or other political unit</th>
<th>Total population (a)</th>
<th>Population in areas</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>where malaria never indigenous or disappeared without specific antimalaria measures</td>
</tr>
<tr>
<td></td>
<td></td>
<td>consolida-tion phase</td>
</tr>
<tr>
<td>Albania</td>
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</tr>
<tr>
<td>Algeria</td>
<td>11 903</td>
<td>2 517</td>
</tr>
<tr>
<td>Andorra</td>
<td>13</td>
<td>13</td>
</tr>
<tr>
<td>Austria</td>
<td>7 237</td>
<td>7 237</td>
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- Not applicable or none.

a Latest available figures.

PEP Pre-eradication programme.
### EASTERN MEDITERRANEAN REGION

**DETAILED STATUS OF MALARIA ERADICATION AS AT 31 DECEMBER 1964**

*population in thousands*

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- Not applicable or none.
- Latest available figures.
- WHO estimate.
- PEP Pre-eradication programme.
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- Not applicable or none.
- Latest available figures.
- Under 500.

*METC Malaria eradication training centre.
*PEP Pre-eradication programme.
*PP Pilot project.*
Annex 12

SUMMARY OF BUDGET ESTIMATES FOR THE FINANCIAL YEAR
1 JANUARY - 31 DECEMBER 1966

As approved by the Eighteenth World Health Assembly 1

---

**PART I: ORGANIZATIONAL MEETINGS**

**SECTION 1: WORLD HEALTH ASSEMBLY**

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g| | Total - Chapter 20               | 143 200                          |
| 30      | Space and Equipment Services     |                                  |
| 31      | Rental and maintenance of premises | 9 000                         |
| 32      | Rental and maintenance of equipment | 2 400                         |
|         | Total - Chapter 30               | 11 400                           |
| 40      | Other Services                   |                                  |
| 43      | Other contractual services        | 400                              |
| 44      | Freight and other transportation costs | 2 900             |
|         | Total - Chapter 40               | 3 300                            |
| 50      | Supplies and Materials           |                                  |
| 51      | Printing                         | 145 440                          |
| 52      | Visual materials                 | 2 000                            |
| 53      | Supplies                         | 7 400                            |
|         | Total - Chapter 50               | 154 840                          |
| 60      | Fixed Charges and Claims         |                                  |
| 62      | Insurance                        | 60                               |
|         | Total - Chapter 60               | 60                               |
| 80      | Acquisition of Capital Assets    |                                  |
| 82      | Equipment                        | 1 500                            |
|         | Total - Chapter 80               | 1 500                            |
|         | **TOTAL - SECTION 1**            | **372 200**                      |

**SECTION 2: EXECUTIVE BOARD AND ITS COMMITTEES**

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<td></td>
<td>Total - Chapter 60</td>
<td>700</td>
</tr>
<tr>
<td></td>
<td><strong>TOTAL - SECTION 2</strong></td>
<td><strong>191 300</strong></td>
</tr>
</tbody>
</table>

**SECTION 3: REGIONAL COMMITTEES**

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Description</th>
<th>1966 Estimated expenditure US $</th>
</tr>
</thead>
<tbody>
<tr>
<td>00</td>
<td>Personal Services</td>
<td></td>
</tr>
<tr>
<td>01</td>
<td>Salaries and wages (temporary staff)</td>
<td>29 930</td>
</tr>
<tr>
<td></td>
<td>Total - Chapter 00</td>
<td>29 930</td>
</tr>
</tbody>
</table>

---

1 See resolution WHA18.35.
### ANNEX 12

#### Chapter 20 Travel and Transportation

<table>
<thead>
<tr>
<th>Description</th>
<th>1966 Estimated Expenditure US $</th>
</tr>
</thead>
<tbody>
<tr>
<td>Duty travel</td>
<td>27,120</td>
</tr>
<tr>
<td>Travel and subsistence of temporary staff</td>
<td>29,690</td>
</tr>
<tr>
<td><strong>Total — Chapter 20</strong></td>
<td><strong>56,810</strong></td>
</tr>
</tbody>
</table>

#### Chapter 30 Space and Equipment Services

<table>
<thead>
<tr>
<th>Description</th>
<th>1966 Estimated Expenditure US $</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rental and maintenance of equipment</td>
<td>420</td>
</tr>
<tr>
<td><strong>Total — Chapter 30</strong></td>
<td><strong>420</strong></td>
</tr>
</tbody>
</table>

#### Chapter 40 Other Services

<table>
<thead>
<tr>
<th>Description</th>
<th>1966 Estimated Expenditure US $</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communications</td>
<td>325,219</td>
</tr>
<tr>
<td>Hospitality</td>
<td>10,500</td>
</tr>
<tr>
<td>Other contractual services</td>
<td>549,025</td>
</tr>
<tr>
<td>Freight and other transportation costs</td>
<td>82,527</td>
</tr>
<tr>
<td><strong>Total — Chapter 40</strong></td>
<td><strong>967,271</strong></td>
</tr>
</tbody>
</table>

#### Chapter 50 Supplies and Materials

<table>
<thead>
<tr>
<th>Description</th>
<th>1966 Estimated Expenditure US $</th>
</tr>
</thead>
<tbody>
<tr>
<td>Printing</td>
<td>540,550</td>
</tr>
<tr>
<td>Supplies</td>
<td>488,485</td>
</tr>
<tr>
<td><strong>Total — Chapter 50</strong></td>
<td><strong>1,029,035</strong></td>
</tr>
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#### Chapter 60 Fixed Charges and Claims

<table>
<thead>
<tr>
<th>Description</th>
<th>1966 Estimated Expenditure US $</th>
</tr>
</thead>
<tbody>
<tr>
<td>Insurance</td>
<td>28,726</td>
</tr>
<tr>
<td><strong>Total — Chapter 60</strong></td>
<td><strong>28,726</strong></td>
</tr>
</tbody>
</table>

#### Chapter 70 Grants, Contractual Technical Services and Training Activities

<table>
<thead>
<tr>
<th>Description</th>
<th>1966 Estimated Expenditure US $</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fellowships</td>
<td>3,046,389</td>
</tr>
<tr>
<td>Grants and contractual technical services</td>
<td>2,183,802</td>
</tr>
<tr>
<td>Participants in seminars and other educational meetings</td>
<td>900,680</td>
</tr>
<tr>
<td>Staff training</td>
<td>85,000</td>
</tr>
<tr>
<td>Research training</td>
<td>200,000</td>
</tr>
<tr>
<td>Research by individual investigators</td>
<td>100,000</td>
</tr>
<tr>
<td><strong>Total — Chapter 70</strong></td>
<td><strong>6,515,871</strong></td>
</tr>
</tbody>
</table>

#### Chapter 80 Acquisition of Capital Assets

<table>
<thead>
<tr>
<th>Description</th>
<th>1966 Estimated Expenditure US $</th>
</tr>
</thead>
<tbody>
<tr>
<td>Library books</td>
<td>37,098</td>
</tr>
<tr>
<td>Equipment</td>
<td>347,180</td>
</tr>
<tr>
<td><strong>Total — Chapter 80</strong></td>
<td><strong>384,278</strong></td>
</tr>
</tbody>
</table>

#### Section 5: Regional Offices

#### Chapter 00 Personal Services

<table>
<thead>
<tr>
<th>Description</th>
<th>1966 Estimated Expenditure US $</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salaries and wages</td>
<td>17,406,429</td>
</tr>
<tr>
<td>Less: Staff assessment</td>
<td>3,975,972</td>
</tr>
<tr>
<td><strong>Net salaries and wages</strong></td>
<td><strong>13,520,457</strong></td>
</tr>
<tr>
<td>Short-term consultants’ fees</td>
<td>804,800</td>
</tr>
<tr>
<td><strong>Total — Chapter 00</strong></td>
<td><strong>14,325,257</strong></td>
</tr>
</tbody>
</table>

#### Chapter 20 Travel and Transportation

<table>
<thead>
<tr>
<th>Description</th>
<th>1966 Estimated Expenditure US $</th>
</tr>
</thead>
<tbody>
<tr>
<td>Duty travel</td>
<td>11,856,673</td>
</tr>
<tr>
<td>Travel of short-term consultants</td>
<td>804,800</td>
</tr>
<tr>
<td>Travel of temporary advisers</td>
<td>140,840</td>
</tr>
<tr>
<td>Travel of temporary staff</td>
<td>63,220</td>
</tr>
<tr>
<td><strong>Total — Chapter 20</strong></td>
<td><strong>2,194,533</strong></td>
</tr>
</tbody>
</table>

#### Chapter 30 Space and Equipment Services

<table>
<thead>
<tr>
<th>Description</th>
<th>1966 Estimated Expenditure US $</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rental and maintenance of premises</td>
<td>346,526</td>
</tr>
<tr>
<td>Rental and maintenance of equipment</td>
<td>107,412</td>
</tr>
<tr>
<td><strong>Total — Chapter 30</strong></td>
<td><strong>453,938</strong></td>
</tr>
</tbody>
</table>

#### Section 4: Programme Activities

#### Chapter 00 Personal Services

<table>
<thead>
<tr>
<th>Description</th>
<th>1966 Estimated Expenditure US $</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salaries and wages</td>
<td>3,053,113</td>
</tr>
<tr>
<td>Less: Staff assessment</td>
<td>670,553</td>
</tr>
<tr>
<td><strong>Net salaries and wages</strong></td>
<td><strong>2,382,560</strong></td>
</tr>
<tr>
<td><strong>Total — Chapter 00</strong></td>
<td><strong>2,382,560</strong></td>
</tr>
</tbody>
</table>

#### Chapter 20 Travel and Transportation

<table>
<thead>
<tr>
<th>Description</th>
<th>1966 Estimated Expenditure US $</th>
</tr>
</thead>
<tbody>
<tr>
<td>Duty travel</td>
<td>105,500</td>
</tr>
<tr>
<td><strong>Total — Chapter 20</strong></td>
<td><strong>105,500</strong></td>
</tr>
</tbody>
</table>

#### Chapter 30 Space and Equipment Services

<table>
<thead>
<tr>
<th>Description</th>
<th>1966 Estimated Expenditure US $</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rental and maintenance of premises</td>
<td>137,857</td>
</tr>
<tr>
<td>Rental and maintenance of equipment</td>
<td>25,278</td>
</tr>
<tr>
<td><strong>Total — Chapter 30</strong></td>
<td><strong>163,135</strong></td>
</tr>
</tbody>
</table>
### EIGHTEENTH WORLD HEALTH ASSEMBLY, PART I

#### Chapter 40 Other Services

<table>
<thead>
<tr>
<th>Service Description</th>
<th>1966 Estimated Expenditure (US$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>41 Communications</td>
<td>131 192</td>
</tr>
<tr>
<td>42 Hospitality</td>
<td>9 000</td>
</tr>
<tr>
<td>43 Other contractual services</td>
<td>44 932</td>
</tr>
<tr>
<td>44 Freight and other transportation costs</td>
<td>33 794</td>
</tr>
<tr>
<td><strong>Total — Chapter 40</strong></td>
<td><strong>218 918</strong></td>
</tr>
</tbody>
</table>

#### Chapter 50 Supplies and Materials

<table>
<thead>
<tr>
<th>Item</th>
<th>1966 Estimated Expenditure (US$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>51 Printing</td>
<td>2 750</td>
</tr>
<tr>
<td>52 Visual materials</td>
<td>54 791</td>
</tr>
<tr>
<td>53 Supplies</td>
<td>81 305</td>
</tr>
<tr>
<td><strong>Total — Chapter 50</strong></td>
<td><strong>138 846</strong></td>
</tr>
</tbody>
</table>

#### Chapter 60 Fixed Charges and Claims

<table>
<thead>
<tr>
<th>Item</th>
<th>1966 Estimated Expenditure (US$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>62 Insurance</td>
<td>14 040</td>
</tr>
<tr>
<td><strong>Total — Chapter 60</strong></td>
<td><strong>14 040</strong></td>
</tr>
</tbody>
</table>

#### Chapter 80 Acquisition of Capital Assets

<table>
<thead>
<tr>
<th>Item</th>
<th>1966 Estimated Expenditure (US$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>81 Library books</td>
<td>9 682</td>
</tr>
<tr>
<td>82 Equipment</td>
<td>114 704</td>
</tr>
<tr>
<td><strong>Total — Chapter 80</strong></td>
<td><strong>124 386</strong></td>
</tr>
</tbody>
</table>

**TOTAL — SECTION 5** 3 147 385

#### SECTION 7: OTHER STATUTORY STAFF COSTS

### Chapter 10 Personal Allowances

<table>
<thead>
<tr>
<th>Item</th>
<th>1966 Estimated Expenditure (US$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>11 Repatriation grant</td>
<td>70 955</td>
</tr>
<tr>
<td>12 Pension fund</td>
<td>2 100 688</td>
</tr>
<tr>
<td>13 Staff insurance</td>
<td>194 387</td>
</tr>
<tr>
<td>14 Representation allowance</td>
<td>23 400</td>
</tr>
<tr>
<td>15 Other allowances</td>
<td>4 931 521</td>
</tr>
<tr>
<td><strong>Total — Chapter 10</strong></td>
<td><strong>7 321 151</strong></td>
</tr>
</tbody>
</table>

#### Chapter 20 Travel and Transportation

<table>
<thead>
<tr>
<th>Item</th>
<th>1966 Estimated Expenditure (US$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>23 Travel on initial recruitment and repatriation</td>
<td>201 207</td>
</tr>
<tr>
<td>24 Travel on home leave</td>
<td>1 055 571</td>
</tr>
<tr>
<td>27 Transportation of personal effects</td>
<td>57 675</td>
</tr>
<tr>
<td>28 Installation per diem</td>
<td>82 363</td>
</tr>
<tr>
<td><strong>Total — Chapter 20</strong></td>
<td><strong>1 396 816</strong></td>
</tr>
</tbody>
</table>

#### Chapter 60 Fixed Charges and Claims

<table>
<thead>
<tr>
<th>Item</th>
<th>1966 Estimated Expenditure (US$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>61 Reimbursement of income tax</td>
<td>96 523</td>
</tr>
<tr>
<td><strong>Total — Chapter 60</strong></td>
<td><strong>96 523</strong></td>
</tr>
</tbody>
</table>

**TOTAL — SECTION 7** 8 814 490

**TOTAL — PART II** 38 121 884

### PART III: ADMINISTRATIVE SERVICES

#### SECTION 8: Administrative Services

### Chapter 00 Personal Services

<table>
<thead>
<tr>
<th>Item</th>
<th>1966 Estimated Expenditure (US$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>01 Salaries and wages (temporary staff)</td>
<td>40 940</td>
</tr>
<tr>
<td><strong>Total — Chapter 00</strong></td>
<td><strong>40 940</strong></td>
</tr>
</tbody>
</table>

#### Chapter 20 Travel and Transportation

<table>
<thead>
<tr>
<th>Item</th>
<th>1966 Estimated Expenditure (US$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>25 Travel and subsistence of members</td>
<td>139 200</td>
</tr>
<tr>
<td><strong>Total — Chapter 20</strong></td>
<td><strong>139 200</strong></td>
</tr>
</tbody>
</table>

#### Chapter 40 Other Services

<table>
<thead>
<tr>
<th>Item</th>
<th>1966 Estimated Expenditure (US$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>43 Other contractual services</td>
<td>20 700</td>
</tr>
<tr>
<td><strong>Total — Chapter 40</strong></td>
<td><strong>20 700</strong></td>
</tr>
</tbody>
</table>

#### Chapter 50 Supplies and Materials

<table>
<thead>
<tr>
<th>Item</th>
<th>1966 Estimated Expenditure (US$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>51 Printing</td>
<td>57 500</td>
</tr>
<tr>
<td><strong>Total — Chapter 50</strong></td>
<td><strong>57 500</strong></td>
</tr>
</tbody>
</table>

#### Chapter 60 Fixed Charges and Claims

<table>
<thead>
<tr>
<th>Item</th>
<th>1966 Estimated Expenditure (US$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>62 Insurance</td>
<td>2 760</td>
</tr>
<tr>
<td><strong>Total — Chapter 60</strong></td>
<td><strong>2 760</strong></td>
</tr>
</tbody>
</table>

**TOTAL — SECTION 6** 261 100

### Chapter 30 Space and Equipment Services

<table>
<thead>
<tr>
<th>Item</th>
<th>1966 Estimated Expenditure (US$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>31 Rental and maintenance of premises</td>
<td>118 700</td>
</tr>
<tr>
<td>32 Rental and maintenance of equipment</td>
<td>38 100</td>
</tr>
<tr>
<td><strong>Total — Chapter 30</strong></td>
<td><strong>156 800</strong></td>
</tr>
</tbody>
</table>
### ANNEX 12

#### Chapter 40: Other Services

<table>
<thead>
<tr>
<th>Service</th>
<th>Estimated Obligations US $</th>
</tr>
</thead>
<tbody>
<tr>
<td>41 Communications</td>
<td>93,050</td>
</tr>
<tr>
<td>42 Hospitality</td>
<td>4,500</td>
</tr>
<tr>
<td>43 Other contractual services</td>
<td>52,558</td>
</tr>
<tr>
<td>44 Freight and other transportation costs</td>
<td>18,470</td>
</tr>
<tr>
<td><strong>Total - Chapter 40</strong></td>
<td><strong>168,578</strong></td>
</tr>
</tbody>
</table>

#### Chapter 50: Supplies and Materials

<table>
<thead>
<tr>
<th>Material</th>
<th>Estimated Obligations US $</th>
</tr>
</thead>
<tbody>
<tr>
<td>51 Printing</td>
<td>1,100</td>
</tr>
<tr>
<td>52 Visual materials</td>
<td>71,700</td>
</tr>
<tr>
<td>53 Supplies</td>
<td>35,710</td>
</tr>
<tr>
<td><strong>Total - Chapter 50</strong></td>
<td><strong>108,510</strong></td>
</tr>
</tbody>
</table>

#### Chapter 60: Fixed Charges and Claims

<table>
<thead>
<tr>
<th>Item</th>
<th>Estimated Obligations US $</th>
</tr>
</thead>
<tbody>
<tr>
<td>61 Reimbursement of income tax</td>
<td>11,996</td>
</tr>
<tr>
<td><strong>Total - Chapter 60</strong></td>
<td><strong>11,996</strong></td>
</tr>
<tr>
<td><strong>Total - Section 9</strong></td>
<td><strong>764,749</strong></td>
</tr>
<tr>
<td><strong>Total - Part III</strong></td>
<td><strong>3,145,916</strong></td>
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</table>

### PART IV: OTHER PURPOSES

#### Section 10: Headquarters Building Fund

<table>
<thead>
<tr>
<th>Chapter 80: Acquisition of Capital Assets</th>
</tr>
</thead>
<tbody>
<tr>
<td>83 Land and buildings</td>
</tr>
<tr>
<td><strong>Total - Chapter 80</strong></td>
</tr>
<tr>
<td><strong>Total - Part IV</strong></td>
</tr>
<tr>
<td><strong>Sub-Total - Parts I, II, III and IV</strong></td>
</tr>
</tbody>
</table>

### PART V: RESERVE

#### Section 11: Undistributed Reserve

<table>
<thead>
<tr>
<th>Section 11: Undistributed Reserve</th>
<th>2,615,590</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total - Section 11</strong></td>
<td><strong>2,615,590</strong></td>
</tr>
<tr>
<td><strong>Total - Part V</strong></td>
<td><strong>2,615,590</strong></td>
</tr>
<tr>
<td><strong>Total - All Parts</strong></td>
<td><strong>45,057,590</strong></td>
</tr>
</tbody>
</table>

#### Less:

- Reimbursement from the Special Account of the Expanded Programme of Technical Assistance | 985,000 |
- Less: Casual Income
  - Assessments on new Members from previous years | 34,700 |
  - Miscellaneous income | 517,300 |
  - **Total - Casual Income** | **552,000** |
  - **Total - Deductions** | **1,537,000** |
  - **Total - Assessments on Members** | **43,520,590** |
Annex 13

REPORT ON OPERATIVE PARAGRAPH 2 OF RESOLUTION WHA17.50 ¹

1. In the second operative paragraph of resolution WHA17.50 on meetings of the Regional Committee for Africa, the Seventeenth World Health Assembly at its twelfth plenary meeting on 19 March 1964 requested “the Executive Board and the Director-General to submit to the Eighteenth World Health Assembly formal proposals with a view to the suspension or exclusion from the Organization of any Member violating its principles and whose official policy is based on racial discrimination”.

2. This item was discussed by the Executive Board at its thirty-fourth session. The Board was unable to reach any decision and it was agreed that the representatives of the Board should so report to the Health Assembly.

3. The Director-General, by circular letter of 20 July 1964, transmitted the minutes of the discussions of the Executive Board on this matter to Members and, at the same time, drew their attention to the provisions of Article 73 of the Constitution and informed them that, in order to permit him to communicate the texts of proposed amendments to Members within the time-limit required by Article 73, any such proposed amendments should reach him not later than Wednesday, 28 October 1964.

4. The text of this letter and an extract from the minutes of the sixth meeting of the thirty-fourth session of the Executive Board concerning action required under operative paragraph 2 of resolution WHA17.50 are reproduced below.

Appendix

CIRCULAR LETTER C.L.30.1964, DATED 20 JULY 1964, FROM THE DIRECTOR-GENERAL OF WHO TO MEMBER STATES

I have the honour to refer to the discussions which took place in the Executive Board at its thirty-fourth session concerning action required under operative paragraph 2 of resolution WHA17.50.

In examining this item, the Executive Board had before it documents EB34/7, EB34/7 Add.¹ ² and EB34/27,² which had been distributed to members of the Board as well as to all States Members and Associate Members of the Organization, in advance of the session, in accordance with the usual practice.

The Executive Board did not reach any conclusion as a result of its deliberations, other than that the representatives of the Board in their report should inform the Health Assembly that the Board had been unable to reach any decision. The discussion on the item is contained in the minutes of the sixth meeting of the Board at its thirty-fourth session (document EB34/Min/6 Rev.1), of which an extract is attached.

As the Executive Board was not able to reach any decision on the proposals before it, including those for the amendment of the Constitution, I do not believe myself to be in a position to make any suggestion at this time. I wish to take this occasion, however, to draw your attention to the provisions of Article 73 of the Constitution, which reads as follows:

Article 73

Texts of proposed amendments to this Constitution shall be communicated by the Director-General to Members at least six months in advance of their consideration by the Health Assembly. Amendments shall come into force for all Members when adopted by a two-thirds vote of the Health Assembly and accepted by two-thirds of the Members in accordance with their respective constitutional processes.

In order to permit me to communicate the texts of proposed amendments to Members within the time-limit required by this Article, any such proposed amendments should reach me not later than Wednesday, 28 October 1964.

EXTRACT FROM THE MINUTES OF THE SIXTH MEETING³ OF THE THIRTY-FOURTH SESSION OF THE EXECUTIVE BOARD

2. Action required under Operative Paragraph 2 of Resolution WHA17.50: Item 6.1 of the Agenda (Documents EB34/7, EB34/7 Add.¹ ² and EB34/27²)

Mr SIEGEL, Assistant Director-General, introducing the item, drew attention to the report by the Director-General on action

¹ See resolution WHA18.40.
² Reproduced in part II of this annex (pp. 141-143).
³ Held on 28 May 1964.
proposals with a view to the suspension or exclusion from the Organization of any Member violating its principles and whose official policy was based on racial discrimination.

The exchange of correspondence between the Secretary-General of the United Nations and the Director-General concerning the matter was contained in document EB34/7 Add.1. Dr Tchounou, expressed appreciation to the Director-General for having provided all the necessary documentation, thus making it possible to arrive at a fuller understanding of why the World Health Assembly had adopted resolution WHA17.50. In his view, the matter under discussion was a simple one, since the Board was in no way required to reconsider any decision by the World Health Assembly, but merely to implement the decision taken by the supreme organ of WHO. Indeed, to revert to the substance of the question would be tantamount to denying the authority of the Health Assembly over the Executive Board. Accordingly, it was the task of the Executive Board to comply with operative paragraph 2 of that resolution and to submit formal proposals with a view to the suspension or exclusion from the Organization of any Member violating its principles and whose official policy was based on racial discrimination.

Dr El-Borai recalled the events that had led to the adoption by the World Health Assembly of the resolution which the Executive Board was now required to apply. The South African delegation to the World Health Assembly had, by its withdrawal, shown that it did not intend to give up its abhorred policy of apartheid. The letter from the Secretary for Health of the Republic of South Africa which was contained in document EB34/27 showed no spirit of goodwill, nor any departure from the attitude taken at the Seventeenth World Health Assembly. The Executive Board should therefore carry out its obligations in accordance with paragraph 2 of resolution WHA17.50.

Professor Geric agreed with the previous speakers that the matter was a straightforward one in that the Executive Board was required to follow the directives established by the World Health Assembly and to make formal proposals along the lines laid down in the resolution. The World Health Assembly was authorized under the Constitution to take all decisions necessary to the life of the Organization. It did not appear that the Director-General had as yet put forward to the Board any formal proposals. The Board should carry out that task in conjunction with the Director-General.

Professor Zdanov considered that any formal resolution which might be decided upon in connexion with the implementation of paragraph 2 of resolution WHA17.50 should lay stress on both the considerations laid down in that paragraph—namely, violation of the principles of the Organization, and an official policy based on racial discrimination.

Dr Evang believed that the absence hitherto of any draft resolution from either a member of the Executive Board or the Director-General reflected the concern felt by all that any change of the Constitution was a serious matter. Speaking from his own experience during the original drafting of the Constitution in 1946, he recalled that there had been general agreement with the view that, WHO being a technical body, there was no necessity for the Constitution to provide any clause for expulsion of a Member State. Nevertheless, it had been felt that a Member State of WHO, whether or not it was a Member of the United Nations, might bring itself into such a relationship to WHO that some heavy punishment was called for on purely medical or medico-ethical grounds. Dr Chisholm had mentioned bacteriological warfare as one example; other technical reasons, such as disregard of quarantine regulations, could be invoked. Article 7 of the Constitution was intended to cover that situation: it had been generally felt that suspension of voting rights and removal of services constituted adequate punishment, and that there should be no provision for expulsion. As he had said, such sanctions were intended to be taken for medical, ethical or technical reasons rather than political ones, but there could of course always be political implications arising in connexion with many technical matters; for example, in regard to venereal disease control, a subject on which the Board had had a lengthy discussion, it was impossible to take any technical measures that did not have political and economic repercussions.

He believed that Article 7 was adequate to meet the present position in respect of South Africa, and would therefore submit the following draft resolution for the consideration of the Board:

The Executive Board,
Considering operative paragraph 2 of resolution WHA17.50;
Considering that the case which gave rise to resolution WHA17.50 is adequately covered under Article 7 of the Constitution;
Considering further that, under the provisions of Article 7 of the Constitution, the Health Assembly has the authority to impose sanctions upon any Member that does not respect its constitutional obligations;
Considering that the imposition of additional sanctions or the expulsion of a Member is highly undesirable in view of the objectives of a health organization and may moreover remove the Member concerned from those pressures of general opinion which may assist in securing a return to the fulfilment of obligations; and
Considering Article 28(e) of the Constitution, under which one of the functions of the Board is to submit advice or proposals to the Health Assembly on its own initiative,
RECOMMENDS that no further action be taken with a view to providing for the suspension or expulsion of any Member State.

Sir George Godber considered that the view expressed by the previous speaker to the effect that the Constitution should not be lightly tampered with was of the utmost importance. That requirement was safeguarded by the operative paragraph of the draft resolution submitted by Dr Evang, and he would therefore support it.

Dr Dolo emphasized that in paragraph 2 of resolution WHA17.50 the World Health Assembly had assigned to the Executive Board a specific task which it could not evade. He called attention to Article 28(e) of the Constitution which provided that one of the functions of the Board should be to give effect to the decisions and policies of the Health Assembly. The Director-General was to be commended on the full background documentation which he had provided and which

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1 Reproduced in part II of this annex (p. 141).
2 Reproduced in part II of this annex (p. 142).
was warranted by the importance of the subject under consideration. He was, however, surprised at the brevity of the actual report of the Director-General and at the fact that no specific suggestions had been made therein. Members of the Board were after all experts in health matters, not in law, and it seemed to him that the legal experts of the Secretariat could have supplied a fuller study of the matter and a number of suggestions.

As Professor Ždanov had pointed out, both the letter and the spirit of paragraph 2 of resolution WHA17.50 should be respected. It was an undoubted fact that the policy of apartheid harmed all aspects of the health of the population.

The Board should take action in accordance with the instructions given it and not shirk that responsibility.

Mr Bauer, alternate to Dr Layton, said that he would not comment at the present juncture on the substance of the question. The observations made by Dr Evang were worthy of extremely careful consideration.

In passing, he was inclined to question the asserted supremacy of the World Health Assembly over the Executive Board; it would be difficult, indeed, to find any constitutional provision to justify that. The Health Assembly was a fundamentally political body whereas members of the Executive Board served in a purely personal capacity. Under Article 28, the functions of the Board were not only to give effect to the decisions and policies of the Health Assembly but also to advise the Health Assembly on questions referred to it by that body.

Referring to the exchange of correspondence between the Secretary-General of the United Nations and the Director-General, contained in document EB34/7 Add.1, he stressed the desirability of attaching due weight to the opinion expressed by the Secretary-General of the United Nations, which body was after all primarily political and was therefore more experienced in dealing with matters of the type under consideration than was WHO as a medical organization.

Dr Andriamasy considered that the essential point at issue was that the Executive Board was required to follow to the letter the instructions given it under the resolution adopted by the World Health Assembly and that that task would have to be accomplished by some means or other. The provisions of the Constitution of the United Nations and the Director-General, contained in document EB34/7 Add.1 were not necessarily to be considered as conclusive when studying the problem which was at present before WHO and on which the Eighteenth World Health Assembly would be expecting "formal proposals" from the Board. It might be true that all roads led to Rome, but what mattered was actually getting to Rome.

Mr Bauer agreed with the previous speaker that WHO was in no way bound to follow the example of UNESCO's legal provisions. The important point raised by the Secretary-General of the United Nations to which he himself had intended to draw particular attention was the need for the organizations in the United Nations family to avoid divergent action in matters of that kind gravely affecting their constitutional processes.

Dr Alan said that at World Health Assemblies he had always supported the principle that WHO, as a technical and humanitarian organization, should avoid political issues. As Mr Bauer had observed, Assemblies had a somewhat political character, being attended by representatives of governments. The members of the Executive Board, however, were not government representatives and the Board was a technical body, not a political organ of the Assembly. Every effort should be made, at least in the Board, to avoid discussing political problems and to keep to technical matters. He would therefore support Dr Evang's proposal.

1 Reproduced in part II of this annex (p. 142).
In his opinion, the functions in sub-paragraphs (a), (b) and (c) of Article 28 and those in sub-paragraph (e) were alternative possibilities open to the Board. The Board undoubtedly had to give effect to the decisions and policies of the Health Assembly, and it had to perform other functions entrusted to it by the Health Assembly. If, however, the Board felt that there were compelling reasons for it to recommend to the Health Assembly some other course of action—which was what Dr Evang had proposed—he would think that the Board was entirely free to do so: to submit advice or proposals to the Health Assembly on its own initiative. It should be stressed, however, that in doing so the Board would be taking the position that the course of action which the Health Assembly wished it to carry out was not a suitable one, and the Board would therefore have to take full responsibility for its action and bear the consequences.

The Chairman said that the Board should be guided by the Legal Adviser’s opinion that it could act on its own initiative but would have to bear the consequences. He invited the Board to consider the following draft resolution, proposed by Dr Andriamasy, Dr Dolo, Dr Karefa-Smart and Dr Tchoungni, which had now been circulated:

The Executive Board,

Considering resolution WHA17.50,

RECOMMENDS that the Eighteenth World Health Assembly adopt the following resolution:

The Eighteenth World Health Assembly,

Desirous of ensuring at all times the best possible functioning of the various organs of the World Health Organization, so as to achieve the attainment by all peoples of the highest possible level of health;

Considering that there should consequently be no obstacle in the way of attaining its aims; and

Noting that there is no special provision for depriving of membership a State which, in violation of the principles of the Organization, practises a policy of racial discrimination,

DECIDES to amend the Constitution by the addition of the following Article:

Article 7 bis

If a Member ignores the humanitarian principles and the objectives laid down in the Constitution, and deliberately practises a policy of racial discrimination, the Health Assembly may suspend it or exclude it from the World Health Organization.

Nevertheless, its rights and privileges, as well as its membership, may be restored by the Health Assembly on the proposal of the Executive Board following a detailed report proving that the State in question has renounced the policy of discrimination which gave rise to its suspension or exclusion.

Dr Evang said that despite the opinion of the Legal Adviser he was willing to go a long way to meet the members who felt that some action should be taken; he would like to try to combine his own draft resolution with the one just submitted. An important point in resolution WHA17.50 was that it referred to the “suspension or exclusion” of any Member violating the Organization’s principles, so that the Board was free to make proposals for suspension alone, for exclusion alone, or for suspension and exclusion. His own draft resolution was not intended to alter the Constitution on the basic point of exclusion. He therefore proposed a number of amendments, which were incorporated in the following revised draft:

The Executive Board,

Considering operative paragraph 2 of resolution WHA17.50;

Considering further that, under the provisions of Article 7 of the Constitution, the Health Assembly has the authority to impose sanctions upon any Member that does not respect its constitutional obligations; and

Considering that the imposition of additional sanctions or the expulsion of a Member is highly undesirable in view of the objectives of a health organization and may moreover remove the Member concerned from those pressures of general opinion which may assist in securing a return to the fulfilment of obligations,

1. RECOMMENDS that the World Health Assembly consider amending Article 7 of the Constitution to read as follows:

Article 7

If a Member fails to meet its financial obligations to the Organization or in other exceptional circumstances, including violation of the principles of the Constitution of the World Health Organization, as, for example, the practising of an official health policy based on racial discrimination, the Health Assembly may, on such conditions as it thinks proper, suspend the voting privileges and services to which a Member is entitled. The Health Assembly shall have the authority to restore such voting privileges and services;

and

2. RECOMMENDS that no further action be taken with a view to providing for the expulsion of any Member State.

Sir George Godber presented the following draft resolution, which he was submitting jointly with Professor Aujauleu, Dr Layton, Professor Muntendam, Dr Prieto and Mr Zohrab, alternate to Dr Turbott:

The Executive Board,

Considering operative paragraph 2 of resolution WHA17.50;

Considering the letter dated 15 May 1964 from the Secretary-General of the United Nations to the Director-General of the World Health Organization; and

Considering the provisions of Article 73 of the Constitution,

1. PROPOSES the following amendments to Chapter III of the Constitution of the World Health Organization:

Article 7 — Delete and replace by

Article 7

(a) The Health Assembly may, on such conditions as it thinks proper and by a two-thirds vote:

(i) suspend from the exercise of the rights and privileges of membership of the Organization any Member which has been suspended from the exercise of the rights and privileges of membership of the United Nations;

(ii) expel from the Organization any Member which has been expelled from the United Nations.

(b) If a Member fails to meet its financial obligations to the Organization, the Health Assembly may, on such conditions as it thinks proper, suspend the voting privileges and services to which a Member is entitled.

(c) The Health Assembly shall have the authority to restore any rights, privileges and services suspended pursuant to this Article.

1 The words in italics indicate the amendment by way of addition to this Article.
2. requests the Director-General to communicate the text of these proposed amendments to Members of the Organization.

He had preferred Dr Evang's original proposal, but the amendments had taken away its merits. Any proposals by the Board for amending the Constitution would have to be governed by the United Nations Secretary-General's advice, which had been reiterated in his correspondence with the Director-General since the Seventeenth World Health Assembly. The draft resolution supported the view its sponsors had advanced on other occasions that WHO should follow the United Nations line in any disciplinary action against its Members. UNESCO had done so, but had gone further than was proposed in the draft resolution, for it had taken as virtually mandatory on itself any action by the United Nations General Assembly to expel a Member.

The draft resolution provided that the Health Assembly could, by a two-thirds majority, suspend from exercising rights and privileges in the Organization any Member which had been suspended from exercising the rights and privileges of the United Nations, or expel from the Organization any Member which had been expelled from the United Nations. It represented a clear cleavage of view with the supporters of Dr Evang's draft resolution, but was based on a principle which its sponsors firmly maintained.

Dr KAREFA-SMART said that the new draft resolution seemed to be based on the references in document EB34/7 Add.1 to the correspondence between the Secretary-General of the United Nations and the Director-General. The Board appeared to be seeking written precedents. As one of the four representatives of the thirty-four African countries, he had been a member of the delegation sent by the Governing Body of ILO to the Secretary-General of the United Nations on the question of the South African Government's apartheid policy. The Secretary-General had stated very clearly that he hoped the members of the United Nations family would not act against one another in a very important matter with political implications: he had deliberately referred to "divergent" action. But there was nothing in what he had said to the ILO delegation or written to the Director-General which stated that action could not be taken—provided it was not divergent action—before the United Nations itself had acted. If that were so, the action already taken by two other specialized agencies would be wrong, for nothing had yet been done by the United Nations—though he believed it would not be long before the United Nations moved to suspend or expel South Africa.

The question was one of emphasis: it was not that WHO should not act until the United Nations had done so, but that it should not act in a way that was divergent from action taken by other members of the United Nations family.

Sir George GODBER remarked that divergent action was action going in different directions. If WHO took the action proposed before any action had been taken by the United Nations, it would be going in a different direction because the United Nations was not moving at all.

Mr BAUER, alternate to Dr Layton, pointed out that no specialized agency had as yet taken any decision. There had been proposals before the Food and Agriculture Organization but they had not been adopted. A proposal was now before the International Labour Organization but the ILO Conference had not yet acted on it. The Constitutions of those two organizations had not yet been changed and it would be hard to predict if and when they were likely to be.

Dr EVANG thanked Sir George Godber for his readiness to support his original draft resolution. It would be clear from what he had already said that he was unable to support the draft resolution presented by Sir George. There were three main reasons. In the first place he was opposed to any modification of the Constitution which would make it possible to expel or exclude a Member of WHO. Because of its special technical character, WHO should be the specialized agency to pioneer in the field of universality.

Secondly, if the amendment were adopted, the technical non-political character of WHO would be greatly weakened—which he was sure would be defeating the purpose of those who proposed such action. If, for example, a Member of WHO which was also a Member of the United Nations violated WHO's Constitution—for instance by violating the principles of the quarantine regulations—WHO would be prevented from taking disciplinary action unless similar action had previously been taken by the United Nations, but the technical criteria for WHO action would not be valid for United Nations action.

Thirdly, if the amendment were adopted, WHO would be prevented from taking disciplinary action against Members which were not Members of the United Nations.

Dr FAUCHER wondered whether sub-paragraph (b) was relevant, since it concerned a matter which had been dealt with at the previous meeting.

Professor ZDANOV endorsed Dr Dolo's comments. Operative paragraph 2 of resolution WHA17.50 set firm directives. It was generally agreed that there was no reason to reject them, and the Board must therefore carry them out. The paragraph clearly called for an amendment of the Constitution to cover the violation of its principles through a policy of racial discrimination. It was precisely that that was omitted from the draft resolution. As had been stated, WHO was a universal organization with a wider membership than the United Nations. It was illogical, therefore, to compare the WHO Constitution with the United Nations Charter. The draft resolution would not meet the directives set by the World Health Assembly.

Dr AMOUZEGAR said that he could not support the new draft resolution because it was contrary to action already taken by the World Health Assembly. Article 29 of the Constitution, which stated that the Board should exercise the powers "delegated to it" by the Health Assembly, was the only reference to the Board's powers. The Assembly had already applied Article 7 of the Constitution in the suspension of a Member's voting rights, yet the draft resolution proposed a reversal of that action by making the suspension of voting rights and privileges contingent on United Nations action.

Dr SUBANDRIO wished to join the members who were opposed to the draft resolution.

Professor AUJALEU said that, though a co-signatory and supporter of the draft resolution, he nevertheless realized that there might be a majority in favour of another proposal. If so, it might at least be possible to prevent that majority from making certain mistakes, and to that end he would point out that when reference was made in a constitutional text to the violation of humanitarian principles and aims laid down in the Constitution—as in the case of the other draft resolutions
before the Board—the effect was weakened by citing examples. Racial discrimination was only one form of violation of the Constitution. Other violations of the humanitarian principles of the United Nations Charter and the WHO Constitution, such as forced labour, or even slavery, might well occur at some future date.

Dr Escobar-Ballestas said that the real difficulty lay in a conflict between the Health Assembly’s wishes and the desirability of carrying them out. There could be no doubt that the Assembly had adopted a formal resolution to apply sanctions to countries whose governments followed a policy of racial discrimination. The Assembly had requested the Board to submit proposals for applying sanctions and the Board would have to fulfill its responsibility, even if it led to undesirable measures. The difficulty for the members of the Board was the expulsion of a Member State from an organization whose aims were humanitarian and not political.

Dr Evang’s amendment to his original draft resolution would seem to reconcile the two problems of meeting the Assembly’s wishes and imposing sanctions on countries whose governments practised racial discrimination.

The Chairman said that there were now three draft resolutions before the Board: the draft resolution presented by four members (Dr Andriamasy, Dr Dolo, Dr Karefa-Smart and Dr TchounGUI), the draft resolution presented by six members (Professor Aujaleu, Sir George Godber, Dr Layton, Professor Muntendam, Dr Prieto and Mr Zohrab, alternate to Dr Turbott), and the new draft resolution presented by Dr Evang replacing his original one. In accordance with Rule 39 of the Rules of Procedure, he proposed to submit them to a vote, taking first the one furthest removed from the proposal first submitted to the Board.

Dr Karefa-Smart said that the Health Assembly resolution asked for proposals from the Director-General as well as from the Board. Had the Director-General any proposals, or did he associate himself with any of the resolutions?

The extract from the minutes of the Executive Board annexed to circular letter No. 30.1964 (reproduced in part I) contains in the second and third paragraphs (see page 137) a reference to an exchange of correspondence between the Secretary-General of the United Nations and the Director-General reproduced in document EB34/7 Add.1 and a communication from the Secretary for Health of the Republic of South Africa, contained in document EB34/27.

For the information of delegates, these documents are reproduced below.

I. Letter, dated 1 May 1964, from the Director-General of WHO to the Secretary-General of the United Nations

I am sending you enclosed a copy in English and in French of document EB34/7 on “Action required under operative paragraph 2 of Resolution WHA17.50”, under which agenda item the Executive Board will have to examine the question of the suspension or exclusion from WHO of a Member State.

The Director-General said that, as the Health Assembly’s request in resolution WHA17.50 had been addressed to “the Executive Board and the Director-General”, he thought that he should wait for the proposals of the Board.

Dr Evang asked if a two-thirds majority would be required for the adoption of any of the three draft resolutions. He also asked if he would be able to reintroduce his original draft resolution in the event of the others not being adopted.

The Chairman replied that a two-thirds majority would be required. He also explained that the original draft resolution could be reintroduced only if the Board agreed by a two-thirds majority to reopen the discussion.

He invited the Board to vote on the draft resolution presented by six members.

Decision: The draft resolution was rejected by 14 votes to 8, with 1 abstention.

The Chairman invited the Board to vote on Dr Evang’s new draft resolution.

Decision: The draft resolution was rejected by 18 votes 2, with 2 abstentions.

The Chairman invited the Board to vote on the draft resolution presented by four members.

Decision: The draft resolution was not adopted, the voting being 12 in favour, 10 against and no abstentions.

The Chairman, on the proposal of Dr Evang, invited the Board to vote on the reopening of the debate.

Decision: The motion to reopen the debate was rejected by 10 votes to 1, with 9 abstentions.

The Chairman suggested that the representatives of the Board should report to the Assembly that the Board had been unable to reach any decision.

It was so agreed.

II

[A18/AFL/6 Add.1 — 13 May 1965]

I recall in this regard that on the occasion of the conversations which took place between you and the delegation of the Governing Body of the International Labour Office in July last year, at which similar issues were discussed, you stated, inter alia, that “... I should like to emphasize how important it is that the organizations in the United Nations family should avoid divergent action in matters of this kind greatly affecting their constitutional processes. I am accordingly confident that full regard will be given by the agencies to whatever position is taken by the principal political organs of the United Nations...”.

In the light of your statement I have felt it to be incumbent on me to draw this matter to your attention and to seek your advice or comments on the issues confronting the Executive Board. While I appreciate that this request is addressed to you at rather short notice, I would be grateful to have your reply in sufficient time to be able to bring it to the attention of the Executive Board, the thirty-fourth session of which opens in Geneva on 26 May 1964.
2. Letter, dated 15 May 1964, from the Secretary-General of the United Nations to the Director-General of WHO

Thank you for your letter of 1 May 1964, bringing to my attention the agenda item, before the forthcoming session of the Executive Board of WHO, concerning resolution WHA17.50 of the Seventeenth World Health Assembly. I understand that, in the proceedings of the Assembly leading up to the adoption of this resolution, reference was made to a statement of mine to a delegation of the Governing Body of the International Labour Office, in July last year. You quote that statement in your letter, and I would like to reiterate it within the context of the agenda item now before the WHO Executive Board as I believe it continues to reflect the interests of the United Nations and of the specialized agencies in a matter of this kind.

In its consideration of resolution WHA17.50, I assume that the Executive Board may necessarily have to consider the possibility of recommending an amendment to the Constitution of WHO to provide for suspension or expulsion of a Member. It will doubtless give due weight to the consideration that such a provision, if recommended, should reflect the close relationship between WHO and the United Nations which is recognized throughout the Constitution of the former. It may also be of assistance to it, in this connexion, to note the corresponding provisions, where they exist, in the Constitutions of other specialized agencies. Paragraphs 4 and 5 of Article II of the Constitution of UNESCO might be of particular interest as these reflect the close relationship between the United Nations and the specialized agencies in matters affecting membership therein. As you are no doubt aware, they provide as follows:

4. Members of the Organization which are suspended from the exercise of the rights and privileges of membership of the United Nations Organization shall, upon the request of the latter, be suspended from the rights and privileges of this Organization.

5. Members of the Organization which are expelled from the United Nations Organization shall automatically cease to be Members of this Organization.

3. Communication from the Secretary for Health of the Republic of South Africa


27th May, 1964.

Mr Director-General,

I have been directed to transmit to you the following communication from the Secretary for Health of the Republic of South Africa.

"I have the honour to refer to the item on the agenda of the current session of the Executive Board arising from the resolution adopted by the World Health Assembly on 19 March 1964, and should be grateful if you would bring the following to the attention of the Executive Board.

The immediate reaction of the South African Government to the adoption of this resolution was set forth in a statement by the South African Prime Minister in the House of Assembly on 26 March 1964, in which he referred to the adoption of resolution WHA17/50 which deprived South Africa of its voting rights as a member of the World Health Organisation. The Prime Minister stated inter alia that this action had been taken solely on political grounds since the Republic had always faithfully fulfilled its obligations of membership, both financially and in respect of medical and technical aid and cooperation. The Government was convinced that this specialised agency, whose founders undoubtedly intended that it should direct its activities exclusively to the promotion of World Health, had thereby acted in contravention of the spirit of its constitution, encroached upon the rights of a founder member, and sacrificed to political expediency the sacred cause of service to humanity in its own special sphere. The Government had however, decided not to withdraw voluntarily from membership of the World Health Organisation, in spite of the provocation which so rightly led its delegation to leave the meeting at which the unjustifiable decision was taken. The Government's decision to maintain its right of membership for as long as is within its power to do so, and to seek to regain its full rights, flows inter alia from the fact that it has, and will always have, a duty and the capacity to cooperate in providing health services to humanity, and does not wish to withdraw itself of its own free will from this particular means of doing so.

Furthermore the Prime Minister also explained that another consideration which influenced the Government in its decision was the fact that so large a number of the founder members of the WHO had clearly appreciated the serious implications of using this Organisation for the purpose of promoting a purely political campaign and that they had therefore endeavoured, and will, we are confident continue to endeavour to retain the technical character of the Organisation in order to pursue the humanitarian purposes for which it was created.

With respect to the first operative paragraph of WHA17/50 the South African Government must
again draw attention to the unconstitutionality of this decision which clearly emerges from the statement by the legal adviser to the World Health Organisation Secretariat presented to the Committee on Administration, Finance and Legal matters at its meeting on 17 March. This statement provided irrefutable evidence that the intention of the framers of the constitution with reference to the phrase "exceptional circumstances" in article 7 was not to include in the category of "exceptional circumstances" any contingencies other than such as are likely to arise from the conduct of biological warfare. Furthermore, the board would be perpetuating the unconstitutionality of the resolution if it proceeds with the task which the resolution has imposed upon it. It is even more relevant in view of the fact that Article 73 of the constitution lays down that the amendment of the constitution is an important matter, requiring a two thirds majority.

With reference to the second operative paragraph of WHA17/50, the South African Government would refer the Executive Board to the outline of its official policy given by the South African delegate to the Committee on Administration, Finance and Legal matters at its meeting on 18 March, and to other statements made by the South African Prime Minister emphasizing that the objective of Government policy is not to maintain racial discrimination but by separate development to insure that the peoples concerned attain freedom from racial domination and racial discrimination and secure human rights, freedom and equality as neighbour nations.

The South African Government must also emphasize that if the World Health Organisation continues to allow its activities to be the subject of intervention and direction for extraneous political purposes in the manner which has led to the adoption of resolution No. WHA17/50, not only will such a development be completely in conflict with both the spirit and the intention of its constitution, but it will lead ultimately and inevitably to a breakdown of the whole system of international scientific and technical collaboration in the field of health which is the first objective of the organisation. For, if an action is once taken against a member-state, on purely political grounds, this can lead to a similar action against other member-states also on purely political grounds, whenever an adventitious majority which may even be a simple majority, can be obtained for the utilization of the World Health Organisation for the promotion of purely political objectives. If this process is continued, the Organisation cannot but fail to lose progressively its scientific and technical identity and its ability to serve mankind in keeping with the humanitarian principles set forth in its constitution.1

Please accept, Mr Director-General, the assurance of my high consideration.

(Signed) C. H. Taljaard
Ambassador
The Director-General,
World Health Organisation,
Palais des Nations,
Geneva

Annex 14

PROPOSED AMENDMENTS TO ARTICLE 7 OF THE CONSTITUTION

The Director-General has the honour to transmit to the Eighteenth World Health Assembly proposals received from the Governments of Chad, Dahomey, Gabon, Guinea, Ivory Coast, Mali, Senegal, Togo, Upper Volta, and from the Governments of the Netherlands and of the United Kingdom of Great Britain and Northern Ireland for the amendment of Article 7 of the Constitution of the World Health Organization.

These proposed amendments to the Constitution of the World Health Organization were received by the Director-General in time to permit their communication to Members of the Organization six months in advance of their consideration by the Health Assembly, in accordance with the provisions of Article 73 of the Constitution and Rule 117 of the Rules of Procedure of the World Health Assembly. Pursuant to these provisions, the proposed amendments were communicated to Members.

1 See resolution WHA18.48.
After the expiry of the time-limit referred to above, communications were received from Cambodia, Cameroon, Lebanon, Mauritania and Rwanda, proposing or supporting the text of amendments similar to certain of those referred to above. These governments were informed that as their proposals were submitted after the expiry of the time-limit referred to in Article 73 of the Constitution it was not possible for the Director-General to communicate them to Members or to transmit them to the World Health Assembly, but that the Health Assembly would be informed of their support for the equivalent proposals already received and communicated to Members.

Appendix

PROPOSED AMENDMENTS TO THE CONSTITUTION

Proposal of the Government of Chad of 27 October 1964, received on 2 November 1964

The World Health Assembly,

Desirous of ensuring at all times the best possible functioning of the various organs of the World Health Organization, so as to achieve the attainment by all peoples of the highest level of health,

Considering that there should consequently be no obstacle in the way of attaining its aims,

Noting that there is no special provision for depriving of membership a State which, in violation of the principles of the Organization, officially practises a policy of racial discrimination,

DECIDES to amend the Constitution as follows:

(a) If a Member fails to meet its financial obligations to the Organization or in any other exceptional circumstances, the Health Assembly may, on such conditions as it thinks proper, suspend the voting privileges and services to which a Member is entitled. The Health Assembly shall have the authority to restore such voting privileges and services.

(b) If a Member ignores the humanitarian principles and the objectives laid down in the Constitution, and deliberately practises a policy of racial discrimination, the Health Assembly may suspend it or exclude it from the World Health Organization.

Nevertheless, its rights and privileges, as well as its membership, may be restored by the Health Assembly on the proposal of the Executive Board following a detailed report proving that the State in question has renounced the policy of discrimination which gave rise to its suspension or exclusion.

Proposal of the Government of Dahomey of 3 October 1964, received on 13 October 1964

Article 7

(a) If a Member fails to meet its financial obligations to the Organization or in any other exceptional circumstances, the Health Assembly may, on such conditions as it thinks proper, suspend the voting privileges and services to which a Member is entitled. The Health Assembly shall have the authority to restore such voting privileges and services.

(b) If a Member ignores the humanitarian principles and the objectives laid down in the Constitution, and deliberately practises a policy of racial discrimination, the Health Assembly may suspend it or exclude it from the World Health Organization.

Nevertheless, its rights and privileges, as well as its membership, may be restored by the Health Assembly on the proposal of the Executive Board following a detailed report proving that the State in question has renounced the policy of discrimination which gave rise to its suspension or exclusion.

Proposal of the Government of Gabon of 13 October 1964, received on 16 October 1964

Article 7 bis

If a Member ignores the humanitarian principles and the objectives laid down in the Constitution, and deliberately practises a policy of racial discrimination, the World Health Assembly may suspend it from the World Health Organization.

Nevertheless, its rights and privileges may be restored by the Health Assembly on the proposal of the Executive Board following a detailed report proving that the State in question has renounced the policy of discrimination which gave rise to its suspension.

Proposal of the Government of Guinea of 1 September 1964, received on 15 September 1964

The World Health Assembly,

Desirous of ensuring at all times the best possible functioning of the various organs of the World Health Organization, so as to achieve “the attainment by all peoples of the highest level of health”;

Considering that there should consequently be no obstacle in the way of attaining its aims;

Noting that there is no special provision for depriving of membership a State which, in violation of the principles of the Organization, officially practises a policy of racial discrimination,

DECIDES to amend the Constitution as follows:

Article 7 bis

If a Member ignores the humanitarian principles and the objectives laid down in the Constitution, and officially practises a policy of racial discrimination, the Health Assembly may suspend it or exclude it from the World Health Organization.

Nevertheless, its rights and privileges, as well as its membership, may be restored by the Health Assembly on the proposal of the Executive Board following a detailed report proving that the State has renounced the policy of discrimination which gave rise to its suspension or exclusion.

Revised Proposal of the Government of Guinea of 12 October 1964, received on 20 October 1964

Article 7

(a) If a Member fails to meet its financial obligations to the Organization or in any other exceptional circumstances, the Health Assembly may, on such conditions as it thinks proper, suspend the voting privileges and services to which a Member is entitled. The Health Assembly shall have the authority to restore such voting privileges and services.

1 Translation from the French original.
(b) If a Member ignores the humanitarian principles and the objectives laid down in the Constitution, and deliberately practises a policy of racial discrimination, the Health Assembly may suspend it or exclude it from the World Health Organization. Nevertheless, its rights and privileges, as well as its membership, may be restored by the Health Assembly on the proposal of the Executive Board following a detailed report proving that the State in question has renounced the policy of discrimination which gave rise to its suspension or exclusion.

Proposal of the Government of the Ivory Coast of 6 October 1964, received on 13 October 1964

Article 7

(a) If a Member fails to meet its financial obligations to the Organization or in any other exceptional circumstances, the Health Assembly may, on such conditions as it thinks proper, suspend the voting privileges and services to which a Member is entitled. The Health Assembly shall have the authority to restore such voting privileges and services.

(b) If a Member ignores the humanitarian principles and the objectives laid down in the Constitution, and deliberately practises a policy of racial discrimination, the Health Assembly may suspend it or exclude it from the World Health Organization. Nevertheless, its rights and privileges, as well as its membership, may be restored by the Health Assembly on the proposal of the Executive Board following a detailed report proving that the State in question has renounced the policy of discrimination which gave rise to its suspension or exclusion.

Proposal of the Government of Mali of 19 October 1964, received on 23 October 1964

Article 7

(a) If a Member fails to meet its financial obligations to the Organization or in any other exceptional circumstances, the Health Assembly may, on such conditions as it thinks proper, suspend the voting privileges and services to which a Member is entitled. The Health Assembly shall have the authority to restore such voting privileges and services.

(b) If a Member ignores the humanitarian principles and the objectives laid down in the Constitution, and deliberately practises a policy of racial discrimination, the Health Assembly may suspend it or exclude it from the World Health Organization. Nevertheless, its rights and privileges, as well as its membership, may be restored by the Health Assembly on the proposal of the Executive Board following a detailed report proving that the State in question has renounced the policy of discrimination which gave rise to its suspension or exclusion.

Proposal of the Government of Senegal of 21 September 1964, received on 21 September 1964

Article 7

(a) If a Member fails to meet its financial obligations to the Organization or in any other exceptional circumstances, the Health Assembly may, on such conditions as it thinks proper, suspend the voting privileges and services to which a Member is entitled. The Health Assembly shall have the authority to restore such voting privileges and services.

(b) If a Member ignores the humanitarian principles and the objectives laid down in the Constitution, and deliberately practises a policy of racial discrimination, the Health Assembly may suspend it or exclude it from the World Health Organization. Nevertheless, its rights and privileges, as well as its membership, may be restored by the Health Assembly on the proposal of the Executive Board following a detailed report proving that the State in question has renounced the policy of discrimination which gave rise to its suspension or exclusion.

Proposal of the Government of Togo of 16 October 1964, received on 19 October 1964

Article 7 bis

(a) If a Member fails to meet its financial obligations to the Organization or in any other exceptional circumstances, the Health Assembly may, on such conditions as it thinks proper, suspend the voting privileges and services to which a Member is entitled. The Health Assembly shall have the authority to restore such voting privileges and services.

(b) If a Member ignores the humanitarian principles and the objectives laid down in the Constitution, and deliberately practises a policy of racial discrimination, the Health Assembly may suspend it or exclude it from the World Health Organization. Nevertheless, its rights and privileges, as well as its membership, may be restored by the Health Assembly on the proposal of the Executive Board following a detailed report proving that the State in question has renounced the policy of discrimination which gave rise to its suspension or exclusion.

Proposal of the Government of Upper Volta of 3 August 1964, received on 7 August 1964

Article 7 bis

If a Member ignores the humanitarian principles and the objectives laid down in the Constitution, and deliberately practises a policy of racial discrimination, the Health Assembly may suspend it or exclude it from the World Health Organization. Nevertheless, its rights and privileges, as well as its membership, may be restored by the Health Assembly on the proposal of the Executive Board following a detailed report proving that the State in question has renounced the policy of discrimination which gave rise to its suspension or exclusion.

Proposal of the Governments of the Netherlands and of the United Kingdom of Great Britain and Northern Ireland of 28 October 1964, received on 28 October 1964

Article 7 — Delete and replace by

Article 7

(a) The Health Assembly may, on such conditions as it thinks proper and by a two-thirds vote:

(i) suspend from the exercise of the rights and privileges of membership of the Organization any Member which has been suspended from the exercise of the rights and privileges of membership of the United Nations;

(ii) expel from the Organization any Member which has been expelled from the United Nations.

(b) If a Member fails to meet its financial obligations to the Organization, the Health Assembly may, on such conditions as it thinks proper, suspend the voting privileges and services to which a Member is entitled.

(c) The Health Assembly shall have the authority to restore any rights, privileges and services suspended pursuant to this Article.

1 Translation from the French original.
Annex 15

SINGLE CONVENTION ON NARCOTIC DRUGS, 1961

REPORT BY THE DIRECTOR-GENERAL

1. Resolution WHA7.6 stipulates that decisions as to the application or interpretation of the international conventions and protocols for the control of narcotic drugs, or future similar instruments, in so far as they concern the World Health Organization, and as to any changes in the functions assigned to it by them shall be taken by the World Health Assembly upon advice given by the Executive Board.

2. The Single Convention on Narcotic Drugs, 1961, entered into force on 13 December 1964 and will replace the existing treaties for international narcotics control. Under the Single Convention the functions of WHO in regard to the placing of drugs under international control will differ essentially from those laid down in the previous treaty instruments.

3. Under the existing conventions WHO decides on the control status of certain drugs notified for that purpose by States Parties to those conventions. Under the Single Convention on Narcotic Drugs, 1961, WHO may in addition take up the case of such drugs also on its own initiative. In contradistinction to the existing conventions the Single Convention, however, provides that WHO has no longer the power of decision, but makes only a recommendation in regard to the status under international control of the drug in question, whereupon the Commission on Narcotic Drugs of the Economic and Social Council may, in accordance with the recommendation of WHO, decide whether the substance shall be added to, or deleted from, the relevant control schedule.

4. The Executive Board considered the above information submitted to it at its thirty-fifth session and decided (in resolution EB35.R33), in order to meet the situation arising out of the coming-into-force of the Single Convention on Narcotic Drugs, 1961, to recommend to the Eighteenth World Health Assembly that it authorize the Director-General to continue to forward to the Secretary-General of the United Nations such notifications as WHO is called upon to make under the Single Convention on Narcotic Drugs, 1961.

Annex 16

MEDICAL RESEARCH: PROPOSAL FOR THE ESTABLISHMENT OF A WORLD HEALTH RESEARCH CENTRE

REPORT BY THE DIRECTOR-GENERAL

1. The Executive Board at its thirty-fifth session considered the report on the proposal for the establishment of a World Health Research Centre which was prepared in pursuance of resolution WHA17.37 of the Seventeenth World Health Assembly requesting continuation of the study of this subject. As a result of its consideration of this proposal, the Board adopted resolution EB35.R29.

2. In this resolution the Board requested the Director-General:

(a) "to explore further the different possibilities of financing and organizing the Centre" — Appendix 1 contains three suggested methods for financing, and the organizational considerations and features of the Centre are contained in Appendix 2;

(b) "to study further the proposal for a laboratory centre for the investigation of adverse reactions caused by drugs and environmental contaminants" — the results of the further study will be submitted to future sessions of the Executive Board and the Health Assembly.

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1 See resolution WHA18.46.
2 See resolution WHA18.43.
3. The Board also decided to transmit the report\(^1\) to the Eighteenth World Health Assembly, drawing attention to the record of its discussion of the subject.\(^3\)

4. The Director-General, in his introductory note to the proposal for the establishment of a World Health Research Centre,\(^8\) recalled that the problem of clinical and pharmacological evaluation of drugs had been discussed extensively in recent years at sessions of the Executive Board and World Health Assembly.\(^4\) The problems of harmful effects of drugs and environmental contaminants have been given special attention by the scientific advisers who participated in the preparation of the World Health Research Centre proposal, and by WHO scientific advisory groups. The recommendations of these scientists, therefore, on the possibility of making a truly effective attack on these problems through the combined techniques of monitoring, epidemiological studies and biomedical research are especially commended for consideration by the Eighteenth World Health Assembly. From experience to date in trying to implement various Executive Board and Assembly resolutions on these problems,\(^4\) and taking account of the recommendations of scientific groups,\(^5\) in addition to those of the groups which participated in the preparation of the World Health Research Centre proposal, it would appear that any lesser steps would be of very limited value.

5. It will be noted that in resolution EB35.R29 the Board considered \(\ldots\) that such a Centre could make very important contributions—that could not be readily achieved otherwise—towards the resolution of major world health problems, notably in epidemiology and in the analysis and handling of health and biomedical information\ldots\).

6. The Eighteenth World Health Assembly has for its consideration information concerning the establishment of the World Health Research Centre, a decisive step in the evolution of WHO which has been under discussion for nearly two years. The scientific portions dealing with the three components to comprise the basis of the Centre are contained in the records of the thirty-fifth session of the Executive Board.\(^3\) As a supplement to the scientific proposal, this report contains the additional material which the Executive Board requested be made available to this Health Assembly which should permit this Assembly to take initial action on these proposals. In addition to this material, the Director-General has annexed to this report a suggested form of resolution\(^4\) to be considered by the Health Assembly, which in the opinion of the Director-General would permit the Organization to commence certain operations envisaged for the Centre on a limited basis pending the consideration by the Executive Board and the Health Assembly of the further studies to be carried out. Such further studies would, as requested by the Executive Board at its thirty-fifth session (resolution EB35.R29) be directed towards the \(\ldots\) proposal for a laboratory centre for the investigation of adverse reactions caused by drugs and environmental contaminants \(\ldots\) and other aspects of the biomedical research component for the World Health Research Centre. Thus, the epidemiology and communications science components would be able to begin to operate in accordance with the proposals contained in the relevant document for consideration by the Eighteenth World Health Assembly.

Appendix I

PROPOSAL FOR THE ESTABLISHMENT OF A WORLD HEALTH RESEARCH CENTRE:
ADMINISTRATIVE AND FINANCIAL ASPECTS

1. General

1.1 In accordance with Article XIII of the Financial Regulations and paragraph 1 of resolution EB35.R29 adopted by the Executive Board at its thirty-fifth session, the broad financial implications of establishing and maintaining a World Health Research Centre and the different possibilities of financing it have been further examined by the Director-General. Furthermore the different possibilities of organizing the Centre have been studied and the Director-General is including recommendations relating thereto.

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\(^{2}\) The following extracts from the minutes of the thirty-fifth session of the Executive Board were annexed to the mimeographed version of this report: EB35/Min/9 Rev. 1, section 2; EB35/Min/10 Rev. 1, section 2; EB35/Min/12 Rev. 1, sections 1 and 4.


\(^{5}\) See, for example, the reports of the Scientific Group on Long-term Effects on Health of New Pollutants (Geneva, 10-16 November 1964), and of the Scientific Group on Monitoring Adverse Drug Reactions (Geneva, 23-28 November 1964).

\(^{6}\) Not reproduced in this volume; but see Off. Rec. Wild Hlth Org. 144, minutes of the thirteenth meeting of the Committee on Programme and Budget, section 2.
1.2 In establishing the estimated obligations shown in the table below (page 149), the Director-General has taken account of the recommendations of the three groups of scientific advisers which met during 1964 and whose reports are reproduced in Official Records No. 140.1

1.3 The following notes are intended to explain the basis on which the estimates in the table have been prepared and the planned development of the Centre during each of the first five years of operation and the projection to the tenth year. These estimates exclude the cost of the land and the buildings, it being assumed that the host country would provide a large part or all of the resources required for these purposes.

2. Recurring Operational Costs

2.1 Personnel

When fully operational, it is expected that the 710 scientific and technical posts shown in the table will be required, to which would be added an appropriate number of clerks and secretaries. It has been assumed that the first year’s operation would be for a period of six months only. The estimates provide for 10 per cent. of the staff requirements in the first year, 25 per cent. in the second, 50 per cent. in the third, 80 per cent. in the fourth, and for the full complement beginning with the fifth year.

2.2 Visits to laboratories and attendance at scientific meetings and conferences

 Provision has been made for travel which is directly related to the phased recruitment pattern. It will provide for the maintenance of close liaison with laboratories throughout the world, and for participation in meetings of scientific groups and conferences.

2.3 Short-term consultants

The estimates include provision for the use of short-term consultants at the Centre.

2.4 Contractual technical services

Estimates for contractual technical services have been made to provide for some financial assistance to laboratories collaborating in research projects.

2.5 Fellowships

It is expected that by the fifth year some 150 working fellowships will be awarded to ensure the provision of highly trained health and biomedical research workers to accelerate research work in the laboratories from which they come. The estimates provide for the award of 15 fellowships in the first year, 45 in the second, 75 in the third, 105 in the fourth, and 150 in the fifth and each subsequent year.

2.6 Other costs

The estimates provide for expendable supplies and replacement of equipment and for the common services and maintenance costs of the Centre.

2.7 Administrative services

Until the precise structure of the Centre has been decided upon, no attempt has been made to establish a staffing plan for the necessary administrative services. Instead, a lump sum representing 11 per cent. of the total recurring costs of the Centre has been added in the first year, and 9 per cent. in the second and each of the subsequent years.

2.8 Computer services

In order to provide for the necessary computer services, an amount of US $300 000 has been included in the second year, US $600 000 in the third, and US $1 200 000 in the fourth and each subsequent year.

3. Capital Costs

3.1 Laboratory and office equipment

It is expected that an amount of US $2 400 000 will be required for the initial capital equipment of the Biomedical Research Laboratory. This amount has been divided equally between the estimates for the first and second years. An amount of US $560 000 for the equipment of the Laboratory of Tropical Medicine has been included in the third year, when it is planned to establish this laboratory. Office equipment has been provided for to meet the requirements of the phased recruitment of staff outlined in paragraph 2.1 above.

4. Scientific and Technical Staff

4.1 In part 2 of the table (page 150) an indication is given of the different levels of scientific and technical staff required for each of the divisions of the Centre.

5. One Method of Financing

5.1 Land and building

It would be expected that the host country to be selected for the Centre would provide for a large part or all of the cost of the land and the buildings necessary for the Centre.

5.2 Capital equipment and operational costs

A separate part of the annual appropriation resolution would be provided to cover the costs for the necessary capital equipment and recurring operational costs. The scale of assessment for financing the regular budget would be applied to this part, as for other parts of the annual appropriation. However, with regard to this part, i.e. the financing of the World Health Research Centre, an arrangement to provide reduction or credits to some Members equivalent to their assessment for this part could be foreseen, or alternatively they could be given credit for some part of their assessment, for example, 90 per cent. Their financial participation would thereby be limited to 10 per cent. of their normal assessment relating to the finances of the World Health Research Centre. Thus, the normal method of assessment would apply for the full membership and a credit system would become effective to relieve certain Members from paying, or to enable them to pay only a small percentage for this part of the regular budget. One method of identifying those Members to have such a reduction would be to apply such reductions to all Members of WHO receiving assistance under the approved Expanded Programme of Technical Assistance for the years 1965-1966.2 This would require that the cost estimates reflected in this part of

2 The following Members of WHO are not receiving assistance under the approved Expanded Programme of Technical Assistance for the years 1965-1966: Australia, Austria, Belgium, Bulgaria, Byelorussian SSR (inactive Member), Canada, Czechoslovakia, Denmark, Federal Republic of Germany, Finland, France, Hungary, Iceland, Ireland, Italy, Japan, Luxembourg, Monaco, Netherlands, New Zealand, Norway, South Africa, Sweden, Switzerland, Ukrainian SSR (inactive Member), Union of Soviet Socialist Republics, United Kingdom of Great Britain and Northern Ireland, and the United States of America. (Information taken from Economic and Social Council document E/TAC/L.335.)
the estimates would need to include an additional amount to cover the credits to be applied to eligible Members.

5.3 Voluntary contributions

It would be envisaged that voluntary contributions from governmental or non-governmental sources would be available (a) to supplement the resources resulting from assessments, and also (b) to provide for specific activities to be carried out by utilizing the facilities of the World Health Research Centre.

6. A Second Method of Financing

6.1 Land and buildings

It would be expected that the host country to be selected for the Centre would provide for a large part or all of the cost of the land and the buildings necessary for the Centre.

6.2 Capital equipment and operational costs

Countries could be given an opportunity to declare their interest and willingness to participate in the financing of the capital equipment and operational costs of the Centre. When it is known which countries have indicated their firm decision to participate in the financing of the Centre, a proportional scale of assessments for those countries could be computed, based on the scale applicable to Members for the regular budget of the Organization. The amounts required annually for the Centre would be financed by contributions from Members that have so contracted, by applying a scale of assessments thus established, after adjustments in the total amounts to take into account resources contributed on a voluntary basis either from governmental or non-governmental sources.

7. A Third Method of Financing

7.1 Land and buildings

It would be expected that the host country to be selected for the Centre would provide for a large part or all of the cost of the land and the buildings necessary for the Centre.

7.2 Capital equipment and operational costs

Provision would be made in the regular budget for the basic capital equipment and operational costs in order to assure continuing operations. The Health Assembly would need to determine what it considers necessary for the basic capital equipment and the basic operational costs to be included in the regular budget.

7.3 Voluntary contributions

It would be envisaged that voluntary contributions from governmental or non-governmental sources would be available to supplement the resources resulting from assessments and also to provide for specific activities to be carried out by utilizing the facilities of the World Health Research Centre.

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**ANNEX 16**

**PROPOSED WORLD HEALTH RESEARCH CENTRE: ESTIMATED REQUIREMENTS**

<table>
<thead>
<tr>
<th>1. Estimated Obligations</th>
<th>1st year</th>
<th>2nd year</th>
<th>3rd year</th>
<th>4th year</th>
<th>5th year</th>
<th>Projection to tenth year (Estimated annual costs)</th>
<th>Total for first ten years</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Recurring Operational Costs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Division of Epidemiology .</td>
<td>145 000</td>
<td>507 000</td>
<td>1 070 000</td>
<td>1707 000</td>
<td>2 209 000</td>
<td>2 900 000</td>
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<tr>
<td>Laboratory of Tropical Medicine .</td>
<td>277 000</td>
<td>1 327 000</td>
<td>2 795 000</td>
<td>4 745 000</td>
<td>5 684 000</td>
<td>5 750 000</td>
<td>43 578 000</td>
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<tr>
<td>Provision to tenth year (Estimated annual costs)</td>
<td>140 000</td>
<td>512 000</td>
<td>1 019 000</td>
<td>1 268 000</td>
<td>1 300 000</td>
<td></td>
<td></td>
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<tr>
<td>Total — Recurring costs</td>
<td>969 000</td>
<td>4 047 000</td>
<td>8 617 000</td>
<td>14 433 000</td>
<td>17 948 000</td>
<td>18 850 000</td>
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2. Capital costs

<table>
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<tr>
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<tr>
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<td>1 287 000</td>
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<td>Total — Capital costs</td>
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<td>1 330 000</td>
</tr>
<tr>
<td>GRAND TOTAL</td>
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<td>5 377 000</td>
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</table>
2. Estimate of Scientific and Technical Staff Required in the Fifth Year

<table>
<thead>
<tr>
<th>Division of Epidemiology</th>
<th>Senior Scientists</th>
<th>Junior Scientists</th>
<th>Technicians</th>
<th>Total</th>
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<tr>
<td>Division of Laboratory of Tropical Medicine</td>
<td>31</td>
<td>25</td>
<td>39</td>
<td>95</td>
</tr>
<tr>
<td>Division of Biomedical Research</td>
<td>11</td>
<td>10</td>
<td>12</td>
<td>33</td>
</tr>
<tr>
<td>Division of Communications Science</td>
<td>84</td>
<td>107</td>
<td>126</td>
<td>317</td>
</tr>
<tr>
<td>Office of the Executive Director</td>
<td>49</td>
<td>75</td>
<td>132</td>
<td>256</td>
</tr>
<tr>
<td>Total</td>
<td>177</td>
<td>217</td>
<td>316</td>
<td>710</td>
</tr>
</tbody>
</table>

Appendix 2

Proposals for the Establishment of a World Health Research Centre: Organizational Aspects

1. General Considerations

1.1 While it would be an integral part of WHO, the Centre must be scientifically autonomous, having an independent scientific council and its own scientific advisory groups. This autonomy is needed in order to ensure two essential requirements for the scientific success of the Centre: (1) the acquisition of world-recognized authorities and other staff on the sole basis of scientific merit and promise; and (2) a flexibility which would provide for freedom to change scientific approaches and emphasis according to advances in knowledge. These considerations, together with budgetary security, must underlie the organizational and administrative policy of the Centre.

1.2 The Director-General, therefore, believes that the organizational arrangements for the World Health Research Centre should be based on the following policy and administrative considerations.

2. Aims and Functions

2.1 The World Health Research Centre should have as its aim the promotion and conduct of research in the field of health, notably by:

(a) conducting research in methodological and theoretical aspects of epidemiology;
(b) conducting research in communications science applicable to the design, analysis and handling of health and biomedical information, and the dissemination of such data;
(c) conducting research on such broad categories of biomedical problems as may be determined from time to time by the Health Assembly;
(d) developing international monitoring systems on disease problems;
(e) serving as a training centre for health and biomedical research workers.

2.2 The specific research activities to be conducted by the Centre should be selected on the basis of: (1) the unique contributions such research could make, along with the resources of WHO, to the solution of major world health problems; and (2) suitability for collaboration with national, regional and international efforts which, alone, could not be expected to attack such problems effectively.

3. Scientific Direction

3.1 In addition to exercising such functions as are assigned to it from time to time by the World Health Assembly or the Executive Board, the scientific direction of the Centre should be the responsibility of the Director of the Centre, with the general guidance of the Scientific Council consisting of fifteen persons appointed solely on the basis of their scientific knowledge and experience.

3.2 The members of the Scientific Council should be appointed initially by the Director-General. Thereafter, they should be appointed by the Director of the Centre in consultation with the Director-General.

3.3 Each of the members of the Scientific Council should serve for a term of three years. However, of the members first appointed, the terms of five members should expire at the end of one year, and the terms of five more members should expire at the end of two years.

3.4 Any member leaving the Scientific Council could only be reappointed after a period of at least one year has elapsed, with the exception of those members whose original term of appointment is one or two years.

3.5 The persons serving on the Scientific Council should not act as representatives of the countries of which they are nationals and should exercise their responsibilities in their personal and scientific capacity as members of the Council. As international experts they should enjoy the privileges and immunities envisaged in Article 67(b) of the Constitution of the Organization and set forth in the Convention on the Privileges and Immunities of the Specialized Agencies and in Annex VII thereof.

3.6 The Scientific Council should adopt its own rules of procedure. These should include the provision that the Council shall not vote on purely scientific questions. If the members of the Council cannot agree on a scientific question, each shall be entitled to retain and express his personal opinion. This statement of opinion shall take the form of an individual or group report which shall state the reasons why a definitive opinion is held.

3.7 The Scientific Council should be authorized to establish research advisory groups to deal with particular aspects of the work of the Centre. The research advisory groups should report to the Scientific Council.

4. Director of the Centre

4.1 The Director of the Centre should be appointed by the Director-General in agreement with the Scientific Council.

4.2 The Director of the Centre should be responsible to the Scientific Council for the scientific activities of the Centre.

4.3 Subject to the authority of the Director-General, the Director of the Centre should be responsible for the administration of the Centre.
5. Programme

5.1 The general programme of the Centre should be drawn up on a five-yearly basis by the Director of the Centre in consultation with the Scientific Council, and should be submitted to the World Health Assembly for consideration and approval, in accordance with the provisions of Article 28(g) of the Constitution.

5.2 The programme of work and budget for each financial year should be drawn up by the Director of the Centre in consultation with the Scientific Council, and should form a part of the Director-General's annual proposed programme and budget estimates, in accordance with Articles 34 and 55 of the Constitution.

6. Budget and Finance

6.1 Provision for the costs of capital equipment and the annual operational costs of the Centre should be included in the annual proposed programme and budget estimates by the Director-General.

6.2 These costs should be included in a separate part of the annual Appropriation Resolution. The Health Assembly each year should determine which Members should have only limited participation in the financing of the Centre and should make provision for credits to those Members in amounts equivalent to ninety (90) per cent. of their assessment for this part of the Appropriation Resolution.¹

6.3 There should be attached to each annual Appropriation Resolution a list of Members showing those fully participating and those participating only in part in the financing of the Centre. At any time any Member may have its name added to the list of fully participating Members.

6.4 Voluntary contributions from governmental or non-governmental sources to help finance the costs of the Centre or for specific purposes could be accepted by the Executive Board, as provided under Article 57 of the Constitution. The Board could delegate this authority to the Chairman of the Executive Board between sessions of the Board. No contribution should be accepted until the Director-General in consultation with the Director of the Centre has determined that the contribution can be utilized within the programme of the Centre.


7.1 The Director-General should report annually to the Health Assembly such rules and amendments thereto as he may make for the effective administration of the Centre, after confirmation by the Executive Board.

7.2 The Director-General, by virtue of the authority vested in him as the chief technical and administrative officer of the Organization, should be authorized to delegate to other officers of the Organization such of his powers as he considers necessary for the effective implementation of the functions of the Centre.

8. Location

The location of the Centre should be determined by the Health Assembly.

Annex 17

PARTICIPATION OF WHO IN AN INTERNATIONAL AGENCY FOR RESEARCH ON CANCER ²

Report by the Director-General

1. The Seventeenth World Health Assembly, in its resolution WHA17.49, after considering the initiative of the Governments of the Federal Republic of Germany, France, Italy, the United Kingdom of Great Britain and Northern Ireland, and the United States of America concerning the establishment of an international agency for research on cancer,³ and the conclusions of the delegates of these countries at the meetings held in Paris in December 1963 and February 1964 concerning the organization, functions and financing of the Agency, authorized the Director-General "to enter into discussions with the countries concerned with a view to the establishment and operation of a World Research Agency for Cancer ", and requested him "to report on the progress of these discussions at the forthcoming sessions of the Executive Board and the World Health Assembly ".

2. Pursuant to this resolution, the Director-General communicated its contents to the five interested governments, drawing their particular attention to operative paragraph 1, which authorized him to enter into discussions with them, and after further consultations a meeting of governmental experts was convened by the Government of France in Paris from 29 September to 2 October 1964. The meeting was attended by representatives of the five governments referred to above.

3. At the meeting, the representatives present agreed upon proposals for a Statute of an International Agency for Research on Cancer to be recommended to their respective governments for submission by them to the Eighteenth World Health Assembly in the form of a resolution under Article 18 of the Constitution of the World Health Organization.

¹ While Appendix 1 contains more than one suggested method of financing, in the opinion of the Director-General the method suggested here is preferable. Should the Assembly consider another method is preferable, this paragraph would need to be revised.

² See resolution WHA18.44.

4. It was further proposed and subsequently agreed that, in the meantime, preparatory meetings should be organized, and that these would comprise, on the one hand, representatives of the governments concerned and of the World Health Organization and, on the other, scientists selected by the governments in consultation with the Director-General. The meetings would be convened with a view to drawing up programmes of work for the future Agency and studying cost breakdown and other related questions. They would be held in Lyons, France. Such additional expenses as might be incurred by WHO consequent upon its furnishing the necessary supporting staff and facilities for the meetings would be borne by the Government of France.

5. The Director-General signified to the five governments concerned his acceptance of the proposals regarding the preparatory meetings, and thereafter a meeting of government representatives was held in Lyons from 16 to 18 February 1965, followed by a meeting of scientists in Lyons from 29 March to 2 April 1965 and a concluding meeting of the government representatives on 5 and 6 April. The meetings were attended by the Director-General and staff members of the World Health Organization, and the meetings of government representatives were in addition attended by a representative of the Government of the Netherlands, who sat as an observer.

6. In the course of the meetings, the representatives of the sponsoring governments adopted conclusions on the development of a programme of work for the projected Agency after consideration of the proposals made by the group of scientists. Under this programme, the work of the Agency would be concentrated upon epidemiology, the training of research workers, and support to research directly in relation with these two activities. The representatives also approved in their final form the draft resolution for the creation of the Agency, and the accompanying Statute.

7. At the request of the five governments concerned, expressed through their representatives at the meeting held in Lyons on 5 and 6 April, and in accordance with the relevant provisions of resolution WHA17.49, as well as the decisions of the Executive Board at its thirty-fourth and thirty-fifth sessions, the Director-General therefore transmits the conclusions and recommendations of the sponsoring governments to the World Health Assembly.

Appendix 1

LIST OF SCIENTISTS WHO ATTENDED THE MEETING FROM 29 MARCH TO 2 APRIL 1965

Professor P. Bucalossi, Director, National Cancer Institute, Milan, Italy
Dr W. R. S.Doll, Head, Medical Research Council Statistical Research Unit, University College Hospital Medical School, London, England (Rapporteur)
Dr K. M. Endicott, Director, National Cancer Institute, Bethesda, Maryland, United States of America
Professor H. Hamperl, Director, Institute of Morbid Anatomy, University of Bonn, Federal Republic of Germany
Professor G. Klein, Head, Tumour Biology Service, Karolinska Institute, Stockholm, Sweden
Professor Hanna Kolodziejska, Director, Institute of Oncology, Cracow, Poland
Professor G. Mathé, Director, Institute of CanceroLOGY and Immunogenetics, Paul Brousse Hospital, Villejuif, France
Dr. D. Metcalfe, Garden Fellow, Department of Cancer Research, Walter and Eliza Hall Institute of Medical Research, Melbourne, Australia
Professor O. Mühlbock, Netherlands Cancer Institute, Amsterdam, Netherlands (Chairman)
Professor L. M. Shabad, Director, Institute of Experimental and Clinical Oncology, Moscow, Union of Soviet Socialist Republics (Vice-Chairman)
Dr R. M. Taylor, National Cancer Institute of Canada, Toronto, Canada
Dr T. Yoshida, Medical Institute of the Sasaki Foundation, Tokyo, Japan

Appendix 2

PROGRAMME OF WORK FOR THE INTERNATIONAL AGENCY FOR RESEARCH ON CANCER

Conclusions of the Delegates of the Sponsoring Countries at the Meeting held on 5 and 6 April 1965

The delegates of the Sponsoring Countries examined proposals made by a group of twelve experts for the development of a programme of work under the draft Statute of the projected International Agency for Research on Cancer. These proposals were based on the principle that provision for research work of the Agency should be concentrated in fields where international collaboration is essential for the development of knowledge. The delegates of the Sponsoring Countries agreed that the future Agency should concentrate its main efforts in the fields of

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1 A list of the scientists who attended the meeting from 29 March to 2 April 1965 is given in Appendix 1. (The scientists were also present during part of the meetings of the government representatives on 5 and 6 April.)

2 See Appendix 2.

3 The text of the Statute is reproduced on page 27.

4 Minutes of the Executive Board, thirty-fourth session (EB34/Min/3 Rev. 1, section 4).

5 Resolution EB35.R36.
epidemiology and training of research workers supplemented by support to research primarily related to these two main activities. It was considered that a first priority should be accorded to epidemiology. This lends itself ideally to concerted international action, since, in particular, there is an urgent need to study abnormally high or low frequencies that may largely be due to social habits and environmental influences in different parts of the world. The recognition of the need to train research workers in the field of cancer led the Sponsoring Countries to accept this as a second activity of the Agency to which priority should be accorded. Here it was considered that the Agency should develop a programme oriented towards the training of scientists for the development of the Agency’s own activities and towards the needs of institutions that would be related to the Agency’s research programme. In the development of the training programme the Agency would study other existing schemes and consult with other organizations to avoid unnecessary duplication.

The Sponsoring Countries recognized furthermore that it would be necessary to include in the programme support to research of different kinds in order to carry out satisfactorily the proposed activities in epidemiology and the programme of education and training.

The delegates also agreed that the Agency should study further the needs for dissemination of unpublished scientific information, and the information needs of research centres in developing countries.

On the assumption of a budget of approximately $2,000,000, and considering the relative importance of the different parts of the programme, the Sponsoring Countries suggested that the following tentative percentage distribution of funds would be appropriate:

<table>
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<th>Activity</th>
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<tr>
<td>Governing bodies</td>
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</tr>
<tr>
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</tr>
<tr>
<td>Epidemiology</td>
<td>34</td>
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<tr>
<td>Education and training</td>
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<tr>
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</tr>
<tr>
<td><strong>Total</strong></td>
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</tr>
</tbody>
</table>

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### Annex 18

**DECISIONS OF THE UNITED NATIONS, SPECIALIZED AGENCIES AND THE INTERNATIONAL ATOMIC ENERGY AGENCY AFFECTING WHO’S ACTIVITIES (PROGRAMME MATTERS)**

**PROGRAMME ACTIVITIES IN THE HEALTH ASPECTS OF WORLD POPULATION WHICH MIGHT BE DEVELOPED BY WHO**

[A18/P&B/4 — 27 April 1965]

**REPORT BY THE DIRECTOR-GENERAL**

At its thirty-fifth session the Executive Board, after considering the decisions of the United Nations, specialized agencies and the International Atomic Energy Agency affecting WHO’s activities on programme matters, adopted resolution EB35.R31. In that resolution the Board noted the fact that in 1965 the Second World Population Conference would be held under the auspices of the United Nations and co-sponsored by a number of specialized agencies including the World Health Organization. Taking into account resolution 1048 (XXXVII) of the Economic and Social Council, the Board requested the Director-General “to report to the Eighteenth World Health Assembly on those programme activities in the health aspects of world population which might be developed by WHO”.

The Director-General accordingly has the honour to submit the following report.

### I. INTRODUCTION

The World Health Organization has, during the last few years, been giving increased attention to the subject of human reproduction. At the invitation of the International Fertility Association, a non-governmental organization in official relations with WHO, the Director-General presented a statement on research in human reproduction at the IVth World Congress on Fertility and Sterility held in Rio de Janeiro in August 1962. In this statement he emphasized in particular that the biology of certain aspects of human reproduction had not been as thoroughly studied and was not as well understood as other aspects of medical science. Clearly, the importance of many medical, biological, social, cultural and economic factors in human reproduction made it a major public health problem.
WHO convened a Scientific Group on the Biology of Human Reproduction in Geneva in April 1963 for the purpose of examining the present state of knowledge and gaps in this field and of advising the Organization on developments and on major research needs in connexion with which WHO could be of assistance. As will be seen from its report, published in 1964,\(^1\) the Scientific Group discussed comparative aspects of the biology of reproduction, neuroendocrine aspects of reproduction, biology of the gonads and gametes, fertilization and gestation, biochemistry of the sex steroids, and the immunological and pharmacological aspects of reproduction. Having made this wide survey of the subject and having considered areas in which knowledge, facilities or support were at present inadequate, the Scientific Group made the following recommendations:

(a) that WHO assist in the development of fundamental knowledge of the biology of human reproduction and of other fields on which that knowledge is based;

(b) that WHO convene meetings of appropriate specialist groups to consider practical methods of implementing the following proposals, which are not arranged in any particular order.

1. **Organization of surveys of:**
   - environmental and ethnic variations in human reproductive function;
   - human fertility in relation to blood groups and other immunological factors.

2. **Provision of services:**
   - the organization of a world-wide collection of human pituitary glands;
   - the establishment of a centre for the provision of labelled steroids, polypeptides, nucleotides, and special amino acids;
   - the establishment of an information centre on steroids and polypeptides;
   - the establishment of an information centre on human cell lines;
   - the establishment of an information and supply centre for new and existing laboratory animals.

3. **Promotion of research on:**
   - the effects of labour on the human foetus;
   - neuroendocrinology, including the effects of psychological factors, normal and abnormal, on human reproduction;
   - protein biosynthesis in prenatal development;
   - the intermediate metabolism of the foetus, especially in the control and development of function;
   - the physiology of the gametes, especially in vitro;
   - the mechanism of action of sex hormones and analogous substances, especially that of orally active progestogens;
   - the physiology of lactation, including galactopoiesis;
   - the biochemistry and microbiology of the female genital tract, with special reference to implantation and feedback;
   - the biochemical aspects of spermatogenesis.

At its fifth session, in June 1963, the Advisory Committee on Medical Research fully endorsed the recommendations contained in this report quoted above and suggested that priority be given to certain of the proposals. In 1964 a contribution of US$500 000 from the United States of America to the Special Account for Medical Research for research in human reproduction made it possible to implement the programme.

The Seventeenth World Health Assembly, meeting in March 1964, had before it the Director-General's report on *The Medical Research Programme of the World Health Organization, 1958-1963*,\(^2\) which (on pages 219-222) refers to research in human reproduction (reproduced, for convenience, in Appendix 2). In its resolution WHA17.36 the Health Assembly noted with appreciation the volume and quality of work accomplished under this programme, expressed its satisfaction with the way the programme was being conducted and requested the Director-General, keeping in mind the discussions that took place during the Seventeenth World Health Assembly, to continue to promote research in the fields of major public health importance.

Thus, with the advice and guidance of the Scientific Group on the Biology of Human Reproduction, the Advisory Committee on Medical Research and the World Health Assembly, a programme of research on human reproduction was developed.

II. PROGRAMME UP TO AND INCLUDING 1965

1. Scientific Groups on Research on the Biology of Human Reproduction

To date, meetings of scientific groups have been held on the following subjects:

(a) Biology of Human Reproduction (2-8 April 1963)

Recommendations contained in the report \(^1\) of this initial scientific group have been dealt with fully in part I above.

(b) The Physiology of Lactation (2-7 December 1963)

The report of the Scientific Group on the Physiology of Lactation \(^2\) was presented to the Advisory Committee on Medical Research at its sixth session in June 1964. The Committee endorsed the recommendations in the report, and suggested that particular emphasis be placed on certain of them. One of the more widely significant recommendations of the group was that WHO “encourage studies on human lactation in relation to malnutrition and undernutrition in developing countries. They should include field studies of breast-feeding patterns in different socio-economic groups, metabolic and endocrinological studies of undernourished nursing mothers, and investigation of the nutritional requirements of the nursing mother.” The Scientific Group recognized that studies on these lines were already under way in some developing countries and recommended that these should receive support and encouragement from WHO.

(c) The Effects of Labour on the Foetus and the Newborn (12-18 May 1964)

The report of the Scientific Group on the Effects of Labour on the Foetus and the Newborn \(^3\) will be presented to the Advisory Committee on Medical Research at its seventh session, in June this year. Important among the recommendations made in it are those which have to do with oxygen consumption of the brain as a whole and of its several component parts. The importance of this becomes obvious in view of conditions of long and involved labour and the tendency of these conditions to produce a state of foetal anoxia. Of great importance will be knowledge of recovery mechanisms of neurones following a state of asphyxia.

(d) Neuroendocrinology and Reproduction in the Human (8-14 September 1964)

The report of the Scientific Group on Neuroendocrinology and Reproduction in the Human \(^4\) will be presented to the Advisory Committee on Medical Research at its seventh session, in June this year. Of practical and current interest is one particular recommendation of this report which states that WHO should consider collecting clinical data relating to the development of disorders of sexual structure and function as early or late consequences of drug treatment during gestation or childhood. A further suggestion relates to the collection of information concerning reproductive and hormonal disorders associated with central nervous system lesion in men and women. These suggestions can be implemented in time and, if findings are judged to be significant, they will be widely disseminated.

(e) Mechanism of Action of Sex Hormones and Analogous Substances, especially the Orally Active Progestogens (8-14 December 1964)

The report of the Scientific Group on Mechanism of Action of Sex Hormones and Analogous Substances \(^5\) will be considered by the Advisory Committee on Medical Research at its seventh session, in June this year. This scientific group, like others, urged support for the training of scientists especially of the developing countries in their own educational and research institutions. A specific recommendation of great potential importance suggests the convening of a group of specialists for the purpose of recommending dose-range for clinical use of active materials in problems of reproduction and fertility. This group of specialists is expected to meet during the summer of 1965. (See also 4(a) below).

(f) The Biochemistry and Microbiology of the Female and Male Genital Tracts (20-26 April 1965)

The report of the Scientific Group on the Biochemistry and Microbiology of the Female and Male Genital Tracts, not yet available in printed form, will also be before the Advisory Committee on Medical Research at its seventh session in June. The Scientific Group gave extensive consideration to the conditions necessary for implantation and discussed conditions that obtain in the uterus when an intra-uterine device is present, i.e. enzymes and

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motility. Among other things, the Scientific Group recommended that WHO urge additional study on uterine physiology in the presence of an inert foreign body.

Two scientific groups are scheduled to meet towards the end of the year to consider the following subjects:

(a) **Immunological Aspects of Human Reproduction**  
(4-9 October 1965)

There are many aspects of immunology that relate to reproduction. Experimental animals can be immunized against the several component parts of semen, the several peptide hormones and some of the steroids. Some findings point to a peptide inhibiting substance which is secreted in the urine of pregnant women. Recommendations of this scientific group are expected to concern immunology as it may relate to fertility and sterility and as a method of controlling fertility and treating sterility.

(b) **The Chemistry and Physiology of the Gametes**  
(2-8 November 1965)

This scientific group will consider the chemical and functional compatibility of the gametes for the formation of a zygote. As in other meetings consideration will be given to those factors which enter into problems of fertility and sterility.

A group of temporary advisers will meet in mid-summer 1965 to consider the priority to be given to and means of implementing recommendations made by the scientific groups which have not so far been pursued in detail.


A bibliography of world literature dealing with ethnic and geographical variations in human reproduction is in preparation. This work which has been contracted out is expected to be completed early in 1966.

In addition a critical review of the available literature on this subject is being undertaken by an expert under contract. It is expected that this review will be completed approximately six months after the bibliography.

3. **Service to Research**

(a) **Establishment of Collections of Human Pituitaries**

The establishment of collections of human pituitaries to assist research workers throughout the world has been embarked upon. A contract has been signed with a commercial biological supply house for the preparation of several hormones from human pituitaries. The co-operation of several Member States is being sought in the collection of post-mortem human pituitaries. It is however impossible at this stage to estimate the progress of this project.

(b) **Information Centre on Steroids and Polypeptides**

A group of advisers has given consideration to the advisability of establishing an information centre on steroids and polypeptides. The study is continuing but it is too soon yet to predict the outcome.

(c) **Information Centre on Human Cell Lines**

The establishment of an information centre on human cell lines has been considered. However, it was decided that, though of theoretical interest, it has little or no possibility of practical achievement.

(d) **Inventory of Research Institutions and Research Scientists working on Human Reproduction**

Work will shortly be beginning on an inventory of scientists and institutions actively engaged on research in human reproduction.

4. **Studies**

(a) **Evaluation of Available Data on Safety of Orally Active Gestogens and their Dose-range**

As already mentioned in 1(e) above, a meeting of experts will be convened shortly to evaluate the safety of orally active gestogens and the dose-range which is most effective clinically. A good deal of data has already been assembled at headquarters for internal use which relates to abortion rates in many countries, the administration of orally active gestogens for fertility control and the use of several common contraceptives.

(b) **Information and Supply Centre for New and Existing Laboratory Animals**

A group of advisers met in London towards the end of 1964 to consider the possible establishment of an information and supply centre for new and existing laboratory animals. To this same end the Organization also gave financial support to a symposium on comparative aspects of reproduction which met in London. Subsequent to these activities discussions were held with the Wellcome Research Laboratories (located at the London Zoo) and it is anticipated that a contract will soon be signed relative to specific studies on, for example, an animal with delayed implantation (the stoat); an animal with delayed fertilization (the fruit bat); and an animal
with an unusually long gestation period (the acouchy). In addition observations will be made on other animals living in the zoo in an effort to determine their suitability, if any, for a more concentrated study.

(c) Health Aspects of Population Dynamics
In an attempt to arrive at a clear position regarding the health aspects of population dynamics, three specialists are preparing for the Director-General papers on the following subjects:

(i) Medical and social factors of fertility;
(ii) Future mortality and fertility trends and their effect on population change;
(iii) The inter-relationship of population trends and health services.

The Director-General intends to submit these papers to the Advisory Committee on Medical Research for consideration at its forthcoming seventh session. Clear agreement has already been reached that any activity undertaken by WHO in population dynamics should be carried out in functional juxtaposition to existing and anticipated activities in the biology of human reproduction.

5. Research Grants to Individual Investigators
Applications for grants for research are being received in small but increasing numbers. They include requests for studies on genital tract physiology, neuroendocrine mechanisms in reproduction physiology, and the influence of the uterus in labour on the foetus.

6. Research Training and Exchange of Research Workers Grants
Increasing numbers of applications are being received for grants to assist research workers to gain experience by working under senior scientists abroad, and to enable experienced workers to discuss their investigations and problems with others abroad. Several scientific groups have advised that it is often more logical and more effective to train the personnel of a given medical centre by a consecutive series of visiting staff rather than by sending one or two of them to study in well-known laboratories. This is particularly true in certain specific conditions, and it is proposed to follow this plan when the opportunity arises.

Awards have been made for research training in the biology of human reproduction, thromboembolic and haemorrhagic problems in obstetrics and the health of the foetus and mother during labour. Applications have been received for training in the pathophysiology of the newborn, ovum implantation during lactation, steroid metabolism in the placenta and ovary, transplacental gas exchange, human pituitary secretion fractionation, genital tract physiology and neuroendocrine mechanisms in reproduction physiology.

In 1964 an Expert Advisory Panel on the Biology of Human Reproduction was established. This panel now has a membership of sixteen scientists representing a broad spectrum of specialties related to reproduction. The range of their combined knowledge covers gametogenesis, fertilization, implantation, steroid physiology, functional sterility, intra-uterine life and labour and gynaecology.

III. FUTURE PROGRAMME

1. Reference Services

Documentation Centre for Biomedical Literature on all Aspects of Human Reproduction

In addition to the sources of reference mentioned in paragraphs 2 and 3 of part II above, there should be a source of biomedical literature on all aspects of human reproduction. WHO will therefore set about establishing and keeping up to date a documentation centre from which extracts and copies—microfilmed or otherwise—of all such literature will be made available upon request.

2. Studies

(a) Medical Aspects of Sterility and its Relief

Sterility can be born of many things, several of which are of a medical nature and thereby fall properly within the scope of WHO's activities. Causative factors such as diabetes, disease, steroid imbalance, peptide hormone imbalance, aspermia and azoospermia and their possible control will be the subject of study by a group of experts. The results of their findings will enable WHO to become more active in any problem of human sterility.
(b) Medical Aspects of Fertility Control Methods

Fertility, as has long been known, can be controlled in such a fashion as either to increase or to decrease the numbers of any population. Control of fertility in man is rapidly becoming of world interest and involves problems of both physical and mental health.

On the recommendation of the Scientific Group on Mechanism of Action of Sex Hormones and Analogous Substances (see part II, paragraph 1(e) above), a meeting of experts is to be convened in 1965 to evaluate the safety of orally active gestogens and the dose-range which is most effective clinically (see part II, paragraph 4(a) above). This or a similar group will continue to meet annually to study orally active gestogens for fertility control and their side-effects.

Another group of experts will meet annually to consider other means of contraception, particularly the intra-uterine devices (see recommendation of the Scientific Group on the Biochemistry and Microbiology of the Female and Male Genital Tracts mentioned in paragraph 1(f) of part II above) and their possible side-effects.

(c) Health Aspects of Population Dynamics

The health aspects, including mental health, of population dynamics will have to be kept under close review for some time to come. The study being undertaken this year and mentioned in part II, paragraph 4(c) above will, it is hoped, provide an indication of which particular aspect, or aspects, of this very wide subject should be given priority.

3. Advisory Services

WHO should be prepared to give advice, on request, to the health administrations of its Members and Associate Members on the medical aspects and treatment of sterility and the medical aspects of family planning. It should also be in a position to advise on the place such subjects should have in the health services of the community.

Appendix 1

ECONOMIC AND SOCIAL COUNCIL RESOLUTION 1048 (XXXVII)

Population Growth and Economic and Social Development

The Economic and Social Council,

Recalling General Assembly resolution 1838 (XVII) of 18 December 1962 on population growth and economic development and Council resolutions 933 B (XXXV) of 5 April 1963 on the World Population Conference to be held in Belgrade, Yugoslavia, in 1965 and 933 C (XXXV) of 5 April 1963 concerning the intensification of demographic studies, research and training,

Having considered with appreciation the inquiry conducted by the Secretary-General as requested by the General Assembly among Governments of States Members of the United Nations or members of the specialized agencies concerning the particular problems confronting them as a result of the reciprocal action of economic development and population changes,

Having noted in particular the serious concern expressed in reply to the inquiry by many Governments of developing countries about the slow rate of economic growth of their countries to deal with the population problems confronting them;

Having further noted the high priority given by the Advisory Committee on the Application of Science and Technology, inter alia to "the objective of a more complete understanding of population problems," and commending the Economic Commission for Asia and the Far East for organizing the Asian Population Conference held in 1963,

1. Invites the General Assembly, the regional economic commissions and the Population Commission to examine the replies of the Governments to the inquiry and to make recommendations with a view to intensifying the work of the United Nations in assisting the Governments of the interested developing countries to deal with the population problems confronting them;

2. Requests the Secretary-General to circulate the findings of the inquiry to the World Population Conference and to the specialized agencies concerned, in particular the International Labour Organisation, the Food and Agriculture Organization, the United Nations Educational, Scientific and Cultural Organization and the World Health Organization, with the suggestion that they take the findings into account, as appropriate, in formulating their programmes;

3. Requests the Secretary-General to undertake in the future, at appropriate intervals, similar inquiries on problems resulting from the relationship between economic development and population changes;

4. Draws the attention of the General Assembly to resolution 54 (XX) unanimously adopted by the Economic Commission for Asia and the Far East on 17 March 1964 which invites the United Nations and the specialized agencies to expand the scope of the technical assistance they are prepared to give, upon the request of Governments, in the development of statistics, research, experimentation and action programmes related to population;

5. Recommends that the Economic Commission for Latin America and the Economic Commission for Africa organize


6. Urges the Secretary-General and the specialized agencies concerned to explore ways and means of strengthening and expanding their work in the field of population, including the possibilities of obtaining voluntary contributions.

1351st plenary meeting, 15 August 1964

Appendix 2

EXTRACT FROM THE REPORT OF THE DIRECTOR-GENERAL
ON THE MEDICAL RESEARCH PROGRAMME OF THE WORLD HEALTH ORGANIZATION, 1958-1963

HUMAN REPRODUCTION

General Trends of Research

The enormous literature on the subject of human reproduction has never been systematically scanned on a world scale and there are still gaps in knowledge of the events leading up to conception and the biology of events after conception. There are too few workers on the physiology of human reproduction, and particularly on fertilization and implantation. In the comparative field, work has so far been based on only a few mammals and it should be extended to many more species. This extension may be valuable in connexion with problems of nidation and the role of the corpus luteum in maintaining pregnancy. The factors

contrast to the continuous formation of spermatozoa. Ova from aged oocytes at the end of reproductive life are liable to be associated with congenital anomalies. In contrast to the case of other mammals, it is difficult to determine the time of ovulation in women. Ovulation cannot be predicted by the well-known temperature rise, which merely indicates that it has occurred.

In gestation, the outstanding problem concerns the nature, at present unknown, of the signal sent by the uterus or blastocyst at the time of implantation to the hypothalamus in order to suppress the mechanism of the normal cycle. The endocrine conditions governing the endometrium at this time are rigid and complex, and in some ways the uterus may be regarded as a most difficult place for implantation to occur.

The study of the endocrine system of the foetus is a rapidly developing field. It plays a part in foetal differentiation and the action of the foetal gonadal hormones leaves a mark on the developing field.

The enormous literature on the subject of human reproduction is scantly, particularly with respect to the effects of the conditions of modern life.

The neuroendocrine aspects of reproduction are complex. In mammals, climatic factors—including light—influence breeding; is this true to any extent in man? Among the social factors affecting the development of the sex organs and sexual behaviour, the neonatal maternal environment is important. The central nervous system governs more or less directly the secretion of pituitary oxytocic and gonadotrophic hormones; and it also mediates the feedback from ovarian and testicular hormones that affects the organization of the foetal nervous system and the functioning of the adult pituitary.

Much work needs to be done also on the effects of the gonadotrophins, which are still poorly understood. The gonadotrophins are largely responsible for the activity of the gonads which, in turn, regulate their secretion in the anterior pituitary via a feedback to the hypothalamus. The subject of the feedback mechanism is very relevant in view of the increasing use in birth control of oral progestogens of synthetic origin. It is not yet known whether it is safe to suppress the normal cycle year in year out, or what the long-term risks may be. This could usefully be studied by WHO, but it should be borne in mind that any follow-up of women taking oral progestogens must extend well into the post-childbearing years. Because of the lack of experience with human pituitary hormones—e.g. human prolactin has never been isolated—WHO might encourage the collection of human pituitary glands on a world scale.

Lactation is also a neglected field. The mechanism and duration of lactation amenorrhoea and postpartum infertility are obscure and subject to marked geographic and social influences.

With regard to the biology of the gonads and gametes, a little-appreciated point is that the age of the ovum is settled by the fixed population of oocytes obtaining from the outset, in

reproduction, and of fertility in relation to blood groups and other immunological factors. It is important also to organize the collection of human pituitaries, to have reference centres for steroids and other biochemical substances and to deal with the extension of animal experimentation to more mammalian species. The first priority concerns the effects of labour on the human foetus; and next in importance are the physiology of lactation, the intermediate metabolism of the foetus, and the conditions in the female genital tract governing implantation and feedback.

WHO's Programme and Activities

The Organization has recently been giving increased attention to the subject of human reproduction. At the invitation of the International Fertility Association, a non-governmental organization in official relations with WHO, the Director-General presented a statement on research in human reproduction at the IVth World Congress on Fertility and Sterility held in Rio de Janeiro in August 1962. He emphasized some of the points mentioned above, and in particular that the biology of certain aspects of human reproduction has not been as thoroughly studied and is not as well understood as other aspects of medical science. Clearly, the importance of many medical, biological, social, cultural and economic factors in human reproduction makes it a major public health problem.

WHO convened a Scientific Group on the Biology of Human Reproduction in Geneva in April 1963 for the purpose of examining the present state of knowledge and gaps in this field and of advising the Organization on developments and on major research needs in connexion with which WHO could be of assistance. The scientific group discussed comparative aspects of the biology of reproduction, neuroendocrine aspects of reproduction, biology of the gonads and gametes, fertilization and gestation, biochemistry of the sex steroids and pharmacological aspects of reproduction, and outlined a programme of research.

The scientific group recommended, among other topics for research, the physiology of lactation, including galactopoiesis. A Scientific Group on the Physiology of Lactation was therefore convened in December 1963 to review the existing state of knowledge in that subject and to recommend a research programme. This group studied the growth of the mammary gland and methods of assessing it, milk secretion, physiology of suckling, and the biochemical activities of the mammary gland. Particular attention was given to various aspects of human lactation and its maintenance. The group indicated a series of problems requiring further investigation, such as studies on genetic differences in breast-feeding performance, on the function of the human pituitary hormone which might elucidate whether human prolactin and STH are two separate hormones, and on the reciprocal relation between ovarian function and lactation and the effect of prolonged treatment of ovarian inhibitors on lactational performance.

A contribution pledged by the United States Government for 1964 will be utilized for the development of the WHO research programme in the biology of human reproduction.

Future Developments

The Advisory Committee on Medical Research at its fifth session in June 1963 proposed that the following subjects should have priority in the study of human reproduction, though not necessarily in the order given:

1. A survey of environmental and ethnic variation in human reproductive function.
2. The organization of a world-wide collection of pituitaries for the preparation of human hormones.
3. The establishment of one or more centres for disseminating information about new and existing laboratory animals and for organizing their supply.
4. The convening of scientific groups to advise on research in:
   (i) the effects of labour on the human foetus;
   (ii) the physiology of lactation, including galactopoiesis;
   (iii) the intermediate metabolism of the foetus, especially in the control and development of function;
   (iv) the biochemistry and microbiology of the female genital tract, with special reference to nidation and its results;
   (v) neuroendocrinology, including the effects of psychological factors on human reproduction.

1 The physiology of lactation was chosen as the first subject for study and a scientific group on the subject met in December 1963 (see above).
Annex 19

SMALLPOX ERADICATION PROGRAMME

REPORT BY THE DIRECTOR-GENERAL

In conformity with the request made by the Seventeenth World Health Assembly in its resolution WHA17.43, paragraph 3 (1) and (3), the Director-General has the honour to present to the Eighteenth World Health Assembly a further report on the progress of the smallpox eradication programme.

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1. Introduction

In accordance with resolution WHA12.54 adopted by the Twelfth World Health Assembly, the World Health Organization, in concert with many Member States, has, since 1959, actively engaged in a worldwide programme of smallpox eradication. Since that time, substantial progress has been made in the control of the disease. In some areas, in fact, eradication has been achieved. However, full international participation in the eradication effort has not yet been attained. A number of countries whose smallpox programmes have been or are being successfully completed are in jeopardy of having the disease reintroduced. In a number of instances, the reintroduction of smallpox has already forced individual countries to repeat mass national vaccination campaigns.

This report summarizes the present status of smallpox and the eradication effort. Information is also included pertaining to the supply and production of freeze-dried vaccine and the status of special research projects of concern to WHO and the programme as a whole. In addition, a summary is included of the observations made by two consultants who were appointed to appraise the eradication efforts in four endemic countries, each of which was facing different problems in its eradication campaign. From their observations and experience, they have also given their views on the problems and difficulties besetting the general WHO smallpox eradication programme and on how these might be overcome.

Based on the views of the consultants and on the experience of the Secretariat gained over the past six years since the programme was established, it is clear that substantially increased effort and support are required if the programme is to achieve success within the foreseeable future.

1 See resolution WHA18.38.

2 Not reproduced in this volume.
2. Smallpox Incidence

World Incidence

Since the inception of the world-wide smallpox eradication programme in 1959, the reported annual incidence of the disease has varied between about 47 000 and 98 000 cases (Table 1). In 1964 the frequency of cases reached a record low level, according to provisional figures. These figures must, however, be interpreted cautiously since, in many countries, the reporting of cases and deaths is far from complete. The decrease in incidence may reflect the successful application of control measures but may also correspond in part with cyclical declines in incidence in endemic areas.

Bearing in mind the difficulties of making exact appraisals, it seems reasonable to conclude that since 1959 about twelve countries have succeeded in eradicating the disease either through national control programmes or as a result of definite eradication programmes. In 1963 however Peru, which had successfully eradicated the disease, again experienced extensive outbreaks which are still continuing.

Cases and deaths reported from 1959 to 1964 are shown by continent in Table 1. Most cases occurred in Asia and Africa. In Asia the annual number of cases has varied from about 34 000 to 75 000 during the past five years. In Africa the number has varied from about 12 000 to 25 000, and in the Americas from about 700 to 8000. Europe has recorded relatively little smallpox, none of an epidemic character; no cases occurred during 1964.

The percentage distribution of smallpox cases during 1959 to 1964 is shown in Table 2. Annually 60 to 78 per cent. of the world total is reported from Asia and 16 to 30 per cent. from Africa.

Smallpox Incidence in Individual Countries

In Table 3 are shown smallpox cases reported by individual countries for the years 1959 to 1964.

In Africa, most countries in East, West and South Africa have annually recorded substantial numbers of cases. Since 1959, nineteen countries have reported 500 or more cases during one or more years. They are Cameroon, Chad, Congo (Brazzaville), Dahomey, the Democratic Republic of the Congo, Ethiopia, Guinea, Ivory Coast, Liberia, Malawi, Mali, Niger, Nigeria, Swaziland, Togo, Uganda, the United Republic of Tanzania, Upper Volta, and Zambia. Trends in the disease incidence from country to country are not readily interpretable. In some, such as the Ivory Coast, a sharp decline followed an intensive mass vaccination programme. In others, however, declining frequencies may reflect recognized cyclical trends in the disease or, perhaps, variations in the adequacy of disease reporting from year to year. In recent years, no endemic cases of smallpox have been reported from the North African countries—Algeria, Libya, Morocco, Tunisia or the United Arab Republic.

In the Americas, mass vaccination campaigns have served to eliminate endemic smallpox from most countries. In 1964, only Brazil, Colombia and Peru recorded significant disease foci. Brazil continues to report the great majority of cases and, although a vaccination programme was begun in 1962, the disease remains widely prevalent. Peru, having eradicated the disease in 1954, experienced a resurgence in 1963 in areas bordering Brazil. Uruguay and Argentina experienced three and twelve cases respectively in 1964, most of which were recorded as importations or secondary cases from neighbouring Brazil.

In Asia, India, Indonesia and Pakistan together account for 90 per cent. of all cases reported, and over 60 per cent. of the world's total. In each of these countries the incidence declined during 1964. In India, the number of cases declined from 61 000 to 32 000; in Pakistan, from 5200 to 800; and in the...
### TABLE 3. SMALLPOX CASES REPORTED BY INDIVIDUAL COUNTRIES, 1959-1964

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<tr>
<td><strong>Totals</strong></td>
<td>60 749</td>
<td>39 250</td>
<td>53 217</td>
<td>49 579</td>
<td>75 437</td>
<td>34 414</td>
</tr>
</tbody>
</table>

| **Europe**               |      |      |       |       |       |       |
| Belgium                  |      |      |       |       |       |       |
| Eastern Germany          | 1 (1)|      | 1 (1) |       |       |       |
| Federal Republic of Germany | 13 |      | 5 (1) | 38 (2)|       |       |
| Hungary                  |      |      |       |       |       |       |
| Poland                   |      |      |       |       |       |       |
| Spain                    |      |      | 17 (1)|       |       |       |
| Sweden                   |      |      |       |       |       |       |
| Switzerland              |      |      |       |       |       |       |
| Union of Soviet Socialist Republics (Moscow) | 46 (1)| 1 (1)|       |       |       |       |
| United Kingdom of Great Britain and Northern Ireland | 1 | 1 (1)| 3 (3) | 66 (4)|       |       |
| **Totals**               | 15   | 47   | 27    | 137   | 129   |       |
| **World Totals**         | 81 334| 60 955| 85 594| 82 413| 98 719| 47 492|

Figures in brackets show the number of imported cases (e.g. 8 (6) means 8 cases, 6 of which were imported); (I) means several imported cases.

* Provisional figures. For 1964, situation according to reports received by WHO up to 22 January 1965.

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* Provisional figures. For 1964, situation according to reports received by WHO up to 22 January 1965.

** One suspected case; a suspected case was also reported from Niue in 1960.

+ Figures not complete.

... Data not available.

1 Since July 1962 the independent States of Burundi and Rwanda.
TABLE 4. IMPORTED CASES OF SMALLPOX NOTIFIED TO WHO, 1 JANUARY - 20 NOVEMBER 1964

<table>
<thead>
<tr>
<th></th>
<th>Imported cases</th>
<th>Secondary cases</th>
<th>Import from</th>
<th>Other information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Africa</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Angola</td>
<td>1</td>
<td></td>
<td>Democratic Republic of Congo</td>
<td>By land</td>
</tr>
<tr>
<td>Congo</td>
<td>1</td>
<td>?</td>
<td>Democratic Republic of Congo</td>
<td>By river route</td>
</tr>
<tr>
<td>South Africa</td>
<td>6</td>
<td>16</td>
<td>Malawi</td>
<td>By land, probably</td>
</tr>
<tr>
<td>Swaziland</td>
<td>1</td>
<td>?</td>
<td>South Africa</td>
<td>By land</td>
</tr>
<tr>
<td>America</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Argentina</td>
<td>3</td>
<td></td>
<td>Brazil</td>
<td>By land</td>
</tr>
<tr>
<td>Uruguay</td>
<td>3</td>
<td>?</td>
<td>Brazil</td>
<td>By land</td>
</tr>
<tr>
<td>Asia</td>
<td></td>
<td></td>
<td>an eastern neighbouring country</td>
<td>By land</td>
</tr>
<tr>
<td>Iran</td>
<td>5</td>
<td></td>
<td>an eastern neighbouring country</td>
<td>By land</td>
</tr>
</tbody>
</table>

Indonesia, from 8000 to 1700. Although normal epidemic cycles and factors of reporting may partially underlie these decreases, it should be noted that in India about 70 per cent. of the entire population has recently been covered in a systematic vaccination programme. In East Pakistan, a mass campaign has been completed; over 3700 cases were reported in 1963 and only 43 cases in 1964.

In Afghanistan and Nepal, the number of cases recorded each year continues to vary between one and several hundred. In Burma, where a systematic vaccination programme is in progress, less than thirty cases have been recorded during each of the past three years. Yemen reported five cases in 1963 and in 1964. No cases were recorded in 1964 in Cambodia, Ceylon, Malaysia and Thailand which are in the maintenance phase of eradication.

No other Asian countries report endemic smallpox at present; cases in Iran during the past two years all originated directly from imported cases.

No countries in Europe report endemic smallpox.

Imported Cases

Table 4 shows the imported cases reported to WHO between 1 January and 20 November 1964. No cases were imported into Europe or Oceania; none of the importations into the other three continents was by air.

3. Research

Four research projects which WHO is supporting or in which it has a special interest deserve comment in this report:

A. Studies of simultaneous and sequential vaccinations in persons being revaccinated

With regard to the amendment proposed by the Committee on International Quarantine in its twelfth report,¹ studies were carried out to determine how frequently a repeat revaccination would be successful if carried out one week after an unsuccessful first attempt at revaccination, and whether two simultaneous revaccinations would give a better success rate than one. Studies have been or are being made in India and the United States of America, and by the medical service of the United Nations, in Geneva.

The preliminary results suggest that there is a slight but variable advantage when two insertions are made either simultaneously or a week apart. This is less evident when high potency vaccines are used.

B. Vaccination by jet injector

Studies of the effectiveness of jet injectors have been conducted in the United States of America and other countries. The United States studies show that the intradermal injection of 0.10 cc of 1:10 and 1:50

¹ See Off. Rec. Wld Hlth Org. 135, 46, and resolution WHA17.42.
dilutions of potent reconstituted freeze-dried vaccine produces results comparable to those obtained by the multiple pressure method in both primary vaccination and revaccination. Evaluation by United States teams working with local personnel under field conditions in Brazil and Tonga revealed success rates exceeding 95 per cent. for primary vaccination. Successful revaccination was as frequently accomplished with the jet injector as with the multiple pressure method. Similar success rates were achieved by both the United States teams and the local personnel.

Estimates of the cost and efficacy of mass campaigns employing jet injectors as compared with the door-to-door type of campaign using the multiple pressure method were carried out in Brazil in towns with populations varying from 1000 to 35,000. Though a higher proportion of the population was vaccinated by the door-to-door campaign employing multiple pressure, the proportion of successful vaccinations was lower and the final number of effective vaccinations was similar in both groups. In the door-to-door campaign using the multiple pressure method five times as many man-hours and vehicles were required; 75 vaccinations per man day were accomplished at a cost of US $0.067 per vaccination. In the mass campaign using jet injectors, 304 vaccinations per man day were performed at a cost of US $0.017 per vaccination.

There exists a pedal (foot-operated) jet injector (weight 12 pounds; cost US $600) which is particularly suited to field campaigns. There also exist hand models, less expensive than the foot-operated models but slower in use, which are available and are suitable for small groups. Electrically driven models have been found to be cumbersome and more subject to mechanical failures.

The jet injectors are most efficiently employed when large groups can be assembled and vaccinated rapidly. In sparsely populated rural areas in which most of the vaccinators’ time is spent in travelling, vaccine application by multiple pressure or scratch or by a hand-operated injector is more practical. Mechanical and manual means of vaccination both have a place in the eradication programmes. Studies in individual countries are required to define clearly how each method can be most effectively and economically employed under the local conditions.

C. Variations in variola strains

Although outbreaks of smallpox can usually be identified as variola major or variola minor by epidemiological and clinical observations, laboratory methods have now been developed which can differentiate between the two types of virus. In contrast to variola minor strains, the strains of variola major have a high virulence for the chick embryo and produce lesions in the chorio-allantoic membrane or in tissue cultures at 38.5°C.

Strains isolated in Africa have shown intermediate laboratory characteristics. Although it has been assumed in the past that the lower case-fatality rate observed in Africa, as compared with Asia, is due to the presence of both variola major and variola minor strains, it is now thought possible that there may also be strains of intermediate virulence. Variola strains isolated in Africa are therefore being studied in the laboratory using temperature “markers” and other “markers” to differentiate them. If laboratory methods for clearly distinguishing strains can be established, combined field and laboratory studies will be set up to obtain further information on their distribution and importance.

D. Chemoprophylaxis

The activity of isatin-β-thiosemicarbazone (“Marboran”) against vaccinial and variola infections in tissue cultures and laboratory animals has been known for a decade. Because of its low toxicity for animals and man and its high level of activity against vaccinia and variola viruses in the laboratory, a derivative—N-methyl-isatin-β-thiosemicarbazone—was used in prophylactic trials carried out against smallpox in Madras in 1963. Close contacts of established smallpox cases were selected and divided into two groups. Both groups were vaccinated but only one group received the prophylactic drug. In over 1100 household contacts given the drug by mouth, three mild cases of smallpox occurred. In the comparative group of contacts who did not receive the drug, there were seventy-eight cases of smallpox and twelve deaths. As treatment was begun on the day after the removal of the index case to the hospital it can be assumed that the drug was given about the middle of the incubation period, about six days after contact.

Untoward side-effects observed consisted principally of nausea and vomiting. These symptoms were occasionally severe.

Many chemical compounds showing sufficient antiviral activity to merit field trials have become available recently. In the first instance WHO was closely associated with these studies, but it was later decided that competent national authorities should be responsible for deciding which of the new agents were of sufficient promise for inclusion in trials. The role of the Organization is to co-ordinate the studies and to give expert advice to the national technical committees conducting the studies.
4. Eradication and Control Programmes — Country Reports

African Region

Eradication and control programmes in the smallpox endemic areas of Africa have as yet been few in number and have generally met with irregular success. Surveillance is limited, vaccine supplies are inadequate, and co-ordination as well as the development of effective, systematic programmes are needed. Principal emphasis is being given by WHO to the problem of increased production of freeze-dried vaccine and to the initiation and co-ordination of control and eradication efforts in the different countries. A full-time WHO medical officer has been appointed as adviser and co-ordinator for smallpox activities in West Africa, and a similar post has been created for an adviser for East Africa. To facilitate the development and expansion of vaccine production centres, consultant visits to Kenya and Nigeria have been arranged; plans are being made for regional production centres in West and East Africa; additional assistance is being provided in individual country programmes.

In Liberia a WHO-assisted smallpox eradication project has been in progress since 1962. A WHO medical officer was technical adviser until 1964, when he was transferred to other duties. The campaign was started in the capital and is being expanded to the surrounding areas. There are thirty field-workers, including vaccinators, recorders and supervisors. House-to-house visits are being carried out by mobile teams. So far only 100,000 vaccinations have been performed. Eighty-five per cent. coverage of the population was achieved in the areas visited by the teams. Primary vaccination success rates were over 95 per cent. Progress is slow due to the shortage of transport and field personnel. It is planned to combine this project with the yaws project which is also being assisted by WHO.

A similar project is in progress in Mali, where 800,000 vaccinations have been carried out during the past two years by mobile teams under the Direction des Grandes Endémies. The campaign was conducted in the provinces adjoining Guinea and Upper Volta. There is a shortage of transport and refrigerators, but these deficiencies are now being met.

In Nigeria, Sierra Leone and Togo, smallpox control is being combined with yaws control projects. The areas covered and age-groups vaccinated in these joint programmes are, however, limited to those of the yaws programme. In Nigeria, where combined work with the WHO-assisted yaws project was started in 1961, 2,400,000 vaccinations were carried out in 1964. In Togo, a new plan of operation for the integration of yaws, leprosy and smallpox projects was set up with the assistance of UNICEF and WHO in 1964. In Sierra Leone the yaws project, assisted by WHO, started to include smallpox vaccination in 1964.

In the Ivory Coast the attack phase of the national eradication programme has been completed and the maintenance phase has been started.

In Upper Volta the Government is preparing to launch a control campaign and a WHO medical officer assigned to the inter-country project will visit the country to discuss the proper plan of operations. Though vaccination is carried out in the other endemic countries many of them do not have systematic programmes.

Region of the Americas

Eradication and control programmes have been in progress over the past decade in many countries of the Americas. Most countries are now in the maintenance phase of the programme although Peru and other countries have been obliged again to institute systematic mass programmes because of actual or threatened reintroduction of the disease from residual endemic foci in neighbouring countries and elsewhere. Active surveillance machinery is urgently needed in a number of the countries.

In the principal endemic area, Brazil, a national campaign commenced in 1962 with the objective of vaccination of the total population within five years. In 1963 seven million were vaccinated in the states of Sergipe and Guanabara, and in Brasilia. Although the programme is continuing, additional support in the form of personnel and equipment will be needed if the original goal is to be met.

Satisfactory progress has been made in recent vaccination programmes in El Salvador, Guatemala, Haiti, and Honduras. These campaigns were carried out as part of the routine activities of their health services or as special campaigns.

In Argentina, financial difficulties have hampered the vigorous eradication campaign begun in 1960. Seventeen provinces were included in the vaccination programme, and up to the end of 1963 80 per cent. or more of the population had been vaccinated in eight of these provinces. The activities are now continuing in the other nine provinces.

In Bolivia, the national smallpox vaccination programme approved in 1962 was initiated in 1963 with the assistance of PAHO and WHO and the Expanded Programme of Technical Assistance, and is now under way. A health inspector appointed by PAHO and WHO to organize and conduct field activities assumed his post in mid-1963.

In Ecuador, the campaign which was begun in 1951 was interrupted temporarily on two occasions for
the urgent need for supplies of freeze-dried smallpox vaccine and emphasized the necessity of promoting the synchronization of smallpox eradication activities in adjoining areas of countries where smallpox is endemic. At its seventeenth session, in 1964, governments expressed their determination to undertake intensive vaccination campaigns, utilizing freeze-dried vaccine whenever possible, with the objective of ultimately eliminating the disease from the Region.

Of the five countries in which endemic smallpox persists, four (Afghanistan, Burma, India and Nepal) are actively engaged in the development or conduct of systematic programmes, and two (Burma and India) have made substantial progress. Indonesia has undertaken emergency vaccination programmes. WHO has provided personnel, vaccine and equipment for the various projects; continued assistance will be required.

The WHO-assisted smallpox control pilot project in Afghanistan, which was started at the end of 1962 in Kabul City, has been completed with more than 80 per cent. of the city’s population vaccinated. A plan of operation has been drawn up for a national eradication programme but has not yet been implemented. A WHO medical officer has been assigned to this project, and supplies of freeze-dried vaccine are being provided by WHO and the Union of Soviet Socialist Republics.

In Burma, preparatory to planning a country-wide eradication programme, pilot projects were started in Rangoon City and seven districts in 1963. The Government launched a national programme early in 1964, using existing basic health services and vaccination teams for mass campaigns in large cities and very remote areas. Freeze-dried smallpox vaccine is being supplied by the USSR and WHO. By the end of 1964 8 million of the total population of 24 million had been covered systematically, and it is expected that the whole population will be covered within the next two years.

In India, where a national smallpox eradication programme was started at the end of 1962, a total of 304 million vaccinations (about 70 per cent. of the population) had been performed by the end of 1964; 35 million were primary vaccinations, and 269 million revaccinations. Work has been completed in 157 of the 313 districts. At the end of the year there were 150 eradication units in the field, each consisting of seventy-two vaccinators, twelve supervisors, two health educators, one paramedical officer (senior health inspector) and one medical officer. A total of 450 million doses of freeze-dried vaccine has been donated by the USSR following a bilateral agreement, and much of this has already been received. The requirements of the programme during 1964 exceeded the amount which could be delivered. As a result of an appeal by the Director-General of WHO, additional supplies of freeze-dried vaccine were obtained early in 1964 from the Netherlands, Switzerland and the United Kingdom.

Following the independent assessment of the programme in the Union Territory of Delhi, reported last year, the Indian National Institute of Communicable Diseases was entrusted with the assessment and evaluation of the programme at the end of the attack phase in several districts. They found that in none of the assessment areas had 80 per cent. or more of every sector of the population by age, sex and place of residence been covered in the campaign, and hence none of the districts qualified to enter the maintenance phase. They also noted considerable deficiencies in the primary vaccination coverage.

The attack phase of the national programme has now been extended up to the end of the third Five-Year Plan period, i.e. until March 1966, with the intention of vaccinating by then over 90 per cent. of all sections of the population.

In Indonesia emergency vaccination programmes were undertaken to control outbreaks of smallpox as they occurred during the year, mostly in West Java. A WHO consultant recommended additional equipment necessary for production of more freeze-dried vaccine.

In Nepal a pilot project, assisted by a WHO smallpox control officer, has been in progress since 1962. There is, however, both a shortage of transport and personnel and resistance of the population to vaccination. The project has been limited to the valley of Kathmandu, where 250 000 vaccinations were carried out from 1961 to 1964. The proportion vaccinated was low; of 820 000 persons checked only 30 per cent. had been vaccinated. In 1964 a WHO medical officer recommended that the efforts toward systematic coverage be intensified and that a greater effort be made in health education.

In Ceylon a satisfactory vaccination status is being maintained through the general health services.
In Thailand the country-wide vaccination campaign is being maintained by mobilizing various types of health personnel from basic health services, hospitals, and from yaws, leprosy, and maternal and child health programmes. No cases of smallpox were recorded in 1963 or 1964.

**EASTERN MEDITERRANEAN REGION**

For the principal endemic areas in Pakistan, an eradication programme has been under way since 1961 in East Pakistan and one will begin in 1965 in West Pakistan. A substantial programme is being completed in Sudan and a pilot project in Yemen.

In East Pakistan the programme was launched in November 1961 and by the end of November 1963 70 per cent. of a population of 51 million had been vaccinated. The whole population was covered by mid-1964. In West Pakistan an eradication campaign will begin this year. In Karachi smallpox is well under control.

In Sudan, the third phase of the smallpox eradication campaign started in late 1963 in the Northern Province, the northern part of Kassala Province (Red Sea) and the northern part of the Blue Nile Province. In the southern part of Kassala the campaign began in June 1964. By the middle of 1964 the eradication campaign had covered a total of seven million persons. A consultant visited Sudan in March and April 1964 to evaluate smallpox eradication activities in the country. Although vaccination of the nomad population was difficult, he stressed that the campaign should continue. Shortage of personnel is affecting the maintenance phase.

In Yemen mass vaccination, preceded by intensive efforts at health education, was carried out in a pilot campaign in Hodeida where stationary and mobile teams were organized and about 15,000 persons had been vaccinated by the end of 1963. A systematic vaccination programme has not yet developed.

In Saudi Arabia the Government is preparing the smallpox eradication programme. A law was proclaimed making smallpox vaccination compulsory and the allocation covering the commitments of the Government for the implementation of the eradication project has been approved.

In Somalia a consultant is being provided by WHO to visit the country to organize a smallpox eradication scheme.

WHO has assisted the programmes by providing technical advice, transport, refrigerators, vaccine and training. Additional assistance in these areas and in the development of surveillance programmes is needed.

Other programmes are in various stages of development.

**WESTERN PACIFIC REGION**

Though countries in the Region have remained free of smallpox during the past year, governments recognize the possible danger of introduction of the infection from areas still infected and are continuing their efforts to maintain an effective degree of immunization. Cambodia has continued its combined yaws and smallpox campaign effectively and the Philippines has embarked on an intensified vaccination campaign, importing a quantity of freeze-dried vaccine to supplement the locally produced vaccine.

**5. Vaccine Supply**

Substantial amounts of vaccine are required during the attack phase of the eradication programmes. The routine requirements of the maintenance phase are less. In general WHO policy has been to assist endemic countries in developing sufficient production capacity to meet the routine requirements of their maintenance programmes but, where necessary, to obtain from outside sources the additional amounts needed for the initial mass campaigns.

Considerable assistance has already been given by WHO and PAHO to develop vaccine production facilities in many countries in the Americas. In this Region, production capacity is sufficient to meet anticipated requirements of attack and maintenance phases.

In Asia substantial aid has been provided by UNICEF and WHO. Currently, assistance is being provided to Burma, India, Indonesia and Thailand in obtaining equipment for freeze-dried vaccine production and in training personnel. Similar assistance has been requested by China (Taiwan), Guinea, Kenya, Nigeria, the Philippines and others. Good progress has been made in Burma, India, Indonesia and Thailand, where modern equipment has now been supplied and staff have been or are being trained. Numerous visits have been made by consultants to advise in the setting up and operation of equipment and the production of vaccine. It is probable that these countries will shortly be able to meet their routine maintenance phase requirements.

The situation is less far advanced in Africa and (as already mentioned in section 4 above) negotiations are proceeding for the establishment of two centres capable of producing vaccine for distribution to countries on a regional basis, one in West Africa, possibly in Nigeria, and one in East Africa, possibly in Kenya.

The Organization has arranged for the vaccines from newly established laboratories to be tested by independent biological control laboratories and up to
the present the quality of the vaccines has, on the whole, been satisfactory. It is recognized, however, that it will be necessary to continue to have the vaccines tested routinely if their high quality is to be maintained.

Vaccine Donations

The amounts of freeze-dried vaccine supplied through WHO in 1961, 1962 and 1963 were as follows:

<table>
<thead>
<tr>
<th>Year</th>
<th>Doses</th>
</tr>
</thead>
<tbody>
<tr>
<td>1961</td>
<td>1,740,000</td>
</tr>
<tr>
<td>1962</td>
<td>3,140,000</td>
</tr>
<tr>
<td>1963</td>
<td>7,300,000</td>
</tr>
</tbody>
</table>

The amounts had been increasing rapidly, reflecting the activities of the projects under way. Late in 1963 the stock of donated vaccine was almost exhausted, but following the urgent appeals at the end of 1963 for 30,000,000 doses of vaccine to continue programmes, as mentioned in the report on the smallpox eradication programme made to the Seventeenth World Health Assembly, 9,875,000 doses were received—1,000,000 doses from the Netherlands, 250,000 doses from Madagascar and 4,625,000 doses from Switzerland, as well as the 4,000,000 doses from the United Kingdom already mentioned in that report. During 1964 also, 3,500,000 doses were received from the USSR as a final instalment of their donation of 25,000,000 doses. Other offers have been made by Bulgaria, Cambodia, Chile, Colombia, France, Japan, Pakistan, Peru, Tunisia, the United Arab Republic and Yugoslavia. The position about these is shown below:

<table>
<thead>
<tr>
<th>Donations</th>
<th>Doses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Results of tests unsatisfactory</td>
<td>5 4,300,000</td>
</tr>
<tr>
<td>Samples still being tested</td>
<td>2 3,300,000</td>
</tr>
<tr>
<td>Samples requested but not received</td>
<td>1 1,000,000</td>
</tr>
<tr>
<td>Correspondence in progress on various points</td>
<td>3 700,000</td>
</tr>
<tr>
<td>Total</td>
<td>11 9,300,000</td>
</tr>
</tbody>
</table>

It is to be noted that no vaccine has yet been distributed from these recent offers and that about half is already known not to reach the sterility, potency or stability standards recommended by the WHO Study Group on Requirements for Smallpox Vaccine. 2

The total amounts of vaccine distributed by the Organization in 1964 and up to March in 1965 were as follows:

<table>
<thead>
<tr>
<th>Year</th>
<th>Africa</th>
<th>Doses</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Congo (Brazzaville)</td>
<td>10,000</td>
</tr>
<tr>
<td></td>
<td>Liberia</td>
<td>100,000</td>
</tr>
<tr>
<td></td>
<td>Senegal</td>
<td>50,000</td>
</tr>
<tr>
<td></td>
<td>Sierra Leone</td>
<td>50,000</td>
</tr>
<tr>
<td></td>
<td>Togo</td>
<td>200,000</td>
</tr>
<tr>
<td></td>
<td>Upper Volta</td>
<td>450,000</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year</th>
<th>South-East Asia</th>
<th>Doses</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Afghanistan</td>
<td>102,000</td>
</tr>
<tr>
<td></td>
<td>Burma</td>
<td>1,500,000</td>
</tr>
<tr>
<td></td>
<td>India</td>
<td>7,225,000</td>
</tr>
<tr>
<td></td>
<td>Nepal</td>
<td>200,000</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year</th>
<th>Eastern Mediterranean</th>
<th>Doses</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Sudan</td>
<td>135,000</td>
</tr>
<tr>
<td></td>
<td>Yemen</td>
<td>250,000</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>12,405,000</td>
</tr>
</tbody>
</table>

1965 (January to March)

<table>
<thead>
<tr>
<th>Year</th>
<th>Africa</th>
<th>Doses</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mali</td>
<td>250,000</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year</th>
<th>South-East Asia</th>
<th>Doses</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>India</td>
<td>600,000</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>850,000</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>13,255,000</td>
</tr>
</tbody>
</table>

Apart from these donations, the USSR has supplied about 400,000,000 doses to Afghanistan, Burma and India on a bilateral basis in the past three years.

6. The WHO Smallpox Eradication Programme

A WHO Expert Committee on Smallpox met in Geneva in January 1964 and its report which has since been published 4 was summarized in the Director-General's report on the smallpox eradication programme to the Seventeenth World Health Assembly. 4

The Committee stressed that the eradication of smallpox should be a matter of concern to all countries and that those now free from infection were at constant risk of the disease being introduced from the endemic areas. As a result of its review of the WHO eradication programme it concluded that the non-endemic countries could best aid the endemic countries to carry out effective programmes by providing adequate amounts of stable freeze-dried vaccine which could be distributed and stored in tropical countries without loss of potency. It recommended that programmes should be planned and carried out in three distinct phases—preparatory, attack and maintenance.

The target in the attack phase should be the vaccination of the whole population of the country. Experience had shown that even when 80 per cent. of the total population had been vaccinated there were often groups, e.g. infants under one year of age, and men working at a distance from home, where the coverage was as low as 30 per cent.

Though the Committee was confident that the programme of the Organization would result in the ultimate eradication of the disease, it stated that sustained effort over a period of years would be required before success was achieved. It drew attention to the importance of the maintenance phase and the need for adequate measures for the notification of cases and deaths, especially in the maintenance phase, since without this there could be no assurance that the disease had been eradicated.

To assist the Organization in evaluating the current status of the eradication programme two consultants were appointed late in 1964 to obtain first-hand information on eradication and control programmes in four countries, considered to be representative of conditions in Africa and Asia. The consultants, with a medical officer of the Secretariat, visited these countries and made detailed reports on each. Summaries of the reports, in which the countries are identified as A, B, C and D, are attached.\(^1\) It is clear that in all four countries the programmes were unsatisfactory in a number of respects, and that in three of them the programmes are unlikely to succeed unless considerably changed.

From their observations in the four countries, their experience in administration and epidemiology, and their special knowledge of smallpox they have made the following observations applicable to the WHO smallpox eradication programme as a whole:

1. In many of the endemic countries, though not in all, health problems other than smallpox are considered of greater immediate importance and the claims for funds for smallpox eradication programmes have to compete with claims for programmes for other diseases. In many of the endemic countries the health services are short of staff and lack facilities for preventive and curative medicine. They often have inadequate epidemiological surveillance and this leads to the widespread dissemination of infection before smallpox outbreaks are recognized and before such control measures as may be available can be applied.

2. Of fundamental importance in national eradication programmes is the need for, and frequent lack of, an adequate administrative and supervisory structure covering all levels from the central health authority to the periphery. The absence of this has been responsible for much wasted labour and expenditure and at times for the failure of campaigns. Many of the defects and deficiencies observed could be traced to the lack of effective administration and supervision. They included storage of vaccine for long periods at room temperature, the use of time-expired vaccine, the employment of poor vaccination techniques, failure of team supervisors to check success rates, absence of simple but effective recording systems, and absence of facilities to analyse at regional or central level the information obtained by the teams.

3. Even if increased national resources are allocated to smallpox programmes the endemic countries will not be able to carry out effective programmes without help—on a scale far greater than has hitherto been provided—from the countries which are no longer endemic. Supplies of freeze-dried vaccine in very large amounts are needed, also transport for vaccinators, refrigerators, equipment for the production of freeze-dried vaccine on a national or regional basis, and short- and long-term consultant services to endemic countries for help in planning and execution of the campaigns. The speed at which initial control and ultimate eradication will be accomplished will depend on how much practical help is given by the countries already free from the disease.

4. To achieve eradication, the maintenance phase (i.e. the routine vaccination and revaccination of the population and the surveillance of possible cases) is as important as the attack phase. It must be taken into account in the plan and diligently carried out for many years. Failure to do so will mean that smallpox will again occur in areas which have remained free after completing a well-planned attack. This is shown by experience in Peru, where no cases were reported for eight years after an intensive campaign completed in 1954, but where 860 cases were reported in 1963 and 370 cases in 1964.

5. In all endemic countries pilot projects should be set up and the experience gained in the pilot projects should be used in the planning of the main campaign. Flexibility is important and should take into account the stage of development of the health services, since this will to a large extent determine whether the campaign will have to be carried out by special teams or by supplementing already existing health services.

6. The proportion of the population covered and the success rates must be carefully checked and the campaign currently evaluated by an independent team directly responsible to the senior medical officer in charge of the campaign.

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\(^1\) Not reproduced in this volume.
7. A heat-stable freeze-dried vaccine that can be stored for at least one month at ambient temperatures without any loss of potency is essential for campaigns in the tropics.

8. It is highly desirable that contiguous endemic countries should start mass vaccination campaigns simultaneously, particularly when there is free population movement over the borders. Such co-ordinated effort gives a greater degree of success over a shorter period of time than can otherwise be obtained and could lead to a substantial reduction in the duration of the maintenance phase. However, the absence of synchronization should not deter individual countries from launching national eradication campaigns, because adequate vaccination and revaccination of the population will remove the risk of epidemics even though single cases or small outbreaks may occasionally occur.

7. Needs of the Programmes

With smallpox eradication and control activities at different stages of development in the different regions and in different countries, consideration of the present status and needs of the programme by regions, and by countries within regions, is most appropriate.

Africa

Smallpox is currently endemic throughout most countries of East, West, Central and South Africa. Eradication and control programmes have been few and incomplete.

In virtually all countries programmes for the systematic vaccination and maintenance operations must yet be evolved.

In the Ivory Coast the attack phase is reported to have been completed but very active maintenance phase operations will have to be conducted, since smallpox is endemic in the surrounding countries. A limited systematic vaccination programme has been started in Liberia and a similar plan has been developed for Mali. However, both will demand substantial continued assistance of all types if they are to be successful. Vaccination programmes in conjunction with yaws projects in Nigeria, Sierra Leone and Togo, although serving as control measures, cannot be expected to effect eradication. Vaccination programmes in other African countries need systematic development and must be expanded substantially to be fully effective.

Most vaccine for the attack and maintenance phases will have to be provided from sources outside Africa; regional vaccine production laboratories must be developed or expanded to meet maintenance needs.

Since basic health services throughout Africa are limited, substantially greater assistance in the form of technical personnel, transport and equipment will have to be provided in Africa than in the other continents, not only for the attack phase, but also for the maintenance aspects of the programme. Pilot projects to explore the most effective means of conducting systematic vaccination programmes and surveillance are needed. The possible use of jet injectors in these programmes should be considered.

The problems in achieving smallpox eradication in Africa are formidable. Intensive study of possible approaches should be promptly initiated. Eradication programmes, when initiated, must take into consideration the mobility of the population and thus should be developed on a multi-country co-ordinated basis wherever possible. With substantial assistance from outside the countries and an active interest on the part of the countries themselves, eradication of the disease by the end of 1974 is a conceivable target.

Americas

With eradication programmes completed or in progress in all countries in the Americas, the prospects for hemisphere-wide eradication are excellent.

Endemic smallpox is currently prevalent only in Brazil (population 80 million) and in limited areas of Peru and Colombia. For completion of the attack phase of the programme, it is necessary to complete the vaccination programme in Brazil and to vaccinate systematically portions of the population of Peru and Colombia. More adequate continuing vaccination schemes must be evolved in a number of additional non-endemic areas and adequate continuing surveillance programmes established throughout the Americas.

Vaccine supplies from established national facilities are adequate for both attack and maintenance aspects of the programme; consultative assistance and testing of the vaccines produced are required since some do not presently meet minimum standards of potency, safety and stability. Substantial additional transport and equipment are necessary for the Brazilian programme to ensure its early completion; more limited quantities of transport and supplies are needed for programmes in several other South American countries for completion of the attack phase and adequate coverage of the population during the maintenance programme. It is also necessary to assign to Brazil for three to four years expert personnel in addition to the personnel at present in the country, and to arrange for the other countries to obtain expert advice on the establishment of adequate maintenance phase programmes and effective surveillance.
With immediate forceful action on the part of WHO and the individual countries, endemic smallpox could be eliminated from the hemisphere before the end of 1968.

South-East Asia and Eastern Mediterranean

In five of the seven remaining endemic countries in South-East Asia and the Eastern Mediterranean (Afghanistan, Burma, India, Nepal and Pakistan), eradication programmes are in progress or are being developed. In Burma, India and East Pakistan, considerable progress has been made. In most other countries in these regions maintenance operations of some type are in progress. In Burma, India and Pakistan the prospects for eradication of smallpox are good. In Afghanistan, Nepal and Yemen successful eradication poses more of a problem, but is reasonably attainable. In Indonesia, where mainly emergency programmes are being conducted, eradication in the immediate future is not probable.

In India 70 per cent. of a population of 438 million has been vaccinated since 1962. The major part of the vaccine has been supplied by the USSR; adequate vaccine for maintenance vaccination should be available from national production facilities within two years. Personnel and transport are thought to be adequate to complete the attack phase by 1966.

In Burma 8 million of the population of 24 million have been vaccinated; completion of the programme by 1966 is intended. The vaccine has been supplied principally by the USSR; production facilities are being developed. Transport and personnel are being provided through the routine basic health services.

In East Pakistan a mass vaccination programme has been completed among a population of 51 million. Plans are being developed for a similar mass campaign in West Pakistan among a population of 43 million. Vaccine supplies for both the attack and maintenance phases are available from national production laboratories.

In Nepal (population 9 million), Afghanistan (population 15 million) and Yemen (population 5 million), pilot programmes have been conducted but the development of a systematic vaccination effort awaits additional personnel, transport and equipment. Vaccine for these areas must be supplied from outside the respective countries for both the attack and maintenance phases. Although vaccine supplies for the attack phase of the programme in Indonesia are adequate, such a programme has not yet been implemented.

In summary, vaccine has to be supplied to all countries except Pakistan for the attack phase of the programme, and to Yemen, Nepal and Afghanistan for maintenance vaccination. It is understood that the needs for the attack phases in India, Burma and Afghanistan will probably be met by direct bilateral arrangements between these countries and the USSR. Moderately substantial quantities of transport and equipment will be required for all programmes except those in India and Burma. Supplementary technical personnel are required from outside the country in Nepal, Yemen, Afghanistan, and possibly Pakistan, if effective programmes are to be conducted. Consultative assistance is required by all countries in this area to assure continuation of effective maintenance programmes and surveillance.

If substantial support is provided promptly to assist the programmes in these regions, smallpox could conceivably be eliminated from all areas from which we have information about the existence of the disease by 1970.

General Cost Estimates

In the Director-General’s report to the Twelfth World Health Assembly, in 1959, it was stated that the estimated average cost per vaccination was US $0.08 in Colombia, $0.07 in Ecuador, $0.08 in Iran, $0.10 in Peru, $0.10 in the Philippines, $0.08 in the Republic of Korea, $0.075 in Thailand, and $0.11 in Venezuela.

In India, where an intensive systematic vaccination programme is now under way, it is estimated that vaccination costs roughly US $0.084 per person. This cost includes the salaries, subsistence and travel expenses of field personnel, and the cost of vaccine, gasoline and maintenance of vehicles. It is roughly made up as follows—70 per cent. for personnel and travel, 15 per cent. for vaccine, 10 per cent. for transport, and 5 per cent. for miscellaneous expenses.

The translation of the estimate of about US $0.1 per vaccination into realistic costs of a global eradication programme is difficult, but an attempt has been made to give a general approximation for each of the three main endemic regions. If the programme in the Americas and Asia were to be intensified sufficiently to complete the attack phase within five years it may be estimated that about half of the total population of endemic areas in South America and Asia would have to be vaccinated or revaccinated. The total to be vaccinated would be about 50 million in South America and 350 million in Asia. The cost would be in the region of US $40 million. It would probably be reasonable to calculate that 80 to 90 per cent. of the costs of the attack phases in the Americas and 70 to 80 per cent. of those costs in Asia could be met from national sources. The amounts required from abroad

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would therefore be in the range of US $7.5 million to US $11 million.

There is every reason to suppose that the costs of the maintenance phase could in large part be met by the countries themselves except for a few small countries in which health services are not yet adequately developed.

The problem of costing in Africa is much more complicated because fewer programmes have yet been developed. The state of development of the health services in many of the African countries limits the speed with which the attack phase can be mounted and will necessitate greater expenditure for the maintenance phase after the attack phase has been completed.

In the present state of knowledge it would be unrealistic to forecast the eradication of smallpox from the whole of Africa before the end of 1974, and unless large synchronized regional programmes can be developed it is probable that vaccination of total national populations may have to be repeated more than once in the course of the general campaign.

Taking into account the fact that the whole of the present population in endemic areas (approximately 200 million) may have to be vaccinated twice in systematic campaigns, the total estimated cost would be US $40 million. Of this sum, perhaps 40 to 50 per cent. (approximately US $16 million to US $20 million) might have to come from outside sources.

8. Conclusions

The smallpox eradication programme will not achieve its objective in the foreseeable future unless it is given a very much greater measure of support than it has received in the past from the governments of the endemic countries, from the smallpox-free countries, and from the international agencies.

It is considered that the following steps are necessary to assure the success of the programme:

1. Additional technical personnel will have to be provided at national and international levels to improve the necessary consultative services for planning and development of national programmes; to ensure the effective functioning of vaccine production laboratories; to advise on the establishment of independent evaluation teams; and to organize adequate surveillance methods.

2. An adequate administrative and supervisory structure must be established for the execution of eradication campaigns as these are set up in the endemic countries.

3. Greater quantities of potent, heat-stable freeze-dried vaccine must be donated by the non-endemic countries to meet the needs of the attack phases of the eradication programmes. (The annual requirements will depend on the speed of development of individual programmes, but may be expected to range from 20 to 50 million doses.)

4. The development of freeze-dried vaccine production in the endemic countries must be accelerated with immediate regard to the needs for Africa.

5. Stronger emphasis will have to be placed on the necessity for all production laboratories to conform to the WHO requirements for the safety and potency of vaccines. This can be facilitated by the provision of means for the independent examination of batches of vaccine from laboratories in countries where national biological control examination is not available.

6. Suitable transport, refrigeration and other equipment must be provided to the endemic countries in adequate quantities and adequately serviced.

7. Training of field and laboratory personnel at the national level must be further promoted.

8. In countries which have recently completed the attack phase there must be established an effective system for the routine vaccination and revaccination of the population, for case findings and diagnosis and for the investigation and control of outbreaks.

9. Research must be carried out on the use of jet injectors of different types and in different environments. Studies of the epidemiology and the immunology of smallpox are also required.

For the coming year, it is proposed that particular emphasis be placed on:

(1) The acceleration of the development of adequate vaccine production facilities in Asia and the development and expansion of production in Africa.

(2) Acceleration of the eradication programme in the Americas and Asia, where substantial progress has already been made.

(3) Intensification of the programmes in African countries which have already set up eradication schemes, and the establishment of pilot projects to explore the most effective methods to accomplish eradication in the countries which do not yet have programmes.

It is essential that the endemic countries should pay attention to the development of sound schemes of smallpox eradication based on a knowledge of the epidemiological situation and the structure of health
services. The schemes should be properly costed and phased in accordance with the medical and other resources which can be made available. The non-endemic countries must provide either in kind or in cash the very large quantities of vaccine, equipment, transport, and other support necessary for the programmes. Such provision will be of direct value to those countries since vaccination and revaccination of the population, the application of quarantine services, and the control of outbreaks when they occur will continue indefinitely so long as smallpox occurs in any part of the world.
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