OFFICIAL RECORDS

OF THE

WORLD HEALTH ORGANIZATION

No. 176

TWENTY-SECOND WORLD HEALTH ASSEMBLY

BOSTON, MASSACHUSETTS, 8-25 JULY 1969

PART I

RESOLUTIONS AND DECISIONS

ANNEXES

WORLD HEALTH ORGANIZATION

GENEVA

November 1969

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

ACABQ	— Advisory Committee on Administrative and Budgetary Questions
ACC	— Administrative Committee on Co-ordination
CIOMS	— Council for International Organizations of Medical Sciences
ECA	— Economic Commission for Africa
ECAFE	— Economic Commission for Asia and the Far East
ECE	— Economic Commission for Europe
ECLA	— Economic Commission for Latin America
FAO	— Food and Agriculture Organization of the United Nations
IAEA	— International Atomic Energy Agency
ICAO	— International Civil Aviation Organization
ILO	— International Labour Organisation (Office)
IMCO	— Inter-Governmental Maritime Consultative Organization
ITU	— International Telecommunication Union
PAHO	— Pan American Health Organization
PASB	— Pan American Sanitary Bureau
UNCTAD	— United Nations Conference on Trade and Development
UNDP/SF	— United Nations Development Programme, Special Fund component
UNDP/TA	— United Nations Development Programme, Technical Assistance component
UNESCO	— United Nations Educational, Scientific and Cultural Organization
UNICEF	— United Nations Children's Fund
UNRWA	— United Nations Relief and Works Agency for Palestine Refugees in the Near East
WFUNA	— World Federation of United Nations Associations
WMO	— World Meteorological Organization

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.

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The Twenty-second World Health Assembly, held at the War Memorial Auditorium, Boston, Massachusetts, United States of America, from 8 to 25 July 1969, was convened in accordance with resolution EB42.R16 of the Executive Board (forty-second session).

The proceedings of the Twenty-second 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 published, along with the list of participants, agenda and other material, in Official Records *No. 177.*

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 tenth 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 Twenty-first World Health Assembly and the forty-third session of the Executive Board.

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.

	Held	*Resolution symbol*	*Official Records No.*
First World Health Assembly	24 June - 24 July 1948	—	13
Executive Board, First Session	16-28 July 1948	—	14
Executive Board, Second Session	25 October - 11 November 1948	—	14
Executive Board, Third Session	21 February - 9 March 1949	—	17
Second World Health Assembly	13 June - 2 July 1949	WHA2.–	21
Executive Board, Fourth Session	8-19 July 1949	—	22
Executive Board, Fifth Session	16 January - 2 February 1950	—	25
Third World Health Assembly	8-27 May 1950	WHA3.–	28
Executive Board, Sixth Session	1-9 June 1950	EB6.R–	29
Executive Board, Seventh Session	22 January - 5 February 1951	EB7.R–	32
Fourth World Health Assembly	7-25 May 1951	WHA4.–	35
Executive Board, Eighth Session	1-8 June 1951	EB8.R–	36
Executive Board, Ninth Session	21 January - 4 February 1952	EB9R.–	40
Fifth World Health Assembly	5-22 May 1952	WHA5.–	42
Executive Board, Tenth Session	29 May - 3 June 1952	EB10.R–	43
Executive Board, Eleventh Session	12 January - 4 February 1953	EB11.R–	46
Sixth World Health Assembly	5-22 May 1953	WHA6.–	48
Executive Board, Twelfth Session	28-30 May 1953	EB12.R–	49
Executive Board, Thirteenth Session	12 January - 2 February 1954	EB13.R–	52
Seventh World Health Assembly	4-21 May 1954	WHA7.–	55
Executive Board, Fourteenth Session	27-28 May 1954	EB14.R–	57
Executive Board, Fifteenth Session	18 January - 4 February 1955	EB15.R–	60
Eighth World Health Assembly	10-27 May 1955	WHA8.–	63
Executive Board, Sixteenth Session	30 May 1955	EB16.R–	65
Executive Board, Seventeenth Session	17 January - 2 February 1956	EB17.R–	68
Ninth World Health Assembly	8-25 May 1956	WHA9.–	71
Executive Board, Eighteenth Session	28-30 May 1956	EB18.R–	73
Executive Board, Nineteenth Session	15-30 January 1957	EB19.R–	76
Tenth World Health Assembly	7-24 May 1957	WHA10.–	79
Executive Board, Twentieth Session	27-28 May 1957	EB20.R–	80
Executive Board, Twenty-first Session	14-28 January 1958	EB21.R–	83
Eleventh World Health Assembly	28 May - 13 June 1958	WHA11.–	87
Executive Board, Twenty-second Session	16-17 June 1958	EB22.R–	88
Executive Board, Twenty-third Session	20 January - 3 February 1959	EB23.R–	91
Twelfth World Health Assembly	12-29 May 1959	WHA12.–	95
Executive Board, Twenty-fourth Session	1-2 June 1959	EB24.R–	96
Executive Board, Twenty-fifth Session	19 January - 1 February 1960	EB25.R–	99
Thirteenth World Health Assembly	3-20 May 1960	WHA13.–	102
Executive Board, Twenty-sixth Session	25 October - 4 November 1960	EB26.R–	106
Executive Board, Twenty-seventh Session	30 January - 2 February 1961	EB27.R–	108
Fourteenth World Health Assembly	7-24 February 1961	WHA14.–	110
Executive Board, Twenty-eighth Session	29 May - 1 June 1961	EB28.R–	112
Executive Board, Twenty-ninth Session	15-26 January 1962	EB29.R–	115
Fifteenth World Health Assembly	8-25 May 1962	WHA15.–	118
Executive Board, Thirtieth Session	29-30 May 1962	EB30.R–	120
Executive Board, Thirty-first Session	15-28 January 1963	EB31.R–	124
Sixteenth World Health Assembly	7-23 May 1963	WHA16.–	127
Executive Board, Thirty-second Session	27-28 May 1963	EB32.R–	129
Executive Board, Thirty-third Session	14-24 January 1964	EB33.R–	132
Seventeenth World Health Assembly	3-20 March 1964	WHA17.–	135
Executive Board, Thirty-fourth Session	26-29 May 1964	EB34.R–	137
Executive Board, Thirty-fifth Session	19-28 January 1965	EB35.R–	140
Eighteenth World Health Assembly	4-21 May 1965	WHA18.–	143
Executive Board, Thirty-sixth Session	24-25 May 1965	EB36.R–	145
Executive Board, Thirty-seventh Session	18-28 January 1966	EB37.R–	148
Nineteenth World Health Assembly	3-20 May 1966	WHA19.–	151
Executive Board, Thirty-eighth Session	23-24 May 1966	EB38.R–	153
Executive Board, Thirty-ninth Session	17-27 January 1967	EB39.R–	157
Twentieth World Health Assembly	8-26 May 1967	WHA20.–	160
Executive Board, Fortieth Session	29-30 May 1967	EB40.R–	162
Executive Board, Forty-first Session	23 January - 1 February 1968	EB41.R–	165
Twenty-first World Health Assembly	6-24 May 1968	WHA21.–	168
Executive Board, Forty-second Session	27-28 May 1968	EB42.R–	170
Executive Board, Forty-third Session	18-28 February 1969	EB43.R–	173
Twenty-second World Health Assembly	8-25 July 1969	WHA22.–	176
Executive Board, Forty-fourth Session	28-29 July 1969	EB44.R–	178

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RESOLUTIONS AND DECISIONS

WHA22.1 Salaries and Allowances: Ungraded Posts

The Twenty-second World Health Assembly,

Noting the recommendations of the Executive Board in its resolution EB43.R3 with regard to the remuneration of staff in the ungraded posts,

1. CONCURS with the view of the Board that the proposed adjustments are reasonable and necessary to the maintenance of a single integrated salary and allowance system in the Organization; and, consequently,

2. ESTABLISHES the salary for the post of the Deputy Director-General at US $37 500 before staff assessment resulting in a revised net salary of US $25 225 per annum;

3. ESTABLISHES the salary for the Assistant Directors-General and Regional Directors at US $32 950 before staff assessment resulting in a revised net salary of US $22 723 per annum;

4. NOTES that, consequent upon the revision of salary rates for these officials, appropriate revision will be made of the post adjustment rates; and

5. DECIDES that these adjustments in remuneration shall be effective from 1 January 1969.

Handb. Res., 10th ed., 7.2.4.3

Seventh plenary meeting, 15 July 1969 (Committee on Administration, Finance and Legal Matters, first report)

WHA22.2 Status of Collection of Annual Contributions and of Advances to the Working Capital Fund

The Twenty-second World Health Assembly

1. NOTES the status, as at 30 June 1969, 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 1969; 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., 10th ed., 7.1.2.4

Seventh plenary meeting, 15 July 1969 (Committee on Administration, Finance and Legal Matters, first report)

WHA22.3 Election of Members entitled to designate a Person to serve on the Executive Board

The Twenty-second World Health Assembly,

Having considered the nominations of the General Committee,[1]

ELECTS the following as Members entitled to designate a person to serve on the Executive Board: Algeria, Bulgaria, the Central African Republic, Cyprus, Japan, Nepal, the United States of America, and Upper Volta.

Handb. Res., 10th ed., 4.2.1

Eighth plenary meeting, 16 July 1969

[1] For report of the General Committee, see *Off. Rec. Wld Hlth Org.*, **177**.

WHA22.4 Financial Report on the Accounts of WHO for the Year 1968 and Report of the External Auditor

The Twenty-second World Health Assembly,

Having examined the Financial Report of the Director-General for the period 1 January to 31 December 1968 and the Report of the External Auditor for the same financial period, as contained in *Official Records* No. 175;

Having considered the report [1] of the Ad Hoc Committee of the Executive Board on its examination of these reports; and

Recalling that the second report of the *Ad Hoc* Committee of Experts to Examine the Finances of the United Nations and the Specialized Agencies pointed out the desirability of the External Auditor making observations on administration and management,

1. ACCEPTS the Director-General's Financial Report and the Report of the External Auditor for the financial year 1968;

2. REQUESTS the External Auditor, in accordance with paragraph 5 of the " Principles to govern the audit procedures of the World Health Organization ",[2] to include in his reports, beginning with his examination of the accounts for 1969, substantive comments on the administration and management of the Organization; and

3. REQUESTS the Executive Board to consider the desirability and feasibility of the establishment of a group of representatives of Member States to consult with the External Auditor on his examination of the financial and administrative procedures of WHO, taking into account the discussion of this matter at the Twenty-second World Health Assembly, and to submit a report thereon to the Twenty-third World Health Assembly together with its recommendations.

Handb. Res., 10th ed., 7.1.10.3; 8.1.1.4

Ninth plenary meeting, 17 July 1969 (Committee on Administration, Finance and Legal Matters, second report)

WHA22.5 Per Diem Rates for Members of the Executive Board

The Twenty-second World Health Assembly,

Considering that the per diem rate for members of the Executive Board was established in February 1961 and that costs have increased considerably since that date,

DECIDES

(1) that members of the Executive Board shall be paid a per diem rate equivalent to the standard travel subsistence allowance rates for officials of the Secretariat plus 40 per cent. (rounded to the nearest dollar) plus US $3;

(2) that the applicable per diem rate shall be paid to members of the Executive Board during periods of necessary travel to and from the place of meeting and attendance at the place of the meeting, except that such allowance shall be reduced to US $10 for each full day (midnight to midnight) when travelling by sea.

Handb. Res., 10th ed., 7.1.12.1

Ninth plenary meeting, 17 July 1969 (Committee on Administration, Finance and Legal Matters, second report)

WHA22.6 Assessment of New Members; Assessment of Mauritius and of Southern Yemen

The Twenty-second World Health Assembly,

Considering resolution EB43.R31 adopted by the Executive Board at its forty-third session in respect of the assessment of Southern Yemen;

[1] See Annex 2.

[2] *Basic Documents*, 20th ed., p. 80.

Having noted the report of the Director-General;

Recalling that the Eighth World Health Assembly, in resolution WHA8.5, decided that the United Nations scale of assessment be used as the basis for the scale of assessment in WHO;

Recalling also that the Seventeenth World Health Assembly, in resolution WHA17.10, decided in principle that new Members joining the Organization in the last six months of a year shall be assessed at the normal rate, but that the contribution for the year shall be reduced by 50 per cent.;

Considering that it would be appropriate for WHO to follow the practice of the United Nations in assessing new Members for their year of admission;

Recalling that Southern Yemen became a Member of the Organization on 6 May 1968; and

Noting that Mauritius, having been an Associate Member since 9 May 1963, became a Member of the Organization by depositing with the Secretary-General of the United Nations a formal instrument of acceptance of the WHO Constitution on 9 December 1968,

DECIDES

(1) that from 1968 new Members shall be assessed in accordance with the practice followed by the United Nations in assessing new Members for their year of admission;

(2) that the 1968 contribution of Southern Yemen, which became a Member of the World Health Organization on 6 May 1968, shall be reduced to one-third of 0.04 per cent.;

(3) that Mauritius, which became a full Member of the World Health Organization on 9 December 1968, shall contribute for the period 1 January to 8 December 1968 in respect of associate membership at the rate of eight-ninths of 0.02 per cent. and, for the period 9 December to 31 December 1968, at the rate of one-ninth of 0.04 per cent.; and

(4) that for the year 1969 Mauritius shall contribute at the rate of 0.04 per cent.

Handb. Res., 10th ed., 7.1.2.2

Ninth plenary meeting, 17 July 1969 (Committee on Administration, Finance and Legal Matters, second report)

WHA22.7 Scale of Assessment for 1970

The Twenty-second World Health Assembly

DECIDES that the scale of assessment for 1970 shall be as follows:

Member	Scale (percentage)	Member	Scale (percentage)
Afghanistan	0.04	Canada	2.72
Albania	0.04	Central African Republic	0.04
Algeria	0.09	Ceylon	0.05
Argentina	0.84	Chad	0.04
Australia	1.37	Chile	0.21
Austria	0.51	China	3.60
Bahrain	0.02	Colombia	0.18
Barbados	0.04	Congo (Brazzaville)	0.04
Belgium	0.99	Congo, Democratic Republic of	0.05
Bolivia	0.04	Costa Rica	0.04
Brazil	0.80	Cuba	0.17
Bulgaria	0.16	Cyprus	0.04
Burma	0.05	Czechoslovakia	0.83
Burundi	0.04	Dahomey	0.04
Byelorussian SSR	0.46	Denmark	0.56
Cambodia	0.04	Dominican Republic	0.04
Cameroon	0.04	Ecuador	0.04

Member	Scale (percentage)
El Salvador	0.04
Ethiopia	0.04
Federal Republic of Germany	6.30
Finland	0.44
France	5.39
Gabon	0.04
Ghana	0.07
Greece	0.26
Guatemala	0.05
Guinea	0.04
Guyana	0.04
Haiti	0.04
Honduras	0.04
Hungary	0.47
Iceland	0.04
India	1.56
Indonesia	0.30
Iran	0.20
Iraq	0.06
Ireland	0.15
Israel	0.18
Italy	2.91
Ivory Coast	0.04
Jamaica	0.05
Japan	3.40
Jordan	0.04
Kenya	0.04
Kuwait	0.06
Laos	0.04
Lebanon	0.05
Lesotho	0.04
Liberia	0.04
Libya	0.04
Luxembourg	0.05
Madagascar	0.04
Malawi	0.04
Malaysia	0.10
Maldives	0.04
Mali	0.04
Malta	0.04
Mauritania	0.04
Mauritius	0.04
Mexico	0.78
Monaco	0.04
Mongolia	0.04
Morocco	0.09
Nepal	0.04
Netherlands	1.04
New Zealand	0.32
Nicaragua	0.04
Niger	0.04
Nigeria	0.13
Norway	0.39
Pakistan	0.33
Panama	0.04
Paraguay	0.04
Peru	0.09
Philippines	0.30
Poland	1.32
Portugal	0.14
Qatar	0.02
Republic of Korea	0.11
Romania	0.32
Rwanda	0.04
Saudi Arabia	0.05
Senegal	0.04
Sierra Leone	0.04
Singapore	0.05
Somalia	0.04
South Africa	0.47
Southern Rhodesia	0.02
Southern Yemen	0.04
Spain	0.83
Sudan	0.05
Sweden	1.12
Switzerland	0.77
Syria	0.04
Thailand	0.12
Togo	0.04
Trinidad and Tobago	0.04
Tunisia	0.04
Turkey	0.31
Uganda	0.04
Ukrainian SSR	1.73
Union of Soviet Socialist Republics	13.13
United Arab Republic	0.18
United Kingdom of Great Britain and Northern Ireland	5.95
United Republic of Tanzania	0.04
United States of America	30.87
Upper Volta	0.04
Uruguay	0.08
Venezuela	0.40
Viet-Nam	0.06
Western Samoa	0.04
Yemen	0.04
Yugoslavia	0.36
Zambia	0.04
Total	100.00

Handb. Res., 10th ed., 7.1.2.1

Ninth plenary meeting, 17 July 1969 (Committee on Administration, Finance and Legal Matters, second report)

WHA22.8 Financing of the Promotion of Sales of WHO Publications

The Twenty-second World Health Assembly,

Recalling resolution WHA1.92 of the First World Health Assembly, establishing a Publications Revolving Fund, and resolution WHA12.6 of the Twelfth World Health Assembly, redesignating this fund the Revolving Sales Fund and specifying the purposes for which the Fund should be used; and

Having considered the proposal of the Director-General concerning the future financing of sales promotion and of sales staff from the Revolving Sales Fund and the recommendation of the Executive Board thereon,[1]

1. BELIEVES that the cost of sales promotion and of staff exclusively engaged in sales processed through the Revolving Sales Fund should be met from the Special Account for Servicing Costs, which account shall be credited at the end of each year with an amount corresponding to the estimate of such costs for the following year by transfer from the Revolving Sales Fund;

2. CONFIRMS the decision of the Twelfth World Health Assembly in operative paragraph 1 of resolution WHA12.6 that the Revolving Sales Fund shall consist of proceeds of the sale of publications, films, filmstrips, other visual media and any other items which the Organization may produce for sale;

3. DECIDES that operative paragraphs 2 and 3 of resolution WHA12.6 shall be superseded by the following paragraphs:

4. DECIDES that the following conditions shall govern the operations of the Revolving Sales Fund:

(i) the Fund shall be used for the purpose of financing the cost of printing and reprinting additional copies of WHO publications for sale, of producing additional copies of WHO films, filmstrips, other visual media, of the production of any other item which the Organization may produce for sale, of sales promotion, of staff exclusively engaged in such sales, and the distribution and mailing costs;

(ii) proceeds of all such sales shall be credited to the Fund;

(iii) at the end of each year an amount corresponding to the estimated cost of sales promotion and of staff exclusively engaged in sales for the following financial year shall be transferred from the Fund to the Special Account for Servicing Costs;

(iv) the transactions during the year and the status of the Fund shall be included in each annual financial report of the Director-General;

5. AUTHORIZES the Director-General, at the end of each financial year, after taking account of the transfer provided for in paragraph 4 (iii) above, to transfer to miscellaneous income any sums in the Revolving Sales Fund in excess of the amount necessary to cover the costs of implementing paragraph 4 (i) above; and

6. DECIDES further that the provisions of this resolution shall become effective as from the fiscal year 1969.

Handb. Res., 10th ed., 7.1.6.1; 7.1.7

Ninth plenary meeting, 17 July 1969 (Committee on Administration, Finance and Legal Matters, second report)

WHA22.9 Amendment to the Contract of the Director-General

The Twenty-second World Health Assembly

1. AUTHORIZES the President of the World Health Assembly to sign an amendment to the contract of the Director-General to establish the salary of the Director-General at US $47 000 per annum before staff assessment, US $30 100 per annum net after staff assessment; and

2. DECIDES that this change shall be effective from 1 January 1969 in view of, and in relation to, the revision of all post adjustment classifications on that date.

Handb. Res., 10th ed., 7.2.10.2

Ninth plenary meeting, 17 July 1969 (Committee on Administration, Finance and Legal Matters, third report)

[1] See *Off. Rec. Wld Hlth Org.*, **173**, resolution EB43.R7 and Annex 8.

WHA22.10 Annual Report of the Director-General for 1968

The Twenty-second World Health Assembly,

Having reviewed the Report of the Director-General on the work of the World Health Organization during 1968,[1]

1. NOTES with satisfaction the manner in which the programme was planned and carried out in 1968, in accordance with the established policies of the Organization; and

2. COMMENDS the Director-General for the work accomplished.

Handb. Res., 10th ed., 1.16.1

Ninth plenary meeting, 17 July 1969

WHA22.11 Use of the Russian and Spanish Languages

The Twenty-second World Health Assembly,

Having considered the report of the Director-General on the use of the Russian and Spanish languages,[2]

1. NOTES with satisfaction that there have been no difficulties in implementing the first stage of the extended use of these languages at the Health Assembly and the Executive Board; and

2. DECIDES to extend in 1971 the use of the Russian and Spanish languages at the World Health Assembly and the Executive Board in accordance with alternative 2 in Appendix 1 to the Director-General's report.

Handb. Res., 10th ed., 4.1.5

Ninth plenary meeting, 17 July 1969 (Committee on Administration, Finance and Legal Matters, third report as amended)

WHA22.12 Supplementary Budget Estimates for 1969 [3]

The Twenty-second World Health Assembly,

Having considered the proposals of the Director-General and the recommendations of the Executive Board concerning the supplementary estimates for 1969, which are necessary in order to give effect to the decisions of the General Assembly of the United Nations concerning increases in the salaries and allowances of professional and ungraded staff and in the maximum amount of the education grant;

Having also considered the report of the Director-General submitted through the Ad Hoc Committee of the Executive Board concerning further additional requirements and budgetary savings which can be effected in 1969 as well as the availability of casual income as at 30 June 1969; and

Considering that it is desirable to avoid making additional assessments on Members for the year 1969 to finance these supplementary estimates,

1. APPROVES the supplementary estimates for 1969;

2. NOTES that the Director-General (with the concurrence of the Executive Board) has withdrawn US $853 000 from the Working Capital Fund in accordance with part C, paragraph 1 (2) of resolution WHA18.14;

3. AUTHORIZES the Director-General to transfer a further amount of US $520 900 from the Working Capital Fund to provide the balance of the necessary financing;

4. AUTHORIZES further the Director-General to reimburse the Working Capital Fund from casual income available as at 30 June 1969; and

5. DECIDES to amend the Appropriation Resolution for the financial year 1969 (resolution WHA21.18) as follows:

[1] *Off. Rec. Wld Hlth Org.*, **172.**

[2] See Annex 6.

[3] See Annex 4.

(i) increase or decrease the relevant appropriation sections by the following amounts:

Appropriation Section	Purpose of Appropriation	Amount US $
	PART II: OPERATING PROGRAMME	
4.	Programme Activities	1 114 430
5.	Regional Offices	140 800
6.	Expert Committees	(36 600)
	Total — Part II	1 218 630
	PART III: ADMINISTRATIVE SERVICES	
7.	Administrative Services	155 270
	Total — Part III	155 270
	Total — Parts II and III	1 373 900
	PART V: STAFF ASSESSMENT	
10.	Transfer to Tax Equalization Fund	463 600
	Total — Part V	463 600
	TOTAL — ALL PARTS	1 837 500

(ii) add a new sub-paragraph (iv) to paragraph C of resolution WHA21.18 to read as follows:
" (iv) the amount of US $1 373 900 by withdrawal from the Working Capital Fund ".

Handb. Res., 10th ed., 2.1.6.6

Ninth plenary meeting, 17 July 1969 (Committee on Administration, Finance and Legal Matters, third report)

WHA22.13 Effective Working Budget and Budget Level for 1970

The Twenty-second World Health Assembly

DECIDES that:

(1) the effective working budget for 1970 shall be US $67 650 000;

(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 1970 shall be financed by assessments on Members after deducting:

(i) the amount of US $1 268 624 available by reimbursement from the Technical Assistance component of the United Nations Development Programme,

(ii) the amount of US $997 376 available as casual income for 1970,

(iii) the amount of US $49 000 available by transfer to casual income from the General Account for Undesignated Contributions in the Voluntary Fund for Health Promotion to help finance the assistance to Equatorial Guinea.

Handb. Res., 10th ed., 2.1.7

Eleventh plenary meeting, 21 July 1969 (Committee on Programme and Budget, first report)

WHA22.14 Members in Arrears in the Payment of their Contributions to an Extent which may invoke Article 7 of the Constitution

The Twenty-second World Health Assembly,

Having considered the reports of the Executive Board [1] and its Ad Hoc Committee [2] on Members in arrears in the payment of their contributions to an extent which may invoke the provisions of Article 7 of the Constitution;

Having considered also the additional reports by the Director-General; [3]

Noting that the Dominican Republic is 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 its right to vote should be suspended at the Twenty-second World Health Assembly;

Recalling the provisions of resolutions WHA16.20, WHA18.21, WHA19.29, WHA20.31 and WHA21.6; and

Having noted the pledge made by the representative of the Dominican Republic concerning the payment of its arrears,[4]

1. DECIDES not to suspend the voting rights of the Dominican Republic at the Twenty-second World Health Assembly;

2. URGES the Dominican Republic to regularize its position so that the Executive Board at its forty-fifth session and the Twenty-third World Health Assembly will not again have to consider its arrears; and

3. REQUESTS the Director-General to communicate this resolution to the Member concerned.

Handb. Res., 10th ed., 7.1.2.4

Twelfth plenary meeting, 23 July 1969 (Committee on Administration, Finance and Legal Matters, fourth report)

WHA22.15 Advances from the Working Capital Fund for the Provision of Emergency Supplies to Member States

The Twenty-second World Health Assembly

NOTES the report of the Director-General on the provision of emergency supplies to Member States,[5] presented in accordance with the requirements of resolution WHA18.14.

Handb. Res., 10th ed., 1.14.1

Twelfth plenary meeting, 23 July 1969 (Committee on Administration, Finance and Legal Matters, fourth report)

WHA22.16 Agreement between the World Health Organization and the Organization of African Unity

The Twenty-second World Health Assembly,

Considering Articles 50 (*d*) and 70 of the Constitution of the World Health Organization,

APPROVES the proposed agreement to be concluded between the World Health Organization and the Organization of African Unity.[6]

Handb. Res., 10th ed., 8.3

Twelfth plenary meeting, 23 July 1969 (Committee on Administration, Finance and Legal Matters, fourth report)

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[1] See *Off. Rec. Wld Hlth Org.*, **174**, 86.

[2] See Annex 3, part 1.

[3] See Annex 3, part 2.

[4] See *Off. Rec. Wld Hlth Org.*, **177**, summary records of the Committee on Administration, Finance and Legal Matters, sixth meeting.

[5] The Director-General stated in his report that in 1968 advances had been made for the provision of emergency supplies to the Democratic Republic of the Congo and to Burma, amounting to US $3404 and US $12 521 respectively. The advance to Burma had been repaid, while that to the Democratic Republic of the Congo was outstanding as at 27 May 1969.

[6] See Annex 7.

WHA22.17 Appointment of External Auditor

The Twenty-second World Health Assembly

1. RESOLVES that Mr Lars Breie be appointed External Auditor of the accounts of the World Health Organization for the three financial years 1970 to 1972 inclusive, to make his audits in accordance with the principles incorporated in Article XII of the Financial Regulations, with the provision that, should the necessity arise, he may designate a representative to act in his absence; and

2. EXPRESSES its gratitude to Mr Breie for the excellent quality of the work which he has performed for the Organization.

Handb. Res., 10th ed., 7.1.10.1

Twelfth plenary meeting, 23 July 1969 (Committee on Administration, Finance and Legal Matters, fourth report)

WHA22.18 Headquarters Accommodation: Future Requirements

The Twenty-second World Health Assembly

1. NOTES the report of the Director-General with regard to the future requirements of headquarters accommodation and resolution EB43.R30 adopted by the Executive Board on this subject at its forty-third session; and

2. REQUESTS the Director-General to keep the Board and the Assembly informed of further developments.

Handb. Res., 10th ed., 7.3.2.2

Twelfth plenary meeting, 23 July 1969 (Committee on Administration, Finance and Legal Matters, fourth report)

WHA22.19 Inclusion of Afghanistan in the Eastern Mediterranean Region

The Twenty-second World Health Assembly,

Having considered the request from the Government of Afghanistan for the inclusion of that country in the Eastern Mediterranean Region,[1]

DECIDES that Afghanistan shall form part of the Eastern Mediterranean Region.

Handb. Res., 10th ed., 5.1.3.1

Twelfth plenary meeting, 23 July 1969 (Committee on Administration, Finance and Legal Matters, fourth report)

WHA22.20 Co-ordination with the United Natione, the Specialized Agencies and the International Atomic Energy Agency on Administrative, Budgetary and Financial Matters

The Twenty-second World Health Assembly,

Having considered resolutions EB43.R38 and EB43.R48, on co-ordination with the United Nations, the specialized agencies and the International Atomic Energy Agency on administrative, budgetary and financial matters, and on recommendations of the *Ad Hoc* Committee of Experts to Examine the Finances of the United Nations and the Specialized Agencies; and

Having heard the report of the representative of the Executive Board on the same subject,

ACCEPTS the report and the conclusions of the Executive Board.

Handb. Res., 10th ed., 8.1.1.4

Twelfth plenary meeting, 23 July 1969 (Committee on Administration, Finance and Legal Matters, fifth report)

[1] See Annex 8.

WHA22.21 Annual Report of the United Nations Joint Staff Pension Board for 1967

The Twenty-second World Health Assembly

NOTES the status of the operation of the Joint Staff Pension Fund as indicated by the annual report for the year 1967 and as reported by the Director-General.

Handb. Res., 10th ed., 7.2.7.1

Twelfth plenary meeting, 23 July 1969 (Committee on Administration, Finance and Legal Matters, fifth report)

WHA22.22 Appointment of Representatives to the WHO Staff Pension Committee

The Twenty-second World Health Assembly

RESOLVES that the member of the Executive Board designated by the Government of Japan be appointed as member of the WHO Staff Pension Committee, and that the member of the Board designated by the Government of Upper Volta be appointed as alternate member, the appointments being for a period of three years.

Handb. Res., 10th ed., 7.2.7.2

Twelfth plenary meeting, 23 July 1969 (Committee on Administration, Finance and Legal Matters, fifth report)

WHA22.23 Selection of the Country in which the Twenty-third World Health Assembly will be held

The Twenty-second World Health Assembly,

Considering the provision of Article 14 of the Constitution with regard to the selection of the country or region in which the next Health Assembly will be held,

DECIDES that the Twenty-third World Health Assembly shall be held in Switzerland.

Handb. Res., 10th ed., 4.1.1.2

Twelfth plenary meeting, 23 July 1969 (Committee on Administration, Finance and Legal Matters, fifth report)

WHA22.24 Resolution of Thanks

The Twenty-second World Health Assembly

EXTENDS to the Government and the people of the United States of America, and the authorities of the Commonwealth of Massachusetts and of the City of Boston, its deep gratitude and warmest thanks for the cordial welcome and friendly hospitality shown throughout the Assembly to all those who have participated in its work.

Handb. Res., 10th ed., 4.1.1.2

Twelfth plenary meeting, 23 July 1969 (Committee on Administration, Finance and Legal Matters, fifth report)

WHA22.25 Extension of the Agreement with the United Nations Relief and Works Agency for Palestine Refugees in the Near East

The Twenty-second 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 Nineteenth World Health Assembly, in resolution WHA19.25, extended the duration of this agreement until 30 June 1969 and that, subsequently, the General Assembly of the United Nations, at its twenty-third session, extended the mandate of UNRWA until 30 June 1972;

Considering that, on numerous occasions, the World Health Assembly has extended the duration of this agreement to coincide with the respective periods of extension of the mandate of UNRWA; and

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

1. AUTHORIZES the Director-General to extend the agreement with UNRWA from time to time for such periods as UNRWA continues to have a mandate from the United Nations; and

2. REQUESTS the Director-General to report to the Health Assembly if he should feel that the necessity for continuing this agreement on the same basis no longer obtains.

Handb. Res., 10th ed., 8.1.4.2

Twelfth plenary meeting, 23 July 1969 (Committee on Administration, Finance and Legal Matters, fifth report)

WHA22.26 Situation regarding the Possibilities for the Acceptance of Amendments to the Constitution of WHO

The Twenty-second World Health Assembly,

Recalling resolutions WHA18.48 and WHA20.36, adopting amendments to the Constitution;

Having considered the report of the Director-General; and

Noting that the required majority of Members has not so far indicated acceptance of the amendments,

1. URGES those Members who are in agreement with the amendments to communicate their acceptance of them as soon as possible; and

2. REQUESTS the Director-General to report to the Twenty-third World Health Assembly on the situation at that time.

Handb. Res., 10th ed., 6.1

Twelfth plenary meeting, 23 July 1969 (Committee on Administration, Finance and Legal Matters, fifth report)

WHA22.27 Financial Participation by Governments in the Costs of Implementation of WHO-assisted Projects

The Twenty-second World Health Assembly,

Having considered the report by the Director-General on the financial participation by governments in the costs of implementation of WHO-assisted projects, in accordance with the request of the Executive Board that the matter be reconsidered;

Considering that the Organization should continue to obtain information on the financial participation by governments as required by resolutions WHA4.60 and WHA7.36; and

Recognizing that a number of governments are unable to provide complete information on their estimated contributions towards the implementation of WHO-assisted projects in their own countries and territories for inclusion in the annual proposed programme and budget estimates,

1. DECIDES that information on the financial participation by governments in the costs of implementation of WHO-assisted projects shall continue to be reported; and, further

2. DECIDES that financial data on projects carried out should also be reported.

Handb. Res., 10th ed., 7.1.11; 2.3

Twelfth plenary meeting, 23 July 1969 (Committee on Administration, Finance and Legal Matters, sixth report)

WHA22.28 Implementation of Resolution WHA7.33

The Twenty-second World Health Assembly,

Having noted the report of the Director-General, included in Annex 13 of *Official Records* No. 173, in connexion with the implementation of resolution WHA7.33;

Bearing in mind that the considerata, discussions, and circumstances which led the Sixth and Seventh World Health Assemblies to adopt resolutions WHA6.47 and WHA7.33 remain unchanged; and

Reiterating that it is highly desirable that the task conferred upon the World Health Organization be accomplished fully in order to satisfy the legitimate health needs of the Member States in the Eastern Mediterranean Region,

1. REAFFIRMS resolutions WHA6.47 and WHA7.33; and

2. REQUESTS the Director-General and the Regional Director to take the necessary measures to ensure implementation of these resolutions.

Handb. Res., 10th ed., 5.2.5.3

Twelfth plenary meeting, 23 July 1969 (Committee on Administration, Finance and Legal Matters, sixth report)

WHA22.29 Prevention of Blindness

The Twenty-second World Health Assembly,

Recognizing that most of the world's blindness is preventable and that much of it is curable;

Noting the programmes on communicable eye diseases, especially trachoma and onchocerciasis, conducted by WHO, and the efforts which are being made by various governments to control these and other causes of blindness, including injuries and vitamin A deficiencies;

Noting also the increased activity in this field by non-governmental organizations concerned with blindness and its prevention and the recommendation of these organizations that there is need for the compilation and evaluation of more systematic information, clearer identification of practical objectives, and improved machinery for international co-ordination,

REQUESTS the Director-General:

(1) to undertake a study on the information which is at present available on the extent and all the causes of preventable and curable blindness and to propose activities in this field which the Organization would carry out within its programme of work; and

(2) to collaborate, as may be required, with other organizations having an interest in this domain, including certain non-governmental organizations in relation with WHO.

Handb. Res., 10th ed., 1.7; 1.3

Twelfth plenary meeting, 23 July 1969 (Committee on Programme and Budget, second report)

WHA22.30 Fluoridation and Dental Health

The Twenty-second World Health Assembly,

Having considered the report of the Director-General [1] on the fluoridation of water supplies, presented in accordance with resolution EB43.R10 of the Executive Board;

Bearing in mind that dental caries is a widespread disease in many populations, and is becoming increasingly prevalent in many others;

Recalling that studies in several countries have consistently shown the prevalence of this disease to be markedly low whenever an optimal concentration of fluoride occurs naturally in water supplies;

[1] See Annex 9.

Accepting the reports now coming from countries with experience of the procedure indicating that the adjustment of the fluoride content of water supplies to an optimal level is a practicable, safe and efficient public health measure;

Noting that other equally effective means are not available for conferring on whole populations the beneficial effects of fluoride on dental health;

Emphasizing that in the extensive scientific literature on the subject no valid evidence has been forthcoming of any ill effects on human health from the use of water supplies with an optimal concentration of fluoride;

Recognizing that several authoritative and independent inquiries conducted in a number of countries have all reached conclusions similar to the above; and

Recognizing further that for many populations the provision of potable water supplies is a first consideration,

1. THANKS the Director-General for his report;

2. RECOMMENDS Member States to examine the possibility of introducing and, where practicable, to introduce fluoridation of those community water supplies where the fluoride intake from water and other sources for the given population is below optimal levels, as a proven public health measure; and where fluoridation of community water supplies is not practicable, to study other methods of using fluorides for the protection of dental health;

3. REQUESTS the Director-General to continue to encourage research into the etiology of dental caries, the fluoride content of diets, the mechanism of action of fluoride at optimal concentrations in drinking-water, and the effects of greatly excessive intake of fluoride from natural sources, and to report thereon to the World Health Assembly; and

4. REQUESTS the Director-General to bring this resolution to the attention of all Member States.

Handb. Res., 10th ed., 1.7.1

Twelfth plenary meeting, 23 July 1969 (Committee on Programme and Budget, second report)

WHA22.31 Study of the Nature and Extent of Health Problems of Seafarers and the Health Services Available to Them

The Twenty-second World Health Assembly,

Having considered the report of the Director-General on the health problems of seafarers and the health services available to them,[1] pursuant to resolution EB43.R23 adopted by the Executive Board at its forty-third session,

1. THANKS the Director-General for his report; and

2. REQUESTS the Director-General to assist in the establishment of pilot centres for the health of seafarers in the ports of Auckland (New Zealand) and Gdynia (Poland) as recommended in the report.

Handb. Res., 10th ed., 1.7.2.2

Twelfth plenary meeting, 23 July 1969 (Committee on Programme and Budget, second report)

WHA22.32 Health Aspects of Population Dynamics

The Twenty-second World Health Assembly,

Having considered the report of the Director-General;

Noting with satisfaction the further development of programme activities in the health aspects of human reproduction, family planning, and population dynamics within the framework of resolutions WHA18.49, WHA19.43, WHA20.41 and WHA21.43;

[1] See Annex 10.

Emphasizing the primary importance of social and economic factors for the solution of these problems;

Reiterating the conviction that medicine and public health have substantial contributions to make in relation to these problems; and

Reaffirming the importance of an infrastructure of health services as the basis of all health services, including family planning,

1. CONGRATULATES the Director-General on the work accomplished during the past year;

2. APPROVES the report of the Director-General; and

3. REQUESTS the Director-General:

(*a*) to continue to develop the programme of advisory services, training, research and reference in this field in the direction undertaken;

(*b*) to evaluate various approaches to the introduction and development of services for family planning care specifically in the context of health services and generally in the context of community, economic and national development; and

(*c*) to continue to intensify the development of basic health services as the framework for meeting health needs, including family planning in those countries where this is necessary.

Handb. Res., 10th ed., 1.9.2

Twelfth plenary meeting, 23 July 1969 (Committee on Programme and Budget, second report)

WHA22.33 Appropriation Resolution for the Financial Year 1970 [1]

The Twenty-second World Health Assembly

RESOLVES to appropriate for the financial year 1970 an amount of US $79 786 820 as follows:

A.

Appropriation Section	Purpose of Appropriation	Amount US $
	PART I: ORGANIZATIONAL MEETINGS	
1.	World Health Assembly	474 200
2.	Executive Board and its Committees	217 600
3.	Regional Committees	130 000
	Total — Part I	821 800
	PART II: OPERATING PROGRAMME	
4.	Programme Activities	55 968 894
5.	Regional Offices	5 872 902
6.	Expert Committees	205 800
	Total — Part II	62 047 596
	PART III: ADMINISTRATIVE SERVICES	
7.	Administrative Services	4 169 404
	Total — Part III	4 169 404

[1] See Annex 11.

Appropriation Section	Purpose of Appropriation	Amount US$
	PART IV: OTHER PURPOSES	
8.	Headquarters Building: Repayment of Loans	511 200
9.	Revolving Fund for Teaching and Laboratory Equipment	100 000
	Total — Part IV	611 200
	Effective Working Budget (PARTS I, II, III AND IV)	67 650 000
	PART V: STAFF ASSESSMENT	
10.	Transfer to Tax Equalization Fund	7 773 710
	Total — Part V	7 773 710
	PART VI: RESERVE	
11.	Undistributed Reserve	4 363 110
	Total — Part VI	4 363 110
	TOTAL — ALL PARTS	79 786 820

B. Amounts not exceeding the appropriations voted under paragraph A shall be available for the payment of obligations incurred during the period 1 January to 31 December 1970, 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 1970 to the effective working budget established by the World Health Assembly, i.e. Parts I, II, III and IV.

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

(i) reimbursement from the Technical Assistance component of the United Nations Development Programme in the amount of	US $1 268 624
(ii) assessments on new Members from previous years in the amount of	US $ 45 420
(iii) miscellaneous income in the amount of	US $ 835 865
(iv) available by transfer from the cash portion of the Assembly Suspense Account	US $ 116 091
(v) transfer from the General Account for Undesignated Contributions in the Voluntary Fund for Health Promotion to help finance the assistance to Equatorial Guinea	US $ 49 000
Total	US $2 315 000

thus resulting in assessments against Members of US $77 471 820. In establishing the amounts of contributions to be paid by individual Members, their assessments shall be reduced further by the amount standing to their credit in the Tax Equalization Fund, except that the credits of those Members whose nationals, staff members of WHO, are required to pay taxes on their WHO emoluments shall be reduced by the estimated amounts of such tax reimbursements to be made by the Organization.

Handb. Res., 10th ed., 2.1.7

Twelfth plenary meeting, 23 July 1969 (Committee on Programme and Budget, third report)

WHA22.34 Smallpox Eradication Programme

The Twenty-second World Health Assembly,

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

Noting that, while very significant progress is being made in the eradication effort, not all endemic countries are proceeding at the pace necessary to assure the success of the eradication programme; and

Recognizing the need for full and active participation by all endemic countries, for the maximum of co-ordination, and for more complete and prompt reporting and improved surveillance techniques,

1. REITERATES the need for all countries to give the highest possible priority to the provision of funds and personnel to achieve eradication;

2. EXPRESSES appreciation to Member States for continuing support to the programme, including the supply of vaccine and bilateral aid to the endemic countries;

3. REQUESTS

(1) all countries with endemic smallpox, particularly those having nomadic and mobile populations, to strengthen their programmes, surveillance, case investigations, active containment measures in each outbreak, and assessment activities; and

(2) all countries, especially those neighbouring endemic countries, to continue their vaccination programmes and surveillance, especially along their common borders; and

4. REQUESTS the Director-General:

(1) to continue to take all necessary steps to assure the maximum co-ordination of national efforts, as well as of support provided through international and bilateral agencies, with the objective of achieving smallpox eradication as quickly as possible; and

(2) to report further on the progress of the smallpox eradication programme to the forty-fifth session of the Executive Board and to the Twenty-third World Health Assembly.

Handb. Res., 10th ed., 1.3.6

Thirteenth plenary meeting, 24 July 1969 (Committee on Programme and Budget, fourth report)

WHA22.35 Socio-economic Consequences of the Zoonoses

The Twenty-second World Health Assembly,

Considering that some zoonoses are recognized as major health problems in most countries of the world, affecting the health and well-being of millions of human beings, preventing the efficient production of food and impeding economic development;

Considering that the zoonoses affect all countries of the world and result in a great waste of resources, both human and animal, much of which could be prevented by modern technology;

Considering that the socio-economic consequences of continued losses due to the zoonoses may prevent normal growth of animal populations, their development and improvement of productivity; and

Considering that all countries are concerned with the control and prevention of the zoonoses, and that the countries themselves have to determine the magnitude and socio-economic consequences of the problem,

1. RECOGNIZES the importance for each Member State of surveying and evaluating the importance of the zoonoses and the relative priority which that group of diseases should receive in national planning for socio-economic development;

2. CONSIDERS it desirable that the World Health Organization and the Food and Agriculture Organization should collaborate in preparing methodology and criteria to be used by Member States in carrying out the necessary surveillance and evaluation of control programmes; and

3. REQUESTS the Director-General to consult with the Director-General of the Food and Agriculture Organization concerning this proposed joint endeavour, and to report his findings and recommendations on the matter to the forty-fifth session of the Executive Board.

Handb. Res., 10th ed., 1.3.8

Thirteenth plenary meeting, 24 July 1969 (Committee on Programme and Budget, fourth report)

WHA22.36 Proposed Programme and Budget Estimates for 1970: Voluntary Fund for Health Promotion

The Twenty-second World Health Assembly,

Having considered the programmes planned to be financed in 1970 from the Voluntary Fund for Health Promotion, as shown in Annex 3 of *Official Records* No. 171,

1. NOTES that the programmes are complementary to the programmes included in the regular budget of the Organization;

2. NOTES further that the programmes conform to the general programme of work for the period 1967-1971[1] and that the research programmes are in accordance with advice received by the Director-General from the Advisory Committee on Medical Research; and

3. REQUESTS the Director-General to implement the programmes planned for 1970 to the extent to which funds become available.

Handb. Res., 10th ed., 2.1.7.3

Thirteenth plenary meeting, 24 July 1969 (Committee on Programme and Budget, fourth report)

WHA22.37 Special Account for Servicing Costs

The Twenty-second World Health Assembly,

Having considered the estimates included in *Official Records* No. 171, Annex 4, for personnel and other services to be financed from the Special Account for Servicing Costs, and the report of the Executive Board thereon;[2] and

Recalling resolution EB37.R26 noting the establishment of the Special Account for Servicing Costs and its uses in accordance with the report submitted to the Board at its thirty-seventh session,[3] which enables the Director-General, as needs arise, to use the funds at his discretion,

1. NOTES that the provision for the support services required for programmes to be carried out from sources other than the regular budget and the Technical Assistance component of the United Nations Development Programme will need to be adjusted to take account of the nature and scope of such programmes; and

2. RECOGNIZES that the Director-General is responsible for providing the support services to be financed from the Special Account for Servicing Costs essential for the effective implementation of the programmes to be carried out from sources other than the regular budget and the Technical Assistance component of the United Nations Development Programme.

Handb. Res., 10th ed., 7.1.7

Thirteenth plenary meeting, 24 July 1969 (Committee on Programme and Budget, fourth report)

[1] *Off. Rec. Wld Hlth Org.*, **143**, Annex 3.
[2] *Off. Rec. Wld Hlth Org.*, **174**, 78.
[3] *Off. Rec. Wld Hlth Org.*, **148**, Annex 13.

WHA22.38 Form of Presentation of the Programme and Budget Estimates

The Twenty-second World Health Assembly,

Recalling resolution WHA21.40 in which the Twenty-first World Health Assembly requested the Director-General to include in his proposed programme and budget estimates for 1970 an appendix providing summarized information on the main services provided by the Organization and the geographical distribution of services and assistance provided to governments;

Noting that the summarized information requested has been included in a new Appendix 5 to *Official Records* No. 171 containing the proposed programme and budget estimates for 1970;

Noting further that the Executive Board at its forty-third session, when it reviewed the proposed programme and budget estimates for 1970, considered that the presentation of the information contained in the new Appendix 5 could be further improved; [1] and

Having considered the report by the Director-General proposing *inter alia*:

(1) to exclude from tables I, II and III of Appendix 5 those figures under the heading " Other sources " which represent planned activities under the various special accounts of the Voluntary Fund for Health Promotion but for which voluntary contributions still need to be received if they are to be carried out, and to include under this heading the estimates for the planned use of the funds available in the Special Account for Servicing Costs;

(2) to show separately in tables II and III the estimates for the regular budget and for all other sources of funds available to the Organization;

(3) to show the estimates for various established offices and activities separately in tables II and III instead of including them on a *pro rata* basis;

1. CONCURS in the changes proposed by the Director-General in the presentation of the information contained in Appendix 5 to *Official Records* No. 171; and

2. REQUESTS the Director-General to reflect these changes in the presentation of this information in the future.

Handb. Res., 10th ed., 2.3

Thirteenth plenary meeting, 24 July 1969 (Committee on Programme and Budget, fourth report)

WHA22.39 Re-examination of the Global Strategy of Malaria Eradication

The Twenty-second World Health Assembly,

Having considered the report of the Director-General on the re-examination of the global strategy of malaria eradication; [2]

Noting with satisfaction the steps taken by the Director-General in pursuance of resolution WHA21.22 and the successes achieved by the malaria eradication campaign in a certain number of countries;

Recognizing the part played by socio-economic, financial, administrative and operational factors, as also by the inadequacy of the basic health services, in the failures recorded during the implementation of the global malaria eradication programme;

Reaffirming that complete eradication of malaria from the world remains a primary task of national public health organizations, and that even in the regions where eradication does not yet seem feasible, control of malaria with the means available should be encouraged and may be regarded as a necessary and valid step towards the ultimate goal of eradication;

Bearing in mind that it is imperative to adapt the strategy to local epidemiological situations as well as to the available administrative and economic resources of the countries concerned, and that the observance of this condition is equally essential both for the achievement of eradication and for its maintenance;

[1] *Off. Rec. Wld Hlth Org.*, **174**, 13.

[2] See Annex 13.

Recognizing, moreover, that, in order to confront the financial difficulties which are a major hindrance to the implementation of malaria eradication programmes and to secure adequate priority for these programmes in the allocation of funds, it is necessary to justify them on economic as well as health grounds, by demonstrating the reality of the rapid and lasting advantages accruing from the pursuit of eradication, which now seems to be possible; and

Realizing the importance of the whole body of research undertaken on all aspects of the malaria problem for devising methods of interrupting transmission suited to various ecological conditions and for developing more effective methods for the prevention, diagnosis and treatment of malaria,

1. ENDORSES the proposals contained in the report of the Director-General with regard to the strategy contemplated in countries where eradication programmes are already in operation and in those where areas have reached the maintenance phase, as well as in countries which have not yet commenced their eradication programmes;

2. URGES the governments of countries with eradication programmes and the assisting agencies to give them the necessary priority in the allocation of their resources to ensure the successful implementation of the programmes;

3. INVITES the Director-General to undertake the necessary consultations with the international and bilateral assistance bodies concerned, with a view to harmonizing antimalaria activities in accordance with the revised global strategy;

4. RECOMMENDS

(*a*) that in order to ensure the best prospects of success the Organization continue to aid the countries concerned in drawing up long-term plans for malaria eradication taking into account not only the technical, financial and administrative requirements of the attack and consolidation phases, but also the long-term needs for the implementation of the maintenance phase, and that in preparing budgets it indicate as far as possible, firstly, the sums allocated to the development of the general health services and, secondly, those earmarked for the eradication programme itself;

(*b*) that the Organization continue to provide assistance for the study of the socio-economic impact of malaria and of its eradication and develop a methodology for the socio-economic evaluation of the programmes under way;

(*c*) that the Organization stimulate and intensify multidisciplinary research on malaria involving the biological, epidemiological, economic, social and operational sciences with a view to simplifying and improving methods of malaria eradication as well as programme implementation; and

(*d*) that the governments of the countries with programmes under way revise them in co-operation with the Organization and the other assisting agencies with a view to adapting them to a strategy calculated to give optimum results; and

5. REQUESTS the Director-General to report to the Twenty-third World Health Assembly on the measures taken in pursuance of this revised global strategy of malaria eradication.

Handb. Res., 10th ed., 1.2.2

Thirteenth plenary meeting, 24 July 1969 (Committee on Programme and Budget, fourth report)

WHA22.40 Research on Methods of Vector Control

The Twenty-second World Health Assembly,

Recognizing that the prolonged and large-scale use of persistent pesticides, in particular those of the chlorinated hydrocarbon type, in agriculture and public health may lead to an accumulation of certain of those substances in the environment, as well as in human and animal tissues, and may lead to the development of resistance in vectors;

Noting that at present there is no alternative method of vector control that could replace the use of persistent pesticides for the control of vector-borne diseases;

Realizing that vector-borne diseases still constitute a major public health problem in many countries; and

Appreciating the efforts of the Organization

(i) in studying the dynamics of the build-up of pesticides in the tissues of exposed populations and in studying the various ecological aspects of pesticide residues in collaboration with the Food and Agriculture Organization; and

(ii) in developing new pesticides and alternative methods of vector control,

1. RECOMMENDS that the Organization, in collaboration with other agencies concerned, continue to study the effects of persistent pesticides of the chlorinated hydrocarbon type and their short-term and long-term implications for environmental pollution and human health; and

2. REQUESTS the Director-General to stimulate and intensify research on the development of alternative methods of vector control and to submit to the Twenty-third World Health Assembly a comprehensive report including proposals for future research activities, together with their financial implications.

Handb. Res., 10th ed., 1.5

Thirteenth plenary meeting, 24 July 1969 (Committee on Programme and Budget, fourth report)

WHA22.41 Safety and Efficacy of Drugs

The Twenty-second World Health Assembly,

Emphasizing that, in addition to the pharmaceutical quality control of drugs, it is essential to evaluate their therapeutic safety and efficacy so as to prevent their unsuitable use involving, *inter alia*, excessive expenditures for the individual as well as the public;

Considering that the increasing variety of drugs renders their selection by the prescribing physician difficult; and

Recalling resolution WHA17.39 requesting *inter alia* the formulation by the World Health Organization of generally acceptable principles for the evaluation of the safety and efficacy of drugs,

REQUESTS the Director-General to examine possible ways of providing advice to governments in developing machinery for evaluating the therapeutic safety and efficacy of drugs and to report to the Executive Board and the Twenty-fourth World Health Assembly.

Handb. Res., 10th ed., 1.10.1

Thirteenth plenary meeting, 24 July 1969 (Committee on Programme and Budget, fourth report)

WHA22.42 Study of the Criteria for Assessing the Equivalence of Medical Degrees in Different Countries

The Twenty-second World Health Assembly,

After having noted the report of the Director-General submitted for its consideration in accordance with resolution WHA21.35;

Conscious of the importance of continuing the study of the criteria for assessing the equivalence of medical degrees in different countries as well as of supplementary post-graduate diplomas or qualifications; and

Noting the conclusions of the consultants' report, particularly in regard to the need for an inter-country agreement on certain basic medical qualifications,

1. CONGRATULATES the Director-General on his report and the various activities undertaken by the World Health Organization in order to find a solution to this problem;

2. REAFFIRMS the principles set out in the preambular part of resolution WHA21.35, and more especially the need to encourage the physicians of the developing countries to return to their countries;

3. CONSIDERS that a definition for the term " physician " should be worked out, using the methods which in the opinion of the Director-General are most appropriate for that purpose;

4. REQUESTS the Director-General, taking into account the relevant recommendations of the expert consultation on the international equivalence of medical degrees, to collect and make available to Members information on medical education practices and standards through co-operation with appropriate existing national and regional organizations, and, where these do not exist, to assist in the development of appropriate sources; and

5. REQUESTS the Director-General to report to the Executive Board and to the Health Assembly on the progress of work in this field as soon as practicable.

Handb. Res., 10th ed., 1.8.5

Thirteenth plenary meeting, 24 July 1969 (Committee on Programme and Budget, fourth report)

WHA22.43 Health Assistance to Refugees and Displaced Persons in the Middle East

The Twenty-second World Health Assembly,

Having considered the Director-General's report of 17 June 1969 on health assistance to refugees and displaced persons, as well as the Annual Report of the Director of the Health Department of the United Nations Relief and Works Agency for Palestine Refugees in the Near East (UNRWA);

Considering that the World Health Organization should continue its efforts to provide effective health assistance for refugees and displaced persons in order to ensure their health protection and care;

Recalling the numerous humanitarian resolutions of the United Nations which called upon Israel *inter alia* to ensure the safety, welfare and security of the inhabitants of the areas where military operations took place and to facilitate the return of those inhabitants who have fled from these areas since the outbreak of hostilities; and

Further recalling resolution WHA21.38 on health assistance to refugees and displaced persons,

1. REAFFIRMS resolution WHA21.38;

2. DEPLORES the deficiency of the health conditions in the occupied territories in the Middle East;

3. TAKES CAREFUL NOTE of the Director-General's report and of the statement by the distinguished representative of UNRWA;

4. CALLS UPON Member States to exert all efforts towards ensuring the social well-being of displaced persons, refugees and inhabitants of the occupied territories in the Middle East and enabling them to enjoy a normal standard of health; and

5. REQUESTS the Director-General of the World Health Organization to take all the effective measures in his power to safeguard health conditions amongst refugees and displaced persons in the Middle East and to report thereon to the Twenty-third World Health Assembly.

Handb. Res., 10th ed., 8.1.4.2

Thirteenth plenary meeting, 24 July 1969 (Committee on Programme and Budget, fourth report)

WHA22.44 General Order of Magnitude of the Budget for 1971

The Twenty-second World Health Assembly,

Having noted the report of the Director-General;

Having heard the statements of the Director-General concerning the future general programme developments of the Organization and the trends of increase in costs of the services provided by the Organization;

Recognizing that, if no unusual events occur, the annual increase in costs of the Organization for maintaining the activities at the same level as the preceding year requires an increase in each effective working budget of about 5 per cent.;

Desirous of making available sufficient funds to allow for an orderly increase in the services to be provided by the Organization to its Members, and particularly to the developing countries, in the gradual achievement of the Organization's objective under Article 1 of the Constitution; and

Conscious of the provisions of Articles 34 and 55 of the Constitution,

1. RECOMMENDS to the Director-General that as a general orientation in preparing his proposed programme and budget estimates for 1971 he should, taking account of the views expressed by delegations during the discussions at the Twenty-second World Health Assembly, propose an increase in the programme such as will give a budget increase of an order of magnitude of about 10 per cent., provided that no unusual developments occur which result in additional resources being required by the Organization, and provided further that:

(*a*) the estimated costs of the extension in 1971 of the use of the Russian and Spanish languages, as decided in resolution WHA22.11, shall be added to the general order of magnitude; and

(*b*) the budgetary results of any decisions by other organs of the United Nations system of organizations, over which the World Health Organization does not exercise control, but with which it is expected to comply, shall also be added to the general order of magnitude;

2. INVITES those governments able and willing to do so to make contributions to the Voluntary Fund for Health Promotion in order to enable the Organization to make more progress towards its objective.

Handb. Res., 10th ed., 2.1; 4.1.5.; 7.1.9

Thirteenth plenary meeting, 24 July 1969 (Committee on Programme and Budget, fifth report)

WHA22.45 Award of the Dr A. T. Shousha Foundation Medal and Prize

The Twenty-second World Health Assembly

1. NOTES the reports of the Dr A. T. Shousha Foundation Committee; [1]

2. ENDORSES the unanimous proposal of the Committee for the award of the Dr A. T. Shousha Foundation Medal and Prize for 1969;

3. AWARDS the Medal and Prize to the late Dr M. K. Afridi; and

4. PAYS TRIBUTE to the late Dr M. K. Afridi for his most significant contribution to public health in the geographical area in which Dr A. T. Shousha served the World Health Organization.

Handb. Res., 10th ed., 9.1.3.2

Fourteenth plenary meeting, 25 July 1969

WHA22.46 International Health Regulations

The Twenty-second World Health Assembly,

Having considered the recommendations of the Committee on International Quarantine in its fifteenth report, Volume A, concerning the special review of the International Sanitary Regulations;

Noting that the Committee on International Quarantine reaffirmed the principles laid down in its fourteenth report, Volume II;

[1] See Annex 5.

Noting also that the comments of Member States were considered by the Committee on International Quarantine at its fifteenth meeting when preparing the draft International Health Regulations to replace the existing International Sanitary Regulations,

1. COMMENDS the members of the Committee for their work; and

2. ADOPTS this twenty-fifth day of July 1969 the International Health Regulations annexed to this resolution together with Appendices 1 to 6 concerning the forms and certificates, and the rules applying thereto.[1]

Handb. Res., 10th ed., 1.3.9.3

Fourteenth plenary meeting, 25 July 1969 (Committee on Programme and Budget, sixth report)

WHA22.47 Diseases under Surveillance: Louse-borne Typhus, Louse-borne Relapsing Fever, Viral Influenza, Paralytic Poliomyelitis

The Twenty-second World Health Assembly,

Having considered the recommendations of the Committee on International Quarantine in its fifteenth report, Volume A;

Considering that louse-borne typhus and relapsing fever have been removed from the list of diseases subject to the Regulations, and that it is still of great importance to have a good knowledge of the occurrence of outbreaks of these diseases;

Considering that the risk of the occurrence of an epidemic of viral influenza is always present and that a knowledge of the frequently changing antigenic characteristics of the causal virus is necessary for the preparation of an effective vaccine, and taking into account the success of the WHO influenza programme since its inception in 1947;

Considering that poliomyelitis epidemics occur frequently in areas where the child population has not been thoroughly vaccinated and that the immune status of populations is constantly changing, especially in developing countries, owing to urbanization and other population movements; and

Recognizing that an epidemiological surveillance programme based on speedy notification and, in the case of influenza, rapid identification of the virus strain involved, can be of immense benefit in giving early warning of impending outbreaks,

1. REQUESTS health administrations:

(i) to inform the Organization promptly by telegram or telex of the occurrence of any outbreak of louse-borne typhus, louse-borne relapsing fever, viral influenza or paralytic poliomyelitis in any areas of their territories; and

(ii) to supplement these reports, as soon as possible, by information on the source and type of the disease and the number of cases and deaths; and

2. REQUESTS the Director-General:

(i) to send to health administrations, when necessary by means appropriate to the urgency of the situation, the information received in accordance with paragraph 1 of this resolution;

(ii) to publish such information in the *Weekly Epidemiological Record* and to dispatch the *Record* by airmail;

(iii) to publish annually an epidemiological study of the incidence and trends of these diseases;

(iv) to publish information, whenever appropriate, on changes in these trends; and

(v) to develop as soon as possible a manual on international surveillance of selected communicable diseases and to assist Member States in utilizing their existing services to perform epidemiological surveillance as effectively as possible.

Handb. Res., 10th ed., 1.3.9

Fourteenth plenary meeting, 25 July 1969 (Committee on Programme and Budget, sixth report)

[1] See Annex 1.

WHA22.48 Diseases under Surveillance: Malaria

The Twenty-second World Health Assembly,

Having considered the recommendations of the Committee on International Quarantine in its fifteenth report, Volume A;

Noting the present and the expected further increase in international traffic;

Considering that areas of the world from which malaria has been eradicated will thus become more vulnerable to the re-establishment of malaria caused by imported cases; and

Believing that exchange of information on the malaria situation in the world is of fundamental importance in determining the appropriate vigilance measures to be applied,

1. RECOMMENDS that each health administration should notify the Organization twice a year, in September for the first six months of the year, and in March for the whole of the previous calendar year, of:

(i) the originally malarious areas with no risk of infection (areas which are in the maintenance phase of a malaria eradication programme);

(ii) malaria cases imported into areas in the maintenance phase;

(iii) areas with chloroquine-resistant strains of parasites; and

(iv) international ports and airports free from malaria; and

2. REQUESTS the Director-General to publish this information twice yearly, and, in addition, once a year, a map showing areas where there is risk of infection.

Handb. Res., 10th ed., 1.3.9; 1.2

Fourteenth plenary meeting, 25 July 1969 (Committee on Programme and Budget, sixth report)

WHA22.49 Committee on International Quarantine: Fifteenth Report

The Twenty-second World Health Assembly,

Having considered the fifteenth report of the Committee on International Quarantine, Volume B, on the functioning of the International Sanitary Regulations for the period 1 July 1967 to 30 June 1968,[1]

1. THANKS the members of the Committee on International Quarantine;

2. ACCEPTS the reservations to Articles 17 and 19 of the International Sanitary Regulations submitted by the Government of Nauru; [2] and

3. ADOPTS the fifteenth report of the Committee on International Quarantine, Volume B.

Handb. Res., 10th ed., 1.3.9.4

Fourteenth plenary meeting, 25 July 1969 (Committee on Programme and Budget, sixth report)

WHA22.50 Quality Control of Drugs

The Twenty-second World Health Assembly,

Recalling resolution WHA21.37;

Having considered the report of the Director-General on the quality control of drugs;

[1] See Annex 14.

[2] See section 13 of the report (page 130).

Noting with satisfaction the formulation of the " Principles of Pharmaceutical Quality Control " [1] and " Good Practices in the Manufacture and Quality Control of Drugs " [2] as presented in the report of the Director-General;

Recognizing that general observance of such principles and practices is essential and, in particular, a prerequisite for a system of certification for drugs in international commerce; and

Considering that general acceptance of such a certification system would be an important first step toward ensuring the desired level of quality control of drugs in international commerce,

1. RECOMMENDS that Member States adopt and apply

(1) the requirements for " Good Practices in the Manufacture and Quality Control of Drugs " as formulated in the report of the Director-General,[2]

(2) the certification scheme on the quality of pharmaceutical products moving in international commerce as formulated in the report of the Director-General as amended,[3]

2. REQUESTS the Director-General to report to the Twenty-third World Health Assembly

(1) on those improvements in the requirements for good manufacturing practice and in the certification scheme which may appear to be necessary; and

(2) on further progress with regard to the certification scheme and the implementation thereof.

Handb. Res., 10th ed., 1.10.4.1

Fourteenth plenary meeting, 25 July 1969 (Committee on Programme and Budget, sixth report)

WHA22.51 Training of Medical Personnel and the " Brain Drain "

The Twenty-second World Health Assembly,

Bearing in mind resolution 2417 (XXIII) of the United Nations General Assembly on the outflow of trained professional and technical personnel from the developing to the developed countries;

Mindful of paragraph 3 of resolution WHA21.47 underlining the importance of developing health manpower for the promotion of public health services in any country;

Mindful also of paragraph 1 of resolution WHA14.58, requesting the Director-General to make all possible efforts to provide developing countries with assistance in training medical personnel;

Recalling paragraph 2 of resolution WHA22.42 which emphasizes the need to encourage physicians from developing countries to return to their countries;

Recognizing that the shortage of medical personnel is a major obstacle to the development of the public health services of many countries of the world; and

Recognizing that training of physicians in their own country or region not only ensures their better professional and social adaptation to the health needs of their countries, but is also likely to encourage them to serve in their own countries,

1. THANKS the Director-General for the steps taken to study the problem of the provision of medical personnel in the world;

2. CALLS UPON the economically developed countries to co-operate in the establishment and functioning of medical schools in the developing countries, and in any other means by which the developing countries may be able to obtain medical personnel to meet their health needs; and

[1] *Wld Hlth Org. techn. Rep. Ser.*, 1969, **418**, Annex 1.

[2] See Annex 12, part 1.

[3] See Annex 12, part 2.

3. CALLS UPON the economically developed countries taking part in the training of physicians from the developing countries to encourage graduates to return to work in their own countries.

Handb. Res., 10th ed., 1.8.1; 1.1.4

Fourteenth plenary meeting, 25 July 1969 (Committee on Programme and Budget, sixth report)

WHA22.52 Review of the Organizational Study on Co-ordination with the United Nations and the Specialized Agencies

The Twenty-second World Health Assembly,

Recalling resolutions WHA15.40, WHA20.49 and WHA21.45 of the Fifteenth, Twentieth and Twenty-first World Health Assemblies; and

Having considered the recommendations made by the Executive Board in its resolution EB43.R39,

1. AGREES that the Executive Board should proceed with the review of its organizational study on co-ordination with the United Nations and the specialized agencies at its forty-fourth session; and

2. REQUESTS the Executive Board to report on the conclusions and recommendations of this study to the Twenty-third World Health Assembly.

Handb. Res., 10th ed., 7.4

Fourteenth plenary meeting, 25 July 1969 (Committee on Programme and Budget, sixth report)

WHA22.53 Long-term Planning in the Field of Health, Biennial Programming, and Improvement of the Evaluation Process

The Twenty-second World Health Assembly,

Having considered the reports by the Director-General [1] on long-term planning in the field of health and biennial programming and on the improvement and strengthening of the evaluation process, and the recommendations of the Executive Board thereon;

Having considered the proposals of the Director-General for taking the first steps towards a future presentation of a projection of the Organization's programme for a further year; and

Taking account of the long-term results that can be expected of the new programme and budget information system,

I

1. NOTES with satisfaction the proposals made for further strengthening the planning and evaluation processes of the World Health Organization; and

2. STRESSES that realistic long-term planning of WHO's programme is dependent in large measure upon methodical health planning, the formulation of a budget based on programmes, and evaluation at the national level, and that the Director-General should continue to respond to requests for assistance in national health planning;

3. BELIEVES that the long-term planning of the Organization's programme can be achieved in successive stages;

4. REITERATES the importance of evaluation in guiding the formulation of programme policies and the planning and execution of the health programmes;

5. REQUESTS the Director-General to take the necessary steps to implement the proposals concerning long-term planning and the improvement and strengthening of the evaluation process, and to ensure dissemination to any member of the Executive Board of such available evaluation data on projects as currently exist and that member may request;

[1] *Off. Rec. Wld Hlth Org.*, **173**, Annexes 11 and 12.

6. REQUESTS the Director-General to evaluate the most appropriate approaches for the integration of health planning studies with the educational programmes in medical schools;

7. REQUESTS the Director-General to continue to collaborate actively in the development of the health sector of the broad international strategy for the Second United Nations Development Decade;

8. REQUESTS the Director-General to explore further the feasibility of providing appropriate long-term financial indicators and report thereon to the forty-fifth session of the Executive Board; and

9. REQUESTS the Director-General to ask Member States to send to WHO their observations and recommendations on questions of long-term planning in the field of health and the establishment of a new general programme of work of WHO for 1972-1976;

II

1. DECIDES that, in principle, the World Health Organization should adopt a system of biennial programming;

2. CONSIDERS that, as a first step, the Director-General should:

2.1 Provide in his annually proposed programme and budget estimates additional information which would, for example, include for 1971:

(i) an appendix containing a summary by major programme heading for 1969, 1970 and 1971 with a projection for 1972 based on the indication of the governments' priorities for future programmes of WHO assistance as known at the time of the preparation of the programme and budget estimates, and on other factors such as the trends in the requirements for the major programmes of the Organization; and

(ii) an appendix containing a summary by appropriation section identifying the operating programme by individual regions and headquarters, regional offices, administrative services, etc., for 1969, 1970 and 1971, with a projection of the estimates for 1972;

2.2 Provide in each annual financial report information relating to budget performance, and showing in summary tables similar to those for paragraph 2.1 above:

(i) budget estimates, both original and revised, and

(ii) actual obligations incurred;

3. RECOGNIZES the necessity of preserving flexibility to adjust programmes in the light of changes affecting the needs of the Organization and its Members;

4. REQUESTS the Director-General to continue to co-operate in inter-agency consultations on standardization of budget presentation and to keep the Executive Board informed of developments; and, further,

5. REQUESTS the Director-General to study the additional steps which might be taken towards a future more detailed projection of the Organization's programme and budget and to report thereon to the forty-seventh session of the Executive Board.

Handb. Res., 10th ed., 1.6.1.4

Fourteenth plenary meeting, 25 July 1969 (Committee on Programme and Budget, seventh report)

WHA22.54 Establishment of Pharmaceutical Production in Developing Countries

The Twenty-second World Health Assembly,

Being aware of the differences in the development of therapeutic practices in the countries of the world;

Considering the widespread use of various traditional medicines in many countries;

Being concerned about the hazards and economic wastage connected with the empirical use of such drugs as long as their efficacy and safety have not been established; and

Being aware that scientific research in this field may yield valuable pharmaceutical products,

REQUESTS the Director-General to study this question and to report to the Executive Board and the World Health Assembly concerning the course to be taken in further co-operation between the United Nations Industrial Development Organization and the World Health Organization in the establishment of pharmaceutical production in developing countries.

Handb. Res., 10th ed., 1.10.4; 8.1.1.3

Fourteenth plenary meeting, 25 July 1969 (Committee on Programme and Budget, seventh report)

WHA22.55 Second United Nations Development Decade

The Twenty-second World Health Assembly,

Desiring to achieve the highest possible standard of health in the next decade, which is essential for the development of each individual nation as well as the world as a whole;

Bearing in mind that the improvement of health during the First United Nations Development Decade has not been sufficiently satisfactory;

Aware of the increasing need in developing and developed countries for more accelerated health improvement;

Aware also of the fact that, while the primary responsibility for improvement in the developing countries rests upon themselves, their development depends to a considerable extent on external financial, technical and material assistance;

Recalling resolution 2411 (XXIII) of the United Nations General Assembly concerning the international development strategy for the 1970s decade;

Recalling resolution 2436 (XXIII) of the United Nations General Assembly concerning the world social situation;

Recalling further resolutions WHA20.52 and WHA20.53 of the Twentieth World Health Assembly; and

Noting with satisfaction that the Organization has so far actively contributed to the preparations for the Second United Nations Development Decade,

1. CALLS UPON Member States to intensify their efforts, strengthen their co-operation and utilize all available resources in order to accelerate health development during the Second Development Decade and invites those which have not already done so to incorporate health priorities and objectives into their overall national socio-economic plans and projections for the Decade;

2. CONSIDERS that, within the general framework of health promotion, the global priority objectives should be the following, not necessarily in the order mentioned:

the training of health service personnel at all levels, with emphasis on the education and training of national health cadres in the developing countries;

the planning, organization and operation of systems and institutions through which the health service personnel can provide to the population they serve every form of health care—preventive, curative and restorative—including maternal and child care and family planning services upon request, the utmost attention being given to the fullest possible application of the new scientific and medical discoveries and knowledge accumulated, particularly in developing such services for the largest possible segment of the population in developing countries;

intensification and extension of activities in the prevention, control and eradication of communicable and other mass diseases which burden so heavily the developing nations and delay their economic progress, such as malaria, smallpox, trypanosomiasis and tuberculosis;

the elimination of nutritional disorders and the general improvement of the nutritional state of vulnerable population groups;

the improvement of the conditions of health and hygiene in which people live and work;

the support and co-ordination of research—basic, applied and operational;

3. URGES the developed countries to increase the level of financial, technical and material assistance to the developing countries, to make it possible for them to achieve their goals in the field of health during the Second Development Decade; and

4. REQUESTS the Director-General to continue to co-operate with other organizations of the United Nations system in the formulation of the international strategy for the Decade and in related activities, and to report to the Executive Board and to the Twenty-third World Health Assembly on the action pursued and progress made in the health component of the international strategy for the Second Development Decade.

Handb. Res., 10th ed., 8.1.2

Fourteenth plenary meeting, 25 July 1969 (Committee on Programme and Budget, seventh report)

WHA22.56 Increase in the Production and Use of Edible Protein

The Twenty-second World Health Assembly,

Having considered the report of the Director-General on decisions of the United Nations, the specialized agencies and the International Atomic Energy Agency on programme matters affecting the activities of the World Health Organization;

Welcoming the report of the United Nations Advisory Committee on the Application of Science and Technology to Development, entitled *International Action to Avert the Impending Protein Crisis*;

Noting resolution 2416 (XXIII) of the United Nations General Assembly, which emphasizes that " further and fresh efforts are necessary for dealing with the protein problem ";

Noting in particular that General Assembly resolution 2416 (XXIII) " invites the specialized agencies concerned to provide developing countries with the appropriate specialized services required for the preparation and implementation of development projects aimed at increasing the production and consumption of protein " and further " invites the interested organizations within the United Nations system to examine the ways and means of increasing the resources for expanding their activities in the protein field "; and

Bearing in mind the statement of the Administrative Committee on Co-ordination relating to the protein question as reflected in the Director-General's report,

1. NOTES with satisfaction that the FAO/UNICEF/WHO Protein Advisory Group has expanded its scope and functions and that arrangements have been made for other interested organizations to participate in the work of the Protein Advisory Group;

2. REQUESTS the Director-General, in preparing the programme of action of the Organization, to give special attention to the activities of the Organization relating to the medical aspects of the development of protein resources throughout the world, and the prevention of protein calorie malnutrition with special reference to the needs of vulnerable groups;

3. REQUESTS the Director-General to ensure the continued full participation of the Organization in, and support for, the Protein Advisory Group, and to strengthen the Organization's collaboration with FAO, UNICEF and other members of the United Nations system in the development and better utilization of protein resources; and

4. FURTHER REQUESTS the Director-General to consult with the United Nations and other organizations concerned on the steps to be taken to comply with General Assembly resolution 2416 (XXIII) and to report thereon to the Executive Board and to the World Health Assembly.

Handb. Res., 10th ed., 1.7.4; 8.1.1.3

Fourteenth plenary meeting, 25 July 1969 (Committee on Programme and Budget, seventh report)

WHA22.57 United Nations Conference on the Human Environment

The Twenty-second World Health Assembly,

Having considered the report of the Director-General on decisions of the United Nations, the specialized agencies and the International Atomic Energy Agency on programme matters affecting the activities of the World Health Organization;

Noting with appreciation the decision of the General Assembly of the United Nations in resolution 2398 (XXIII) to convene a United Nations Conference on the Human Environment in 1972; and

Mindful of the important contribution to be made by the World Health Organization in focusing attention, within the framework of such a conference, on the adverse effects on human ecology of the many different forms of environmental pollution and problems associated with accelerating urbanization and population growth,

1. CALLS the attention of Member States to the public health importance of the United Nations Conference on the Human Environment to be held in 1972;

2. REQUESTS the Director-General to continue his full co-operation in the planning and preparation of that conference; and

3. EXPRESSES the hope that the Director-General will utilize the results of the United Nations Conference on the Human Environment in developing further the World Health Organization's programme in environmental health in close co-operation with other organizations of the United Nations system and with national administrations.

Handb. Res., 10th ed., 8.1.2

Fourteenth plenary meeting, 25 July 1969 (Committee on Programme and Budget, seventh report)

WHA22.58 Question of General and Complete Disarmament: Chemical and Bacteriological (Biological) Weapons and the Consequences of their Possible Use

The Twenty-second World Health Assembly,

Having considered the report of the Director-General on co-ordination with the United Nations, the specialized agencies and the International Atomic Energy Agency;

Noting with satisfaction resolution 2454A (XXIII) of the General Assembly of the United Nations;

Recalling resolution WHA20.54 of the Twentieth World Health Assembly; and

Convinced of the necessity of achieving a rapid international agreement for the complete prohibition and disposal of all types of chemical and bacteriological (biological) weapons under an effective system of controls which will ensure full compliance by all parties,

1. THANKS the Director-General for his efforts in participating in the preparation of the report of the Secretary-General of the United Nations on the question of chemical and bacteriological (biological) weapons and the consequences of their possible use; and

2. REQUESTS the Director-General to continue his co-operation with the Secretary-General of the United Nations in the further study of this question.

Handb. Res., 10th ed., 9.2; 8.1.1

Fourteenth plenary meeting, 25 July 1969 (Committee on Programme and Budget, seventh report)

WHA22.59 Co-ordination with the United Nations, the Specialized Agencies, and the International Atomic Energy Agency on Programme Matters

The Twenty-second World Health Assembly,

Having examined the report of the Director-General on the resolutions and decisions of the United Nations, the specialized agencies, and the International Atomic Energy Agency on programme matters affecting the activities of the World Health Organization,

1. NOTES the report;

2. NOTES with approval the steps taken by the Director-General in pursuance of the above-mentioned resolutions and decisions; and

3. ACKNOWLEDGES with appreciation the continuing support and co-operation the Organization is receiving from UNICEF in its efforts for the promotion of health.

Handb. Res., 10th ed., 8.1.1.3; 8.1.3

Fourteenth plenary meeting, 25 July 1969 (Committee on Programme and Budget, seventh report)

WHA22.60 Reports of the Executive Board on its Forty-second and Forty-third Sessions

The Twenty-second World Health Assembly

1. NOTES the reports of the Executive Board on its forty-second [1] and forty-third [2] sessions;

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

3. REQUESTS the President of the Twenty-second World Health Assembly to convey the thanks of the Assembly to those members of the Executive Board who will be completing their terms of office immediately after the closure of the current session of the Health Assembly.

Handb. Res., 10th ed., 4.2.5.2

Fourteenth plenary meeting, 25 July 1969

[1] *Off. Rec. Wld Hlth Org.*, **170**.

[2] *Off. Rec. Wld Hlth Org.*, **173**; **174**.

PROCEDURAL DECISIONS

(i) Composition of the Committee on Credentials

The Twenty-second World Health Assembly appointed a Committee on Credentials consisting of delegates of the following twelve Members: Belgium, Burundi, Colombia, Costa Rica, Czechoslovakia, Iran, Italy, Malawi, Norway, Singapore, Somalia and Thailand.

First plenary meeting, 8 July 1969

(ii) Composition of the Committee on Nominations

The Twenty-second World Health Assembly appointed a Committee on Nominations consisting of delegates of the following twenty-four Members: Afghanistan, Australia, Brazil, Cameroon, Central African Republic, Ceylon, Cyprus, France, Guatemala, Hungary, Liberia, Mauritius, Peru, Saudi Arabia, Spain, Sweden, Turkey, Union of Soviet Socialist Republics, United Arab Republic, United Kingdom of Great Britain and Northern Ireland, United States of America, Uruguay, Western Samoa and Yemen.

First plenary meeting, 8 July 1969

(iii) Verification of Credentials

The Twenty-second World Health Assembly recognized the validity of the credentials of the following delegations:

Members

Afghanistan, Algeria, Argentina, Australia, Austria, Barbados, Belguim, Bolivia, Brazil, Bulgaria, Burma, Burundi, Cambodia, Cameroon, Canada, Central African Republic, Ceylon, Chad, Chile, China, Colombia, Congo (Brazzaville), Democratic Republic of the Congo, Costa Rica, Cuba, Cyprus, Czechoslovakia, Dahomey, Denmark, Dominican Republic,[1] Ecuador, El Salvador, Ethiopia, Federal Republic of Germany, Finland, France, Gabon, Ghana, Greece, Guatemala, Guinea, Guyana, Honduras, Hungary, Iceland, India, Indonesia, Iran, Iraq, Ireland, Israel, Italy, Ivory Coast, Jamaica, Japan, Jordan, Kenya, Kuwait, Laos, Lebanon, Lesotho, Liberia, Libya, Luxembourg, Madagascar, Malawi, Malaysia, Mali, Malta, Mauritania, Mauritius, Mexico, Monaco, Mongolia, Morocco, Nepal, Netherlands, New Zealand, Nicaragua, Niger, Nigeria, Norway, Pakistan, Panama, Peru, Philippines, Poland, Portugal, Republic of Korea, Romania, Rwanda, Saudi Arabia, Senegal, Sierra Leone, Singapore, Somalia, Southern Yemen, 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

Bahrain, Qatar

Fifth, seventh and twelfth plenary meetings, 10, 15 and 23 July 1969

(iv) Election of Officers of the Twenty-second World Health Assembly

The Twenty-second World Health Assembly, after considering the recommendations of the Committee on Nominations, elected the following officers:

President: Dr W. H. Stewart (United States of America);

Vice-Presidents: Mr E. Luamanuvae (Western Samoa), Professor J. Kostrzewski (Poland), Dr A. M. Sallam (United Arab Republic), Dr Julie Sulianti Saroso (Indonesia), Dr J.-C. Happi (Cameroon).

Second plenary meeting, 8 July 1969

[1] Credentials provisionally accepted.

(v) Election of Officers of the Main Committees

The Twenty-second World Health Assembly, after considering the recommendations of the Committee on Nominations, elected the following officers of the main committees:

COMMITTEE ON PROGRAMME AND BUDGET: *Chairman*, Professor B. Rexed (Sweden);

COMMITTEE ON ADMINISTRATION, FINANCE AND LEGAL MATTERS: *Chairman*, Dr S. P. W. Street (Jamaica).

Second plenary meeting, 8 July 1969

The main committees subsequently elected the following officers:

COMMITTEE ON PROGRAMME AND BUDGET: *Vice-Chairman*, Dr O. Keita (Guinea); *Rapporteur*, Dr A. Daly (Tunisia), *later*, Dr J. M. Aashi (Saudi Arabia);

COMMITTEE ON ADMINISTRATION, FINANCE AND LEGAL MATTERS: *Vice-Chairman*, Mr Y. Saito (Japan); *Rapporteur*, Dr M. Ibrahim (Iraq), *later*, Dr jur. J. de Coninck (Belgium).

(vi) Establishment of the General Committee

The Twenty-second 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: France, Ghana, Guinea, Japan, Jordan, Kenya, Liberia, Mexico, Nepal, Niger, Peru, Sudan, Union of Soviet Socialist Republics, Uruguay.

Second plenary meeting, 8 July 1969

(vii) Adoption of the Agenda

The Twenty-second World Health Assembly adopted the provisional agenda prepared by the Executive Board at its forty-third session with the deletion of two items [1] and the inclusion of four supplementary items.

Third and seventh plenary meetings, 9 and 15 July 1969

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[1] Item 1.12 (Admission of new Members and Associate Members) and item 3.14.1 (Working Capital Fund: Advances to meet unforeseen or extraordinary expenses) were deleted because they were not necessary.

ANNEXES

Annex 1

INTERNATIONAL HEALTH REGULATIONS

ANNEX TO RESOLUTION WHA22.46 [1]

PART I — DEFINITIONS

Article 1

For the purposes of these Regulations —

"*Aedes aegypti index*" means the ratio, expressed as a percentage, between the number of houses in a limited well-defined area on the premises of which actual breeding-places of *Aedes aegypti* are found, and the total number of houses examined in that area;

"*aerosol dispenser*" means a dispenser holding a pressurized formulation which produces an insecticidal aerosol when the valve is opened;

"*aircraft*" means an aircraft making an international voyage;

"*airport*" means an airport designated by the State in whose territory it is situated as an airport of entry or departure for international air traffic;

"*arrival*" of a ship, an aircraft, a train, or a road vehicle means —

(*a*) in the case of a seagoing vessel, arrival at a port;

(*b*) in the case of an aircraft, arrival at an airport;

(*c*) in the case of an inland navigation vessel, arrival either at a port or at a frontier post, as geographical conditions and treaties or arrangements among the States concerned, under Article 98 or under the laws and regulations in force in the territory of entry, may determine;

(*d*) in the case of a train or road vehicle, arrival at a frontier post;

"*baggage*" means the personal effects of a traveller or of a member of the crew;

"*container (freight container)*" means an article of transport equipment —

(*a*) of a permanent character and accordingly strong enough to be suitable for repeated use;

(*b*) specially designed to facilitate the carriage of goods, by one or more modes of transport, without intermediate reloading;

(*c*) fitted with devices permitting its ready handling, particularly its transfer from one mode of transport to another;

(*d*) so designed as to be easy to fill and empty.

The term "*container (freight container)*" does not include vehicles or conventional packing;

"*crew*" means the personnel of a ship, an aircraft, a train, a road vehicle or other means of transport who are employed for duties on board;

"*day*" means an interval of twenty-four hours;

"*direct transit area*" means a special area established in connexion with an airport, approved by the health authority concerned and under its direct supervision, for accommodating direct transit traffic and, in particular, for accommodating, in segregation, passengers and crews breaking their air voyage without leaving the airport;

"*Director-General*" means the Director-General of the Organization;

"*diseases subject to the Regulations*" (quarantinable diseases) means cholera, including cholera due to the El Tor vibrio, plague, smallpox, including variola minor (alastrim), and yellow fever;

"*disinsecting*" means the operation in which measures are taken to kill the insect vectors of human disease present in ships, aircraft, trains, road vehicles, other means of transport, and containers;

"*epidemic*" means an extension of a disease subject to the Regulations by a multiplication of cases in an area;

"*free pratique*" means permission for a ship to enter a port, disembark and commence operation, or for an aircraft, after landing, to disembark and commence operation;

"*health administration*" means the governmental authority responsible over the whole of a territory to which these Regulations apply for the implementation of the health measures provided herein;

[1] See page 22.

" *health authority* " means the authority immediately responsible in its jurisdiction for the appropriate health measures permitted or prescribed by these Regulations;

" *imported case* " means an infected person arriving on an international voyage;

" *infected area* " is defined on epidemiological principles by the health administration reporting the disease in its country and need not correspond to administrative boundaries. It is that part of its territory which, because of population characteristics, density and mobility and/or vector and animal reservoir potential, could support transmission of the reported disease;

" *infected person* " means a person who is suffering from a disease subject to the Regulations or who is subsequently shown to have been incubating such a disease;

" *in flight* " means the time elapsing between the closing of the doors of the aircraft before take-off and their opening on arrival;

" *in quarantine* " means that state or condition during which measures are applied by a health authority to a ship, an aircraft, a train, road vehicle, other means of transport or container, to prevent the spread of disease, reservoirs of disease or vectors of disease from the object of quarantine;

" *international voyage* " means —

(*a*) in the case of a ship or an aircraft, a voyage between ports or airports in the territories of more than one State, or a voyage between ports or airports in the territory or territories of the same State if the ship or aircraft has relations with the territory of any other State on its voyage but only as regards those relations;

(*b*) in the case of a person, a voyage involving entry into the territory of a State other than the territory of the State in which that person commences his voyage;

" *isolation* ", when applied to a person or group of persons, means the separation of that person or group of persons from other persons, except the health staff on duty, in such a manner as to prevent the spread of infection;

" *medical examination* " includes visit to and inspection of a ship, an aircraft, a train, road vehicle, other means of transport, and container, and the preliminary examination of persons, including scrutiny of vaccination certificates, but does not include the periodical inspection of a ship to ascertain the need for deratting;

" *Organization* " means the World Health Organization;

" *port* " means a seaport or an inland port;

" *ship* " means a seagoing or an inland navigation vessel making an international voyage;

" *suspect* " means a person who is considered by the health authority as having been exposed to infection by a disease subject to the Regulations and is considered capable of spreading that disease;

" *transferred case* " means an infected person whose infection originated in another area under the jurisdiction of the same health administration;

" *valid certificate* ", when applied to vaccination, means a certificate conforming with the rules and the model laid down in Appendix 2, 3 or 4.

PART II — NOTIFICATIONS AND EPIDEMIOLOGICAL INFORMATION

Article 2

For the application of these Regulations, each State recognizes the right of the Organization to communicate directly with the health administration of its territory or territories. Any notification or information sent by the Organization to the health administration shall be considered as having been sent to the State, and any notification or information sent by the health administration to the Organization shall be considered as having been sent by the State.

Article 3

1. Each health administration shall notify the Organization by telegram or telex within twenty-four hours of its being informed that the first case of a disease subject to the Regulations, that is neither an imported case nor a transferred case, has occurred in its territory, and, within the subsequent twenty-four hours, notify the infected area.

2. In addition each health administration shall notify the Organization by telegram or telex within twenty-four hours of its being informed:

(*a*) that one or more cases of a disease subject to the Regulations has been imported or transferred into a non-infected area—the notification to include all information available on the origin of infection;

(*b*) that a ship or aircraft has arrived with one or more cases of a disease subject to the Regulations on board—the notification to include the name of the ship or the flight number of the aircraft, its

previous and subsequent ports of call, and the health measures, if any, taken with respect to the ship or aircraft.

3. The existence of the disease so notified on the establishment of a reasonably certain clinical diagnosis shall be confirmed as soon as possible by laboratory methods, as far as resources permit, and the result shall be sent immediately to the Organization by telegram or telex.

Article 4

1. Each health administration shall notify the Organization immediately of evidence of the presence of the virus of yellow fever, including the virus found in mosquitos or in vertebrates other than man, or the plague bacillus, in any part of its territory, and shall report the extent of the area involved.

2. Health administrations, when making a notification of rodent plague, shall distinguish wild rodent plague from domestic rodent plague and, in the case of the former, describe the epidemiological circumstances and the area involved.

Article 5

Any notification required under paragraph 1 of Article 3 shall be promptly supplemented by information as to the source and type of the disease, the number of cases and deaths, the conditions affecting the spread of the disease, and the prophylactic measures taken.

Article 6

1. During an epidemic the notifications and information required under Article 3 and Article 5 shall be followed by subsequent communications sent at regular intervals to the Organization.

2. These communications shall be as frequent and as detailed as possible. The number of cases and deaths shall be communicated at least once a week. The precautions taken to prevent the spread of the disease, in particular the measures which are being applied to prevent the spread of the disease to other territories by ships, aircraft, trains, road vehicles, other means of transport, and containers leaving the infected area, shall be stated. In the case of plague, the measures taken against rodents shall be specified. In the case of the diseases subject to the Regulations which are transmitted by insect vectors, the measures taken against such vectors shall also be specified.

Article 7

1. The health administration for a territory in which an infected area has been defined and notified shall notify the Organization when that area is free from infection.

2. An infected area may be considered as free from infection when all measures of prophylaxis have been taken and maintained to prevent the recurrence of the disease or its spread to other areas, and when:

(*a*) in the case of plague, cholera or smallpox, a period of time equal to at least twice the incubation period of the disease, as hereinafter provided, has elapsed since the last case identified has died, recovered or been isolated, and there is no epidemiological evidence of spread of that disease to any contiguous area;

(*b*) (i) in the case of yellow fever not transmitted by *Aedes aegypti*, three months have elapsed without evidence of activity of the yellow-fever virus;

(ii) in the case of yellow fever transmitted by *Aedes aegypti*, three months have elapsed since the occurrence of the last human case, or one month since that occurrence if the *Aedes aegypti* index has been continuously maintained below one per cent.;

(*c*) (i) in the case of plague in domestic rodents, one month has elapsed since the last infected animal was found or trapped;

(ii) in the case of plague in wild rodents, three months have elapsed without evidence of the disease in sufficient proximity to ports and airports to be a threat to international traffic.

Article 8

1. Each health administration shall notify the Organization of:

(*a*) the measures which it has decided to apply to arrivals from an infected area and the withdrawal of any such measures, indicating the date of application or withdrawal;

(*b*) any change in its requirements as to vaccination for any international voyage.

2. Any such notification shall be sent by telegram or telex, and whenever possible in advance of any such change or of the application or withdrawal of any such measure.

3. Each health administration shall send to the Organization once a year, at a date to be fixed by the Organization, a recapitulation of its requirements as to vaccination for any international voyage.

4. Each health administration shall take steps to inform prospective travellers, through the co-operation

of, as appropriate, travel agencies, shipping firms, aircraft operators or by other means, of its requirements and of any modifications thereto.

Article 9

In addition to the notifications and information required under Articles 3 to 8 inclusive, each health administration shall send to the Organization weekly:

(*a*) a report by telegram or telex of the number of cases of the diseases subject to the Regulations and deaths therefrom during the previous week in each of its towns and cities adjacent to a port or an airport, including any imported or transferred cases;

(*b*) a report by airmail of the absence of such cases during the periods referred to in sub-paragraphs (*a*), (*b*) and (*c*) of paragraph 2 of Article 7.

Article 10

Any notification and information required under Articles 3 to 9 inclusive shall also be sent by the health administration, on request, to any diplomatic mission or consulate established in the territory for which it is responsible.

Article 11

1. The Organization shall send to all health administrations, as soon as possible and by the means appropriate to the circumstances, all epidemiological and other information which it has received under Articles 3 to 8 inclusive and paragraph (*a*) of Article 9 as well as information as to the absence of any returns required by Article 9. Communications of an urgent nature shall be sent by telegram, telex or telephone.

2. Any additional epidemiological data and other information available to the Organization through its surveillance programme shall be made available, when appropriate, to all health administrations.

3. The Organization may, with the consent of the government concerned, investigate an outbreak of a disease subject to the Regulations which constitutes a serious threat to neighbouring countries or to international health. Such investigation shall be directed to assist governments to organize appropriate control measures and may include on-the-spot studies by a team.

Article 12

Any telegram or telex sent, or telephone call made, for the purposes of Articles 3 to 8 inclusive and Article 11 shall be given the priority appropriate to the circumstances; in any case of exceptional urgency, where there is risk of the spread of a disease subject to the Regulations, the priority shall be the highest available under international telecommunication agreements.

Article 13

1. Each State shall forward annually to the Organization, in accordance with Article 62 of the Constitution of the Organization, information concerning the occurrence of any case of a disease subject to the Regulations due to or carried by international traffic, as well as on the action taken under these Regulations or bearing upon their application.

2. The Organization shall, on the basis of the information required by paragraph 1 of this Article, of the notifications and reports required by these Regulations, and of any other official information, prepare an annual report on the functioning of these Regulations and on their effect on international traffic.

3. The Organization shall review the epidemiological trends of the diseases subject to the Regulations, and shall publish such data, not less than once a year, illustrated with maps showing infected and free areas of the world, and any other relevant information obtained from the surveillance programme of the Organization.

PART III — HEALTH ORGANIZATION

Article 14

1. Each health administration shall ensure that ports and airports in its territory shall have at their disposal an organization and equipment adequate for the application of the measures provided for in these Regulations.

2. Every port and airport shall be provided with pure drinking-water and wholesome food supplied from sources approved by the health administration for public use and consumption on the premises or on board ships or aircraft. The drinking-water and food shall be stored and handled in such a manner as to ensure their protection against contamination. The health authority shall conduct periodic inspections of equipment, installations and premises, and shall collect samples of water and food for laboratory examinations to verify the observance of this Article. For this purpose and for other sanitary measures, the principles and recommendations set forth in the guides on these subjects published by the Organization shall

be applied as far as practicable in fulfilling the requirements of these Regulations.

3. Every port and airport shall also be provided with an effective system for the removal and safe disposal of excrement, refuse, waste water, condemned food, and other matter dangerous to health.

Article 15

There shall be available to as many of the ports and airports in a territory as practicable an organized medical and health service with adequate staff, equipment and premises, and in particular facilities for the prompt isolation and care of infected persons, for disinfection, disinsecting and deratting, for bacteriological investigation, for the collection and examination of rodents for plague infection, for collection of water and food samples and their dispatch to a laboratory for examination, and for other appropriate measures provided for by these Regulations.

Article 16

The health authority for each port and airport shall:

(*a*) take all practicable measures to keep port and airport installations free of rodents;

(*b*) make every effort to extend rat-proofing to the port and airport installations.

Article 17

1. Each health administration shall ensure that a sufficient number of ports in its territory shall have at their disposal adequate personnel competent to inspect ships for the issue of the Deratting Exemption Certificates referred to in Article 54, and the health administration shall approve such ports for that purpose.

2. The health administration shall designate a number of these approved ports, depending upon the volume and incidence of its international traffic, as having at their disposal the equipment and personnel necessary to derat ships for the issue of the Deratting Certificates referred to in Article 54.

3. Each health administration which so designates ports shall ensure that Deratting Certificates and Deratting Exemption Certificates are issued in accordance with the requirements of the Regulations.

Article 18

Each health administration shall designate those airports which possess a direct transit area as defined in Article 1.

Article 19

1. Depending upon the volume of its international traffic, each health administration shall designate as sanitary airports a number of the airports in its territory, provided they meet the conditions laid down in paragraph 2 of this Article, and the provisions of Article 14.

2. Every sanitary airport shall have at its disposal:

(*a*) an organized medical service with adequate staff, equipment and premises;

(*b*) facilities for the transport, isolation, and care of infected persons or suspects;

(*c*) facilities for efficient disinfection and disinsecting, for the control of vectors and rodents, and for any other appropriate measure provided for by these Regulations;

(*d*) a bacteriological laboratory, or facilities for dispatching suspected material to such a laboratory;

(*e*) facilities within the airport for vaccination against smallpox, and facilities within the airport or available to it for vaccination against cholera and yellow fever.

Article 20

1. Every port and the area within the perimeter of every airport shall be kept free from *Aedes aegypti* in its immature and adult stages and the mosquito vectors of malaria and other diseases of epidemiological significance in international traffic. For this purpose active anti-mosquito measures shall be maintained within a protective area extending for a distance of at least 400 metres around the perimeter.

2. Within a direct transit area provided at any airport situated in or adjacent to an area where the vectors referred to in paragraph 1 of this Article exist, any building used as accommodation for persons or animals shall be kept mosquito-proof.

3. For the purposes of this Article, the perimeter of an airport means a line enclosing the area containing the airport buildings and any land or water used or intended to be used for the parking of aircraft.

4. Each health administration shall furnish data to the Organization once a year on the extent to which its ports and airports are kept free from vectors of epidemiological significance in international traffic.

Article 21

1. Each health administration shall send to the Organization:

(*a*) a list of the ports in its territory approved under Article 17 for the issue of:

(i) Deratting Exemption Certificates only; and

(ii) Deratting Certificates and Deratting Exemption Certificates;

(*b*) a list of the airports and sanitary airports in its territory;

(*c*) a list of the airports in its territory provided with direct transit areas.

2. The health administration shall notify the Organization of any change which may occur from time to time in the lists required by paragraph 1 of this Article.

3. The Organization shall send promptly to all health administrations the information received in accordance with this Article.

Article 22

1. The Organization shall, at the request of the health administration concerned, arrange to certify, after any appropriate investigation, that a sanitary airport in its territory fulfils the conditions required by the Regulations.

2. The Organization shall, at the request of the health administration concerned, and after appropriate investigation, certify that a direct transit area at an airport in a yellow-fever infected area in its territory fulfils the conditions required by the Regulations.

3. These certifications shall be subject to periodic review by the Organization, in co-operation with the health administration concerned, to ensure that the required conditions are fulfilled.

4. In the list which the Organization is required to publish under Article 21, it shall indicate those airports certified under the provisions of this Article.

Article 23

1. Wherever the volume of international traffic is sufficiently important and whenever epidemiological conditions so require, facilities for the application of the measures provided for in these Regulations shall be made available at frontier posts on railway lines, on roads and, where sanitary control over inland navigation is carried out at the frontier, on inland waterways.

2. Each health administration shall notify the Organization when and where such facilities are provided.

3. The Organization shall send promptly to all health administrations the information received in accordance with this Article.

PART IV — HEALTH MEASURES AND PROCEDURE

Chapter I — General Provisions

Article 24

The health 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 diseases subject to the Regulations.

Article 25

Health measures shall be initiated forthwith, completed without delay, and applied without discrimination.

Article 26

1. Disinfection, disinsecting, deratting, and other sanitary operations shall be carried out so as:

(*a*) not to cause undue discomfort to any person, or injury to his health;

(*b*) not to produce any deleterious effect on the structure of a ship, an aircraft, or a vehicle, or on its operating equipment;

(*c*) to avoid all risk of fire.

2. In carrying out such operations on cargo, goods, baggage, containers and other articles, every precaution shall be taken to avoid any damage.

3. Where there are procedures or methods recommended by the Organization they should be employed.

Article 27

1. A health authority shall, when so requested, issue free of charge to the carrier a certificate specifying the measures applied to a ship, aircraft, train, road vehicle, other means of transport, or container, the parts thereof treated, the methods employed, and the reasons why the measures have been applied. In the case of an aircraft this information shall, on request, be entered instead in the Health Part of the Aircraft General Declaration.

2. Similarly, a health authority shall, when so requested, issue free of charge:

(*a*) to any traveller a certificate specifying the date of his arrival or departure and the measures applied to him and his baggage;

(*b*) to the consignor, the consignee, and the carrier, or their respective agents, a certificate specifying the measures applied to any goods.

Article 28

1. A person under surveillance shall not be isolated and shall be permitted to move about freely. The health authority may require him to report to it, if necessary, at specified intervals during the period of surveillance. Except as limited by the provisions of Article 71, the health authority may also subject such a person to medical investigation and make any inquiries which are necessary for ascertaining his state of health.

2. When a person under surveillance departs for another place, within or without the same territory, he shall inform the health authority, which shall immediately notify the health authority for the place to which the person is proceeding. On arrival the person shall report to that health authority which may apply the measure provided for in paragraph 1 of this Article.

Article 29

Except in case of an emergency constituting a grave danger to public health, a ship or an aircraft, which is not infected or suspected of being infected with a disease subject to the Regulations, shall not on account of any other epidemic disease be refused free pratique by the health authority for a port or an airport; in particular it shall not be prevented from discharging or loading cargo or stores, or taking on fuel or water.

Article 30

A health authority may take all practicable measures to control the discharge from any ship of sewage and refuse which might contaminate the waters of a port, river or canal.

Chapter II — Health Measures on Departure

Article 31

1. The health authority for a port or an airport or for the area in which a frontier post is situated shall take all practicable measures:

(*a*) to prevent the departure of any infected person or suspect;

(*b*) to prevent the introduction on board a ship, an aircraft, a train, a road vehicle, other means of transport, or container, of possible agents of infection or vectors of a disease subject to the Regulations.

2. The health authority in an infected area may require a valid vaccination certificate from departing travellers.

3. The health authority referred to in paragraph 1 of this Article may, when it considers it necessary, medically examine any person before his departure on an international voyage. The time and place of this examination shall be arranged to take into account any other formalities, so as to facilitate his departure and to avoid delay.

4. Notwithstanding the provisions of sub-paragraph (*a*) of paragraph 1 of this Article, a person on an international voyage who on arrival is placed under surveillance may be allowed to continue his voyage. The health authority shall, in accordance with Article 28, notify by the most expeditious means the health authority for the place to which he is proceeding.

Chapter III — Health Measures Applicable between Ports or Airports of Departure and Arrival

Article 32

No matter capable of causing any epidemic disease shall be thrown or allowed to fall from an aircraft when it is in flight.

Article 33

1. No health measure shall be applied by a State to any ship which passes through waters within its jurisdiction without calling at a port or on the coast.

2. If for any reason such a call is made, the laws and regulations in force in the territory may be applied without exceeding, however, the provisions of these Regulations.

Article 34

1. No health measure, other than medical examination, shall be applied to a healthy ship, as specified in Part V, which passes through a maritime canal or waterway in the territory of a State on its way to a port in the territory of another State, unless such ship comes from an infected area or has on board any person coming from an infected area, within the incubation period of the disease with which the area is infected.

2. The only measure which may be applied to such a ship coming from such an area or having such a person on board is the stationing on board, if necessary, of a sanitary guard to prevent all unauthorized contact between the ship and the shore, and to supervise the application of Article 30.

3. A health authority shall permit any such ship to take on, under its control, fuel, water and stores.

4. An infected or suspected ship which passes through a maritime canal or waterway may be treated as if it were calling at a port in the same territory.

Article 35

Notwithstanding any provision to the contrary in these Regulations except Article 76, no health measure, other than medical examination, shall be applied to:

(*a*) passengers and crew on board a healthy ship from which they do not disembark;

(*b*) passengers and crew from a healthy aircraft who are in transit through a territory and who remain in a direct transit area of an airport of that territory, or, if the airport is not yet provided with such an area, who submit to the measures for segregation prescribed by the health authority in order to prevent the spread of disease; if such persons are obliged to leave the airport at which they disembark solely in order to continue their voyage from another airport in the vicinity of the first airport, no such measure shall be applied to them if the transfer is made under the control of the health authority or authorities.

Chapter IV — Health Measures on Arrival

Article 36

Whenever practicable States shall authorize granting of free pratique by radio to a ship or an aircraft when, on the basis of information received from it prior to its arrival, the health authority for the intended port or airport of arrival is of the opinion that its arrival will not result in the introduction or spread of a disease subject to the Regulations.

Article 37

1. The health authority for a port, an airport, or a frontier station may subject to medical examination on arrival any ship, aircraft, train, road vehicle, other means of transport, or container, as well as any person arriving on an international voyage.

2. The further health measures which may be applied to the ship, aircraft, train, road vehicle, other means of transport, and container shall be determined by the conditions which existed on board during the voyage or which exist at the time of the medical examination, without prejudice, however, to the measures which are permitted by these Regulations to be applied to the ship, aircraft, train, road vehicle, other means of transport, and container if it arrives from an infected area.

3. Where a health administration has special problems which could constitute a grave danger to public health, it may require a person on an international voyage to give on arrival a destination address in writing.

Article 38

The application of the measures provided for in Part V, which depend on arrival from an infected area as notified by the health administration concerned, shall be limited to the ship, aircraft, train, road vehicle, or other means of transport, person, container or article as the case may be, arriving from such an area, provided that the health authority for the infected area is taking all measures necessary for checking the spread of the disease and is applying the measures provided for in paragraph 1 of Article 31.

Article 39

On arrival of a ship, an aircraft, a train, a road vehicle, or other means of transport, an infected person on board may be removed and isolated by the health authority. Such removal by the health authority shall be compulsory if it is required by the person in charge of the means of transport.

Article 40

1. Apart from the provisions of Part V, a health authority may place under surveillance any suspect on an international voyage arriving by whatever means from an infected area. Such surveillance may be continued until the end of the appropriate period of incubation specified in Part V.

2. Except where specifically provided for in these Regulations, isolation shall not be substituted for surveillance unless the health authority considers the risk of transmission of the infection by the suspect to be exceptionally serious.

Article 41

Any health measure, other than medical examination, which has been applied at a previous port or

airport shall not be repeated at a subsequent port or airport, unless:

(*a*) after the departure of a ship or an aircraft from the port or airport where the measures were applied, an incident of epidemiological significance calling for a further application of any such measure has occurred either in that port or airport or on board the ship or aircraft;

(*b*) the health authority for the subsequent port or airport has ascertained on the basis of definite evidence that the individual measure so applied was not substantially effective.

Article 42

Subject to Article 80, a ship or an aircraft shall not be prevented for health reasons from calling at any port or airport. If the port or airport is not equipped for applying the health measures which are permitted by these Regulations and which in the opinion of the health authority for the port or airport are required, such ship or aircraft may be ordered to proceed at its own risk to the nearest suitable port or airport convenient to the ship or aircraft.

Article 43

An aircraft shall not be considered as having come from an infected area if it has landed only in such an area at any sanitary airport which is not itself an infected area.

Article 44

Any person on board a healthy aircraft which has landed in an infected area, and the passengers and crew of which have complied with the conditions laid down in Article 35, shall not be considered as having come from such an area.

Article 45

1. Except as provided in paragraph 2 of this Article, any ship or aircraft, which is unwilling to submit to the measures required by the health authority for the port or airport in accordance with these Regulations, shall be allowed to depart forthwith, but it shall not during its voyage call at any other port or airport in the same territory. Such a ship or an aircraft shall nevertheless be permitted, while in quarantine, to take on fuel, water and stores. If, on medical examination, such a ship is found to be healthy, it shall not lose the benefit of Article 34.

2. A ship or an aircraft arriving at a port or an airport situated in an area where the vector of yellow fever is present shall not, in the following circumstances, be allowed to depart and shall be subject to the measures required by the health authority in accordance with these Regulations:

(*a*) if the aircraft is infected with yellow fever;

(*b*) if the ship is infected with yellow fever, and *Aedes aegypti* have been found on board, and the medical examination shows that any infected person has not been isolated in good time.

Article 46

1. If, for reasons beyond the control of the pilot in command, an aircraft lands elsewhere than at an airport, or at an airport other than the airport at which the aircraft was due to land, the pilot in command or other person in charge shall make every effort to communicate without delay with the nearest health authority or any other public authority.

2. As soon as the health authority has been informed of the landing it may take such action as is appropriate, but in no case shall it exceed the measures permitted by these Regulations.

3. Subject to paragraph 5 of this Article, and except for the purpose of communicating with any such health or public authority or with the permission of any such authority, no person on board the aircraft shall leave its vicinity and no cargo shall be removed from that vicinity.

4. When any measure required by the health authority has been completed, the aircraft may, so far as health measures are concerned, proceed either to the airport at which it was due to land, or, if for technical reasons it cannot do so, to a conveniently situated airport.

5. The pilot in command or other person in charge may take such emergency measures as may be necessary for the health and safety of passengers and crew.

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

Article 47

1. Cargo and goods shall be submitted to the health measures provided for in these Regulations only when coming from infected areas and when the health authority has reason to believe that the cargo and goods may have become contaminated by the agent of a disease subject to the Regulations or may serve as a vehicle for the spread of any such disease.

2. Apart from the measures provided for in Article 70, goods, other than live animals, in transit without transhipment shall not be subject to health measures or detained at any port, airport, or frontier.

3. The issue of a certificate of disinfection of merchandise which is the subject of trade between two countries may be governed by bilateral agreements between the exporting and the importing countries.

Article 48

Except in the case of an infected person or suspect, baggage may be disinfected or disinsected only in the case of a person carrying infectious material or insect vectors of a disease subject to the Regulations.

Article 49

1. Mail, newspapers, books, and other printed matter shall not be subject to any health measure.

2. Postal parcels may be subject to health measures only if they contain:

(*a*) any of the foods referred to in paragraph 1 of Article 70 which the health authority has reason to believe comes from a cholera-infected area;

(*b*) linen, wearing apparel, or bedding, which has been used or soiled and to which the provisions of Part V are applicable;

(*c*) infectious material; or

(*d*) living insects and other animals capable of being a vector of human disease if introduced or established.

Article 50

A health administration shall ensure as far as practicable that containers used in international traffic by rail, road, sea or air shall, in packing, be kept free of infectious material, vectors or rodents.

PART V — SPECIAL PROVISIONS RELATING TO EACH OF THE DISEASES SUBJECT TO THE REGULATIONS

Chapter I — Plague

Article 51

For the purposes of these Regulations the incubation period of plague is six days.

Article 52

Vaccination against plague shall not be required as a condition of admission of any person to a territory.

Article 53

1. Each State shall employ all means in its power to diminish the danger from the spread of plague by rodents and their ectoparasites. Its health administration shall keep itself constantly informed by systematic collection and regular examination of rodents and their ectoparasites of the conditions in any area, especially any port or airport, infected or suspected of being infected by rodent plague.

2. During the stay of a ship or an aircraft in a port or an airport infected by plague, special care shall be taken to prevent the introduction of rodents on board.

Article 54

1. Every ship shall be either:

(*a*) permanently kept in such a condition that it is free of rodents and the plague vector; or

(*b*) periodically deratted.

2. A Deratting Certificate or a Deratting Exemption Certificate shall be issued only by the health authority for a port approved for that purpose under Article 17. Every such certificate shall be valid for six months, but this period may be extended by one month for a ship proceeding to such a port if the deratting or inspection, as the case may be, would be facilitated by the operations due to take place there.

3. Deratting Certificates and Deratting Exemption Certificates shall conform with the model specified in Appendix 1.

4. If a valid certificate is not produced, the health authority for a port approved under Article 17, after inquiry and inspection, may proceed in the following manner:

(*a*) If the port has been designated under paragraph 2 of Article 17, the health authority may derat the ship or cause the deratting to be done under its direction and control. It shall decide in each case the technique which should be employed to secure the extermination of rodents on the ship. Deratting shall be carried out so as to avoid as far as possible damage to the ship and to any cargo and shall not take longer than is absolutely necessary. Wherever possible deratting shall be done when the holds are empty. In the case of a ship in ballast, it shall be done before loading. When deratting has been satisfactorily completed, the health authority shall issue a Deratting Certificate.

(*b*) At any port approved under Article 17, the health authority may issue a Deratting Exemption Certificate if it is satisfied that the ship is free of rodents. Such a certificate shall be issued only if the inspection of the ship has been carried out when the holds are empty or when they contain only ballast or other material, unattractive to rodents, of such a nature or so disposed as to make a thorough inspection of the holds possible. A Deratting Exemption Certificate may be issued for an oil tanker with full holds.

5. If the conditions under which a deratting is carried out are such that, in the opinion of the health authority for the port where the operation was performed, a satisfactory result cannot be obtained, the health authority shall make a note to that effect on the existing Deratting Certificate.

Article 55

In exceptional circumstances of an epidemiological nature, when the presence of rodents is suspected on board, an aircraft may be disinsected and deratted.

Article 56

Before departure on an international voyage from an area where there is an epidemic of pulmonary plague, every suspect shall be placed in isolation by the health authority for a period of six days, reckoned from the date of the last exposure to infection.

Article 57

1. A ship or an aircraft on arrival shall be regarded as infected if:

(*a*) it has a case of human plague on board;

(*b*) a plague-infected rodent is found on board.

A ship shall also be regarded as infected if a case of human plague has occurred on board more than six days after embarkation.

2. A ship on arrival shall be regarded as suspected if:

(*a*) it has no case of human plague on board, but such a case has occurred on board within the first six days after embarkation;

(*b*) there is evidence of an abnormal mortality among rodents on board of which the cause is not yet known;

(*c*) it has a person on board who has been exposed to pulmonary plague and has not met the requirements of Article 56.

3. Even when coming from an infected area or having on board a person coming from an infected area, a ship or an aircraft on arrival shall be regarded as healthy if, on medical examination, the health authority is satisfied that the conditions specified in paragraphs 1 and 2 of this Article do not exist.

Article 58

1. On arrival of an infected or suspected ship or an infected aircraft, the following measures may be applied by the health authority:

(*a*) disinsecting of any suspect and surveillance for a period of not more than six days reckoned from the date of arrival;

(*b*) disinsecting and, if necessary, disinfection of:

(i) any baggage of any infected person or suspect; and

(ii) any other article such as used bedding or linen, and any part of the ship or aircraft, which is considered to be contaminated.

2. On arrival of a ship, an aircraft, a train, road vehicle or other means of transport having on board a person suffering from pulmonary plague, or if there has been a case of pulmonary plague on board a ship within the period of six days before its arrival, the health authority may, in addition to the measures required by paragraph 1 of this Article, place the passengers and crew of the ship, aircraft, train, road vehicle or other means of transport in isolation for a period of six days, reckoned from the date of the last exposure to infection.

3. If there is rodent plague on board a ship, or in its containers, it shall be disinsected and deratted, if necessary in quarantine, in the manner provided for in Article 54 subject to the following provisions:

(*a*) the deratting shall be carried out as soon as the holds have been emptied;

(*b*) one or more preliminary derattings of a ship with the cargo *in situ*, or during its unloading, may be carried out to prevent the escape of infected rodents;

(*c*) if the complete destruction of rodents cannot be secured because only part of the cargo is due to be unloaded, a ship shall not be prevented from unloading that part, but the health authority may apply any measures, including placing the ship in quarantine, which it considers necessary to prevent the escape of infected rodents.

4. If a rodent infected with plague is found on board an aircraft, the aircraft shall be disinsected and deratted, if necessary in quarantine.

Article 59

A ship shall cease to be regarded as infected or suspected, or an aircraft shall cease to be regarded as infected, when the measures required by the health authority in accordance with Articles 39 and 58 have been effectively carried out, or when the health authority is satisfied that the abnormal mortality among rodents is not due to plague. The ship or aircraft shall thereupon be given free pratique.

Article 60

On arrival, a healthy ship or aircraft shall be given free pratique, but, if it has come from an infected area, the health authority may:

(*a*) place under surveillance any suspect who disembarks, for a period of not more than six days, reckoned from the date on which the ship or aircraft left the infected area;

(*b*) require the destruction of rodents on board a ship and disinsecting in exceptional cases and for well-founded reasons which shall be communicated in writing to the master.

Article 61

If, on arrival of a train or a road vehicle, a case of human plague is discovered, the measures provided for in Article 39 and in paragraphs 1 and 2 of Article 58 may be applied by the health authority, disinsecting and, if necessary, disinfection being applied to any part of the train or road vehicle which is considered to be contaminated.

Chapter II — Cholera

Article 62

For the purposes of these Regulations the incubation period of cholera is five days.

Article 63

1. The possession of a valid certificate of vaccination against cholera shall be taken into consideration by a health authority in applying the measures provided for in these Regulations.

2. Anti-cholera vaccine used for vaccination for international travellers shall meet the requirements laid down by the Organization.

3. A health authority may apply the following measures to a person on an international voyage who has come from an infected area within the incubation period:

(*a*) if he is in possession of a valid certificate of vaccination against cholera, he may be placed under surveillance for a period of not more than five days, reckoned from the date of his departure from the infected area;

(*b*) if he is not in possession of such a certificate, he may be placed in isolation for a like period.

4. Any health administration may apply the measures provided for in this Article whether cholera infection is present in its territory or not.

Article 64

1. A ship shall be regarded as infected if, on arrival, it has a case of cholera on board, or if a case of cholera has occurred on board during a period of five days before arrival.

2. A ship shall be regarded as suspected if a case of cholera has occurred on board during the voyage, but a fresh case has not occurred during a period of five days before arrival.

3. An aircraft shall be regarded as infected if, on arrival, it has a case of cholera on board. It shall be regarded as suspected if a case of cholera has occurred on board during the voyage but the case has previously been disembarked.

4. Even when coming from an infected area or having on board a person coming from an infected area, a ship or an aircraft on arrival shall be regarded as healthy if, on medical examination, the health authority is satisfied that no case of cholera has occurred on board during the voyage.

Article 65

1. On arrival of an infected ship or aircraft, the following measures may be applied by the health authority:

(*a*) for a period of not more than five days, reckoned from the date of disembarkation, surveillance of any passenger or member of the crew who produces a valid certificate of vaccination against cholera, and isolation of all others who disembark;

(*b*) disinfection of:

(i) any baggage of any infected person or suspect; and

(ii) any other article such as used bedding or linen, and any part of the ship or aircraft, which is considered to be contaminated;

(*c*) disinfection and removal of any water carried on board which is considered to be contaminated, and disinfection of the water tanks.

2. Human dejecta, waste water including bilge-water, waste matter, and any matter which is considered to be contaminated shall not be discharged or unloaded without previous disinfection. Their safe disposal shall be the responsibility of the health authority.

Article 66

1. On arrival of a suspected ship or aircraft, the measures provided for in sub-paragraphs (*b*) and (*c*) of paragraph 1 and in paragraph 2 of Article 65 may be applied by the health authority.

2. In addition, but without prejudice to the measure provided for in sub-paragraph (*b*) of paragraph 3 of Article 63, any passenger or member of the crew who disembarks may be placed under surveillance for a period of not more than five days, reckoned from the date of arrival.

Article 67

A ship or an aircraft shall cease to be regarded as infected or suspected when the measures required by the health authority in accordance with Article 39 and with Articles 65 and 66 respectively have been effectively carried out. The ship or aircraft shall thereupon be given free pratique.

Article 68

On arrival, a healthy ship or aircraft shall be given free pratique but, if it has come from an infected area, the health authority may apply to any passenger or member of the crew who disembarks the measures provided for in Article 63.

Article 69

If, on arrival of a train, road vehicle or other means of transport, a case of cholera is discovered, the following measures may be applied by the health authority:

(*a*) for a period of not more than five days, reckoned from the date of arrival, surveillance of any passenger or member of the crew who produces a valid certificate of vaccination against cholera, and isolation of all others who disembark;

(*b*) disinfection of:

(i) any baggage of the infected person and, if necessary, that of any suspect; and

(ii) any other article such as used bedding or linen, and any part of the train, road vehicle or other means of transport, which is considered to be contaminated.

Article 70

1. On arrival of an infected or suspected ship or aircraft, of a train, road vehicle or other means of transport in which a case of cholera has been discovered, or a ship, an aircraft, a train, road vehicle or other means of transport coming from an infected area, the health authority may take samples of food, including fish, shellfish, fruit, vegetables or beverages, for culture examination, unless such food and beverages are in sealed packages, and the health authority has no reason to believe that they are contaminated; and may prohibit the unloading, or may remove, any of these articles found to be contaminated. If any such food or beverage is removed, arrangements shall be made for its safe disposal.

2. If any such food or beverage intended for unloading forms part of the cargo in a hold of a ship or freight compartment of an aircraft, or a container, only the health authority for the port or airport at which such food or beverage is to be unloaded may exercise the power to remove it.

3. The pilot in command of an aircraft and the master of a ship have the right to require the removal of any such food or beverage.

Article 71

1. No person shall be required to submit to rectal swabbing.

2. A person on an international voyage, who has come from an infected area within the incubation period of cholera and who has symptoms indicative of cholera, may be required to submit to stool examination.

Chapter III — Yellow Fever

Article 72

For the purposes of these Regulations the incubation period of yellow fever is six days.

Article 73

1. Vaccination against yellow fever may be required of any person leaving an infected area on an international voyage.

2. If such a person is in possession of a certificate of vaccination against yellow fever which is not yet valid, he may nevertheless be permitted to depart, but the provisions of Article 75 may be applied to him on arrival.

3. A person in possession of a valid certificate of vaccination against yellow fever shall not be treated as a suspect, even if he has come from an infected area.

4. The yellow-fever vaccine used must be approved by the Organization, and the vaccinating centre must have been designated by the health administration for the territory in which it is situated. The Organization shall be assured that the vaccines used for this purpose continue to be of suitable quality.

Article 74

1. Every person employed at a port or an airport situated in an infected area, and every member of the crew of a ship or an aircraft using any such port or airport, shall be in possession of a valid certificate of vaccination against yellow fever.

2. Every aircraft leaving an airport situated in an infected area shall be disinsected in accordance with Article 26, using methods recommended by the Organization, and details of the disinsecting shall be included in the Health Part of the Aircraft General Declaration, unless this part of the Aircraft General Declaration is waived by the health authority of the airport of arrival. States concerned shall accept disinsecting of aircraft by the approved vapour disinsecting system carried out in flight.

3. Every ship leaving a port in an area where *Aedes aegypti* still exists and bound for an area where *Aedes aegypti* has been eradicated shall be kept free of *Aedes aegypti* in its immature and adult stages.

4. An aircraft leaving an airport where *Aedes aegypti* exists and bound for an area where *Aedes aegypti* has been eradicated shall be disinsected in accordance with Article 26, using methods recommended by the Organization.

Article 75

A health authority in an area where the vector of yellow fever is present may require a person on an international voyage, who has come from an infected area and is unable to produce a valid certificate of vaccination against yellow fever, to be isolated until his certificate becomes valid, or until a period of not more than six days reckoned from the date of last possible exposure to infection has elapsed, whichever occurs first.

Article 76

1. A person coming from an infected area who is unable to produce a valid certificate of vaccination against yellow fever and who is due to proceed on an international voyage to an airport in an area where the vector of yellow fever is present and at which the means for securing segregation provided for in Article 35 do not yet exist, may, by arrangement between the health administrations for the territories in which the airports concerned are situated, be prevented from proceeding from an airport at which such means are available, during the period provided for in Article 75.

2. The health administrations concerned shall inform the Organization of any such arrangement, and of its termination. The Organization shall immediately send this information to all health administrations.

Article 77

1. On arrival, a ship shall be regarded as infected if it has a case of yellow fever on board, or if a case has occurred on board during the voyage. It shall be regarded as suspected if it has left an infected area less than six days before arrival, or, if arriving within thirty days of leaving such an area, the health authority finds *Aedes aegypti* or other vectors of yellow fever on board. Any other ship shall be regarded as healthy.

2. On arrival, an aircraft shall be regarded as infected if it has a case of yellow fever on board. It shall be regarded as suspected if the health authority is not satisfied with a disinsecting carried out in accordance with paragraph 2 of Article 74 and it finds live mosquitos on board the aircraft. Any other aircraft shall be regarded as healthy.

Article 78

1. On arrival of an infected or suspected ship or aircraft, the following measures may be applied by the health authority:

(*a*) in an area where the vector of yellow fever is present, the measures provided for in Article 75 to any passenger or member of the crew who disembarks and is not in possession of a valid certificate of vaccination against yellow fever;

(*b*) inspection of the ship or aircraft and destruction of any *Aedes aegypti* or other vectors of yellow fever on board; in an area where the vector of yellow fever is present, the ship may, until such measures have been carried out, be required to keep at least 400 metres from land.

2. The ship or aircraft shall cease to be regarded as infected or suspected when the measures required by the health authority in accordance with Article 39 and with paragraph 1 of this Article have been effectively carried out, and it shall thereupon be given free pratique.

Article 79

On arrival of a healthy ship or aircraft coming from an infected area, the measures provided for in sub-paragraph (*b*) of paragraph 1 of Article 78 may be applied. The ship or aircraft shall thereupon be given free pratique.

Article 80

A State shall not prohibit the landing of an aircraft at any sanitary airport in its territory if the measures provided for in paragraph 2 of Article 74 are applied, but, in an area where the vector of yellow fever is present, aircraft coming from an infected area may land only at airports specified by the State for that purpose.

Article 81

On arrival of a train, a road vehicle, or other means of transport in an area where the vector of yellow fever is present, the following measures may be applied by the health authority:

(*a*) isolation, as provided for in Article 75, of any person coming from an infected area, who is unable to produce a valid certificate of vaccination against yellow fever;

(*b*) disinsecting of the train, road vehicle or other means of transport if it has come from an infected area.

Article 82

In an area where the vector of yellow fever is present the isolation provided for in Article 39 and in this Chapter shall be in mosquito-proof accommodation.

Chapter IV — Smallpox

Article 83

For the purposes of these Regulations the incubation period of smallpox is fourteen days.

Article 84

1. A health administration may require any person on an international voyage who does not show sufficient evidence of protection by a previous attack of smallpox to possess, on arrival, a valid certificate of vaccination against smallpox. Any such person who does not produce such a certificate may be vaccinated or, if he refuses vaccination, he may be placed under surveillance for not more than fourteen days, reckoned from the date of his departure from the last territory visited before arrival.

2. A person on an international voyage, who during a period of fourteen days before his arrival has visited an infected area and who, in the opinion of the health authority, is not sufficiently protected by vaccination or by a previous attack of smallpox, may be required to be vaccinated, or may be placed under surveillance, or may be vaccinated and then placed under surveillance; if he refuses to be vaccinated, he may be isolated. The period of surveillance or isolation shall not be more than fourteen days, reckoned from the date of his departure from the infected area. A valid certificate of vaccination against smallpox shall be considered as evidence of sufficient protection.

3. Any health administration may apply the measures provided for in this Article, whether smallpox infection is present in its territory or not.

Article 85

1. A ship or an aircraft shall be regarded as infected if, on arrival, it has a case of smallpox on board, or if such a case has occurred on board during the voyage.

2. Any other ship or aircraft shall be regarded as healthy, even though there may be suspects on board, but any suspect may on disembarking be subjected to the measures provided for in Article 86.

Article 86

1. On arrival of an infected ship or aircraft, the health authority:

(*a*) shall offer vaccination to any person on board who, in its opinion, is not sufficiently protected against smallpox:

(*b*) may, for a period of not more than fourteen days, reckoned from the last exposure to infection, isolate or place under surveillance any person disembarking, but the health authority shall take into account the previous vaccinations of the person and the possibility of his having been exposed to infection in determining the period of such isolation or surveillance;

(*c*) shall disinfect:

(i) any baggage of any infected person; and

(ii) any other baggage or article such as used bedding or linen, and any part of the ship or aircraft, which is considered to be contaminated.

2. A ship or an aircraft shall continue to be regarded as infected until every infected person has been removed and until the measures required by the health authority in accordance with paragraph 1 of this Article have been effectively carried out. The ship or aircraft shall thereupon be given free pratique.

Article 87

On arrival, a healthy ship or aircraft, even when it has come from an infected area, shall be given free pratique.

Article 88

If, on arrival of a train, road vehicle or other means of transport, a case of smallpox is discovered, the infected person shall be removed and the provisions of paragraph 1 of Article 86 shall apply, any period of surveillance or isolation being reckoned from the date of arrival, and disinfection being applied to any part of the train, road vehicle or other means of transport which is considered to be contaminated.

PART VI — HEALTH DOCUMENTS

Article 89

Bills of health, with or without consular visa, or any certificate, however designated, concerning health conditions of a port or an airport, shall not be required from any ship or aircraft.

Article 90

1. The master of a seagoing vessel making an international voyage, before arrival at its first port of call in a territory, shall ascertain the state of health on board, and, except when a health administration does not require it, he shall, on arrival, complete and deliver to the health authority for that port a Maritime Declaration of Health which shall be countersigned by the ship's surgeon if one is carried.

2. The master, and the ship's surgeon if one is carried, shall supply any information required by the health authority as to health conditions on board during the voyage.

3. A Maritime Declaration of Health shall conform with the model specified in Appendix 5.

4. A health administration may decide:

(*a*) either to dispense with the submission of the Maritime Declaration of Health by all arriving ships; or

(*b*) to require it only if the ship arrives from certain stated areas, or if there is positive information to report.

In either case, the health administration shall inform shipping operators.

Article 91

1. The pilot in command of an aircraft, on landing at the first airport in a territory, or his authorized agent, shall complete and deliver to the health authority for that airport the Health Part of the Aircraft General Declaration which shall conform with the model specified in Appendix 6, except when a health administration does not require it.

2. The pilot in command of an aircraft, or his authorized agent, shall supply any information required by the health authority as to health conditions on board during the voyage.

3. A health administration may decide:

(*a*) either to dispense with the submission of the Health Part of the Aircraft General Declaration by all arriving aircraft; or

(*b*) to require it only if the aircraft arrives from certain stated areas, or if there is positive information to report.

In either case, the health administration shall inform aircraft operators.

Article 92

1. The certificates specified in Appendices 1, 2, 3 and 4 shall be printed in English and in French. An official language of the territory of issue may be added.

2. The certificates referred to in paragraph 1 of this Article shall be completed in English or in French. Completion in another language in addition is not excluded.

3. International certificates of vaccination must be signed by a medical practitioner in his own hand; his official stamp is not an accepted substitute for the signature.

4. International certificates of vaccination are individual certificates and shall in no circumstances be used collectively. Separate certificates shall be issued for children.

5. No departure shall be made from the models of the certificates specified in Appendices 2, 3 and 4, and no photograph shall be included.

6. A parent or guardian shall sign the international certificate of vaccination when the child is unable to write. The signature of an illiterate shall be indicated in the usual manner by his mark and the indication by another that this is the mark of the person concerned.

7. If a vaccinator is of the opinion that vaccination is contra-indicated on medical grounds he shall provide the person with reasons, written in English or French, underlying that opinion, which health authorities should take into account.

Article 93

A vaccination document issued by the Armed Forces to an active member of those Forces shall be accepted in lieu of an international certificate in the form shown in Appendix 2, 3 or 4 if:

(*a*) it embodies medical information substantially the same as that required by such form; and

(*b*) it contains a statement in English or in French recording the nature and date of the vaccination and to the effect that it is issued in accordance with this Article.

Article 94

No health document, other than those provided for in these Regulations, shall be required in international traffic.

PART VII — CHARGES

Article 95

1. No charge shall be made by a health authority for:

(*a*) any medical examination provided for in these Regulations, or any supplementary examination, bacteriological or otherwise, which may be required to ascertain the state of health of the person examined;

(*b*) any vaccination of a person on arrival and any certificate thereof.

2. Where charges are made for applying the measures provided for in these Regulations, other than the measures referred to in paragraph 1 of this Article, there shall be in each territory only one tariff for such charges and every charge shall:

(*a*) conform with this tariff;

(*b*) be moderate and not exceed the actual cost of the service rendered;

(*c*) be levied without distinction as to the nationality, domicile, or residence of the person concerned, or as to the nationality, flag, registry or ownership of the ship, aircraft, train, road vehicle, other means of transport, and containers. In particular, there shall be no distinction made between national and foreign persons, ships, aircraft, trains, road vehicles, other means of transport, and containers.

3. The levying of a charge for the transmission of a message relating to provisions of these Regulations by radio may not exceed the normal charge for radio messages.

4. The tariff, and any amendment thereto, shall be published at least ten days in advance of any levy thereunder and notified immediately to the Organization.

PART VIII — VARIOUS PROVISIONS

Article 96

1. Every aircraft leaving an airport situated in an area where transmission of malaria or other mosquito-borne disease is occurring, or where insecticide-resistant mosquito vectors of disease are present, or where a vector species is present that has been eradicated in the area where the airport of destination of the aircraft is situated, shall be disinsected in accordance with Article 26 using the methods recommended by the Organization. States concerned shall accept disinsecting of aircraft by the approved vapour disinsecting system carried out in flight. Every ship leaving a port in the situation referred to above shall be kept free from the immature and adult stages of the mosquito concerned.

2. On arrival at an airport in an area where malaria or other mosquito-borne disease could develop from imported vectors, or where a vector species has been eradicated that is present in the area in which the airport of origin is located, the aircraft mentioned in paragraph 1 of this Article may be disinsected in accordance with Article 26 if the health authority is not provided with satisfactory evidence that disinsecting has been carried out in accordance with paragraph 1 of this Article. Every ship arriving in a port in the situation referred to above should be treated and freed, under the control of the health authority, from the immature and adult stages of the mosquito concerned.

3. As far as practicable, and where appropriate, a train, road vehicle, other means of transport, container, or boat used for international coastal traffic or for international traffic on inland waterways, shall be kept free of insect vectors of human disease.

Article 97

1. Migrants, nomads, seasonal workers or persons taking part in periodic mass congregations, and any ship, in particular small boats for international coastal traffic, aircraft, train, road vehicle or other means of transport carrying them, may be subjected to additional health measures conforming with the laws and regulations of each State concerned, and with any agreement concluded between any such States.

2. Each State shall notify the Organization of the provisions of any such laws and regulations or agreement.

3. The standards of hygiene on ships and aircraft carrying persons taking part in periodic mass congregations shall not be inferior to those recommended by the Organization.

Article 98

1. Special treaties or arrangements may be concluded between two or more States having certain interests in common owing to their health, geographical, social or economic conditions, in order to facilitate the application of these Regulations, and in particular with regard to:

(*a*) the direct and rapid exchange of epidemiological information between neighbouring territories;

(*b*) the health measures to be applied to international coastal traffic and to international traffic on inland waterways, including lakes;

(*c*) the health measures to be applied in contiguous territories at their common frontier;

(*d*) the combination of two or more territories into one territory for the purposes of any of the health measures to be applied in accordance with these Regulations:

(*e*) arrangements for carrying infected persons by means of transport specially adapted for the purpose.

2. The treaties or arrangements referred to in paragraph 1 of this Article shall not be in conflict with the provisions of these Regulations.

3. States shall inform the Organization of any such treaty or arrangement which they may conclude. The Organization shall send immediately to all health administrations information concerning any such treaty or arrangement.

PART IX — FINAL PROVISIONS

Article 99

1. These Regulations, subject to the provisions of Article 101 and the exceptions hereinafter provided, replace, as between the States bound by these Regulations and as between these States and the Organization, the provisions of the following existing International Sanitary Conventions, Regulations and similar agreements:

(*a*) International Sanitary Convention, signed in Paris, 3 December 1903;

(*b*) Pan American Sanitary Convention, signed in Washington, 14 October 1905;

(*c*) International Sanitary Convention, signed in Paris, 17 January 1912;

(*d*) International Sanitary Convention, signed in Paris, 21 June 1926;

(*e*) International Sanitary Convention for Aerial Navigation, signed at The Hague, 12 April 1933;

(*f*) International Agreement for dispensing with Bills of Health, signed in Paris, 22 December 1934;

(*g*) International Agreement for dispensing with Consular Visas on Bills of Health, signed in Paris, 22 December 1934;

(*h*) Convention modifying the International Sanitary Convention of 21 June 1926, signed in Paris, 31 October 1938;

(*i*) International Sanitary Convention, 1944, modifying the International Sanitary Convention of 21 June 1926, opened for signature in Washington, 15 December 1944;

(*j*) International Sanitary Convention for Aerial Navigation, 1944, modifying the International Sanitary Convention of 12 April 1933, opened for signature in Washington, 15 December 1944;

(*k*) Protocol of 23 April 1946 to prolong the International Sanitary Convention, 1944, signed in Washington;

(*l*) Protocol of 23 April 1946 to prolong the International Sanitary Convention for Aerial Navigation, 1944, signed in Washington;

(*m*) International Sanitary Regulations, 1951, and the Additional Regulations of 1955, 1956, 1960, 1963 and 1965.

2. The Pan American Sanitary Code, signed at Habana, 14 November 1924, remains in force with the exception of Articles 2, 9, 10, 11, 16 to 53 inclusive, 61, and 62, to which the relevant part of paragraph 1 of this Article shall apply.

Article 100

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

2. Such period may, by notification to the Director-General, be extended to eighteen months with respect to overseas or other outlying territories for whose international relations the State may be responsible.

3. Any rejection or reservation received by the Director-General after the expiry of the periods referred to in paragraph 1 or 2 of this Article shall have no effect.

Article 101

1. If any State makes a reservation to these Regulations, such reservation shall not be valid unless it is accepted by the World Health Assembly, and these Regulations shall not enter into force with respect to that State until such reservation has been accepted by the Assembly or, if the Assembly objects to it on the ground that it substantially detracts from the character and purpose of these Regulations, until it has been withdrawn.

2. A rejection in part of these Regulations shall be considered as a reservation.

3. The World Health Assembly may, as a condition of its acceptance of a reservation, request the State making such reservation to undertake that it will continue to fulfil any obligation or obligations corresponding to the subject-matter of such reservation, which such State has previously accepted under the existing conventions, regulations and similar agreements listed in Article 99.

4. If a State makes a reservation which in the opinion of the World Health Assembly detracts to an insubstantial extent from an obligation or obligations previously accepted by that State under the existing conventions, regulations and similar agreements listed in Article 99, the Assembly may accept such reservation without requiring as a condition of its acceptance an undertaking of the kind referred to in paragraph 3 of this Article.

5. If the World Health Assembly objects to a reservation, and that reservation is not then withdrawn, these Regulations shall not enter into force with respect to the State which has made such a reservation. Any existing conventions, regulations and similar agreements listed in Article 99 to which such State is already a party consequently remain in force as far as such State is concerned.

Article 102

A rejection, or the whole or part of any reservation, may at any time be withdrawn by notifying the Director-General.

Article 103

1. These Regulations shall come into force on the first day of January 1971.

2. Any State which becomes a Member of the Organization after that date and which is not already a party hereto may notify its rejection of, or any reservation to, these Regulations within a period of three months from the date on which that State becomes a Member of the Organization. Unless rejected, these Regulations shall come into force with respect to that State, subject to the provisions of Article 101 upon expiry of that period.

Article 104

1. Any State not a Member of the Organization, which is a party to any conventions, regulations and similar agreements listed in Article 99 or to which the Director-General has notified the adoption of these Regulations by the World Health Assembly, may become a party hereto by notifying its acceptance to the Director-General and, subject to the provisions of Article 101, such acceptance shall become effective upon the date of coming-into-force of these Regulations, or, if such acceptance is notified after that date, three months after the date of receipt by the Director-General of the notification of acceptance.

2. For the purpose of the application of these Regulations Articles 23, 33, 62, 63 and 64 of the Constitution of the Organization shall apply to any non-Member State which becomes a party to these Regulations.

3. Any non-Member State which has become a party to these Regulations may at any time withdraw from participation in these Regulations, by means of a

notification addressed to the Director-General which shall take effect six months after he has received it. The State which has withdrawn shall, as from that date, resume application of the provisions of any conventions, regulations and similar agreements listed in Article 99 to which it was previously a party.

Article 105

The Director-General shall notify all Members and Associate Members, and also other parties to any conventions, regulations and similar agreements listed in Article 99 of the adoption by the World Health Assembly of these Regulations. The Director-General shall also notify these States as well as any other State, which has become a party to these Regulations, of any additional Regulations amending or supplementing these Regulations, of any notification received by him under Articles 100, 102, 103 and 104 respectively, as well as of any decision taken by the World Health Assembly under Article 101.

Article 106

1. Any question or dispute concerning the interpretation or application of these Regulations or of any Regulations supplementary to these Regulations may be referred by any State concerned to the Director-General who shall attempt to settle the question or dispute. If such question or dispute is not thus settled, the Director-General on his own initiative, or at the request of any State concerned, shall refer the question or dispute to the appropriate committee or other organ of the Organization for consideration.

2. Any State concerned shall be entitled to be represented before such committee or other organ.

3. Any such dispute which has not been thus settled may, by written application, be referred by any State concerned to the International Court of Justice for decision.

Article 107

1. The English and French texts of these Regulations shall be equally authentic.

2. The original texts of these Regulations shall be deposited in the archives of the Organization. Certified true copies shall be sent by the Director-General to all Members and Associate Members, and also to other parties to one of the conventions, regulations and similar agreements listed in Article 99. Upon the entry-into-force of these Regulations, certified true copies shall be delivered by the Director-General to the Secretary-General of the United Nations for registration in accordance with Article 102 of the Charter of the United Nations.

IN FAITH WHEREOF we have set our hands at Boston, this twenty-fifth day of July 1969.

(*signed*) W. H. STEWART
President of the Twenty-second World Health Assembly

(*signed*) M. G. CANDAU
Director-General of the World Health Organization

DERATTING CERTIFICATE (a) — CERTIFICAT DE DÉRATISATION (a)
DERATTING EXEMPTION CERTIFICATE (a) — CERTIFICAT D'EXEMPTION DE LA DÉRATISATION (a)

issued in accordance with Article 54 of the International Health Regulations — délivré conformément à l'article 54 du Règlement sanitaire international
(Not to be taken away by Port Authorities.) — (Ce certificat ne doit pas être retiré par les autorités portuaires.)

PORT OF ..... — PORT DE .....

Date — Date .....

THIS CERTIFICATE records the inspection and { *deratting* / *exemption* } (a) *at this port and on the above date*

LE PRÉSENT CERTIFICAT atteste l'inspection et { la dératisation / l'exemption } (a) en ce port et à la date ci-dessus

of the { *ship* / *inland navigation vessel* } (a) *of* ..... { *net tonnage for a sea-going vessel* / *tonnage for an inland navigation vessel* } (a) (f)

du navire de ..... { tonnage net dans le cas d'un navire de haute mer / tonnage dans le cas d'un navire de navigation intérieure } (a) (f)

At the time of { *inspection* / *deratting* } (a) *the holds were laden with* ..... *tons of* ..... *cargo*

Au moment de { l'inspection / la dératisation } (a) les cales étaient chargées de ..... tonnes de ..... cargaison

COMPARTMENTS (b)	*RAT INDICATIONS* TRACES DE RATS (c)	*RAT HARBOURAGE* REFUGES A RATS		*DERATTING* — DÉRATISATION					COMPARTIMENTS (b)
				by fumigation — par fumigation *Fumigant* — Gaz utilisé ..... *Hours exposure* — Exposition (heures)			*by catching, trapping, or poisoning* par capture ou poison		
		discovered trouvés (d)	*treated* supprimés	*Space (cubic feet)* Espaces (mètres cubes)	*Quantity used* Quantités employées (e)	*Rats found dead* Rats trouvés morts	*Traps set or poisons put out* Pièges ou poisons mis	*Rats caught or killed* Rats pris ou tués	
Holds 1.									Cales 1.
— 2.									— 2
— 3.									— 3.
— 4.									— 4.
— 5.									— 5.
— 6.									— 6.
— 7.									— 7.
Shelter deck space									Entrepont
Bunker space									Soute à charbon
Engineroom and shaft alley .									Chaufferies, tunnel de l'arbre
Forepeak and storeroom . .									Peak avant et magasin
Afterpeak and storeroom .									Peak arrière et magasin
Lifeboats									Canots de sauvetage
Charts and wireless rooms .									Chambre des cartes, T.S.F.
Galley									Cuisines
Pantry									Cambuses
Provision storerooms . . .									Soute à vivres
Quarters (crew)									Postes (équipage)
Quarters (officers)									Chambres (officiers)
Quarters (cabin passengers)									Cabines (passagers)
Quarters (steerage) . . .									Postes (émigrants)
Total									Total

(a) *Strike out the unnecessary indications.* — Rayer les mentions inutiles.

(b) *In case any of the compartments enumerated do not exist on the ship or inland navigation vessel, this fact must be mentioned.* — Lorsqu'un des compartiments énumérés n'existe pas sur le navire, on devra le mentionner expressément.

(c) *Old or recent evidence of excreta, runs, or gnawing.* — Traces anciennes ou récentes d'excréments, de passages ou de rongements.

(d) *None, small, moderate, or large.* — Néant, peu, passablement ou beaucoup.

(e) *State the weight of sulfur or of cyanide salts or quantity of HCN acid used.* — Indiquer les poids de soufre ou de cyanure ou la proportion d'acide cyanhydrique.

(f) *Specify whether applies to metric displacement or any other method of determining the tonnage.* — Spécifier s'il s'agit de déplacement métrique ou, sinon, de quel autre tonnage il s'agit.

RECOMMENDATIONS MADE. — OBSERVATIONS. — *In the case of exemption, state here the measures taken for maintaining the ship or inland navigation vessel in such a condition that it is free of rodents and the plague vector.* — Dans le cas d'exemption, indiquer ici les mesures prises pour que le navire soit maintenu dans des conditions telles qu'il n'y ait à bord ni rongeurs, ni vecteurs de la peste.

Seal, name, qualification, and signature of the inspector. — Cachet, nom, qualité et signature de l'inspecteur.

Appendix 2

Appendice 2

INTERNATIONAL CERTIFICATE OF VACCINATION OR REVACCINATION AGAINST CHOLERA
CERTIFICAT INTERNATIONAL DE VACCINATION OU DE REVACCINATION CONTRE LE CHOLÉRA

This is to certify that / Je soussigné(e) certifie que ..... *date of birth* / né(e) le ..... *sex* / sexe .....

whose signature follows / dont la signature suit .....

has on the date indicated been vaccinated or revaccinated against cholera.
a été vacciné(e) ou revacciné(e) contre le choléra à la date indiquée.

Date	*Signature and professional status of vaccinator* Signature et titre du vaccinateur	*Approved stamp* Cachet autorisé	
1		1	2
2			
3		3	4
4			

The vaccine used shall meet the requirements laid down by the World Health Organization.

The validity of this certificate shall extend for a period of six months, beginning six days after one injection of the vaccine or, in the event of a revaccination within such period of six months, on the date of that revaccination.

The approved stamp mentioned above must be in a form prescribed by the health administration of the territory in which the vaccination is performed.

This certificate must be signed by a medical practitioner in his own hand; his official stamp is not an accepted substitute for the signature.

Any amendment of this certificate, or erasure, or failure to complete any part of it, may render it invalid.

Le vaccin utilisé doit satisfaire aux normes formulées par l'Organisation mondiale de la Santé.

La validité de ce certificat couvre une période de six mois commençant six jours après une injection de vaccin ou, dans le cas d'une revaccination au cours de cette période de six mois, le jour de cette revaccination.

Le cachet autorisé doit être conforme au modèle prescrit par l'administration sanitaire du territoire où la vaccination est effectuée.

Ce certificat doit être signé par un médecin de sa propre main, son cachet officiel ne pouvant être considéré comme tenant lieu de signature.

Toute correction ou rature sur le certificat ou l'omission d'une quelconque des mentions qu'il comporte peut affecter sa validité.

Appendix 3 **Appendice 3**

INTERNATIONAL CERTIFICATE OF VACCINATION OR REVACCINATION AGAINST YELLOW FEVER
CERTIFICAT INTERNATIONAL DE VACCINATION OU DE REVACCINATION CONTRE LA FIÈVRE JAUNE

This is to certify that / Je soussigné(e) certifie que ..... *date of birth* / né(e) le ..... *sex* / sexe .....

whose signature follows / dont la signature suit .....

has on the date indicated been vaccinated or revaccinated against yellow fever.
a été vacciné(e) ou revacciné(e) contre la fièvre jaune à la date indiquée.

Date	*Signature and professional status of vaccinator* Signature et titre du vaccinateur	*Manufacturer and batch no. of vaccine* Fabricant du vaccin et numéro du lot	*Official stamp of vaccinating centre* Cachet officiel du centre de vaccination	
1			1	2
2				
3			3	4
4				

This certificate is valid only if the vaccine used has been approved by the World Health Organization and if the vaccinating centre has been designated by the health administration for the territory in which that centre is situated.

The validity of this certificate shall extend for a period of ten years, beginning ten days after the date of vaccination or, in the event of a revaccination within such period of ten years, from the date of that revaccination.

This certificate must be signed by a medical practitioner in his own hand; his official stamp is not an accepted substitute for the signature.

Any amendment of this certificate, or erasure, or failure to complete any part of it, may render it invalid.

Ce certificat n'est valable que si le vaccin employé a été approuvé par l'Organisation mondiale de la Santé et si le centre de vaccination a été habilité par l'administration sanitaire du territoire dans lequel ce centre est situé.

La validité de ce certificat couvre une période de dix ans commençant dix jours après la date de la vaccination ou, dans le cas d'une revaccination au cours de cette période de dix ans, le jour de cette revaccination.

Ce certificat doit être signé par un médecin de sa propre main, son cachet officiel ne pouvant être considéré comme tenant lieu de signature.

Toute correction ou rature sur le certificat ou l'omission d'une quelconque des mentions qu'il comporte peut affecter sa validité.

Appendix 4

Appendice 4

INTERNATIONAL CERTIFICATE OF VACCINATION OR REVACCINATION AGAINST SMALLPOX
CERTIFICAT INTERNATIONAL DE VACCINATION OU DE REVACCINATION CONTRE LA VARIOLE

This is to certify that / Je soussigné(e) certifie que ..... *date of birth* / né(e) le ..... *sex* / sexe .....

whose signature follows / dont la signature suit .....

has on the date indicated been vaccinated or revaccinated against smallpox with a freeze-dried or liquid 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 ou liquide certifié conforme aux normes recommandées par l'Organisation mondiale de la Santé.

Date	*Show by "x" whether* Indiquer par « x » s'il s'agit de	*Signature and professional status of vaccinator* Signature et titre du vaccinateur	*Manufacturer and batch no. of vaccine* Fabricant du vaccin et numéro du lot	*Approved stamp* Cachet autorisé	
1a	*Primary vaccination performed* / Primovaccination effectuée			1a	1b
1b	*Read as successful* / Prise ..... *Unsuccessful* / Pas de prise				
2	Revaccination			2	3
3	Revaccination				

The validity of this certificate shall extend for a period of three years, beginning eight days after the date of a successful primary vaccination or, in the event of a revaccination, on the date of that revaccination.

The approved stamp mentioned above must be in a form prescribed by the health administration of the territory in which the vaccination is performed.

This certificate must be signed by a medical practitioner in his own hand; his official stamp is not an accepted substitute for the signature.

Any amendment of this certificate, or erasure, or failure to complete any part of it, may render it invalid.

La validité de ce certificat couvre une période de trois ans commençant huit jours après la date de la primovaccination effectuée avec succès (prise) ou, dans le cas d'une revaccination, le jour de cette revaccination.

Le cachet autorisé doit être conforme au modèle prescrit par l'administration sanitaire du territoire où la vaccination est effectuée.

Ce certificat doit être signé par un médecin de sa propre main, son cachet officiel ne pouvant être considéré comme tenant lieu de signature.

Toute correction ou rature sur le certificat ou l'omission d'une quelconque des mentions qu'il comporte peut affecter sa validité.

Appendix 5

MARITIME DECLARATION OF HEALTH

(To be rendered by the masters of ships arriving from ports outside the territory)

Port of — Date

Name of ship — From — To

Nationality — Master's name

Net Registered Tonnage

Deratting or Deratting Exemption { Certificate / Issued at — Dated

Number of passengers { Cabin / Deck — Number of crew

List of ports of call from commencement of voyage with dates of departure:

Health Questions

	Answer Yes or No
1. Has there been on board during the voyage * any case or suspected case of plague, cholera, yellow fever or smallpox? Give particulars in the Schedule.	
2. Has plague occurred or been suspected among the rats or mice on board during the voyage,* or has there been an abnormal mortality among them?	
3. Has any person died on board during the voyage * otherwise than as a result of accident? Give particulars in Schedule.	
4. Is there on board or has there been during the voyage * any case of disease which you suspect to be of an infectious nature? Give particulars in Schedule.	
5. Is there any sick person on board now? Give particulars in Schedule.	
Note: In the absence of a surgeon, the Master should regard the following symptoms as ground for suspecting the existence of disease of an infectious nature: fever accompanied by prostration or persisting for several days, or attended with glandular swelling; or any acute skin rash or eruption with or without fever; severe diarrhoea with symptoms of collapse; jaundice accompanied by fever.	
6. Are you aware of any other condition on board which may lead to infection or the spread of disease?	

I hereby declare that the particulars and answers to the questions given in this Declaration of Health (including the Schedule) are true and correct to the best of my knowledge and belief.

Signed
Master

Countersigned
Ship's Surgeon

Date

* If more than four weeks have elapsed since the voyage began, it will suffice to give particulars for the last four weeks.

Appendix 5 *(continued)*

SCHEDULE TO THE DECLARATION

Particulars of every case of illness or death occurring on board

Name	Class or rating	Age	Sex	Nationality	Port of embarkation	Date of embarkation	Nature of illness	Date of its onset	Results of illness *	Disposal of case **

* State whether recovered; still ill; died.

** State whether still on board; landed at (give name of port); buried at sea.

Appendix 6

HEALTH PART OF THE AIRCRAFT GENERAL DECLARATION

Declaration of Health

Persons on board with illnesses other than airsickness or the effects of accidents (including persons with symptoms or signs of illness such as rash, fever, chills, diarrhoea) as well as those cases of illness disembarked during the flight .....

Any other condition on board which may lead to the spread of disease .....

Details of each disinsecting or sanitary treatment (place, date, time, method) during the flight. If no disinsecting has been carried out during the flight, give details of most recent disinsecting .....

Signature, if required: .....

Crew member concerned

Annex 2

FINANCIAL REPORT ON THE ACCOUNTS OF WHO FOR 1968 AND REPORT OF THE EXTERNAL AUDITOR [1]

[A22/AFL/14 — 10 July 1969]

FIRST REPORT OF THE AD HOC COMMITTEE OF THE EXECUTIVE BOARD

1. At its forty-third session, the Executive Board, in resolution EB43.R44, established an Ad Hoc Committee consisting of Dr D. D. Venediktov, Sir William Refshauge and Professor E. Aujaleu to consider the Financial Report on the accounts of the Organization for 1968 and the Report of the External Auditor, and, in accordance with Financial Regulation 12.4, to submit to the Twenty-second World Health Assembly, on behalf of the Board, such comments as it deemed necessary.

2. The Committee met on 7 July 1969; Dr D. D. Venediktov was elected Chairman.

3. The Committee reviewed the Financial Report of the Director-General and the Report of the External Auditor.[2]

4. The Committee noted that during 1968 the Organization had obligated $55 562 973 or 99 per cent. of the effective working budget, leaving a budget surplus of $560 027. The total assessment on Members for 1968 was $54 192 100, of which $52 244 753 was collected. This amount, together with other income for the 1968 budget, brought total income to $54 175 653. The resultant cash deficit for 1968 was $1 387 320, which was covered by an advance from the Working Capital Fund, pending receipt of contributions. Up to 30 June 1969, $992 887 of this amount of contributions outstanding had been received and credited to the Working Capital Fund. The balance of the cash deficit, amounting to $394 433, which remains to be replenished to the Working Capital Fund, is expected to be received during the latter half of 1969.

5. In considering the statement of assets and liabilities of the Organization as at 31 December 1968, the Committee noted that the Executive Board Special Fund, which was established in 1954 at $100 000, and was set up in compliance with Article 58 of the Constitution, has not been used in the past several years. The Committee suggests that the Executive Board may wish to study whether this fund needs to be maintained in its present form and, if so, whether the amount should be reconsidered. The Committee recommends that such a study form part of the review of the Working Capital Fund which the Executive Board will make at its forty-fifth session.

6. The Committee also noted that the Special Account for Servicing Costs amounted to $873 574 at 31 December 1968 and was informed that the main source of income for this account consists of funds received from the Special Fund component of the United Nations Development Programme for administrative and operational services costs of Special Fund projects; other funds are received from miscellaneous funds-in-trust arrangements and from outside users of the computer. Funds received from the Special Fund component are used to finance, *inter alia*, staff needed at headquarters and the regional offices to provide the administrative and operational support services to Special Fund projects. These costs are committed for the period the staff are authorized, up to a maximum of five years, although the 1968 Financial Report shows only the obligations for that year.

7. The Committee also noted that an amount of $39 647 143 was held in short-term deposits by the Organization at 31 December 1968. These funds, together with securities valued at $279 136, cash at banks or on hand amounting to $1 398 780, and a letter of credit valued at $1 million, total $42 325 059. The funds are held in respect of:

	US $	US $
Unliquidated obligations	13 694 505	
Less: prepaid expenses	62 513	13 631 992
Working Capital Fund		10 308 881
Special funds	6 271 056	
Less: vaccines in stock	65 045	6 206 011
Building funds		112 873
Trust funds		6 861 184
Terminal Payments Account		4 477 469
Accounts payable	2 796 727	
Less: accounts receivable	2 070 078	726 649
		42 325 059

[1] See resolution WHA22.4.

[2] *Off. Rec. Wld Hlth Org.*, **175**.

It was explained that the Organization was benefiting from the situation in the world money market which was currently giving high rates of interest for short-term investment. In reply to a suggestion that it might be desirable to use available cash funds to liquidate Loans Repayable ($8 952 546), it was pointed out that, even though the balances of investments appear high, the cash therein was reserved for the purposes shown above. The Committee was also informed that, in view of the volume of the investment activity within the Organization, the Director-General was considering whether it would be desirable to propose to the Executive Board that an outside committee of experts be established to assist the Director-General in carrying out this increasingly complex responsibility.

8. In considering the amount of $3 222 721 in the Voluntary Fund for Health Promotion unobligated at 31 December 1968, the Committee noted that $1.1 million was for a project for which the plan of operations was signed only at the end of 1968 and that other projects under this fund were proceeding as planned.

9. In paragraph 8 of his report, the External Auditor had indicated that a letter dealing with certain questions resulting from the audit had been addressed to the Assistant Director-General responsible for administration and finance. The Committee had before it the contents of the letter, which referred to one item concerning the timing of the purchases of supplies and payment for contractual services which was under review by the Director-General and to another concerning the elaboration of the Internal Audit observations, and noted with satisfaction that appropriate action was being taken.

10. Following its review of the Financial Report on the accounts of the Organization for 1968, and the Report of the External Auditor thereon, the Committee decided to recommend to the Twenty-second World Health Assembly the adoption of the following resolution:

The Twenty-second World Health Assembly,

Having examined the Financial Report of the Director-General for the period 1 January to 31 December 1968 and the Report of the External Auditor for the same financial period, as contained in *Official Records* No. 175; and

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

ACCEPTS the Director-General's Financial Report and the Report of the External Auditor for the financial year 1968.

Annex 3

MEMBERS IN ARREARS IN THE PAYMENT OF THEIR CONTRIBUTIONS TO AN EXTENT WHICH MAY INVOKE ARTICLE 7 OF THE CONSTITUTION [1]

1. Second Report of the Ad Hoc Committee of the Executive Board

[A22/AFL/13 — 10 July 1969]

1. At its forty-third session, the Executive Board, in resolution EB43.R44, established an Ad Hoc Committee consisting of Dr D. D. Venediktov, Sir William Refshauge and Professor E. Aujaleu. The Committee, in accordance with resolution EB43.R15, was to " consider all the circumstances involving those Members which, at the time of its meeting, remain in arrears in the payment of their contributions to an extent which may invoke Article 7 of the Constitution, and to submit to the Twenty-second World Health Assembly on behalf of the Board such recommendations as it deems desirable ".

2. The Committee met on 7 July 1969; Dr Venediktov was elected Chairman.

3. The Committee considered the report submitted by the Director-General on this subject which is appended to this report. It took note of the action taken by the Director-General and the position of the Members and Associate Member concerned.

4. The Committee requested the Director-General to communicate by cable with Bolivia, the Dominican Republic, Ecuador and Haiti, requesting them to pay

[1] See resolution WHA22.14.

their arrears before 14 July 1969, when the matter was expected to be considered by the World Health Assembly, or, if they were unable to do so, to communicate the difficulties they were experiencing in making such payments. The Committee further requested the Director-General to report to the Health Assembly the results of these further communications.

5. The Committee suggests to the Health Assembly that the following alternatives be considered:

(1) that the voting rights of the Members concerned be suspended unless additional payments or satisfactory reasons for non-payment are received prior to the time this item is dealt with by the Health Assembly, or

(2) that these Members be given additional time in which to make payment of their arrears while retaining their voting rights at the Twenty-second World Health Assembly.

Appendix

REPORT BY THE DIRECTOR-GENERAL TO THE AD HOC COMMITTEE OF THE EXECUTIVE BOARD

1. Resolutions of World Health Assemblies concerning Members in Arrears

1.1 Resolution WHA8.13, paragraph 2, reads as follows:

RESOLVES that, if a Member is in arrears in the payment of its financial contributions to the Organization in an amount which equals or exceeds the amount of the contributions due from it for the preceding two full years at the time of the opening of the World Health Assembly in any future year, the Assembly shall consider, in accordance with Article 7 of the Constitution, whether or not the right to vote of such a Member shall be suspended.

1.2 The applicable paragraphs of resolution WHA16.20 read as follows:

II

. . . . . .

2. REQUESTS the Executive Board, at its sessions when the agenda of the World Health Assembly is prepared, to make specific recommendations, with the reasons therefor, to the Health Assembly with regard to any Members in arrears in the payment of contributions to the Organization to an extent which would invoke the provisions of Article 7 of the Constitution;

3. INVITES Members that are in arrears to an extent which would invoke the provisions of Article 7 of the Constitution to submit to the Executive Board a statement of their intentions as to payment of their arrears, so that the Health Assembly, when it considers the matter in accordance with the provisions of resolution WHA8.13, will be able to make its decision on the basis of the statements of such Members and the recommendations of the Executive Board;

4. REQUESTS the Director-General to study with the Member States concerned the difficulties of these countries and to report to the appropriate sessions of the Executive Board and the World Health Assembly.

1.3 Resolution WHA15.9, paragraph 3, reads as follows:

DECIDES that the arrangements made by Bolivia for payment of its arrears shall be considered as making it unnecessary to invoke the provisions of paragraph 2 of resolution WHA8.13.

1.4 Resolution WHA19.29, paragraph 2, reads as follows:

EXPRESSES its willingness to accept the proposal of Haiti that it pay its arrears for the balance of 1961 and the years 1962 to 1966 in twenty annual instalments of US $3367, in addition to its annual contributions for 1967 and future years, thus making it unnecessary for future Assemblies to invoke the provisions of paragraph 2 of resolution WHA8.13.

1.5 Resolution WHA21.6, paragraph 2, reads as follows:

ACCEPTS the method of payment of its arrears of contributions proposed by Uruguay: namely, to accept Government of Uruguay treasury bills, non-interest bearing, denominated in US dollars, maturing at three-, six-, nine- and twelve-month intervals; the effective date of payment of contributions will be the day on which the account of the Organization receives credit in cash in US dollars or Swiss francs as provided in Financial Regulation 5.5.

2. Resolution EB43.R15 adopted by the Executive Board at its Forty-third Session

The relevant paragraphs of resolution EB43.R15 read as follows:

Expressing the hope that Members in arrears will arrange for payment of their arrears before the Twenty-second World Health Assembly, so that the provisions of Article 7 of the Constitution need not be invoked by the Health Assembly,

1. URGES all the Members concerned to arrange payment of their arrears before the Twenty-second World Health Assembly convened for 8 July 1969;

2. URGES Bolivia, Haiti and Uruguay to fulfil the conditions previously accepted by the World Health Assembly for the settlement of their arrears;

3. REQUESTS the Director-General to communicate this resolution to those Members and to continue his efforts to obtain payment of their outstanding arrears;

4. REQUESTS the Director-General to submit a report on the status of contributions from those Members to the Ad Hoc Committee of the Executive Board which is to meet prior to the discussion on arrears in contributions by the Twenty-second World Health Assembly; and

5. REQUESTS the Ad Hoc Committee to consider all the circumstances involving those Members which, at the time of its meeting, remain in arrears in the payment of their contributions to an extent which may invoke Article 7 of the Constitution, and to submit to the Twenty-second World Health Assembly on behalf of the Board such recommendations as it deems desirable.

Member	Amounts due						
	1965	1966	1967	Instalment on arrears payable in 1967	1968	Instalment on arrears payable in 1968	Total
	US $	US $	US $	US $	US $	US $	US $
Bolivia [a]	—	—	18 286 [d]	5 315	23 170	5 315	52 086
Dominican Republic	16 610 [d]	17 410	21 320	—	23 170	—	78 510
Ecuador	—	15 314 [d]	26 640	—	28 970	—	70 924
Haiti [b]	—	—	18 395 [d]	3 367	23 170	3 367	48 299
Southern Rhodesia [c]	—	—	10 660	—	11 590	—	22 250

[a] See resolution WHA15.9, *Handbook of Resolutions and Decisions*, 10th ed., p. 333.
[b] See resolution WHA19.29, *Handbook of Resolutions and Decisions*, 10th ed., p. 335.
[c] Associate Member.
[d] Balance of contribution.

3. Members concerned

As at 30 June 1969, when this document was prepared, four Members and one Associate Member were in arrears for amounts which equalled or exceeded their contributions for two full years prior to 1969; the countries concerned and the amounts of their arrears are as shown in the table above.

As will be seen from the table, Bolivia and Haiti have not fulfilled the conditions accepted by the World Health Assembly for the settlement of their arrears as set forth in the resolutions quoted in paragraphs 1.3 and 1.4.

4. Action taken by the Director-General

4.1 As requested by the Executive Board at its forty-third session, the Director-General in March 1969 communicated the text of resolution EB43.R15 to the Members in arrears in the payment of their contributions to an extent which may invoke the provisions of Article 7 of the Constitution, urging them to pay their arrears or, if they were unable to do so before the opening of the Twenty-second World Health Assembly, to provide a statement of their intentions of payment for presentation to the Ad Hoc Committee of the Executive Board. A further communication was sent by the Director-General in May 1969 and personal contacts were made by the Director-General or his representatives.

4.2 Reproduced in the Annex below is the exchange of correspondence between the Director-General and the Government of the United Kingdom concerning the arrears of contributions of Southern Rhodesia.

5. Payments or Instruments of Deferred Payment received since the Closure of the Twenty-first World Health Assembly

5.1 The following payments, reflected in the table above, have been received since the closure of the Twenty-first World Health Assembly:

	Amount US $	Representing
Ecuador		
7 June 1968	1 815	Part 1966 contribution
29 July 1968	908	
13 January 1969	2 723	
Total:	5 446	
Haiti		
26 July 1968	2 925	Part 1967 contribution

5.2 In accordance with resolution WHA21.6 the Government of Uruguay has remitted the following treasury bills to WHO:

Date of remittance	Number	Date of maturity	Amount US $
6.12.68	A3901(E)	10. 3.69	29 732.00
	A3902(E)	10. 9.69	29 732.00
	A3903(E)	10.12.69	29 732.95
14.4.69	A5614(E)	14. 7.69	20 086.05
	A5615(E)	14. 1.70	20 000.00
	A5616(E)	14. 4.70	20 000.00
		Total:	149 283.00

Cash has been received for treasury bill No. A3901(E) matured on 10 March 1969 and the remaining treasury bills are being held in safe custody. The value of those treasury bills received is sufficient to liquidate all the arrears of Uruguay for the years prior to 1968 and therefore, when credited to the account of the Organization, will reduce Uruguay's arrears below the level which would make it necessary for the Health Assembly to consider invoking Article 7 of the Constitution.

6. Action to be taken by the Ad Hoc Committee

The Ad Hoc Committee will need to consider what recommendations it wishes to make, on behalf of the Executive Board, to the Twenty-second World Health Assembly. Among other possibilities, the Committee could recommend:

(1) that the voting rights of the Members concerned be suspended unless additional payments or satisfactory reasons for non-payment are received prior to the time this item is dealt with by the Health Assembly, or

(2) that these Members be given additional time in which to make payment of their arrears while retaining their voting rights at the Twenty-second World Health Assembly.

ANNEX

1. Letter, dated 19 March 1969, from the Director-General of the World Health Organization to the Department of Health and Social Security, London

I have the honour to transmit herewith the text of resolution EB43.R15 adopted by the Executive Board at its forty-third

session, in respect of Members in arrears in the payment of their contributions to an extent which may invoke the provisions of Article 7 of the Constitution.

As at the date of this letter Southern Rhodesia's arrears of contributions were as follows:

	US $
Contribution for 1967	10 660.00
Contribution for 1968	11 590.00
Total:	22 250.00

I invite your attention to operative paragraph 4 of the above-mentioned resolution requesting me to submit a report on the status of, *inter alia*, Southern Rhodesia's contributions to the Ad Hoc Committee of the Executive Board which is to meet prior to the discussion on arrears in contributions by the Twenty-second World Health Assembly.

The Committee has, in turn, been instructed by the Executive Board to consider all the circumstances involving the Members who, at the time of its meeting prior to the Twenty-second World Health Assembly, remain in arrears in the payment of their contributions to an extent which may invoke Article 7 of the Constitution and to submit to the Twenty-second World Health Assembly on behalf of the Board such recommendations as it deems desirable.

I should be grateful if the necessary steps were taken by Southern Rhodesia for payment of the above amounts to be made before the Twenty-second World Health Assembly convened for 8 July 1969.

If Southern Rhodesia is unable to effect payment of the amounts due by that date, I have the honour to request that I be provided with a statement of their intentions for payment for transmittal to the Ad Hoc Committee.

2. Letter, dated 22 May 1969, from the Department of Health and Social Security, London, to the Director-General of the World Health Organization

I am directed by the Secretary of State to reply to your letter (F.10-3 Southern Rhodesia) of 19 March 1969, and have the honour to request that you transmit the following statement to the Ad Hoc Committee of the Executive Board which is to meet prior to the Twenty-second World Health Assembly.

"Whilst the territory of Southern Rhodesia remains an Associate Member of the World Health Organization, the illegal declaration of independence in 1965 has had the consequence that the associate membership is in suspense so far as Southern Rhodesia's enjoyment of it is concerned. Financial transactions between the Organisation and the regime (including the payment of contributions) have been suspended until the return of legality in Southern Rhodesia".

3. Letter, dated 19 June 1969, from the Director-General of the World Health Organization to the Department of Health and Social Security, London

I have the honour to acknowledge the receipt of your letter of 22 May 1969 whereby you transmitted to me the following statement concerning Southern Rhodesia:

"Whilst the territory of Southern Rhodesia remains an Associate Member of the World Health Organisation, the illegal declaration of independence in 1965 has had the consequence that the associate membership is in suspense so far as Southern Rhodesia's enjoyment of it is concerned. Financial transactions between the Organisation and the regime (including the payment of contributions) have been suspended until the return of legality in Southern Rhodesia".

I shall transmit this statement to the Ad Hoc Committee of the Executive Board as well as to the Twenty-second World Health Assembly, for consideration.

2. Reports by the Director-General

1. Bolivia

[A22/AFL/13 Add.1 — 10 July 1969]

Since the meeting of the Ad Hoc Committee of the Executive Board on 7 July 1969, a payment of US $21 316.66 has been received from Bolivia. This payment liquidates Bolivia's arrears for 1967 and a part of the instalment on arrears payable in 1967. As a result of this payment, Bolivia is no longer in arrears to an extent which might invoke the provisions of Article 7 of the Constitution.

2. Ecuador

[A22/AFL/13 Add. 2 — 16 July 1969]

Since the meeting of the Ad Hoc Committee of the Executive Board on 7 July 1969, the Director-General has been informed by the Pan American Sanitary Bureau/Regional Office of WHO for the Americas that the Government of Ecuador has made payments totalling US $20 088 in respect of its arrears of contributions. These payments liquidate Ecuador's arrears for 1966, as well as a part of its arrears for 1967. As a result, Ecuador is no longer in arrears to an extent which might invoke the provisions of Article 7 of the Constitution.

3. Haiti

[A22/AFL/13 Add.3 — 16 July 1969]

Since the meeting of the Ad Hoc Committee of the Executive Board on 7 July 1969, the Director-General has been informed by the Pan American Sanitary Bureau/Regional Office of WHO for the Americas that the Government of Haiti has made two payments totalling US $3810 in respect of its arrears of contributions. As a result, Haiti is no longer in arrears to an extent which might invoke the provisions of Article 7 of the Constitution.

Annex 4

SUPPLEMENTARY BUDGET ESTIMATES FOR 1969 [1]

[A22/AFL/11 — 10 July 1969]

THIRD REPORT OF THE AD HOC COMMITTEE OF THE EXECUTIVE BOARD

1. At its forty-third session the Executive Board, in resolution EB43.R44, established an Ad Hoc Committee consisting of Dr D. D. Venediktov, Sir William Refshauge and Professor E. Aujaleu to consider the supplementary budget estimates for 1969 and to report thereon, on behalf of the Board, to the Twenty-second World Health Assembly.

2. The Committee met on 7 July 1969; Dr D. D. Venediktov was elected Chairman.

3. The Executive Board at its forty-third session, in resolution EB43.R6, had requested the Director-General " to report to the Ad Hoc Committee of the Board, meeting at the time of the Twenty-second World Health Assembly, on the amount of casual income available as at 30 June 1969 and on the amount of savings which may be anticipated for 1969 to reimburse the Working Capital Fund ". The Ad Hoc Committee had before it such a report by the Director-General (see Appendix 1 below).

4. In examining the report of the Director-General the Committee noted that subsequent to the forty-third session of the Executive Board the Organization had had to face further additional requirements resulting from an increase in the salaries and dependants' allowances for General Services staff in Geneva and from emergency assistance to Equatorial Guinea, the total amount involved being $497 500. By certain programme adjustments it had been possible to reduce these additional requirements by $150 000, bringing the total amount of additional requirements to $347 500. The total additional requirements for 1969, including the supplementary budget estimates recommended for approval by the Executive Board at its forty-third session, thus amount to $2 001 500.

5. In considering the additional requirements for General Service salaries and dependants' allowances in Geneva the Committee noted that, whereas the increased salaries became effective as from 1 January 1969, the increased dependants' allowances took effect on 1 July 1969. It was also noted that, although no forecast of additional requirements for this purpose could be made at the time of the Executive Board's forty-third session, in February 1969, the report of the Director-General to the forty-first session of the Board [2] on the subject of budgetary implications for 1967, 1968 and 1969 of recent decisions on General Service salaries in Geneva made reference to the fact that the United Nations Advisory Committee on Administrative and Budgetary Questions had suggested that a new survey of local salary rates in Geneva (using an improved methodology) should be undertaken as soon as practicable. This report was also considered by the Twenty-first World Health Assembly.[3]

6. As regards the additional requirements for the emergency operations in Equatorial Guinea, the Committee was informed that requests for assistance from WHO were received from the Government on 27 March 1969 and from the Secretary-General of the United Nations on 25 March 1969.

7. The Committee noted that the Director-General had undertaken a complete review of the approved programme and budget for the current year and that he had found it possible to identify savings by reductions or postponement of planned activities amounting to a total of $627 600. These savings stemmed mainly from certain economies at headquarters and from delaying in part, or in total, some project activities for which no firm commitments had been made as at 30 June 1969. The details on the savings identified were provided at the request of the Committee and are given in Appendix 2 below. Having reviewed the details, the Committee noted that the savings under " Assistance to research " were approximately 6.3 per cent. of the approved provision for 1969 for this purpose; the savings in inter-regional activities were approximately 9.3 per cent. of the approved provision for these activities. Taking account of these savings, the revised supplementary budget estimates for 1969 amount to $1 373 900.

8. In the light of the report of the Director-General concerning the amount of casual income available as at 30 June 1969, the Committee considered that the Working Capital Fund should be reimbursed from casual income for the amount required to finance the supplementary budget estimates for 1969, thereby

[1] See resolution WHA22.12.

[2] *Off. Rec. Wld Hlth Org.*, **165**, Annex 8.

[3] *Off. Rec. Wld Hlth Org.*, **169**, 497-498.

avoiding the need for additional assessments on Members. It was also noted that if the Health Assembly approved this course of action there would remain $998 280 of casual income available, of which $500 000 had already been recommended by the Executive Board to be used to help finance the 1970 budget.

9. Following its detailed examination of the Director-General's report, the Committee expressed its appreciation of the savings the Director-General had been able to identify. It decided to recommend to the Twenty-second World Health Assembly the following resolution:

The Twenty-second World Health Assembly,

Having considered the proposals of the Director-General and the recommendations of the Executive Board concerning the supplementary estimates for 1969, which are necessary in order to give effect to the decisions of the General Assembly of the United Nations concerning increases in the salaries and allowances of professional and ungraded staff and in the maximum amount of the education grant;

Having also considered the report of the Director-General submitted through the Ad Hoc Committee of the Executive Board concerning further additional requirements and budgetary savings which can be effected in 1969 as well as the availability of casual income as at 30 June 1969; and

Considering that it is desirable to avoid making additional assessments on Members for the year 1969 to finance these supplementary estimates,

1. APPROVES the supplementary estimates for 1969;

2. NOTES that the Director-General (with the concurrence of the Executive Board) has withdrawn US $853 000 from the Working Capital Fund in accordance with part C, paragraph 1 (2) of resolution WHA18.14;

3. AUTHORIZES the Director-General to transfer a further amount of US $520 900 from the Working Capital Fund to provide the balance of the necessary financing;

4. AUTHORIZES further the Director-General to reimburse the Working Capital Fund from casual income available as at 30 June 1969; and

5. DECIDES to amend the Appropriation Resolution for the financial year 1969 (resolution WHA21.18) as follows:

(i) increase or decrease the relevant appropriation sections by the following amounts:

Appropriation Section	Purpose of Appropriation	Amount US $
	PART II: OPERATING PROGRAMME	
4.	Programme Activities	1 114 430
5.	Regional Offices	140 800
6.	Expert Committees.	(36 600)
	Total — Part II	1 218 630
	PART III: ADMINISTRATIVE SERVICES	
7.	Administrative Services	155 270
	Total — Part III	155 270
	Total — Parts II and III	1 373 900
	PART V: STAFF ASSESSMENT	
10.	Transfer to Tax Equalization Fund	463 600
	Total — Part V	463 600
	TOTAL — ALL PARTS	1 837 500

(ii) add a new sub-paragraph (iv) to paragraph C of resolution WHA21.18 to read as follows:

" (iv) the amount of US $1 373 900 by withdrawal from the Working Capital Fund ".

The resolution, in the light of the new developments and the revised position, amends that contained in resolution EB43.R6.

Appendix 1

REPORT BY THE DIRECTOR-GENERAL TO THE AD HOC COMMITTEE OF THE EXECUTIVE BOARD

1. Introduction

1.1 Following its consideration of the supplementary budget estimates for 1969 submitted by the Director-General [1] to provide for the increase in the salaries and allowances of professional and ungraded staff and in the maximum amount of the education grant approved by the General Assembly of the United Nations, the Executive Board in resolution EB43.R6 concurred with the recommendations of the Director-General concerning the financing of the supplementary estimates. This resolution also recommended that the Twenty-second World Health Assembly

1. APPROVES the supplementary estimates for 1969;

2. NOTES that the Director-General (with the concurrence of the Executive Board) has withdrawn US $853 000 from the Working Capital Fund in accordance with part C, paragraph 1 (2) of resolution WHA18.14;

3. AUTHORIZES the Director-General to transfer a further amount of US $801 000 from the Working Capital Fund to provide the balance of the necessary financing.

The effect of these actions would be to require reimbursement to the Working Capital Fund of $1 654 000.

1.2 The resolution further requested " the Director-General to report to the Ad Hoc Committee of the Board, meeting at the time of the Twenty-second World Health Assembly, on the amount of casual income available as at 30 June 1969 and on the amount of savings which may be anticipated for 1969 to reimburse the Working Capital Fund ".

[1] *Off. Rec. Wld Hlth Org.*, **173**, Annex 7.

2. Study by the Director-General

2.1 In compliance with the Executive Board's resolution, and taking account of the discussions on the supplementary budget estimates during the forty-third session of the Board,[1] the Director-General, with the assistance of his senior staff at headquarters and in the six regions, has undertaken a full review of the programme and budget estimates approved for 1969 as contained in *Official Records* No. 171 with a view to identifying those areas where reductions could be made without disrupting the programme. In the study he was also obliged to take account of additional requirements which had arisen since the Board adopted its resolution.

3. Further Additional Requirements

3.1 Since the Executive Board recommended the approval of the supplementary estimates for 1969 in an amount of $1 654 000, two factors have emerged which have the effect of increasing the amount of the supplementary estimates considered by the Board. The Director-General is reporting these developments in accordance with the provisions of Financial Regulations 3.9 and 3.10.

3.1.1 In the autumn of 1967 the United Nations Advisory Committee on Administrative and Budgetary Questions (ACABQ) recommended a formula for the interim adjustment of salaries of General Service staff in Geneva which was agreed to by all the organizations in Geneva and is provided for in the 1969 and 1970 programme and budget estimates as contained in *Official Records* No. 171. Subsequently, representatives of the six organizations in Geneva and the six staff associations considered the problem of dealing with future General Service salary determinations in Geneva and it was agreed that the organizations and the staffs would re-examine the methodology of determining the best prevailing rates in Geneva with a view to submitting to the International Civil Service Advisory Board (ICSAB) proposals for an agreed improved methodology. The outcome of this meeting was reported to ACABQ, which urged the organizations to pursue this study so that a new methodology could be applied in the conduct of a new survey of General Service salaries in Geneva. Since the late summer of 1968 a joint working party of the Geneva organizations and the staff associations has been developing plans for the conduct of a new survey applying the revised methodology approved by ICSAB. This survey has been undertaken by the Battelle Institute and the results were submitted to the six organizations in Geneva during March 1969. The General Service salary scales established on the basis of the result of the survey have now been accepted by the organizations in Geneva and have been made effective as from 1 January 1969. While there are some small variations in the percentage increases for the different grade levels, the average increase for all categories of General Service staff is 4 per cent. The cost of this increase is in addition to the increase provided for in the 1969 programme and budget estimates. There has also been an increase in dependants' allowances for locally recruited staff. The total additional cost to WHO in 1969 is $197 500.

3.1.2 Following the sudden departure of the medical personnel manning the health services of Equatorial Guinea earlier this year, the Director-General received an urgent appeal from the Secretary-General of the United Nations and from the Government of Equatorial Guinea to provide both advisory and operational staff and to award a number of fellowships for nationals of that country to be trained as doctors. Senior WHO staff were immediately sent to Equatorial Guinea to review the position; on the basis of their report the Director-General has seconded staff and initiated the recruitment of an advisory team of six medical personnel and an operational team of ten. As at 30 June 1969 twelve staff members were in position, and four under active recruitment. The estimated cost in 1969 of this emergency operation is $300 000. The Director-General has taken steps to delay recruitment for some vacant posts at headquarters and to effect other economies in order to meet the initial costs of this assistance. The Regional Director for Africa has actively co-operated in both the operation of this project and its financing. He has found it possible to make certain adjustments in the approved regional programme which, together with the action taken by the Director-General at headquarters, have realized savings amounting to $150 000. A further amount of $150 000 is still required to meet the total estimated costs in 1969.

3.2 The total cost of the additional requirements identified in paragraphs 3.1.1 and 3.1.2 is $347 500. The net additional requirements for 1969, including the supplementary budget estimates recommended for approval by the Executive Board, therefore amount to $2 001 500.

4. Savings and Programme Adjustments Proposed

4.1 The 1969 budget estimates include provision for a Class 2 post adjustment in Geneva as from 1 January 1969. The change to Class 2 actually became effective only as from 1 May 1969, with a resultant saving in the estimates of $73 000.

4.2 In accordance with the recommendations of the Executive Board as contained in resolution EB43.R7, the costs of sales promotion and of staff exclusively engaged in sales processed through the Revolving Sales Fund should be met from that fund through the Special Account for Servicing Costs instead of the regular budget. By transferring these costs as from 1 January 1969—the date recommended by the Board—and the costs of distribution of publications for sale, savings of $54 500 can be made in 1969.

4.3 As reported to the forty-third session of the Board,[2] a complication has arisen in the Organization's negotiations with the National Library of Medicine, Bethesda, on the use of the Medical Literature Analysis and Retrieval System (MEDLARS) because MEDLARS was revising its system into what is called the " second generation " with some highly sophisticated aspects. The Director-General now believes that a practical working arrangement will become operative only in 1970 and has consequently frozen the recruitment in 1969 for vacant posts approved for this purpose. The amount of savings as a result of this action is $32 974.

4.4 It is expected that all of the expert committees planned for 1969 will be held this year, with the exception of those on malaria and on post-graduate medical education for the training of specialists. The amount appropriated for expert committees can therefore be reduced by $36 600.

[1] *Off. Rec. Wld Hlth Org.*, **174**, 89, para. 51.

[2] *Off. Rec. Wld Hlth Org.*, **174**, 41, para. 187.

4.5 The Director-General has reviewed the programme of assistance to research and other technical services with a view to effecting maximum economies. By delaying some expansions of existing activities and certain new activities a saving of $183 700 can be made in 1969.

4.6 The activities included under inter-regional and other programme activities have also been carefully scrutinized and where possible projects have been postponed, expansions of programmes cut back and vacant posts frozen for the time being. The estimated savings which will accrue this year amount to $193 586.

4.7 The estimates for common services requirements at headquarters have also been examined in detail and the Director-General has found it possible by postponing certain acquisitions and renewal of equipment to effect savings of $38 000 in 1969.

4.8 The unobligated balances of the budgetary provisions for fellowships for the larger contributors to the regular budget of the Organization have been reviewed as at 30 June 1969 and savings amounting to $15 240, or less than 10 per cent. of the budgeted estimates, have been identified.

4.9 The net total savings resulting from the actions described in paragraphs 4.1 to 4.8 above amount to $627 600.

5. Revised Position

5.1 Taking account of the further additional requirements reported in section 3 above and the budgetary savings proposed in section 4 above, the supplementary budget estimates for 1969 can be reduced to an amount of $1 373 900, as summarized below:

	US $
Supplementary estimates recommended in resolution EB43.R6	1 654 000
Additional requirements set out in paragraphs 3.1.1 and 3.1.2 above	347 500
	2 001 500
Savings proposed by the Director-General outlined in paragraphs 4.1 to 4.8 above	627 600
Revised supplementary budget estimates	1 373 900

5.2 The further amount which the Executive Board, in resolution EB43.R6, recommended that the Health Assembly authorize the Director-General to withdraw from the Working Capital Fund to provide the balance of the financing of the supplementary budget estimates for 1969 can consequently be reduced from $801 000 to $520 900, i.e. by $280 100, which is the difference between the original and revised supplementary estimates as shown in paragraph 5.1 above.

5.3 As reported to the Twenty-second World Health Assembly under provisional agenda items 3.13.4 and 3.13.5, the amount of casual income available as at 30 June 1969 is $2 372 180. Should the Health Assembly concur in the recommendation of the Executive Board to reimburse the Working Capital Fund in the amount of $1 373 900 from this source, there will remain a balance of casual income available of $998 280.

6. Possible Action by the Ad Hoc Committee of the Board

Should the Ad Hoc Committee be in agreement with the adjustments and proposals of the Director-General in this report, the resolution recommended by the Board in resolution EB43.R6 for adoption by the Twenty-second World Health Assembly would need to be amended accordingly. The Committee may wish to consider the following amended resolution for submission on behalf of the Board to the Twenty-second World Health Assembly, and to recommend its adoption in lieu of the resolution contained in the Board's resolution EB43.R6:

[For text, see page 69: paragraph 9 of the Ad Hoc Committee's report]

Appendix 2

SAVINGS AND PROGRAMME ADJUSTMENTS PROPOSED FOR 1969 [1]

1. Savings without Programme Implications

	US $
Savings in post adjustment at headquarters	73 000
Transfer of sales staff, promotion of sales and distribution costs to the Revolving Sales Fund	54 500
Vacant MEDLARS posts at headquarters, recruitment of which is postponed to 1970	32 974
Common services at headquarters	38 000
Total—Savings without programme implications	198 474

2. Savings with Programme Implications

(effected by partial reductions in existing activities and/or postponements of activities to future years)

	US $	US $
(i) Expert committees on malaria and education and training cancelled		36 600
(ii) Assistance to research		
Malaria		
Research on		
—methodology of attack (MAL 0062)	5 000	
—parasitology of malaria (MAL 0065)	1 500	
—epidemiology of malaria (MAL 0066)	1 500	
—chemotherapy of malaria (MAL 0067)	1 500	
—immunity in relation to malaria infection (MAL 0068)	1 500	
—entomology of malaria (MAL 0069)	1 500	
Tuberculosis		
Research on surveillance methodology (TBC 0007)	2 000	
Field control of BCG vaccines (TBC 0017)	1 000	

[1] See page 68: paragraph 7 of the Ad Hoc Committee's report.

	US$	US$
Tuberculosis reference laboratories (TBC 0018)	3 000	
Research on chemotherapy (TBC 0027)	4 000	
Venereal Diseases and Treponematoses		
Serological reference centres for treponematoses (VDT 0002)	1 000	
Research on:		
—survival of treponemes (VDT 0004)	2 000	
—cultivation of treponemes in experimental animals (VDT 0005)	1 000	
—electron microscopy and related study of treponemes (VDT 0007)	2 000	
—enzyme systems (VDT 0008)	2 000	
—simian treponematoses (VDT 0018)	2 000	
Bacterial Diseases		
International reference centre for plague (BDS 0016)	4 000	
Virus Diseases		
Preparation, standardization and distribution of laboratory reagents (VIR 0003)	5 000	
Research on the epidemiology of respiratory virus infections (VIR 0005)	3 000	
International and regional reference centres for respiratory virus diseases including influenza, and mycoplasmas (VIR 0006)	4 000	
Research on viruses of importance in the tropics, and allied subjects (VIR 0025)	3 000	
Smallpox		
Research on smallpox (SPX 0001)	4 000	
Veterinary Public Health		
Research on:		
—rabies and brucellosis (VPH 0002)	700	
—various zoonoses and comparative virology (VPH 0003)	4 000	
—neoplastic, cardiovascular and other chronic diseases of animals, including primates (VPH 0006)	5 000	
—food hygiene practices and microbiological standards (VPH 0007)	1 000	
Communicable Diseases—General Activities		
Serum reference banks (CDS 0001)	3 000	
Type culture collections of pathogenic microorganisms (CDS 0002)	1 000	
Environmental Health		
International reference centre for environmental radiation (EPL 0007)	10 000	
Public Health Administration		
Research on:		
—public health practice (PHA 0001)	2 000	
—organizational patterns for the provision of health care (OMC 0002)	2 500	
Health Education		
Multidisciplinary study on motivation in health behaviour (HED 0001)	2 000	
Dental Health		
Research on dental epidemiology (DHL 0003)	2 000	
Social and Occupational Health		
Research on monitoring of exposure to industrial toxic agents (SOH 0009)	4 000	
Maternal and Child Health		
Studies on the growth and development of children (MCH 0002)	2 000	
Mental Health		
Research on the prevalence and natural history of specific mental disorders (MHL 0001)	4 000	
International and regional reference centres for psychopharmacology (MHL 0004)	1 000	
Research on the genetic, neurophysiological and biochemical basis of specific mental disorders (MHL 0008)	500	
Nutrition		
Research on dietary calcium intake and senile osteoporosis (NUT 0008)	5 000	
Radiation Health		
Research on radiation-induced biological and pathological changes (RHL 0003)	9 000	
Education and Training		
Exchange of research workers (FTG 0001)	12 500	
Research training (FTG 0002)	20 000	
Human Genetics		
Research on immuno-genetics (HGN 0020)	5 000	
Pharmacology and Toxicology		
Research on therapeutic safety of drugs (DSE 0001)	500	
Coded information on narcotics (DGD 0001)	1 000	
Research on toxicity of food additives and safety of irradiated food (FAD 0002)	1 000	
Work on specifications for pharmaceutical preparations (PHM 0002)	1 500	
Chronic and Degenerative Diseases		
Research on demonstration areas for cancer control (CAN 0028)	6 500	
International reference centre for histopathology of central nervous system tumours (CAN 0029)	6 000	
Research on cerebrovascular disease (CVD 0014)	5 000	
Other Activities		
Research on:		
—epidemiology and communications science (REC 0001)	5 000	
—epidemiology of high risk groups (REC 0004)	5 500	183 700

	US $	US $
(iii) Inter-regional activities		
Malaria		
Study tours of eradication projects (0081)	10 000	
Exchange of malaria workers (0578) . . .	5 000	
Venereal Diseases and Treponematoses		
Treponematoses epidemiological team (0051)	5 000	
Parasitic Diseases		
Filarial diseases research team (0266) . . .	68 100	
Leprosy		
Leprosy/BCG trial team (0190)	18 276	
Social and Occupational Health		
Occupational health advisory team (0562)	28 290	
Radiation Health		
Assistance to national radiation health programmes (0475)	17 140	
Chronic and Degenerative Diseases		
Cancer control advisory team (0458) . . .	41 780	193 586
(iv) Reductions in regional fellowships provisions:		
Europe	5 240	
Western Pacific	10 000	15 240
Total—Savings with programme implications		429 126
TOTAL — 1969 REDUCTIONS		627 600

Annex 5

REPORTS OF THE DR A. T. SHOUSHA FOUNDATION COMMITTEE [1]

1. FINANCIAL REPORT ON THE DR A. T. SHOUSHA FOUNDATION FUND

[A22/2 — 9 May 1969]

The Dr A. T. Shousha Foundation Committee met on 27 February 1969 under the chairmanship of Dr H. M. El-Kadi. The financial situation of the Fund was presented by the Director-General of the World Health Organization, as Administrator of the Dr A. T. Shousha Foundation, as follows:

	US $	US $
Capital		
Capital as at 31 December 1967.		10 648.59
Donations received in 1968:		
Federal Republic of Germany .	12 500.00	
Pakistan	3 118.50	15 618.50
		26 267.09
Revenue		
Interest accumulated up to 31 December 1967	872.98	
Interest earned in 1968	655.45	1 528.43
		27 795.52
Expenditure		
Cost of dies and thirty bronze medals	614.82	
1968 award to Professor A. M. Kamal	231.48	846.30
	Total	26 949.22
Less:		
Foundation capital.		26 267.09
Accumulated surplus as at 31 December 1968. . .		682.13

The Committee noted that the financial situation was able to cover the award of the prize in 1969 and decided that a cash prize of one thousand Swiss francs, in conformity with the agreement reached by the first meeting of the Committee on 18 January 1967, should be awarded.

2. REPORT OF THE DR A. T. SHOUSHA FOUNDATION COMMITTEE ON ITS MEETING OF 27 FEBRUARY 1969

[A22/3 — 14 May 1969]

The Dr A. T. Shousha Foundation Committee met on 27 February 1969 in conformity with the Statutes of the Dr A. T. Shousha Foundation. The Committee elected Dr H. M. El-Kadi as Chairman of the meeting.

The Committee reviewed the replies received from Member States of the geographical area in which Dr A. T. Shousha served the World Health Organization, and from the former recipient of the prize, together with the supporting documentation.

After discussion, the Committee decided to recommend to the World Health Assembly that the Dr A. T. Shousha Foundation Prize for 1969 be awarded posthumously to the late Dr M. K. Afridi.

From the time he obtained his medical degree in 1923 until he died in 1968, the late Dr Afridi rendered active services at the national and international levels with outstanding achievements in the field of public health.

During these forty-five years, his work in the field of epidemiology and control of malaria and other tropical diseases greatly contributed towards the improvement of the health situation in his own country as well as in several other countries.

Through his teaching, the late Dr Afridi successfully inspired a large number of public health workers who will follow his example and continue his tireless efforts in serving humanity and in fighting the scourge of malaria in the geographical area in which Dr A. T. Shousha served the World Health Organization.

[1] See resolution WHA22.45.

Annex 6

USE OF THE RUSSIAN AND SPANISH LANGUAGES [1]

[A22/AFL/8 and Add. 1 — 30 May and 16 July 1969]

REPORT BY THE DIRECTOR-GENERAL

1. By resolution WHA20.21, the Twentieth World Health Assembly decided to adopt Russian and Spanish as working languages of the Health Assembly and the Executive Board and to take a first step in implementing measures to that end. The Assembly requested the Director-General " to report to the Twenty-second World Health Assembly on the results obtained and the further steps which then seem desirable...".

2. This decision of the Twentieth World Health Assembly was based upon a report by the Director-General which outlined for consideration a three-stage plan for extending the use of the Russian and Spanish languages at the Assembly and the Executive Board.[2] The extent of the first stage, which was authorized by the Twentieth World Health Assembly, is described in Appendix 1 to this report. The Director-General is able to report that there have been no difficulties in implementing this first stage.

3. As reflected in Appendix 1, the second stage, as originally suggested by the Director-General to the Twentieth World Health Assembly, consisted essentially of preparing the provisional summary records in Russian and Spanish, and the third stage, the preparation of working documents in Russian and Spanish. Having given further consideration to this matter, the Director-General concludes that either of these could be taken as the next stage. As will be seen from Appendix 2, the additional cost after the first year of implementation is approximately the same whichever alternative becomes the next stage—i.e. US $344 100 for alternative one (the original plan), US $346 100 for alternative two, both estimated at May 1969 prices.

4. The Twentieth World Health Assembly decided to implement only the first stage of a three-stage plan pending the consideration by the present Assembly of the results obtained and the future steps which could be taken. Consequently, the Director-General's proposed programme and budget estimates for 1970 include only a provision of US $65 000 for the first stage. A decision to implement the second stage of the plan in 1970 would require the addition to the programme and budget estimates proposed by the Director-General of the first year cost as reflected in Appendix 2, i.e. US $297 400 or US $319 200, depending on which of the alternatives is adopted. These estimates, as detailed in Appendix 2, provide for the rental of outside premises to accommodate the additional language staff required, as space will not be available at headquarters until the present building is enlarged.

5. The full annual continuing cost of all three stages, including US $65 000 for the first stage, already in effect, would be US $668 000 (estimated at May 1969 prices).

6. It is for the Twenty-second World Health Assembly to consider, in the light of the cost indications given, what further measures it wishes to be taken in regard to this subject.

Appendix 1

STAGING OF THE EXTENSION OF THE USE OF THE RUSSIAN AND SPANISH LANGUAGES

Stage 1

The first stage of the plan authorized by the Twentieth World Health Assembly comprised the following:

Health Assembly: Produce in Russian and Spanish the Agenda, the Journal and the guide-book, and produce the verbatim records of plenary meetings during the session only in the language of the speakers, using English, French, Russian and Spanish.

Executive Board following the Assembly: Produce the Agenda and documents of the Conference Document Series [3] in Russian and Spanish.

Executive Board prior to the Assembly (usually in January): As for the Board after the Assembly but, in addition, produce after the session the final summary records in Russian.

The first stage was completed with the production in Russian of the final summary records of the forty-third session of the Executive Board.

Stage 2

Alternative 1

Under the plan presented by the Director-General to the Twentieth World Health Assembly,[2] the next stage would be as follows:

[1] See resolution WHA22.11.

[2] *Off. Rec. Wld Hlth Org.*, **160**, Annex 7.

[3] *Ad hoc* documents produced rapidly during meetings, in order to circulate to participants proposed resolutions or amendments and similar draft texts.

Continuation of the steps already taken and, in addition:

Health Assembly: Produce the provisional summary records of committees and any sub-committees and documents of the Conference Document Series [1] in Russian and Spanish.

Executive Board following the Assembly: Produce the provisional summary records in Russian and Spanish; after the session, produce the final summary records in Russian.

Executive Board prior to the Assembly (usually in January): As for the previous session of the Board but, in addition, produce all Board documents [2] in Russian and Spanish, except:

reports of the regional committees; [3]

annexes to Board documents which consist of documents of the United Nations, the specialized agencies and IAEA not yet available in Russian or Spanish;

reports of committees of the Board;

the offset version of the report of the Board on the Proposed Programme and Budget Estimates produced as a document during the session.

[1] *Ad hoc* documents produced rapidly during meetings, in order to circulate to participants proposed resolutions or amendments and similar draft texts.

[2] Only the covering document for expert committee reports would be produced in Russian and Spanish in time for the session, not the reports themselves.

[3] However, the report of the Regional Committee for the Americas will already exist in Spanish and that of the Regional Committee for Europe in Russian, as the reports of the regional committees are available in the languages in which they are produced for each regional committee, in accordance with its rules of procedure.

Alternative 2

Alternatively, the second stage could be as follows:

Continuation of the steps already taken and, in addition:

Health Assembly: Produce in Russian and Spanish the documents of the Conference Document Series [1] and the Assembly documents for plenary, committee and sub-committee meetings (A/-, A/P&B/-, A/AFL/-) except for certain long reports such as the Report on the World Health Situation and complex legal texts such as conventions, regulations and agreements, which are normally submitted under cover of an Assembly document.

Executive Board following the Assembly: Produce all Board documents [2] in Russian and Spanish, except the annexes to the Board documents which consist of documents of the United Nations, the specialized agencies and IAEA not yet available in Russian or Spanish; after the session, produce the final summary records in Russian.

Executive Board prior to the Assembly (usually in January): Produce all Board documents [2] in Russian and Spanish, except:

reports of the regional committees; [3]

annexes to Board documents which consist of documents of the United Nations, the specialized agencies and IAEA not yet available in Russian or Spanish;

reports of committees of the Board;

the offset version of the report of the Board on the Proposed Programme and Budget Estimates produced as a document during the session.

Stage 3

Stage 3 would represent whichever of the above alternatives was not adopted as stage 2.

Appendix 2

EXTENDED USE OF THE RUSSIAN AND SPANISH LANGUAGES: ESTIMATED COST OF SECOND STAGE

1. SUMMARY

Appropriation Section	Purpose of Appropriation	Alternative 1		Alternative 2	
		First year of implementation US $	Subsequent year US $	First year of implementation US $	Subsequent year US $
	PART I: ORGANIZATIONAL MEETINGS				
1.	World Health Assembly	74 600	36 200	92 490	46 490
2.	Executive Board and its Committees	12 190	59 390	16 100	51 100
	Total — Part I	86 790	95 590	108 590	97 590
	PART II: OPERATING PROGRAMME				
4.	Programme Activities	210 610	248 510	210 610	248 510
	Total — Part II	210 610	248 510	210 610	248 510
	TOTAL — PARTS I AND II	297 400	344 100	319 200	346 100
	PART V: STAFF ASSESSMENT				
10.	Transfer to Tax Equalization Fund	28 150	36 800	28 150	36 800

2. DETAILS

Number of posts					Estimated obligations [1]			
Alternative 1		Alternative 2			Alternative 1		Alternative 2	
First year	Subsequent year	First year	Subsequent year		First year of implementation US $	Subsequent year US $	First year of implementation US $	Subsequent year US $
				WORLD HEALTH ASSEMBLY	74 600	36 200	92 490	46 490
				EXECUTIVE BOARD AND ITS COMMITTEES	12 190	59 390	16 100	51 100
				PROGRAMME ACTIVITIES				
				Editorial and Reference Services: Translation				
3	3	3	3	Translators, P4	23 364	36 033	23 364	36 033
6	6	6	6	Translators, P3	38 664	59 676	38 664	59 676
1	1	1	1	Secretary, G4	5 059	5 271	5 059	5 271
10	10	10	10	Total established posts	67 087	100 980	67 087	100 980
				Other statutory staff costs	52 636	66 225	52 636	66 225
				Total	119 723	167 205	119 723	167 205
				Common Services: Stenographic Pool				
9	9	9	9	Clerk-stenographers, G3	41 841	43 578	41 841	43 578
9	9	9	9	Total established posts	41 841	43 578	41 841	43 578
				Other statutory staff costs	14 796	12 177	14 796	12 177
				Sub-total	56 637	55 755	56 637	55 755
				Other Costs				
				Space and Equipment Services				
				Rental and maintenance of premises	8 850	8 850	8 850	8 850
				Supplies and materials				
				Supplies	10 200	15 200	10 200	15 200
				Acquisition of Capital Assets				
				Equipment	15 200	1 500	15 200	1 500
				Sub-total	34 250	25 550	34 250	25 550
				Total	90 887	81 305	90 887	81 305
				TOTAL — PROGRAMME ACTIVITIES	210 610	248 510	210 610	248 510
19	19	19	19	GRAND TOTAL	297 400	344 100	319 200	346 100

[1] At May 1969 price levels.

Note: These estimates are based on the assumption that in the first year the second stage will become operative at the time of the Health Assembly, and therefore exclude provision for the Executive Board session prior to the Health Assembly (usually in January).

Annex 7

AGREEMENT BETWEEN THE WORLD HEALTH ORGANIZATION AND THE ORGANIZATION OF AFRICAN UNITY [1]

[A22/AFL/16 — 12 July 1969]

REPORT BY THE DIRECTOR-GENERAL

1. For some years past, discussions have taken place between the Secretariats of the World Health Organization and of the Organization of African Unity on the subject of the form that the relations between the two organizations should take.

2. The Organization of African Unity (OAU) was created by the adoption of its Charter on 25 May 1963. The purposes of the Organization are to promote the unity and solidarity of the African States, to co-ordinate and intensify their co-operation and efforts to achieve a better life for the peoples of Africa, to defend their sovereignty, their territorial integrity and independence, to eradicate all forms of colonialism from Africa, and to promote international co-operation, having due regard to the Charter of the United Nations and the Universal Declaration of Human Rights.

3. To achieve these ends, the Member States shall co-ordinate and harmonize their general policies in, *inter alia*, the field of health, sanitation and nutritional co-operation, and, under Article XX of the Charter, provision is made for the establishment by the Assembly of OAU of a Health, Sanitation and Nutrition Commission, composed of the Ministers concerned or other Ministers or Plenipotentiaries designated by the Governments of the Member States.

4. It may be noted that the functions of the former Commission for Technical Co-operation in Africa (CCTA) have been absorbed into OAU and are exercised through the latter's Health, Sanitation and Nutrition Commission, and that OAU participates in the joint FAO/WHO/OAU(STRC) [2] Food and Nutrition Commission for Africa, whose objective is the collection, analysis and dissemination of information on all aspects of nutrition in the African countries.

5. The discussions which have taken place have resulted in the drawing up of the text of an agreement between WHO and OAU in order to define better the nature of the co-operation between the parties, and this agreement was approved by the Council of Ministers of OAU at the Twelfth Ordinary Session of the Council held in Addis Ababa from 17 to 22 February 1969.

6. The texts of the draft agreement and of the resolution of the Council of Ministers are appended hereto.

7. The agreement follows the general lines of agreements with other inter-governmental organizations, both worldwide and regional, for purposes of defining relationships and co-operation.

8. The membership of OAU includes countries from three regions of the World Health Organization: the African Region, the Eastern Mediterranean Region and the European Region. It may be noted that, in the light of the fact that the membership of OAU extends through three WHO regions, the agreement provides that, in all matters concerning its implementation, WHO shall be represented by its headquarters or by its competent regional office (Article VI, paragraph 1).

9. Attention is also drawn to Article V, which provides that a request for technical assistance or aid made jointly by two or more Members to either organization may, if the Members concerned so request, be the subject of consultations between the two organizations.

10. The Director-General believes that the conclusion of this agreement will facilitate and strengthen the existing arrangements for consultation and co-operation between WHO and OAU and thus contribute to the development of WHO's activities and programmes in the regions concerned.

11. The agreement is consequently submitted to the World Health Assembly for consideration and for approval under the terms of Article 70 of the Constitution, which stipulates:

> The Organization shall establish effective relations and co-operate closely with such other inter-governmental organizations as may be desirable. Any formal agreement entered into with such organizations shall be subject to approval by a two-thirds vote of the Health Assembly.

[1] See resolution WHA22.16.

[2] Scientific, Technical and Research Commission of the Organization of African Unity.

Appendix

1. TEXT OF THE AGREEMENT BETWEEN THE WORLD HEALTH ORGANIZATION AND THE ORGANIZATION OF AFRICAN UNITY

THE WORLD HEALTH ORGANIZATION, and
THE ORGANIZATION OF AFRICAN UNITY,

Considering that the objective of the World Health Organization (hereinafter referred to as "WHO") is the attainment by all peoples of the highest possible level of health and that in order to achieve this objective WHO acts as the directing and co-ordinating authority on international health work;

Considering that one of the purposes of the Organization of African Unity (hereinafter referred to as "OAU") is, as set out in its Charter, to promote the unity and solidarity of the African States and to intensify their co-operation and efforts to achieve a better life for the peoples of Africa, and to these ends to undertake among other things to co-ordinate and harmonize the general policies of its Member States in the field of health and sanitation;

Considering that under Article XX of the Charter of OAU specialized commissions have been set up to ensure such co-operation;

Considering that OAU is called upon to undertake certain tasks of a regional nature, in harmony with those pursued on a worldwide scale by WHO;

Considering the regional arrangements made by WHO as set forth in Chapter XI of its Constitution, and in particular Article 50 (*d*) thereof;

Considering Article 70 of the Constitution of WHO and Article II of the Charter of OAU and in confirmation of the already existing co-operation between the two organizations:

HAVE AGREED AS FOLLOWS:

Article I — Co-operation

WHO and OAU agree to co-operate in all matters that arise in the field of health and are connected with those tasks and activities of the two organizations that are in harmony.

Article II — Exchange of Information

1. WHO and OAU agree to exchange publications and documents relating to activities on subjects of common interest, subject to any measures which might be necessary to safeguard the confidential nature of certain documents.

2. This exchange shall be supplemented, as necessary, by periodical contacts between members of the secretariats of the two organizations for the purpose of consultation as regards projects or activities of common interest. In addition, each Organization shall make available to the other any statistical and legislative information in its possession on subjects of common interest.

Article III — Reciprocal Representation

1. Representatives of WHO shall be invited to attend sessions of the Specialized Commissions and Technical Conferences or Meetings of the OAU at which matters of interest to WHO are to be discussed. These representatives shall participate, without vote, in the deliberations of these bodies with respect to items on their agendas in which WHO has an interest.

2. Representatives of OAU shall be invited to attend the meetings of the World Health Assembly and its Committees, the Executive Board and the Regional Committees concerned and to participate, without vote, in the deliberations of these bodies with respect to items on their agendas in which OAU has an interest.

Article IV — Joint Action

WHO and OAU will afford, each to the other, any technical co-operation which may be asked for the purpose of studying questions of common interest. If any such technical co-operation would involve substantial expenditure, consultation will take place with a view to determining the most equitable manner of meeting such expenditure.

Article V — Assistance in Technical, Research and other Relevant Fields

A request for technical assistance or aid made jointly by two or more Members to either organization may, if the Members concerned so request, be the subject of consultations between the two organizations.

Article VI — Implementation, Revision and Denunciation

1. In all matters concerning the implementation of this agreement, WHO shall be represented by its headquarters or by its competent Regional Office and OAU shall be represented by its Administrative Secretary-General or his duly authorized nominee.

2. The terms of this agreement may be modified with the consent of both parties.

3. Either party may denounce the agreement by giving one year's notice in writing to the other party.

Article VII — Entry-into-Force

This agreement, after approval by the World Health Assembly and the Council of Ministers of OAU, shall enter into force on the date on which it is signed by the appointed representatives of WHO and OAU.

IN WITNESS WHEREOF the two representatives whose names are stated below have signed this agreement at the dates indicated below their signatures.

This agreement has been written in duplicate in the English and French languages, the texts in both languages being equally authentic.

For the World Health Organization

(date) .....

For the Organization of African Unity

(date) .....

2. RESOLUTION OF THE COUNCIL OF MINISTERS OF THE ORGANIZATION OF AFRICAN UNITY ON THE AGREEMENT BETWEEN WHO AND OAU

The Council of Ministers of the Organization of African Unity meeting in its Twelfth Ordinary Session in Addis Ababa from 17 to 22 February 1969;

Having discussed and amended the draft Agreement for co-operation between the World Health Organization and the Organization of African Unity,

1. APPROVES the Agreement for co-operation between WHO and OAU;

2. REQUESTS the Administrative Secretary-General to convey it to WHO for approval;

3. AUTHORIZES the Administrative Secretary-General to sign the Agreement on behalf of the OAU.

Annex 8

INCLUSION OF AFGHANISTAN IN THE EASTERN MEDITERRANEAN REGION [1]

[A22/AFL/20 — 15 July 1969]

REPORT BY THE DIRECTOR-GENERAL

The Director-General has the honour to transmit to the World Health Assembly the text of the communication received by him on 9 July 1969 from the Minister of Public Health of Afghanistan.

Communication dated 1 July 1969 from the Minister of Public Health of Afghanistan to the Director-General of the World Health Organization [2]

Please find enclosed herewith Afghanistan's request for the change of region.

We hope that the justifications herewith enclosed will meet your due consideration, and that you will extend all your co-operation to our Chief Delegate at the World Health Assembly, who will himself forward the documents to you.

Hoping that our request meets your agreement, I remain, . . .

REQUEST FOR CHANGE OF REGION

Afghanistan, since the beginning of her membership of SEARO, has utilized satisfactorily the co-operation and assistance of WHO through the Regional Office. The Ministry of Health is appreciative of the assistance received under this programme.

Reciprocally, the Ministry has met all its obligations towards the Region. Sincere ties between Afghanistan and the countries of the Region are a good example of our adherence to the principles of WHO.

Yet the Ministry of Health of the Royal Afghan Government wishes to enter membership of the Eastern Mediterranean Region of WHO, on the basis of the following:

. . . . . .

First: Geographically, Afghanistan is among the Middle Eastern countries and, because of her elevation from the South-East Asian countries, is mountainous similar to the Middle Eastern countries, with a dry climate that is different from the hot, humid climate of the South-East Asian countries situated also in the tropics. The role of climate upon the disease pattern and the preventive measures against them is evident and important. For example, cholera and plague, which are diseases of hot climates, exist in South-East Asian countries while they are absent in Afghanistan, and a few cases that have been reported in the past have been imported ones. Therefore, geographically and on the basis of her climate, Afghanistan is very similar to the Eastern Mediterranean countries as far as the prevalence of disease and preventive measures against them are concerned.

Afghanistan's membership in the Mediterranean Region will, therefore, prove more useful in the furtherance of preventive projects and in the implementation of WHO programmes.

[1] See resolution WHA22.19.

[2] Excerpts.

Second: Although WHO health projects are similar in many respects in different countries, yet there are certain problems which are specific for one region. Because regional health activities are usually based on regional problems, therefore some of the health problems of the South-East Asia Region are different from those of Afghanistan. An example of the difference in priority areas is that over-population, control of neoplastic diseases, especially those of the oral cavity, the question of factories and air pollution and its consequences on health are given priority in SEARO Member countries, whereas none of them are given priority by Afghanistan. While the Region will try to exert all its efforts in these priority areas for its Members, Afghanistan will not gain much from such efforts. In addition, research shows that the vectors of many diseases are similar in Afghanistan and the Mediterranean countries. For example *Spirochaeta persica*, the causative agent of recurrent fever, is transmitted by *Ornithodorus tholozani*, while its vector in South-East Asia is a different parasite.

Third: Afghanistan is more like the Mediterranean Region countries as regards socio-economic conditions. It is also evident that traditional attitudes and beliefs play an important role in regard to many epidemic diseases. The similarity and closeness of language, culture, national traditions and literature will no doubt prove useful in justifying Afghanistan's membership in the Eastern Mediterranean Region. Another example in this connexion is the history and popularity of Unanic medicine in South-East Asian countries, which has resulted in the strengthening of schools of Unanic medicine in the area. This nucleus does not exist in the Mediterranean Region. The countries of this region wish to establish nuclei of modern medicine and to try to develop upon them similarity; religion, faith, and beliefs also play an important role in the prevalence of disease (diets according to the beliefs is one example).

Fourth: From the viewpoint of the administrative system, Afghanistan is similar to the countries of the Mediterranean Region. Countries of the South-East Asia Region are mostly accustomed to the English language and the English pattern of administration in health affairs. On the other hand, since health administration is linked with the regional problems and such problems in South-East Asia include over-population, therefore the administration of the health affairs of Afghanistan is dissimilar to the administration of the countries of this region. Therefore Afghanistan's administrative pattern in the field of health is very similar to the systems of the Mediterranean Region, and Afghanistan's membership in the Mediterranean Region will facilitate our approach towards our health goals.

Fifth: Since it is required to speak a foreign language in order to be able to participate in the seminars and workshops, and/or to utilize fellowships, and on the basis of the fact that the official language of some of the South-East Asian countries is English, the Afghan participants in these programmes face some difficulties, since they speak one of the three languages and not all of them speak English. Therefore our well qualified personnel cannot gain much from these regional activities.

Since both English and French have been accepted as working languages by the Mediterranean Region, Afghanistan's participation in this region will facilitate better utilization of the WHO programmes. In addition, WHO advisers who come to Afghanistan should speak both of the two languages, in order that their national counterparts benefit more from them. Difficulties in speaking a language prove a barrier in a fruitful exchange of views.

. . . . . .

Annex 9

FLUORIDATION AND DENTAL HEALTH [1]

[A22/P&B/7 — 29 May 1969]

REPORT BY THE DIRECTOR-GENERAL

Introduction

During the forty-third session of the Executive Board, questions were raised on the position and activities of WHO concerning the fluoridation of community water supplies. The Executive Board adopted the following resolution (EB43.R10):

The Executive Board,

Considering that reports from several countries indicate that great advantages to dental health accrue as the result of water fluoridation; and

Recognizing the value of the support of WHO in securing fluoridation of all supplies of drinking-water which require it,

[1] See resolution WHA22.30.

REQUESTS the Director-General to study this question and report to the Twenty-second World Health Assembly.

This report, in the preparation of which invaluable assistance was given by the International Dental Federation, is, accordingly, a brief review of available information on the subject. No attempt has been made to provide a comprehensive bibliography, which would include several thousands of known publications relating to fluorides and dental health. However, references to major publications on this subject from several countries are listed in Appendix 5 (page 89).

1. Dental Caries as a World Health Problem

Dental caries is one of man's most prevalent chronic diseases, affecting people of all ages in all countries. Nearly 100 per cent. prevalence in large groups of population is reported from many countries throughout the world, especially in Europe and North America. Even where a prevalence of dental caries is recorded as low, notably in parts of Africa, Asia and the Pacific Islands, it is usual to find 40 to 60 per cent. of the population affected. A sharp increase in caries incidence and prevalence is reported regularly in developing urban areas. Only in very rare situations, involving small groups of people, does caries prevalence remain at low levels.

Dental caries mainly affects children and adolescents. In areas of high prevalence, children's teeth may be attacked at two years of age when the deciduous teeth are completing their eruption. The United Kingdom has reported an average of four carious teeth per child at the age of three years,[41] * and a recent report from Norway shows that only one child in a hundred is free of dental caries by fifteen years, and only one person in a thousand by twenty-one years.[68]

Epidemiological studies on the prevalence of dental caries have been conducted in many population groups, and these provide an impressive amount of factual data on the high and widespread prevalence of this disease. Currently, WHO is promoting standardization of dental survey methods and organizing co-ordinated dental epidemiological studies on a worldwide scale to complete the information and maintain adequate surveillance of the problem.

The most characteristic feature of dental caries—different from the majority of other human ailments—is that, once started, it does not cease to progress, and never heals naturally. Every tooth affected by caries requires specific treatment performed by qualified personnel using rather sophisticated and costly technical equipment. If not treated, carious lesions inevitably progress to a painful stage of pulp involvement and later on to total destruction and loss of teeth.

The initial dental damage due to caries may also cause many hazards to general health. Loss of teeth affects masticatory function, which reflects on the whole digestive system. Infection from decayed teeth, spreading throughout the organism, may lead to acute and chronic septic conditions, inflammation of lymphatic nodes, tonsils and other organs of the body.

The large number of cases and the frequency of the attack rates of dental caries impose a great burden on existing dental services in every country. The work of repairing the lesions produced exceeds any dental manpower capacity or economic resources that can reasonably be allocated for dental care, even in countries with highly developed health systems.

In the United States of America, with more than 100 000 dentists, less than 40 per cent. of the population obtain dental treatment each year. It was estimated in 1962 that, to treat the existing backlog of dental needs, the main share of which consists of dental caries and its consequences, would have cost US $15 000 million, or approximately US $80 per person, as compared with US $2400 million, or US $12 per person, actually spent on dental care.[63]

In the Union of Soviet Socialist Republics a recent study of dental needs of the population in several cities has resulted in an estimation of an optimal dentist to population ratio of 9.5 to 10 000, or one dentist for about 1000 people, which is more than 2.5 times higher than existing dental manpower in urban public health services.[17]

In Sweden, one of the most successful countries in its child dental health programme, dental manpower ratios as high as one dentist to 900 children have not been sufficient for total care required.[84]

In New Zealand, a nationwide dental treatment programme has allocated one school dental nurse for every 500 children.[66] Similar manpower ratios are not available in the great majority of countries where dentist to population ratios vary from one dentist for between two and three thousand people to one dentist for several hundreds of thousands or even millions of people. The 500 000 dentists in the world today do not represent sufficient manpower to treat the billions of dental cavities that represent the major part of all dental needs in children and adults throughout the world.

It becomes clear that, despite the development of national dental care programmes, the enlarged networks of dental services and radical increases in the training of professional and auxiliary dental personnel, these measures will not provide, in the foreseeable future, a solution to the problems which arise in

* Numbers denote the references in Appendix 5 (page 89).

connexion with the growing prevalence of dental caries and its hazards to human health. It is therefore generally agreed that, alongside these measures, preventive methods must be developed and promoted to decrease the very high level of dental caries.

Research activities on the causes of dental caries are developing in many countries. As yet, however, only limited success has been obtained in some aspects of the problem. The means of controlling the etiological factors of dental caries remain very limited and research in this connexion has mostly concerned laboratory experiments on animals.

Some very interesting scientific approaches to the problem include the regulation of diet through restriction of carbohydrate intake, promotion of oral hygiene techniques, and recently proposed application of phosphates, anticaries enzymes and vaccines. These methods are, however, not yet practical for mass prevention of dental caries in large populations.

The only well-tested and effective preventive method in current use which has resulted in a substantial decrease in the rate of dental caries is controlled application of fluorides.

2. Fluorides and Dental Caries

The first observations on the relation between fluorides and dental health date back to the last quarter of the nineteenth century. In the 1930s reports appeared on the connexion between fluoride content of drinking-water and dental enamel formation in several parts of the world.

The studies performed by Dean [26] and others in the United States of America later in that decade confirmed the inverse relationship between fluoride levels in drinking-water and the prevalence of dental caries. Further investigations were performed throughout the world, including studies in Argentina, Canada, England, Greece, Hungary, India, Kenya, Norway, Sweden, Switzerland, Turkey, South Africa and the Union of Soviet Socialist Republics.[27] These studies showed that the dental caries experience of populations in areas with water containing fluoride in concentrations of approximately one part per million (1 p.p.m.) and higher was much lower than in regions with smaller or only trace amounts of fluoride in the water. After this relationship was established, proposals were made to test the feasibility of using, by means of water fluoridation, controlled levels of fluoride for the prevention of dental caries.

Water fluoridation may be defined as the controlled addition of fluoride compounds to community water supplies, aimed at adjusting the fluorine content of drinking-water to a level sufficient for effective prevention of dental caries and in compliance with criteria governing the provision of a safe water supply. Fluoride is a normal component of human and animal tissues, mostly deposited in bones and teeth. It occurs naturally in varying amounts in all water supplies and in most foods. Some water supplies have optimal or excessive amounts, but most have sub-optimal or only trace amounts of the element.

The first controlled fluoridation of community water supplies was started in 1945-1946 in four cities in the United States of America and Canada, where the content of fluoride in water was adjusted to a level of 1.0 to 1.2 p.p.m. Detailed dental examinations were carried out on children before fluoridation and were repeated in subsequent years. These surveys enabled dental caries experience in fluoridated areas to be compared with that in control areas. Reports of results after ten years of controlled fluoridation in these four cities have shown a uniform decrease of approximately 60 per cent. in the prevalence of dental caries in permanent teeth of children who had used fluoridated water since birth as compared with children of the same ages in non-fluoridated areas.[8, 11, 20, 49]

These results were of such significance that other water fluoridation programmes were initiated in the United States of America and in many other countries. [12, 54] Special councils, commissions and groups have prepared reviews and reports, recommending water fluoridation as a public health measure in several countries, e.g. Australia,[13] Canada,[23] the Netherlands,[65] New Zealand,[67] Norway,[68] South Africa,[76] Sweden,[81] the United Kingdom of Great Britain and Northern Ireland,[40] the United States of America,[82] and the Union of Soviet Socialist Republics.[72] Now fluoridation programmes are reported in thirty-two countries and territories, serving approximately 110 million people residing in over 4600 communities, as illustrated in the table in Appendix 1 (page 85).

3. Effects of Water Fluoridation

3.1 *Dental Health*

Fluoridation does not eradicate dental caries, but substantially reduces its prevalence and incidence. Best results are seen in children who have consumed fluoridated water since birth, as they generally have less than half the number of dental cavities they would otherwise be expected to have. Epidemiological studies conducted in Hungary, the United Kingdom and the United States of America also tend to illustrate the protective dental effects of fluorides in adult lifetime residents of areas with naturally fluoridated water.[1, 32, 71]

Statistics concerning the reduction in the prevalence and incidence of dental caries after fluoridation are

difficult to compare and summarize in a uniform manner, owing to a general lack of standardization in reporting. Many studies were conducted at varying lengths of time, using different age-groups and methods of examination. However, findings have been consistent in demonstrating caries reductions of the same order as the original classical studies. These studies show that controlled fluoridation of community water supplies does prevent a large proportion of carious lesions in people living in many different parts of the world, exposed to different environmental conditions.

A synopsis of some data from published reports of results in prevention of dental caries by water fluoridation is given in Appendix 2 (page 86).

Introduction of water fluoridation has a particular impact on the productivity of existing dental personnel. New Zealand has had the advantage of a highly developed dental care programme for schoolchildren for over forty years. Before fluoridation programmes began in 1953 each school dental nurse was able to provide dental care for approximately 450 children. A significant decrease in the prevalence and incidence of dental caries after fifteen years of water fluoridation has enabled one school dental nurse to care for 700, 800 or even 900 schoolchildren.[66] In recent studies in the Union of Soviet Socialist Republics, it has been estimated that controlled water fluoridation decreased the need for dental treatment and extractions by 40 per cent. and for prosthetic restorations by 20-30 per cent.[78] In the United States of America, a study has shown that the time and cost involved in providing an incremental dental care programme for schoolchildren in a fluoridated community (Newburgh, N.Y.) were less than half those required for schoolchildren in a control non-fluoridated community (Kingston, N.Y.).[10]

3.2 *General Health*

The effects of water fluoridation on general health have been analysed in numerous studies performed by researchers representing many different health disciplines. Well planned comparative studies have been conducted in areas having different natural fluoride levels in the water supplies and in those with fluoridated water. These studies have included detailed information on people's health conditions — on the prevalence and incidence of cancer, allergies, heart diseases, mental and neurological abnormalities, and the effects on skin, eyes, endocrine glands, liver and kidneys, digestive, circulatory and respiratory systems, bones, joints and oral health conditions. Results have repeatedly shown no differences in mortality or morbidity that could be attributed to fluoridation.[2, 4, 13, 19, 21, 25, 28, 31, 43, 44, 53, 55, 58, 73]

There has also been a large amount of laboratory research on the physiological and metabolic effects of fluorine and its compounds. Results of these studies have produced no contra-indication to fluoridation in terms of adverse systemic, tissue or metabolic changes, including the possibility of cumulative effects. On the contrary, reports in medical literature have indicated that fluorides appear to be necessary for the development of optimal calcification in bones and may be used therapeutically in the treatment of osteoporotic conditions.[18, 56, 74] Because of its effect on calcification, fluorine may have a role in preventing some bone diseases and frailties associated with senility.

Among people who live in areas with excessive levels of fluorides in water (8 to 20 p.p.m.) a high prevalence of mottled enamel (dental fluorosis) and cases of osteosclerosis have been reported. Some doubt exists, however, about the possible relationship of the latter condition to fluoride ingestion. Higher concentrations of fluoride in water may be regarded as unsafe. The safety margin between the content of fluoride in fluoridated drinking-water recommended for the prevention of dental caries and fluoride concentrations which may produce toxic effects is so large that fluoridation, as a public health measure, should cause no concern on the grounds of safety.

The practice of fluoridation has been associated with much scientific controversy. Arguments against the widely established evidence of the safety of water fluoridation have, in general, been based on unique conditions, incomplete medical histories, or ambiguous description of findings, erroneous analysis and interpretation of data.[13, 30, 31, 33, 77, 80] On the other hand, over twenty years of careful and intensive epidemiological studies have demonstrated the safety of controlled water fluoridation as consistently as its effectiveness in the prevention of dental caries.

4. Engineering and Economic Considerations

Fluoridation of public water supplies requires an accurate maintenance of the optimal fluoride level, which may vary from 0.6 to 1.2 p.p.m. for different geographic and climatic areas and according to seasonal changes in mean temperature and average drinking-water consumption figures. In determining the amount of adjustment needed for a given area, the level of fluoride naturally present in the water supply has to be considered.[37, 38, 39]

The mechanical procedures and equipment required for regulating the supply of fluoride in community water supplies are similar to those used for other water treatment measures.[37, 61, 64] Fluoridation has proved to be practical for a variety of water treatment plants with different degrees of complexity. Reliable

equipment has been developed for use with different types of fluoride compounds and varying volumes of water in large metropolitan areas serving several million persons and small rural towns of less than a thousand people. The primary requirement for fluoridation of a community is the existence of a public water supply served by an efficient plant where the control of fluoride compounds is technically and economically feasible. Fluoride chemicals frequently used include sodium fluoride, sodium silicofluoride, hydrofluosilicic acid, magnesium silicofluoride and fluorspar. Deposits of fluorspar, the least expensive compound, are widely scattered on every continent.[59] As technical developments progress for refining and dissolving fluorspar, the cost of fluoridation could be reduced to one-fifth of the small per capita cost currently experienced. Fluoride compounds, being toxic in high concentrations, require proper handling and storage precautions by water plant personnel for both personal and public protection. Control measures in operating procedures are necessary to ensure that the optimum fluoride level is maintained within acceptable limits.[29, 37, 58, 61, 64, 70]

A programme of regular inspection of equipment, analysis of water samples and record keeping is a further safeguard for the public and the methods for developing such a programme have been recommended by the WHO Expert Committee on International Standards for Drinking-Water.[7, 86]

In areas where excessive amounts of natural fluoride exist, defluoridation of public water supplies is indicated. Technical methods and equipment have been developed for removing large amounts of fluoride salts from community water supplies, but these procedures are relatively expensive and difficult to apply.[37, 60] Recently, progress has been made in Argentina and the United States of America in developing new processes to decrease high concentrations of fluorides in water supplies. These projects are concerned with reducing costs of defluoridation through utilization of inexpensive and readily available local materials.

Expected expenses on water fluoridation programmes may be assessed according to installation, operation and maintenance costs, which will vary in different areas depending on local availability of technical equipment, fluoride compounds and number and size of operating stations serving the community water supply. Initial installation costs for equipment tend to approximate the operation expenses for one year. The rough figure of US $0.10 per person per year has been used as a general estimate in the United States of America.[29, 64] Several countries from various regions have reported cost estimates very close to the United States estimate.[13, 24, 41, 48, 67, 76] Other countries have experienced even lower per capita rates, although comparability between countries is hard to establish. In all cases the cost of fluoridation was much lower than the savings due to the resultant decrease in needs for dental treatment. Moreover, decrease in dental caries facilitates provision of professional services for other dental problems, which require a great amount of extra attention if anything like the ideal in dental health is to be achieved, even in wealthy nations.

5. Other Methods for Supplying Fluorides

Many people throughout the world live in isolated rural areas, which are often supplied by individual well or spring water supplies. Fluoridation of these water sources is not generally possible, nor technically sound as a public health measure. Individual home fluoridator units have been developed, but the operation, cost and efficiency of these small systems are difficult to maintain in comparison with fluoridation through public water supplies.[61] Such measures are unpractical for populations in developing countries. Experiments with fluoridation units for rural schools have been quite successful,[46, 47, 79] although further studies are indicated before this method can be universally advocated.

Other methods have been studied for providing fluorides to individuals not served by community water supplies. These include the use of topical applications of concentrated fluoride compounds, mouthwashes and toothpastes. Fluoride compounds require repeated applications by dental personnel, thus consuming much professional working time and making the method a very costly undertaking as a large-scale public measure. Results from the use of fluoride mouth-washes and toothpastes have shown varying degrees of effectiveness and depend upon meticulous individual effort, which is difficult to attain for whole populations.

Vehicles other than water have been tested in some countries as means of systematically supplying optimum amounts of fluoride. The use of milk, table salt, flour, tablets and vitamin preparations has been tested and yielded results of varying degrees of effectiveness, efficiency and desirability. These methods all require effective motivation of individuals and hence present the same problem as topical application in mouth-washes and toothpastes. Except for tablet administration, these vehicles present difficulties in the determination of the concentrations of fluorine to be used and are subject to wide variations from country to country according to dietary patterns. Continued investigations are warranted into efficient methods of providing adequate fluorine for populations living in areas where water fluoridation is not possible.

At present, the superiority of water fluoridation over other methods is abundantly clear both for populations which have a long history of high prevalence of dental caries and, particularly, for developing countries now experiencing a caries " explosion " associated with dietary change in urban developments. The fact that urban proliferations are usually the first to have reticulated public water supplies associates well with the rapidly increasing need for caries prevention in such communities.

6. Position of Professional Organizations

Many national and international health organizations have adopted official policy statements as a result of detailed investigations on the effectiveness, safety and economic aspects of water fluoridation. Over sixty professional organizations have recommended that water fluoridation be considered and implemented wherever feasible in communities with adequate technical facilities.[48, 54] The International Dental Federation, whose membership consists of national dental associations from fifty-nine countries, adopted a resolution in 1964 urging that " fluoridation of public water supplies be commended to all public authorities as the most effective public health measure presently available for reducing safely and economically the incidence of dental caries " [34] (Appendix 4, page 89).

7. WHO Activities related to Water Fluoridation

WHO has been interested in the development of water fluoridation programmes for some time. In 1957 an expert committee on water fluoridation concluded that controlled fluoridation of drinking-water is a practical and effective public health measure.[85] A WHO monograph on fluorides and human health, which contains contributions by twenty-eight scientists from eleven different countries, with reviews on the ingestion, absorption, distribution and excretion of fluorides in man, is in press. This monograph contains a review of research findings on the systematic effects of small amounts of fluorides.[2] A synopsis of excerpts from reports of WHO expert committees, study groups and seminars and from resolutions of WHO regional committees is appended for reference (Appendix 3, page 87).

Appendix 1

REPORTED WATER FLUORIDATION PROGRAMMES

Country or territory	Year first project started	Number of communities reported to have fluoridation programmes	Population served by fluoridated water
The Americas			
Brazil *	1953	86	1 500 000
Canada *	1945	313	6 063 000
Chile *	1953	64	3 300 000
Colombia *	1953	6	2 401 000
El Salvador *	1956	1	1 380 000
Mexico *	1960	5	1 750 000
Panama *	1950	8	510 215
Paraguay *	1959	1	135 000
Puerto Rico *	1953	59	1 808 000
United States of America *	1945	3 827	71 916 000
Venezuela *	1952	22	60 000
Europe			
Belgium **	1956	1	10 000
Czechoslovakia *	1958	30	1 000 000
Federal Republic of Germany **	1952	1	6 000
Finland *	1959	1	60 000
Ireland *	1964	44	1 180 000
Netherlands *	1953	15	3 000 000
Romania **	—	1	70 000
Sweden *	1952	2	130 000
Switzerland *	1960	3	250 000
Union of Soviet Socialist Republics	1960	24	—
United Kingdom of Great Britain and Northern Ireland *	1955	15	2 250 000

* Information from WHO Regional Offices and the countries concerned.
** Information from the International Dental Federation (1968).
Other figures are from the sources listed in the references 37, 45, 50, 62 and 83 (Appendix 5, page 89).

Country or territory	Year first project started	Number of communities reported to have fluoridation programmes	Population served by fluoridated water
Eastern Mediterranean			
Kuwait *	1968	1	676 000
Western Pacific			
Australia *	1956	23	3 452 100
Hong Kong *	1961	11	3 570 000
Japan	1952	—	—
Malaysia **	—	6	3 000 000
Sarawak *	—	—	180 000
New Zealand **	1953	29	1 205 233
Papua and New Guinea *	1966	1	38 000
Ryukyu Islands *	—	2	740 000
Singapore *	1958	—	—

* Information from WHO Regional Offices and the countries concerned.
** Information from the International Dental Federation (1968).
Other figures are from the sources listed in the references 37, 45, 50, 62 and 83 (Appendix 5, page 89).

Appendix 2

EXAMPLES OF DENTAL EFFECTS OF WATER FLUORIDATION AS REPORTED IN SEVERAL COUNTRIES

Brazil

After three years of fluoridation in Baixo Guandu, reduction in decayed, missing and filled permanent teeth for seven-year-old children was 21.1 per cent.; for eight-year-olds, 28.2 per cent.[24]

Canada

After ten years of fluoridation in Brantford, Ontario, a 53.9 per cent. reduction in decayed, missing and filled permanent teeth was experienced in children six to sixteen years of age as compared with pre-fluoridation data from the same city. After seventeen-and-a-half years, a continuing reduction in dental caries experience was found in sixteen- and seventeen-year-olds in Brantford. In Prince George, British Columbia, after twelve years of fluoridation, 71.5 per cent. of children six- to eight-years-old were caries-free, as compared with 48.1 per cent. before fluoridation.[22, 49, 51]

Chile

After the first three years of fluoridation in Curicó, reductions in decayed, missing and filled teeth were 48 per cent. for three- to four-year-old children and 25 per cent. for five-year-olds. The proportion of children three- to five-years-old without any dental caries rose from 8.6 to 27 per cent.[3, 24]

Colombia

Before fluoridation in Girardot in 1953, dental examinations on 4000 children revealed that 69.4 per cent. of first permanent molars were decayed. In 1956, this prevalence was reported to have been reduced to 42.2 per cent.[24]

Czechoslovakia

After six years of fluoridation in Tábor, a reduction in dental caries of 74 per cent. was found in deciduous and permanent teeth of children who had drunk fluoridated water since birth.[35, 52, 72]

Finland

In Kuopio, after four years of fluoridation, it has been reported that nearly three times as many children were without decay.[5]

Ireland

An interim study on the Naas (fluoridated) and Athy (control) project, after four years, showed a 28 per cent. decrease in decayed teeth, with 39 per cent. reduction in decayed tooth surfaces for seven- to ten-year-old children.[69]

Japan

Results from Kyoto after twelve years of fluoridation at 0.6 p.p.m. showed a 40 per cent. reduction in dental caries for seven- to eight-year-old children, as compared with data from a control area.[62]

Netherlands

In Tiel, after six-and-a-half years of fluoridation 67 per cent. less carious lesions were found on proximal tooth surfaces of ten-year-old children. After eight-and-a-half years, a reduction of 62 per cent. was found in pit and fissure cavities in seven-year-olds. After ten-and-a-half years, a 78 per cent. reduction was found in dental caries on proximal tooth surfaces of twelve-year-olds. After eleven-and-a-half years, eleven-year-old children experienced 55 per cent. less decayed, missing and filled permanent teeth than children in the control town of Culemborg.[14, 15, 16, 35]

New Zealand

In Hastings, after ten years of fluoridation carious lesions in ten-year-old children were approximately 55 per cent. less than before fluoridation.[57]

Puerto Rico

Reductions in prevalence of dental caries in fluoridated areas after ten years ranged from 66 per cent. for six-year-olds to 31 per cent. for fifteen-year-olds.[6]

Switzerland

After five years of fluoridation in Basel, the number of decayed, missing and filled permanent teeth was reduced at each age from seven to fifteen years, the greatest reduction being 60 per cent. for seven-year-old children, who had used fluoridated water from two years of age.[42]

Union of Soviet Socialist Republics

Results of water fluoridation in Norilsk after seven years indicated a 43 per cent. decrease in dental caries for seven-year-olds, and a 33 per cent. decrease for eight-year-olds.[72, 75]

United Kingdom of Great Britain and Northern Ireland

Results from the first three trial studies after five years of fluoridation showed a decrease of 66 per cent. in the average number of decayed, missing and filled teeth for three-year-olds; 57 per cent. for four-year-olds; 50 per cent. for five-year-olds. The number of children free from dental caries at three years of age had risen from 32 to 60 per cent., and at four years of age from 22 to 42 per cent. After eight years of fluoridation in Anglesey, dental caries experience in first permanent molars among children aged eight years was reduced by nearly 40 per cent., while in the control area it remained virtually unchanged.[35, 36, 41]

United States of America

Observations after ten years of fluoridation in Grand Rapids, Michigan, showed a reduction in caries experience in deciduous teeth of 54 per cent. for six-year-olds, and in permanent teeth an average of 60 per cent. for children born since fluoridation was started in 1945. After fifteen years, the prevalence of dental caries was 50 to 63 per cent. less in twelve- to fourteen-year-olds; 48 to 50 per cent. less in fifteen- to sixteen-year-old adolescents. The final ten-year report from Newburgh, New York, showed a 58 per cent. reduction in decayed, missing and filled permanent teeth for continuously resident children six- to nine-years-old. A fourteen-year post-fluoridation study in Evanston, Illinois, showed similar results to the study in Grand Rapids, Michigan.[8, 9, 11, 20]

Appendix 3

EXCERPTS FROM REPORTS OF WHO EXPERT COMMITTEES, STUDY GROUPS AND SEMINARS, AND FROM RESOLUTIONS OF WHO REGIONAL COMMITTEES

1. Report on WHO Dental Health Seminar (Wellington, New Zealand, 4-21 May 1954)

Participants

Thirty-seven, from:

Western Pacific Region: Australia, China (Taiwan), Fiji, Hong Kong, Japan, Korea, Malaya, New Zealand, North Borneo, Philippines, Sarawak, Singapore, Territory of Papua and New Guinea, and Viet-Nam.

South-East Asia Region: Burma, Ceylon, India, Indonesia, and Thailand.

Eastern Mediterranean Region: Egypt and Iran.

Conclusions

9. The presence of the fluoride ion in communal water supplies in the proportion of approximately 1 p.p.m. is associated with a lowered incidence of dental caries. The adjustment of the fluoride ion content of the communal water supplies to an optimal level is a safe and effective public health measure.

10. In those countries where dental caries is prevalent, fluoridation of water supplies should be undertaken.

2. Report of WHO Expert Committee on Water Fluoridation [85] (Geneva, 26-30 August 1957)

Participants

Seven, from Brazil, India, Sweden, Switzerland, the United Kingdom of Great Britain and Northern Ireland, and the United States of America.

Summary

17. No other vehicles or techniques for the prophylactic application of fluorides can at present replace the fluoridation of drinking-water as a public health measure.

Conclusions

1. Drinking-water containing about 1 p.p.m. fluoride has a marked caries-preventive action. Maximum benefits are conferred if such water is consumed throughout life.

2. There is no evidence that water containing this concentration of fluoride impairs the general health.

3. Controlled fluoridation of drinking-water is a practicable and effective public health measure.

3. Report of Study Group on Dental Health Services for Children, organized by the WHO Regional Office for Europe (Brussels, 3-7 February 1958)

Participants

Twenty, from Belgium, Bulgaria, Denmark, Finland, France, Ireland, Italy, the Netherlands, Norway, Sweden, Switzerland, the Union of Soviet Socialist Republics, the United Kingdom of Great Britain and Northern Ireland, the United States of America, and Yugoslavia.

Preventive Services

The WHO Expert Committee on Water Fluoridation, in its report, concluded that there was abundant positive evidence to support the belief that this method of prevention rendered the teeth much more resistant to dental caries. Moreover, there was no available scientific evidence of any harmful systemic

effects. This method was considered to be practicable for inclusion in public health practice.

The Group has taken note of the above report and is satisfied that it may properly advise planners of dental health programmes to include fluoridation of water supplies in those areas where the existing waters are deficient in fluoride and where the nature of the water system is such as to permit its adoption.

4. Report on Seminar on Dental Health Services for Children, organized by the WHO Regional Office for Europe (Göteborg, Sweden, 20-27 April 1960)

Participants

Forty-two, from Albania, Austria, Belgium, Bulgaria, Czechoslovakia, Denmark, the Federal Republic of Germany, Finland, France, Greece, Iceland, Ireland, Luxembourg, Morocco, the Netherlands, Norway, Poland, Portugal, Romania, Spain, Sweden, Switzerland, Turkey, the Union of Soviet Socialist Republics, the United Kingdom of Great Britain and Northern Ireland, and Yugoslavia.

Conclusions

9. Full attention should be given to the proved effect of water fluoridation as a caries-preventing measure.

5. Report of WHO Expert Committee on Dental Health: Organization of Dental Public Health Services [84] (Geneva, 13-19 October 1964)

Participants

Eight, from Brazil, Czechoslovakia, Malaysia, Scotland, Sweden, Switzerland, the Union of Soviet Socialist Republics, and the United States of America.

General Principles of Planning and Evaluation of Dental Public Health Programmes

The importance of preventive activities in a dental public health programme has already been emphasized. These should be developed to the fullest extent that available knowledge permits. Where the problem is essentially dental caries, the nature and the use of fluorides should be widely publicized, particularly their use in the form of water fluoridation, but also in alternative forms when suitable water supplies are not available.

Special Considerations for the Development of Dental Public Health Services in Newly Independent Countries

In view of the general inadequacy of resources and the magnitude of the needs, preventive measures assume added importance. All proven methods should, if possible, be adopted. The addition of fluorides to the water supplies, if they exist, is the most practical, but other possibilities should also be considered.

Summary and Conclusions

4. Public dental health programmes usually include educational, preventive and treatment services. Because of the universal prevalence of dental diseases and the enormous unmet dental needs throughout the world, and in almost every country, it is recommended that preventive services be given a high priority in such programmes and that the application of proven methods of prevention be encouraged.

6. XV Meeting of the Directing Council of the Pan American Health Organization/Sixteenth Session of the WHO Regional Committee for the Americas (Mexico, D.F., 31 August - 11 September 1964)

Resolution XXIII: Fluoridation of Public Water Supplies

The Directing Council,

Having considered the report of the Director on the fluoridation of public water supplies (Document CD15/29);

Considering that dental problems cannot be solved or dental disorders brought under control with the available professional resources and that the relative shortage of dental resources will become more pronounced as the population of Latin America increases;

Considering that the fluoridation of public water supplies is an effective means of preventing dental caries; and

Bearing in mind that, in order to hasten the extension of water fluoridation to areas that are not yet benefiting from this measure, there must be close collaboration and co-ordination between dentists and sanitary engineers,

RESOLVES:

1. To take note of the report of the Director on the fluoridation of public water supplies (Document CD15/29) and to endorse the policy outlined in it.

2. To note with satisfaction the terms of the recommendations on fluoridation that were adopted by the IX Pan American Congress of Sanitary Engineering, organized by the Inter-American Association of Sanitary Engineering (AIDIS) and held in Bogotá, Colombia, in June 1964.

3. To suggest to national authorities having responsibility to provide public water supplies that they take the necessary steps to begin fluoridation in water systems which have not yet adopted that measure.

4. To recommend that the Director continue his efforts to obtain the funds needed to implement the proposed programme.

7. Fifteenth Session of the WHO Regional Committee for Europe (Istanbul, 7-11 September 1965)

Resolution EUR/RC15/R6: Child Dental Health in Europe

The Regional Committee for Europe,

Having studied the document submitted by the Regional Director;

Recognizing that dental disease in the children of the European Region is a major problem,

. . . . . .

STRESSES the need for:

. . . . . .

a more rapid development of water fluoridation where practicable or, failing this, other methods of administration of fluorine, as a caries preventive measure.

Appendix 4

RESOLUTION ON FLUORIDATION ADOPTED BY THE GENERAL ASSEMBLY OF THE INTERNATIONAL DENTAL FEDERATION

at its Fifty-second Annual Session, held in San Francisco, California, United States of America, 7-14 November 1964

Whereas, dental caries is a disease of major proportion throughout the world, causing pain, disfigurement and impairment to health; and

Whereas, the scientific evidence supporting the safety, effectiveness and practicality of fluoridating public water supplies in order to reduce the incidence of dental caries has been considered and accepted by an Expert Committee convened by the World Health Organization, by governments, and by scientific and professional organizations throughout the world, and

Whereas, continuing study and observation over the past thirty years have established fluoridation of communal water supplies as the most efficacious and inexpensive means for preventing dental caries and for improving dental health throughout life, be it therefore

Resolved, the fluoridation of public water supplies be commended to all public authorities as the most effective public health measure presently available for reducing safely and economically the incidence of dental caries.

Appendix 5

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Annex 10

STUDY OF THE NATURE AND EXTENT OF HEALTH PROBLEMS OF SEAFARERS AND THE HEALTH SERVICES AVAILABLE TO THEM [1]

[A22/P&B/5 — 9 May 1969]

REPORT BY THE DIRECTOR-GENERAL

1. Introduction

In accordance with paragraph 2 of resolution EB43.R23 adopted by the Executive Board at its forty-third session, the report of the Director-General on the study of the nature and extent of health problems of seafarers and the health services available to them is transmitted herewith to the Assembly (see Appendix, page 92).[2]

[1] See resolution WHA22.31.

[2] The summary record of the discussion of the report by the Executive Board at its forty-third session (EB43/SR/12 Rev.1, pp. 199-201) was also appended to this report, but is not reproduced in this volume.

2. Selection of Ports for the Establishment of Pilot Health Centres for Seafarers

In the discussion of this item at the forty-third session of the Executive Board, great interest was expressed in the setting up of a few pilot health centres in ports frequented more by seafarers who were non-nationals than by those who were nationals of the country, and where such centres would be able to provide both preventive and curative health services. It was felt that WHO would not be in a position to assist any of the centres with capital or recurrent expenditure, but that the Organization would only provide such assistance as consultant services or fellowships, or possibly some modest financial aid if research activities were to be carried out. In the light of this, it would appear that the two centres that could most appropriately be considered are Auckland (New Zealand), and Gdynia (Poland), where detailed information on the existing facilities and on the commitments the Governments are willing to make is available and where there is no request for assistance which could not be provided by WHO. The establishment of pilot centres in these two ports would enable WHO to gain useful experience which might then lead to the development of additional centres in other locations in the future.

Appendix

REPORT BY THE DIRECTOR-GENERAL TO THE EXECUTIVE BOARD AT ITS FORTY-THIRD SESSION

[EB43/25 — 17 Jan. 1969]

1. Introduction

The Nineteenth World Health Assembly, as stated in its resolution WHA19.48, considered that additional efforts should be made to improve health services for seafarers in large ports. In paragraph 3 of this resolution the Director-General was requested:

(1) to explore the possibilities of establishing in different regions, in co-operation with the countries concerned, at least two pilot health centres for seafarers, estimating the amount of additional annual expenditure that would be entailed in putting such centres into operation;

(2) to invite Member States to make available to seafarers in each port services where the necessary specialized medical care can be provided; and

(3) to report to the thirty-ninth session of the Executive Board and to the Twentieth World Health Assembly thereon.

Accordingly, the Director-General submitted progress reports to the Executive Board at its thirty-ninth session, to the Twentieth World Health Assembly, to the forty-first session of the Executive Board and to the Twenty-first World Health Assembly. The last-mentioned document listed, both in broad and specific terms, the recommended main aims and objectives of a pilot health centre for seafarers; these involve preventive, curative and administrative activities which, in some respects, may have to be modified in the light of national circumstances and local needs. The same document briefly reported on the facilities already available for seafarers in the ports of Auckland (New Zealand), Manila (Philippines), Singapore, Colombo (Ceylon), Karachi (Pakistan), Gydnia (Poland), Rotterdam (Netherlands) and Lagos (Nigeria). All of the above-mentioned ports, with the exception of Lagos, were visited by a WHO consultant; Lagos was visited by a member of the WHO Secretariat.

Resolution WHA21.23 requested the Director-General to continue the study with a view to:

(*a*) finalizing the selection of at least two ports for the establishment of pilot centres for the health of seafarers;

(*b*) consulting with the proper authorities in the countries concerned and developing definite proposals for the operation of the pilot centres, including financial arrangements; and

(*c*) presenting a report with specific recommendations to the forty-third session of the Executive Board and to the Twenty-second World Health Assembly.

2. Ports visited in Latin America

Towards the end of 1968, the consultant visited some countries in Latin America which had also shown interest in the possible establishment of such pilot health centres for seafarers; these ports are Santos (Brazil), Buenos Aires (Argentina), Valparaiso (Chile) and Buenaventura (Colombia).[1]

In finalizing the selection of ports for the possible establishment of pilot health centres, consideration was given to important factors such as their present and potential size, the nature and volume of shipping, the extent and nature of the existing medical facilities and, where appropriate, the possibility and practicability of developing the existing medical services into a service which, in general, could undertake the previously mentioned functions and activities. In making recommendations, it was considered that the following factors were also of major importance:

(i) the need for such a centre;

(ii) the national authorities, including the appointed representatives of the shipping industry, seafarers and the medical profession, should be in favour;

(iii) any location finally decided upon should be such that a pilot health centre could be established comparatively quickly and, where necessary, financial support made readily available. Therefore, in general, those ports which already have a well developed medical service, or where there is already a building which could easily be suitably adapted, have certain advantages.

[1] A short description of the facilities available for seafarers in these ports was appended to the report to the Executive Board.

3. Suggestions for the Selection of Pilot Health Centres

3.1 *Centres Suggested*

In view of the above, of the twelve ports visited, the following, listed in alphabetical order, are recommended for the consideration of the Executive Board as the most suitable ports for the establishment of pilot health centres: Auckland (New Zealand), Buenaventura (Colombia), Gdynia (Poland), Karachi (Pakistan) and Lagos (Nigeria).

It is stressed, however, that this selection does not necessarily imply the unsuitability of the other ports visited from the long-term point of view.

It is considered that in the ports listed health facilities for seafarers should preferably be combined with the health facilities for dockers for the following reasons:

(i) the number of seafarers who would use the centre is not large enough, from an economic point of view, to justify a centre for seafarers alone; and

(ii) in the majority of ports there is a need for a modern health service for dock workers.

In addition to providing health services for seafarers and dock workers, in certain ports, because of local custom, it would probably be necessary to provide health services for the dependants of the seafarers and dock workers.

It is considered that in the case of Auckland, Gdynia, Karachi and Lagos there are sufficient data now available to enable further negotiations to proceed immediately. In the case of Buenaventura, although at present there is a paucity of medical facilities, the health authorities are keenly interested in establishing such a centre in the new hospital. It is therefore considered that negotiations could proceed immediately.

The detailed reasons for the selection of these five ports are given below; it should be emphasized that not all of the administrative problems have been finalized.

It is considered that in the other seven ports further discussions at local level are necessary before any definite decisions are made. These might cover such matters as the staff required, running costs, and acceptability by the shipping industry and the local practitioners who are at present providing medical services.

The table on page 95 gives data concerning the size and nature of all the ports visited.

3.2 *Detailed Reasons for Suggestions*

Auckland

On the waterfront there is no clinic or centre which deals specifically with seafarers. The main function of the modern, well equipped Queen's Wharf Clinic is the treatment of sickness or injury among dock workers; there is also a strong preventive component in this clinic's activities which is in accordance with the over-all activities of the New Zealand Department of Health. The expense of running this clinic is met, on an equal basis, by the New Zealand Waterfront Industry Commission, Auckland, and the Ministry of Health.

There is wide acceptance of the idea of a pilot health centre, not only by the shipping industry but also by government officials; this has been confirmed in separate discussions with the Director-General of Health. It appears that land could be made available either for the construction of a separate health centre for seafarers or to extend the existing clinic for dock workers. The latter is considered the preferable course of action.

Consideration has been given to the modifications required to the present structure and functions of the clinic in order that they should be in keeping with those envisaged for a centre for seafarers. These are:

(i) the provision of additional accommodation, including a consulting room, and offering its use to those general practitioners who at present have individual arrangements with shipping companies; in this way it is hoped to concentrate all medical services in the centre within a relatively short period of time;

(ii) employing the services of a medical officer on a part-time basis, and obtaining a full-time nurse;

(iii) the institution of medical records for seamen; and

(iv) making arrangements for the medical attention of urgent cases outside the normal opening hours of the clinic; the amount of activity in the port during the night does not warrant a twenty-four-hour coverage.

It is estimated that the building alterations would cost approximately US $3360 and additional equipment about US $560. It is considered that the running costs and staff salaries would amount respectively to US $6720 and US $6048 yearly. No provision has been made for future salary increases. It should be noted that against the estimated annual running costs eventually there might be offset the recovery of fees for medical examinations. No estimate of this amount can currently be given.

Buenaventura

There is no health centre solely for the use of seafarers.

A new hospital, which will provide 220 beds, is under construction and will be completed by 1970. It will also provide dental services. The Ministry of Health officials are enthusiastic about a health centre for seafarers which could to advantage be incorporated into the new hospital. The cost would be minimal and would be assimilated into the running costs of the new hospital. The idea of developing such a health centre is also keenly supported by the largest shipping company in Colombia, by the Seamen's Union and by the medical profession.

Gdynia

At this port there is an excellent ambulatory and polyclinic for seafarers and dock workers. Certain types of hospital treatment are also available. Further improvements and expansion of the services at the polyclinic—including the establishment of a separate general out-patient clinic for foreign seafarers, the strengthening of staff for the specialized clinics, and the establishment of a parasitological laboratory—are planned to be effective in 1970. Government officials expressed keen interest in the possible selection of Gydnia.

It is apparent that this centre is one which could be regarded as a model and which could to advantage be visited by medical personnel coming from countries where it is intended to organize a health service for seafarers, in order to gain experience. The Government has indicated its willingness to accept WHO fellows in this regard. It has also indicated that collaboration with the Institute of Maritime Medicine of Gdynia would be possible, and that the pilot centre could participate, together with such centres established elsewhere, in research activities concerning evaluation of the health status of seafarers, in the setting up of standards for sanitary conditions on the boats and in the ports, and in establishing methods of health protection and prevention for seafarers. Should the Organization be interested in having this research carried out by the centre, the Government would expect WHO to assist with the provision of some standardized medical diagnostic equipment.

Karachi

At this compact port, the port health authority has organized a small dispensary where seamen not on articles and awaiting ships are given free medical attention. Apart from this there is no clinic or centre which provides specialized health services for all seafarers. There are good hospital facilities available.

The government officials and shipping industry representatives interviewed were keen that this port should be favourably considered. The Seamen's Union intimated that it would be prepared not only to make land available, where a clinic could be built, but also to allocate, subject to government approval, substantial funds to start the scheme.

WHO has been informed that land measuring 3200 sq. yds belonging to the Karachi Port and Dock Workers' Welfare Fund Committee would be made available, subject to the Committee's approval. Although at this stage no architectural plans exist, building costs are estimated to be between US $60 000 and US $65 000, and would be met, as far as their funds permit, by contributions mainly from the All Pakistan Confederation of Labour, the West Pakistan Federation of Trade Unions, and the Karachi Stevedores' Association.

Should it be decided to construct a building, the Government would be approached with regard to the provision of necessary equipment. It is also envisaged, however, that WHO would be asked for assistance in this respect. The cost of the medical and non-medical equipment has been provisionally estimated at US $32 000, assuming it is admitted free of customs duty.

Recurring annual expenditure, including the cost of medicines, salaries and maintenance, would be met by fixed contributions from the agencies benefiting from the centre. This has been estimated to be approximately:

(i) salaries and allowances—US $21 000

(ii) medicines and drugs—US $30 500

(iii) electricity, water, maintenance, equipment, telephone, etc.—US $10 000.

Lagos

A meeting of interested personnel, including representatives of the medical profession, was held; all were in general agreement regarding the functions and aims of such centres and, in expressing the hope that Lagos would be favourably considered, stated that their co-operation could be counted upon.

At Lagos, a port currently being expanded in size, the Federal Ministry of Health has a Port Health Office which undertakes a wide range of activities. The health station in the Apapa port area is a two-storeyed, solidly constructed modern concrete building covering an area of approximately 3000 sq. ft. Not all of this is needed by the Port Health Service. The Government has indicated that part of this building could be used as a pilot health centre and that the necessary alterations could be made for approximately US $8500. It has also indicated the need for additional equipment and an ambulance, amounting to US $12 000. The Government expects WHO to cover these capital expenditures. However, it also expects WHO, for a five-year period, to cover the cost of salaries of a number of the staff (one physician, six nurses and three non-medical personnel) and necessary drugs, amounting to approximately US $26 000 per annum. The Federal Government, for its part, in addition to making available the existing building estimated as worth US $33 500, will provide the services of the Medical Director of the centre and other professional and auxiliary staff whose salaries are estimated at approximately US $30 500 per annum.

4. WHO Assistance

4.1 *Consultants and Fellowships*

Should the Executive Board wish to recommend to the World Health Assembly the selection of any or all of the ports proposed for the establishment of a centre, it would be necessary for a consultant to be made available for Buenaventura, Karachi and Lagos, whereas it is considered unlikely that this would be necessary for Auckland or Gdynia. The consultant appointed would:

(i) visit the proposed centre as soon as possible, for a period of approximately one month, to evaluate in detail circumstances and requirements, and advise on the organizational planning;

(ii) be available for advice during the first three months of the centre's operation, and perhaps subsequently for a further period.

It is also considered that the doctors appointed as Directors of the centres should preferably have had public health and/or occupational health experience. It may therefore be necessary to provide some of them with WHO fellowships for studies abroad on organizational patterns and the operation of existing medical facilities for seamen. Additional fellowships may also be necessary for some of these centres.

4.2 *Financial Implications*

It will be noted from the report that, in all the ports being put forward for consideration by the Executive Board for the establishment of a centre, the government will be facing both capital expenditure for building and equipment and recurrent expenditure for staffing and running costs.

In the documents presented in the past by the Director-General on this subject for discussion by the Executive Board and the World Health Assembly it was not envisaged that the World Health Organization would assist these centres with capital or recurrent expenditure. The only possibility implied was that the Organization might provide such assistance as consultants or fellowships.

From the present document it can be seen that in two cases WHO is being requested, to a varying degree, to provide assistance with capital and/or recurrent expenditure.

With respect to Auckland and Gdynia,[1] no assistance with capital or recurrent expenditure is requested from the Organization for the setting up and running of the centre.

In the case of Buenaventura, assistance with capital expenditure is not envisaged, and no indication was given to the consultant that WHO might be asked to cover some of the recurrent expenditure.

In regard to Karachi, the Government expects WHO to contribute equipment to the value of US $25 200, of the US $32 000 which is expected to be required.

With respect to Lagos, the Government has indicated that it expects WHO to cover the capital expenditure needed for adapting the building, as well as for the basic equipment and an ambulance, amounting to US $20 500. Furthermore, the Government would expect the Organization to provide, for a period of five years, funds for the salaries of some of the staff as well as for the necessary drugs, which would amount to an expenditure of approximately US $26 000 per annum. The contributions requested from WHO would be matched by US $33 604 for capital expenditure and US $30 444 for recurrent expenditure by the Federal Government of Nigeria.

[1] The Government of Poland would expect WHO to contribute some funds for equipment only if requested to carry out research.

STATISTICAL DATA ON THE PORTS VISITED

	Number of overseas vessels	Net tonnage of same	Number of coastal vessels	Number of national seamen	Number of visiting seamen (estimated maximum)	Number of dock workers
Auckland	959	4 483 664	1 675	2 500	70 000	2 500
Buenaventura	1 200	5 092 594	237	8 000	62 000	3 200
Buenos Aires	1 942	7 573 934	2 323	20 000	142 537	11 000 [d]
Colombo	2 338	16 560 000 [a]	396	500	105 400	27 000
Gdynia	1 945	3 262 000	912	11 000	105 000	8 000
Karachi	1 134	5 277 201	94	9 000	112 000	13 000
Lagos	3 051	5 748 730	200 [b]	3 000 [b]	80 000 [b]	6 000 [b]
Manila	1 824	7 650 000	3 081	1 000	200 000	10 000
Rotterdam	26 890	78 329 000	nil	17 000	1 250 000	15 000
Santos	2 440	12 959 941	1 140 [c]	25 000	122 000	16 593
Singapore	—	—	—	7 500	600 000	12 500
Valparaiso	659	2 691 683 [a]	—	6 452	12 771	2 907

A dash (—) indicates that data are not available.
[a] Gross tonnage.
[b] Estimate.
[c] Includes Brazilian ships from overseas.
[d] Number employed by Port Authority.

Annex 11

SUMMARY OF BUDGET ESTIMATES FOR THE FINANCIAL YEAR 1 JANUARY - 31 DECEMBER 1970

As approved by the Twenty-second World Health Assembly [1]

		1970 Estimated obligations US $
PART I: ORGANIZATIONAL MEETINGS		
SECTION 1:	WORLD HEALTH ASSEMBLY	
Chapter 00	*Personal Services*	
01	Salaries and wages (temporary staff)	92 000
02	Short-term consultants' fees	1 800
	Total — Chapter 00	93 800
Chapter 20	*Travel and Transportation*	
21	Duty travel	12 500
22	Travel of short-term consultants	1 800
25	Travel of delegates	120 200
26	Travel of temporary staff	16 500
	Total — Chapter 20	151 000
Chapter 30	*Space and Equipment Services*	
31	Rental and maintenance of premises	12 710
32	Rental and maintenance of equipment	4 150
	Total — Chapter 30	16 860
Chapter 40	*Other Services*	
43	Other contractual services	400
44	Freight and other transportation charges	4 000
	Total — Chapter 40	4 400
Chapter 50	*Supplies and Materials*	
51	Printing	191 000
52	Visual materials	2 000
53	Supplies	6 080
	Total — Chapter 50	199 080
Chapter 60	*Fixed Charges and Claims*	
62	Insurance	60
	Total — Chapter 60	60

[1] See resolution WHA22.33.

		1970 Estimated obligations US $
Chapter 80	*Acquisition of Capital Assets*	
82	Equipment	9 000
	Total — Chapter 80	9 000
	TOTAL — SECTION 1	474 200
SECTION 2:	EXECUTIVE BOARD AND ITS COMMITTEES	
Chapter 00	*Personal Services*	
01	Salaries and wages (temporary staff)	82 800
	Total — Chapter 00	82 800
Chapter 20	*Travel and Transportation*	
21	Duty travel	12 700
25	Travel and subsistence of members	61 900
26	Travel of temporary staff	14 100
	Total — Chapter 20	88 700
Chapter 30	*Space and Equipment Services*	
31	Rental and maintenance of premises	3 180
32	Rental and maintenance of equipment	1 650
	Total — Chapter 30	4 830
Chapter 40	*Other Services*	
43	Other contractual services	1 000
44	Freight and other transportation charges	1 000
	Total — Chapter 40	2 000
Chapter 50	*Supplies and Materials*	
51	Printing	33 600
53	Supplies	4 970
	Total — Chapter 50	38 570
Chapter 60	*Fixed Charges and Claims*	
62	Insurance	700
	Total — Chapter 60	700
	TOTAL — SECTION 2	217 600
SECTION 3:	REGIONAL COMMITTEES	
Chapter 00	*Personal Services*	
01	Salaries and wages	29 210
	Total — Chapter 00	29 210
Chapter 20	*Travel and Transportation*	
21	Duty travel	43 960
26	Travel of temporary staff	24 710
	Total — Chapter 20	68 670
Chapter 30	*Space and Equipment Services*	
31	Rental and maintenance of premises	250
32	Rental and maintenance of equipment	250
	Total — Chapter 30	500
Chapter 40	*Other Services*	
41	Communications	1 300
43	Other contractual services	13 890
44	Freight and other transportation charges	6 970
	Total — Chapter 40	22 160
Chapter 50	*Supplies and Materials*	
53	Supplies	9 460
	Total — Chapter 50	9 460
	TOTAL — SECTION 3	130 000
	TOTAL — PART I	821 800

PART II: OPERATING PROGRAMME

SECTION 4:	PROGRAMME ACTIVITIES	
Chapter 00	*Personal Services*	
01	Salaries and wages	28 252 839
	Less: Staff assessment	6 323 355
	Net salaries and wages	21 929 484
02	Short-term consultants' fees	1 758 600
	Total — Chapter 00	23 688 084
Chapter 10	*Personal Allowances*	
11	Terminal payments	1 503 884
12	Pension fund	3 942 601
13	Staff insurance	272 944
14	Representation allowance	10 400
15	Other allowances	4 898 487
	Total — Chapter 10	10 628 316
Chapter 20	*Travel and Transportation*	
21	Duty travel	1 438 146
22	Travel of short-term consultants	1 758 600
23	Travel on initial recruitment and repatriation	198 608
24	Travel on home leave	1 207 144
25	Travel of temporary advisers	356 985
26	Travel of temporary staff	77 625
27	Transportation of personal effects	64 076
28	Installation per diem	110 778
	Total — Chapter 20	5 211 962

		1970 Estimated obligations US $
Chapter 30	*Space and Equipment Services*	
31	Rental and maintenance of premises	479 500
32	Rental and maintenance of equipment	95 048
	Total — Chapter 30	574 548
Chapter 40	*Other Services*	
41	Communications	412 440
42	Hospitality	11 100
43	Other contractual services	1 363 575
44	Freight and other transportation charges	93 232
	Total — Chapter 40	1 880 347
Chapter 50	*Supplies and Materials*	
51	Printing	613 000
53	Supplies	2 008 171
	Total — Chapter 50	2 621 171
Chapter 60	*Fixed Charges and Claims*	
62	Insurance	37 299
	Total — Chapter 60	37 299
Chapter 70	*Grants, Contractual Technical Services and Training Activities*	
71	Fellowships	5 171 290
72	Grants and contractual technical services	3 507 900
73	Participants in seminars and other educational meetings	1 218 231
74	Staff training	100 000
	Total — Chapter 70	9 997 421
Chapter 80	*Acquisition of Capital Assets*	
81	Library books	47 415
82	Equipment	1 282 331
	Total — Chapter 80	1 329 746
	TOTAL — SECTION 4	55 968 894
SECTION 5:	REGIONAL OFFICES	
Chapter 00	*Personal Services*	
01	Salaries and wages	4 110 168
	Less: Staff assessment	714 764
	Net salaries and wages	3 395 404
	Total — Chapter 00	3 395 404
Chapter 10	*Personal Allowances*	
11	Terminal payments	206 240
12	Pension fund	534 790
13	Staff insurance	37 495
14	Representation allowance	15 600
15	Other allowances	529 363
	Total — Chapter 10	1 323 488
Chapter 20	*Travel and Transportation*	
21	Duty travel	108 900
23	Travel on initial recruitment and repatriation	14 600
24	Travel on home leave	110 435
27	Transportation of personal effects	3 600
28	Installation per diem	6 335
	Total — Chapter 20	243 870
Chapter 30	*Space and Equipment Services*	
31	Rental and maintenance of premises	190 498
32	Rental and maintenance of equipment	35 912
	Total — Chapter 30	226 410
Chapter 40	*Other Services*	
41	Communications	199 330
42	Hospitality	9 000
43	Other contractual services	105 754
44	Freight and other transportation charges	31 096
	Total — Chapter 40	345 180
Chapter 50	*Supplies and Materials*	
51	Printing	3 500
52	Visual materials	68 200
53	Supplies	125 490
	Total — Chapter 50	197 190
Chapter 60	*Fixed Charges and Claims*	
62	Insurance	17 440
	Total — Chapter 60	17 440
Chapter 80	*Acquisition of Capital Assets*	
81	Library books	10 085
82	Equipment	113 835
	Total — Chapter 80	123 920
	TOTAL — SECTION 5	5 872 902
SECTION 6:	EXPERT COMMITTEES	
Chapter 00	*Personal Services*	
01	Salaries and wages (temporary staff)	28 700
	Total — Chapter 00	28 700

		1970 Estimated obligations US $
Chapter 20	*Travel and Transportation*	
25	Travel and subsistence of members .	117 600
	Total — Chapter 20	117 600
Chapter 40	*Other Services*	
43	Other contractual services	12 600
	Total — Chapter 40	12 600
Chapter 50	*Supplies and Materials*	
51	Printing	45 500
	Total — Chapter 50	45 500
Chapter 60	*Fixed Charges and Claims*	
62	Insurance	1 400
	Total — Chapter 60	1 400
	TOTAL — SECTION 6	205 800
	TOTAL — PART II	62 047 596

PART III: ADMINISTRATIVE SERVICES

SECTION 7: ADMINISTRATIVE SERVICES

Chapter 00	*Personal Services*	
01	Salaries and wages	3 139 369
	Less: Staff assessment	667 061
	Net salaries and wages	2 472 308
02	Short-term consultants' fees	9 000
	Total — Chapter 00	2 481 308
Chapter 10	*Personal Allowances*	
11	Terminal payments	167 796
12	Pension fund	448 516
13	Staff insurance	30 502
14	Representation allowance	15 600
15	Other allowances	329 261
	Total — Chapter 10	991 675
Chapter 20	*Travel and Transportation*	
21	Duty travel.	79 000
22	Travel of short-term consultants . .	9 000
23	Travel on initial recruitment and repatriation	12 502
24	Travel on home leave	43 395
27	Transportation of personal effects . .	12 628
28	Installation per diem	6 101
	Total — Chapter 20	162 626
Chapter 30	*Space and Equipment Services*	
31	Rental and maintenance of premises .	137 017
32	Rental and maintenance of equipment	25 220
	Total — Chapter 30	162 237
Chapter 40	*Other Services*	
41	Communications	95 040
42	Hospitality	3 900
43	Other contractual services	77 476
44	Freight and other transportation charges	21 662
	Total — Chapter 40	198 078
Chapter 50	*Supplies and Materials*	
51	Printing	350
52	Visual materials.	82 000
53	Supplies	66 362
	Total — Chapter 50	148 712
Chapter 60	*Fixed Charges and Claims*	
62	Insurance	6 786
	Total — Chapter 60	6 786
Chapter 80	*Acquisition of Capital Assets*	
82	Equipment	17 982
	Total — Chapter 80	17 982
	TOTAL — SECTION 7	4 169 404
	TOTAL — PART III	4 169 404

PART IV: OTHER PURPOSES

SECTION 8:	HEADQUARTERS BUILDING: REPAYMENT OF LOANS	
Chapter 80	*Acquisition of Capital Assets*	
83	Land and buildings	511 200
	Total — Chapter 80	511 200
	TOTAL — SECTION 8	511 200
SECTION 9:	REVOLVING FUND FOR TEACHING AND LABORATORY EQUIPMENT	100 000
	TOTAL — SECTION 9	100 000
	TOTAL — PART IV	611 200
	SUB-TOTAL — PARTS I, II, III, AND IV	67 650 000

	1970 Estimated obligations US $
PART V: STAFF ASSESSMENT	
SECTION 10: TRANSFER TO TAX EQUALIZATION FUND	
Chapter 00 *Personal Services*	
01 Salaries and wages	7 773 710
Total — Chapter 00	7 773 710
TOTAL — SECTION 10	7 773 710
TOTAL — PART V	7 773 710
PART VI: RESERVE	
SECTION 11: UNDISTRIBUTED RESERVE	4 363 110
TOTAL — SECTION 11	4 363 110
TOTAL — PART VI	4 363 110
TOTAL — ALL PARTS	79 786 820

	1970 Estimated obligations US $
Less:	
Reimbursement from the Technical Assistance component of the United Nations Development Programme.	1 268 624
Less: Casual Income	
Assessments on new Members for previous years	45 420
Miscellaneous income	835 865
Available by transfer from the cash portion of the Assembly Suspense Account	116 091
Transfer from the General Account for Undesignated Contributions in the Voluntary Fund for Health Promotion, to help finance the assistance to Equatorial Guinea	49 000
TOTAL — CASUAL INCOME	1 046 376
TOTAL — DEDUCTIONS	2 315 000
TOTAL — ASSESSMENTS ON MEMBERS	77 471 820

Annex 12

QUALITY CONTROL OF DRUGS [1]

[From doc. A22/P&B/12 — 6 June 1969]

1. GOOD PRACTICES IN THE MANUFACTURE AND QUALITY CONTROL OF DRUGS [2]

1. General Considerations

In the pharmaceutical industry, overall control is essential to ensure that the individual consumer receives drugs of high quality. Haphazard operations cannot be permitted in the manufacture of substances that may be necessary to save life or to restore or preserve health.

Difficulties will undoubtedly arise in establishing the necessary criteria for the manufacture of drugs that will meet established specifications and that can, therefore, be used with confidence. Recommended practices for the manufacture of drugs of desired quality are set forth below. Adherence to these practices, complementing the various control tests followed from the beginning to the end of the manufacturing cycle, will contribute substantially to the manufacture of consistently uniform batches of high-quality drugs.

The manufacturer must assume responsibility for the quality of the drugs he produces. He alone can avoid mistakes and prevent mishaps by exercising adequate care in both his manufacturing and control procedures.

The good practices outlined below should be considered as general guides; whenever necessary, they may be adapted to meet individual needs, provided the established standards of drug quality are still achieved.[3] They are intended to apply to the manufacturing practices (including packaging and labelling) used in the production of drugs in their finished dosage forms.

It not infrequently occurs that several firms cooperate in the production (including packing and labelling) of the finished dosage forms of drugs. It may also occur that a finished, packed, and labelled drug is repacked and/or relabelled, giving it a new designation. It should be pointed out that since such procedures constitute part of a manufacturing oper-

[1] See resolution WHA22.50.

[2] Extract from the twenty-second report of the WHO Expert Committee on Specifications for Pharmaceutical Preparations (*Wld Hlth Org. techn. Rep. Ser.*, 1969, **418**, Annex 2).

[3] Additional recommendations specifically applicable to biological products are set forth in a number of sets of Requirements for Biological Substances adopted by the WHO Expert Committee on Biological Standardization and other WHO expert groups and published in the WHO *Technical Report Series*.

ation, they should be subject to the requirements proposed below. However, packing and labelling do not necessarily affect the quality of a drug, and in such cases it may suffice to ensure that adequate measures are taken as specified in applicable sections of this document.

The requirements set forth herein are not intended to apply to preparations for veterinary use, although equal attention should be given to quality in the manufacture of such preparations.

2. Definitions

For the purposes of this document, the following definitions are adopted.

Drug. Any substance or mixture of substances that is manufactured, sold, offered for sale, or represented for use in (1) the treatment, mitigation, prevention, or diagnosis of disease, an abnormal physical state, or the symptoms thereof in man or animal; or (2) the restoration, correction, or modification of organic functions in man or animal.

Manufacturing. All operations involved in the production of a drug, including processing, compounding, formulating, filling, packaging, and labelling.

Starting materials. All substances, whether active or inactive or whether they remain unchanged or become altered, that are employed solely for the manufacture of drugs.

Batch. A quantity of any drug produced during a given cycle of manufacture. The essence of a manufacturing batch is its homogeneity.

Batch number. A designation printed on the label of the drug, that identifies the batch and that permits the production history of the batch, including all stages of manufacture and control, to be traced and reviewed.

Quarantine. The status of a material that is kept in isolation and that is not available for use until released.

Quality control. All measures designed to ensure the uniform output of batches of drugs that conform to established specifications of identity, strength, purity, and other characteristics.

"Half-finished" product. Any material or mixture of materials that must undergo further manufacture.

Purity. The degree to which other chemical or biological entities are present in any substance.

3. Personnel

Experts responsible for supervising the manufacture and control of drugs should possess the qualifications of scientific education and practical experience required by national legislation. Their education should include the study of an appropriate combination of (*a*) chemistry (analytical chemistry, biochemistry, etc.); (*b*) chemical engineering; (*c*) microbiology; (*d*) pharmaceutical sciences and technology; (*e*) pharmacology and toxicology; (*f*) physiology and histology; and (*g*) other related sciences. They should also have adequate practical experience in the manufacture and control of drugs. In order to gain such experience, a preparatory period may be required, during which they should exercise their duties under professional guidance. The scientific education and practical experience of experts should be such as to enable them to exercise independent professional judgement, based on the application of scientific principles and understanding to the practical problems encountered in the manufacture and control of drugs.

Such experts should preferably not have any interests outside the manufacturer's organization that (*a*) prevent or restrict their devoting the necessary time to their assigned responsibilities or (*b*) may be considered to entail a conflict of financial interest. Finally, they should be given full authority and the facilities necessary to carry out their duties effectively.

In addition to the experts noted above, an adequate number of technically trained personnel should be available to carry out the manufacturing and control operations in accordance with established procedures and specifications.

4. Premises

4.1 *General*

Drugs should be manufactured, processed, packaged, labelled, and tested in isolated areas, which should

(1) not be utilized for any other purpose;

(2) be well lighted and ventilated and, if necessary, heated and air conditioned so as to ensure the maintenance of a satisfactory temperature and relative humidity that will not adversely affect the drug during manufacture and storage, nor the accuracy and functioning of laboratory instruments;

(3) be suitable for their intended use (walls, ceilings, etc. should have smooth surfaces and be of such construction that they (*a*) do not crack or shed particles into the atmosphere, and (*b*) can be readily cleaned and, if necessary, disinfected); and

(4) provide adequate working space and adequate room for the orderly placement of equipment and materials, so as to (*a*) minimize or eliminate any risk of confusion between different drugs and their components, and (*b*) control the possibility of cross-contamination by another drug that is manufactured,

processed, packaged, labelled, or held on the same premises.

Special rooms or areas should be provided for the storage of highly toxic drugs and narcotics, and the access of personnel to such rooms or areas should be restricted.

4.2 *Special*

For special purposes, such as the manufacture of drugs that can be sterilized in their final containers, separate enclosed areas must be provided. These areas should be essentially dust-free, preferably supplied with filtered air at a pressure higher than that in adjacent areas, and entered through an air-lock. The access of personnel to such areas should be restricted. The areas should, if feasible, be designed so as to preclude the possibility that products intended for sterilization could be mixed with, or taken to be, products already sterilized. This may conveniently be effected by the use of double-ended sterilization apparatus opening into separate and noncommunicating areas.

For the manufacture of drugs that cannot be terminally sterilized, a separate and enclosed area, specifically designed for this purpose, should be used.

Routine microbe counts of the air in the areas described above should be carried out during manufacturing operations. The results of such counts should be checked against established standards, and adequate records of the counts should be maintained.

5. Equipment

Manufacturing equipment should be designed and maintained in such a way as to

(1) be suitable for its intended use;

(2) facilitate thorough cleaning wherever necessary;

(3) exclude any contamination of drugs and their containers during manufacture; and

(4) minimize the risk of confusion or the omission of a processing step such as filtration or sterilization.

Operating conditions within apparatus used to sterilize products should be monitored by means of recording devices and/or indicators, which should be initially calibrated and checked at approved intervals by approved methods.

Manufacturing equipment and utensils should be thoroughly cleaned and, if necessary, sterilized, and maintained in accordance with specific written directions. When indicated, all equipment should be disassembled and thoroughly cleaned, to preclude the carry-over of drug residues from previous operations. Adequate records of such procedures should be maintained.

Equipment used for aseptic filling should be checked at suitable intervals by microbiological methods.[1] Adequate records of such tests should be maintained.

6. Sanitation

Manufacturing premises should be maintained in accordance with the sanitary standards issued by the appropriate health authority. They should be clean and free from accumulated waste, orderly, and free from vermin. A written sanitation programme should be available, indicating:

(1) areas to be cleaned, and cleaning intervals;

(2) cleaning procedures to be followed and, if necessary, equipment and materials to be used for cleaning; and

(3) personnel assigned to and responsible for cleaning operations.

Eating, smoking, and unhygienic practices should not be permitted in manufacturing areas.

Sufficient clean, well-ventilated toilet facilities including facilities for hand washing and rooms for changing clothes, should be available near working areas for the use of manufacturing personnel.

7. Starting Materials

An inventory should be made of all starting materials to be used at any stage in the manufacture of drugs, and records should be kept of their origin, date of receipt, date of analysis, date of release by the quality control department, and their subsequent use in manufacture. All such materials must be

(1) identified, and their containers examined for damage;

(2) properly stored;

(3) properly sampled by the quality control department;

(4) tested for compliance with requirements (all materials should be marked to indicate that they are undergoing testing, and should, if possible, be "quarantined" until released by the quality control department); and

(5) released by the quality control department by means of written instructions.

Starting materials that are accepted or approved should be properly and conspicuously labelled as

[1] This may be accomplished by conducting normal filling operations using suitable sterile liquid bacteriological media or other media suitable for dry powder filling, as the case may be, or by using biological indicators that can demonstrate the adequacy of the sterilization process.

such, and should then be transferred, if necessary, to areas designated for the storage of such materials.

All rejected starting materials should be conspicuously identified as such, and should be destroyed or returned to the supplier as soon as possible.

8. Manufacturing Operations

Manufacturing operations and controls should be carried out under the supervision of experts, as specified in section 3.

8.1 *Cleanliness*

Before any manufacturing operation is begun, a check should be made to ensure that all apparatus and equipment to be used in the operation has been cleaned and/or sterilized (see section 5).

8.2 *Equipment and containers*

The contents of all vessels and containers used in manufacture and storage between manufacturing stages must be identified by conspicuously placed and clearly legible labels, bearing the name and/or identification code of the processed materials and the necessary batch identification data. Such labels should, whenever practicable, be securely attached to the vessels and containers concerned. Similar labels should be attached to mechanical manufacturing equipment during its operation, listing the name and/or identification code of the manufactured product and, where necessary, its batch identification.

8.3 *Precautions against contamination*

All manufacturing operations should be confined to separate areas intended for such purposes, with complete equipment used exclusively in those areas, or measures should be taken to ensure that neither contamination nor confusion can occur.[1]

Sterile operations must be performed in areas specially designed and constructed for their intended purpose, as indicated in section 4.2. Whenever the different operations are not physically separated, and there is a possibility that unsterilized and sterilized products might be confused, all containers of batches of products for sterilization should bear a clear indication of whether or not their contents have been sterilized.

All operations in which highly potent drugs, including antibiotics, are weighed, mixed, micronized, encapsulated, formed into tablets, placed in containers, etc. should be conducted in confined areas that are provided with adequate exhaust systems or that are maintained under appropriate pressure, so as to prevent one drug from spreading to and contaminating another. Adequate precautions should be taken to prevent the recirculation of contaminated air.

In manufacturing areas, clean working garments should be worn over, or in place of, street clothing.

Products that undergo sterile operations should be protected from contamination by either (*a*) using methods such as laminar-flow techniques, or (*b*) ensuring that personnel wear clean, sterile gowns, head coverings, masks, rubber gloves, and shoe coverings. Before dressing and entering sterile areas, personnel must wash their hands with a suitable disinfectant.

8.4 *Manufacturing personnel*

No person known to be affected with a disease in a communicable form, or to be the carrier of such a disease, and no person with open lesions on the exposed surface of the body, should be engaged in the manufacture of drugs. Manufacturing personnel should undergo periodic health checks. In order to prevent any impairment of health caused by the handling of hazardous or potent products, manufacturing personnel should, whenever necessary, wear protective clothing, shoes, headgear, dust masks, etc., and such protective clothing should remain in the area in which it is used. In some instances, it may be necessary to restrict personnel to their immediate working areas.

8.5 *Manufacturing procedures and written instructions*

Manufacturing procedures and written instructions for each drug must be prepared under the direct supervision of experts (see section 3) who have the necessary authority. They should contain at least the following information for each drug:

(1) name and presentation;

(2) a description or identification of the final container(s), packaging material(s), and labels and, where applicable, of the closure(s) to be used;

(3) the identity, quantity, and quality of each starting material to be used, irrespective of whether or not it appears in the finished drug (the permissible excess (" overage ") that may be included in a formulated batch should be indicated);

(4) the theoretical yields to be expected from the formulation at different stages of manufacture and the permissible yield limits;

(5) detailed instructions for, and precautions to be taken in, manufacture and storage of the drug and of " half-finished " products; and

(6) a description of all necessary quality control tests and analyses to be carried out during each stage of manufacture, including the designation of persons or departments responsible for or charged with the execution of such tests and analyses.

[1] It is usually advisable to avoid, whenever possible, the simultaneous manufacture of drugs that are similar in appearance in adjacent areas that are not physically separated.

8.6 *Batch manufacturing records*

Manufacturing records must provide a complete account of the manufacturing history of each batch of a drug, showing that it has been manufactured, tested, and analysed in accordance with the manufacturing procedures and written instructions described in section 8.5. A separate batch manufacturing record should be prepared for each batch of drug produced, and should include the following information:

(1) name and presentation;

(2) date of manufacture;

(3) batch identification;

(4) complete formulation of the batch (see section 8.5, point 3);

(5) the batch number (or analytical control number) of each component used in the formulation;

(6) the actual yield obtained at different stages of manufacture of the batch as compared with the theoretical yield (see section 8.5, point 4);

(7) a duly signed record of each step followed, precautions taken, and special observations made throughout the manufacture of the batch;

(8) a record of all in-process controls followed and of the results obtained;

(9) a specimen of the actual coded label used;

(10) identification of packaging materials, containers, and, where applicable, closures used;

(11) signature of the expert responsible for the manufacturing operations, and the date of his signature; and

(12) a full analytical report showing whether the batch complies with the prescribed specifications for the drug (this report should be duly signed and dated, and endorsed by the expert responsible for quality control, to permit the batch to be released).

8.7 *Maintenance of batch manufacturing records*

For reference purposes, all batch manufacturing records should be retained for a specified period.

9. Labelling and Packaging

Labelling and packaging materials, including leaflets, should be stored in such a way as to ensure that the correct labels, etc., are affixed to or accompany any given drug. Access to such materials should be restricted to authorized personnel.

Prior to packaging and labelling of a given batch of a drug, the manufacturing and control records specified in section 8.6 should show that the batch has been duly tested, approved, and released by the responsible quality control expert. Prior to being issued, all labels for containers, cartons, and boxes and all circulars, inserts, leaflets, etc. should be examined and released as satisfactory for use by the designated authority.

To prevent packaging and labelling errors, a known number of labels should be issued and properly coded. Such issuance should be made against a written, signed request that indicates the quantity and type of labels required. Upon completion of packaging and labelling, the number of labels actually used should be carefully compared with the number issued and coded. Destroyed and unused labels should also be checked.

All finished drugs should be identified by labels that should bear, clearly indicated, at least the following information:

(1) the name of the drug:

(2) a list of the active ingredients, showing the amount of each present, and a statement of the net contents;

(3) the batch number assigned by the manufacturer;

(4) the date of manufacture and/or the expiry date, as required (if desired, the date of manufacture may be given as a code);

(5) the name and address of the manufacturer;

(6) any special storage or handling precautions that may be necessary;

(7) indications and directions for use and any warnings and precautions that may be necessary.

10. The Quality Control System

Every establishment that manufactures pharmaceuticals should have a quality control department that is autonomous in the areas of responsibility assigned to it. It should control all starting materials, monitor the quality aspects of manufacturing operations, and control the quality and stability of drugs.

A quality control laboratory must also be available. The laboratory should:

(1) be adequately staffed and fully equipped for performing all quality control tests and analyses required during and after manufacture;[1]

(2) be supervised by a qualified expert (see section 3), who should have the final responsibility for approving or rejecting all materials tested;

[1] If animal tests are necessary, the animals should be given adequate quarters and care (for further information, see *Wld Hlth Org. techn. Rep. Ser.*, 1966, **323**, 14, 16). The use of outside independent laboratories may be advisable for specialized and complex analytical and biological procedures that require the use of costly equipment and that can be performed only by technicians with specialized training. Such laboratories should be adequately staffed and fully equipped to perform such analyses.

(3) be promptly informed of all changes and modifications in the manufacturing procedures and written instructions (see section 8.5).

The quality control department should have the following principal duties:

(1) to prepare detailed instructions, in writing, for carrying out each test and analysis;

(2) to control and release each batch of starting material;

(3) to control and release " half-finished " products, if necessary;

(4) to control and release each batch of finished drug that is ready for distribution;

(5) to control and release packaging and labelling materials and the final containers in which drugs are to be placed;

(6) to evaluate the adequacy of the conditions under which starting materials, " half-finished " products, and finished drugs are stored;

(7) to evaluate the quality and stability of finished drugs and, when necessary, of starting materials and " half-finished " products;

(8) to establish expiry dates and shelf-life specifications, whenever necessary, on the basis of stability data; and

(9) to establish (and, when necessary, revise) control procedures and specifications.

In order to fulfil its responsibilities, the quality control department should take samples in sufficient quantities, according to established procedures, and keep appropriate analytical records. The samples should be properly labelled, and portions should be kept for future reference.

The quality control department should maintain adequate analytical records concerning the control of each batch of drugs manufactured. Such records should include:

(1) a final evaluation of the product and a decision as to whether or not the analysed and controlled batch conforms to the established specifications;

(2) the source of the specifications used;

(3) the signature(s) of the person(s) who performed the quality control procedures; and

(4) a final review and dated endorsement by a duly authorized expert.

The quality control department should also be responsible for the full examination of returned drugs to determine whether such drugs should be released, reprocessed, or destroyed. Adequate records of the disposition of such drugs should be maintained.

11. Self-inspection

In order to maintain strict adherence to all manufacturing procedures and prescribed controls, it may be advisable for a firm to designate an expert or a team of experts to conduct regularly scheduled inspections of its overall manufacturing and control operations. However, this should not be taken to mean that any firm electing to exercise self-inspection should be exempt from the official inspections required by the laws and regulations of the country in which it is located.

12. Distribution Records

Adequate records should be maintained of the distribution of a finished batch of a drug in order to facilitate prompt and complete recall of the batch if necessary.

13. Complaints and Reports of Adverse Reactions

Reports of injuries or adverse reactions resulting from the use of a drug should be forwarded to the appropriate authorities. Complaints regarding the quality of a drug, including any change in its physical characteristics, must be thoroughly investigated. If they prove well-founded, appropriate measures must be taken as soon as possible. The measures taken should be recorded and filed with the original complaint.

2. Suggested Certification Scheme on the Quality of Pharmaceutical Products in International Commerce [1]

A. Certification of the Manufacturers respecting Good Practices in Manufacture and Quality Control of Drugs

1. The responsible public health authorities of the exporting country would establish, after inspection, and keep up to date, a list of manufacturers satisfying the requirements of good practices in manufacture and quality control of drugs as recommended by the World Health Organization. This list could be exchanged between interested governments.

2. The responsible public health authorities of the exporting country would check whether the manufacturer was respecting the requirements for good practices in manufacture and quality control of drugs as recommended by the World Health Organization with regard to exported products. On request of the

[1] As amended (see *Off. Rec. Wld Hlth Org.*, **177**, summary records of the Committee on Programme and Budget, sixteenth meeting).

importing country, the above-mentioned authorities would issue an attestation certifying that the manufacturer had been found to respect such requirements. A suggested layout of such a certificate is reproduced hereunder.

Certificate

It is hereby certified that:

(*name of the pharmaceutical firm*)

(1) is authorized to manufacture drugs and put them on the market;

(2) is subject to regular inspections which have shown that it follows the requirements of good practices in manufacture and quality control of drugs as recommended by the World Health Organization, and is included in the list established for that purpose.

..... (*place and date*)

..... (*signature of designated authority*)

B. Certification of Individual Batches

1. The responsible public health authorities of the exporting country would certify that a batch of a given drug had been manufactured and controlled by the manufacturer in accordance with the requirements for good practices in manufacture and quality control of drugs recommended by the World Health Organization.

In order to obtain such a certificate, the manufacturer would submit an application giving details as necessary, and in particular:

the full relevant specifications regarding the composition and quality of the drug;

a description of the control methods (if necessary with indications of their specificity) applied to the finished product in order to check its conformity with the above-mentioned specifications;

all necessary details on the nature of the container, on the packing and labelling, on storage conditions and, where appropriate, on the expiry date for utilization of the product.

In the case of a drug which had already received an authorization to be put on the market in the exporting country, entailing an obligation on the part of the applicant to supply the data specified in the above paragraphs, those data would not have to be supplied a second time, and a reference to the authorization already granted would suffice, in so far as the results of the controls carried out were considered to have been satisfactory.

Should the responsible public health authority consider it necessary, it could also make the issue of this certificate conditional on the results of a supplementary control analysis.

Should it be found that a manufacturer did not adhere to the above provisions, the responsible public health authority would delete him from the list referred to above under A.1.

2. On request of the importing country the following certificate would be issued by the responsible public health authorities in the exporting country:

Certificate

It is hereby certified that the drug (*name of the preparation and pharmaceutical formula*), batch no. ..., whose stated composition is as follows:

(*composition*)

was manufactured by (*name and address of firm of producers*) which is registered in the list established for that purpose.

The above attestation is issued in the light of the documents and information supplied by the interested party in connexion with the application for the present certificate and of the checks which have been made.

* Furthermore, it is certified that a permit, numbered ...., authorizing this drug to be placed on the market for use within this country, was issued on (*date*).

..... (*place and date*)

..... (*signature of designated authority*)

* If the sale of the drug is not authorized in the exporting country, this fact must be stated, together with the reasons therefor.

Annex 13

RE-EXAMINATION OF THE GLOBAL STRATEGY OF MALARIA ERADICATION [1]

[A22/P&B/8 — 30 May 1969]

REPORT BY THE DIRECTOR-GENERAL

CONTENTS

1. INTRODUCTION

The Twentieth World Health Assembly, in its resolution WHA20.14, " considering it necessary and timely to re-examine the global strategy for malaria eradication ", requested the Director-General " to study how best to carry out a re-examination of the global strategy of malaria eradication and to report to the Twenty-first World Health Assembly ".

Proposals for the re-examination were presented to the Twenty-first World Health Assembly, in May 1968. These proposals were based on the advice of a group of highly experienced economic planners, public health administrators and malariologists who met in Geneva in November 1967. In resolution WHA21.22, the Assembly approved these proposals " with particular regard to the adaptation of the planning and methods used to the needs and resources of the developing countries in order to achieve the desired success in the control and ultimate eradication of malaria ", and requested the Director-General " (*a*) to inform the Executive Board at its forty-third session of the progress of the action taken in this regard and (*b*) to submit to the Twenty-second World Health Assembly a comprehensive report on the results of his re-examination of the global strategy of malaria eradication together with recommendations for the future orientation of the programme, taking into account the comments of the Executive Board at its forty-third session ".

In compliance with resolution WHA21.22, special teams of economists, public health administrators, malariologists and statisticians undertook studies in seven countries on (*a*) the socio-economic impact of malaria, (*b*) the relationship of malaria eradication programmes to national health plans and to development plans as a whole, and (*c*) the planning and implementation of malaria eradication programmes, covering technical and non-technical aspects and the problems encountered. The countries selected were considered to be representative samples of the various situations found in the malaria eradication campaigns throughout the world. Thus in two of the countries there was lack of any appreciable progress, or actual regression; in two there was slow progress compared with the initial targets; and in the other three the progress was satisfactory. Parallel studies were conducted in a country in the Western Pacific Region where there was a recently implemented programme and in a country in tropical Africa where no eradication programme had yet been contemplated, with a view to assessing the various factors that need attention before the prospects of malaria eradication could be considered.

As a basis for the studies a protocol covering economic, health planning and malaria aspects was

[1] See resolution WHA22.39.

laid down in order to ensure uniformity. Prior to their departure, members of the teams were briefed on the purpose and methodology of the study, and a consultant economist participated in the interrelated health and socio-economic aspects of this briefing. In accordance with resolution WHA21.22, adequate opportunities were provided for the members of the various teams to meet during the briefing period, and subsequently representatives from all these teams assembled in Geneva in January 1969 to discuss their findings. In considering the study of selected programmes it was borne in mind that, although malaria had a wide distribution throughout the world, its epidemiological character and its response to specific antimalarial measures were intimately related to local ecological conditions and other factors which showed a wide variation from place to place. Thus the cause-and-effect relationship noted in any one situation might not necessarily be applicable to certain other areas of the global eradication effort. The teams submitted comprehensive reports supported by a great deal of background documentation, and these were considered by the second Advisory Group on Malaria Eradication Strategy which met in Geneva in March 1969.

In addition a WHO team visited five countries—two in the Americas, two in the South-East Asia Region and one in the European Region—where the programme was wholly or partly in the maintenance phase, to assess the prospects of maintaining achieved eradication. Its findings, too, were submitted to the above-mentioned group. Note was also taken of the discussions and the recommendation on malaria eradication of the Eighth International Congresses on Tropical Medicine and Malaria which took place in Teheran in September 1968 and of the views of a large number of members of WHO expert advisory panels who have had direct experience of the subject.

Prior to making proposals for the future global strategy, it seems useful to recall briefly the historical background of the events leading up to the adoption of the concept of global malaria eradication, to recapitulate the gains achieved, and to review the factors which have affected the progress of the programme as a whole.

2. HISTORICAL BACKGROUND

In the fight against malaria the World Health Organization had inherited a long tradition of international co-operation going back to the early efforts of the Pan American Sanitary Bureau, the Rockefeller Foundation and the Malaria Commission of the League of Nations. The importance of malaria as a public health problem and the need to give antimalaria activities priority were recognized as early as in 1946 by the Interim Commission of WHO. The First World Health Assembly, in July 1948, on the basis of the recommendations of the Expert Committee on Malaria of the Interim Commission, decided to provide malaria control demonstration teams to countries requesting such assistance. By the end of 1949, seven malaria control demonstration teams were in operation in different parts of Asia.

DDT residual spraying of houses was the main method of control recommended. Experience in Venezuela, one of the earliest large-scale antimalaria operations using residual insecticides in rural areas, in Ceylon, Greece, Guyana, India, Italy and elsewhere soon indicated that transmission of malaria could be interrupted by using that method. It had thus become possible, with modern techniques, to undertake a programme for the elimination of malaria on a wide scale, including the rural areas, where the disease was of the highest public health importance. Such a programme would not only reduce human suffering by eliminating the heavy burden of malaria deaths and sickness, but also make available the manpower needed for development in many of the tropical and sub-tropical areas of the world.

By 1954, many countries in these areas were already undertaking nation-wide control operations with the assistance of international, multilateral and bilateral agencies. However, with the development of resistance in some of the anopheline vectors of malaria in a few countries in 1951, it appeared that, the larger the area in which eradication techniques could be effectively applied on a time-limited basis, the greater would be the chance of eliminating the disease and of preventing its re-establishment.

Following the resolutions and recommendations in 1954 of the XIV Pan American Sanitary Conference/sixth session of the WHO Regional Committee for the Americas, held in Santiago, Chile, and the Second Asian Malaria Conference,[1] held in Baguio, Philippines, that the ultimate goal of a nation-wide malaria control programme should be the eradication of the disease, the Eighth World Health Assembly, held in Mexico, D.F., in 1955, resolved (in its resolution WHA8.30) that the Organization should take the initiative to provide technical advice and co-ordinate resources in the implementation of a programme having as its objective the worldwide eradication of

[1] Report published as *Wld Hlth Org. techn. Rep. Ser.*, 1956, **103**.

malaria. However, even at this stage, the impracticability of applying a time-limited programme to the whole world was recognized by the Eighth World Health Assembly, where the statement was made that " there was no suggestion that malaria must be eradicated throughout the world within a specific period of time. The important point was that, once a campaign was started with DDT, it should be completed as soon as possible because the *Anopheles* might build up a resistance, not only to DDT but also to the group of chlorinated hydrocarbons ", thus rendering the application of this method ineffective. Furthermore, it was realized that in Africa " no large area had yet been cleared by the methods advocated by WHO and it was therefore impossible to plan for country-wide eradication with any assurance ".[1]

Thus the Organization became instrumental in stimulating and guiding the most extensive public health operation ever undertaken. In developing the methodology for malaria eradication all the means then available, including chemotherapy and larviciding, were considered, and it was recommended that residual insecticides should be the main instrument in the attack against malaria not only on the grounds of efficiency and wide applicability, but also for economic reasons.

In 1956, the WHO Expert Committee on Malaria laid down the principles and practices of malaria eradication which it defined as " the ending of the transmission of malaria and the elimination of the reservoir of infective cases in a campaign limited in time and carried to such a degree of perfection that, when it comes to an end, there is no resumption of transmission ".[2] The Committee emphasized the need to develop for each individual country a comprehensive total coverage plan for the whole programme throughout its estimated eight- to ten-year duration, after a careful study of the epidemiological situation and review of the needs in terms of personnel, training, administrative and material resources.

Since then the Committee has periodically reviewed the various aspects of the programme on the basis of the experience gained in the field, and has suggested criteria for assessment of the epidemiological response of malaria to attack measures, and of the various degrees of response of vectors to insecticides and of the parasites to treatment, etc. On the recommendations of the Committee, the Organization has issued a number of manuals for the guidance of field programmes (on various methods and techniques used in malaria eradication—the planning of programmes, geographical reconnaissance, epidemiology and epidemiological services, the processing and examination of blood slides, practical entomology, the age-grouping of Diptera of medical importance, statistics, the use of medicated salt, and health education), and a terminology of malaria and of malaria eradication which was published in four languages. In addition, nearly 700 mimeographed documents covering various aspects of malariology, providing up-to-date information on advances in techniques, new discoveries and fresh approaches in malaria eradication, were circulated to officials of national malaria eradication programmes and public health and research workers with particular interest in malaria.

Malaria conferences and meetings sponsored by the Organization have served as a platform from which new concepts and policies were disseminated and their application discussed, a forum in which experiences were shared and problems and their solutions studied, and a focus for co-ordination. Such meetings ranged from small inter-country border meetings and seminars for the discussion of special problems to large regional and inter-regional conferences with many countries participating. Other important co-ordination meetings have been those held between WHO and UNICEF and the United States Agency for International Development, both of which have provided substantial assistance for malaria eradication.

At the request of governments, the Organization has provided advisory teams, their composition varying with the needs of programmes. Inter-country, inter-regional and independent assessment teams have been used to evaluate the development of the eradication programme in different countries and to undertake special epidemiological studies of areas where technical problems existed. Their reports aim at giving an objective and impartial evaluation of a programme and at assisting governments and supporting agencies by pointing to any weaknesses and to the measures and resources required to complete eradication, and by indicating where the stage had or had not been reached for progress to a more advanced phase of the programme.

Training has been provided by the Organization for both national and international staff at international malaria eradication training centres, but the greater part of national staff training was carried out within the countries themselves, often at special WHO-assisted training centres which catered for the needs of the professional and auxiliary staff required. To provide uniformity of curricula at these centres the Organization issued a handbook on malaria training.

In a programme directed against a disease of such biological complexity, the development of a research programme was a basic necessity. Field research was carried out by WHO research teams, but the bulk of applied and fundamental research was undertaken by

[1] *Off. Rec. Wld Hlth Org.*, **63**, 205.

[2] *Wld Hlth Org. techn. Rep. Ser.*, 1957, **123**, 4-5.

national and other scientific institutes with financial assistance from the Organization on the basis of formal agreements, over 300 of which have been established during the past decade in the fields of parasitology, chemotherapy, entomology, epidemiology, immunology and methodology of attack operations. This programme of research carried out by the Organization over the last ten years was reviewed and endorsed by the WHO Advisory Committee on Medical Research at its tenth session, in June 1968.

3. THE GAINS OF MALARIA ERADICATION

The gains of eradication of the disease consist of specific health benefits occurring in relation to morbidity and mortality, those related to the general health of the population, and the social and economic gains.

The table below, which shows the comparison numerically of the population of the malarious areas of the world in the various phases of eradication, indicates the progress made during the last ten years—i.e. between 1959, when the programme was developed, and 1968.

STATUS OF THE PROGRAMME IN 1959 AND IN 1968 [a]

	1959		1968	
	Population in millions	Percentage of total population	Population in millions	Percentage of total population
Maintenance phase (disease reported as eradicated)	279	21.5	651	37.6
Consolidation phase (freed from endemic malaria)	55	4.2	346	20.0
Attack phase (protected through spraying operations)	505	38.9	356	20.5
Total protected	839	64.6	1353	78.1
Not yet protected by eradication operations (figures include the population in areas in the preparatory phase of malaria eradication programmes and that where malaria pre-eradication activities are being undertaken)	459	35.4	380	21.9
Total population [b]	1 298	100	1 733	100

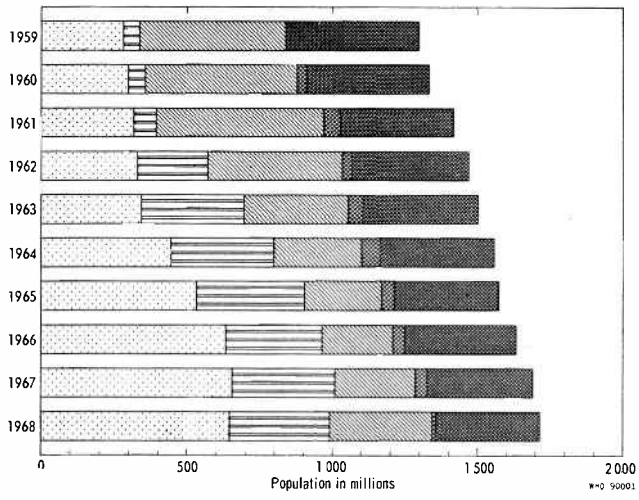
[a] Including all antimalaria programmes—not only those assisted by WHO.
[b] Excluding China (mainland), North Korea and North Viet-Nam.

The fact that nearly a thousand million people now live in areas freed of the threat of endemic malaria has been acknowledged as an achievement unique in public health endeavour, and reflects to the great credit of the governments concerned.

Between 1955 and 1958 the eradication programme was mostly in a period of transition from the control activities previously assisted by WHO. By 1959 the disease had already been reported as eradicated in areas with a population of nearly 280 million in some islands in the Caribbean, in Chile, Cyprus, France (Corsica), Italy, the Netherlands, Singapore, five republics of the Union of Soviet Socialist Republics, and the United States of America. Eradication programmes assisted by the Organization were in full operation in many of the still malarious countries in the Americas, in Afghanistan, China (Taiwan), Iran, Iraq, Lebanon, the Philippines, the Ryukyu Islands, Syria and Turkey.

With the process of conversion from control to eradication programmes, more countries started eradication programmes. During 1958, ten further programmes became operational, including that of India covering over 400 million people, or a third of the population of the originally malarious areas of the world. In 1959 six new eradication programmes were started, in 1960 two, in 1961 four, in 1962 three; in 1963, 1964 and 1965 there were no additional programmes; but there were three in 1966, two in 1967 and one in 1968.

DISTRIBUTION OF POPULATION IN AREAS UNDER VARIOUS PHASES OF ERADICATION DURING THE YEARS 1959 TO 1968 [a]



[a] Including all antimalaria programmes—not only those assisted by WHO.

The progress of the global malaria eradication programme from 1959 until 1968, in respect of populations affected, is shown graphically above. Since 1959 there has been a steady increase in the number of people living in areas where malaria has been eradicated (maintenance phase). In 1968 the population of those areas amounted to 651 million, or 37.6 per cent. of the total population (1733 million) of the originally malarious areas, as compared with 21.5 per cent. in 1959.

The Thirteenth World Health Assembly (1960) requested the opening of an official register in which areas where malaria eradication had been achieved would be listed after inspection and certification by a WHO evaluation team. The first area to be entered in this register as having satisfied the criteria for malaria eradication was in Venezuela in June 1961; it was followed by Grenada and Carriacou, St Lucia, Hungary, Spain, Bulgaria, China (Taiwan), Trinidad and Tobago, Dominica, Jamaica, Cyprus, Poland and Romania.

In 1968 malaria eradication programmes covering a population of 715 million were in the consolidation, attack and preparatory phases [1] and areas with a further 70 million were in the process of starting the preparatory phase. Areas with a population of 195 million were receiving WHO assistance for the development of health services in preparation for eradication.

Of the 146 countries classified as having been originally wholly or partly malarious, eradication has been claimed in thirty-six, sixteen of which received assistance from WHO. A further fifty-three countries were undertaking malaria eradication programmes at the end of 1968 (fourty-four of them have been assisted by the Organization) and another twenty-seven countries were carrying out other antimalaria operations. Of the fifty-three countries with malaria eradication programmes, sixteen had areas in the maintenance phase, covering a population of 450 million, nearly 300 million of whom lived in developing countries in tropical areas of the world. Thirty malarious countries were still without definite antimalaria projects, though some had programmes in the planning stage.

In the Region of the Americas, response to resolutions of the Pan American Sanitary Conference/WHO Regional Committee (1954) and of the Eighth World Health Assembly (1955) led to the concept of eradication being rapidly adopted by all the thirty-five malarious countries of the Region, the last country implementing a programme in 1962. By the end of 1968, 74 million people, or 41 per cent. of the population of the originally malarious areas in the Americas, were in areas in the maintenance phase and a further 48 million, or 27 per cent., in the consolidation phase. Of the thirty-three originally malarious countries, six have been entered on the WHO register as having achieved eradication over the whole or a large part of their territory, and in five others eradication is claimed. Twenty-two countries have programmes still in operation; in three of these the prospects of eradication within the present time-targets are good, and in thirteen the progress has been slow but the prospects of achieving eradication are still good, provided certain essential modifications are made in the plans of operations and their implementation. In the remaining six countries, although progress had been seriously handicapped by administrative problems, including lack of adequate resources and technical

[1] The successive phases of a malaria eradication programme are described in detail in the Appendix. The preparatory phase is characterized principally by geographical reconnaissance and training of staff, the attack phase by extensive house spraying and other measures undertaken for interrupting transmission and reducing the human parasite reservoir. The consolidation phase follows when large-scale attack operations can be discontinued and the remaining parasite carriers are detected and foci of infection are eliminated by appropriate measures through a surveillance organization covering all the originally malarious areas. Finally the maintenance phase is attained when activities are directed to sustaining achieved eradication.

difficulties, additional support has recently been received from the United States of America and the prospects of implementing these programmes on sound technical lines are considerably improved.

The rate of progress in the South-East Asia Region has been substantial, with seven of the eight malarious countries undertaking malaria eradication programmes, and the eighth (Maldives) carrying out antimalaria operations as part of a WHO-assisted public health project. Out of the 710 million people living in originally malarious areas at the end of 1968, 258 million, or 36 per cent., were in areas in the maintenance phase and a further 199 million, or 28 per cent., in areas in the consolidation phase. Considerable progress has been made in the very large programme in India, with over 70 per cent. of the population of 500 million living in areas freed from endemic malaria. In Indonesia, initial efforts led to very satisfactory results with the incidence of malaria reduced to a very low level in the islands of Java and Bali. In Nepal, a third of the population at risk live in areas in the consolidation phase.

In the European Region malaria was at one time prevalent in nineteen countries, with a population of over 340 million, but is now no longer endemic in sixteen of them. The elimination of endemic malaria from continental Europe was greatly stimulated by the Regional Committee for Europe which, at its ninth session (1959), urged all the countries in the continent with indigenous malaria to make every effort to ensure that the consolidation phase of their eradication campaigns was reached in 1962. This co-ordinated plan achieved its objective by 1963. Of the three WHO-assisted programmes still in operation in the Region, that in Turkey is in an advanced stage, with nearly 95 per cent. of the population in the consolidation phase. In Algeria, following pre-eradication activities an eradication programme is being implemented by stages within the framework of the health services, and Morocco is expected to commence eradication operations within one or two years.

In the Eastern Mediterranean Region, where a third of the population originally at risk live in areas freed from endemic malaria, the eradication of the disease is registered in one country and claimed in three more of the twenty-three countries and territories with originally malarious areas. The eradication programmes in Jordan, Lebanon and Pakistan are progressing favourably. The last-mentioned programme, which accounts for over half the total population of the malarious areas of the Region, is being undertaken on a staged basis. In Iran, progress in the north and centre has been good. The programme in Tunisia started in 1966. The other programmes have proceeded satisfactorily, although with some delays.

In the Western Pacific Region, of the twenty originally malarious countries from which information is available, eleven have received assistance from WHO under the malaria programme. The registration of eradication has been made for China (Taiwan), and in five other countries eradication is claimed. Their population amounts to over 24 million, i.e. over 30 per cent. of the population at risk. Five WHO-assisted eradication programmes are in progress, including two recently started in Brunei and West Malaysia, and there are five programmes undertaking pre-eradication activities.

The effect of undertaking eradication programmes on the health of the population may be demonstrated by the striking reduction in morbidity figures reported from a number of countries where malaria eradication has succeeded or is proceeding satisfactorily, as in:

Bulgaria	1946 — 144 631 cases
	1967 — 3 cases [1]
China (Taiwan)	1945 — over 1 million cases
	1967 — 5 cases [1]
Cuba	1962 — 3519 cases
	1968 — 4 cases
Dominica	1950 — 1825 cases
	1968 — nil
Dominican Republic	1950 — 17 310 cases
	1968 — 21 cases
Grenada and Carriacou	1951 — 3233 cases
	1968 — nil
India	1935 — over 100 million cases
	1967 — 210 292 cases
Jamaica	1954 — 4417 cases
	1968 — 2 cases [1]
Mauritius	1948 — 46 395 cases
	1968 — 14 cases [1]
Romania	1948 — 338 198 cases
	1967 — 3 cases [1]
Spain	1950 — 19 644 cases
	1967 — 20 cases [1]
Trinidad and Tobago	1950 — 5098 cases
	1968 — 2 cases [1]
Turkey	1950 — 1 188 969 cases
	1967 — 3974 cases
Yugoslavia	1937 — 169 545 cases
	1968 — 11 cases [1]

Even in the most difficult situations, the incidence of malaria has been reduced and the effects of the disease have been counteracted.

In so far as concerns the provision of health facilities, malaria eradication programmes—which had to cover the remotest areas continuously for a period of years—have changed the urban orientated health services of many developing countries and paved the way for health services that would reach the entire population.

Apart from the impetus that malaria eradication has provided to the development of health services in

[1] Imported or induced cases.

rural areas, the programmes have also served to open the way, through an analysis of health priorities, to integrated health programming in rural areas.

Another side-benefit has been the effect of systematic house-spraying on vectors of other diseases, as a result of which kala-azar and cutaneous leishmaniasis carried by the sandfly have disappeared from many parts of India and of western Asia and a noticeable reduction has occurred in a number of countries in the incidence of Chagas' disease and plague. The availability of an organized malaria service in Iran was of considerable value in tackling an emergency situation during a cholera epidemic and the trained personnel of this type of service have been used in campaigns against other mosquito-borne diseases.

The influence of a malaria eradication programme on the development of rural health services is well illustrated by the examples of Venezuela and India. In Venezuela, the malaria eradication service has been entrusted with the responsibility for rural housing, water supply and sanitation, and these activities have considerably benefited from the impetus received from the malaria eradication campaign. Commenting on the malaria eradication programme in India, a recent WHO Expert Committee on Malaria stated that " it is also encouraging to note that the rural health services in that country are developing rapidly in the wake of the malaria eradication campaign ".[1] Large numbers of malaria eradication personnel from areas with a population of almost 250 million and which have reached the end of the consolidation phase are being retrained and absorbed into the expanding rural health services, with increased financial assistance from the central government. Would this rate of development of rural health services have been possible if India had not first embarked on a country-wide malaria eradication programme?

To the social gains which are derived from an improvement of health conditions need to be added the ample economic benefits which have justified investment in antimalaria campaigns. A demonstrable relationship exists between improved health and economic activity; both join in the formation and preservation of human capital. Development requires that the work done by the population should be greater in quantity, better in quality, and better utilized. In the malarious areas of the world, until the disease is overcome there is a lack of human capital as the labour force is only apparently available, because ill health may make it unusable for development purposes or at any rate greatly reduce its capacity. In the agricultural and pastoral tropical communities where malaria is most rife, the peak transmission season of the disease most often coincides with the period of maximum agricultural activity and nomadic movement. The improvement in health occasioned by antimalaria campaigns has broken the vicious circle of poverty and disease in these areas by preventing incapacity and death due to malaria and reducing the high socio-economic cost of treatment and medical care. It has contributed to the multiple cropping of rice—for example, in the Philippines and Thailand—by an increase of the work output of the labour force. In many previously virgin areas it has allowed vast areas of land to be opened up for agricultural production—as in the Terai of India and Nepal, in central Taiwan and Venezuela—and augmented land value in areas where only subsistence level agriculture could previously be sustained—as in Kunduz in Afghanistan, Cham in Cambodia, or Mindanao in the Philippines. These are some examples of the fact that expenditure on a health programme which removes such a debilitating disease as malaria can give an early return in a country which is struggling to break out from a traditional subsistence economy. Further, since agricultural and forestry produce and their industrial products form the bulk of exports in developing countries, an increase in their production facilitated by the eradication of malaria leads to augmented foreign exchange earnings.

In a recent study on the economic implications of malaria eradication in one country, the economist's report points out that if malaria had continued to prevail as it had in the early 1950s it would have frustrated the entire development effort of the country during the past decade, by reducing the effective labour supply through loss of work days, loss of efficiency, and also perhaps through higher death rates.

Finally, as a result of the worldwide malaria eradication programme very considerable advances have been made in specific technical fields. Thus during the last ten years much additional knowledge has been acquired on the epidemiology of malaria, on the genetic factors involved in the development of resistance to insecticides, and on the action of antimalarial drugs. The development of new insecticides and chemotherapeutic agents has also been greatly accelerated.

[1] *Wld Hlth Org. techn. Rep. Ser.*, 1967, **357**, 14.

4. SETBACKS TO THE GLOBAL PROGRAMME

In this large and complex programme setbacks had to be expected and have occurred; many have been overcome, but some still remain to be resolved. The factors affecting these setbacks will be enumerated in more detail in the succeeding section of this report, but some specific examples may be mentioned at this stage.

In the Region of the Americas, with the widespread use of insecticides for agricultural purposes in a number of countries resistance of the vector mosquitos to these insecticides has occurred. In parts of Mexico and Central America, this, together with other ecological factors, has led to the development of problem areas, a situation which has been aggravated by lack of funds.

In the South-East Asia Region, although the progress in the programme in India has been marked there has recently been a noticeable increase in the number of cases in some areas in the consolidation and maintenance phases, due to the non-availability of adequate quantities of insecticides to deal promptly with foci over the past two years and to the inadequacy in some areas of health service coverage; as a precautionary measure, it has been deemed advisable to reinstitute spraying in parts of the country. In Ceylon, an eradication programme resulted in only seventeen cases being recorded in 1963; however, over the past three years a number of foci have developed in various parts of the country and, owing to a lack of adequate and timely action to eliminate these foci as they developed, a widespread epidemic occurred with over one million cases in 1968. In Indonesia, too, the initial progress was not maintained because of local administrative and economic difficulties and lack of essential imported commodities.

In the Eastern Mediterranean Region, technical problems in the southern parts of Iran and Iraq, including double insecticide resistance of the principal vector, as well as the large-scale movements of nomadic populations, have endangered the progress made in other parts of these countries.

In the African Region little progress has been made against malaria although pilot projects and field research projects assisted by the Organization have been undertaken in a considerable number of countries. Interruption of transmission appears to be feasible in the forest areas of Cameroon and Liberia, using DDT, and in Uganda, using malathion in one project, and a combination of DDT and mass drug administration in another. Elsewhere in both east and west Africa, although malaria prevalence was appreciably reduced in pilot areas by insecticide spraying or, as in the case of the project in Ghana, by chloroquinized salt, interruption of transmission was not attained. Other trials using a combination of methods have been undertaken in the savanna areas of west Africa. However, so far no practicable method of interruption of transmission in these areas has been found.

In by far the larger part of this region, malaria remains the most important public health problem, affecting as it does more than half the children under three years of age and virtually the whole population over that age, directly causing 10 per cent. of the deaths of children under five years of age. Recent data suggest that among the wage-earning group the prevalence of clinical malaria is much more frequent than hitherto considered. Nevertheless, even where the technical feasibility of eradication has been proved, lack of resources has prevented the implementation of eradication programmes in tropical Africa.

5. FACTORS AFFECTING PROGRESS IN MALARIA ERADICATION

In examining the factors which play an important role in malaria eradication, the review carried out in September 1966 by the WHO Expert Committee on Malaria on fifty-two WHO-assisted malaria eradication programmes [1] as well as the findings of subsequent studies were considered. In recent studies particular attention has been paid to the economic, social and human ecological factors in addition to the administrative and technical factors. Many of these are of course closely interrelated. For instance, administrative shortcomings delaying the provision of insecticides or recruitment and training of staff may lead to technical problems; conversely, where technical difficulties develop, the supplementary measures required may present administrative and financial problems.

Certain factors clearly appear to favour malaria eradication, including a malaria situation responsive to residual insecticides, a sufficient level of development of a country and of its health services, previous experience of widespread malaria control operations and, above all, the conviction of the government concerned that eradication of malaria is essential, taking into account the full economic and social implications of the disease and of its elimination.

[1] *Wld Hlth Org. techn. Rep. Ser.*, 1967, **357**.

5.1 Adequacy of Planning

Pre-planning studies for malaria eradication programmes are too often confined to the malariological aspects and do not adequately take into account economic and social factors including rural community development programmes, the nature and location of economic development projects, the habits of the population, migration and transhumance into and out of malarious areas, the attitude of the people to sickness, their ability to understand the advantages of disease eradication, their level of education and their priority needs. Planning teams do not always receive the necessary expert advice on economic, sociological and administrative aspects.

Many of the malaria eradication programmes were developed prior to the formulation of long-term national health and socio-economic development plans; some of them have consequently been handicapped by the lack of sustained government support and active co-operation of relevant government agencies.

Difficulties have been experienced also in bringing the national eradication programme and other health projects into the broader economic context, due to public health administrators' and malariologists' lack of familiarity with economic project planning.

A malaria eradication programme covering an entire country may extend when planned on a staged basis over fifteen or more years, and the necessity for revision is bound to occur; inadequate provision has sometimes been made for continuous review and evaluation of the operations so that plans can be quickly modified where necessary and rapid action can be taken to remedy the deficiencies.

The maintenance phase of the programme is rarely included in the original malaria eradication and national health plans, and there is no provision for the future integration of the functions and the personnel of the malaria service into the general health service. Nor is there an adequate budget to finance the necessary maintenance activities. Experience has shown that once the maintenance phase has been reached, although the expenditure required specifically for malaria is greatly reduced, the total budget for public health has to be maintained at the same total general level, or even increased, in order to finance the expanded activities and operations, on a total coverage basis, of the rural health services that now also bear the responsibility for maintenance of malaria eradication. The necessary priority for the development of these health services sometimes does not form an integral part of the national socio-economic development plan.

5.2 Administrative and Financial Factors

Administrative and financial difficulties continue to be major obstacles to the progress of malaria eradication.

A sound administrative backing is of the utmost importance for the successful implementation of a malaria eradication programme, as the operations have to be carried out not only efficiently but also on a definite time schedule which is determined by epidemiological considerations. Where the general administrative services of a country and its public health organization have been well organized and stable, malaria eradication programmes have progressed rapidly. Even when the health services are not fully developed, provided the general administrative organization of the country is sound, the programmes have tended to progress well. But where the general administrative methods and practices of a country have been inadequate, these deficiencies have been reflected in the health services and have thus led frequently to setbacks in malaria eradication.

Management is influenced by national policy and by government stability. A review of successful malaria eradication programmes brings out the fact that good management also requires clear and open channels of communication from the central direction through the intermediate echelons to the periphery and back. It involves a good organization with a hierarchy of competent staff who have a precise understanding of their duties and responsibilities. Insufficient attention appears to have been given to techniques of modern management which may be of great assistance in simplifying methods, improving efficiency and reducing the costs of eradication.

For a single-purpose campaign demanding a high degree of performance a semi-autonomous organization within the health administration of the country, endowed with the necessary authority and lines of command, is generally essential to success. However, such autonomy has tended to isolate the malaria service from the general health services; close co-ordination of these services is already highly desirable in the initial phases and becomes increasingly important in the later stages of the programme.

In malaria eradication programmes, it has often not been possible to secure the necessary co-operation from other government sectors such as education, agriculture, land settlement, etc., as well as from private agencies and local bodies in close contact with communities.

The financial difficulties in malaria eradication programmes are often a reflection of the adverse economic situation of the country or are due to inordinate prolongation of the programme beyond

its original phasing. Available funds in developing countries are normally fully committed and it is rarely possible to meet unforeseen demands for additional finance for the malaria eradication programme without jeopardizing other vital development plans. In many instances the financial difficulties are also caused by inadequate estimates of the cost of the programme due to lack of adequate prior studies and detailed costing. This is important as the cost of the programme represents a considerable item of expenditure in the national budget. In the project plans, the possibility of technical or operational difficulties is often not taken into account and therefore no provision is made to meet these contingencies. Accurate costing covering all anticipated expenditure, national and international, is essential to convince economic planners of the viability of a programme. Central planning boards are often not forewarned that additional funds may be required if the epidemiological response falls short of expectations. On the other hand, in a number of instances governments, in an attempt to reduce expenditure, have prematurely curtailed essential operations, thereby giving rise to serious setbacks in the programmes and, in the long term, a considerably greater financial burden to the countries concerned.

Wherever the malaria eradication programme is well organized, and difficulties have been anticipated so that resources are available in case of urgent need, it has been possible to take remedial action without delay. On the other hand, sometimes where obstacles might have been overcome by the timely application of the necessary supplementary measures it has been difficult to put such measures into practice because of the inability to meet the increased cost involved, in the absence of adequate flexibility in planning. Experience has shown that, although the use of supplementary attack measures must inevitably result in additional expense, this expense will often not be as great as that actually incurred from the continuation of only partly effective measures over a number of years.

5.3 Operational Requirements

In the earlier stages of malaria eradication programmes the more important operational factors affecting the progress of the campaign are the thoroughness with which it has been organized, the efficiency with which geographical reconnaissance of the whole malarious area is undertaken, and the adequacy of supervision at all levels of the programme. The provision for a continuous evaluation of the effect of the operations and the availability of adequate logistic support, including the maintenance of the transport and equipment, are also important factors.

In certain areas of the world logistic problems of access arise, owing to the difficult nature of the terrain in which the campaign is being attempted, the very wide dispersion of populations in areas of low population density, and absence of adequate government control. In such conditions serious operational problems in supervision and case-detection arise which may substantially increase the cost of the programme to an extent where the financial outlay necessary may not be practical economically, in relation to the benefits obtainable.

One of the commonest reasons for delays in progress was the failure to achieve adequate and timely spraying coverage, often on account of lack of drive and leadership and inability of the administrations concerned to comply with the provisions of the plans of operations. Reverses frequently occurred owing to the advancement of areas from attack to consolidation phase being decided arbitrarily on the basis of a pre-established time schedule and financial considerations, rather than on the basis of epidemiological criteria and other recommended standards. When lack of adequate surveillance was combined with a premature move to a later eradication phase, dangerous situations arose.

A number of countries have to depend to a very large extent on external aid for the implementation of their malaria eradication programmes. The uncertainties in the provision of these funds, which may be subject to changes of priority by the donors, is an additional factor to be reckoned with. Insecticides, normally an imported commodity, are frequently supplied through this form of assistance. Hence countries which are unable to complete the earlier stages of the programme on the planned dates are liable to encounter serious operational difficulties if international and bilateral aid cannot be maintained at an adequate level.

Maintenance of achieved eradication had initially been assumed to be a responsibility of general health services when the consolidation phase ended. This has proved to have been an error in the original strategy. With few exceptions, when programmes were launched health services were not provided at the level of total coverage required, and it was unrealistic to expect the development of these services to keep pace with the progress of a " crash " programme like malaria eradication.

The intensity of the vigilance needed is governed by the level of malariogenic potential which depends on factors related to the vector, man and the environment. Where the malariogenic potential is low, the re-establishment of endemicity can be prevented by less stringent vigilance activities than in areas of higher risk where speed of notification of cases, promptitude

and high standard of epidemiological surveys, sound functioning of laboratories and effectiveness of remedial measures are essential. Where the level of development of the health services is adequate with a good epidemiological service there has in general been no difficulty in sustaining eradication. Even where this development has not reached the required level, provided an adequate part of the malaria service organization has been retained within the health service with experienced malaria eradication staff responsible for vigilance activities, the prospects of sustaining eradication have remained good.

In the long term, maintenance of achieved eradication depends on an adequate organization to carry out the necessary remedial measures if foci of infection recur.

5.4 Factors related to Personnel and Training

Good leadership is a highly important, indeed essential factor, in achieving success; lack of such leadership has on occasions greatly handicapped some programmes. Leadership, though vital, is an intangible quality, but it may be enhanced by good training and appropriate administrative systems with adequate delegation of authority and clear lines of command.

A very significant contribution to training in malaria eradication has been made by national training institutes where both international and national courses have been given, and by WHO through support of international training centres, assistance to national training centres, and the provision of fellowships. However, full advantage has not always been taken of these facilities, owing to a certain lack of suitable trainee candidates, which demonstrates inadequacy of manpower studies during the planning stage.

While it is recognized that good training for the malaria service staff constitutes one of the most important factors in achieving successful results, more attention needs also to be paid to the training of the staff of the general health services in the principles of malaria eradication, which is the responsibility of the entire health services.

Programmes have flagged where adequate long-term personnel policies have been lacking and the staff have lost their *esprit de corps* and the sense of belonging to a health service engaged in the important task of malaria eradication. It is not sufficient to relate prospects for the future merely to the duration of the malaria eradication programme; there must be assurance of continued service in the health services. Where the staff know that there will be continuity of public health work, their enthusiasm is maintained; where this has been forgotten, it has often been the cause of deterioration in malaria eradication programmes at the critical stage of the consolidation phase when particularly exacting and careful work is required. On the other hand, the premature transfer of malaria personnel, particularly at the professionnal level, to other health activities before the maintenance phase has been fully organized has caused difficulties in some programmes. There has also been an unfortunate tendency in a few cases to overlook the need stressed in the twelfth report of the WHO Expert Committee on Malaria [1] for a nucleus of staff specialized in malaria epidemiology to be maintained to guide the vigilance activities in the final stage of the programme.

5.5 Human and Ecological Factors

Questions of human behaviour and human ecology have in many instances not received sufficient attention in the planning and implementation of malaria eradication programmes. They include *inter alia* the phenomena of migration and transhumance, the creation of new settlements, the existence of areas of difficult access or insecurity, and the particular problem of aboriginal populations, not to mention the growing tedium for the population of the long continuing application of eradication measures. In some areas these factors are perhaps the most important in delaying the achievement of nation-wide eradication of malaria.

In recent years, the risks generated by population movements have appeared of increasing importance, particularly in areas where programmes have reached the consolidation and maintenance phases. In some of these areas a number of focal outbreaks have been closely associated with such movements. In certain instances, progress has been hampered by the migration of agricultural or other labourers from areas where there is still active transmission of malaria into areas in the same or a neighbouring country where transmission has been considerably reduced or where the programme is already in the consolidation or maintenance phase.

In some countries there is periodic migration or influx of large numbers of nomads. While it is not difficult in general to detect large movements, the influx of small groups, especially when the immigration is unauthorized, may escape detection and may therefore constitute a serious risk to the community. Unless the surveillance machinery is of a high standard and prompt remedial measures are taken to deal with the cases of infection in the community, transmission may be resumed. Even in the attack phase, it is often difficult to ensure adequate insecticide protective

[1] *Wld Hlth Org. techn. Rep. Ser.*, 1966, **324**, 8-9.

coverage, mainly because of the temporary nature of the structures in which the migrants live. In most of these huts and shelters the sprayable surface is very limited, the sprayed surfaces are interfered with and the structures are often dismantled and put up again.

The aggregation of labour connected with various engineering, irrigation, agricultural and other projects also plays an increasing role. Since in all developing countries there are many such projects, there is considerable risk of resumption of malaria transmission, particularly in areas in the consolidation and maintenance phases, and resumption of transmission has actually occurred in a number of instances.

New settlement and forest reclamation areas, where the ecological conditions present both technical and logistic problems in the interruption of transmission, also have a considerable significance. Such situations occur in countries where the land has not been fully exploited and where the reduction in malaria during the attack phase has made available the manpower necessary for such activities.

In some regions difficulties of access or insecurity have also seriously limited the scope and effectiveness of antimalaria operations.

5.6 Technical Factors

Among the causes of technical difficulties encountered in malaria eradication are physiological resistance of the vector mosquito to insecticides, behaviour characteristics of the vector (such as excitorepellency, outdoor resting and biting), resistance of malaria parasites to drugs, and, as mentioned above, factors related to human ecology. The extent of areas with strictly technical problems is essentially limited to about one per cent. of the total population under the eradication programme; however, these " problem areas " are of considerable significance as sources of imported malaria into areas already freed from the disease and their operational and psychological importance is out of proportion to their extent.

Intra-domiciliary application of insecticides as the primary mode of attack has continued to be effective in interrupting transmission in most areas. However, in some areas (almost invariably in only part of a country) where progress has not been maintained, the reason lies in the fact that insecticides alone have not succeeded in interrupting transmission. While physiological resistance of the vector mosquito to insecticides has an importance in well defined areas, particularly where the vector has developed resistance to more than one group of insecticides, the importance of other phenomena such as excitorepellency—whereby the vector avoids contact with the insecticide—is being increasingly recognized.

Differences in the tolerance levels of malaria parasites to most of the drugs employed have been noted in the past. Increased tolerance of *Plasmodium falciparum* to chloroquine was first observed in South America in 1960 and has since been reported also from southern and eastern Asia. Although at present this resistance has not created serious problems for malaria eradication, it may nevertheless interfere with such programmes in proportion to their dependence on the use of drugs.

6. THE FUTURE STRATEGY OF MALARIA ERADICATION

Malaria eradication has been conceived, since its inception, as a programme of a global character. A strategy has been evolved which has been, and continues to be, defined as a global strategy. The adoption of this strategy in a worldwide attack on the disease by means of widely applicable methods and techniques has sometimes led to oversimplified interpretations.

Malaria eradication is global in its conception as a long-range world objective. Its strategy may be viewed as the means of attaining this objective as efficiently, as speedily and as economically as possible, by the rational use of methods, techniques and resources. Both the means and the time necessary for achieving eradication vary, to a lesser or greater extent, from one country—or one area—to another; any strategy, however global in its scope, must adapt itself to these variations.

The current re-examination has brought out the clear recognition of the need for the future strategy to retain a large measure of adaptability. This applies, in particular, to the choice of the most suitable combinations of methods in varying country situations and to the formulation of plans of operations.

From a fully fledged malaria eradication programme to the mere administration of drugs through the general health services, there exists a wide range of possible courses of action which has to be considered in formulating the strategy for each specific situation, within the broader perspective of a global endeavour.

Further, while the objective is first to achieve eradication, it is also, and to an equal degree, to maintain eradication wherever it has been achieved.

It follows from the above that any strategy must take into account both the achievement and the maintenance of eradication. In both cases basic factors of strategic importance must first be clearly determined.

6.1 Basic Factors of Strategic Importance to Eradication

Such factors include (*a*) the methods applicable to eradication, their scope, their effectiveness and their limitations, in relation to varying malaria situations; (*b*) the resources available, in terms of men, material and money; and (*c*) the capacity to maintain achieved eradication. These factors must be examined in the light of the experience thus far gained.

6.1.1 *The Methods*

The whole strategy of malaria eradication is inseparably connected with the methods available. To facilitate the review of the scope and limitations of these methods, a brief outline of the present principles and practices of malaria eradication is given in the Appendix (page 125).

The present methods of eradication, based mainly on the interruption of transmission by insecticide spraying, are essentially suited to stable communities living permanently in fixed habitations. It is these situations, where malaria responds satisfactorily to insecticide spraying, which account for the most remarkable achievements of eradication programmes. The large majority of the population exposed to malaria risk live in such situations, and here the current methods of eradication are still valid. However, where in part of a country operations have not succeeded in interrupting transmission, while the rest of the country has reached the consolidation or maintenance phase, the government is faced with critical technical, administrative and financial problems. The areas cleared of malaria are constantly exposed to the risk of importation of cases; the prolongation of programmes far beyond their original time schedule strains the national resources. The same, obviously, applies when similar situations occur between two or more neighbouring countries, which raises even more complex issues of border and inter-country co-ordination. In such circumstances it is clear that the time-limited strategy of malaria eradication needs revision.

As stated earlier, interruption of transmission has not been possible in many parts of Africa in spite of a number of trials using different insecticides and other measures, and efforts will have to be continued to solve this technical problem before eradication can be planned for these areas.

Another aspect, the implication of which was not fully realized in earlier years, relates to the detection and treatment of foci of infection during the consolidation phase—which has often proved to be more difficult than originally expected. This is an aspect of methodology that needs to be further examined with a view to better adaptation of the methods to local conditions and resources.

The development of synthetic antimalarial drugs which commenced over fifty years ago has made a very great contribution to the weapons against malaria. However, all these drugs have their limitations and as yet there is none that would produce radical cure of all kinds of malaria infection in man when given in a single dose, nor is there any true causal prophylactic. The present regimen of radical cure of *Plasmodium vivax* requires repeated administration of drugs over a number of days, and this presents practical problems, especially in remote rural areas.

6.1.2 *The Resources*

The availability of resources in man, material and money, both national and international, has been and will continue to be a determinant factor in the scope and pace of malaria eradication in the world.

6.1.2.1 *The national resources*

National outlay on malaria eradication, with very few exceptions, is many times more than that provided by the external agencies. The countries bear the whole administrative and operational costs of the programme, though external assistance is usually necessary for imported commodities.

The overall financial position when malaria eradication was started was more favourable than it is today. The present situation is partly, no doubt, due to the prolongation of the programmes in many countries beyond their original time schedule. There has also been a change of priorities in some developing countries, in view of the many other demands for funds for social and economic development. This fact, together with the ever increasing cost of curative medical services, has tended to reduce the resources available for preventive health programmes. This reduction of financial support could not only seriously jeopardize the future progress of the programme but also lead to a loss of the substantial gains achieved during the past years as a result of considerable investment in terms of effort and money, besides the disastrous consequences which may result from a recrudescence of the disease.

Malaria eradication programmes need the services of relatively few professional personnel, such as physicians, engineers and entomologists, and a much larger number of lower grade operational personnel. Many of the skills required for these eradication activities by the latter type of staff can be acquired after a relatively brief period of training. However, in developing countries, with their limited technical manpower for their rapidly increasing development projects, it is often difficult to mobilize a sufficient number of personnel willing to serve in remote rural

areas. Even with these limitations most governments have spared no effort to provide personnel in the required number and of the necessary calibre for malaria eradication.

In the African Region, one of the major problems has been the lack of national resources in terms of money, trained manpower and facilities for undertaking large-scale malaria control operations. While efforts aiming at the solution of technical problems of interruption of transmission are being pursued through research, and large-scale training activities to meet the general health needs are also being undertaken by the governments, considerable effort will need to be continued for a number of years to build up the basic health services without which a programme of malaria eradication would not be feasible.

6.1.2.2 *The international resources*

In the majority of instances it is difficult for developing countries to command the foreign exchange necessary for providing the insecticides, transport and equipment needed for implementing the programme. At present the annual amount of external assistance to malaria eradication programmes for the purchase of imported commodities and for advisory services amounts to less than US $50 million, more than half of which sum is provided by bilateral assistance. The achievements of this global fight against malaria owe a great deal to the substantial assistance of UNICEF by way of provision of essential commodities such as insecticides, equipment, vehicles, etc., since 1949 when the Organization first started assisting Member States in the field of malaria control. Funds have also been provided through the United Nations Expanded Programme of Technical Assistance (now the Technical Assistance component of the United Nations Development Programme). Similarly, a number of more affluent countries have, through bilateral agreements, provided considerable material and financial assistance to this global effort; in this connexion, reference may be made particularly to the substantial support of the Government of the United States of America through its Agency for International Development.

Here again, changes in the priorities of assistance from the international agencies have occurred during recent years, and the contributions to the programme from both UNICEF and the Technical Assistance component of the United Nations Development Programme have diminished. Within the Organization itself, the method of funding the programme has been altered. The Directing Council of the Pan American Health Organization (the WHO Regional Committee for the Americas) and the World Health Assembly, at the time of their adoption of the concept of global malaria eradication, formed special accounts to provide the necessary funds for implementing the programme. The contribution of these special funds by many Member States provided the means for the Organization to assist a number of countries undertaking malaria eradication. However, later, as the resources from these funds diminished, the governing bodies found it necessary to fund their programmes more and more through their regular budgetary mechanism, resulting in a reduced scope of assistance.

External aid has just as vital a part to play in the future in malaria eradication as it has had in the past.

6.1.3 *The Capacity to maintain Achieved Eradication*

Experience has shown that much of the efforts of an eradication programme can be wasted if no organization is available for providing not only adequate epidemiological services but also the means to deal rapidly and effectively with new foci of infection. Initially little attention was paid to the needs and the planning of the maintenance phase, as it was assumed that the maintenance of achieved eradication could be secured by the health services. However, in most of the countries undertaking malaria eradication the health coverage of rural areas is still very deficient and it is unrealistic to expect that the rural health services could be developed at the pace at which malaria eradication progresses. Furthermore the emphasis on the time-limited nature of malaria eradication programmes has given the erroneous impression to some governments that the funds spent for malaria eradication would be available for other development activities outside the health sector once eradication is achieved. It is therefore important that provision should be made in the planning of malaria eradication programmes for the vigilance activities during the long-lasting maintenance phase and, in order to attain this, sufficient priority should be ensured for rural health development, the phasing of this to coincide as far as possible with the areas expected to advance into the maintenance phase of the malaria eradication programme.

There has been a tendency to integrate the malaria eradication service within the general health services in the later stages of the eradication programme without regard to maturity of development of the rural health services. This has resulted in deterioration of the services provided by both elements. Frequently, too, insufficient attention has been given to the training of both the health staff and specialized malaria staff in their role during maintenance.

6.1.4 However important these factors may be, the ultimate success of malaria eradication essentially depends on the national conviction that eradication

is both desirable and feasible, and on the firm determination, on the part of the governments concerned, to pursue the programme, once it has been started, to its successful completion. Unforeseen delays and difficulties will almost invariably occur, changes in approach may be required; but the objective will not be at stake if the will to succeed remains unabated.

The end result, therefore, essentially depends on governments and on the population themselves, whose understanding and co-operation can in no small measure enhance government efforts. It also depends on the availability of continued external support and material assistance, both in quantity and quality, whether from bilateral or multilateral sources.

6.2 The Proposed Strategy

Bearing in mind the basic factors mentioned above, the future strategy of malaria eradication will seek to determine the course of action aimed at eradication best suited to the specific requirements of a variety of country situations, which obviously cover a wide spectrum according to the prevailing epidemiological, health, economic and social characteristics. However, these situations may generally be grouped in four main categories:

(1) countries with a malaria eradication programme where the prospects of eradication are good under existing conditions;

(2) countries with a malaria eradication programme which is not making adequate progress;

(3) countries with areas in maintenance, where the problem is to sustain the results achieved;

(4) countries without a malaria eradication programme, where the feasibility of eradication and the justification for such a programme under existing conditions have to be considered on the basis of a realistic appraisal of the social and economic priorities and aspirations of the countries concerned.

In every case, even where malaria eradication is at present impracticable, it is evident that, where malaria forms a health hazard to the people, appropriate malaria control measures will have to be undertaken, within the means available, both for reasons of health *per se* and for providing the healthy human capital necessary for economic development.

In the following proposals on the future strategy attention is focused on these four categories.

6.2.1 *Countries with a Malaria Eradication Programme where the Prospects of Eradication are Good under Existing Conditions*

The majority (68 per cent.) of the population at present protected by malaria eradication operations are in countries in this category. This fact in itself is of considerable significance, as it shows on the one hand that the global aim of eradication can to a large measure be achieved, and on the other hand that failure to attain eradication in this group of countries would adversely affect the programme on a global basis. The obvious conclusion is that, where the prospects of eradication are good, no effort should be spared to carry the programmes to their successful conclusion. To this end the following steps should be taken:

(*a*) It is imperative to evaluate continuously the epidemiological response of malaria to the methods used and, where necessary, to adapt the plans of action to any changes in the situation.

(*b*) Within the national programme the specific needs of the various areas, on the basis of their respective epidemiological situations, must be defined with a view to adapting the plans of action to these needs, thereby reducing operational costs whenever possible.

(*c*) In order to obtain greater efficiency and economy, management studies must be made on the organization and administration of the programme. Such studies may usefully extend to related health services so that the total resources available could be used to the maximum benefit of the programme.

(*d*) No national programme—except in cases of complete geographical isolation—can be considered independently from the situation in adjoining countries. It is therefore essential that " epidemiological zones " covering two or more countries should be encompassed within the broader strategy, the implementation of which necessitates close and continued inter-country co-ordination. WHO can continue to play an active role in stimulating and assisting in such co-ordination.

(*e*) Where it has not already been done, plans for malaria eradication should be included in the national health plans, as a priority element of the health sector within the overall plans for socio-economic development.

(*f*) Particular attention must be given, as early as possible, to the organization of the vigilance mechanism which will become of vital importance for the maintenance of achieved eradication.

(*g*) Concerted efforts should be pursued to maintain the awareness of the population to the problem and to secure their maximum participation in acceptance of the measures undertaken to eradicate malaria. For case-finding greater use may be made of voluntary workers and of community organi-

zations, under the guidance of well-trained service staff; such steps help in the implementation of the programme and broaden public support for it.

6.2.2 *Countries with a Malaria Eradication Programme which is not making Adequate Progress*

Unsatisfactory progress in malaria eradication programmes may be due to a variety of causes, which have been described earlier in this report and result in a variety of situations. Each country, in this regard, poses a different problem, the solution of which requires in each case a different approach. It may be remarked here that the problem does not necessarily affect the whole country; on the contrary, in most of the countries where progress has been unsatisfactory in recent years, the problem has affected only part of the country, often only a relatively small part of the country. It is important to keep this in mind from the point of view of strategy.

A general recommendation applicable to these types of programme is that, in each case, the first step must consist of a complete reassessment of the situation by an independent multidisciplinary team. This reassessment will have the object of defining the causes of unsatisfactory progress, determining whether, in part or in the totality of the country, eradication is technically, operationally and financially feasible and, if it is not, recommending alternative methods of approach.

The diversity and complexity of the factors responsible for the retardation of these programmes make it impossible to suggest any uniform strategy for such programmes. However, it is possible to group them into three broad categories for the purposes of formulating appropriate courses of action:

6.2.2.1 In some countries, while the general progress of malaria eradication has been satisfactory and considerable areas are in consolidation, the achievement of the objective of eradication is hampered by the presence of areas where the response of malaria to the measures adopted continues to be unsatisfactory. However limited these areas may be, this is enough to prolong the programme as a whole far beyond the original time schedule, necessitating additional expenses and undermining the confidence of the government and of the public. Furthermore, the adverse effect of this situation on the morale of the malaria eradication staff itself could jeopardize the future of these programmes. The seriousness of the situation cannot be underrated by governments who have at stake considerable investments in terms of manpower, and in material and financial resources, particularly when large areas are in consolidation and maintenance.

Where a careful re-examination of the programme shows that the obstacles are due to administrative and operational factors that can be remedied, it will be in the long run less expensive to pursue with vigour the eradication of malaria throughout the country, even if it involves additional expenditure for the government and the assisting agencies concerned.

If, on the other hand, the obstacles to progress are due to a combination of human and vector behavioural factors, for which there are no immediate answers, the issues to be considered are:

(*a*) Can those parts of the country (and of adjoining countries) which are in consolidation or maintenance phases of malaria eradication be protected against the re-establishment of the disease?

(*b*) Can the incidence of malaria, where it has not responded to attack measures to the extent necessary for eradication, be maintained at a sufficiently low level by appropriate antimalaria measures, both for the protection of the populations in these areas and for minimizing adverse effects on the areas in consolidation and maintenance?

These are questions that can be answered only after a careful study of the local situation in each country, with due regard to the epidemiological situation, as well as to economic considerations. But the practical solution in each case must be found. It is obvious that the gains achieved in the consolidation and the maintenance phase areas can be safeguarded only with an efficient surveillance organization in the former and a vigilance organization that is capable of promptly detecting and eliminating foci of imported infection in the latter.

6.2.2.2 In the second group of countries under this category, the planning was often based not on actual needs but on the funds available, and so they rarely met the standards for eradication. In the spirit of the resolution of the Eighth World Health Assembly, countries declared themselves for eradication without having secured the necessary resources. The external aid agencies that had formerly assisted these countries in their malaria control operations were then reluctant to continue their support unless the programmes had eradication as their objective. The governments, understandably, did not want to lose this external assistance and allow the interruption of the control operations that had yielded good results. Despite their subsequent efforts to convert these operations to the requirements of eradication, the conversion was made in name only. Such situations should be re-examined, and it may be appropriate, where it is considered that the objective of eradication cannot be attained in the foreseeable future, owing to technical or other reasons, to undertake a malaria control

programme as an interim measure, on the lines described below (section 6.2.4).

6.2.2.3 In the third group of countries under this category, eradication programmes have succeeded in reducing the disease to such a low level that it is no longer considered a priority for the allocation of national resources either for health or for economic development planning.

This sense of complacent security is natural when there are a number of priority demands on the limited resources of the governments, especially as the elimination of the remaining cases of malaria infection involves substantial expenditure of funds and effort in relation to the actual number of malaria cases involved. In these instances every effort should be made to convince the governments of the economic reasons for continuing the programme to its conclusion, as any large-scale resurgence of the disease will not only result in loss of the substantial previous investments in this programme, but will also compromise other development projects. It is therefore of the utmost importance that efforts should be made to ensure the provision of adequate resources for the successful completion of these programmes.

If for any compelling reasons the government concerned is unable to pursue eradication as stated above, the only alternative will be to try to maintain the gains by antimalaria measures to the extent possible within the available resources, in order to prevent large-scale resumption of transmission in the country; but this is a very serious decision for the government to make and every effort should be made to avoid this if at all possible. In all cases, efforts should be made to develop concurrently the health services and the economic infrastructure to facilitate the ultimate elimination of malaria from the country.

6.2.3 *Countries with Areas in the Maintenance Phase*

Countries in which the previously malarious areas have wholly or partly reached the maintenance phase have attained this at tremendous cost in money and effort. They have, however, the further and most essential obligation to sustain the results achieved and to prevent the re-establishment of the disease. As long as there is the risk of importation of cases either from within the country or from other countries into the areas in maintenance, there is the risk of re-establishment of endemicity. In order to prevent this there must be an effective vigilance service capable of prompt detection and elimination of foci.

A vigilance service must be adapted both to the level of risk of re-establishment of malaria in the different parts of the country, and to the existing health services. Whether such vigilance will be carried out by the malaria eradication services or by the general health services depends on the maturity and coverage potential of the latter (see section 5.3). The aim is to absorb the staff of the single-purpose programme into an integrated health service at an appropriate time, and such a process must be envisaged and provided for in the national health plan.

The fact that a malaria eradication programme has reached the maintenance phase does not necessarily mean it should be integrated within the health services immediately and at all costs, although the continuation of the malaria service at the required strength is in itself costly. Haste, lack of planning in this field, and lack of appropriate training of the personnel in vigilance procedures may lead to disastrous setbacks.

The need for adequate finance for the provision of the vigilance service with its essential rural coverage must be accepted and, although the cost of antimalaria activities is then reduced to a low level, the total health budget may have, in some instances, to be increased to finance the development and operation of the rural health services on a total coverage basis in order to sustain the gains achieved.

6.2.4 *Countries without a Malaria Eradication Programme*

In all countries where malaria is endemic, a reduction in the incidence of the disease is a prerequisite to development in many sectors of the national economy, particularly in agriculture, land settlement, mining and forestry. In countries where malaria is a serious health hazard, the application of efficient antimalaria measures is essential to social development and particular attention should be given to areas of economic development. In areas where malaria is the main cause of morbidity, the control of the disease should form a major activity of the health services, as it will produce the most rapid and effective improvement in health and, consequently, in the social status and economic productivity of the population.

To determine the type of strategic approach suited to countries where no malaria eradication programme has yet been started, the first step, again, is to carry out a survey of the epidemiological and general health situation, with due reference to prevailing socio-economic conditions.

Where the feasibility of interruption of malaria transmission has been demonstrated, eradication may be declared as an ultimate objective, and the development of the necessary facilities within the available resources for undertaking malaria eradication should be planned as an integral part of the health sector of the national socio-economic development plan. Whether a full-fledged eradication programme can be

put in operation, or whether the activities should be limited to malaria control for an initial period, depends on the assessment of the basic factors discussed earlier in this report.

Where the feasibility of interruption of malaria transmission has not been demonstrated, as in the savanna areas of Africa, research should be pursued for elucidating the various factors involved in the epidemiology of malaria in these areas, with the ultimate objective of evolving methods of eradicating malaria.

The reduction of the incidence of the disease, in both cases, may be obtained by various methods, either by a malaria control programme concentrating on areas of high endemicity or through routine health services. The most modest approach is individual protection by the provision of antimalaria drugs to the population affected. In such situations every effort must be made to develop the basic health services which will ultimately provide the necessary basis for an eradication programme and later ensure the maintenance of the results obtained.

Long-term health plans as a part of the national development plans are essential. However, they should contain the necessary short-term interim objectives based on a realistic appraisal of the health priorities of the countries concerned. In areas where malaria forms the major health problem, the initiation of measures to control malaria should have priority in the development of health services. In many tropical areas of the world investment in malaria control will yield the best dividend in the improvement of the general health of the population.

6.3 Research — a Continuing Need

The present methods of malaria eradication, although simpler than those available before the advent of residual insecticides and modern synthetic antimalarial drugs, are still laborious and often too expensive for the limited resources of developing countries.

Unless the present methodology is further simplified, global malaria eradication, though theoretically possible, will continue to be beyond reach for many years to come. Simpler methods of breaking the malaria transmission cycle will need to be found, through intensive research in vector and parasite biology, insecticides, chemotherapy and immunology. A great deal of research work is at present in progress on these subjects. However, it would be unrealistic to expect quick results or any early major break-through from such studies to meet the immediate needs of the global programme.

Attempts must also be made to reduce the organizational cost of malaria eradication programmes through epidemiological studies. The feasibility of demarcating malarious areas according to the extent of risk of transmission and adapting the operational and organizational pattern to suit the particular situation needs to be further explored. The object should be to ascertain the minimum requirements of personnel and funds to meet the technical needs for eradication. In addition to these studies, practical methods of increasing the health awareness of the population with a view to securing their active participation for achieving malaria eradication will also need special attention. In order to reduce the cost and ensure the maximum efficiency of operations, organizational studies using modern management techniques should be undertaken.

7. SUMMARY CONCLUSIONS

The global objective. Global eradication of malaria should remain the long-term goal. Although in a number of cases the time and programme schedules for malaria eradication as originally planned have been found to be unrealistic, the strategy has been effective in most areas of the world where malaria eradication has been undertaken, as evidenced by the results achieved, and no effort should be spared by the governments in pursuing these programmes to their successful conclusion.

Overall planning. It is essential to ensure that malaria programmes are included as an integral part of the health sector of the national socio-economic development plan.

Socio-economic benefits. The Organization should continue to study the socio-economic effects of malaria and the benefits of its eradication in order to provide the necessary economic as well as health justification for the allocation of sufficient funds for antimalaria programmes.

Research and improved methodology. Every effort should be made to stimulate and intensify research related to malaria involving the biological, epidemiological, social, economic and administrative sciences. In view of the difficulties in the implementation of methods for malaria eradication which demand a degree of efficiency often unobtainable under existing conditions in certain malarious areas of the world, the methodology of malaria eradication should be reviewed with the aim of developing alternative methods, simpler and less expensive than those hitherto adopted.

Programmes with good prospects. Where the prospects of eradication under existing conditions are good, the governments concerned should intensify efforts to complete eradication. To ensure that the gains achieved in these programmes making satisfactory progress are not lost, early steps should be taken to see that the progress of the development of the health services is synchronized with the progress of the malaria eradication programmes in order to meet the maintenance requirements; where this is not possible, the malaria service personnel should be suitably trained and utilized in the interim to provide not only for the needs of maintenance but also for the much-needed additional health activities. Adequate financial provision for the necessary maintenance phase activities should be ensured.

Less satisfactory programmes. In countries where malaria eradication programmes have not been progressing satisfactorily, the government, with the collaboration of assisting agencies, should undertake a comprehensive multidisciplinary review of the programme, with the following aims:

(*a*) to identify the various factors responsible for the lack of progress;

(*b*) to formulate appropriate measures for rectifying the defects;

(*c*) to ascertain whether eradication under existing conditions is feasible in the whole or part of the country;

(*d*) to pursue with vigour the completion of the programme where eradication is feasible; or

(*e*) to formulate measures for the control of malaria as an interim measure where eradication is at present impracticable, owing to insurmountable technical or other difficulties.

The Organization, with the collaboration of governments, should define on an inter-country basis areas where malaria eradication as a time-limited programme is at present impracticable, and assist in instituting suitable measures for controlling malaria within the available resources, as a step towards the ultimate aim of malaria eradication.

Countries without eradication programmes. In future malaria eradication programmes, in order to ensure technically sound planning within the resources available to the country, it is essential that multidisciplinary feasibility studies be undertaken at the preplanning stage. In addition there should be multidisciplinary participation in the development of the malaria eradication plan of operations for ensuring its effectiveness and the necessary co-ordination within the socio-economic framework in which the programme will have to operate. These future programmes should be planned according to whichever of the following patterns is applicable:

(i) Where the minimum provisions for undertaking malaria eradication with regard to the technical, administrative and financial feasibility have been satisfied as recommended in the fourteenth report of the WHO Expert Committee on Malaria,[1] the country may undertake such a programme on the standard pattern as at present practised.

(ii) In other circumstances, an initial period of malaria control should form a logical step towards the eventual launching of an eradication programme. Such a control programme may in the first instance concentrate on reducing malaria in areas of high endemicity and economic importance, or it may be more appropriate to organize malaria control operations as a routine activity under the general health services and then at a later stage plan a unified nation-wide eradication programme. The methods of malaria control that can be applied as an interim measure leading to a future eradication programme will need to be formulated for each area and will depend on the resources available as well as the various technical factors. A universal, standard technique cannot therefore be prescribed.

In view of the importance of population movement and vector dispersal, it would be advisable to plan future eradication programmes on a co-ordinated inter-country basis, with due regard to epidemiological zones and demographic movements.

In areas where malaria is a major health hazard and where malaria eradication is at present not feasible, steps should be taken to reduce the incidence of malaria both as a health measure and as a prerequisite to economic development. In these areas the Organization should encourage the early implementation of organized malaria control as a very important health activity.

External aid. The availability of external assistance will continue to be a determinant factor in the scope and pace of eradication in the world. Substantial assistance will be needed from the international agencies—such as UNICEF and the Technical Assistance component of the United Nations Development Programme—and bilateral agencies, not only to complete the present programmes, but also for the development of rural health services and the implementation of interim malaria control activities as a step towards

[1] *Wld Hlth Org. techn. Rep. Ser.*, 1968, **382**, 6 and 40.

eradication in the remaining malarious areas of the world. In view of the socio-economic implications of malaria, its control and ultimate eradication should be recognized as a pre-investment for economic development.

* * *

In a programme against a disease of such biological complexity and magnitude, progress cannot be expected everywhere at the same rate. Difficulties and temporary setbacks, though disconcerting to the governments and the assisting agencies, are bound to occur. The ultimate success will depend on the determination to overcome obstacles. The causes of setbacks and lack of progress in existing programmes will have to be identified and remediable defects rectified by mobilizing the necessary resources. Wherever the setbacks are due to factors that are not at present remediable, the strategy should be re-orientated with a view to conserving the gains and controlling malaria with whatever means are suitable as a logical step towards the ultimate goal of eradication. At the same time it is necessary to intensify research to evolve more effective and less laborious methods of malaria control and eradication. It is only by such a concerted action by the governments and the assisting agencies that progress can be assured in this global malaria eradication effort.

Appendix

PRINCIPLES AND PRACTICES OF MALARIA ERADICATION

The current principles and practices of malaria eradication have evolved from the original pattern set out in the sixth report of the WHO Expert Committee on Malaria.[1] The various aspects of the programme have been reviewed by the Expert Committee from time to time and modifications have been introduced in the light of experience gained in the field. In principle, if interruption of transmission is maintained for three consecutive years, the vast majority of malaria cases (*Plasmodium falciparum* and *P. vivax*) will undergo cure, natural or therapeutic, during this period, and the remaining parasite reservoir could be eliminated by case-detection and treatment. The following is an outline of the major steps in the current practice of malaria eradication.

1. *Pre-Planning Stage*

Before a malaria eradication programme can be launched, certain conditions have to be met. The fourteenth report of the WHO Expert Committee on Malaria[2] has listed these prerequisites, which cover the administrative, organizational, financial and technical aspects, as well as the need for coordination within the country and with neighbouring countries.

2. The plans of operations are drafted with the assistance of the WHO Regional Office concerned and in consultation with any other agencies assisting. Plans spell out in detail the organizational aspects as well as all activities in the preparatory, attack and consolidation phases of the programmes and specify the responsibilities of the contracting parties.

3. *Preparatory Phase*

The main activities during this phase are as follows:

(1) geographical reconnaissance and detailed logistic planning;

(2) training of personnel;

(3) setting up of the organization and physical facilities;

(4) collection of parasitological and entomological data for assessment and verification of the previous findings, as well as data on social ecology having a bearing on the application of attack measures.

4. *Attack Phase*

4.1 Methods of attack have to be selected to suit local conditions but, in general, indoor residual insecticide spraying is the main method of interrupting transmission, the dosage and frequency of application being determined by the local epidemiological situation. This is supplemented by chemotherapy which becomes an essential additional element even in the early stages of the attack phase if transmission persists under attack by residual spraying alone. It is also recognized that as far as practicable chemotherapy should be employed with a view to reducing the parasite reservoir and thus shortening the total period of attack.

4.2 When the parasite rate is below 5 per cent., case-finding and treatment are instituted through active house-to-house visits, as well as through static centres, such as hospitals and clinics. For every fever case, blood slides are taken and single-dose presumptive treatment is given. Community participation is secured, and the designation of voluntary collaborators for passive case-detection is encouraged.

4.3 As the parasite reservoir falls, full surveillance is instituted. This includes, besides case-finding, epidemiological investigations to determine the origin of positive cases and their spread, and application of remedial measures—namely, radical treatment of positive cases plus focal spraying and/or mass drug administration as required.

4.4 The number of blood slides which are examined from fever cases in any given area should be at least 1 per cent. of the population during each month of transmission, and this activity should show adequate distribution in space and time, age and sex.

4.5 When an adequate surveillance shows that the annual parasite incidence is below 0.1 per thousand population, spraying can be discontinued and the area can pass to the consolidation phase. However, the receptivity and vulnerability of the area have also to be taken into account. For example, if the load of imported cases into the area is likely to become greater than

[1] *Wld Hlth Org. techn. Rep. Ser.*, 1957, **123**.

[2] *Wld Hlth Org. techn. Rep. Ser.*, 1968, **382**.

could be dealt with adequately by surveillance, the area should remain in the attack phase.

4.6 The duration of the attack phase is determined by the epidemiological results obtained, and may need to be four years or longer.

4.7 Independent assessment for determining whether areas can pass to the consolidation phase is recommended on the basis of the status of malaria as well as the efficiency of the surveillance organization.

5. *Consolidation Phase*

5.1 The main activity during this phase is the continuation of total coverage surveillance, which includes the screening of all fever cases for case-detection, presumptive treatment, radical treatment of positive cases, epidemiological investigations of foci to determine their origin and extent, and remedial action to eliminate foci. When an adequate surveillance has shown that there has been no indigenous case for three consecutive years, the area is ready for entry into the maintenance phase, provided that over the last two years of this three-year period no large-scale specific measures of anopheline control or mass treatment have been used which might obscure the presence of the residual foci. However, the presence of a small number of introduced or unclassifiable cases in a limited area need not necessarily delay the entry into maintenance, provided there is an adequate machinery for the detection and elimination of such cases. This applies particularly to cases of *P. malariae*.

5.2 Training of personnel of the malaria eradication service for their future functions in an integrated health service and the orientation of the general health service personnel in vigilance activity should be completed during this phase.

5.3 Even when the epidemiological criteria are satisfied, no area should be passed to maintenance in the absence of an adequate organization capable of undertaking vigilance activities to prevent the re-establishment of endemicity through imported infection.

5.4 An independent assessment is undertaken to determine whether areas are ready to enter the maintenance phase on the basis of the status of malaria and the maturity of the general health services.

6. *Maintenance Phase*

The maintenance of malaria eradication becomes a responsibility of the general health services as a part of their normal communicable disease control function. The patterns of vigilance which need to be applied in order to ensure the successful maintenance of malaria eradication should be determined in relation to the vulnerability and receptivity of the area. If the threat of re-establishment of malaria is considerable, the malaria component of the communicable diseases section of the general health services should be large enough to deal with it.

7. *Certification and Registration of Eradication of Malaria*

The responsibility for certification and registration of eradication has been vested in the Secretariat of WHO by the World Health Assembly, and the procedures include the following steps:

(1) request from the government concerned;

(2) inspection of the programme by a WHO team;

(3) review of the findings of the certification team by the relevant WHO Regional Office and by WHO headquarters;

(4) examination of the findings by the WHO Expert Committee on Malaria and its recommendation to the Director-General; and

(5) entry of the area in the malaria eradication register of WHO.

The area for which certification is requested should not be less than 50 000 km². Only in the case of an island or an entire group of islands constituting a country or an entire national territory may a smaller area be registered.

General Comments

Although standard methods are put forward in the reports of the WHO Expert Committee on Malaria, the type of organization and the specific measures to be applied will always be governed by local conditions. While malaria eradication programmes have generally been carried out by specialized services, it may be possible under certain favourable conditions for the general health services to undertake the necessary operations as an integral part of their normal functions.

There are some activities that continue through all the phases of the programme. They are: geographical reconnaissance; training, health education and public relations; annual assessment, on the basis of which the plans of action for the following year are modified; technical and operational co-ordination both within the country and with neighbouring countries. From the commencement of the programme, drugs are made available for the treatment of persons suffering from malaria.

The participation of general health services and the community at large, particularly in case-detection, is an essential element for the success of the programme.

Although malaria eradication has been defined as a time-limited operation, the length of the attack and consolidation phases of the programme will be determined by the epidemiological response of malaria to the measures employed, and not by any arbitrary time schedule; the programme should therefore be planned with sufficient flexibility in the budget.

Annex 14

FIFTEENTH REPORT OF THE COMMITTEE ON INTERNATIONAL QUARANTINE [1]

VOLUME B: FUNCTIONING OF THE INTERNATIONAL SANITARY REGULATIONS FOR THE PERIOD 1 JULY 1967 - 30 JUNE 1968

[WHO/IQ/69.151]

CONTENTS

Composition of the Committee

The Committee on International Quarantine held its fifteenth meeting in the WHO building, Geneva, from 10 to 15 March 1969.

Members

Dr J. C. Azurin, Director, Bureau of Quarantine, Manila, Philippines

Professor P. N. Burgasov, Deputy Minister of Health of the USSR, Moscow, USSR

Dr C. L. González, Technical Adviser, Ministry of Health and Welfare, Caracas, Venezuela (*Chairman*)

Dr G. Wynne Griffith, Principal Medical Officer, Department of Health and Social Security, London, United Kingdom of Great Britain and Northern Ireland

Dr J. Lembrez, Director of Sanitary Control at Sea and Air Frontiers, Marseilles, France

Dr C. G. Pandit, Emeritus Scientist, Post-graduate Institute of Medical Education and Research, Chandigarh (Punjab), India (*Vice-Chairman*)

Dr F. Rizk Hassan, Under-Secretary of State, Ministry of Public Health, Cairo, United Arab Republic

Dr J. N. Robertson, Senior Medical Officer, Ministry of Health, Accra, Ghana

Dr D. J. Sencer, Assistant Surgeon-General, Director, National Communicable Disease Center, Atlanta, Georgia, United States of America (*Rapporteur*)

Dr Julie Sulianti Saroso, Director-General for Communicable Diseases Control, Ministry of Health, Djakarta, Indonesia

Representatives of other Organizations

Mr F.-X. Byrne, International Civil Aviation Organization

Mr J. Wojtysko, Inter-Governmental Maritime Consultative Organization

Mr R. W. Bonhoff, International Air Transport Association

Secretariat

Dr E. Roelsgaard, Chief, Epidemiological Surveillance and Quarantine, *Secretary*

Dr P. M. Kaul, Consultant

Mr C.-H. Vignes, Associate Chief, Legal Office

Dr K. Raška, Director, Division of Communicable Diseases

Dr I. D. Carter, Epidemiological Surveillance and Quarantine

Dr B. Cvjetanovic, Chief Medical Officer, Bacterial Diseases

[1] See resolution WHA22.49.

Dr G. Gramiccia, Chief Medical Officer, Epidemiological Assessment, Division of Malaria Eradication
Dr D. A. Henderson, Chief Medical Officer, Smallpox Eradication
Dr R. Pal, Vector Biology and Control
Dr M. Vandekar, Vector Biology and Control
Mr J. W. Wright, Chief, Vector Biology and Control

The Committee met on the morning of 10 March 1969. Dr P. Dorolle, Deputy Director-General, opened the meeting in the Director-General's absence. He thanked the members of the Committee for their attendance and urged that the greatest amount of time be devoted to agenda item 6: special review of the International Sanitary Regulations. It was at the initiative of the Director-General that the special review was made, and the Twenty-first World Health Assembly asked that further study be given to the proposed revision with the assumption that final action might be possible at the Twenty-second World Health Assembly. In addition, the Deputy Director-General requested the Committee to give consideration to the form in which the proposed revision should be presented to the Assembly. In 1968 it was presented as "Additional Regulations amending the International Sanitary Regulations". Many States expressed concern over the difficulty of interpreting these individual amendments in relation to the entire Regulations, and recommended that consolidated revised International Sanitary Regulations be provided for their consideration.

Dr C. L. González was unanimously elected Chairman, and Dr C. G. Pandit Vice-Chairman. Dr D. J. Sencer was elected Rapporteur.

The draft agenda was approved.

The report on the special review of the International Sanitary Regulations is recorded in Volume A of the report of the Committee on International Quarantine.[2]

The Committee considered the report of the Director-General on the functioning of the Regulations during the period from 1 July 1967 to 30 June 1968. 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 1967 to 30 June 1968.

2. Previous reports [1] 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 two aspects: as seen by the Organization in its administrative role of applying the Regulations and as reported by Member States in accordance with Article 62 of the Constitution of the Organization and Article 13, paragraph 1, of the Regulations. For ease of reference the two aspects are consolidated and presented in the numerical order of the articles of the Regulations.

4. The fourteenth report of the Committee on International Quarantine (Volume I) on the functioning of the International Sanitary Regulations was adopted by the Twenty-first World Health Assembly on 24 May 1968 (resolution WHA21.52). It was published in *Official Records* No. 168; an off-print of the report is available. The proceedings of the Assembly relating to international quarantine were published in *Official Records* No. 169. A separate resolution (WHA21.51) was adopted by the Assembly on the Committee's recommendations concerning aircraft disinsection. This aspect of the programme is to be considered as a separate item of the agenda.[3]

5. The fourteenth report of the Committee on International Quarantine (Volume II) on the special review of the International Sanitary Regulations was referred by the Assembly (resolution WHA21.53) to Member States for their views and comments. These views and comments have been considered by the Director-General and his suggestions are included in a document which will be considered in connexion with the pertinent agenda item.

6. On 1 October 1968 the unit of Epidemiological Surveillance and Quarantine was formed by the

[1] *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; **143**, 41; **168**, 51.

[2] Not reproduced in this volume. (The International Health Regulations adopted by the Twenty-second World Assembly are reproduced in Annex 1.)

[3] See recommendations of the Committee on this item under section 7.

merger of the International Quarantine and Epidemiological Surveillance units. The functions of the new unit are to promote, co-ordinate and conduct epidemiological surveillance of infectious diseases of international importance and to assist in the strengthening of national epidemiological surveillance. The unit administers the International Sanitary Regulations and maintains a centralized worldwide system of collection and dissemination of information concerning certain communicable diseases.

GENERAL ASPECTS

Disinsecting of Aircraft

7. The Committee considered a progress report on the implementation of resolution WHA21.51.

To date fifty-four countries have indicated their acceptance of the dichlorvos vapour disinsection system without reservation. These countries were requested on 6 February 1969 to give more specific details, i.e. a list of international airports from which international flights arriving in the country concerned require disinsecting.

Thirteen countries, ICAO and IATA, have raised certain queries, which are being answered, principally relating to (*a*) the safety of dichlorvos, and (*b*) the effective date for installing the system.

On the first point, recent studies carried out in sick adults, pregnant women and sick children on exposure to dichlorvos vapour in a hospital, and oral ingestion of dichlorvos as a vermifuge, have further confirmed the safety of dichlorvos as originally reported by the Expert Committee on Insecticides (Safe Use of Pesticides in Public Health).[1]

With regard to the second point, the Organization has indicated that, as agreed in the World Health Assembly, aircraft operators unable to comply with the resolution and install the system by 31 December 1970 for reasons beyond their control can request their government to apply to WHO for an extension.

To guide aircraft operators and manufacturers, the Organization has produced a specification of the component parts required for the system, installation instructions for Boeing 707, 720, 727, Douglas DC-6 and DC-7 aircraft, and a check procedure for the system; these have been sent to forty-one airlines with details of the system, as well as to nine leading aircraft manufacturers.

It has been recognized that the method is safe, effective and economical, but, although some airlines and manufacturers have been learning the technique of installing the dichlorvos system, there has been no routine installation in aircraft to date.

The Committee therefore recommends that, in view of (1) the considerable volume of information available and (2) resolution WHA21.51 of the Twenty-first World Health Assembly, Member States be urged by the Director-General to notify operators of pressurized aircraft in international traffic that, after 31 December 1970, the preferred method of disinsecting will be the vapour disinsecting system in flight prior to arrival at designated airports in their territory. The only alternative method will be aerosol disinsecting on the ground upon arrival. In exceptional cases, extension can be granted by the government upon notification by the Organization if there is evidence that the aircraft operator is proceeding with the installation in good faith.

Noting that sixty-seven States have replied to the Director-General's letters, the Committee recognizes that the installation of this improved method of disinsecting in aircraft engaged in international traffic could be greatly facilitated if the attitude of the remaining Member States of the Organization were to be made known. The Committee therefore recommends that the Director-General communicate as a matter of urgency with all Member States that have not yet replied to his inquiries of 1967 and 1968 requesting them to state what action they plan to take on resolution WHA21.51.

The Committee further recommends that the attention of all aircraft operators engaged in international traffic be drawn to the list of countries which have indicated acceptance of the vapour disinsecting system, and that thc co-operation of IATA be invited to this end.

8. *The Committee notes that some health administrations practise disinsecting on the ground for agricultural purposes after "blocks-away" disinsecting has been accomplished. "Blocks-away" disinsecting should be accepted as meeting health requirements.*

Vector Control

9. *The Committee commends the Director-General on the plans to develop a manual on vector control in international health, as well as the many other documents and activities related to disinsecting, and stresses the urgent need for the chapter of the manual on fumigation of ships and aircraft.*

Containers

10. *Containers in international traffic continue to be of concern as a potential method of spread of infectious diseases transmitted not only by vectors and rodents, but also by contamination of the contents. The Com-*

[1] *Wld Hlth Org. techn. Rep. Ser.*, 1967, **356**, 46-54.

mittee urges that the Director-General continue to develop methods of disinsecting, disinfecting and deratting containers used in both air and sea traffic.

Further, the Committee recognizes that, since containers may present a health hazard, information about the movement of containers in relation to the existence of disease is essential to a national programme to protect against the spread of disease.

Position of States and Territories under the International Sanitary Regulations

11. Information showing the position of States and territories under the Regulations, as of 1 January 1968 and as of 1 January 1969, was included in *Weekly Epidemiological Record* No. 1 of 5 January 1968 and No. 2 of 10 January 1969 respectively.

States and Territories not bound by the Regulations

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

13. The correspondence exchanged with the Government of Nauru after this country's accession to independence is reproduced below:

(1) *Letter from the Director-General to the Government of Nauru, dated 24 June 1968*

" ... I would like to congratulate your country on its accession to independence, and take this opportunity to clarify the position of Nauru as regards the International Sanitary Regulations. Prior to the date of independence, the position of Nauru was not defined, since, of the three Administering Powers, Australia was not itself a party to the Regulations. Nevertheless, it is my understanding from the terms of your letter that it would be the intention of Nauru to apply the provisions of the Regulations to international traffic.

" As Nauru was a party to a number of earlier International Sanitary Conventions, it would be possible to regularize the situation under Article 110 of the International Sanitary Regulations, which provides as follows:

> 1. Any State not a Member of the Organization, which is a party to any of the conventions or agreements listed in Article 105, or to which the Director-General has notified the adoption of these Regulations by the World Health Assembly, may become a party hereto by notifying its acceptance to the Director-General and, subject to the provisions of Article 107, such acceptance shall become effective upon the date of coming-into-force of these Regulations, or, if such acceptance is notified after that date, three months after the date of receipt by the Director-General of the notification of acceptance.
>
> 2. For the purpose of the application of these Regulations Articles 23, 33, 62, 63 and 64 of the Constitution of the Organization shall apply to any non-Member State which becomes a party to these Regulations.
>
> 3. Any non-Member State which has become a party to these Regulations may at any time withdraw from participation in these Regulations, by means of a notification addressed to the Director-General which shall take effect six months after he has received it. The State which has withdrawn shall, as from that date, resume application of the provisions of any of the conventions or agreements listed in Article 105 to which it was previously a party.

" Should your Government wish to avail itself of this provision it would suffice to send me a notification in due course. I enclose a copy of the Regulations for your convenience."

(2) *Letter from the Government of Nauru, dated 16 August 1968*

" Further to your letter i4/520/3(68), dated June 24, 1968, I wish to notify you that the Government agrees to adopt the International Sanitary Regulations under the provisions as indicated in your letter.

" However, the Government wishes to reserve the right to restrict the application of Articles 17 and 19 as follows:

> (i) *Article 17.* The health administration of the Republic of Nauru reserves the right not to designate any port for the issue of deratting exemption certificates, as referred to in Article 52, nor to approve any port as having at its disposal the equipment and personnel necessary to derat ships.
>
> (ii) *Article 19.* The health administration of the Republic of Nauru reserves the right not to designate any airport as a sanitary airport."

(3) *Reply from the Director-General, dated 1 October 1968*

" I have the honour to acknowledge with thanks the receipt of your letter of 16 August 1968 in which you inform me that Nauru agrees to accept the International Sanitary Regulations, subject to the right to restrict the application of Articles 17 and 19 as indicated in your letter.

" Under the provisions of the Regulations, these reservations will have to be submitted to the World Health Assembly for acceptance under Article 107, and I shall therefore arrange to have your reservations considered by the Twenty-second World Health Assembly which will meet in Boston in July 1969. However, as the Assembly has already accepted reservations in the same terms submitted by other governments under similar conditions, I believe that it would be appropriate, for administrative purposes, that in matters of international quarantine the provisions of the Regulations should apply from now onwards in the relations between WHO and Nauru."

The Committee may wish to recommend to the Twenty-second World Health Assembly that these reservations be accepted. It is recalled that similar reservations to Articles 17 and 19 of the Regulations have previously been accepted by the Health Assembly.[1]

The Committee recommends that the reservations of Nauru to Articles 17 and 19 of the Regulations be accepted.

[1] International Sanitary Regulations, third annotated edition (1966), Annex II, pp. 70-77.

THE INTERNATIONAL SANITARY REGULATIONS

PART II. NOTIFICATIONS AND EPIDEMIOLOGICAL INFORMATION

14. No notifications as provided for 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).

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

" Continued effort is being made by the US Foreign Quarantine Program to maintain quarantine and inspection operations at United States ports-of-entry and at ports outside the country in an effort to meet the complexities and increasing volume of modern international traffic. The programme emphasizes the concept of a global epidemiologic surveillance network which can identify changes in trends not only of quarantinable diseases but also of the other communicable diseases.

" Data on local infected areas reported daily through the WHO broadcast and weekly through the *Epidemiological Record* are summarized into a weekly publication at the National Communicable Disease Center for use of inspection staff at ports-of-entry. Quarantinable disease data on each country obtained from the WHO *Weekly Epidemiological Record* have been computerized for the current as well as the previous year and are published weekly. The number of major political subdivisions containing areas indicated to be local infected areas are included in the weekly report. A quarterly epidemiological report is also published, containing data received from WHO on quarantinable diseases and other diseases of importance to the health of the international traveller.

" Work has begun on procuring and maintaining a library of morbidity statistics on each country which publishes such data. When complete the library will include maps showing current political boundaries and the most current demographic data available. At present there is no single source anywhere for a complete set of both maps and demographic data."

Article 8

16. Several countries (*Australia, Iraq, Mauritius, New Zealand, Panama*) continue to report that a number of arriving travellers do not possess the required vaccination certificates. Thus, in *Australia*, 102 persons who arrived by air in an unvaccinated state and refused vaccination were detained at a quarantine station. In *Mauritius*, airline operators and their overseas agents have been requested to ensure, before issuing tickets, that travellers are in possession of the required vaccination certificates.

17. In the *Central African Republic*, the Government has noted a marked improvement in the situation as compared with the previous year; the few travellers who had no vaccination certificates accepted vaccination on arrival.

18. See also comments under sections 51, 52 and 53.

The Committee recognizes that with growing international travel there is greater likelihood that increased numbers of passengers in need of vaccination could arrive in a country. This will place a heavy burden on the health authorities of the country of arrival and, with the larger aircraft of the future, will delay disembarkation severely. The Committee recommends that this matter be brought to the attention of airlines and that their co-operation be enlisted to ensure that all departing passengers have complied with the health requirements of the countries of their itinerary.

Article 11

19. Summaries of information on imported cases and outbreaks of quarantinable and other communicable diseases in the following countries were published in the *Weekly Epidemiological Record*:

Plague: in Brazil, Indonesia, Lesotho and the United States of America;

Cholera: in West Malaysia, Nepal, West Pakistan, Singapore and Thailand;

Yellow fever: in Africa, 1940-1967; jungle yellow fever in Brazil;

Smallpox: in Belgium, Burma, Ceylon, Chad, Sudan, the Trucial States and the United Kingdom of Great Britain and Northern Ireland;

Typhus: in Mexico, Peru and the United Kingdom of Great Britain and Northern Ireland;

Relapsing fever: in the Netherlands and Sudan;

Arthropod-borne encephalitis: in the United States of America;

Dengue-haemorrhagic fever: in Thailand;

Fox rabies: in France;

Influenza: summaries of reports on outbreaks, and yearly summary " Influenza in the World " covering the periods October 1966 - September 1967, and October 1967 - September 1968;

Outbreaks in laboratory personnel working with *Cercopithecus* monkeys: in the Federal Republic of Germany and Yugoslavia (epidemiological aspects and etiology of the disease);

Malaria: in the United States of America;

Salmonella: in Canada and Finland, and summary of data for certain European countries.

Smallpox surveillance: as from June 1968 summaries have been published at fortnightly intervals.

Notes were also published on the following subjects: presence of yellow fever virus in mosquitos in Brazil; *Aedes aegypti* in Africa and in Central America; *Aedes aegypti* at international airports; status of malaria eradication (six-monthly summaries); resistance of *Anopheles gambiae* to DDT in Upper Volta.

20. In an effort to make the *Weekly Epidemiological Record* more useful and interesting, information is being published relating to a far greater number of communicable diseases of international importance, as can be seen above. Health administrations are encouraged to submit for publication brief narrative reports relating to any aspect of the epidemiological surveillance of communicable diseases occurring within their country.

The Committee commends the Director-General on the steady improvement of the Weekly Epidemiological Record *and urges that continued efforts be maintained.*

21. Separate publications were:

(i) *Airports designated in application of the International Sanitary Regulations: Situation as on 1 September 1967*;

(ii) *Ports designated in application of the International Sanitary Regulations: Situation as on 2 August 1968*;

(These two publications show for the first time the airports and ports which are considered free from the risk of malaria transmission.)

(iii) *Vaccination Certificate Requirements for International Travel: Situation as on 1 January 1968*;

(iv) *Yellow-fever Vaccinating Centres for International Travel: Situation as on 29 November 1968.*

Amendments to these publications appeared as usual in the *Weekly Epidemiological Record.* In addition, lists of amendments to *Vaccination Certificate Requirements for International Travel* were issued for those addressees (mainly travel agencies) who do not receive the *Record.*

22. *CODEPID Geographical Index and Map Supplement.* Revisions of the Geographical Index sections for Dahomey, Niger, Nigeria and West Malaysia (Penang State), and revised maps for Ghana and West Pakistan were published in the *Weekly Epidemiological Record.*

Article 13

23. In accordance with Article 13, paragraph 1, of the Regulations and Article 62 of the Constitution, the following 113 States and territories [1] have submitted information concerning the occurrence of quarantinable diseases due to or carried by international traffic, and/or on the functioning of the Regulations and difficulties encountered in their application:

Angola
Argentina
Australia
Austria
Bahrain
Barbados
Belgium
Bermuda
Brazil
British Honduras
Cameroon
Canada
Cape Verde Islands
Central African Republic
Ceylon
Chad
Chile
China (Taiwan)
Cocos (Keeling) Islands
Comoro Islands
Congo (Brazzaville)
Costa Rica
Cyprus
Czechoslovakia
Denmark
Dominica
Dominican Republic
Falkland Islands (Malvinas)
Faroe Islands
Federal Republic of Germany
Fiji
Finland
France
French Polynesia
French Territory of the Afars and the Issas
Gibraltar
Gilbert and Ellice Islands
Greece
Greenland
Grenada
Guatemala
Guyana
Haiti
Honduras
Hong Kong
Hungary
Iceland
Indonesia
Iran
Iraq
Ireland
Israel
Italy
Japan
Jordan
Kingdom of the Netherlands (including Netherlands, Surinam, and Netherlands Antilles)
Kuwait
Laos
Lebanon
Lesotho
Liberia
Libya
Luxembourg
Macao
Madagascar
Malawi
Malaysia
Maldives
Mali
Mauritius
Monaco
Mozambique
Nepal
New Zealand
Niger
Nigeria
Norfolk Island
Norway
Panama
Papua and New Guinea, Australian Territory of

[1] The inquiry made in connexion with the special review of the International Sanitary Regulations may account for the decrease in the number of reports on the functioning of the Regulations submitted for the period 1 July 1967 - 30 June 1968.

Philippines
Poland
Portugal
Portuguese Guinea
Portuguese Timor
Republic of Korea
Romania
São Tomé and Principe
Singapore
Somalia
Spain
St Helena
St Kitts-Nevis-Anguilla
St Pierre and Miquelon
St Vincent
Swaziland
Sweden
Switzerland
Syria
Thailand
Togo
Tonga
Trinidad and Tobago
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
Venezuela
Western Samoa
Zambia

PART III. SANITARY ORGANIZATION

Article 14

24. *France.* The following comments have been received from the Government (*translation from the French*):

" With regard to the *Territory of St Pierre and Miquelon Islands*, I wish to inform you that sanitary control is exercised on the arrival of travellers by the emigration service. For persons coming from or passing through Canada and the United States, the control exercised by the authorities of those countries provides sufficient guarantees. Similarly, for sailors calling at the port, it may be supposed that shipowners and ships' captains comply with the Regulations.

" Only aircraft or ships coming from countries in which quarantinable diseases exist in an endemic state constitute a risk of infection. In the event of such ships arriving at St Pierre, the emigration service could call on the health service for an examination of the sanitary documents and in certain cases for inspection of the ship. "

25. *United States of America.* The Government sent the following comments:

" In US fiscal year 1968, almost 8 million travellers were inspected at airports in the United States and more than 2 million at seaports. At the Mexican border, 136 million persons crossing the border were inspected.

" To meet the phenomenal rate of increase in international air traffic, the Foreign Quarantine Program, in concert with the three other federal inspection agencies, and in co-operation with the air transport industry, developed and tested a new inspection system at the John F. Kennedy International Airport. The new system utilizes the training of personnel for dual functions (e.g. immigration officer) to inspect arriving passengers for all four agencies in a primary inspection area. Necessary monitoring and suspects detected on the primary line are handled in a secondary operations area by specialists of each agency. Data for on-going evaluation and for further improvement of inspection criteria and procedures are provided by an inter-agency management information system. This accelerated inspection system has reduced passenger waiting time by 50 per cent. even at times when over 2000 passengers are processed in a single hour. As a result of the success of this programme at the John F. Kennedy International Airport, the international air transport inspection programme is being reorganized to provide accelerated inspection services at all United States international airports. Despite the increasing workload the same or better protection against disease importations is continued without a concurrent increase in manpower."

The Committee recognizes that there are vast differences in the needs and resources of States in handling the health aspects of international traffic. The advent of the larger planes in the near future will put even greater strain on these resources. The Committee recommends that the Organization undertake a survey of the methods of operation and the staffing patterns of health authorities, and furnish this information to all the States to assist them in their planning. This service by the Organization should be a continuing one to keep all States informed of changes in practices.

Article 22

26. *Argentina.* The Government reports as follows (*translation from the Spanish*):

" The difficulties encountered in regard to frontier control are the length and inaccessibility of the frontier zones, with the result that at present, particularly in the health regions of north-western Argentina and Patagonia, control measures are only minimal.

" Periodic visits are made by the health authority to the frontier areas and plans are being made for improving control."

PART IV. SANITARY MEASURES AND PROCEDURE

Chapter I. General Provisions

Article 23

27. *Indonesia.* The Government reports that difficulties have been experienced in connexion with the additional regulations of the Saudi Arabian health administration concerning foodstuffs carried by pilgrims and its requirement of a cholera stool-culture certificate.[1]

The Committee requests the Director-General to call to the attention of the Government of Saudi Arabia that the practice of requiring stool-culture certificates is of little epidemiological value and creates undue hardship for travellers and health authorities in other countries.

Article 25

28. *Mauritius.* The Government sent the following comments:

" The practice of ' blocks away ' disinsection is now accepted for all airlines operating in this territory. On the whole the system works satisfactorily. But there were frequent instances when the correct procedure was not followed—the usual excuse in such cases being that the instructions in the ' Briefings to Personnel ' do not mention anything about disinsection or that the crew was operating on this sector for the first time. A circular letter, in which were set out all the details about aircraft disinsection, was sent out to the airline operators and also given to individual crew members.

" It is gratifying to note that, as a result, there has been a significant improvement in the situation during the last few months, due largely to the co-operative attitude of the airline operators and their local representatives. "

29. *New Zealand.* The Government reports as follows:

" The occasional irregularity in observing the requirement for ' blocks away ' disinsection of aircraft was reported, with spraying being carried out in flight instead of on the ground prior to take-off."

Article 27

30. *Canada.* The Government reports that no difficulties have been experienced other than that previously reported in regard to the carrying out of an effective surveillance programme.

31. *Iraq.* The Government reports that it was not possible to submit suspects to surveillance, particularly pilgrims arriving by sea who cannot give definite addresses; they were therefore detained in a quarantine station.

Chapter IV. Sanitary Measures on Arrival

Article 35

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

" Pratique by radio will be reintroduced on a national scale for all vessels arriving from foreign ports. This is a seldom used procedure at present, although it is currently provided for in the Foreign Quarantine Program Regulations. Pratique by radio permits clearance of a vessel based on information received from it prior to its arrival. If the responsible quarantine official at the intended port of arrival considers that the vessel's arrival will not result in the introduction or spread of a quarantinable disease, his vessel receives clearance. Quality control will be maintained by the application of rigorous sampling and evaluation techniques. If successful, implementation of this procedure will be of economic benefit to the quarantine programme, and utilization of manpower elsewhere will provide additional resources to meet all Foreign Quarantine Program responsibilities. "

Article 36

33. *Madagascar.* The Government has experienced no difficulties, especially since the adoption of a " notice card " requiring the following information from travellers: place of departure, itinerary and, in the case of international air travellers, address where they can be contacted in Madagascar.

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[1] All persons arriving in Saudi Arabia from countries of which any parts are infected are required to submit a certificate, dated not more than seven days before their departure, recording the negative results of stool culture. This certificate must be delivered by a licensed laboratory and attested to by the health authority.

As regards the importation of foodstuffs, the following restrictions were imposed by Saudi Arabia:

1. Commodities restricted for importation: fresh vegetables, cooked foodstuffs, sweets, figs, raisins, tamarind, miscellaneous nuts, dry lemons, rose-water, kadi-water, fresh and dry fruits, amba, ishar and the like.

2. Other commodities allowed to enter fifteen days after departure of the cargo from an infected port after ensuring (*a*) that water available in the ship is not contaminated, and (*b*) that there are no carriers among the passengers and crew: spices, ginger, cream, rice, sugar, coffee and cardamom.

3. On 3 December 1967, it was agreed to reduce the period mentioned in item 2 above to eight days, particularly in relation to foodstuffs carried by pilgrims for their personal use. These are: rice, cornflour, lentils, beans, spices, curry, cardamom, ginger, pepper and the like, tea, coffee and sugar.

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

Chapter I. Plague

34. *Japan.* The Government reports that two container-ships entered Tokyo seaport in November and Yokohama in December 1967, and the dead bodies and traces of rats and mice were found in containers in which gunny bags of pink beans were packed. There was, however, no evidence of the plague bacillus.

In view of the above, the Government is of the opinion that WHO should establish methods for the sanitary control of containers in international traffic.[1]

35. *Madagascar.* The Government reports that sporadic, indigenous cases of plague are observed in certain regions of Madagascar. All necessary measures are taken to prevent the spread of the infection.

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

" The wild rodent population of the western United States continues to harbour the plague bacillus. For the period reported, three definite human plague cases and one suspect case were reported, with one death.

" On 16 July 1967 a twelve-year-old boy from Elbert County, Colorado, died of plague. Specimens obtained at post-mortem were positive for *P. pestis.* Contact with rodents (prairie dogs) was known, but no rodent die-off was apparent in the area. No secondary cases resulted.

" A retrospective diagnosis of *P. pestis* meningitis was made on a sixty-year-old man from western Colorado, who became ill on 8 September 1967, followed by a long complicated illness with marked neurological involvement. In specimens of spinal fluid sent to the National Communicable Disease Center, Atlanta, Georgia, *P. pestis* organisms were confirmed. No rodent or flea exposure was known. Residual neurological defects were noted after treatment. There were no secondary cases.

" While the cases cited above were in remote areas, thus offering no international threat, the recent report (11 June 1968) of plague in a six-year-old girl from Denver, Colorado, posed a potential danger. The diagnosis was confirmed by isolation of *P. pestis* from her blood stream. She recovered uneventfully following treatment. This case coincided with an epizootic of plague in common tree squirrel (*Sciurus niger*) in the Denver area. Of 110 *S. niger* examined, 27 were positive for *P. pestis* by fluorescent antibody test, and in five of these *P. pestis* was isolated. A domestic rodent survey in the Denver area revealed no *P. pestis* and no oriental rat fleas were detected. No other human cases have been reported.

"A case of suspected plague was reported in April 1968 from Fort Riley, Kansas. The patient was a twenty-one-year-old veteran of the Viet-Nam conflict, who is suspected of being infected before leaving Viet-Nam where contact with rodents was known. He had received plague immunization assumed to be adequate. The clinical picture was consistent with plague, although there was no culture confirmation from blood or lymph node aspiration specimens. He recovered uneventfully without secondary cases.

"During the past year, a single rat, found dead in a trap on a ship arriving in the United States, was fluorescent antibody positive for plague. This was on 15 April 1968, on a vessel arriving at Port Hueneme, California. However, culture and animal studies failed to confirm plague. Extensive control measures were instituted. No other rats were recovered on the ship."

Chapter II. Cholera

37. *Denmark.* The Government reports that a cholera carrier was discovered in Copenhagen. On 15 March 1968 children coming from Viet-Nam were admitted to the infectious disease hospital in Copenhagen. One child was found positive for El Tor cholera vibrions. The child had no symptoms; he was treated with colimycin and several examinations after treatment were negative.

38. *Malaysia.* The Government reports that nine cases of cholera were observed in West Malaysia in May-June 1968.

39. *Singapore.* The Government reports as follows:

" There is no conclusive evidence of the source of the two episodes of cholera El Tor in April and June 1968 (with a total of six cases and three carriers), and the possibility of external introduction cannot be ruled out."

40. *Thailand.* The Government reports one case of cholera imported on 21 July 1967. The patient was an American passenger who arrived in Bangkok by air on 20 July, after breaking his journey in New Delhi for four days (17-20 July). He was in possession of a valid certificate of vaccination. By 2 August the patient had recovered.[2]

41. See also section 27.

[1] Provisions to that effect are included in the proposed Regulations.

[2] See Appendix.

Chapter III. Yellow Fever

Article 70 (unamended)

42. The town of Belém (Brazil), which had been excluded from the yellow-fever endemic zone, was reintroduced into that zone in September 1967, the conditions for the exclusion being no longer fulfilled.

Article 73

43. *Bermuda.* The Government is of the opinion that some airlines are not sufficiently rigorous in carrying out disinsection in flight.

Chapter IV. Smallpox

44. *Ceylon.* The Government reports one imported case of smallpox in Colombo. The patient, a member of the Ceylonese hockey team, travelled in India from 24 November to 13 December 1967, on which date he returned to Colombo by air. He had fever on 15 December; he developed a rash and was isolated at the Infectious Diseases Hospital on 21 December. Virological confirmation was obtained on 26 December. The direct contacts were quarantined, and 110 possible contacts were kept under surveillance. Mass vaccination was carried out and no secondary cases were observed.[1]

45. *Chad.* The Government reports two importations of smallpox:

(1) In July 1967, an outbreak of 65 cases (18 deaths) was reported in the Lake Prefecture. The primary case was an unvaccinated woman who visited her family in Nigeria and returned to Chad via Niger; she had not passed any sanitary post. A revaccination campaign was carried out in the whole area.

(2) In February 1968, an immigrant from Nigeria was isolated on arrival in Massokari, Chari-Baguirmi Prefecture; he had not passed any sanitary post. No secondary cases were reported.

46. *Finland.* The Government reports that a suspected case in a crew member of S.S. MONSUNE has never been confirmed by laboratory tests.[3]

47. *Mali.* The Government reports as follows (*translation from the French*):

" The seasonal migrations of the nomadic populations gave rise to epidemics of smallpox in the districts of Ménaka and Tominian; these epidemics were reported in the weekly bulletins for the periods 16-29 January and 5-11 April respectively.[4] The Ménaka epidemic was followed by a campaign of vaccination by scarification and the Tominian epidemic by a campaign of vaccination by pedo jet."

48. *United Kingdom of Great Britain and Northern Ireland.* The Government reports that two cases of smallpox were imported by air traffic. There was one secondary case.[5]

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

" No cases of smallpox, either imported or domestic, were reported in the United States. There is an effective surveillance system co-ordinating efforts of the Foreign Quarantine and Smallpox Programs of the National Communicable Disease Center, Atlanta, Georgia, and the various state health services."

Chapter V. Typhus

50. *United Kingdom of Great Britain and Northern Ireland.* The Government reports the importation of one case of louse-borne typhus.[5, 6]

PART VI. SANITARY DOCUMENTS

Article 98

51. *Australia.*[2] The Government reports that the number of air travellers arriving with irregular international certificates of vaccination against smallpox or cholera is still a cause of concern. During the period under review, 2748 persons were vaccinated against smallpox and 919 against cholera on arrival in Australia by air, because of irregular certificates.

52. The submission of invalid vaccination certificates is also reported by the Governments of *Iraq*, *Lebanon* and *New Zealand.*

53. The Organization has continued to receive from several health administrations photo-copies of invalid vaccination certificates submitted to their health authorities at points of entry. In each case these irregularities have been referred for the appropriate action to the health administrations of the countries of issue.

[1] See Appendix.

[2] Country not bound by the Regulations.

[3] This suspected case was notified on 15 December 1967. The tanker S.S. MONSUNE arrived at Naantali from Novorossiisk (USSR) on 12 December. The patient had been vaccinated on 12 November 1966.

[4] Twenty-one cases were reported for the period 16-29 January and twenty-six for the period 5-11 April.

[5] See Appendix.

[6] This is the first case of louse-borne typhus introduced into Europe in the last five years.

PART VIII. VARIOUS PROVISIONS

Article 104

54. The Organization has been informed of the conclusion of an arrangement between the Government of the Democratic Republic of the Congo and the Government of Rwanda for the direct and rapid exchange of information on the occurrence and development of important communicable diseases. Under this arrangement, the control and prophylactic measures are carried out jointly, particularly in the frontier area between the two countries.

APPENDICES

Appendices 2, 3 and 4

55. *Union of Soviet Socialist Republics.* The Government sent the following comments (*translation from the Russian*):

" It is desirable that WHO should publish a catalogue of photographs of approved stamps used in various countries for international certificates of vaccination or revaccination against smallpox, cholera and yellow fever, thus making health and quarantine inspections at the frontier easier."

Appendices 2 and 4

56. *The Committee reaffirms the recommendation made in its thirteenth report that States study the possibility of issuing a standard approved stamp for the whole territory.*[1]

Appendix 2

57. *The Committee continues to be aware of the controversy about the six-day period after vaccination against cholera. It would greatly facilitate travel and eliminate much confusion if research were organized to establish the necessity of the six-day period.*

Appendix 4

58. *The Committee discussed at length the question of the immediate validity of the international certificate of revaccination against smallpox in view of the observations made by the Governments of Czechoslovakia, the Union of Soviet Socialist Republics and the United Kingdom of Great Britain and Northern Ireland. The Committee recommends that the matter be further studied by the Organization with a view to improving the reliability of the certificate of revaccination as acceptable evidence of freedom from infection.*

OTHER MATTERS

Certificate of Contra-indication to Vaccination

59. The Government of the *Union of Soviet Socialist Republics* is of the opinion that it would be advisable for WHO to devise a model certificate of contra-indication to vaccination or revaccination against smallpox, cholera or yellow fever, with a printed text in English and French and, if possible, in the language of the country of issue, and a statement of the reason for contra-indication in Latin.

Mecca Pilgrimage

60. The health administration of *Saudi Arabia* informed the Organization on 12 March 1968 that the Mecca Pilgrimage for 1968 (year of the Hegira 1387) remained free of quarantinable diseases.

* * *

61. *The Committee accepts this report and congratulates the Director-General on an excellent document. The Committee further emphasizes the importance of improved communications between Member States, between States and the Organization, and between the Organization and States.*

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[1] *Off. Rec. Wld Hlth Org.*, **143**, 58.

Appendix

CASES OF QUARANTINABLE DISEASES IMPORTED BY SHIP AND AIRCRAFT
from 1 July 1967 to 30 June 1968

Ship or aircraft	Date of arrival	Port of arrival	From	Number of cases	Remarks
			1. CHOLERA		
	1967				
Aircraft	20 July	Bangkok	Delhi	1 confirmed case	American passenger, member of a tourist group; was hospitalized on 21 July; was in possession of valid vaccination certificate.
			2. SMALLPOX		
	1967				
Aircraft	1 Oct.	London	Karachi, via Cairo, Rome and Paris	2 confirmed cases (1 imported, 1 secondary case)	Onset of disease of imported case on 9 October; rash appeared on 10 October and became vesicular on 14 October. Patient isolated together with her mother (secondary case, modified smallpox) on 17 October.
Aircraft	13 Dec.	Colombo	Madras	1 confirmed case	Member of a Ceylonese sporting team, aged 49. Onset of disease 15 December; rash appeared on 21 December and patient isolated on same day. Diagnosis confirmed on 26 December. Reported to have been vaccinated in 1962 and revaccinated without major reaction on 21 November 1967.
	1968				
Aircraft	24 Feb.	London	Karachi, via Teheran, Moscow and Frankfurt-am-Main	1 confirmed case	Boy aged 15; onset of disease 27 February; rash appeared 28 February; patient was isolated 29 February; diagnosis confirmed on 3 March.
Dhow	? March	Dubai	Malabar Coast	1 case	Indian who entered the country illegally; was hospitalized on 10 March.
Dhow	? March	Dubai	Kozhikode (Kerala State, India)	1 case	Immigrant who entered the country illegally; was hospitalized on 24 March.
			3. TYPHUS		
	1968				
Aircraft	3 June	London	India, via Geneva	1 confirmed case	Teacher in a camp for Tibetan refugee children in India; left the camp on 25 May and India on 29 May. Onset of disease 9 June.

INDEX TO RESOLUTIONS AND DECISIONS