OFFICIAL RECORDS
OF THE
WORLD HEALTH ORGANIZATION
No. 18

PROGRAMME
AND
BUDGET ESTIMATES
FOR
1950

BUDGET ESTIMATES
FOR THE
REGULAR OPERATING PROGRAMME
AND THE SUPPLEMENTAL OPERATING PROGRAMME
OF ADVISORY AND TECHNICAL SERVICES
FOR THE
FINANCIAL YEAR 1 JANUARY—31 DECEMBER 1950

WORLD HEALTH ORGANIZATION

Palais des Nations, Geneva

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TRANSMITTAL OF THE PROPOSED PROGRAMME AND BUDGET ESTIMATES TO THE SECOND WORLD HEALTH ASSEMBLY BY THE EXECUTIVE BOARD

To: Second Health Assembly

Subject: Comments of the Executive Board on the proposed Programme and Budget Estimates for the Financial Year 1 January—31 December 1950 [1]

The Executive Board, having considered the proposed Programme and Budget for 1950, comments on the proposed Programme and Budget for 1950 as provided for in Article 55 of the Constitution, as follows:

1 PROGRAMME

1.1 The Board studied the proposed Programme and Budget for 1950 and believes that this programme should be carried out in the year 1950, and that it is within the technical ability of the Organization to do so.

1.2 The Board considers that a logical conception of the long-term objectives of WHO should lead in the future to the establishment of a programme covering several consecutive years.

1.3 The Board invites the attention of the World Health Assembly to the introductory statement of the Director-General. The Board is in agreement with this statement and considers it highly significant.

1.4 The Board believes that the functions of the World Health Organization can be undertaken properly and efficiently only if the principle of active co-operation and responsibility of governments and communities in all health work is constantly applied.

1.5 The Board also draws attention to the proposals in the Supplemental Programme concerning health demonstration areas. It agrees that this new international technique deserves a thorough trial with a view to its progressive expansion on the basis of accumulated experience.

2 SUPPLIES

2.1 Although the Board recognizes the critical need for health and medical supplies in many areas of the world, it believes that the distribution of these commodities is basically an economic problem. The Board feels that one of the functions of WHO is to assist and support governments in the utilization of international economic machinery in efforts to obtain supplies for health purposes.

2.2 Whereas WHO should provide supplies required for its own work, including its demonstration teams, the Board is of the opinion that it is not within the province of, nor is it possible for, the Organization to make itself responsible for supplies required by governments. However, the Board recognizes that it may be desirable in some cases for supplies to be made available for specific projects, examined in advance in detail and approved by the Executive Board, either to continue the implementation of programmes after the WHO demonstration teams have finished their task, or to implement or further a health project carried out by a governmental health administration.

2.2.1 Governments will pay for these supplies wherever possible. In some cases this payment would take the form of a credit for the account of WHO in the national bank, in the local

[1] Taking into consideration Articles 24, 28, 29 and 55 of the Constitution, the Board recognizes that, though its members are persons designated by certain Member Governments, they function as representatives of the World Health Assembly, not of the governments which have designated them.

currency, representing the cost of the supplies received. WHO could then or thereafter use this local currency for a number of important purposes. These funds could, inter alia, be used effectively :

(1) to finance fellowships

(2) to purchase services or supplies available in the country and of which WHO has need, or

(3) for approved health projects.

3 Budget

3.1 The Budget submitted to the second Health Assembly comprises :

(1) A Regular Budget for the Organization of $7,893,000 and

(2) A Supplemental Operating Programme of Advisory and Technical Services which involves an additional cost of $9,152,520.

3.2 The Board recognizes the practical problems in financing this budget but believes that the programme is of such vital importance that it should be carried out. The Board believes that the method proposed in paragraphs 3.3 and 3.4 below offers a practical solution of the problem.

3.3 The first World Health Assembly in approving the Programme and Budget for 1949 provided for delays in filling positions of approximately twenty-five to thirty per cent, in order to operate within a maximum of $5,000,000 for the year. The Board understood this as an expression by the Health Assembly of its intention that WHO should undergo orderly expansion during 1949 and that it should begin operations in 1950 at a $7,000,000 level. The Regular Budget submitted provides for :

(1) Continuation of activities at the level attained at the end of 1949 under the budget approved by the first World Health Assembly.

(2) Continuation of certain activities undertaken in 1949 under a Special Fund of one million dollars accepted from UNRRA by the first Health Assembly. [2]

3.4 The Regular Budget will be financed through the contributions of all Member Governments, in accordance with the scale of assessments to be established by the second World Health Assembly in accordance with Article 56 of the Constitution. The Executive Board invites governments in a position to do so to indicate to the second World Health Assembly their willingness to make additional contributions to WHO to finance the Supplemental Operating Programme of Advisory and Technical Services.

3.5 The Board invites the attention of the World Health Assembly to the fact that the formal budget (pages 19 to 22) for 1950 provides the flexibility necessary for the work of the Organization in 1950 to be carried out effectively. The number of positions and the amounts of money shown in the various individual projects (in the annexes to the Programme and Budget) are estimates provided to facilitate the consideration of the total budget. It should be understood that these are estimates and are, therefore, subject to such adjustments by the Director-General as may be necessary in the carrying out of the operating programme.

4 Conclusion

The Board endorses and commends to the second Health Assembly the proposed Programme and Budget of the World Health Organization for 1950 and submits them in full confidence that all Members will give them favourable consideration.

Sir Aly Tewfik SHOUSHA, Pasha,
Chairman of the Executive Board

7 March 1949

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[2] *Off. Rec. World Hlth Org.* **13**, 314, Item 4.

LETTER OF TRANSMITTAL AND AUTHORITY

In accordance with the requirements of the Constitution, the Director-General of the World Health Organization has the honour to transmit the proposed programme and budget estimates for the financial year 1 January-31 December 1950.

BROCK CHISHOLM, M.D.

Director-General.

BUDGET ESTIMATES FOR THE REGULAR OPERATING PROGRAMME AND THE SUPPLEMENTAL OPERATING PROGRAMME OF ADVISORY AND TECHNICAL SERVICES FOR THE FINANCIAL YEAR 1 JANUARY—31 DECEMBER 1950

INTRODUCTORY STATEMENT BY THE DIRECTOR-GENERAL

1. A NEW OUTLOOK

The peoples of the world must do more than attempt to protect their health and well-being by defensive measures. A new outlook is necessary. Only a well-planned, integrated and well-executed attack will even begin to solve the enormous health problems facing the peoples of the world. Therefore, the proposed programme and budget for 1950 is based on the progress which it is believed can be made through WHO in 1950 towards meeting the needs of health in the world. Indifference, inertia and resistance hamper and sometimes completely defeat even carefully constructed and thoughtfully presented programmes for improving existing conditions. But if we, as the experts in health, fail to develop and advocate the most far-sighted and sound programme that we are capable of producing, for improving the health of the peoples of the world, then we shall have failed in our responsibility " to take all necessary action to attain the objective of the Organization ".

The programme proposed for 1950 is to be regarded as the initial or short-term portion of a long-term programme designed to implement the objectives of the Constitution of the World Health Organization, having in mind the functions as stated in that document, and the social, economic and technical circumstances prevailing in the world. The programme is specifically designed to operate within the context of these economic and social circumstances, and towards their speedy amelioration. Experience of previous health organizations, the Interim Commission, WHO in its initial period (September to December 1948), and the relevant developments in and resolutions of the United Nations and other specialized agencies have been fully drawn upon, so as to produce a realistic and feasible programme integrated within itself and appropriate to the needs, although not adequate in size. As far as possible it has been drawn up so as to be complementary to the aims and programmes of other international bodies and of the national public-health administrations of the world. Full account has been taken of new techniques, material and organizational, now available for the task at hand. The programme is large, but it is only a fraction of what is required for an optimum contribution to human betterment and mutual understanding, or for a contribution in any way proportionate to the needs and the available techniques.

1.1 ATTITUDE OF THE PUBLIC-HEALTH OFFICER OF TODAY

Public-health officers have for long affirmed that economic development and public health are inseparable and complementary and that the social, cultural and economic development of a community, and its state of health, are interdependent.

The practical application of these axioms has so far been the exception rather than the rule. Investment has been largely directed to immediately visible and tangible objectives such as capital

equipment, often to the partial or even complete exclusion of comparable investment in the preventive and curative measures which are in the long view more important and necessary. If the right to health, which is indistinguishable from the most fundamental of all human rights, the right to life, is to be guaranteed, the relative scales of investment must be revised. Governmental responsibility for the health of the people is now recognized in all progressive States. Large and increasing investment in the health of the peoples of the world during the immediate future is recognized as essential by all public-health officers, sociologists and economists.

The programme for 1950 is based mainly on co-operative projects of advisory and demonstration services, with special reference to underdeveloped and undeveloped areas and to areas devastated or partially crippled by the war. The success of these services will stimulate further investments by national, international and private agencies throughout the world. Just as investment in the health of the people has always paid much wider dividends than were envisaged at the time, so it can be expected that these demonstrations, not only of world solidarity, but also of the feasibility of the attainment by all peoples of the highest possible level of health, will convince the world of the necessity for still greater investments which will lead to further dividends in productivity, social stability, mutual understanding and economic development and regeneration which can only be dimly forecast at the present time.

In other words, this programme of work is an application of the attitude and viewpoint of the public-health officer of today confronted with the implementation of the tasks before the World Health Organization. Fully aware of the economic, psychological and social aspects of his problems and of the remarkable scientific and organizational techniques immediately available for the prevention and elimination of a considerable number of the diseases which afflict a great proportion of mankind, he knows that he can, by application of these techniques and attitudes, make a real contribution to the speedy arrival of man at his true estate, when he will no longer be the slave of his environment.

It is well known that the major problem facing the world is that of securing adequate food-production in relation to an increasing population. A vicious circle prevails in wide and potentially fruitful areas, where the farmer is able to produce only a small proportion of his normal quota because of poor husbandry and a galaxy of preventable diseases. If the farmer has good health and improved agricultural techniques, his productivity will rise very rapidly and this vicious circle will be broken. Increased national income will make possible still greater investments in health work and agricultural improvement ; the standard of living will rise and social and other tensions will fall. This is demonstrated by the much higher yield, agriculturally and industrially, of the dweller in countries which are more fortunately placed from the point of view of climate and the incidence of endemic diseases and parasites. This is not the only reason for the difference in output, but it is one which is always grossly underestimated. Projects for industrialization feature largely in the plans for the development of underdeveloped and undeveloped areas, but this industrialization can be and should be founded only on a healthy and enterprising population. Otherwise, the consequent migration to the cities will leave only the dregs of a partially sick people to till the fields, and the same vicious circle will recommence.

For all practical purposes, the means at present available make possible the elimination of many reservoirs of pestilential diseases. But these means are not universally available, and indeed, are not usually available to the areas where they are most needed. This is true whether these means are technical skills or the more recent achievements of pharmaceutical and chemical science. This maldistribution must be rectified, and that can be done only by substantial investment.

The technical services and other functions of WHO are fully provided for in the proposed programme. Indeed they are essential to the major projects. The individual specialities are also separately provided for. In many cases it is necessary to collect data on the existing position so as to develop a thorough knowledge of the problems and techniques in each field ; in this way, the skills, needs and resources in that speciality can be properly deployed either as part of a major project or individually.

A number of other activities, which are mentioned in the Constitution, require further reconnaissance—accident prevention, dental hygiene, physical culture, and others—so that the means available and the reasonable requirements in each case can be integrated into short-term or long-term future plans of WHO. This reconnaissance also is provided for in the programme for 1950.

1.2 PROGRAMME OF WORK AS EVOLVED IN THE LIGHT OF THIS ATTITUDE

1.2.1 Elimination of Reservoirs of Communicable Disease

The expenditure by governments on quarantine measures, which are now regarded as being at best not particularly effective, is high and the losses in trade, in ship-time, and in the time of quarantine officers, who could be better employed in positive health measures, are enormous. If adequate sums were spent on the planned elimination of reservoirs of communicable diseases, quarantine would become largely unnecessary and the attendant benefits to trade, saving of inconvenience to travellers, and reductions in governmental expenditure, would be vast.

The communicable diseases referred to include cholera, diphtheria, dysentery, enteric fever, malaria, certain parasitic diseases, pertussis, plague (as a disease of man), relapsing fever, smallpox, tuberculosis, trachoma, typhus, venereal diseases, worm infestations and yellow fever. It is not to be taken that endemic foci of all these can be speedily or even easily eradicated. They are all susceptible to elimination in varying degree, depending on the investment available, the present state of knowledge and the availability of the current effective weapons.

The lines of approach to the elimination of foci of certain of the conditions mentioned will be found in the details of the proposed programmes below. As and when effective and economically justifiable measures for the elimination of other contagious diseases become available, they will be recommended.

This section of the programme is both short-term and long-term and will be directed to areas susceptible to the " elimination approach " as soon as these are ascertained.

1.2.2 Measures to be taken to promote Positive Health

In this category are the following projects :

Maternal and child health and welfare
Mental health
Health education of the public
Nutrition
Occupational hygiene

and many other health projects of wide social significance such as housing and town planning in general.

It is seen that these measures promoting positive health, in addition to being long-term objectives in themselves, are necessary complements to the other projects included in the programme.

1.2.3 Individual Projects

The individual projects—malaria, plague, venereal diseases, maternal and child health and the others—are not only complementary to the demonstration areas [1] (which are after all integrated combinations of some or all of them), but are also planned as services to governments to assist them in building up strong public-health administrations, to implement the objectives of the Constitution and to serve special needs of populations of all countries.

1.2.4 Technical Services

Under this general heading are grouped the services and functions which fall mainly under the Department of Technical Services in the current organizational structure. They are essential to the

[1] See item 1.2.6

health departments of governments and in most cases are equally essential for carrying out the projects mentioned elsewhere in this programme.

Epidemiological statistics information
Sanitary conventions and quarantine service
Epidemiological studies
Health statistics
Co-ordination of research
Biological standardization
Unification of pharmacopoeias
Habit-forming drugs
Publications and library.

1.2.5 Methods and Means of implementing the Programme

Under this heading are grouped those activities which, although projects in themselves, are basically techniques and are not only necessary to the successful implementation of projects, but ends in themselves. These are therefore necessary and valuable, externally and internally.

Public-health administration (Organization of the care of health)
Environmental sanitation
Technical training of medical and auxiliary personnel
  Standards of technical education and training
  Fellowships and study-tours
  Exchange of technical personnel
  Measures to relieve the world shortage of nurses and auxiliary personnel.

Reference has been made above to the importance of public-health administration and it will again be referred to below in the consideration of the guarantees which may reasonably be required to ensure success for projects to improve the world's health.

1.2.6 Health Demonstration Areas

It is planned to establish health demonstration areas in 1950. This is a new programme with the primary object of demonstrating and developing in the relevant contexts the methods of achieving the fuller concept of the Constitution, the attainment by all peoples of the highest possible level of health.

Each such demonstration area will be designed to be as complete as possible, all component parts complementing each other, and full account being taken of the social and economic development of the inhabitants of the area, the scientific and organizational techniques available, and the strengthening of national and local public-health administrations concerned. They will be carried out in co-operation with the national and local health administrations and will provide valuable information on the methods necessary for satisfactory utilization of recent advances in health work in the circumstances of the area.

They will also demonstrate to the governments and the world in general the economic value of well-planned and far-sighted measures to improve the health of the population.

The greatest importance is attached to these health demonstration areas, not only as immediate measures which will greatly benefit the health of the inhabitants of the areas concerned, but also as patterns for the future.

1.2.7 Special Projects

These are projects otherwise unclassifiable, designed to meet recognized and specific needs. They are fully documented in the detailed statements of programme.

International Serological Conference
Port demonstration area in venereal-disease control
Research in antibiotics
BCG research
Stomatology and dental hygiene
Physical training
Co-ordination of international congresses of medical sciences
Co-ordination of medical and biological abstracting services.

It will be noted that these projects are also essential to other major parts of the programme of work.

1.2.8 Supplies and their Importance

Experience has shown that work projected under decisions of the Health Assembly and the Executive Board is often completely sterile, and in some cases impossible, unless certain necessary supplies are available. It is a fact that in many countries penicillin, DDT and certain vital equipment are not available and cannot be made available from local sources or purchased with local currency. When WHO undertakes or stimulates extensive projects for control of malaria or plague, cholera or venereal diseases, to name only a few activities, some supplies should be furnished. These supplies are required not only for the demonstration teams of WHO, but in many cases to make it possible for the country to continue the implementation of the programme after the WHO demonstration team has moved on to other areas or countries. It is to be expected that the ultimate increase in the productivity of the country and industrial development or revitalization, will make possible either purchase or manufacture of these necessary supplies in the future. Without such provision of reasonable quantities of supplies the governments concerned cannot be expected to carry the programmes initiated by WHO to full fruition.

Governments will be expected to pay for these supplies wherever possible. In some cases this payment would take the form of a credit, to the account of WHO in the national bank, in the local currency, representing the cost of the supplies received. WHO could then or thereafter use these local currency resources for a number of important purposes. These funds would be used to finance fellowships from neighbouring countries, to purchase other services available in the country and of which WHO has need, or for local health projects approved by WHO.

1.2.9 Other Supplies for which no Specific Provision has been made in this Proposed Budget

It is recognized that there are many areas and countries in the world in which the major need is for medical supplies rather than for technical services alone. Some countries, although possessing the necessary technical services, are unable to cope with many of their public-health problems because of the lack of adequate medical and sanitary supplies. This need results from the general economic situation and the lack of the currencies necessary to procure supplies available only by import.

Although no budgetary provision has been made in the proposed programme and budget for 1950, governments are urged to give very careful consideration to this serious and frequently critical need. Should governments decide that direct action should be taken by WHO to alleviate this condition, consideration may be given to adding to this budget such additional amounts for 1950 as are considered proper.

1.3 PRACTICAL CONSIDERATIONS INVOLVED IN THE IMPLEMENTATION OF THE PROGRAMME

It is plain that, before approving such a programme as is presented for 1950, the Health Assembly has a right to expect that reasonable guarantees for success will be obtained and that all likely causes of failure will be excluded, so far as possible. This involves a consideration of guarantees by governments of financial and administrative participation in the programme.

1.3.1 Responsibility of Governments for Continuing Investment

All these projects are co-operative, and one form of co-operative responsibility will be a reasonable and continuing investment of local currency by the government. It has usually been the practice of the World Health Organization to expect that all local expenditures which can be met by local currency or services should be provided by the government concerned, and this will normally be insisted on in the future. This is a minimum. In addition, it will be reasonable to expect that a government co-operating in these undertakings will make adequate budgetary provision for their continuation to a satisfactory conclusion, or to their permanent integration within its own health programmes, after the withdrawal of the staff provided by WHO.

Failure to agree to these eminently reasonable prerequisites may render a government ineligible for participation in WHO's projects.

1.3.2 Public-health Administration

It is clear that the status of the national public-health administration, in any area chosen for action by WHO, will have a considerable bearing on the chances of success, short- and long-term, of such action, and also on the cost of carrying it out. The Organization should be satisfied that the public-health administration of the area is technically and administratively equipped to co-operate in the projected programme and to carry it on effectively after the withdrawal of the WHO staff, and an agreement will be entered into for implementation of the agreed programme. The Organization will offer the country concerned advice, administrative techniques and facilities for setting up a satisfactory administration either before establishing the programme or at least as a prerequisite part of it. The section of public-health administration will serve governments requesting aid in the organization of public health, and will make studies and collect information so as to be able to provide the advice requested, in full knowledge of all the available techniques and the relevant environments, economic, cultural, administrative and social.

1.3.3 Proposed Agreements with Co-operating Governments

Agreements, to be drawn up after consultation with other agencies having experience in this field, are necessary from the point of view of good management and necessary financial controls within the Organization and also so that the position of WHO's experts in the field shall be defined. They will provide for the considerations raised in 1.3.1 and 1.3.2 above.

2. FORM OF BUDGET PRESENTATION

2.1 DIVISION INTO TWO PARTS

The programme and the budget estimates for 1950 have been prepared along the general lines described in the report by the Director-General submitted to the second session of the Executive Board.[1] The Executive Board approved the proposed method of presenting the 1950 budget, which provides that it be presented in two parts:

The Administrative Part
The Operating Programme Part.

2.1.1 The Administrative Part

Included in this part of the budget are the expenses of the Health Assembly and Executive Board meetings, which appear in the 1949 Budget as organizational meetings. Also included are those expenses which facilitate and provide services for carrying out the objectives of the Organization; they arise from co-ordinating, administratively planning, organizing, staffing and financing the programmes. They include the salaries of the Director-General and his staff, and the employees of those activities which aid in the administration of the Organization—liaison, budgeting, accounting, general services, personnel administration and others of like character.

Although the Director-General is both chief technical and chief administrative officer for the Organization, his expenses and those for his immediate office are regarded as administrative. His time is divided between programme and administrative work, but he is responsible for management of the entire Organization, and to try to separate his time and that of his immediate staff is not practicable.

The expenses of the stenographic pool have likewise been included as administrative expenses, although this service is utilized largely by the operating programme staff at headquarters. However, for organizational and management reasons it is desirable to show the expenses for this service in the administrative expenses of the Organization.

[1] *Off. Rec. World Hlth Org.* **14**, 41-47

Administrative expenses have been calculated on the basis of salaries, allowances and travel only, excluding miscellaneous expenses such as communications, administrative supplies and materials, etc. Since personnel costs reflect the relationship of the miscellaneous expenses, they have been used as the index of the relative costs of common services as between the administrative and operating parts of the budget. Percentages of the total salary and allowance expenses were established, and those percentages have been used to determine proportionate shares of other types of expenditure. To attempt to budget on any other basis would involve the Organization in expensive and intricate cost accounting.

A schematic outline, which illustrates the definition of administrative expenses by listing in detail the functions which constitute the major portion of administrative expenses, is given in Appendix 1 (p. 9). The scheme of presenting the details is to list first a major function such as administration, personnel, finance, etc., and then to list the activities under each heading. Notations show which functions and activities are included and which excluded.

2.1.2 The Operating Programme Part

Programme operating expenses include all the expenses of work done directly on the programme activities of the Organization both at headquarters and in the field. The Operating Programme has been divided into the following main categories:

Operating Supervisory Staff
Advisory and Demonstration Services to Governments (by project)
Technical Services (by project)
Other Projects (by project)
Regional Offices
Other Offices
Common Services (Operating)

Under the heading of Operating Supervisory Staff there have been included the salaries, allowances and travel and transportation expenses of that portion of the staff in the departments of operation and technical services at headquarters, whose function it is to supervise the overall programmes of those departments. Where the function of the staff at headquarters is confined to one project activity, the expenses of that staff are shown under the individual project.

2.2 PROJECT BUDGETING

The individual activities which make up the total programme have been designated as projects. This has been done in order to group together the total expenditure required for each activity. The expenses of each project are shown under the following headings, where applicable:

Salaries (Headquarters)
Salaries (Field)
Consultants
Allowances
Travel and Transportation
Training Courses
Conference Costs
Special Projects
Supplies and Equipment to Teams
Purchase of Motor Vehicles
Operation of Motor Vehicles
Special Literature
Grants
Expert Advisory Committees

2.3 METHOD OF FINANCING

The Budget submitted to the second Health Assembly comprises:

The Regular Budget, and
The Budget for the Supplemental Operating Programme of Advisory and Technical Services.

The Regular Budget will be financed through the contributions of all Member Governments, in accordance with the scale of assessments to be established by the second World Health Assembly in accordance with Article 56 of the Constitution. It is expected that the Supplemental Budget will be financed following invitations to governments in a position to do so to indicate to the second World Health Assembly their willingness to make additional contributions to WHO to finance the Supplemental Operating Programme of Advisory and Technical Services.

2.4 SALARY SCHEDULE

The salary schedule applicable to positions in the Organization, together with the explanation of the categories of positions, as they have been established for budgetary purposes, is contained in Appendix 2 (p. 11).

2.5 COMPARISON OF STAFFING REQUIREMENTS FOR 1949 AND 1950

Since the presentation of the budget estimates for 1950 differs considerably from that for 1949, difficulty may be encountered in comparing the numbers of staff required in the two fiscal years. To facilitate this comparison, a comparative table of employment showing the number of posts for 1949 and 1950 is given in Appendix 3 (p. 12).

2.6 PROJECT DISTRIBUTION OF STAFF AND EXPENSES

In order to provide an opportunity for appraisal of the total number of proposed posts and the expenditures estimated for each activity in 1950, a statement of the project distribution of the proposed 1950 Budget, showing the estimated number of posts by category and the estimated expenses for each function, is given in Appendix 4 (p. 13).

Appendix 1

SCHEMATIC OUTLINE : DETAILS OF DEFINITIONS

Functions considered as constituting administrative expense [1]

Function	Examples [2]
Administration "Administration", as used here, consists of those overall functions performed in organizing, co-ordinating, planning and supervising the activities on an organization-wide basis. The allocation of consultants, co-ordinators and liaison assistants attached to the Director-General's office is determined on the basis of assignment; if the work primarily concerns organization, planning and those broader problems dealing with administrative counselling of the agency, the expense is assigned to administration. The development and rendering to the Director-General of legal advice which he requires in the co-ordination, planning and administrative management of the Organization is regarded as an administrative expense.	Includes : 1. Director-General and his immediate staff. 2. Deputy Director-General and his immediate staff. 3. Director, Administration and Finance and his immediate staff. 4. Consultants and co-ordinators attached to the Director-General's office. 5. That part of the New York Office engaged in liaison with the United Nations, other specialized agencies, etc., and personnel on the staff of the Director-General engaged in liaison work. 6. Legal Section.
Administrative Management Analysis "Administrative management analysis", as used here, represents those analytical, research and survey functions performed to aid the Director-General to carry out his responsibilities for organizing, planning and co-ordinating the activities of the Organization. Activities : Organization analysis and recommendations Procedural analysis and recommendations Reviewing orders, instructions, etc. Reviewing forms	Includes : That part of the Office of Budget and Management which deals with administrative management analysis. Although he is responsible for activities in both fields, the Chief, Office of Budget and Management and his secretary are arbitrarily assigned, for this purpose, to the budget functions.
Conference and General Services As used here, the term "conference and general services" represents the housekeeping services of the Organization, including staffing and material arrangements for conferences and meetings. Activities : Procurement and management of equipment and supplies (only administrative material is included under this item) Registry Documents Conference arrangements Office accommodation Central stenographic service Graphic services Travel & transportation	Includes : Office of Conference and General Services.

[1] This applies to headquarters only. All regional and field office expenses are classified as "operating expense".

[2] Examples cited herein are from the organizational structure as it existed on 1 February 1949. Should that structure change, the examples may need also to be changed.

Functions considered as constituting administrative expenses (continued)

Function	Examples
Fiscal activities "Fiscal activities" as used here, embraces budgeting, auditing, accounting (except programme accounting) and management and record keeping of the financial resources of the Organization. Activities : Administrative accounting and auditing (those activities necessary to collect, receive, record, report, disburse, inspect and audit the financial resources of the Organization, and to provide administration with financial information) Investment of funds temporarily idle Financial administration of Staff Provident and Retirement Funds Budgeting This function excludes programme accounting and auditing which arises from purchase of operating supplies and equipment, operation of the fellowship programme, etc. However, until such time as this type of accounting has reached a volume which is readily identifiable, all accounting and auditing expenses will be regarded as administrative.	Includes : Office of Internal Audit Office of Finance and Accounts The portion of the Office of Budget and Management which deals with budgetary planning, justification and execution
Information As used here, the term "information" represents the preparation and distribution of information of interest to the general public. It does not include the editorial and reference services, because these services are in the field of programme operations, such as preparing reports on the findings of research, or the dissemination of information of a programme nature.	Includes : Office of Public Information Excludes : Division of Editorial and Reference Services. *Note :* Although the Translation Section is responsible for translating administrative as well as programme material, the translation of administrative material does not require as much as 50 per cent of the time of any translator, so the expense is classified as "operating expense".
Personnel Activities "Personnel", as used here, represents the Organization-wide activity and does not include the personnel functions performed by Directors and other supervisors. Activities : Advises on all phases of personnel management Administration of Staff Regulations and Staff Rules Appointment Placement Classification Training Safety Employee Relations Liaison with other agencies Liaison with governmental authorities Insurance and retirement plans	Includes : Office of Personnel

Appendix 2

SALARY SCHEDULE

The following is a reproduction of the salary schedule which is applicable to positions in the Organization. Since it is not possible at this time to forecast the classification of positions to be established in the field in 1950, those positions have been grouped into categories, and average salaries arrived at for budgetary purposes. The categories are :

Category I : Grades 13 to 18 — US $7,000
Category II : Grades 9 to 12 — US $4,000
Category III : Grades 1 to 8 — US $2,500

Grade	Step I *	Step II	Step III	Step IV	Step V	Step VI	Step VII
	US $	US $	US $	US $	US $	US $	US $
1	1580	1660	1740	1830	1920	2020	2130
2	1740	1830	1920	2020	2130	2240	2360
3	1920	2020	2130	2240	2360	2480	2610
4	2130	2240	2360	2480	2610	2750	2890
5	2360	2480	2610	2750	2890	3050	3210
6	2610	2750	2890	3050	3210	3390	3570
7	2890	3050	3210	3390	3570	3770	3970
8	3210	3390	3570	3770	3970	4190	4410
9	3570	3770	3970	4190	4410	4660	4910
10	3970	4190	4410	4660	4910	5180	5450
11	4410	4660	4910	5180	5450	5750	6050
12	4910	5180	5450	5750	6050	6370	6700
13	5450	5750	6050	6370	6700	7060	7450
14	6050	6370	6700	7060	7450	7870	8300
15	6700	7060	7450	7870	8300	8750	9200
16	7450	7870	8300	8750	9200	9700	10300
17	8300	8750	9200	9700	10300	10900	—
18	9200	9700	10300	10900	—	—	—
19	10000	10500	11000	—	—	—	—
Top-ranking Director	11000	—	—	—	—	—	—

* Base salary for grade.

Appendix 3

COMPARATIVE TABLE OF EMPLOYMENT

Showing Number of Posts 1949 and 1950

	Headquarters		Field		TOTAL	
	1949	1950	1949	1950	1949	1950
Administrative Budget	190	229	—	—	190	229
Sub-total	190	229	—	—	190	229
REGULAR OPERATING PROGRAMME						
Operating Supervisory Staff	25	27	—	—	25	27
Regional Offices	—	—	103	198	103	198
Other Offices	—	—	11	14	11	14
Advisory and Demonstration Services to Governments	39	49	69	107	108	156
Technical Services	102	125	1	1	103	126
Other Projects	9	14	—	4	9	18
Sub-total	175	215	184	324	359	539
TOTAL REGULAR BUDGET	365	444	184	324	549	768
SUPPLEMENTAL OPERATING PROGRAMME						
Administrative Budget	—	**21**	—	—	—	**21**
Advisory and Demonstration Services to Governments	—	**33**	—	**265**	—	**298**
Technical Services	—	**5**	**15**	**26**	**15**	**31**
Other Projects	—	**3**	—	**11**	—	**14**
TOTAL SUPPLEMENTAL BUDGET	—	**62**	**15**	**302**	**15**	**364**
GRAND TOTAL	365	506	199	626	564	1,132

Appendix 4

FUNCTIONAL DISTRIBUTION OF THE PROPOSED 1950 BUDGET

Showing the Number of Posts by Category and the Estimated Expenditure for each Function under both the Regular Budget and the Supplemental Budget

ACTIVITY	REGULAR OPERATING PROGRAMME					SUPPLEMENTAL OPERATING PROGRAMME					TOTAL PROGRAMME				
	Number of Posts 1950 Category				Estimated Expenditure 1950	Number of Posts 1950 Category				Estimated Expenditure 1950	Number of Posts 1950 Category				Estimated Expenditure 1950
	I	II	III	Total	US $	I	II	III	Total	US $	I	II	III	Total	US $
ADMINISTRATIVE BUDGET															
Office of the Director-General . .	3	5	7	15	133,320	—	—	—	—	—	3	5	7	15	133,320
Liaison Section	3	3	8	14	101,480	—	—	—	—	—	3	3	8	14	101,480
Legal Section	1	1	2	4	32,355	—	—	—	—	—	1	1	2	4	32,355
Office of Public Information . . .	3	5	5	13	98,575	—	—	—	—	—	3	5	5	13	98,575
Admin. and Finance: Office of the Director	2	—	2	4	42,660	—	—	—	—	—	2	—	2	4	42,660
Office of Programme Analysis .	1	1	1	3	23,660	—	—	—	—	—	1	1	1	3	23,660
Office of Budget and Management	4	5	5	14	87,945	—	**2**	**1**	**3**	**15,450**	4	7	6	17	103,395
Office of Personnel	5	2	12	19	94,135	—	**1**	**5**	**6**	**27,280**	5	3	17	25	121,415
Office of Conferences and General Services	2	7	96	105	416,685	—	—	—	—	—	2	7	96	105	416,685
Office of Finance and Accounts .	4	7	21	32	155,840	**1**	**2**	**9**	**12**	**58,485**	5	9	30	44	214,325
Office of Internal Audit	2	3	1	6	69,745	—	—	—	—	—	2	3	1	6	69,745
Total	30	39	160	229	1,256,400	**1**	**5**	**15**	**21**	**101,215**	31	44	175	250	1,357,615
Add Organizational Meetings . .	—	—	—	—	254,000	—	—	—	—	—	—	—	—	—	254,000
Add Common Services	—	—	—	—	147,595	—	—	—	—	**23,785**	—	—	—	—	171,380
TOTAL ADMINISTRATIVE BUDGET .	—	—	—	—	1,657,995	—	—	—	—	**125,000**	—	—	—	—	1,782,995

FUNCTIONAL DISTRIBUTION OF THE PROPOSED 1950 BUDGET (continued)

ACTIVITY	REGULAR OPERATING PROGRAMME					SUPPLEMENTAL OPERATING PROGRAMME					TOTAL PROGRAMME				
	Number of Posts 1950 Category				Estimated Expenditure 1950	Number of Posts 1950 Category				Estimated Expenditure 1950	Number of Posts 1950 Category				Estimated Expenditure 1950
	I	II	III	Total	US $	I	II	III	Total	US $	I	II	III	Total	US $
OPERATING PROGRAMME — OPERATING SUPERVISORY STAFF															
Office of A.D-G. for Technical Services	1	1	1	3	31,310	—	—	—	—	—	1	1	1	3	31,310
Division of Epidemiology: Office of the Director	1	—	2	3	34,505	—	—	—	—	—	1	—	2	3	34,505
Division of Editorial and Reference Services: Office of the Director	1	—	2	3	31,195	—	—	—	—	—	1	—	2	3	31,195
Division of Co-ordination of Research and Therapeutic Substances: Office of the Director	1	—	1	2	22,915	—	—	—	—	—	1	—	1	2	22,915
Office of A.D-G. for Operations	4	—	2	6	70,795	—	—	—	—	—	4	—	2	6	70,795
Division of Planning: Office of the Director	2	1	2	5	48,310	—	—	—	—	—	2	1	2	5	48,310
Division of Field Operations: Office of the Director	1	1	1	3	26,675	—	—	—	—	—	1	1	1	3	26,675
Regional Field Operations Section	1	—	1	2	14,145	—	—	—	—	—	1	—	1	2	14,145
REGIONAL OFFICES	30	24	84	198*	952,535	—	—	—	—	—	30	24	84	198*	952,535
OTHER OFFICES	2	—	12	14	71,925	—	—	—	—	—	2	—	12	14	71,925
ADVISORY AND DEMONSTRATION SERVICES															
Health Demonstration Areas	—	—	—	—	—	**18**	**24**	**6**	**48**	**1,163,440**	18	24	6	48	1,163,440
Malaria	11	5	6	22	439,255	**14**	**5**	**1**	**20**	**739,725**	25	10	7	42	1,178,980
Maternal and Child Health	13	13	3	29	331,050	**17**	**24**	**9**	**50**	**740,590**	30	37	12	79	1,071,640
Environmental Sanitation	11	6	2	19	268,235	**11**	**14**	**1**	**26**	**795,575**	22	20	3	45	1,063,810
Mental Health	5	7	5	17	217,180	**15**	**25**	**11**	**51**	**725,370**	20	32	16	68	942,550
Venereal Diseases	8	8	4	20	429,415	**17**	**1**	**9**	**27**	**340,480**	25	9	13	47	769,895
Tuberculosis	10	11	6	27	363,040	**2**	**10**	**3**	**15**	**243,180**	12	21	9	42	606,220
Public Health Administration	11	1	4	16	161,080	**9**	**6**	**4**	**19**	**295,810**	20	7	8	35	456,890
Nutrition	4	—	2	6	72,440	**10**	**6**	—	**16**	**314,645**	14	6	2	22	387,085
Cholera	—	—	—	—	—	**6**	**2**	—	**8**	**177,215**	6	2	—	8	177,215
Plague	—	—	—	—	—	**6**	**2**	—	**8**	**175,365**	6	2	—	8	175,365
Typhus	—	—	—	—	—	**6**	**2**	—	**8**	**159,115**	6	2	—	8	159,115
Health Education of the Public	—	—	—	—	—	**1**	—	**1**	**2**	**119,985**	1	—	1	2	119,985

* This total includes 60 custodial staff.

FUNCTIONAL DISTRIBUTION OF THE PROPOSED 1950 BUDGET (continued)

ACTIVITY	REGULAR OPERATING PROGRAMME					SUPPLEMENTAL OPERATING PROGRAMME					TOTAL PROGRAMME				
	Number of Posts 1950 Category				Estimated Expenditure 1950	Number of Posts 1950 Category				Estimated Expenditure 1950	Number of Posts 1950 Category				Estimated Expenditure 1950
	I	II	III	Total	US $	I	II	III	Total	US $	I	II	III	Total	US $
TECHNICAL SERVICES															
Technical Training of Medical & Auxiliary Personnel	6	2	4	12	868,080	**12**	—	**2**	**14**	**1,964,680**	18	2	6	26	2,832,760
Publications	13	17	11	41	483,255	—	—	—	—	—	13	17	11	41	483,255
Tuberculosis Research Group	—	—	—	—	—	**7**	**10**	**6**	**23**	**297,280**	7	10	6	23	297,280
Epidemiological Studies	5	—	5	10	95,515	**2**	—	**3**	**5**	**114,345**	7	—	8	15	209,860
Sanitary Conventions and Quarantine	5	1	6	12	116,570	—	—	—	—	—	5	1	6	12	116,570
Therapeutic Substances	3	—	4	7	115,810	—	—	—	—	—	3	—	4	7	115,810
Health Statistics	3	2	12	17	103,930	—	—	—	—	—	3	2	12	17	103,930
Co-ordination of Research	2	1	3	6	101,060	—	—	—	—	—	2	1	3	6	101,060
Library and Reference Services	1	4	13	18	86,805	—	—	—	—	—	1	4	13	18	86,805
Epidemiological Statistics and Information	2	3	9	14	79,435	—	—	—	—	—	2	3	9	14	79,435
Schistosomiasis Field Study-Group	1	—	—	1	25,185	**2**	**1**	—	**3**	**50,000**	3	1	—	4	75,185
Co-ordination of International Congresses of Medical Sciences	—	—	—	—	44,000	—	—	—	—	—	—	—	—	—	44,000
Research on Antibiotics	—	—	—	—	8,000	—	—	—	—	**32,000**	—	—	—	—	40,000
Co-ordination of Medical and Biological Abstracting Services	—	—	—	—	6,000	—	—	—	—	—	—	—	—	—	6,000
OTHER PROJECTS															
Programme Supply Advisory Services	1	2	3	6	309,875	—	—	—	—	**485,000**	1	2	3	6	794,875
Add Common Services					505,480					**93,720**					599,200
TOTAL OPERATING BUDGET	159	110	270	539	6,535,005	**155**	**132**	**56**	**343**	**9,027,520**	314	242	326	882	15,562,525
Add Administrative Budget	30	39	160	229	1,657,995	**1**	**5**	**15**	**21**	**125,000**	31	44	175	250	1,782,995
GRAND TOTAL 1950 BUDGET	189	149	430	768	8,193,000	**156**	**137**	**71**	**364**	**9,152,520**	345	286	501	1132	17,345,520
Deduct available from UNRRA Funds					300,000										300,000
GRAND TOTAL					7,893,000					**9,152,520**					17,045,520

PROPOSED BUDGET

FOR THE FINANCIAL YEAR

1 JANUARY — 31 DECEMBER 1950

3. SUMMARY OF BUDGET ESTIMATES FOR THE FINANCIAL YEAR 1 JANUARY — 31 DECEMBER 1950

PART I — REGULAR AND SUPPLEMENTAL ADMINISTRATIVE BUDGET ESTIMATES

	1949	Estimated Expenditure 1950	
		Regular	**Supplemental**
	US $	US $	**US $**
SECTION 1 ORGANIZATIONAL MEETINGS			
Chapter 1.1 World Health Assembly			
00 Personal services	51,500	52,000	—
10 Personal allowances	13,000	13,500	—
20 Travel and transportation	73,000	64,000	—
30 Space and equipment services	2,500	10,500	—
40 Other services	20,000	25,000	—
50 Supplies and materials	25,000	20,000	—
60 Fixed charges and claims	1,000	1,000	—
70 Grants	—	—	—
80 Acquisition of capital assets	4,000	4,000	—
Total Chapter 1.1	190,000	190,000	—
Chapter 1.2 Executive Board and Committees			
00 Personal services	8,000	8,000	—
10 Personal allowances	2,000	2,000	—
20 Travel and transportation	42,000	32,000	—
30 Space and equipment services	4,000	4,000	—
40 Other services	7,000	7,000	—
50 Supplies and materials	8,000	8,000	—
60 Fixed charges and claims	200	200	—
70 Grants	—	—	—
80 Acquisition of capital assets	2,800	2,800	—
Total Chapter 1.2	74,000	64,000	—
TOTAL SECTION 1	264,000	254,000	—
SECTION 2 ADMINISTRATIVE EXPENSES			
00 Personal services	572,180	840,500	**65,265**
10 Personal allowances	132,500	225,350	**20,550**
20 Travel and transportation	75,880	190,550	**15,400**
30 Space and equipment services	47,000	53,615	**5,785**
40 Other services	26,500	26,300	**4,000**
50 Supplies and materials	14,000	15,000	**4,500**
60 Fixed charges and claims	6,000	19,480	**3,000**
70 Grants	—	—	—
80 Acquisition of capital assets	55,170	33,200	**6,500**
TOTAL SECTION 2	929,230	1,403,995	**125,000**
TOTAL PART I	1,193,230	1,657,995	**125,000**

PART II — REGULAR AND SUPPLEMENTAL OPERATING PROGRAMME BUDGET ESTIMATES

	1949	Estimated Expenditure 1950	
		Regular	**Supplemental**
	US $	US $	**US $**
SECTION 3 OPERATING PROGRAMME			
Chapter 3.1 Operating Supervisory Staff			
00 Personal services	254,865	159,950	—
10 Personal allowances	79,645	52,800	—
20 Travel and transportation	57,750	67,100	—
30 Space and equipment services	—	—	—
40 Other services	—	—	—
50 Supplies and material	—	—	—
60 Fixed charges and claims	—	—	—
70 Grants	—	—	—
80 Acquisition of capital assets	—	—	—
Total Chapter 3.1	392,260	279,850	—
Chapter 3.2 Regional Offices			
00 Personal services	186,995	573,285	—
10 Personal allowances	17,805	132,750	—
20 Travel and transportation	21,200	97,500	—
30 Space and equipment services	20,000	30,000	—
40 Other services	6,000	11,000	—
50 Supplies and material	20,000	25,000	—
60 Fixed charges and claims	3,000	8,000	—
70 Grants	—	—	—
80 Acquisition of capital assets	25,000	75,000	—
Total Chapter 3.2	300,000	952,535	—
Chapter 3.3 Other Offices			
00 Personal services	33,000	32,845	—
10 Personal allowances	7,365	11,380	—
20 Travel and transportation	4,000	8,700	—
30 Space and equipment services	5,200	6,000	—
40 Other services	3,000	3,000	—
50 Supplies and material	2,800	3,000	—
60 Fixed charges and claims	2,000	2,000	—
70 Grants	—	—	—
80 Acquisition of capital assets	2,000	5,000	—
Total Chapter 3.3	59,365	71,925	—
Chapter 3.4 Advisory and Demonstration Services to Governments			
00 Personal services	711,195	989,500	**1,917,960**
10 Personal allowances	237,030	248,825	**637,480**
20 Travel and transportation	192,320	466,820	**1,459,730**
30 Space and equipment services	—	—	**4,620**
40 Other services	—	20,730	**94,090**
50 Supplies and material	196,340	369,830	**1,576,160**
60 Fixed charges and claims	—	—	**2,310**
70 Grants	—	19,000	—
80 Acquisition of capital assets	—	33,500	**221,120**
Total Chapter 3.4	1,336,885	2,148,205	**5,913,470**

	1949	Estimated Expenditur 1950	
		Regular	**Supplemental**
	US $	US $	**US $**
Chapter 3.5 Technical Training of Medical and Auxiliary Personnel			
00 Personal services	25,330	63,355	**224,560**
10 Personal allowances	6,350	17,350	**24,020**
20 Travel and transportation	10,000	19,700	**182,600**
30 Space and equipment services	—	—	**11,000**
40 Other services	—	—	**13,750**
50 Supplies and material	—	—	**446,750**
60 Fixed charges and claims	—	—	**—**
70 Grants	755,000	755,200	**920,000**
80 Acquisition of capital assets	—	—	**135,000**
Total Chapter 3.5	796,680	855,605	**1,957,680**
Chapter 3.6 Medical Literature and Teaching Equipment			
00 Personal services	—	—	**—**
10 Personal allowances	—	—	**—**
20 Travel and transportation	—	—	**—**
30 Space and equipment services	—	—	**—**
40 Other services	—	—	**—**
50 Supplies and material	150,000	150,000	**100,000**
60 Fixed charges and claims	—	—	**—**
70 Grants	—	—	**—**
80 Acquisition of capital assets	—	—	**—**
Total Chapter 3.6	150,000	150,000	**100,000**
Chapter 3.7 Technical Services			
00 Personal services	312,015	553,810	**147,365**
10 Personal allowances	83,325	150,875	**64,835**
20 Travel and transportation	66,150	137,255	**69,775**
30 Space and equipment services	—	—	**—**
40 Other services	—	2,500	**1,000**
50 Supplies and material	148,000	240,400	**108,000**
60 Fixed charges and claims	—	—	**—**
70 Grants	65,500	59,250	**47,000**
80 Acquisition of capital assets	—	8,500	**—**
Total Chapter 3.7	674,990	1,152,590	**437,975**
Chapter 3.8 Expert Committees			
00 Personal services	16,420	31,385	**15,960**
10 Personal allowances	—	—	**—**
20 Travel and transportation	123,150	228,120	**104,605**
30 Space and equipment services	—	—	**—**
40 Other services	8,210	14,925	**7,150**
50 Supplies and material	16,420	29,385	**11,960**
60 Fixed charges and claims	—	—	**—**
70 Grants	—	—	**—**
80 Acquisition of capital assets	—	—	**—**
Total Chapter 3.8	164,200	303,815	**139,675**

	Estimated Expenditure		
	1949	1950	
	US $	Regular US $	**Supplemental US $**
Chapter 3.9 Supplies to Governments			
00 Personal services	—	—	—
10 Personal allowances	—	—	—
20 Travel and transportation	—	—	—
30 Space and equipment services	—	—	—
40 Other services	—	—	—
50 Supplies and material	—	115,000	**385,000**
60 Fixed charges and claims	—	—	—
70 Grants	—	—	—
80 Acquisition of capital assets	—	—	—
Total Chapter 3.9	—	115,000	**385,000**
Chapter 3.10 Common Services for PART II except Chapters 2 and 3			
30 Space and equipment services	154,200	150,000	**17,500**
40 Other services	131,600	94,780	**30,220**
50 Supplies and materials	68,000	65,000	**7,000**
60 Fixed charges and claims	11,000	79,700	**8,750**
80 Acquisition of capital assets	138,500	116,000	**30,250**
Total Chapter 3.10	503,300	505,480	**93,720**
Unallotted UNRRA funds	129,090	—	—
TOTAL PART II	4,506,770	6,535,005	**9,027,520**
TOTAL ALL PARTS	5,700,000	8,193,000	**9,152,520**
Deduct: available from UNRRA funds	700,000	300,000	—
Regular Budget—Health Assembly appropriation	5,000,000	7,893,000	—

4. PROPOSED APPROPRIATION RESOLUTION

I. The Health Assembly resolves that for the financial year 1950 the Regular Administrative and Operating Programme Budget and the Supplemental Operating Programme of Advisory and Technical Services Budget are as follows :

Appropriation Section	Purpose of Appropriation	Amount	
		Regular Budget US $	**Supplemental Budget US $**
	PART I — ADMINISTRATIVE BUDGET		
1	Organizational Meetings		
2	Administrative Expenses.		
	Total PART I		
	PART II — OPERATING PROGRAMME BUDGET		
3	Operating Programmes		
Chapter 3.1	Operating Supervisory Staff		
3.2	Regional Offices.		
3.3	Other Offices		
3.4	Advisory and Demonstration Services to Governments . . .		
3.5	Technical Training of Medical and Auxiliary Personnel . . .		
3.6	Medical Literature and Teaching Equipment.		
3.7	Technical Services		
3.8	Expert Committees		
3.9	Supplies to Governments		
3.10	Common Services for Part II, except chapters 3.2, 3.3 and 3.4		
	Total Section 3.		
	TOTAL ALL PARTS		

Amounts not exceeding the above shall be available for the payment of obligations incurred during the period 1 January 1950 to 31 December 1950.

II. The Director-General is authorized, with respect to Part II of the budget, to transfer credits between chapters and, with the concurrence of the Executive Board, or of any committee to which it may delegate authority, to transfer credits between sections. Transfers may not be made between the Regular Administrative and Operating Programme Budget and the Supplemental Operating Programme of Advisory and Technical Services Budget.

III. The Director-General shall report to the next subsequent regular session of the Executive Board all transfers made under the authority of paragraph II hereof, together with the circumstances relating thereto.

IV. Notwithstanding the provisions of Financial Regulation 13, the Director-General is authorized to transfer to the ensuing year the unexpended balances of allotments (made under the provisions of Financial Regulation 10) made to countries for Fellowships, under chapter 3.5 of section 3 of Part II, and for Medical Literature and Teaching Equipment, chapter 3.6 of the same section.

V. With respect to supplies provided and equipment left in the country in carrying out advisory and demonstration services to governments, and those supplies made available to governments after approval by the Executive Board, the Director-General shall, in consultation with the receiving governments, take steps to recover, in some cases in local currency, such cost of materials, supplies and equipment furnished by the Organization as these governments are able to repay, provided that this provision is not to be applicable to the operation carried out under the project entitled " Health Demonstration Areas ".

5. PROPOSED WORKING CAPITAL FUND RESOLUTION

The first World Health Assembly established the working capital fund at $1,650,000, with the further provision that any balances remaining in the appropriations made for the financial year 1948 should be transferred thereto. The purpose of the working capital fund is, inter alia, to finance the appropriations pending receipt of contributions from Members. Experience has demonstrated that the Organization cannot expect to receive contributions from Members in advance of, or even early in, the financial year for which they are assessed. The legislative processes of many Member Governments are such that they do not permit the Members to make their contributions at a date early enough to finance operations during the first several months of the year.

It is therefore necessary that the working capital fund be established in an amount equal to at least half the annual budget of the Organization. Failure to provide a working capital fund in that amount will seriously jeopardize the operations of the Organization and may even make it impossible for the Organization to meet its minimum financial obligations during the first half of the year. It is therefore provided, in the draft resolution on the working capital fund, that the fund be increased to $4,000,000.

Furthermore, Member Governments should be requested to consider their contributions to the increased working capital fund as supplemental contributions payable during 1949, since the funds must be available before the beginning of the financial year 1950.

Draft Resolution

The Health Assembly

(1) RESOLVES

(a) that the working capital fund shall be established for the financial year 1950 in the amount of US $4,000,000 ;

(b) that Members shall make additional advances totalling US $ ..... to the working capital fund, in accordance with the scale adopted by the first Health Assembly for contributions of Members to the budgets of the World Health Organization for the financial years 1948-1949 ;

(2) AUTHORIZES the Director-General

(a) to advance from the working capital fund such sums as may be necessary to finance the appropriations for the financial year 1950, pending receipt of contributions from Members ; sums so advanced shall be reimbursed to the working capital fund as soon as contributions are available ;

(b) to advance such sums in 1950 as may be necessary to meet unforeseen or extraordinary expenses, providing that not more than US $500,000 may be used for such purposes, except that with the prior concurrence of the Executive Board a total of US $1,000,000 may be used. The Director-General shall report to the next convening Health Assembly all advances made under this clause and the circumstances relating thereto, and shall make provision in the estimates for reimbursement of the working capital fund except when such advances are recoverable from some other source ;

(3) AUTHORIZES the Executive Board to use, not to exceed, US $300,000 of the working capital fund as the special fund to be used at the discretion of the Board to meet emergencies and unforeseen contingencies, this authorization being made to comply with Article 58 of the Constitution. Any amounts used under this authorization are to be replaced by making specific provisions therefor in the next year's annual budget, except when expenditures made under this authority are recoverable from some other source.

ANNEX 1

6. DETAILS OF ADMINISTRATIVE ESTIMATES

(PART I)

Annex 1

6. DETAILS OF ADMINISTRATIVE ESTIMATES

6.1.1 ORGANIZATIONAL MEETINGS

1. World Health Assembly

These estimates are based on the experience gained to date, with provision made for the attendance of anticipated new Members, joining WHO since the last meeting of the Health Assembly. The provision made for 1950 is calculated on the assumption that the meeting would be held in Geneva. If it is to be held elsewhere this estimate may need to be adjusted.

2. Executive Board and Committees

These estimates are based on the experience gained to date and on the assumption that there will be two meetings of the Board at Geneva in 1950, one meeting to be held immediately following the third Health Assembly. Should these assumptions not be the case, this estimate may need to be adjusted.

Budget Estimates

	Estimated Expenditure Regular	
	1949	1950
	US $	US $
World Health Assembly	190,000	190,000
Executive Board and Committees	74,000	64,000
TOTAL	264,000	254,000

6.1.2 OFFICE OF THE DIRECTOR-GENERAL

Budget Estimates

	Estimated Expenditure Regular	
	1949	1950
	US $	US $
SECRETARIAT		
Salaries	58,550	85,220
Deduct Lapses and delays	—	4,260
Net	58,550	80,960

	Grade	Number of Posts Regular 1949	1950
Director-General		1	1
Deputy Director-General		1	1
	18	—	1
	17	1	—
	11	—	2
	10	—	2
	9	1	1
	8	2	2
	7	—	2
	6	3	3
	5	1	—
Total		10	15

Consultants	—	—
Personal services sub-total	58,550	80,960
Allowances	21,500	27,560
Travel and transportation	14,900	24,800
TOTAL	94,950	133,320

6.1.3 LIAISON SECTION

Functional Statement

The Liaison Section

(1) is responsible to the Director-General for establishing and maintaining liaison for the integration of policies with representatives of Member Governments, with the United Nations and its specialized agencies, with non-governmental agencies, and with inter-governmental health agencies;

(2) advises the Director-General and the Regional Directors on all aspects of technical liaison;

(3) co-ordinates all technical liaison activities of the Organization and is responsible for the exchange of relevant information with all those bodies with which liaison is maintained;

(4) attends, or arranges for another WHO official to attend, all meetings of interest to WHO, and briefs such other official on the Organization's policy on the matters under discussion; establishes and maintains appropriate working relations with representatives of governments at meetings of the United Nations and specialized agencies;

(5) keeps officials of the Organization informed on all meetings and developments of interest to the World Health Organization.

Budget Estimates

	Estimated Expenditure Regular	
	1949	1950
	US $	US $
SECRETARIAT		
Salaries	71,825	63,540
Deduct Lapses and delays	—	3,175
Net	71,825	60,365

Grade	Number of Posts Regular 1949	1950
19	1	1
16	3	1
14	1	1
12	—	3
11	4	—
10	1	—
8	2	2
7	1	2
6	4	1
5	4	3
4	7	—
3	1	—
1	1	—
Total	30	14

Consultants	—	—
Personal services sub-total	71,825	60,365
Allowances	21,000	24,715
Travel and transportation	4,480	16,400
TOTAL	97,305	101,480

NOTE: The estimated expenditure for 1949 includes provision for the Fellowship Programme and a number of non-liaison functions which during part of that year were performed in the New York Office. The 1950 estimates include provision only for liaison at Geneva and New York.

6.1.4 LEGAL SECTION

Functional Statement

The Legal Section

(1) advises the Director-General on problems and questions of a legal nature, and briefs consultants, as necessary;

(2) performs secretarial functions, either singly or in collaboration with other divisions or services, for the Health Assembly and the Executive Board and for their subdivisions where constitutional or legal questions are involved;

(3) assists in negotiations between WHO and governments or other organizations;

(4) collaborates with other divisions or services of WHO or other organizations and assists at committees or meetings established by them when legal questions are involved;

(5) acts as the legal representative of the Secretariat in questions of a legal nature, including judicial processes, arbitrations, briefing of counsel, etc.;

(6) assures the security and supervises the drafting of legal documents;

(7) carries out such other legal functions as may be required.

Budget Estimates

	Estimated Expenditure Regular	
	1949	1950
	US $	US $
SECRETARIAT		
Salaries	15,430	18,745
Deduct Lapses and delays	—	935
Net	15,430	17,810

Grade	Number of Posts Regular	
	1949	1950
15	—	1
14	1	—
13	—	1
11	1	—
8	—	1
7	1	—
5	—	1
3	1	—
Total	4	4

Consultants	—	2,000
Personal services sub-total	15,430	19,810
Allowances	2,500	3,945
Travel and transportation	3,000	8,600
TOTAL	20,930	32,355

6.1.5 OFFICE OF PUBLIC INFORMATION

Functional Statement

The Office of Public Information

(1) formulates public information plans and policies and advises the Director-General on all aspects thereof;

(2) is responsible for planning and carrying out informational activities in various media (press, publications, radio, television and visual media);

(3) provides regional offices with informational material designed to meet regional needs;

(4) maintains public information liaison with the United Nations and specialized agencies, as well as with governmental and non-governmental organizations, newspapers, magazines, radio and television stations, documentary film producers, etc.

Budget Estimates

	Estimated Expenditure Regular	
	1949	1950
	US $	US $
SECRETARIAT		
Salaries	33,590	57,525
Deduct Lapses and delays	—	2,875
Net	33,590	54,650

Grade	Number of Posts Regular 1949	1950
17	—	1
15	1	—
14	1	1
13	—	1
12	—	3
11	—	1
10	1	1
9	3	—
7	—	2
6	1	3
5	2	—
2	1	—
Total	10	13

Consultants	—	3,500
Personal services sub-total	33,590	58,150
Allowances	9,000	18,025
Travel and transportation	8,000	22,400
TOTAL	50,590	98,575

6.1.6 ADMINISTRATION AND FINANCE : OFFICE OF THE DIRECTOR

Functional Statement

The Office of the Director of Administration and Finance

(1) advises the Director-General on all administrative and financial policies concerning the Organization ;

(2) is responsible for planning and administering overall administrative and financial matters throughout the Organization ;

(3) develops, on the basis of analysis of programmes, a unified plan of action to meet priority needs within the framework of availability of funds ;

(4) formulates policy for and directs Budget, Management, Finance, Accounts, Internal Audit, Personnel and Conference and General Services functions and operations of the Organization.

Budget Estimates

	Estimated Expenditure Regular	
	1949	1950
	US $	US $
SECRETARIAT		
Salaries	21,300	23,370
Deduct Lapses and delays	—	1,170
Net	21,300	22,200

Grade	Number of Posts Regular	
	1949	1950
19	1	1
14	1	1
7	1	1
5	1	1
Total	4	4

Consultants	8,300	10,000
Personal services sub-total	29,600	32,200
Allowances	6,500	5,160
Travel and transportation	4,000	5,300
TOTAL	40,100	42,660

6.1.7 OFFICE OF PROGRAMME ANALYSIS

Functional Statement

The Office of Programme Analysis

(1) is responsible to the Director, Administration and Finance, for advising, on the basis of analysis of programmes, in the development of unified programme action, within the framework of availability of funds, in co-operation with the Division of Planning ;

(2) develops work methods and techniques for the appraisal and review of the progress made by the Organization ;

(3) on the basis of all available information, including statistics and other types of reports, etc., advises and assists in the development of reports which will reflect the measure of progress of the Organization ;

(4) using as a basis studies or other relevant data available, advises on the nature of the contributing causes when programme goals are not achieved within the time planned.

Budget Estimates

	Estimated Expenditure Regular	
	1949 US $	1950 US $
SECRETARIAT		
Salaries	8,410	14,305
Deduct Lapses and delays	—	715
Net	8,410	13,590

Grade	Number of Posts Regular 1949	1950
14	1	1
12	—	1
5	1	1
Total	2	3

Consultants	—	—
Personal services sub-total	8,410	13,590
Allowances	1,500	5,070
Travel and transportation	3,000	5,000
TOTAL	12,910	23,660

6.1.8 OFFICE OF BUDGET AND MANAGEMENT

Functional Statement

The Office of Budget and Management

(1) is responsible to the Director, Administration and Finance, for developing budget and management policies and plans for the Organization;

(2) develops and recommends with the advice of the Office of Personnel the organizational structure and staffing patterns of the Organization;

(3) establishes and maintains the budgetary processes, including the development and review of estimates of budgets required to finance programmes of the Organization along with explanatory and justifying material;

(4) develops plans and methods for achieving good management, including a system of administrative and other procedures and forms, and the issuance and control thereof;

(5) conducts management surveys for the purpose of developing improved practices and achieving greater efficiency and economy of operations;

(6) is responsible for the establishment of such controls as will assure adequate budget execution;

(7) reviews estimates submitted and makes recommendations in the light of established policy for the establishment of allotments;

(8) processes approved allotment requests and transfers and maintains appropriate control records thereof;

(9) analyses on a continuing basis the budgetary position of each allotment, individually and collectively and makes recommendations for necessary action;

(10) recommends the issuance of delegations of authority and maintains records connected therewith.

Budget Estimates

	1949	Estimated Expenditure 1950	
		Regular	**Supplemental**
	US $	US $	**US $**
SECRETARIAT			
Salaries	40,625	66,635	**9,785**
Deduct Lapses and delays	—	3,390	**485**
Net	40,625	63,245	**9,300**

Number of posts

Grade	1949	1950 Regular	1950 Supplemental
17	1	1	—
16	—	1	—
14	2	2	—
12	—	2	—
11	1	1	—
9	4	2	**2**
8	1	1	—
5	4	4	1
Total	13	14	**3**

Consultants	—	—	—
Personal services sub-total	40,625	63,245	**9,300**
Allowances	10,000	14,500	**3,750**
Travel and transportation	2,500	10,200	**2,400**
TOTAL	53,125	87,945	**15,450**

6.1.9 OFFICE OF PERSONNEL

Functional Statement

The Office of Personnel

(1) is responsible to the Director of Administration and Finance for developing and executing personnel policies, methods and procedures ;
(2) develops and maintains a job classification plan and administers the salary system ;
(3) administers Staff Regulations and Staff Rules and issues staff contracts ;
(4) develops minimum qualification standards for various types of positions ;
(5) is responsible for recruitment, placement and personnel movement ;
(6) develops and advises in the execution of an in-service training programme ;
(7) analyses reports on individual performances and is responsible for follow-up action ;
(8) is responsible for disciplinary actions and necessary investigations ;
(9) develops and maintains a counsel and advice service for staff members ;
(10) maintains personnel records and statistics, attendance and leave records ;
(11) develops and maintains insurance and retirement plans ;
(12) co-operates with the Office of Budget and Management in joint management and job evaluation surveys ;
(13) develops data on personnel matters for presentation to the Executive Board and Health Assembly ;
(14) ensures liaison with the Swiss authorities on matters concerning staff (immunities, privileges, etc.).

Budget Estimates

	1949	Estimated Expenditure 1950	
		Regular	**Supplemental**
	US $	US $	**US $**
SECRETARIAT			
Salaries	53,800	75,935	**19,240**
Deduct Lapses and delays	—	3,860	**960**
Net	53,800	72,075	**18,280**

	Number of posts 1949	1950 Regular	1950 **Supplemental**
Grade			
17	1	1	—
16	1	1	—
14	—	3	—
13	3	—	—
12	—	1	**1**
10	1	1	—
8	1	1	**2**
6	2	2	**2**
5	3	3	—
4	5	6	**1**
Total	17	19	**6**

Consultants	3,000	—	
Personal services sub-total	56,800	72,075	**18,280**
Allowances	15,500	16,460	**6,000**
Travel and transportation	4,000	5,600	**3,000**
TOTAL	76,300	94,135	**27,280**

6.1.10 OFFICE OF CONFERENCES AND GENERAL SERVICES

Functional Statement

The Office of Conferences and General Services

(1) is responsible to the Director, Administration and Finance, for all conference arrangements, including space, staff, records, documents and other material arrangements ;

(2) arranges for and manages the space and office furniture assigned to the Organization at headquarters ;

(3) establishes and maintains liaison with the appropriate governmental authorities at the headquarters location ;

(4) serves as contracting agency of the Organization, except for staff matters ;

(5) is responsible for recommending policy relevant to the construction of a WHO building at headquarters, and in the event of a decision being made to erect such a building, for supervising plans, construction, etc. ;

(6) arranges for the procurement of supplies, equipment and materials, and manages non-expendable items of equipment ;

(7) is responsible for arranging travel, transportation and accommodation for delegates, members of committees and staff members, as required ;

(8) provides such general services as communications and records ; graphic presentations, arrangements for control, translation, reproduction and distribution of documents, and stenographic and typing services.

Budget Estimates

	Estimated Expenditure Regular	
	1949	1950
SECRETARIAT	US $	US $
Salaries	166,630	304,880
Deduct Lapses and delays	—	15,245
Net	166,630	289,635

Grade	Number of posts Regular 1949	1950
17	1	1
14	1	1
12	1	1
11	1	2
10	1	2
9	3	2
8	3	6
7	4	3
6	6	4
5	4	6
4	28	50
3	13	24
2	2	3
Total	68	105

Consultants	3,000	5,000
Personal services sub-total	169,630	294,635
Allowances	30,000	74,800
Travel and transportation	20,000	47,250
TOTAL	219,630	416,685

6.1.11 OFFICE OF FINANCE AND ACCOUNTS

Functional Statement

The Office of Finance and Accounts

(1) is responsible to the Director, Administration and Finance, for developing financial policies and plans, and procedures for accounting and disbursing activities of the Organization ;

(2) advises on financial relations with Member Governments and other agencies ;

(3) calculates and initiates the collection of contributions from Member Governments on the basis of policy established by the Health Assembly, and maintains necessary records ;

(4) develops, and advises on the installation of, accounting procedures in Regional and Field Offices ;

(5) receives and disburses funds of the Organization and maintains all necessary records ;

(6) maintains budget and allotment control records ;

(7) is responsible for the financial administration of the Staff Provident Fund, Retirement and Pension Fund (Provisional) and other trust funds ;

(8) reviews claims and authorizes their payment ;

(9) maintains control over cash and other assets of the Organization ;

(10) develops and maintains a system of reports to reflect adequately the financial position of the Organization, the status of allotments and, generally, the status of the resources of the Organization, and such other financial reports as may be required by the Director, Administration and Finance.

Budget Estimates

	1949	Estimated Expenditure 1950	
		Regular	**Supplemental**
	US $	US $	**US $**
SECRETARIAT			
Salaries	74,580	119,835	**39,665**
Deduct Lapses and delays	—	6,010	**1,980**
Net	74,580	113,825	**37,685**

	Number of posts		
	1949	1950	
Grade		Regular	**Supplemental**
17	1	1	—
15	1	1	—
14	—	1	**1**
13	2	1	—
12	—	1	—
11	3	2	—
10	—	1	**1**
9	1	3	**1**
8	1	4	**3**
7	4	2	**3**
6	6	7	—
5	2	6	**1**
4	5	2	**2**
3	2	—	—
2	1	—	—
Total	29	32	**12**

Consultants	—	—	—
Personal services sub-total	74,580	113,825	**37,685**
Allowances	14,000	27,015	**10,800**
Travel and transportation	7,000	15,000	**10,000**
TOTAL	95,580	155,840	**58,485**

6.1.12 OFFICE OF INTERNAL AUDIT

Functional Statement

The Office of Internal Audit

(1) is responsible to the Director, Administration and Finance, for conducting an internal audit of the financial records and accounts of the Organization, including the accounts at any regional or field office of the Organization, to ensure that transactions are in accordance with policy, rules and regulations, that the methods and procedures established for the control and accounting of commitments and expenditures are being observed and that the machinery of control is satisfactory ;

(2) conducts internal audits, including

(2.1) review of the adherence to and application of the Staff Regulations and Staff Rules, and of travel and removal rules ;

(2.2) the determination as to whether established administrative policy and procedures are being carried out, and the recommending of amendments thereto designed to promote efficiency and economy ;

(3) executes, in connexion with the audit, such special assignments as the Director of Administration and Finance may decide ;

(4) reviews financial reports and statements ;

(5) submits to the Director, Administration and Finance, detailed reports as a result of work performed, and recommends improvements where considered necessary.

Budget Estimates

	Estimated Expenditure Regular 1949 US $	1950 US $
SECRETARIAT		
Salaries	13,140	33,310
Deduct Lapses and delays	—	1,665
Net	13,140	31,645

Grade	Number of posts Regular 1949	1950
17	—	1
15	—	1
14	1	—
12	—	3
11	1	—
6	—	1
5	1	—
Total	3	6

Consultants	—	—
Personal services sub-total	13,140	31,645
Allowances	1,000	8,100
Travel and transportation	5,000	30,000
TOTAL	19,140	69,745

6.1.13 COMMON SERVICES (ADMINISTRATIVE)

These estimates have been based on experience to date but make provision for the increase in staff during 1950. The total requirements for the headquarters staff were first computed as a single sum, as was done for Common Services in 1949. The resulting figure was then apportioned between the administrative and operating functions in amounts proportionate to the salaries and numbers of staff performing those functions.

Budget Estimates

	1949	Estimated Expenditure 1950	
		Regular	**Supplemental**
	US $	US $	**US $**
Space and equipment services	47,000	53,615	**5,785**
Other services	26,500	26,300	**4,000**
Supplies and materials	14,000	15,000	**4,500**
Fixed charges and claims	6,000	19,480	**3,000**
Acquisition of capital assets	55,170	33,200	**6,500**
TOTAL	148,670	147,595	**23,785**

ANNEX 2

7. DETAILS OF OPERATING PROGRAMME AND ESTIMATES

(PART II)

Annex 2

7. DETAILS OF OPERATING PROGRAMME AND ESTIMATES

7.1 OPERATING SUPERVISORY STAFF

7.1.1 OFFICE OF THE ASSISTANT DIRECTOR-GENERAL FOR TECHNICAL SERVICES

Functional Statement

The Department of Technical Services is responsible for planning the short- and long-term programmes of work for the co-ordination of research and therapeutic substances ; BCG special research, epidemiological studies, including advisory and demonstration services to governments for the eradication of cholera, typhus and plague, and field study-groups on schistosomiasis ; sanitary conventions and quarantine, together with epidemiological intelligence ; health statistics, library and reference services ; publications, and WHO participation in the co-ordination of medical abstracting services.

It is also responsible for co-operating with the Department of Operations to secure the provision of such services, supplies and equipment, and assistance as are required by WHO field personnel engaged in the eradication of cholera, plague and typhus.

In addition, it is responsible for controlling the activities of the Singapore Epidemiological Station and negotiating the settlement of disputes concerning alleged infringement of Sanitary Conventions or Regulations.

In all cases, overall control is exercised by the Office of the Assistant Director-General for Technical Services.

Budget Estimates

	Estimated Expenditure Regular 1949 US $	1950 US $
SECRETARIAT		
Salaries	20,660	21,845
Deduct Lapses and delays	—	1,090
Net	20,660	20,755

	Grade	Number of Posts Regular 1949	1950
Assistant Director-General		1	1
	11	1	1
	6	1	1
Total		3	3

Consultants	—	—
Personal services sub-total	20,660	20,755
Allowances	5,500	5,755
Travel and transportation	4,000	4,800
TOTAL	30,160	31,310

Operating Supervisory Staff

7.1.2 DIVISION OF EPIDEMIOLOGY: OFFICE OF THE DIRECTOR

Functional Statement

The Office of the Director, Division of Epidemiology, is responsible for co-ordinating and administering the planning of the division in connexion with epidemiological studies, including advisory and demonstration services to governments for the eradication of cholera, typhus and plague and special study-groups on schistosomiasis. It is also responsible for securing the application and revision of International Sanitary Conventions, and for epidemiological information and statistics.

In serving as the secretariat to relevant expert committees, it provides suitable preparatory material on the nature and extent of the problems, the available technical knowledge and the application of techniques to counter them.

On the basis, inter alia, of conclusions and recommendations of expert committees, it prepares evaluations of existing approved programmes of work and proposals for new programmes for submission to the Executive Board and Health Assembly.

Budget Estimates

	Estimated Expenditure Regular 1949 US $	1950 US $
SECRETARIAT		
Salaries	15,315	17,945
Deduct Lapses and delays	—	900
Net	15,315	17,045

Grade	Number of Posts Regular 1949	1950
19	1	1
8	1	1
7	1	1
Total	3	3

Consultants	—	—
Personal services sub-total	15,315	17,045
Allowances	6,250	6,160
Travel and transportation	5,250	11,300
TOTAL	26,815	34,505

Operating Supervisory Staff

7.1.3 DIVISION OF EDITORIAL AND REFERENCE SERVICES: OFFICE OF THE DIRECTOR

Functional Statement

The Office of the Director, Division of Editorial and Reference Services, is responsible for planning, co-ordinating and administering the work of the division in connexion with the editing and production of all publications appearing under the aegis of WHO, including the *Official Records* and *International Digest of Health Legislation*, and their translation into appropriate languages, as well as the appropriate translation of relevant material used by the WHO Secretariat, the Executive Board and the Health Assembly.

It is responsible for WHO participation in the work of co-ordination of medical and biological abstracting services.

It is also responsible for securing the acquisition of books and periodicals for the library, scanning and indexing relevant technical literature and relevant documents produced by the United Nations, its specialized agencies and other appropriate bodies, and maintaining suitable records connected therewith.

In addition, it is responsible for advising the Department of Operations concerning requests from governments for medical literature under the WHO approved programme, and for providing a reference service to facilitate the work of WHO and, upon request, furnishing reference services to governments.

Budget Estimates

	Estimated Expenditure Regular	
	1949	1950
	US $	US $
SECRETARIAT		
Salaries	14,215	17,100
Deduct Lapses and delays	—	855
Net	14,215	16,245

Grade	Number of Posts Regular 1949	1950
19	1	1
8	1	1
6	1	1
Total	3	3

Consultants	—	—
Personal services sub-total	14,215	16,245
Allowances	3,250	5,450
Travel and transportation	3,500	9,500
TOTAL	20,965	31,195

Operating Supervisory Staff

7.1.4 DIVISION OF CO-ORDINATION OF RESEARCH AND THERAPEUTIC SUBSTANCES: OFFICE OF THE DIRECTOR

Functional Statement

The Office of the Director, Division of Co-ordination of Research and Therapeutic Substances, is responsible for co-ordinating and administering the planning of the division in connexion with co-ordination of research, biological standardization, unification of pharmacopoeias, habit-forming drugs and BCG research.

In this connexion, it is responsible for liaison with relevant laboratories, e.g. in London and in Copenhagen, with which WHO is in relationship.

In serving as the secretariat to relevant expert committees, it provides suitable preparatory material on the nature and extent of the problems, the available technical knowledge, and the application of techniques to counter them.

On the basis, inter alia, of conclusions and recommendations of expert committees, it prepares evaluations of existing approved programmes of work and proposals for new programmes for submission to the Executive Board and the Health Assembly.

Budget Estimates

	Estimated Expenditure Regular	
	1949 US $	1950 US $
SECRETARIAT		
Salaries	8,185	13,275
Deduct Lapses and delays	—	665
Net	8,185	12,610

Grade	Number of Posts Regular 1949	1950
19	—	1
17	1	—
6	1	1
Total	2	2

Consultants	—	—
Personal services sub-total	8,185	12,610
Allowances	2,405	4,905
Travel and transportation	2,000	5,400
TOTAL	12,590	22,915

Operating Supervisory Staff

7.1.5 OFFICE OF THE ASSISTANT DIRECTOR-GENERAL FOR OPERATIONS

Functional Statement

The Department of Operations is responsible for planning the short- and long-term programmes of work for malaria, tuberculosis, maternal and child health, training of nurses and auxiliary personnel, venereal diseases, nutrition, environmental sanitation, public-health administration, health demonstration areas, mental health education and training and WHO participation in the co-ordination of international congresses of medical sciences.

It is also responsible for securing the provision of such services, supplies, equipment and assistance as are required by WHO field personnel engaged in implementing approved programmes. In co-operation with the Department of Technical Services, it is responsible in a similar manner for WHO field personnel engaged in implementing approved programmes of work in the eradication of cholera, plague and typhus.

In addition, the department is responsible, in consultation with governments, for planning and implementing the approved programmes for fellowships, medical literature and teaching equipment, and medical supply advisory services.

In all cases overall control is exercised by the Office of the Assistant Director-General for Operations.

Budget Estimates

	Estimated Expenditure Regular 1949 US $	1950 US $
SECRETARIAT		
Salaries	31,500	43,485
Deduct Lapses and delays	—	2,170
Net	31,500	41,315

	Grade	Number of Posts Regular 1949	1950
Assistant Director-General		1	1
	16	1	1
	6	1	1
	5	1	1
Sub-total		4	4
Unicef Liaison Unit			
	16	1	1
	14	1	1
Sub-total		2	2
Total		6	6

Consultants	—	—
Personal services sub-total	31,500	41,315
Allowances	8,000	15,380
Travel and transportation	6,500	14,100
TOTAL	46,000	70,795

Operating Supervisory Staff

7.1.6 DIVISION OF PLANNING: OFFICE OF THE DIRECTOR

Functional Statement

The Office of the Director, Division of Planning, is responsible for co-ordinating and administering the planning of the division in connexion with malaria, tuberculosis, maternal and child health, training of nurses and auxiliary personnel, venereal diseases, nutrition, environmental sanitation, public-health administration, health demonstration areas, mental health and education and training.

In serving as the secretariat to relevant expert committees, it provides suitable preparatory material on the nature and extent of the problems, the available technical knowledge and the application of techniques to counter them.

On the basis, inter alia, of conclusions and recommendations of expert committees, it prepares evaluations of existing approved programmes of work and proposals for new programmes for submission to the Executive Board and the Health Assembly.

Budget Estimates

	Estimated Expenditure Regular 1949 US $	1950 US $
SECRETARIAT		
Salaries	19,970	28,120
Deduct Lapses and delays	—	1,400
Net	19,970	26,720

Grade	Number of Posts Regular 1949	1950
19	1	1
16	1	1
9	—	1
6	2	2
Total	4	5

Consultants	—	—
Personal services sub-total	19,970	26,720
Allowances	6,500	8,790
Travel and transportation	5,500	12,800
TOTAL	31,970	48,310

Operating Supervisory Staff

7.1.7 DIVISION OF FIELD OPERATIONS : OFFICE OF THE DIRECTOR

Functional Statement

The Division of Field Operations is responsible for co-ordinating advisory and demonstration services to governments and securing provision of such supplies, equipment and assistance as are required by WHO field personnel engaged in implementing programmes approved by the Health Assembly.

It is responsible for maintaining contact with Regional Offices concerning operations within regions and negotiations for personnel and services to be furnished by governments within those regions ; and for maintaining direct supervision over advisory and demonstration services to governments in areas where no regional office exists.

It is also responsible, in consultation with governments, for the operation of the approved fellowship programme.

In addition, it is responsible for advising governments upon request concerning their requirements in medical literature, teaching equipment and medical supplies, and informing them of sources of supply, availability and methods of procurement; and for implementing the approved programme for supplies and medical literature to governments.

Budget Estimates

	Estimated Expenditure Regular 1949 US $	1950 US $
SECRETARIAT		
Salaries	9,460	17,470
Deduct Lapses and delays	—	870
Net	9,460	16,600

Grade	Number of Posts Regular 1949	1950
19	1	1
9	—	1
6	1	1
Total	2	3

Consultants	—	—
Personal services sub-total	9,460	16,600
Allowances	2,000	3,675
Travel and transportation	4,500	6,400
TOTAL	15,960	26,675

Operating Supervisory Staff

7.1.8 DIVISION OF FIELD OPERATIONS: REGIONAL FIELD OPERATIONS SECTION

Budget Estimates

	Estimated Expenditure Regular	
	1949	1950
SECRETARIAT	US $	US $
Salaries	2,105	9,115
Deduct Lapses and delays	—	455
Net	2,105	8,660

Grade	Number of Posts Regular 1949	1950
14	1	1
5	1	1
Total	2	2

Consultants	—	—
Personal services sub-total	2,105	8,660
Allowances	1,200	2,685
Travel and transportation	1,500	2,800
TOTAL	4,805	14,145

Operating Supervisory Staff

7.1.9 INDUCTION UNIT*

Budget Estimates

	Estimated Expenditure Regular	
	1949	1950
SECRETARIAT	US $	US $
Salaries	27,775	—

Grade	Number of Posts Regular 1949
14	2
12	4
Total	6

Consultants	—	—
Personal services sub-total	27,775	—
Allowances	10,500	—
Travel and transportation	3,000	—
TOTAL	41,275	—

* As it is expected that there will be no need for this activity in 1950, no budgetary provision is shown for that year.

7.2 REGIONAL OFFICES

No attempt has been made to present in detail the budget estimated for each regional office; the detailed requirements for each are not known at this time. Estimates have been developed for an "average regional office", and the total amount for the six regional offices has been derived therefrom, on the assumption that there will be four regional offices during the full financial year, and two additional regional offices for half of the year.

7.2.1 REGIONAL OFFICES: TOTAL ALL REGIONS

Budget Estimates

	Estimated Expenditure Regular	
	1949	1950
SECRETARIAT	US $	US $
Salaries	186,995	603,460
Deduct Lapses and delays	—	30,175
Net	186,995	573,285
	Number of Posts Regular	
	1949	1950
Total	103	198
Allowances	17,805	132,750
Travel and transportation	21,200	97,500
Common services	74,000	149,000
TOTAL	300,000	952,535

7.2.2 AN AVERAGE REGIONAL OFFICE

Budget Estimates

		Estimated Expenditure Regular
		1950
SECRETARIAT		US $
Salaries		120,692
Deduct Lapses and delays		6,035
Net		114,657
Grade	Category	Number of Posts Regular 1950
Regional Director		1
Deputy Regional Director		1
	I	3
	II	4
	III	14
Custodial		10
Total		33
Allowances		26,550
Travel and transportation		19,500
Common services		29,800
TOTAL		190,507

7.3 OTHER OFFICES

7.3.1 SINGAPORE EPIDEMIOLOGICAL INTELLIGENCE STATION

The functions of the Singapore Epidemiological Station, i.e. the administration of International Sanitary Conventions, and epidemiological information are of paramount importance for the protection of both Eastern and Western countries against pestilential diseases.

Their scope extends much beyond any one region. This inter-regional character of the Station's activities makes its existence necessary.

During the coming years the Singapore Station will have an important role to play, in the application in (and possible adaptation to) countries bordering on the Indian and Western Pacific Oceans, of the forthcoming WHO Regulations.

Apart from any new activity which may be imposed on the Station by these Regulations, it will have to make every effort towards the maintenance and improvement of epidemiological notifications in its areas to counterbalance disruption of health services in several countries.

It must be emphasized that the areas, in which the latest cholera and plague pandemics have originated, are situated in the zone served by the Station. The success of any campaign aiming at gradual reduction and eventual elimination of the endemic areas of these diseases depends in great measure on the accuracy and completeness of their reporting.

In 1950, the Station will have to make a special effort, not only to adapt itself to the new WHO Sanitary Regulations, but to help health administrations to do likewise. This will entail a considerable amount of travelling. Travelling will also be needed for study and settlement of disputes regarding alleged infringement of Sanitary Conventions or Regulations.

Budget Estimates

	Estimated Expenditure Regular 1949 US $	Regular 1950 US $
SECRETARIAT		
Salaries	25,000	34,575
Deduct Lapses and delays	—	1,730
Net	25,000	32,845

	Grade	Number of Posts Regular 1949	Regular 1950
Director	15	1	1
Deputy Director	14	—	1
Locally recruited Staff	—	10	12
Total		11	14

Personal services sub-total	25,000	32,845
Allowances	9,365	11,380
Travel and transportation	7,000	8,700
Common services	18,000	19,000
TOTAL	59,365	71,925

7.4 ADVISORY AND DEMONSTRATION SERVICES TO GOVERNMENTS

7.4.1 HEALTH DEMONSTRATION AREAS

7.4.1.1 The Problem and its Significance

Today, a major preoccupation of many governments and international agencies is the urgency and importance of planned development of underdeveloped and undeveloped areas. The interdependence between any such planned development and adequate health measures is freely recognized. A major problem is how to bring to the peoples of these areas the benefits of modern medical science and public-health organization in a form suited to their social, economic, cultural and biological environment and to the potentialities of the area. In general the major diseases which cripple the populations of these areas are the diseases most susceptible to the " eradication approach "—for example, malaria, relapsing fever, and plague (as a disease of man). The significance of a solution of these problems cannot be underestimated, since without such a solution a considerable part of the development work, on which so great hopes are pinned by many peoples and governments, will be severely prejudiced.

Another facet of the same problem is how best to bring the services, at present available to the peoples of more fortunate areas and responsible for much of the recent improvements in their health, to the peoples of these underdeveloped and undeveloped areas ; for example, the techniques used in maternal and child health work, health education of the public, occupational hygiene, and other measures to promote a positive state of health. A further problem is how to encourage sufficient investment to ensure satisfactory and adequate health measures.

7.4.1.2 The Method to be Adopted

These problems can be solved by health demonstration area programmes, which are planned without a definite time-limit, but which will, as far as possible, include objectives with a prescribed time-limit. The programmes will be carried out in co-operation with, and in order to stimulate and strengthen, the national and local health-administrations concerned. They will encompass the whole field of preventive " eradication " and the longer-term measures for the promotion of health which are appropriate to the circumstances of the areas selected. These various types of services and techniques will be integrated one with the other, so that maximum advantage is taken of the catalytic effects of one measure on the others. For example, it will be desirable to select an area where there is at least one major problem (such as malaria) which is susceptible to the " eradication " approach. It would be unwise to deal with malaria alone without seizing the opportunity presented by the relatively speedy and tangible results of an antimalaria campaign to instal the longer-term campaigns for the promotion of positive health. The latter, although unable to show such immediate and tangible results, are of no less significance to the health of the population. It would be uphill work to re-create the opportunity presented by the wide public support for such work, arising from an antimalaria campaign. It will often be possible to deal with more than one major problem at the same time in the same area, e.g., malaria and plague, and such opportunities will be taken. Because of the accumulation and demonstration of administrative and organizational experience, and the obvious financial advantages, this combined and integrated approach has much to recommend it.

The areas in which this work will be carried out in 1950 will be carefully selected, in close co-operation with the regional organizations, the health administrations of the countries concerned and with the United Nations and relevant specialized agencies. The following factors will be taken into account in selecting the areas :

(1) The area should be reasonably typical of conditions prevailing in many parts of the region.

This is necessary in order that the experience gained and the results demonstrated shall have value as guides and incentives for other areas and countries.

(2) There should be one or more reservoirs of readily controllable communicable disease.

(3) Agreement on full co-operation with the national and local public-health administrations is essential. The stimulation and strengthening of the local and national health administrations will be regarded as a major factor.

(4) Improvement of health will be reflected in increased productivity. A potentially productive area will be more desirable than one which is unlikely to show a rise in productivity. If more areas were available, this factor would not have so much weight.

7.4.1.3 The Work to be established in 1950

(N.B. Much preliminary work will have been done in 1949)

(1) Careful selection of the areas in which these health demonstrations are to be carried out.

(2) Assessment of the health needs and the available resources.

(3) Assessment of the environment—health, cultural, social and economic factors being taken into account.

(4) Development of a programme of action designed to fit the context.

(5) Commencement of operations with both short- and long-term objectives.

(6) Continuous analysis and appraisal of progress made and results obtained. This information will show gains in health, attendant economic advantages, and new organizational techniques involved, with evaluations.

(7) Adaptation and application of this experience and information for the benefit of other areas, countries and health administrations.

(8) In operating these areas, the work will be carried out in co-operation with the health staff of the area and country concerned ; fellowships will be granted, not only to members of these staffs in order that they may be well fitted to work on the project, but also to medical and auxiliary personnel from analogous areas who will thus be able to observe, and participate in, the demonstrations in progress, and become familiar with the techniques applied and evolved and with the results achieved within the demonstration area. They will then be in a position to carry that knowledge back to their own areas or countries.

(9) The budget estimates for the health demonstration areas have been developed on the theory that this completely integrated type of approach to the health problems of the world is somewhat different from the usual advisory and demonstration project. The difference made is necessary to provide estimates for the entire cost of the project from WHO funds. Such items as rentals of space and equipment, travel and transportation within the country and full per diem allowances for the team members have been included. These additional expenditures are necessary because, while many countries will contain areas ideal for projects such as those envisaged, many of them might not be in a financial position to make a contribution to the project. Also, since this programme is a departure from those hitherto sponsored by WHO, it must be started in areas where the best results are expected to be obtained, exclusive of any other considerations concerning its location.

The value and importance of each of these areas rests as much in its capacity to provide knowledge, experience and tangible results for the benefit of all analogous countries with similar problems, as in its capacity directly to benefit the country in which the area is situated. Hence, the selection of an area should not be influenced by considerations of whether or not the country concerned can contribute financially to the project.

(10) The requirements in terms of personnel, supplies and equipment for each health demonstration area cannot be accurately determined at this time, and will vary essentially according to the circumstances in the area selected and the plans made to meet these circumstances.

Advisory and Demonstration Services to Governments

7.4.1 HEALTH DEMONSTRATION AREAS

Budget Estimates

	Number of posts Supplemental 1950	Estimated Expenditure Supplemental 1950 US $
SECRETARIAT		
Salaries		**260,700**
Deduct Lapses and delays		**13,035**
Net		**247,665**
Headquarters		
Sub-total	—	
Field — Category I	**18**	
Field — Category II	**24**	
Field — Category III	**6**	
Sub-total	**48**	
Total	**48**	
Consultants		**45,000**
Personal services sub-total		**292,665**
Allowances		**106,675**
Travel and transportation		**216,000**
Purchase of motor vehicles		**105,000**
Operation of motor vehicles		**54,000**
Supplies and equipment		**360,000**
Special literature		**6,000**
Common services		**23,100**
TOTAL OF PROJECT		**1,163,440**

7.4.2 MALARIA

7.4.2.1 The Problem and its Significance

The prevailing conditions which render this programme necessary are outlined below.

In spite of modern methods of malaria control and of the progress in eradication of the disease already achieved in a few countries, malaria still causes hundreds of millions of cases of preventable illness and millions of cases of unnecessary deaths. Still endemic in the majority of tropical and subtropical countries, it takes its toll of victims particularly in infancy and early childhood ; on the other hand, owing to the great morbidity caused, it decreases the productive labour of adults and so adversely affects the production of food ; moreover, it often precludes immigration and agricultural and industrial development of large areas which would otherwise be productive. The opening up of new areas for agriculture, and the setting up of irrigation schemes, often increase malaria in the countries concerned, thereby handicapping progress.

It is impossible to give even widely approximative figures for malaria mortality and morbidity in the world, because, in the very regions where malaria takes its heaviest toll, no registration of cases is available. But we may cite that in India, in 1944, 4,352,143 deaths from " fever " were registered, of which 1,830,437 were registered as caused by malaria. In Ceylon, in 1945, 8,521 malaria deaths were notified, while more than 2,500,000 malaria-treated cases were registered in hospitals and dispensaries.

A memorandum prepared by FAO at the request of the Expert Committee on Malaria contains the following statement :

> ...malaria creates two separate types of problems. The first is the case where malaria is endemic in a thickly populated area already under agricultural occupation, where the effect of the malaria is to sap the energy of the working population, and to increase, often at critical periods, the number of working days on which the worker is incapacitated by ill-health. The second is where malaria is preventing the development of an area otherwise suitable for agricultural development. Both these cases may again be divided, on the one hand, into the situation in which other factors are already favourable to the development of agriculture, on the other, into one in which they are at present unfavourable. Thus in a naturally rich agricultural area which already supports a farming population as efficient as health conditions permit, or in a potentially rich undeveloped area readily accessible to a congested agricultural area, it may be that the removal of the handicap of malaria will produce quick and spectacular development.[1]

No precise data are so far available with regard to the loss of production caused by malaria ; this is one of the problems to be solved by FAO experts collaborating with WHO antimalaria demonstration teams. There are, however, data on the direct costs of malaria to the people concerned and they indicate that the cost of modern malaria control would be only a fraction of what the people actually pay in cash for their being afflicted with malaria.

In India, Sinton (1939) calculated that the losses caused by malaria to individuals and their families alone amounted to $320,000,000 per year. Later, Russell and Menon (1941) considered that the yearly expenses for medicine and medical or quack malaria treatment in India, plus the loss of wages caused by malaria, amounted to about $2.00 per year per capita of the population of two malarious villages fairly representative of the Indian malarious village. This estimate does not consider the decrease of working output consequent upon malarious debility, the decreased expectation of life, nor even the effects on agricultural production. In tropical America (Panama), recent calculations by Galindo and Gallardo (1947) [2] evaluate at $3.78 per capita and per annum the financial losses due to malaria. One should not believe that these great financial losses due to malaria occur only in tropical countries ; even in the USA, as recently as 1938, when malaria was still a major problem in the South, Williams stated that although malaria did not cause at that time more than 4,000 deaths per year, " cost of treatment ran into millions of dollars and loss of wages and crops into more. Loss to in dustry was approximately equal to one-third of the possible maximum. Altogether it seemed probable that in an average year malaria represented a half-billion dollar loss to the South."

In Greece, another non-tropical country, Lorando found in the same year, that the average gross income of families in certain malarious districts was, prior to malaria control, $196,34 ; two or three years later, when malaria was controlled, it had risen to $358.15. The area cultivated had in the meantime increased from 3,282 acres in 1933-34 to 5,535 acres in 1936-37.

Malaria in one country also represents expenses for other countries ; every product imported into any country from a malarious country is more expensive on account of malaria. One of the members of the Expert Committee on Malaria of WHO, Dr. P. F. Russell, believes it likely that any imports

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[1] *Off. Rec. World Hlth Org.* **11**, 61

[2] GALINDO, P. and GALLARDO, M. (1947) *Ciencia y Sanidad*

into the USA from malarious countries carry " a hidden malaria tax of about 5% ". If this be true, then malaria in the 29 countries from which the USA bought needed products in 1938 cost the USA over 175 million dollars.

Ten years ago the control of rural malaria (for of course malaria is a rural disease par excellence, and therefore vitally affects food production) was such an expensive undertaking that it could only be applied on an experimental scale. Even in the tropics, where labour costs are lower than elsewhere, malaria control costs per capita and per year from US $0.50 to US $2.00. At that time malaria control was governed by the hard law that the per capita costs of malaria control were in inverse proportion to the density of population. It was economically feasible to protect 100,000 people in a town, but it was not feasible to protect the scattered rural population of the villages. Today, it costs about the same to protect 100,000, whether in towns or in hamlets. It is still too early to obtain data as to what has been saved by the present systems of malaria control in different countries ; but the malaria campaign in Greece, according to Wright (personal communication) has probably meant a saving to Greece of at least 30 million man-days.

Residual insecticide spraying-campaigns, primarily meant for malaria control, have an extremely important bearing on mortality and morbidity caused by insect-borne diseases other than malaria. To cite only Ceylon, where an island-wide DDT campaign was started in September 1946, the death rate, which from 1943 to 1946 had ranged between 20.3 and 22, fell to 14.3 in 1947 ; the infant death rate, which had increased from 132 to 141 during the period 1943 to 1946, dropped to 101 in 1947. In the Indian districts of the Bombay Province, where a DDT campaign was carried out in 1946, no cases of plague occurred, although such cases had regularly occurred in previous years (Viswanathan and Rao, 1947).[3]

7.4.2.2 Work previously accomplished

The Health Organization of the League of Nations devoted great efforts to the problem of malaria. Its Advisory Malaria Commission, to which belonged practically all outstanding malariologists, constituted the highest scientific body of the world in the field of malariology. Under its stimulus, research was carried out in the fields of epidemiology, biology of the parasites, experimental malaria, immunity, treatment and control. Assistance was given to countries by providing training in malariology at schools where courses were given, followed by field work in various countries. In the courses given in Europe, 333 doctors were trained in malariology ; in the Far East, 110 doctors and 23 engineers received fellowships from the League and study-tours were offered to senior malaria officers. Experts were lent to requesting governments for advice and surveys. The publications and documents on malaria of the Health Organization of the League of Nations became indispensable references to all workers. It was under the initiative of the Malaria Commission that totaquina was developed, its composition established, its therapeutic value assessed ; eventually totaquina was inserted in many national pharmacopoeias. The co-ordinated experiments with atebrine, compared with quinine, carried out in five different countries with the same technique and the same method of observation, gave a historical example of internationally planned research. Moreover malaria was one of the chief items in the intergovernmental conferences convened by the League, such as the Pan African Health Conference of Johannesburg, 1935, and the Intergovernmental Conference on Rural Hygiene for Eastern Countries, in Bandoeng, 1937.

The International Health Board (later the International Health Division of the Rockefeller Foundation), availing itself of the services of highly competent malariologists, has assisted countries in all parts of the world to develop methods of malaria control. It offered fellowships and study-tours for training in malariology, and contributed enormously to the progress of malariology by carrying out and fostering research through grants-in-aid, and financial collaboration with the Health Organization of the League of Nations. The Rockefeller Foundation, through its collaboration with the governments concerned, succeeded in the epoch-making achievements of eradicating *Anopheles gambiae* from Brazil (1940) and from Upper Egypt (1945). Today, together with the Italian Government, the Foundation is attempting eradication of all vector-species, that is, the stamping out of the last malaria-carrying anopheline from Sardinia.

Finally, UNRRA, in addition to supplying antimalarials to the countries it assisted, started control campaigns among the civilian populations of some countries—particularly Greece and Italy—with the modern methods of DDT residual spraying. The Interim Commission of WHO, which took over UNRRA's health activities, continued to assist governments in the control of malaria by furnishing, on request, technical advice to certain malarious countries. Aware of the importance of the problem of malaria, the Interim Commission, at its second session, set up an Expert Committee on Malaria and directed the attention of the World Health Assembly to " the serious loss in working efficiency among malaria-ridden populations which contributes directly to the critical world-shortage of food ". It was pointed out that the control of malaria would not only save lives, reduce morbidity, improve general health and raise the living standard of the malarious countries, but would help to increase the food supply of the world, thereby illustrating one of the principles of the Constitution of

[3] VISWANATHAN, D. K. and RAMACHANDRA RAO, T. (1947) *Ind. J. Malariol.* **1**, 503-542

WHO which states : " The achievement of any State in the promotion and protection of health is of value to all."

In the present situation, therefore, where the population of the world is increasing at a rate (now estimated at 25 millions per year) greater than ever before, while food production lags behind, world-wide control of malaria appears to be almost an emergency measure. It is a boon for mankind that in this very period we have at last the means of controlling rural malaria on an economical basis.

FAO is keenly interested in the control of malaria as related to agricultural production, and active co-operation in this field between the two organizations has already been achieved.

7.4.2.3 Objectives

7.4.2.3.1 *Long-term*

The ultimate aim for WHO can, and should be, the eradication of malaria from the world. That malaria eradication is possible has been shown already in some countries which are approaching this goal. By means of wide campaigns based mainly on the use of residual insecticides, transmission can be interrupted. After the first year (provided an intensive campaign is thoroughly carried out) the reservoirs of *Plasmodium falciparum* infections could be eliminated in a given area. Eventually, in the following years, even the infections of longer duration brought about by *P. vivax* and *P. malariae* could be eliminated so that in the country concerned no source of infection, either in the man or in the mosquito, could be present. At this point, eradication of malaria would be achieved. Parasite carriers may of course be reintroduced from abroad and make the country malarious again, unless the campaign is continued. But the greater the number of countries achieving eradication of malaria infection within their own borders, the less will be the danger of reintroduction of sources of malaria infections. If an effective campaign of malaria eradication were to take place simultaneously in all the malarious countries of the world and were to be maintained for several years, human malaria would disappear. If the practical difficulties for such an enterprise may appear overwhelming, it is at least possible to control malaria in all moderately well-organized countries, isolating the endemic foci of malaria in the less accessible areas of the tropical continents. Pending final eradication, malaria would thus be in the category which, to-day, yellow fever is normally considered to occupy. Africa is the continent which, when redeemed from malaria at least in its areas favourable to settlement and development, would represent an enormous asset for the welfare of mankind. Of course, any continent-wide anti-malaria campaign ought to be accompanied by measures directed against other major endemic or epidemic diseases.

Malaria control must be looked upon not only from the standpoint of health, but also from that of the increase of food supply that the elimination of this serious and world-spread cause of rural morbidity will involve. The attention of FAO is fully oriented towards this goal ; its co-operation has already been secured in the malaria-control demonstration projects of the 1949 programme. But a larger plan of co-operation with FAO should be envisaged. It is probable that WHO and FAO will then join efforts for a broad programme of overall rural rehabilitation of large areas of, for a start, some ten million acres at least, where the control of malaria and other prevailing diseases, the improvement of nutrition and environmental sanitation, together with agricultural, economic and sociological improvements, could bring about such an increase of production as might indeed be of real significance to the whole picture of world food supply.

7.4.2.3.2 *Immediate Objective*

The immediate aims are : (1) to encourage and help governments, by proper assistance, to control malaria with modern methods with a view to stimulating them to control the infection on a nation-wide scale ; (2) to show that control can be achieved within the budgetary possibilities of the country ; (3) to show the indirect benefits derived from malaria control, both with regard to public health in general and to increased agricultural or man-labour production.

The training of personnel and the organization of antimalaria services would be the necessary prerequisites for short-term, and even more for long-term, objectives.

7.4.2.4 Work to be accomplished in 1950

7.4.2.4.1 *Authority*

The antimalaria programme of WHO is sanctioned by the functions that the Constitution—in Article 2, (*c*), (*d*), (*g*)—has entrusted to the Organization.

The first World Health Assembly instructed the Executive Board to establish during its first session an Expert Committee on Malaria, and to set up a Malaria Section within the Secretariat.[4]

[4] *Off. Rec. World Hlth Org.* 13, 300

The Executive Board, at its first session, adopted the report of the second session of the Expert Committee on Malaria of the WHO Interim Commission which includes recommendations concerning WHO malaria policy, co-operation with FAO, insecticides, chemotherapeutics and the research programme.[5]

7.4.2.4.2 *Methods*

To attain the short-term objectives for 1950, and to prepare the ground for the long-term objectives, the following measures are suggested:

(1) continuance of the offer of expert advice on malaria to the requesting governments;

(2) continuance, for the second year, of the malaria-control demonstrations carried out in 1949 with the co-operation of FAO, some with the benefit of UNICEF's financial assistance;

(3) the starting of new demonstrations in 1950;

(4) procurement of supplies for countries not in a position to obtain them and willing to carry out campaigns in co-operation with WHO to intensify training of personnel and to set up training facilities in areas not yet provided with them;[6]

(5) the carrying out of research under the terms suggested by the expert committee;[7]

(6) an attack on the problem of African malaria with a view to opening up the continent to large-scale development;

(7) the planning and carrying out, in collaboration with FAO, of broad-scale programmes of malaria control, of public-health improvements and of overall rural rehabilitation in large areas.

7.4.2.4.3 *Malaria Section*

The increased programme will require a slight increase of the section, i.e. another medical officer, so that either he or the Chief of Section will be able to maintain direct liaison with the operation units in the field.

7.4.2.4.4 *Expert Committee Meetings*

It is expected that two meetings of the Expert Committee on Malaria will be required in 1950: the first to consider, inter alia, the malaria field work of the Organization, and the second, the African malaria problem and the African eradication experiments. It is foreseen that three co-opted members should be invited to each of these meetings.

7.4.2.4.5 *Advisory and Demonstration Services to Governments*

Continuation of the 1949 programmes. It is expected that in the second year of activity the imported personnel will be limited to the leader of the team, all the other personnel, qualified, unqualified and labour, having been trained in the meantime in the country and therefore supplied and paid for by that country. The teams will be considered to be WHO teams and therefore equipment, transport and supplies should be furnished by the Organization when necessary. Moreover, thanks to the 1949 experience and training, it may be possible to double the area covered by the teams. A demonstration team, as envisaged for 1949, is composed in such a way (by being provided with the necessary trained subordinate personnel and labour and means of transportation) as to take care of a population of about 150,000 in a rural area. In the first year of operation, however, particularly in view of the very short time available for planning the field operations, it is deemed impossible for a team to cover an area of that size and it is suggested that, in 1949, each team should restrict itself to a population of 75,000 at most. Provision for supply of insecticides and pumps has been made accordingly. But in the second year of operation, i.e. in 1950, it will be imperative for the teams to take care of the greatest possible number of population, namely, the proposed 150,000, and adequate equipment and supplies must be provided for the purpose.

The economic value of a team's demonstrations will be apparent only in 1950, because in 1949 the overhead expenses will have to be distributed among a smaller number of population than could be treated by the team.

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[5] *Off. Rec. World Hlth Org.* **14**, 10

[6] *Ibid.*, **11**, 58

[7] *Ibid.*, **11**, 59

7.4.2.5 New 1950 Projects

7.4.2.5.1 *Demonstration Teams*

The Expert Committee on Malaria suggested that at least one team should be allocated to tropical America and one to Africa. No such allocations could be made in 1949 pending requests from the governments concerned. Another team will be allocated to the Western Pacific Region.

7.4.2.5.2 *Advisory Consultants*

Three full-time consultants, serving for one year each, will be needed to advise governments on malaria policy; moreover, it will be necessary to send to requesting countries a number (seven are proposed) of short-term consultants.

7.4.2.5.3 *Broad-scale projects of malaria-control and overall rural rehabilitation, to be carried out in collaboration with FAO*

It is understood that such a project is designed for underdeveloped areas and that it will aim not only at controlling malaria and at increasing food production, but at raising all health and agricultural standards. It is further understood that this project would be planned and carried out over a period of not less than three years and possibly up to five years. Pending a decision by the Economic and Social Council concerning the ways and means of implementing this project, no estimate for it is included in this budget.

7.4.2.6 Training

7.4.2.6.1 *Malaria Courses*

The report of the second session of the Expert Committee, as approved by the Executive Board, recommended that assistance be given in setting up courses in malariology in regions not now provided with such facilities, i.e. in Central Africa and in South East Asia. The latter would be a revival of the League of Nations Singapore malaria courses. It is probable that courses at Singapore (for medical men and engineers) will be easily re-established at the King Edward the Seventh College of Medicine with the collaboration of the Institute for Medical Research of Kuala Lumpur. The operational expenses of these courses would be met by the tuition fees paid as a result of the fellowships awarded by WHO; the only additional expense would be the sending of two foreign lecturers for one month and provision of literature and films. No provision is made for additional equipment.

Africa malariology course. The need for these courses was stressed as much as twelve years ago by the League of Nations Pan African Health Conference. The courses should be held in an existing medical school or institute, so that most of the laboratory and teaching equipment will be available. The Organization might, however, find it necessary to contribute towards expenses of complementary equipment, such as microscopes and dissecting microscopes, literature and audio-visual teaching material. Courses should be for medical men, engineers and sanitary inspectors. The teaching staff for the courses (a protozoologist, an entomologist, a malariologist, a malaria engineer, and two technicians) should normally be imported unless experienced personnel is already available in the country.

Courses in malariology for the Eastern Mediterranean Region. The recently established Malaria Institute in Karachi could take care of the training; WHO might be asked to assist it by providing supplementary equipment for foreign students and the services of lecturers.

7.4.2.6.2 It is estimated that malaria training institutes in Latin America, in India and in Europe will require technical assistance.

The setting up of courses at Singapore, Karachi and in Equatorial Africa, will require the granting of an adequate number of fellowships to ensure the participation of a sufficient number of students to justify this expenditure.

7.4.2.6.3 *Research Special Project*

Experimental project of vector-species eradication in Central Africa in the absence of natural barriers. This experiment was recommended by the Expert Committee on Malaria in its report, which was approved by the Executive Board. No budgetary provision was proposed in view of the reduction of the 1949 budget decided by the Health Assembly. It was felt also that more information must be collected and that the Expert Committee on Malaria of WHO should re-examine the proposal. An experiment of this kind would of course result in practical implications of great value for the development of Central Africa. It can be assumed that in 1950 such an experiment could be started under the auspices of WHO and with its financial participation.

An estimate of costs can be made on the following basis :

Eradication area ; 500 km² (200 square miles), if circular, about 13 km radius ; Protection area : 1,161 km², i.e. annular band 10 km deep ; Total operational area : 1,661 km² (670 square miles).

The approximate cost is based on the assumption that the government concerned will provide locally recruited personnel.

7.4.2.6.4 Co-ordinated hospital and field trials on malaria chemotherapy and chemoprophylaxis are proposed, as recommended by the Expert Committee on Malaria in its report, which was approved by the Executive Board.

7.4.2.6.5 *Malaria Conference in Equatorial Africa*

If it is agreed that the further development of this continent is desirable, one of the first problems to solve is that of an antimalaria policy for equatorial Africa. It is suggested that WHO should convene a malaria conference in Africa, in which all the outstanding experts on African malaria, chiefs of malaria services of the continent (North Africa excluded) and experts of FAO would participate. The Expert Committee on Malaria of WHO should hold one of its 1950 sessions in the place of the conference, participate in it, and possibly delegate some of its members to make enquiries into local situations. The conference would be purely technical and not inter-governmental. It would decide on the best methods of control applicable in various areas, and on the priority of the areas in which large schemes should be undertaken ; the collaboration of FAO on agricultural development is therefore necessary. It is further intended that the conference should deal, not only with malaria, but also with trypanosomiasis, as a disease of both man and cattle. It is assumed that one third of the experts budgeted for would be trypanosomiasis experts.

It is expected that such a conference would last two weeks, that it would take place in the Equatorial African area, and that it would be attended by some thirty experts invited by WHO.

Advisory and Demonstration Services to Governments

7.4.2 MALARIA

Budget Estimates

	1949	Estimated Expenditure 1950	
		Regular	**Supplemental**
	US $	US $	**US $**
SECRETARIAT			
Salaries	93,505	129,220	**132,500**
Deduct Lapses and delays	—	6,500	**6,625**
Net	93,505	122,720	**125,875**

Headquarters

		Number of posts 1949	1950 Regular	1950 **Supplemental**
	Grade			
	17	1	1	—
	14	1	2	—
	8	1	1	—
	5	1	2	—
	4	1	1	—
Sub-total		5	7	—
Field	Category			
	I	8	8	**14**
	II	5	5	**5**
	III	2	2	**1**
Sub-total		15	15	**20**
Total		20	22	**20**

Consultants	6,670	21,000	**10,500**
Personal services sub-total	100,175	143,720	**136,375**
Allowances	32,935	37,435	**41,300**
Travel and transportation	47,550	60,250	**72,700**
Training courses	—	26,000	**22,000**
Conference costs	—	—	**60,000**
Purchase of motor vehicles	—	5,500	**15,000**
Operation of motor vehicles	—	3,600	**9,000**
Supplies and equipment to teams	87,000	142,700	**365,800**
Special literature	2,500	2,500	—
Expert advisory committees	9,000	17,550	**17,550**
TOTAL OF PROJECT	279,160	439,255	**739,725**

1950

7.4.3 MATERNAL AND CHILD HEALTH

7.4.3.1 The Problem and its Significance

The infant mortality-rate has for many years been used as a yardstick by which the health of a population is judged. To-day it varies from below 30 per 1,000 live births in some countries to over 300 in others. In many places still, figures are either absent or completely unreliable, and it is usually found that such places have a high infant mortality-rate.

A high infant mortality-rate is an indication of a low standard of general health and social conditions, and is often accompanied by a relatively high birth-rate. The well-known close association of a low economic standard of living with high infant mortality- and morbidity-rates and high birth-rates emphasizes the necessity of strengthening those general health measures that will help to improve economic and social conditions and the educational programme for families whose economic standards of living are low.

Sickness among infants and children, including adolescents, is everywhere unnecessarily high, and provision for preventing disease and combating epidemics that affect children in particular is inadequate almost everywhere, and even lacking in many underdeveloped areas. This is true, in spite of the well-established techniques for eradicating such diseases as smallpox and diphtheria, and for greatly ameliorating many other illnesses of infancy and childhood by means of an educational programme and the provision of suitable facilities and services for the treatment of incipient or advanced illness. The nutritional status of children in vast areas of the world is far from optimum, and deficiency diseases, for which dietary remedies are known, exist in many countries. There is insufficient understanding and knowledge among parents and others of the causes of sickness, malnutrition and of behaviour difficulties among children. There is inadequate dissemination and very incomplete application of present-day knowledge of how to protect children from disease and of how to treat them when sick. The effects of economic and social change resulting from war and technological advances in the physical sciences on the physical, social and emotional development of children are little understood. Knowledge in the social sciences, especially with respect to the development of children, has not kept pace with knowledge of physical growth and development.

A vast educational programme must be carried out if an increasing number of the children of the world are to reach maturity healthy in body, and socially and emotionally competent to take their appropriate positions in family and community life. The co-ordination of the maternal and child health aspect of the programme of WHO with all other aspects is essential, if maximum results are to be obtained for public health in general, and for the health and welfare of children in particular.

Of recent years there have been conspicuous advances in medicine in two directions :

(1) *Treatment of disease.* The discovery of the sulfa drugs, and of penicillin and streptomycin, as well as some of the new surgical procedures, have robbed many diseases of their fatal or crippling consequences.

(2) *Mass prevention of disease.* The use of the new insecticides and of protective inoculations have opened up new possibilities for defending whole groups of people from some of the most widespread and serious diseases.

These advances are most valuable, but it is now perhaps apt to be forgotten that neither of these factors can create positive health.

It is sometimes forgotten that the most widespread and the most serious ill-health is not due specifically to tuberculosis, malaria, cholera, typhus, or indeed to any other single factor, but to a concatenation of circumstances, which result from dirt and ignorance. Food production does not improve only by destruction of weeds. Health will not improve greatly by only attacking diseases.

Successful work for maternal and child health is based on teaching people what they can do for themselves. It can co-operate with the agricultural and animal husbandry departments to ensure that improvements in nutrition take place in the homes ; with departments of education, social welfare and sanitation to improve the standard of living.

This function of medicine—the positive and educational—has in the past been relatively neglected. There is need for great expansion and experiment in making healthy living acceptable and available to large masses of humanity. It would seem scarcely justifiable to undertake measures to ensure that more children will live, unless we make efforts at the same time to ensure that their lives are worth living.

7.4.3.2 Work previously accomplished

International agencies have been responsible for a considerable volume of work for children.

7.4.3.2.1 *League of Nations*

The League of Nations conducted a number of surveys in various countries with a view to the re-organization of the public-health services. Under the heading, *Infant Diseases, Mortality and Hygiene,* there is a collection of about 100 monographs and reports of conferences. It is probably due to the interest of the League in this subject that there has been recently such a marked improvement in the attitude of public-health authorities to this subject, and in the attitude of the medical profession towards paediatrics.

The Child Welfare Committee of the League of Nations considered and made recommendations on many social questions, such as dependency, delinquency, neglect, and the care of children by welfare institutions and agencies, both governmental and voluntary.

7.4.3.2.2 *International Labour Organization*

The activities of the International Labour Organization which are most closely related to the interests of the Maternal and Child Health Section of WHO are concerned with the protection of maternity, the regulation of the labour of youth, including the prevention of child labour, the safeguarding of the welfare of young workers and the provision of social security, including health provisions, to assist and protect the family. A series of international regulations, conventions and recommendations covers questions of maternity leave and maternity benefits for working women ; industrial hygiene ; sickness insurance, including the risks of maternity, for the wives of workers as well as for working women ; minimum age for admission to employment ; medical examination to determine fitness for employment, and prohibition of employment in certain occupations regarded as particularly hazardous to the health of women and young persons. Various forms of family allowances, birth premiums, marriage grants and measures of family assistance are being promoted by ILO. Provisions for child welfare are of concern to the ILO especially in so far as they relate to the prevention and regulation of child labour.

7.4.3.2.3 *UNICEF*

This fund was established by the United Nations Resolution 51,[1] approved on 11 December 1946,

" (*a*) For the benefit of children and adolescents of countries which were victims of aggression and in order to assist in their rehabilitation ;

(*b*) For the benefit of children and adolescents of countries at present receiving assistance from the United Nations Relief and Rehabilitation Administration ;

(*c*) For child health purposes generally, giving high priority to the children of countries victims of aggression."

The Fund was further " authorized to receive funds ; ... to make expenditures and to finance or arrange for the provision of supplies, material, services and technical assistance for the furtherance of the foregoing purposes ..."

In the report of the Executive Board of UNICEF to the Economic and Social Council [2] it is stated that " some $58.2 million had already been committed by previous Board actions to country programmes and reserves ..." The report also mentions the target rate, for expenditure in 1949, of $78 million (with the possibility of an eventual total of $112 million), of which about $8 million would represent shipping costs alone. Forty-three million dollars were to be spent in Europe, including $1 million in Germany.

Operations have included the supply of large quantities of milk and other protective foodstuffs, of cod-liver oil, clothing, leather and raw materials for making children's clothes, drugs and medical supplies, equipment for milk processing plants.

Five million dollars have been allocated for an anti-tuberculosis BCG-campaign training programme carried out through a joint enterprise with Denmark, Norway and Sweden, and $2 million for an anti-syphilis campaign. In both of the programmes WHO has assisted ; in the former by technical advice, in the latter by both advice and staff assistance. Proposals have been made to assist in the malaria-control programme, also with the technical advice and assistance of WHO.

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[1] *Resolutions adopted by the General Assembly from 23 October to 15 December 1946,* page 90

[2] UN doc. E/901, 30 July 1948

The main UNICEF receiving countries are Albania, Austria, Bulgaria, China, Czechoslovakia, Finland, France, Greece, Hungary, Italy, Poland, Roumania, Yugoslavia ; and funds have been allocated and plans are already under way to extend the programme to a number of other countries in Asia.[3]

UNICEF has organized study courses in " social paediatrics ", mental hygiene and other related subjects, and is giving some individual fellowships, which WHO administers.

At a meeting of the General Assembly of the United Nations in December 1948, it was decided that UNICEF should collect and administer the funds of the United Nations Appeal for Children.

In July 1948 the Executive Board of WHO and UNICEF each adopted resolutions establishing a Joint Committee on Health Policy, UNICEF/WHO to review and approve all future health projects of UNICEF. This Joint Committee has had two meetings.

7.4.3.2.4 *Social Welfare*

The Social Affairs Division of the United Nations has supplied a number of countries with consultants, and a proportion of these are consultants in " child welfare ".

7.4.3.2.5 *WHO Maternal and Child Health Section*

The first World Health Assembly authorised the establishment in the Secretariat of a section on maternal and child health, and the appointment of an expert advisory committee. The Assembly approved a programme [4] to include :

(1) investigations on statistical and other research projects on causes and methods of reducing maternal, infant and childhood mortality and morbidity ; child guidance and mental health of children ; social aspects of a maternal and child health programme ; and facilities and personnel for providing maternity care and health services for children, including hospital and auxiliary services ;

(2) assistance to governments in the form of expert advice, fellowships, and experts or teams to demonstrate special services ;

(3) co-operation and joint action with other organizations concerned with maternal and child health ;

(4) collection and distribution of relevant information on research, current procedures, methods and administrative practices, and the preparation of reports.

A section of maternal and child health has been established. Positions for the head of the section and three medical assistants and one nurse assistant have been approved. For these posts two physicians have been employed.

An expert advisory committee of eight members was appointed and held its first meeting from 24 to 29 January 1949. The report of the committee [5] includes recommendations for expansion of the staff for 1950, as a beginning for developing a long-range plan for the maternal and child health programme of WHO.

7.4.3.3 **Objectives**

7.4.3.3.1 *Long-term*

The long-term objective of WHO in the maternal and child health field was well expressed in the programme [6] adopted by the first World Health Assembly as follows :

> To assist governments in developing services and facilities that will assure adequate maternity care, the best possible chance of survival to infants, and to all children normal physical growth and development, mental and emotional health, and freedom from preventable disease ; to pool adequate knowledge, acquire new facts, develop standards of care, and distribute information in respect of all relevant matters ; and to co-operate with other agencies on joint undertakings which apply knowledge and techniques in the field of social and biological sciences and of education to problems of maternity and child health.

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[3] UN doc. E/901, 30 July 1948

[4] *Off. Rec. World Hlth Org.* **13**, 302, **10**, 6

[5] *Ibid.* **19**

[6] *Ibid.* **10**, 6

Within these overall objectives, it will be the purpose of WHO to give high priority to providing assistance to countries, and areas within countries, where programmes are underdeveloped and undeveloped, especially to those where high infant mortality rates indicate greatest need, and to attempt to meet the wants of any country for assistance in special aspects of the total programme.

The programme should be one of active field service, including longer-term field demonstrations and shorter-term visits by consultants.

According to the requests of governments this assistance may be in the form of :

(1) demonstrations of health services for mothers and children, preferably in conjunction with demonstrations of general health services or a demonstration of some other type of special programme, such as malaria or tuberculosis control ;

(2) the assignment of visiting consultants to advise on special aspects of the programme, including maternity care, care of newborn infants, health services to infants, pre-school and school age children ; immunization programmes, nutrition, school meals, mental health and child guidance, and so forth. Emphasis should be put on the " team approach " when physicians, nurse and other workers, as required, together give advice as visiting consultants ;

(3) the dissemination of information on all aspects of maternal and child health and welfare to any country requesting information ;

(4) a training programme to increase substantially the supply of qualified personnel for the maternal and child health field, and of both administrative and field workers in the medical, nursing and related auxiliary fields.

There is at present a world-wide shortage of nurses. This is a matter of concern not only to those in the public-health programme, but to those who provide medical care in hospitals and at home. The public-health nurse is an essential worker in the maternal and child health field. Specific plans for recruitment and training of nurses and auxiliary workers in the nursing field must be developed as a long-term objective. Budgetary provision for this has been made under " Technical Training of Medical and Auxiliary Personnel ".

Since the basis of all operating programmes of a maternal and child health service must be facts about children, their physical, social and mental growth and development, and about the conditions in which they live and which affect their health, development and social well-being, a chief long-term objective of WHO must be the collection of facts obtained by research throughout the world and the stimulation and implementation of new investigations and research.

7.4.3.3.1.1 *Collaboration inside WHO.* Since the maternal and child health programme serves a cross-section of the population selected on an age basis, and is not designed to meet one specific health need, and since it has been given high priority in the total programme of WHO because of the urgency of improving the physical, mental and social well-being of children and youth, there is an obvious necessity for the maternal and child health section to work closely with all other sections of WHO. Each activity can contribute substantially to the others whether in field services or in investigative work. The long-term objective should be to develop multi-professional teams for demonstrations or for field consultations wherever such can serve more effectively the needs of countries requesting assistance.

In some countries, where a health service has grown up piecemeal, the same family is visited successively by a tuberculosis nurse, a venereal-disease nurse, a school nurse, a social worker and a district nurse. This system, exasperating both for personnel and patients, is now outmoded and is being replaced by the system where a " polyvalent " worker, having comprehensive knowledge of the families and their needs over a smaller area, is able to assess the situation and to advise adjustments in balance, with great gains in efficiency. The saving in time and transport, apart from other considerations, is enormous. This system is supremely advantageous in countries that have undeveloped health programmes. It is in these countries particularly that the population is liable to be misled and confused by a health programme that is not well balanced. It is only too easily discouraged by the sort of propaganda that will exalt the importance of one disease while ignoring the existence of the malnutrition, helminths, skin infections and other diseases, the low standard of hygiene and of living which may accompany it.

7.4.3.3.1.2 *Collaboration with other specialized agencies.* It is important that close and permanent collaboration with other specialized agencies concerned with the well-being of children should be maintained. This is of particular importance in the case of ILO, FAO, UNESCO and IRO. Such collaboration has already been started and should be one of the long-term objectives of WHO.

7.4.3.3.1.3 *Collaboration with non-governmental organizations.* The contributions of international voluntary organizations to the field of child health and welfare are great, and continued collaboration between the maternal and child health section of WHO and such organizations as the International Society for Child Welfare, the League of Red Cross Societies, the World Federation for Mental Health, is essential in the best interests of children and of international action on their behalf.

7.4.3.3.2 *Immediate Objectives*

7.4.3.3.2.1 *Maternal and Child Health Section of WHO.* The maternal and child health section of WHO should be strengthened in the immediate future so that the existing opportunities for providing service to governments can be made use of in developing the long-term programme.

As the result of the circular sent to governments in August 1948, requests have been received from eight governments for demonstrations, from 10 for expert advice, from 16 for various types of information and from 22 for fellowships. Only part of these requests can be filled in 1949. It is planned to organize four demonstrations and to send visiting consultants to some eight countries.

A start will be made on establishing a service for the collection and dissemination of information on maternal and child health services, methods and practices, and on the results of investigations that relate to this field.

The Expert Committee has recommended that the staff of the maternal and child health section be strengthened during 1949 to enable the section to develop this information service at once, and to start planning for the research programme of the section.

7.4.3.3.2.2 *Collaboration with UNICEF.* As a part of the immediate objectives of the maternal and child health programme there should be increased collaboration with UNICEF. During the second half of 1948, the channels for collaboration were strengthened through the Joint Committee on Health Policy UNICEF/WHO and assistance is being given by UNICEF to the financing of the tuberculosis, malaria and venereal-disease sections of WHO.

The question of additional types of assistance to UNICEF through the maternal and child health section was discussed at length by the Expert Committee on Maternal and Child Health at its meeting in January 1949. The Expert Committee passed the following resolution:[7]

> The Expert Committee on Maternal and Child Health,
> Recognizing the great assistance which has been rendered to child health by UNICEF, and believing that such help can be greatly increased in the fields of maternal, infant, pre-school and school health, dental and immunization services, services for handicapped children, child guidance clinics, maternity and children's hospitals, schemes for the care of premature babies and for the training of personnel in these fields,
> RECOMMENDS that the Joint Committee on Health Policy UNICEF/WHO advise UNICEF to undertake the provision of supplies and equipment for the above services as part of its programme to promote child health generally, such provision being undertaken on the recommendation of maternal and child health specialists from WHO, after discussion with countries requesting such assistance.

The Expert Committee also recommended that the work in the tuberculosis, malaria and venereal disease fields that WHO is carrying on in co-operation with UNICEF should be accompanied by development of the programme in maternal and child health, including health-nursing.

To enable WHO to provide the necessary assistance called for through the maternal and child health section, not only must there be some increase in the ability of the section to provide the services of visiting consultants in 1949, but in 1950 there should be a further substantial increase.

7.4.3.4 **Work to be done in 1950**

7.4.3.4.1 *Authority*

The maternal and child health programme is specifically authorized in Article 2 (*l*) of the Constitution of WHO. Many of its activities are covered by other sections of this article. The programme on maternal and child health set forth in the *Official Records* of WHO, No. 10, page 6, was adopted by the first World Health Assembly.

7.4.3.4.2 *Methods*

Methods to be employed are those outlined in the programme adopted by the Assembly. The Expert Committee at its first meeting made many recommendations for the work of the maternal and child health section which are embodied in its report. The methods of carrying out the programme are discussed therein in some detail.

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[7] *Off. Rec. World Hlth Org.* **19**

Methods of collaborating with UNICEF are also discussed in this report. (See **7.4.3.**3.2.2 above.)

Collection of information from:

(1) replies to circulars to governments;
(2) published statistics;
(3) UNICEF;
(4) personal observations of visiting experts and others;
(5) surveys to be conducted in the future;
(6) various sources, including correspondence.[8]

Distribution of information:

(1) on results of investigation and research;
(2) on health education and propaganda material;
(3) on current procedures, methods and administrative practices;
(4) by means of monographs, on important aspects of maternal and child care, such as training of personnel, rural health, maternal and child morbidity and mortality, etc.

Training

(1) fellowships for administrators, medical and auxiliary personnel in the maternal and child health field;
(2) study courses abroad for administrators, medical and auxiliary personnel;
(3) group fellowships. Assistance to UNICEF in the organization of courses in post-graduate work, particularly social paediatrics and social welfare. These courses in 1948 and 1949 were attended by administrators, paediatricians, public-health nurses, social welfare workers (assistantes sociales) and others. It will be necessary for some of these courses to be repeated. Total number of students attending these UNICEF courses during 1948 was about 120;
(4) regional conferences for medical and auxiliary workers, educational and social affairs personnel;
(5) advice and assistance in establishing and expanding the teaching of social and clinical paediatrics and obstetrics in medical, nursing and social-work schools and post-graduate refresher courses;
(6) advice and assistance in training and employment of indigenous personnel;
(7) travelling seminars.

Expert advice and visiting consultants

Expert advice will continue to be offered and extended as the demand increases. It will be more effective if it is consistent, and because it will form part of an overall plan. Assistance to countries receiving aid from UNICEF would be in the form of expert advice.

Demonstration Teams

It will be advisable to send maternal and child health demonstration teams into some countries and it will be preferable to attach a paediatrician or a public-health nurse to other teams, or to form joint teams.

7.4.3.5 Expert Committee

At least one full meeting of the Expert Committee on Maternal and Child Health should be held in 1950, and two smaller meetings of groups of experts in special fields, as, for example, care of the premature infant, school health services, care of the handicapped child.

7.4.3.6 Investigation

The development of a beginning programme of investigation in 1950 was recommended by the Expert Committee and suggested topics for investigation along different lines were listed. The appointment of a well-qualified head of an investigation unit in the maternal and child health section was recommended for 1949, in order that planning may be begun soon and at least two projects undertaken in 1950. Funds to implement a small beginning in 1950 are included in the budget.

[8] *Off. Rec. World Hlth Org.* **10**, 7

Advisory and Demonstration Services to Governments

7.4.3 MATERNAL AND CHILD HEALTH

Budget Estimates

	1949	Estimated Expenditure 1950	
		Regular	**Supplemental**
	US $	US $	**US $**
SECRETARIAT			
Salaries	121,585	160,420	**257,675**
Deduct Lapses and delays	—	8,100	**12,880**
Net	121,585	152,320	**244,795**

Headquarters

Grade	1949	Number of posts 1950 Regular	**Supplemental**
17	1	1	—
16	—	—	**3**
15	—	1	—
14	2	2	**1**
13	—	—	**2**
12	—	—	**1**
10	1	1	—
8	1	1	**4**
6	—	—	**2**
5	2	2	**1**
4	—	—	**2**
Sub-total	7	8	**16**
Field Category I	8	9	**11**
II	9	12	**23**
III	2	—	—
Sub-total	19	21	**34**
Total	26	29	**50**

Consultants	14,170	24,000	**60,000**
Personal services sub-total	135,755	176,320	**304,795**
Allowances	39,890	44,480	**88,995**
Travel and transportation	64,050	70,500	**149,500**
Purchase of motor vehicles	—	7,000	**10,500**
Operation of motor vehicles	—	3,600	**5,400**
Supplies and equipment to teams	6,000	8,000	**31,400**
Special literature	—	2,500	—
Investigations	—	—	**50,000**
Travelling seminars	—	—	**100,000**
Expert advisory committees	8,000	18,650	—
TOTAL OF PROJECT	253,695	331,050	**740,590**

7.4.4 ENVIRONMENTAL SANITATION

7.4.4.1 The Problem and its Significance

7.4.4.1.1 *Urban and Rural Sanitation and Hygiene*

Somewhat more than three-quarters of the world's population, covering vast areas in all regions, are still the victims of diseases resulting from poor excreta disposal, unsafe water supplies, uncontrolled insects, and inadequate protection of milk and food. In these areas, in spite of the great progress in medical and public-health technology, morbidity and mortality rates from typhoid fever, dysentery, cholera, hookworm, typhus, plague and other resultants of poor sanitation are at a level which has not been experienced in more favoured countries since 1900.

The ravages of water-borne, insect-carried and excreta-transmitted diseases probably outweigh in economic and public-health importance almost any other group of diseases. The correction of these disabilities rests upon known, and universally accepted, principles of sanitation and hygiene. Their origins are non-debatable, their epidemiology is orthodox, their costs of correction, although significant, are not insurmountable with the use of ingenuity and imagination in application.

No permanent advances in the general health programme can rest upon a substructure of poor sanitation. Any improvement in the disposal of excreta, in the protection of drinking water, in the destruction of the fly and the mosquito brings health and social advantage to man, woman and child.

More return per unit of expenditure is obtainable by sanitation than by almost any other activity. Even in large urban centres in some parts of the world the typhoid fever death-rate still exceeds 20 per 100,000. The problem quantitatively is essentially an urban rather than a rural one in far too many areas.

An appalling toll of lives in children under one year of age occurs in great populations of the world, because of poor disposal of excreta, the prevalence of flies, the hazards of milk and food.

Endemic cholera remains one of the great vestigial hazards of the Eastern world, although long " built-out " of more favoured countries of the West. This disease and plague remain eternal threats to the life and economy of millions throughout many regions.

Schistosomiasis, after malaria, is perhaps the most widespread debilitating disease in many parts of the world. Of the twenty million people of Egypt, thirteen million were affected. Since land workers are particularly liable to infection (as in the case of malaria, hookworm, etc.) this disease has the effect of reducing the productivity of otherwise fertile land. Egypt alone has spent over $6,000,000 to control this disease during the last five years. China, the Middle East, the African Continent and South America have likewise great stakes in the solution of this problem. Excreta disposal holds at least one key to this solution, even though that key is of course a difficult one to forge in the present state of the art and of the economy of many areas. Most of the problems here listed can be solved only through improved water supply, disposal of excreta, fly control, etc.—all techniques commonly designated under the term environmental sanitation, namely, an adjustment of the environment for the prevention of disease. The techniques involve education of the public and government, salesmanship, training of professional workers, ingenuity in the development of fiscal methods and of demonstration areas, provision of expert advice, dissemination of simple technical literature, establishment of clearing houses for technical data, etc.

Because the factors involved in the transmission of these diseases are so familiar the tendency has been to forget their significance in many areas. The familiar and the simple tend to become the neglected. Unfortunately it has also been tacitly assumed that many of these environmental adjustments will require inordinate amounts of capital expenditure. Experience in the last ten to twenty years in many areas has disclosed, however, that community systems for water supply and sewerage are frequently cheaper for a population than the previous loose and unsafe individual services. For example, it is demonstrated in Mexico, in the Amazon Valley, in Venezuela, and elsewhere, that the cost (both capital and operating) of a community water or sewerage system has frequently been only 20 to 30 per cent of the cost of carting water for sale into the village square. Similar demonstrations are now at hand in some parts of China.

The imagination and the ingenuity of workers in these fields in using local materials, in creating pooled resources for financing projects at low interest rates, in adapting designs to the customs of local populations, are the significant contributions which WHO may well make in many areas of the world.

One of the keystones, of course, of such a programme is in educational and demonstrational directions. Nowhere in the world has sanitary progress been made except through long conversion of the public to a change in practices within the family and on a mass basis. Education of the public goes on forever and must be adapted to the place, the customs and the time of the effort. It is no answer to the problems of sanitation to say that people are unprepared for the new or for the adjustment of the old. In this field, a primary function of WHO is education, preparation of people for change in their sanitary practices. That the change may be slow should not discourage. That it will be more rapid than some believe will depend upon the skill with which WHO proceeds in this important field.

7.4.4.1.2 *Housing, Town and Country Planning*

The importance of healthful housing is now recognized and the environment and other amenities of a dwelling are as important as the house itself. International study of the problem of housing is necessary in order to establish and promulgate basic principles for healthful housing, and standards of amenities, such as ventilation, sunshine, lighting, isolation against heat, cold, noise, dust, and the disposal of wastes. The psychological viewpoint in defining human needs must be emphasized. Extension of the preparation of objective measurement of degrees of sub-standard housing is necessary.

Standards for good housing in rural as well as urban areas must be developed. Technical advice in town and country planning according to modern needs will be required by the various United Nations bodies and agencies which deal with problems of housing.

7.4.4.2 Work previously accomplished

7.4.4.2.1 *Urban and Rural Sanitation and Hygiene*

The League of Nations held a European Conference on Rural Hygiene in 1931, at Geneva, and in 1937, a similar conference for the Far East in Bandoeng.

Recently, FAO held a meeting of its Standing Committee on Rural Welfare on which WHO was represented by one member.

7.4.4.2.2 *Housing*

In 1935, the Health Organization of the League of Nations, recognizing that the rational planning of houses and villages and area-planning in the countryside were questions of prime importance, set up a Housing Commission to study the special features of the general problem. The Commission instigated the setting-up in various countries (some of them outside the League) of national committees in which these questions were studied from the special point of view of each country. At the same time, the Health Organization opened an enquiry into rural housing and sent a standard questionnaire to several countries. Certain countries undertook this enquiry and supplied the results to the League. The Housing Commission made extensive studies on environmental conditions in dwellings. The physiological and psychological factors influencing living conditions were investigated and many technical standards were developed.

The League of Nations planned to hold a European Conference on Rural Life in 1939 in Geneva, and its Housing Commission drew up a report. The meeting, however, never took place on account of the war. Since the war, the Emergency Economic Committee for Europe in 1946 set up a sub-committee to study housing problems. This task was taken over by the Economic Commission for Europe. A housing group met in October 1947 in Geneva and has since held other meetings.

7.4.4.3 Objectives

7.4.4.3.1 *Long-term*

7.4.4.3.1.1 *Urban and rural sanitation and hygiene*

(1) Collection and distribution of information ;

(2) provision of technical advice on urban and rural sanitation and hygiene problems ;

(3) assistance in dissemination of information on recent progress in urban and rural areas ;

(4) promotion of sanitary conditions and adequate health care for urban and rural populations ;

(5) co-operation with other organizations (FAO, UNESCO and others) working on cultural development of urban and rural areas ;

(6) participation in the organization of conferences on urban and rural sanitation and hygiene ;

(7) participation in the organization of professional and sub-professional training courses ;

(8) close co-operation with other sections, in disinsectization projects.

7.4.4.3.1.2 *Housing, town and country planning*

(1) Continuation of the work already done by the Housing Commission of the League of Nations and its technical sub-committees ;

(2) provision of technical advice on the hygiene of housing to appropriate bodies dealing with housing on an international basis, such as, for example, the Economic Commission for Europe and the Social Commissions ;

(3) study of housing hygiene and the hygiene of towns and rural areas in tropical regions ;

(4) study of questions of organization, administration and legislation from the standpoint of the hygiene of housing and town and country planning ;

(5) co-operation with national housing committees approved by WHO.

7.4.4.3.1.3 *Natural resources.* Co-operation with the United Nations in scientific conferences on the conservation and utilization of resources.

7.4.4.4 Work to be accomplished in 1950

7.4.4.4.1 *Authority*

Article 2 (*i*) of the Constitution reads : " to promote, in co-operation with other specialized agencies, where necessary, the improvement of nutrition, housing, sanitation, recreation, economic or working conditions and other aspects of environmental hygiene ".

The first World Health Assembly approved the establishment of a section on environmental sanitation and an expert committee, and recommended that, in view of the joint responsibilities with UNESCO and FAO in the field of urban and rural sanitation and hygiene, a joint committee with FAO might be considered, and the programme of housing and town and country planning be developed in co-operation with other bodies active in the field.

The Executive Board, at its second session, adopted a resolution authorizing the use of a small panel of correspondents expert in the hygiene of housing, and the establishment of relations with appropriate international and regional authorities, including the national housing committees which are to be set up at the request of the Social Commission of the United Nations.

The first Health Assembly decided that WHO should be suitably represented at the United Nations Conference on the Conservation and Utilization of Resources.[1]

7.4.4.4.2 *Methods*

To prepare for the long-term objectives, the following programme is suggested for 1950 :

7.4.4.4.2.1 *On urban and rural sanitation and hygiene*

(1) Collection and distribution of information ;

(2) technical advice through advisory and demonstration teams and consultants to governments ;

(3) assistance in supplies to governments unable to undertake pilot projects through lack of supplies for specific reasons ;

(4) fellowships and training courses ;

(5) participation in demonstration areas ;

(6) co-operation in the United Nations UNESCO/WHO project in Haiti, the Hylean Amazon project, and similar projects of the United Nations and specialized agencies ;

(7) participation in conferences on problems of rural hygiene.

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[1] *Off. Rec. World Hlth Org.* **13**, 322

7.4.4.4.2.2 *On housing*

(1) Collection and dissemination of information ;

(2) continuation of relevant parts of the work of the Housing Commission of the League of Nations (Certain aspects of this work are now provided for by the United Nations or agencies which did not previously exist) ;

(3) study of hygiene of housing in tropical regions.

7.4.4.4.2.3 *National resources.* Co-operation with the United Nations in this field.

7.4.4.5 Advisory and Demonstration Teams

It is intended that each team should consist of one Category I and one Category II staff member. In 1949, teams are at work in China and Ethiopia. Certainly there will be continuing requests from countries for this type of demonstration and advice.

It is realized that two teams per region will be below what is necessary and wherever malaria teams or other " eradication " teams are working, environmental sanitation teams will be added to complement their tasks.

7.4.4.5.1 *Courses*

Training courses for the areas of Europe, Eastern Mediterranean, Africa, South-East Asia, the Western Pacific, and the Western Hemisphere, strategically located, would provide the necessary trained personnel for understudies in WHO demonstration teams, and for demonstration and teaching within their own countries.

7.4.4.5.2 *Special Project*

7.4.4.5.2.1 *Demonstration district in rural area.* Hygiene in rural areas has its specific problems. In many places the productivity of the rural population is hampered by diseases which could be prevented if the necessary sanitary measures were applied.

In a demonstration district all problems of environmental sanitation have to be dealt with, and the problem of rural housing should be studied.

Prevention of the spread of diseases by water, food and other means ; water supply, disposal of refuse and other wastes ; fly control and other measures to prevent diseases are the essential parts of the programme. Measures of general hygiene and education of the public, next to care for mothers and children, will unavoidably form a part of the preventive measures.

It is planned to select a rural area in Europe for the purpose of this important demonstration in 1950. The guiding principles in selecting the demonstration district should be that the population ought not to exceed 100,000 inhabitants, that the district should be relatively underdeveloped and the sanitation problems typical of rural areas in Europe. Local understudies will be attached to the demonstrations, fellowships being awarded to other countries for the purpose of studying on the spot.

The measures taken in this district should serve as a model for other districts and fall within their possibilities. The ultimate aim must be to provide adequate facilities at a minimum cost.

7.4.4.5.3 *Haiti Project*

The responsibility for the health problems in the combined United Nations/UNESCO/WHO project for Haiti will fall on WHO.

7.4.4.5.4 *The Hylean Amazon Project*

The responsibility for the health problems will fall on WHO. Although no definite programmes have been developed, provision has been made in this budget for the estimated requirements to be met by WHO.

7.4.4.5.5 *United Nations Missions*

As the United Nations proposes to conduct three missions in 1949 of the same type as the 1948 Haiti mission, provision is made for participation by WHO, which will certainly be asked to provide advice on the health aspects of the study area.

7.4.4.5.6 *Participation in Conferences*

The possibility of participation in a conference on rural hygiene in 1950 must be considered. Although WHO will not initiate such a conference in 1950, it will have to participate in conferences called by other agencies and the United Nations.

7.4.4.6 Conference on the Conservation and Utilization of Resources

The Executive Board at its second session authorized $3,000 for participation in this conference in 1949. Participation in further similar conferences and commitments resulting from the 1949 conference is provided for.

7.4.4.7 Housing, Town and Country Planning

(1) Short-term consultants;

(2) participation in conferences on housing problems organized by other organizations is provided for.

Advisory and Demonstration Services to Governments

7.4.4 ENVIRONMENTAL SANITATION

Budget Estimates

	1949	Estimated Expenditure 1950	
		Regular	**Supplemental**
	US $	US $	**US $**
SECRETARIAT			
Salaries	35,405	110,235	**149,695**
Deduct Lapses and delays	—	5,500	**7,480**
Net	35,405	104,735	**142,215**

Headquarters

	Number of posts 1949	1950 Regular	1950 **Supplemental**
Grade			
16	1	1	—
14	—	—	**1**
8	—	1	—
6	—	1	—
5	1	—	**1**
Sub-total	2	3	**2**
Field Category			
I	4	10	**10**
II	—	6	**14**
III	1	—	—
Sub-total	5	16	**24**
Total	7	19	**26**

Consultants	12,000	3,000	**4,500**
Personal services sub-total	47,405	107,735	**146,715**
Allowances	22,425	24,650	**71,090**
Travel and transportation	20,700	30,600	**101,370**
Special projects	—	50,000	**95,000**
Co-operation with United Nations and other specialized agencies			
Training courses	—	—	**30,000**
Conference costs	—	5,000	**9,000**
Purchase of motor vehicles	—	7,000	**17,500**
Operation of motor vehicles	—	3,600	**9,000**
Supplies and equipment to teams	10,000	25,000	**315,900**
Special literature	—	1,000	—
Expert advisory committee	4,500	13,650	—
TOTAL OF PROJECT	105,030	268,235	**795,575**

7.4.5 MENTAL HEALTH

7.4.5.1 Mental Health Problems and their Significance

7.4.5.1.1 *Prevailing Situation*

As the socio-economic development of a community progresses, the conception of mental health develops with it, and the less developed a community the cruder will be the prevailing conception. Indeed, at the lowest level no conception of mental health exists, and only mental ill-health in its most flagrant forms is recognized, i.e. the more flamboyant psychoses and grave cases of mental defect. From this point the conception progresses to include recognition of the transient or milder psychoses, the higher degrees of mental defect and the grosser forms of psychoneuroses. Later, the grosser forms of character disorder, i.e., psychopathic personalities, are also identified.

Growing understanding of the genesis and nature of psychoneurosis produces an increased interest in the psychological problems of childhood, and it is usually in this area of the mental-health field that clinical work first leads to preventive thinking. The child-guidance team is forced by the clinical problems it handles to interest itself early in parent-child relationships. Tensions in that relationship lead to consideration of the wider context of marital relationships, and disorders of learning lead to an interest in educational methods. Thus the circle of interest expands.

In the meantime, the study and treatment of the neuroses begins to throw light on two collateral fields—the psychological aspects of physical disorders (usually starting with those maladies in which autonomic disturbance plays a major role—so-called psychosomatic disorders), and the factors which influence the differentiation of personality structure in the normal adult. The clinical study of disturbances of the individual's relationship with the group, as exemplified by delinquents or vocational misfits, leads in the adult field to a study of relationships and their disorders analogous to that to which child guidance work leads in the case of children.

Work in the field of psychosomatic disorders, at first proceeding solely on a clinical basis, leads later to the study of the psychological or cultural factors which influence the epidemiology of other disorders, e.g. (1) the study of the psychological factors which influence the " epidemiology " of habitual sexual promiscuity which is of paramount importance in the prevention of venereal disease ; or (2) the study of psychological influences affecting industrial or transport accident rates.

The understanding of the dynamics of individual and group relations continues to develop and the psychological factors involved in the integration or reintegration of socially dislocated groups (e.g. refugees, evacuated children, immigrants, returned prisoners of war, and maimed, disabled or otherwise handicapped individuals) become the objects of study.

The provision of mental health facilities develops pari passu with the increasing understanding of mental health problems. At the outset the first step is the mere provision of custody, usually in prisons or under prison-like conditions, for grossly disordered individuals. A second step, dictated by humanitarian rather than therapeutic considerations, is the provision for them of a refuge in the shape of the " insane asylum ", and, at a later stage, in the private care of a friendly family (for at this stage they are usually the object of hostility and horror on the part of their community). Finally, the highest development of facilities at the crudest conception of mental health is the provision of mental hospitals for the psychoses, and educational or working colonies for individuals suffering from severe mental defect.

The provision of facilities for the clinical handling of psychoneuroses proceeds similarly through a series of phases. It starts, as in the case of the psychoses, with the handicap of a public attitude which attaches a stigma to these disorders, and passes through many phases, two of which are of particular importance for the stimulus to, and understanding of, preventive measures which they provide. Firstly, the development of out-patient treatment facilities brings the mental-health worker into much greater contact with the family, vocational, and social context of the individual patient and leads to the study of the relationship of this context with the individual's disorder. Secondly, the development of psychotherapy throws light not only on the genesis and pathology of psychological disorders, but also on the psychodynamic aspects of individual and group behaviour. This is of course analogous to the knowledge of normal physiology which has been derived from the study of organic pathology.

In the spontaneous development of mental-health facilities, preventive activities develop at a late stage. Arising first usually in child guidance work, they are initially directed toward the modification of certain types of behaviour on the part of, for instance, parents or teachers; but they gradually expand to the concept of creating a total human environment favourable in all its aspects to mental health, and finally include the attempt to deal with psychological obstacles to the creation of an environment favourable to physical and social wellbeing.

7.4.5.1.2 *The social and economic Signifiance of Mental Ill-health*

The social significance of mental ill-health arises not only from the unhappiness of those who suffer from psychological disorders ; but even more from the fact that the impact of these disorders also falls upon those who immediately surround them. Neurotic mothers, delinquent fathers or school teachers with character disorders unwittingly but inevitably visit their unhappiness on those about them with, in the case of children, permanent results upon their character structure and their capacity for becoming stable, adaptable and mature adults. Psychological ill-health and the unhappiness it generates is therefore highly transmissible.

From the economic point of view, even at the crudest clinical conception of mental ill-health, its overt cost is considerable. The inhabitants of prisons probably cost more to maintain than those of moderately well-developed mental hospitals ; and mental defectives under colony conditions have demonstrated their capacity for, for example, agricultural productivity, as opposed to their complete dependence if left to their own devices in the community.

A broadening clinical conception also shows that psychoneuroses and the higher grades of mental defect are sources of considerable productive loss, even in communities of a low level of socio-economic development. But it is probably true that the higher the degree of development of a community, the greater the productive loss suffered from this cause. This is partly because individual productivity is at a much higher level in such a community, and the greater the production from a " man hour " worked, the greater the loss through a " man hour " absence. It is also because the proportion of mental ill-health contributed by neurosis and psychosomatic disorders probably rises with certain types of socio-economic development.

Unfortunately, for two main reasons, the true incidence of morbidity arising from these conditions cannot be obtained through administrative channels : firstly because undergraduate medical education is in general inadequate in this field, and diagnosis therefore not usually completely reliable ; and secondly because many patients, and not a few physicians for that matter, look upon such a diagnosis as a stigma to be avoided. This has led to the administrative certification of a high proportion of such cases, either as a mis-diagnosis or as a euphemism, under such headings as " debility ", " anaemia ", " fibrositis ", " rheumatism " and the like. The only statistically planned investigation by clinical sampling of the incidence of psychoneurosis in an industrial community, for instance, is that recently carried out by the Medical Research Council of Great Britain, which demonstrated that, in the factories surveyed, these disorders caused a loss of productive time slightly greater than the common cold. The extent to which this finding is typical of similar communities elsewhere is unknown ; but even allowing for wide variations, it demonstrates a general order of productive loss which, together with the cost of treatment and other social services, involves society in a high hidden cost.

The higher levels of mental defect are also responsible for a similar problem. As a community develops in techniques and social complexity, such individuals have increasing difficulty in finding a vocational and social role within their capacity. Apart from the productive loss which this entails it is a most potent cause of mental instability and behaviour disorders in this group. In an industrial area, this problem may arise with considerably more than five per cent of the community. It is not only the problem of highly-developed industrialized countries ; it is of particular importance to underdeveloped countries beginning the stage of industrialization, as it was, for instance, in the last war in the Armed Forces. The attempt to convert a military unit of moderate technical and organizational complexity (for instance, an infantry unit) to one of great technical and organizational complexity (for instance, a tank unit) inevitably produced many problems of this type. The transition from a rural to an industrialized community similarly creates such problems, and does so at a phase of development at which the community's mental-health facilities are inadequate to recognize the nature and origin of the problem, let alone to advise on its solution.

The lack of skilled mental-health workers in an underdeveloped country also leads to a failure to recognize many of the other psychological factors which obstruct the country's development. As an example one may quote the popular reputation which attaches to the inhabitants of some of those countries for " laziness and fecklessness". There is considerable reason to believe that this reputation arises, in fact, from the results, in adult behaviour and capacity, of three main causes, viz. chronic malnutrition, chronic endemic disease and the local pattern of childhood upbringing. Dr. C. D. Williams, for instance, has recorded the extreme indulgence of the Gold Coast woman toward her infant, and the complete withdrawal of that indulgence from it on the birth of another child. Unless the findings of child psychiatrists working elsewhere are completely awry, factors of this type must by their effect on adult personality structure play a large part in obstructing the development of individuals and communities in underdeveloped areas.

Not only do psychological obstacles within the inhabitants of underdeveloped areas retard their socio-economic progress, but efforts to put at the disposal of these countries more advanced knowledge and practices from elsewhere are often frustrated by the lack of psychological and social skills on the part of those who attempt to bring this knowledge to the community. This is particularly so where the attempt is made to change behaviour regarding the upbringing of children, the production and consumption of food, and all matters relating to " the home ", e.g. housing sanitation, etc., since

behaviour of this type springs from deep psychological roots and is not susceptible to modification by didactic means.

In both well-developed and underdeveloped communities such factors are so powerful that they may frustrate the attempts of health administrators to modify habits and behaviour in a direction favourable to health : e.g. the failure of experimental attempts to gain the acceptance by African natives of ground-nut protein as an article of diet at one end of the scale, and, at the other, the fact that most London restaurants still serve vitamin-free cabbage despite the vast sums of money that the British Ministry of Food has spent in trying to change the method of cooking that vegetable.

This type of obstacle to progress towards the achievement of a healthy environment is, however, of much greater economic significance in an underdeveloped community, for, whereas in a well-developed community it leads to difficulty in achieving refinements in an environment which is already generally favourable, in an underdeveloped community it may frustrate the attempt to take the first step toward mitigating an environment which is grossly unfavourable to health.

7.4.5.2 Previous International Mental-health Work

International work in the field of mental health is of comparatively recent origin. It has taken place through non-governmental bodies. In the beginning it took the form of co-operation between international societies in such subjects as clinical psychiatry, or psycho-therapeutic methods. In the 1920's, international committees derived from national bodies interested in mental hygiene (particularly in preventive work) began to be active. There was, however, at that period, no completely representative body of this type either from a point of view of geographical representation, or from a point of view of representation of all the professional disciplines on which mental-health work depends. This situation, however, was changed by the International Congress on Mental Health held in London in August 1948 under the auspices of the International Committee for Mental Hygiene and the British National Association for Mental Health.

This congress was attended by 2,000 members from fifty countries. During the preceding year, its draft programme had been the subject of discussions by preparatory commissions in twenty-six countries, in which 5,000 members participated. The reports of these groups on the various topics in the programme were then studied during two weeks by an International Preparatory Commission, which consisted of twenty-five members drawn from ten countries representing psychiatry, psychology, anthropology, sociology and economics. Observers were present from WHO and UNESCO. The International Preparatory Commission produced a report based on its discussion of the contributions by the national preparatory commissions (which served as a nucleus for the discussions held at the congress) and made recommendations to the United Nations and its specialized agencies, including WHO.

During the congress, a World Federation for Mental Health (WFMH) was set up, which has now been admitted to consultative status by WHO and UNESCO. The Federation has admitted to founder membership convening organizations in 33 countries and also includes 19 other specialized and professional societies and two governmental organizations from those countries. Two international organizations have also been accepted.

The recommendations made by the International Preparatory Commission received the general approval of the congress. Those directed to WHO were submitted to the second session of the WHO Executive Board, which approved them in principle and, in particular, requested the Director-General to consult with the WFMH on preliminary studies to be made in conjunction with that body.[1]

An observer from WHO attended the second session of the Executive Board of the WFMH held in Amsterdam in January 1949. At this meeting, steps to put into action the resolutions accepted by the WHO Executive Board were fully discussed and will in due course be recommended to WHO by the WFMH. In the meantime the recommendations for action discussed at this meeting have been given full consideration in the programme proposed below.

7.4.5.3 Objectives

7.4.5.3.1 *Long-term*

The long-term objectives of any mental-health programme must necessarily be :

(1) The development, for all peoples, of as favourable an environment for mental health as the application of existing knowledge permits and the acquisition of new knowledge, which will permit of a continuous raising of the state of mental health of all peoples.

[1] *Off. Rec. World Hlth. Org.* **14**, 20, item 1.14

(2) The provision for all peoples of therapeutic facilities which apply the most advanced knowledge in this field.

7.4.5.3.2 *Short-term*

The short-term programme, however, must devote itself to those tasks which are most urgent from a world point of view.

One point in this connexion is of particular importance. Although the spontaneous development of mental-health work in those countries where it has reached an advanced level has, in the past, followed the pattern described in **7.4.5.**1.1 above, this is neither the inevitable nor, necessarily, the most fruitful pattern. It is very probable, for instance, that the planned application of preventive measures at a stage of a country's development earlier than they tend to develop spontaneously, would reduce considerably the need for the great expenditure on therapeutic facilities which otherwise arises as development proceeds. It would also diminish many of the psychological obstacles to the country's development.

7.4.5.3.2.1 *Collection of data on the existing position.* Before any large-scale action can be taken there must be a phase of preparation for action and it is with this that the programme beginning in 1950 must largely concern itself.

The stage which mental-health work has reached in communities at different levels of socio-economic development shows even wider disparities than is the case with general health matters. An essential first step, therefore, is the collection of information on the extent to which mental-health problems have been assessed and provided for in different areas. The type of information available will vary in sophistication with the level of development of the country concerned. It will range from comprehensive statistics covering all aspects of this type of morbidity, e.g. psychoses, juvenile delinquency, psychosomatic disorders, to data of an extremely crude type in the least developed areas.

A similar compendium of data is needed on the distribution of therapeutic and preventive facilities and also on educational facilities for work in the mental-health field. The method of compilation must vary with the level of development of the country concerned, and every available source of information must be tapped. Quantitative information alone is valueless. The aim should be the assembling of comprehensive qualitative data on these matters for all areas. Much of this work can be delegated to existing organizations, such as the national bodies federated with the WFMH, but central co-ordination by WHO is essential if the final picture is to be meaningful.

7.4.5.3.2.2 *Reconnaissance of problems in neglected segments of the mental-health field.* Mental hygiene techniques, such as child guidance, have developed predominantly in an urban setting and comparatively little is known of the mental-health problems of rural communities and the necessary preventive measures. In order to apply existing knowledge most efficiently in a rural setting, surveys of typical rural communities in areas of different levels of socio-economic development are an essential first step. Similarly, in urban communities, certain segments of mental-health work are much more developed than others. Preventive mental-health work has made a much greater impact, for example, on the family and the infants' school, than it has on the university and the industrial unit. Surveys of the mental-health problems of the two latter types of community are essential to assess the extent to which knowledge obtained by such little work in this field as has been done is of universal application and the best means of applying it. To what extent, for instance, are Russell Fraser's findings on the incidence of loss of productive time through psychoneurosis in industrial units in the United Kingdom valid for other industrial communities ? Similarly, to what extent are the findings of the research work of Elton Mayo and Kurt Lewin in America on the environmental factors which lead to a high incidence of such lost time, of wider application ? Such knowledge as does exist has been derived from the study of highly industrialized countries. The problems created, or likely to be created, by the rapid emergence of industrialization in a country at a low level of socio-economic development have not yet been studied. This programme proposes that they should be, in order that preventive action may be taken at a stage before these problems reach large proportions, rather than later having to face the need for the provision of therapeutic facilities on a large scale, as has already happened in highly industrialised countries.

Although the work done in the industrial field is little enough, even less has been done in the field of student mental-hygiene in universities. Yet the individual in the student stage of his development is in a plastic phase in which incipient mental-health problems may often be dissipated by skilled help and their incidence much reduced by preventive measures. The establishment of higher education facilities is an essential step in the progress of a country at a low level of socio-economic development. This programme, therefore, proposes that student mental-hygiene problems should be studied in the setting of such a country, since all previously existing knowledge has been derived from well-established universities in countries of a high level of development.

7.4.5.3.2.3 *Demonstrations of techniques of survey, prevention and treatment.* Even in well, developed areas the spread of techniques is slow; the multi-disciplined team-work (psychiatrist, psychologist and psychiatric social worker) of the child guidance clinic has only recently had its effect on the techniques of diagnosis, prevention and treatment of mental-health problems in adults. Its influence, for instance, on the technical level of work done in psychiatric hospitals could be considerable and, in the more directly preventive field, the techniques for the prevention of problems arising in the parent-child relationships could be of great value in preventing and treating other disorders of family relationships (e.g. in the field of marriage guidance) and problems in the "work group" (e.g. vocational guidance and placement).

In many cases, the reconnaissance of neglected areas of the mental-health field (see **7.4.5.**3.2.2 above) can be combined with the demonstration of techniques. This procedure is psychologically sound, since the fullest co-operation can only be elicited from a community in which such a reconnaissance takes place, if the team brings something to the community (e.g. new techniques, etc.) as well as taking something away (e.g. findings of the survey). It is equally important, from a psychological point of view, that all surveys and demonstrations should be conducted in the closest co-operation with those members of the local community who can contribute to them in any way, since communities are most likely to apply knowledge in the acquisition of which they have participated.

7.4.5.3.2.4 *Education*

1. *WHO field teams.* The considerations put forward in the last paragraph could be amplified very considerably on the technical level. There is a growing body of theoretical knowledge (unfortunately at present still centred in a small number of workers and institutions) on the nature and handling of the psychological resistances to the adoption of new patterns of behaviour. A good deal is now known of the operational techniques which minimize the possibility of such resistances frustrating attempts to modify behaviour and environment in a direction favourable to health. It is therefore a matter of prime importance that WHO field teams should possess some knowledge of those problems, and skill in handling them as well as the particular expert knowledge called for by their project.

2. *Public-health administrators.* The psychological resistances which face the WHO project-team in their short-term attempts to modify human behaviour and environment, face the public-health administrator throughout all his professional work. Methods of equipping him to understand and deal with these resistances need to be devised and incorporated in the public-health syllabus.

Many public-health problems, which appear at first sight to be concerned entirely with physical health, are found on closer examination to lie, to a considerable extent, in the mental field. The knowledge and means for the eradication of diphtheria for instance are now freely available; the continued existence of this disease arises predominantly from the psychological obstacles to the application of the preventive measures.

There is also considerable variation in the degree to which the public-health administrator in different parts of the world has been equipped by his education to apply the principles of mental hygiene in his community and there is a need for considerable improvement of public-health education in this field.

3. *Mental-health workers.* In many countries there are very few fully trained psychiatrists (the basic mental-health worker), let alone the other members of the team (psychologists, psychiatric social workers and nurses) necessary to apply the more developed conception of such work. Long-term training facilities (e.g. under the fellowship programme) are essential for such countries but, in the meantime, there is an urgent need for immediate facilities for short ad hoc education in this field (e.g. by means of travelling seminar teams).

4. *Related professions.* The lawyer, the school teacher and members of various other professions are often required to handle individual psychiatric problems. In only a few areas does the education of these groups assist them in the understanding of this aspect of their work. The long-term need is the inclusion of such knowledge in the professional syllabus, but on the short-term basis in areas where the need is great (e.g. in connexion with a high rate of juvenile delinquency) much can be done by travelling teams who will conduct seminars and demonstrate methods (e.g. of the multi-disciplined approach to the study of individual delinquents).

5. *Public education.* An important factor in the earliest stage of development of mental-health work in a community (i.e. from the "custodial" to the "asylum" conception of handling psychotics

and thence on to the "therapeutic") is the existence of an informed public opinion. An informed public opinion is of equal, or even greater, importance in assisting a community's progress towards application of general preventive mental-health measures. The fostering of public education is therefore an essential part of a mental-health programme. As an initial step, the compilation of information on work already done on this subject is essential and would be included under **7.4.5.**3.2.1. The setting-up of a demonstration project in this field is of great importance as a means of cross fertilization. Such a project should be preferably of a general nature, i.e. concerned with all aspects of public mental-health education in a community, rather than specifically concerned with one particular group of the community, such as solely with mothers, or solely with those working in the educational system. A project of this type need not necessarily be conducted as a separate activity. There is an advantage to be gained by combining such a project with one of the type proposed under **7.4.5.**3.2.3 above, so that in certain instances a single multi-disciplined team might simultaneously undertake several responsibilities. Similarly, team projects in the field of mental health should in certain cases be integrated with WHO team projects on other topics, e.g. maternal and child health, housing, rural sanitation, etc.: such integration is likely to make both the constituent studies more fruitful.

7.4.5.4 Work to be started in 1950

7.4.5.4.1 *Authority*

The Constitution placed upon the World Health Organization explicit responsibilities in the field of mental health. Member States have undertaken (in Article 2 (*m*) and (*l*)) "to foster activities in the field of mental health, especially those affecting the harmony of human relations" and "to foster the ability to live harmoniously in a changing total environment".

7.4.5.4.2 *Method*

7.4.5.4.2.1 *Collection of existing data on problems and facilities.* Although a certain amount can be done centrally by the compilation of data from existing governmental and professional publications, and by questionnaires addressed to Member States and professional organizations, experience has shown that there are many problems in the interpretation of such data. It is essential that an "aerial" survey of this type should also be illuminated by "ground" surveys in the shape of qualitative data compiled on the basis of more direct acquaintance with local situations. In this respect the WFMH could play a very useful role as a collector of information within the framework of a coherent WHO programme.

Great importance is attached to this item of the programme, since sound intelligence compiled from all possible sources will enable development of the programme in later years to be conducted with increasing efficiency, particularly in the field of training.

A branch of the mental-health section would be set up for the liaison and co-ordination involved in the prosecution of this programme. It would compile existing data and that to be obtained from governments and bodies with consultative status. The latter bodies would be used to collect information of a type not obtainable through other sources.

7.4.5.4.2.2 *Reconnaissance of underdeveloped segments of the mental-health field*

1. *Mental-health problems in rural communities.* Multi-disciplined teams would be sent to rural communities in areas at different levels of socio-economic development and in different parts of the world. The teams would be responsible for making a general survey of local mental-health problems, in order to assess the extent to which, and the means by which, existing knowledge can be applied to their prevention and solution. At least one of these teams should conduct its work jointly with a team working in the WHO Maternal and Child Health programme. Throughout the whole undertaking, liaison would be maintained with UNESCO and FAO.

2. *Mental-health problems in industrial units.* Teams would be sent to industrial communities in different areas to assess the incidence of psychoneurotic disability by criteria and methods comparable with those applied in the recent study in the United Kingdom; and to obtain accurate information on incidence and epidemiology. This study would be combined with a more general survey of mental-hygiene problems in the industrial group concerned. Full liaison would be maintained with the ILO.

3. *Student mental hygiene.* This team project, which would take place in a university, would be not only a reconnaissance but also a demonstration as under **7.4.5.**4.2.3 below.

7.4.5.4.2.3 *Demonstration of techniques.* Multi-disciplined teams would be sent on an itinerary of places convenient for the assembling of members of interested professions to conduct demonstrations of methods of survey, prevention and treatment. This part of the programme would be planned in such a way that both intra-regional and inter-regional cross-fertilization takes place. The well-developed countries have as much to offer each other in this respect as they have to the underdeveloped regions.

7.4.5.4.2.4 *Education*

1. *WHO field teams.* Mental-health teams working in the field in conjunction with other WHO teams, have an important role to play in feeding back experience for the training of future field teams.

2. *Public-health administrators.* This part of the programme, which should be undertaken in collaboration with the public-health administration section, would take the form of visiting teams to conduct seminars for existing public-health administrators and public-health teachers on the psychological factors involved in the modification of behaviour and environment in a favourable direction and also on the general principles of mental hygiene.

3. *Mental-health workers.* The method, again, would be the use of travelling seminar teams. Those to whom the seminar was available would vary in profession and status according to the level of development of the area concerned. In a country with no psychiatrists or psychiatric nurses, for instance, the aim might be to give the general physician and the general nurse such rudiments of the knowledge necessary to the handling of psychiatric cases as will enable the country to begin to move from the " custodial " to the " therapeutic " phase. In a more advanced area the aim would be to make available more recent developments to those who had already a considerable level of expert knowledge. Some seminar teams of this type would be chosen so that they were also capable of functioning as demonstration teams under **7.4.5.**4.2.3. The use of travelling seminar teams to undertake this work and that set out under **7.4.5.**4.2.3 and **7.4.5.**4.2.4, sub-paragraphs 1, 2, 4 and 5, is proposed owing to the impossibility of obtaining enough whole-time consultants of the requisite professional level of ability. To do so would be impossible, first, because WHO could not afford to offer salaries which compared with the earnings of such individuals in their present occupations ; and secondly, because, although an eminent worker in this field might be reluctant to drop his present activities permanently to work for WHO, many distinguished authorities would be willing to devote three or four months to work as WHO consultants in one of the proposed travelling seminar teams. The proposal therefore has the advantage of drawing on large and important resources of skilled personnel which would not be available to fill whole-time permanent WHO appointments. A natural consequence, however, of the use of short-term travelling seminar teams is high travelling expenses, since the cost of assembling the members of the seminar team from a variety of different countries and enabling them to return to their countries at the end of the tour is an overhead which has to be borne over a period of three or four months rather than over a period of one or more years, as would be the case with permanent appointments.

In addition to the proposed travelling seminar teams the fullest use would be made of the fellowship programme. The method of utilization of this programme would take into consideration the level of development of the country concerned. To send a worker from India for two years to study the Rorschach test for instance, would probably be less fruitful from that country's point of view at this stage than to send six doctors without previous psychiatric experience to work in a well-developed hospital for psychotics for a period of four months. Preferably both long-term and short-term fellowships should form part of a planned and integrated programme covering psychiatrists, psychologists and psychiatric social workers and nurses. Approximately fifty fellowships, of six months' duration, in mental health would be necessary in 1950.

4. *Related professions.* The travelling seminar and demonstration method would be applied for this section of the training work.

5. *Public education.* A demonstration project would be undertaken in this field. It is desirable that it should take place in a medium-sized, well-integrated community and if the community contained both a university and some degree of industrialization, projects of the type set out in **7.4.5.**4.2.2.2 and 3 above, could be fused with it as a unified activity. This demonstration project would also be valuable as a centre of experience for travelling Fellows.

7.4.5.4.2.5 *Expert Committee.* A full expert committee will be necessary to advise on many aspects of the technical execution of this programme. The existing nuclear committee should therefore be expanded. It is desirable that it should function in a slightly different way from the existing expert committees of WHO. It is proposed, therefore, that although an expert committee of nine members should be authorized and budgeted for, the full composition of this committee should not be fixed, and

that a nucleus of four members should be permanent throughout the year. They would be appointed after consultation with WFMH. The remaining five vacancies, however, would be filled by individuals particularly qualified to advise on the topics under consideration at the meeting concerned. It is also intended that corresponding members should be utilized as fully as possible, in addition to meetings, as a means of conducting the committee's advisory role. The possibility of varying the composition of a considerable proportion of the committee in accordance with the agenda of a particular meeting is essential, since the execution of some aspects of the programme outlined above will necessitate advice from many professions other than medicine—for instance, psychology, psychiatric social work, social anthropology and sociology—and it would be impracticable to include representation of all these in a committee with a fixed membership, without making its size excessive.

7.4.5.4.2.6 *Planning, co-ordination and liaison.* The Secretariat will need a representative from each of the fields of psychiatry, psychology and psychiatric social work and nursing with adequate technical and research staff to co-ordinate the above programme. The programme would be carried out in close co-operation with the regional offices. Apart from the co-ordination of WHO's own operations in the mental-health field, this section of the Secretariat is responsible for collaboration on mental-health problems with the United Nations and the specialized agencies. In particular, it will be responsible for technical collaboration with the United Nations Social Commission in that body's study of the prevention of crime and treatment of the offender, and for collaboration with UNESCO in the project for the study of tensions affecting international understanding.

Advisory and Demonstration Services to Governments

7.4.5 MENTAL HEALTH

Budget Estimates

	1949	Estimated Expenditure 1950	
		Regular	**Supplemental**
	US $	US $	**US $**
SECRETARIAT			
Salaries	13,165	101,320	**276,740**
Deduct Lapses and delays	—	5,050	**13,830**
Net	13,165	96,230	**262,910**

Headquarters

	Grade	1949	1950 Regular	1950 **Supplemental**
	17	1	1	—
	14	—	—	**2**
	10	—	1	**1**
	8	1	1	**2**
	6	—	—	**1**
	5	1	2	—
Sub-total		3	5	**6**
Field	Category			
	I	—	4	**13**
	II	—	6	**24**
	III	—	2	**8**
Sub-total		—	12	**45**
Total		3	17	**51**

Consultants (including touring seminars)	—	15,000	**75,000**
Personal services sub-total	13,165	111,230	**337,910**
Allowances	3,200	33,200	**115,650**
Travel and transportation	2,000	42,100	**247,760**
Supplies and equipment to teams	—	2,000	**6,400**
Special literature	—	1,000	**4,000**
Grants	—	14,000	—
Co-operation with research institutes, Collection of data			
Expert advisory committees	—	13,650	**13,650**
TOTAL OF PROJECT	18,365	217,180	**725,370**

7.4.6 VENEREAL DISEASES

7.4.6.1 The Problem and its Significance

7.4.6.1.1 *Prevailing Situation*

Statistical experience on venereal disease has recognized limitations which emphasize the need for further basic data, to which the WHO Regulations No. 1 on Nomenclature of Diseases and Causes of Death (adopted by the first Health Assembly) will contribute. These limitations of present experience on a worldwide basis are pictured in the wide range of the estimates of the extent of the problem. Syphilis estimates range from a minimum of 20 million upwards to 100 million cases and more. Estimates for gonorrhea are two to three times higher. Mortality rates from syphilis are recorded only in few countries and range from 0.8 to 210 per 100,000 population. The rate is vastly higher in underdeveloped areas where limited information is available. The world mortality from late manifestations of syphilis is estimated at a minimum of some two million cases yearly. The proportionate infant mortality from congenital syphilis in underdeveloped areas is sometimes observed to be more than 10 per cent.

In some countries in Europe, on the North American continent and in Australia a basic control structure permitted to some extent a measure of the intensification of venereal diseases during and following the war. Mass blood testing became an important case-finding and assessment mechanism illustrating the trend. In the United States a prevalence rate for syphilis of 4.7% was found among young military selectees and almost one million cases were discovered between 1940 and 1945. In Finland the incidence rate rose from 2.7 in 1939 to 16.5 in 1946, with a recession to 12 (per 10,000 population) in 1947 and further decline in 1948. In Denmark the incidence rate rose from 1.4 in 1939 to 10.4 in 1946 with a decline to 6 (per 10,000 population) in 1947 with further recession evidenced in 1948. In some countries the ravages of war itself make it impossible to assess the significant intensification of the problem before the war was over ; Poland, and to some extent Yugoslavia, may be taken as examples. In Poland it is estimated that infectious syphilis increased three-fold during the occupation and twelve-fold during 1946 in Warsaw as compared to pre-war rates. Similar observations were made for other urban centres. A significant penetration into rural areas was evidenced by a sample survey in 1946 of more than five million people. The yearly incidence of fresh infection was estimated at 150,000 cases on the basis of these findings.

There is in Yugoslavia a well-known problem of endemic syphilis in the Republic of Bosnia-Herzegovina, with a population of two million people, geographically, ethnographically, socially and economically delimited, and with an estimated prevalence of syphilis ranging from 0.25 to 25 per cent of a population of two million ; a great proportion of new syphilis is among infants and children.

Since 1946—a peak year incidence in many countries—a decrease in the incidence of venereal diseases has taken place in Australia, the United States, Canada, the Scandinavian area, and some other countries. This decline has been most marked in the case of gonorrhea (as it is estimated) because of the wide availability of penicillin for the treatment of gonorrhea in these and some other countries ; less marked in the case of syphilis, in which disease penicillin has not been widely employed except in North America, the United Kingdom and lately in Poland.

Isolated declines in incidence and prevalence of venereal infections, discernible in some countries following the war, do not play an appreciable role in perceptibly shrinking the great overall reservoirs of venereal infections in other regions in the world. Such declines should merely serve to emphasize the necessity for WHO to encourage further control work in other areas, and to assist in initiating the organization of venereal-disease control where no basic control structure exists and where the approach to the problem has been limited in the past.

In Africa, South-East Asia and the Far East, syphilis is epidemic in many of the urban centres, particularly ports. Isolated clinical and serological surveys have brought out a high prevalence also in rural populations and there are a number of known high endemic syphilis areas in these regions.

Prevalence rates based on cases of syphilis under treatment only at the hospitals and clinics in British, Belgian, French and other territories range from 2% to 10% for the years 1940 to 1946. Sample surveys have demonstrated a prevalence of positive serology for syphilis of 50% in various parts of eastern Africa. Syphilis in certain urban centres in this area ranges from 400 to 1,000 per 10,000 population, annual basis, according to a WHO survey (1948).

An estimated 10% of the population of Ceylon suffers from venereal diseases (1947). The post-war prevalence rate of venereal disease in India is estimated to be above 37 per 1,000 population, or 13 million cases of syphilis and gonorrhea (1948). The estimated prevalence rate of venereal diseases in the Province of Madras is estimated at 12% including 6% of syphilis and 5% of gonorrhea (1948). A high endemic area is found in the Simla district in Northern India.

Syphilis has been considered in the past pre-eminently a disease of the large cities and particularly the port cities of the Far East. Migration and army movements have spread disease into rural areas to a considerable extent. Prevalence rates in Soochow, Peiping and Shanghai show an average of 17.3% positives. In Eastern China (Kiangsu) prevalence rates range from 17.5% positives in unselected rural province population groups to 25% in hospitalized groups. It is estimated that 10% of the population of South-Eastern China is afflicted with venereal disease. The high endemic areas in the Hsing-an provinces * (N.E. China) have an estimated prevalence rate ranging from 25 to 32.6% positives.

Congenital syphilis continues to be a significant cause of mortality and of mental and physical handicaps in infants and children all over the world. The following statement was made by the United States Public Health Service (1940) :

> The details in which the problems of congenital syphilis differ from those of the acquired disease have not been sufficiently emphasized. Approximately 1 million potential mothers have syphilis. In a group of women who have never received antisyphilitic treatment only 17 per cent of the known conceptions resulted in living non-syphilitic children. The remaining 83 per cent terminated in miscarriages, stillbirths or living children with syphilis. Each year these women with syphilis transmit the disease to at least 85,000 fetuses of which approximately 25,000 die before birth and 60,000 are born alive with syphilis.

The importance of congenital syphilis to maternal and child health programmes is evidenced by these and similar data, as is the desirability of continued activities in combating prenatal and infantile syphilis as part of broader programmes.

The epidemiological importance of *transfer of venereal diseases from one country to another* via maritime communications led to the establishment of the Brussels Agreement of 1924. The recognition of important reservoirs of infections in ports, and the possibility of importation of disease from uncontrolled areas, have been emphasized in the United States, the United Kingdom, the Scandinavian and other countries. Thus, the prevalence of venereal disease was found by the United States Public Health Service to be three times higher in merchant seamen in ships which called at New York after visits to Latin American countries than in ships arriving from elsewhere, between 1937 and 1941 — these findings being based on parallel examinations of series of more than 100,000 seamen. In Sweden more than 25% of the total notified cases of primary and secondary syphilis originate abroad, imported by maritime personnel. In Danish maritime personnel a prevalence rate of 13.2% has been recorded (1940). In the port of Rotterdam 49.6% of venereal-disease cases diagnosed in 1947 originated abroad.

The Second World War focused further attention on these maritime aspects, recognising increasing reservoirs of infections in port cities. The Inter-American Co-operative Health Plan and the Caribbean Commission's work were partly based on such considerations. Since the war it has been observed by several maritime countries that venereal diseases have become less frequent in rural areas as compared to war-time conditions while a similar relative decrease has not been observed in port cities (UK). Special venereal-disease problems arise along inland rivers and transport waterways or in countries bordering circumscribed sea basins. The " syphilis floating down the river " is of epidemiological concern to cities along these waterways and to the ports at their mouth. The national associations against venereal diseases in Holland, Belgium, France and Switzerland have recently drawn attention to such a situation for the Rhine river area (1948), further emphasizing the need for international action in the field of maritime venereal-disease control.

7.4.6.1.2 *Opportunities*

A whole series of discoveries and critical evaluations of old principles and methods of approach to venereal-disease control resulting from the war present opportunities for the future, thus emphasizing the timeliness for substantial action by WHO in this field. Defensive measures arising out of conditions which prevailed until a few years ago have been definitely abandoned in favour of a more aggressive approach. The most significant development was the advent of penicillin. A new powerful weapon has been established for prevention and treatment of venereal diseases. The introduction of

* Hsing-an-tung, Hsing-an-nan, Hsing-an-hsi, Hsing-an-pai.

abbreviated methods of treatment, the shortening of the infectious stages of disease and the curtailment of opportunity for transmission indicate that the moment for setting into motion of venereal-disease control forces on a larger scale is optimal. Gonorrhea has lost much of its capacity for injury and the minor venereal diseases have shown a satisfactory response to antibiotics and chemotherapy. Penicillin has provided a public-health tool for ambulatory treatment in early syphilis which offers a degree of control on a large scale previously unobtainable, in terms of population groups as well as the individual. The significance of penicillin in congenital syphilis and as a preventive non-toxic weapon in prenatal syphilis—permitting healthy infants to be born in perhaps more than 95% of the cases regardless of trimester of pregnancy in which therapy is applied—emphasized the contribution which penicillin-therapy for venereal disease can make to maternal and child health programmes.

So long as the therapeutic agents on which reliance is being placed continue to be effective, progress in control of communicable stages of venereal diseases can be rapid. Action now through public health, scientific and other measures in each country, and internationally, will gain advantages which would contribute most fully to reducing and perhaps eliminating reservoirs of venereal infections.

7.4.6.1.3 *Relationship of Venereal Diseases to Production, Industry and Loss of Manpower*

From the point of view of public health and socio-economic importance syphilis is the outstanding infection among the venereal diseases. According to Beerman (1940) the cost of syphilis alone in labour lost in industry (man hours) approaches 100,000,000 dollars yearly in the United States of America. Similarly in the United States the cost of the national " curative " programme was estimated at from 12 to 25 million dollars and the cost of blindness from syphilis at 10,000,000 per year (USA).

Iskrant (1945) estimates that the loss of income due to the late (and relatively rare) manifestation of paresis, approximates 112 million dollars yearly in the United States among men, and the maintenance cost of paretics (1940) is estimated at approximately 11.3 million dollars for paretic " residents " in State and Veteran Administration hospitals. The most striking figure is the approximate 30,000 years of work lost annually among skilled and semi-skilled workers because of paresis alone.

Less than 10 years ago the direct per capita " cure " cost ranged from $25 to $50 per patient for fresh infections (Moore). The per capita cost of treatment of early syphilis, based on penicillin, has become significantly cheaper. It is still too early to give a final figure, but the reduction is probably more than 50%.

The American Social Hygiene Association has pointed out that the efficiency of workers suffering from venereal disease is 36% below normal. The actual loss of manpower in the maritime industries is evident from the incapacity for work aboard ship, the interruption of contracts, the incidence and duration of sick-leave and treatment time ashore, all of which contribute to reduce the operational efficiency of merchant fleets, particularly when ships are in foreign harbours and replacements are unobtainable. The epidemiological necessity for treatment of the venereal diseases is, in the first instance, in the interest of that community or country where infectious manifestations occur. Further, treatment and care of non-nationals may represent considerable expense to countries other than that of the patient. Although the Brussels Agreement was drawn up to provide free treatment facilities to seamen and watermen, the nations or territories adhering to this instrument are relatively limited in number, and further, no mechanism was established for collection of basic data, such as treatment periods, cost of labour lost, etc.

Contact reports in the United States, the Scandinavian and other countries show that the combating of international venereal-disease hazards in ports and in inland river areas is a desirable economic objective towards which maritime nations ought to work.

7.4.6.2 Work previously accomplished

Inspired by René Sand, the League of Red Cross Societies, the International Union against Venereal Diseases and the International Labour Organization took the initiative (1921-1923) leading to the establishment of the Brussels Agreement of 1924 relating to treatment facilities in major ports for seamen and watermen. The Office International d'Hygiène Publique became responsible for the administration of the Agreement from 1924 until its functions were transferred to the Interim Commission and WHO in 1948. Recognizing the epidemiological aspects of the problem of spread of venereal diseases from country to country by maritime personnel, migrants and displaced persons, the first World Health Assembly decided that the Brussels Agreement might be developed into International Health Regulations for Venereal Diseases and that close co-operation between ILO and WHO should be established in this respect. The ILO has considered various measures relating directly or indirectly to venereal-disease control and health among seafarers and the establishment of a Joint Committee on the Hygiene of Seafarers, WHO/ILO, will lead to active co-operation between the two organizations. The establish-

ment by WHO of official relationships with the International Union against Venereal Diseases and the continued interest expressed by the League of Red Cross Societies in the hygiene of seafarers provide a further basis for the widest possible international collaboration in this field.

The Health Organization of the League of Nations carried out important work on various aspects of venereal-disease control through the Commission on Syphilis and Cognate Subjects. Special investigations were undertaken in the department of Burgas, Bulgaria (1927-1930). The survey carried out in this area of high endemic syphilis laid the basis for a long-term campaign which has proved successful in reducing the prevalence of disease to a minimum.

The results of the efforts of the International Laboratory Conferences organized by the Health Organization in Copenhagen (1923-1928) and Montevideo (1930) are well known. An approach to uniformity in serodiagnosis in syphilis was made which has survived for more than 20 years, including a world war.

The first Health Assembly approved the necessity for evaluation of methods of treatment of venereal disease, recalling the international importance attached to the standardization work of the League of Nations Health Organization through organized inquiries into syphilis treatment in the Scandinavian countries, the United Kingdom, Germany, France and the USA (1928-1934), which laid the basis for the classical treatments of syphilis with salvarsan and bismuth.

The League of Nations Health Organization also carried out important work with regard to standardization of anti-venereal drugs, the last such standardization being approved for penicillin in London in 1944.

Another organization internationally active in the venereal-disease field prior to the war—on a more limited scale—was the Rockefeller Foundation. Special investigations were carried out, with the assistance of this organization, on the nature and extent of the syphilis problem in the area of high endemicity of Bosnia-Herzegovina in Yugoslavia (1934).

With regard to UNRRA's work in the venereal-disease field, a limited number of venereal-disease control officers were attached to its missions. In Poland the efforts of UNRRA and subsequently the Interim Commission and WHO were of considerable importance to the planning and development of the nation-wide anti-venereal-disease campaign now being carried out in that country ; UNRRA's main work in the venereal-disease field was assistance to war-damaged countries in terms of drugs, other anti-venereal supplies and equipment to overcome immediate and acute needs.

Aware of the several facets of the venereal-disease problem and the opportunities for action in this field, the Interim Commission set up at its fourth session an expert committee on venereal diseases to draw up plans for international combating of these diseases, since at this stage the requirement by governments for assistance on various aspects of venereal-disease control already had become evident.

The allocation of substantial funds by the United Nations International Children's Emergency Fund, for combating syphilis in children and pregnant women in several countries, had permitted a wider approach to the problem than WHO, with its limited resources, could so far attempt. These programmes are based on technical assistance from WHO, its Expert Committee on Venereal Diseases and the Joint Committee on Health Policy, UNICEF/WHO.

Finally, various social aspects of the venereal-disease problem have been considered by the relevant United Nations bodies. Progress is being made towards unification of the international agreements and conventions of 1904, 1910, 1921 and 1937 on traffic in women and children, suppression of white slave traffic and prostitution, into a single international instrument. The first Health Assembly authorized co-operation with the United Nations and other international organizations interested in the social and welfare fields as they relate to venereal-disease control, and this co-operation is a continuing responsibility.

7.4.6.3 Statement of Objectives

7.4.6.3.1 *Long-term*

The aim of WHO is to obtain a practical degree of venereal-disease control in each country, and in the spread of disease from country to country, major emphasis being placed on early communicable stages of syphilis, gonorrhea and the " minor " venereal diseases being considered in their order of relative importance or where special circumstances pertain.

That a maximum degree of venereal-disease control is possible in peace time as part of a balanced development of social and economic conditions has been demonstrated in home populations of the Scandinavian countries between the two world wars, although this was obtained on the basis of long-term treatment methods with arsenicals and bismuth, then the main weapons against syphilis. Ad-

vances in control methods including mass case-finding, epidemiological contact work, and abbreviated ambulatory treatment methods based on penicillin, have accelerated the tempo with which results can now be obtained. This approach should be co-ordinated with health education, maternal and child health, and such social and welfare work as are carried out by the United Nations and other international and national organizations. Joint programmes with tuberculosis, malaria and public-health administration are visualized wherever desirable.

The collateral effect of penicillin-therapy in yaws and certain other infections prevalent in tropical and subtropical areas is not underrated. Further, alongside the efforts necessary to redeem from malaria the areas favourable to settlement and development in Africa, in recognition of the potentiality of that continent in terms of industrial and food production, an organized approach would be made, simultaneously to attack the significant reservoirs of syphilis in that region.

7.4.6.3.2 *Immediate Objectives*

The immediate aims of WHO are:

(1) to encourage and assist governments in initiating venereal-disease control programmes in areas without such programmes, and strengthening the organization of venereal-disease control services in other areas—where possible in co-operation with other organizations;

(2) to make possible the continuation of wider programmes where WHO/UNICEF activities have been established in order to ensure durable health benefits from them;

(3) to strengthen the serological laboratory services of countries, where needed, and otherwise to carry forward the international serodiagnostic standardization programme of WHO;

(4) to establish a basis for implementation of a revised Brussels Agreement in an effort to control, in co-operation with other international organizations, the spread of disease by maritime personnel, migratory and other groups from country to country;

(5) to show the direct and indirect socio-economic and public-health gains from working towards the long- and short-term objectives outlined.

The organization of venereal-disease control services and the training of personnel to work in this field is a requisite for the short-term objectives, the attainment of which will be the basis for the further objectives.

7.4.6.4 Work to be accomplished in 1950

7.4.6.4.1 *Authority*

The international venereal-disease programme derives its authority from the chapter on Functions of the Constitution of WHO (Article 2, *(b), (c), (d), (g), (k), (o)* and *(t)*).

The first World Health Assembly in approving the international venereal-disease programme proposed by the Interim Commission [1] instructed the Executive Board to establish an Expert Committee, and to set up a venereal-disease section in the WHO Secretariat. The recommendations of the Interim Commission Expert Committee represented the basis for the action by the Interim Commission as well as the Health Assembly. The Executive Board at its second session [2] adopted the report [3] of the WHO ad hoc Committee on Venereal Diseases. The approved 1949 and the proposed 1950 programmes derive general authority from the recommendations and decisions of these bodies.

7.4.6.4.2 *Method*

To attain the short-term objectives and to establish a basis for work by WHO towards its long-term objectives the following methods will be used:

1. *General approach*

(a) Provision of advisory, demonstration and fellowships services to governments, continuation of expert consultant activities and demonstrations established in 1949; intensification of advisory services and starting of new demonstrations in 1950, particularly in underdeveloped areas; increases in supplies for teams and provision of supplies to countries where local teams or trained personnel are available; the carrying forward of local approved demonstrations, local or national venereal-disease campaigns, including continuation and expansion of UNICEF prenatal and infantile syphilis programmes.

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[1] *Off. Rec. World Hlth Org.* **13**, 302

[2] *Ibid.*, **14**, 19

[3] *Ibid.*, **15**, 18

(b) Intensification of the work of the WHO Expert Committee on Venereal Diseases, and further development of relations with other international organizations interested in venereal-disease control.

2. *Special undertakings*

(a) Development of the WHO serodiagnostic standardization programme, including establishment of international reference centres for test performance and the convening of an international serological laboratory conference, guided by the advice of the Sub-Committee on Serological Standardization and Laboratory Aspects.

(b) Establishment of a special international demonstration and investigation project in a major port as a collateral to the Brussels Agreement and as a basis for implementation of International Health Regulations for Venereal Diseases, in co-operation with ILO and other international organizations interested in maritime aspects of venereal-disease control.

(c) Participation in a scheme for eradication of endemic syphilis in the area of Bosnia-Herzegovina, Yugoslavia, in view of its scientific, national and international interest and the existence of areas of high endemicity in Asia and Africa.

7.4.6.4.2.1 *General approach*

1. *Venereal-disease section.* The programme of work for 1950 will require the services of one additional medical officer, whose principal task in 1950 will be the operation and direction of the serological conference and the organization and follow-up of the conference.

2. *Expert Committee meetings.* It is expected that one meeting of the Expert Committee on Venereal Infections and two meetings of the Sub-Committee on Serological Standardization and Laboratory Aspects will be required in 1950.

3. *Advisory and Demonstration Services — Continuation of 1949 Programmes : Teams.* It is expected that two, or possibly three, teams will be in the field by the end of 1949. On the basis of the accepted policy for Field Operations, it is expected that the activities of imported personnel will be gradually taken over by local understudies. Qualified and unqualified labour paid for by the government concerned will either remain or be replaced. A full-time WHO consultant will in some cases remain in charge of operations. WHO will furnish supplies for continuation of operations if supplies cannot be obtained through government sources, because of lack of the necessary currencies and of local production. The demonstration area will be extended through allocation of the original team to the adjoining areas wherever possible.

The Expert Committee has indicated the desirability of allocating further WHO teams to tropical and sub-tropical areas. Such allocations will be made in 1950 in the Eastern Mediterranean area where a preliminary survey of the problem has been carried out by WHO in 1948 and 1949. Another team will be allocated to South-East Asia to meet the requests of governments in this region. A third team will be allocated to Latin America.

The Expert Committee on Venereal Diseases indicated that it is necessary to make supplies and equipment available to the teams on a larger scale " enabling a broader approach to the control problem to be made ", since penicillin and equipment are available in underdeveloped areas only to a limited extent. The Committee held it important that the teams " should be self-sufficient and self-contained also as regards means of transportation ". Provision has been made accordingly.

Consultants. In 1949 it is anticipated that expert consultants will operate in the Western Pacific, South-East Asia, Eastern Mediterranean and the Western Hemisphere to study the needs of governments and secure requests for assistance under the WHO programme, initiate local demonstrations and follow up WHO or WHO/UNICEF joint programmes. It can be confidently expected that requests will be received from governments for expert advice and other services on a larger scale in 1950. It is estimated that the anticipated programmes for 1950 may require the services of an additional five or six consultants for the year.

4. *Fellowships.* The Expert Committee on Venereal Diseases observed at its second session that more fellowships had been granted to UNRRA-receiving countries in 1948 alone than was originally proposed by the committee for all Members of WHO under the venereal-disease programme in 1949. The number of venereal-disease fellowships will therefore be increased in 1950, making it possible for countries further to implement and extend the 1949 programme and activities.

5. *Special literature.* The same amount as was provided for in the 1949 budget is proposed for 1950 for special literature.

6. *Supplies.* The Expert Committee on Venereal Diseases pointed out that the limited availability and the inequitable distribution of penicillin is one of the outstanding restricting factors in venereal-disease control, and that a large proportion of penicillin is consumed in venereal-disease control.

By a decision of the first Health Assembly, penicillin production is a separate activity of WHO and is considered under a separate heading for 1950. WHO is taking steps to improve the limited availability of this drug in co-operation with the regional United Nations Economic Commissions. Such and further steps are necessary to make fully possible the carrying forward of venereal-disease programmes initiated with the assistance of WHO and UNICEF in countries where isolation, lack of foreign exchange and other reasons have made it impossible to keep abreast of medical developments. Assistance in the venereal-disease field will be of limited value unless concomitant improvement of the penicillin situation becomes a reality. This view was emphasized at the second session of the Executive Board and at the subsequent meeting of nations of devastated Europe.

Experience with penicillin therapy in syphilis has to a very great extent been accumulating on the American continent, in England and recently in Poland. The limited experience in syphilotherapy with the drug in Europe, the slight knowledge of its use in many other areas where much syphilis exists, as well as the rapid developments and introduction of new repository penicillin preparations of high efficiency, have led to controversial opinions as to the status of syphilis treatment. The Expert Committee of WHO felt, therefore, that the opportunity should be taken to establish pilot projects in some countries to enable experience to be gained in penicillin therapy of syphilis. Under the fellowship scheme of WHO a number of physicians are acquiring skill in clinical and other aspects of venereal-disease control. Lack of penicillin will make it impossible to employ new methods and techniques when they return to their home country.

The realization of the general need for wider availability of penicillin is to some extent the basis for the preventive syphilis projects for pregnant women and for children financed by UNICEF, for technical aspects of which responsibility rests with the Joint Committee on Health Policy, WHO/UNICEF, and WHO. The continuation and expansion of these programmes and their follow-up will be of considerable importance to international venereal-disease control. Such WHO/UNICEF assistance in combating prenatal and infantile syphilis as part of overall venereal-disease campaigns is currently rendered in five European countries. It is expected that during 1950 such programmes will be initiated in other countries. WHO should contribute, under the overall allocation for such schemes already made by UNICEF, to broader campaigns in such projects, in terms of organization, personnel, penicillin and supplies needed for the adult population, which cannot be covered by UNICEF.

The WHO ad hoc Expert Committee on Venereal Diseases recommended to the Joint Committee on Health Policy, UNICEF/WHO, that UNICEF programmes implemented by WHO technical skill, personnel, fellowships, etc., should be carried out

> as part of an overall venereal-disease campaign where the introduction of penicillin treatment would serve to stimulate the control work and to expand already existing venereal-disease control activities in such a way that a mass attack against syphilis might be carried out.[4]

and that the venereal-disease situation in several countries should be surveyed

> with a view to initiating demonstrations which might form the basis for the establishment of broader prenatal and infantile syphilis programmes and increased venereal-disease activities.[5]

This view was adopted by the Joint Committee on Health Policy, WHO/UNICEF, and information from studies carried out by WHO and UNICEF experts in 1948 and 1949 in Europe emphasized the basic venereal-disease control structures in several countries where overall anti-syphilis programmes could usefully be established. The opportunity for WHO to contribute to the establishment of a practical degree of venereal-disease control in these countries is apparent and is considered in the budget for 1950.

Establishment of pilot demonstrations in the Eastern Mediterranean, South-East Asia and the Western Pacific regions is planned for 1950. The UNICEF Survey Mission to the Far East proposed limited antisyphilis demonstration schemes for pregnant women and for children in three countries. Definite programmes for these countries will be worked out during 1949 when the study reports of the WHO expert consultants to this area become available after consultations with the governments concerned. The Expert Committee on Venereal Diseases has recommended that demonstrations of this kind be extended to other countries in the Far East. Similar recommendations were made by the WHO Expert

[4] *Off. Rec. World Hlth. Org.* **15**, 34

[5] *Ibid.* **15**, 35

Committee on Maternal and Child Health at its first session. WHO will participate in these schemes by assisting the governments and providing drugs and equipment for diagnosis and treatment of the adult population otherwise not covered by the demonstration projects. In these joint WHO/UNICEF programmes particular attention will be paid to displaced persons.

Finally, further allocations are expected by UNICEF in 1949 from the two million dollar grant (or other UNICEF funds) for combating prenatal and infantile syphilis, the technical aspects of such projects being under consideration by WHO in 1949. The participation by WHO in such future programmes, as yet not fully defined, should be anticipated and has been allowed for in the programme for 1950.

7.4.6.4.2.2 *Special undertakings*

1. *Serological standardization and laboratory aspects.* The serology of syphilis is passing into transition as regards the value of test findings in the recognition of the disease and in the management of treatment. The future may demand the use of multiple tests, or of a single method ; in any case the quantitative determination of the concentration of reacting substance appears necessary. The latter service is considered to be essential to effective use of penicillin therapy.

To these increased demands may be added the numerical increase in specimen load which will be engendered by the broadening scope of the control programme in all countries. It would appear that a broad programme is feasible from an administrative standpoint but that some rationalization of serologic methods and practices will be needed and some degree of uniformity in test performances and effective international interchange of information, if unity of action is to be attained.

The most rapidly effective means of focusing attention upon the relative merits of test methods is considered to be an international serology conference. Through the medium of this type of assembly, results may be produced which illuminate the shortcomings of methods and also indicate the procedures which consistently may be expected to produce a high standard of findings. A critical analysis of findings may well serve to indicate procedures whose elimination, or replacement by more consistent antigens or methods, would be of value to the control effort.

Serology congresses have been held by the Health Organization of the League of Nations, in Copenhagen in 1923 and 1928, in Montevideo in 1930; and in Washington, D.C., in 1941 by the US Public Health Service. Each is considered to have produced information which was helpful in guiding the development of serologic methods during the periods immediately following each congress.

The Interim Commission endorsed the recommendations of the Expert Committee on Venereal Diseases that serodiagnostic standardization work in syphilis was a necessary element in the international venereal-disease programme and the first Health Assembly approved the continuation of the work in this field by WHO, and the holding of international serological conferences.

As a consequence of this development, work has been carried out by WHO in preparation for the first WHO serological standardization conference, which is scheduled to be held in 1950. As part of this preparatory work, the WHO Executive Board decided at its second session to establish a subcommittee on serology and laboratory aspects—to the WHO Expert Committee on Venereal Infections—which will meet late in 1949. .The detailed objects of serological conferences and the principal reason supporting action at this time, and the general plan for the conference, have been outlined in the first and second reports of the Expert Committee on Venereal Diseases,[6] and in various technical documents.

An international serodiagnostic centre for the evaluation of test performance, including the possible future development of an antigen designed as an international reference standard, is part of the WHO venereal-disease programme. With the initial phase of the serodiagnostic standardization programme coming to a head in 1950, preliminary studies on test performances have been carried out through WHO with national laboratories in various countries. Apart from the guidance furnished to the laboratories themselves, these studies contribute to the evaluation of the effect of transport of serum samples under varying conditions. This work is increasing in volume. The Venereal Disease Research Laboratory of the US Public Health Service has so far kindly been willing to act as the international reference centre. It is visualized that the services of two other laboratories will also be utilized in the future. Grants similar to those now provided to the international Salmonella and Influenza centres are foreseen, to enable the further development of international serological work.

2. *An international port demonstration and investigation project.* Efficiency in industry can be increased and labour lost due to venereal diseases can be reduced—through well-planned venereal-disease-control work.

[6] *Off. Rec. World Hlth Org.* **8**, 62 ; **15**, 24

This is of particular significance in maritime industries in view of the high prevalence of venereal diseases among maritime personnel, resulting from the special hazards to which such groups are exposed in overseas ports, and its reflection on the efficiency of the operation of merchant fleets, the hauling of material and food supplies to needy countries all over the world.

The ILO has been specifically interested in this question since 1926 and has pronounced its willingness to extend its activities in this field in collaboration with WHO, both with regard to the establishment of international health regulations for venereal diseases, as decided by the first Health Assembly, and also in actively participating in the work of the WHO/ILO Joint Committee on Hygiene of Seafarers. The Executive Board of WHO, at its second session, approved [7] the report of the second session of the ad hoc Expert Committee on Venereal-Diseases, [8] including the recommendation for the establishment of a port demonstration and investigation project in 1950. The experience gained in such a project would be an important guide for similar work in other major ports: a positive contribution to venereal-disease control in maritime population groups could thus be made. A control mechanism could be established incorporating the best thinking and pooled information on case finding and epidemiology, diagnosis, treatment, enlisting the help of several nations any one of which is in danger of infection from an uncontrolled area. The object of such a special international project would be to find out the perpetuation of disease within a geographic group, as well as curtailing the speed with which infections have spread from within, to prevent economic losses, etc., in such an area. Such a project was originally proposed by the US Public Health Service venereal-disease section in 1947.

The venereal-disease committee also recommended that a regional approach to venereal-disease problems arising along inland waterways and rivers, or around circumscribed sea-basins bordered by several countries should be made. Such a project might be combined with the special projects outlined above or might be considered separately. Projects of this kind will represent a means by which the revised Brussels Agreement might be implemented in various parts of the world and will furnish a basis for evaluation of the efficacy of the visualized new international venereal-disease control instrument, as would projects along country borders where special venereal-disease problems may arise.

[7] *Off. Rec. World Hlth Org.* **14**, 19

[8] *Ibid.*, **15**, 18

Advisory and Demonstration Services to Governments

7.4.6 VENEREAL DISEASES

Budget Estimates

	1949	Estimated Expenditure 1950	
		Regular	**Supplemental**
	US $	US $	**US $**
SECRETARIAT			
Salaries	59,420	95,415	**122,715**
Deduct Lapses and delays	—	4,800	**6,135**
Net	59,420	90,615	**116,580**

Headquarters

	Grade	Number of Posts 1949	1950 Regular	1950 **Supplemental**
	16	1	1	—
	14	2	3	—
	8	1	1	—
	6	—	1	—
	5	1	2	—
	4	1	—	—
Sub-total		6	8	—
Field	Category			
	I	3	4	**17**
	II	6	8	**1**
	III	—	—	**9**
Sub-total		9	12	**27**
Total		15	20	**27**

Consultants	25,670	45,000	**21,000**
Personal services sub-total	85,090	135,615	**137,580**
Allowances	20,485	24,200	**32,200**
Travel and transportation	27,900	36,160	**54,400**
Conference costs	—	74,300	—
Conference on International Serological Standardization			
Purchase of motor vehicles	—	7,000	**7,000**
Operation of motor vehicles	—	3,600	**3,600**
Supplies and equipment to teams	60,000	118,800	**101,700**
Special literature	6,000	2,000	**4,000**
Grants	—	5,000	—
International Venereal-Disease Reference Laboratory Centres			
Expert advisory committee	11,000	22,740	—
TOTAL OF PROJECT	210,475	429,415	**340,480**

7.4.7. TUBERCULOSIS

7.4.7.1 The Problem and its Significance

7.4.7.1.1 *Epidemiological Considerations*

The worldwide nature of the tuberculosis problem requires no emphasis. The Interim Commission placed tuberculosis with malaria, venereal diseases, and maternal and child health for priority of practical endeavour. During the period of the Interim Commission, data was collected from many countries concerning the incidence of infection, morbidity and mortality from tuberculosis, and it was found that in just over thirty countries it was possible to be reasonably confident in the official statistics when appraising the severity of the problem.

In the tables and charts which are referred to later, certain data on mortality-rates over a period of years have been summarized for some thirty countries.

It has not been possible to apportion to other countries a death-rate, or even to classify countries into those with assumed low, medium or high prevalence rates. Nevertheless, there is evidence on morbidity and infection from many areas and these admittedly slender guides have been of some value in estimating what the toll of the disease may be in countries in which official mortality-rates are not available, or are unreliable. Several authors have in the past made attempts to evaluate the tuberculosis deaths in the world. Ferrara,[1] for example, calculated that among the inhabitants of the globe, numbering nearly 2,000 million, the annual deaths from tuberculosis amounted to over 1,600,000. Douill[2] has stated that, for a large part of the world's population, tuberculosis deaths are unrecognized, uncounted, or both. "It is impossible," he says, "to make more than the roughest estimate of the toll which the disease exacts. It is safe to say, however, that each year in the world, more than three million deaths from all forms of tuberculosis occur, and that the total probably exceeds five millions."

Drolet[3] has estimated that in the United States alone, since 1900, almost five million people have succumbed prematurely to the tubercle bacillus. For twenty countries for which he had reliable statistics during the forty-year period from 1881 to 1921, it was medically certified that altogether 18½ million people died from pulmonary tuberculosis. Drolet estimated further that, even with the present comparatively low rates in many countries, tuberculosis causes more than two million deaths a year throughout the world.

It is not only the absence of data, but also the unreliability of much of the existing data, that makes estimates of the death-rates of many countries purely speculative. In many areas in Africa and Asia there is little information of any kind to be obtained. A number of countries add almost nothing to our knowledge. But even in certain European, and in a number of Latin-American and Asiatic countries, deaths from unspecified causes, defects in death certification, and the absence of a population census make such figures as may be forthcoming of meagre value. There is little to be gained by publishing official death-rates for countries in which as many as 50% of the deaths are not medically certified, where as many as 15 to 20% are registered as being due to unknown causes, and which may show only 1 to 2% of all deaths as being due to tuberculosis, when it is common knowledge that the results of tuberculin-testing in these or similar population groups show a moderately high degree of infectivity under environmental conditions which leave much to be desired, and where poverty, with all its prejudicial consequences, is present to an extreme degree. In more than one country in the world, in recent years, carefully-planned studies into infection and morbidity rates have shown clearly that the incidence of clinically significant tuberculosis is far in excess of that which is compatible with the death-rates as returned officially by the same communities.

Mortality-rates alone can lead to highly erroneous conclusions. The time may not yet have arrived when it is possible to correlate death-rates with tuberculin reactions, or with the results of mass radiological surveys in representative age, sex and social groups of the population, and to use those clinical procedures as a guidance to more approximate death-rates. It is submitted, however, that when, in addition to such surveys, an analysis is also made of the economic life, habits, nutritional standards and other environmental factors, and when the racial composition of any community is studied in the light of the known behaviour of the more susceptible races under modern and social conditions, then there may be ample guides to vindicate the acceptance of an authoritative medical opinion of the tuberculosis morbidity- and mortality-rates in these communities. It required the introduction of mass radiology in England to prove that the opinion of many experienced tuberculosis physicians on tuberculosis morbidity was right and that the previous dispensary records of notifications were wrong.

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[1] Problems of Social Medicine. *Rev. Med. sociale della Tuberc.* 1939, **16**, No. 5

[2] *Am. Rev. Tuberc.* 1947, **51**, No. 1

[3] Epidemiology of Tuberculosis, Goldberg Davis, Philadelphia, 1946

It will still be necessary for teams of experts to undertake epidemiological surveys and demonstrations in certain areas, not merely with the object of reducing morbidity, but in order that mortality-rates may be more precisely ascertained. Mortality-rates which are obviously erroneous are not merely a source of confusion in attempting international comparisons, but they may even tend to retard the progress of antituberculosis in countries in which they originate, since they produce a false impression as to the severity of the problem and mislead administrators who tend to base both administrative and financial plans for future action on the information which they may receive from their own statistical authority.

The data concerning mortality, morbidity and infection from most countries in the world has been considered. In addition, the observations of many reliable administrative and clinical workers in undeveloped countries have also been considered. It is, however, impossible within the scope of this note to produce all the evidence on which the general findings have been made.

In the accompanying chart the data at our disposal has been summarized for seven " continents "— North America, Europe, Oceania, USSR, Latin America, Asia (including China) and Africa. The figures given reflect what is believed to be the toll of tuberculosis among the people of these continents. It will be noted that lower and upper limits have been suggested for Europe, Oceania, Latin America, Asia and Africa.

By comparison with the extent of the problem in Asia, Africa and certain parts of Latin America, the tuberculosis problem in Europe, North America and Oceania is small. The outstanding feature, however, is that even in an age when mortality-rates are falling in most places, tuberculosis still takes the lives of approximately five million people every year throughout the world.

7.4.7.1.2 *Tables and Charts for Certain Countries showing the Mortality-rates from Tuberculosis per 100,000 population*

Attention is directed to the figures contained in the WHO *Epidemiological and Vital Statistics Report,* No. 10 (March 1948), **1,** 223. From these it will be apparent that the incidence of tuberculosis is such as to emphasize the need for effective and immediate action.

7.4.7.2 Work previously accomplished

Prior to the Second World War there was no attempt made to deal with tuberculosis from the international standpoint, except in a few very limited instances. The League of Nations, between two wars, published a number of documents on the subject.

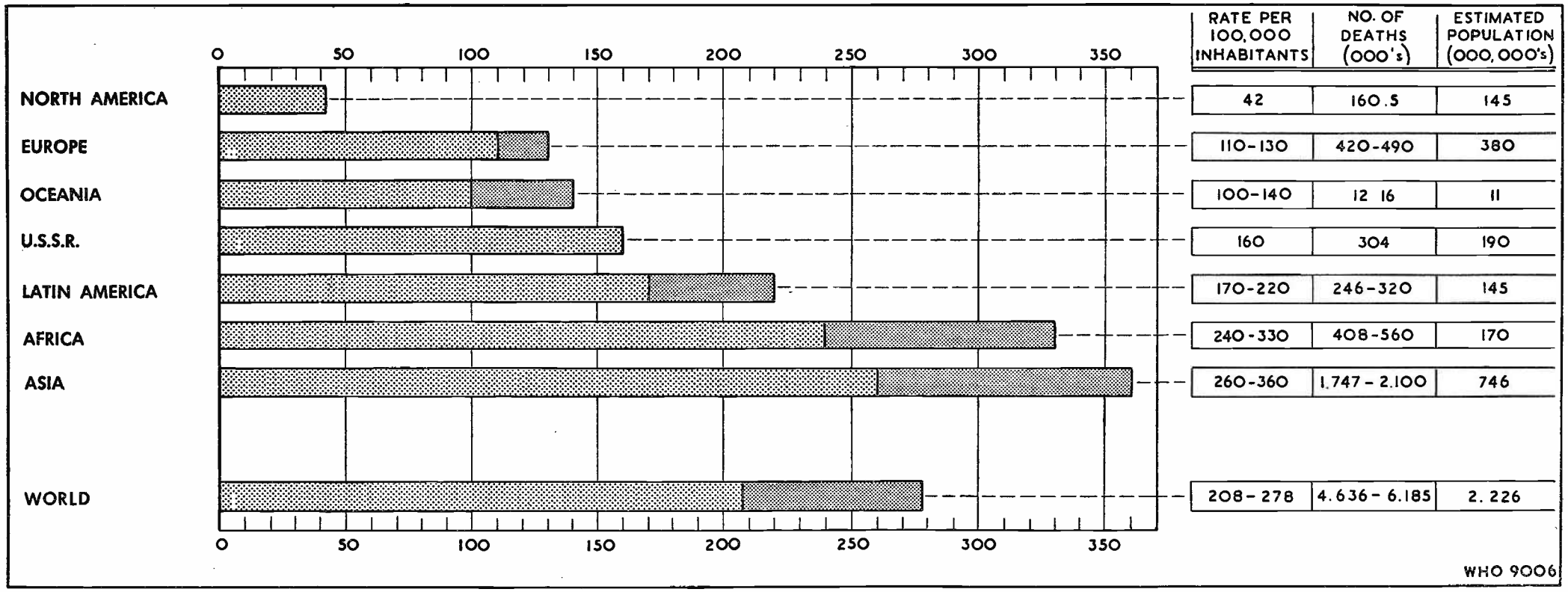
There was, however, no practical field work in the programme of the League. The only other international body in the tuberculosis field was the International Union against Tuberculosis with its headquarters in Paris, but this body was largely academic in function and confined its activities almost entirely to the holding of conferences, and the publication of a quarterly bulletin.

Shortly after the Second World War began, it was appreciated that the devastation brought about as a result of the conflict necessitated the setting-up of some kind of temporary organization to cope with the emergency, and in 1943 the United Nations Relief and Rehabilitation Administration came into being, with tuberculosis as an important priority in its plan for action. There is no doubt that the scope of UNRRA's interests in tuberculosis was broader than that of any previous international organization ; its aim was indeed " to equalize opportunities for the restoration of health in the various countries ".

However, UNRRA's assistance was originally intended for countries which had been invaded and seriously damaged, and which lacked foreign exchange to purchase necessary supplies. Such countries were Albania, Byelorussia, China, Czechoslovakia, Ethiopia, Greece, Poland, Ukraine and Yugoslavia. Later, Italy, Austria and a few other countries were added to the list.

In tuberculosis, UNRRA made valuable contribution, especially in Poland, Czechoslovakia, China and Greece, into which countries considerable consignments of supplies (x-ray and hospital equipment and surgical instruments) were sent. In Greece, in particular, a complete team of specialists worked for over two years and succeeded in restoring the pre-war tuberculosis services, and indeed, in adding to them, despite difficulties of transport, civil war and political disturbances.

ESTIMATED MORTALITY FROM TUBERCULOSIS IN THE WORLD



	RATE PER 100,000 INHABITANTS	NO. OF DEATHS (000's)	ESTIMATED POPULATION (000,000's)
NORTH AMERICA	42	160.5	145
EUROPE	110-130	420-490	380
OCEANIA	100-140	12 16	11
U.S.S.R.	160	304	190
LATIN AMERICA	170-220	246-320	145
AFRICA	240-330	408-560	170
ASIA	260-360	1.747 - 2.100	746
WORLD	208 - 278	4.636 - 6.185	2. 226

WHO 9006

Towards the end of 1946, however, UNRRA's programmes virtually ceased, and its duties in most fields were handed over to the Interim Commission of WHO, together with a sum of one and a half million dollars to complete certain of the health and medical relief work which had been initiated by UNRRA. The training which the UNRRA officers obtained even in a limited geographical area has been of the greatest value in the much wider field which has now to be covered.

The steps which WHO has taken to fulfil its functions as adviser in tuberculosis to the world are given in the Director-General's report for 1948.[4]

Since the spring of 1948, WHO has been in close contact with UNICEF, particularly with regard to the mass tuberculin-testing and BCG vaccination scheme, which was originally sponsored by the latter organization. The Secretariat has been represented at all the medical sub-committee meetings of UNICEF, and has advised on the technical level since the inception of the scheme. A WHO Tuberculin-Testing and BCG Vaccination Panel has also been formed and met with representatives of UNICEF to discuss matters of detail in connexion with techniques, etc. The culminating point in 1948 in the WHO/UNICEF co-operation was the formation of the Joint Health Policy Committee, UNICEF/WHO, when it was agreed that all present and future medical projects sponsored by UNICEF should be approved by the Joint Committee. (See also under **7.4.7.**4.2.)

7.4.7.3 Objectives

The *immediate* objective of WHO in tuberculosis has been to continue much of the work started by UNRRA in countries most in need, but from the brief survey of the epidemiology of tuberculosis given above, it will be seen that there are many countries in great need and which were not included in the UNRRA plan. It has therefore been thought advisable to invite all countries to submit to WHO their requests for 1949, in order that some idea may be forthcoming of the nature of the field services required, especially with regard to demonstrations in x-ray work, tuberculin-testing, BCG vaccination, special forms of therapy, and in fellowships.

There will, no doubt, be need for such emergency or " immediate " services for a year or two, but acting on the advice of the Expert Committee on Tuberculosis, these emergency demonstration services should be planned in such a way that they will form the beginnings of a long-term programme for each country requesting such services. For example, if demonstrations are requested for tuberculin-testing and BCG vaccination, the object of WHO will be to begin this work and train the necessary local personnel so that, after a comparatively short time, the country itself will be in a position to carry on the work initiated by WHO, and to extend it.

In other words, WHO will point the way and will lead some of the less-developed States some steps on the journey, but the final goal must always be reached by the endeavour and continued efforts of nationals in their own lands, assisted, it may be, from time to time, by international agencies, but never substituted by them.

Few will dispute the need for guidance in tuberculosis from an authoritative governing body which can initiate a policy to be applied discriminately to the varying conditions which are to be found in many parts of the world. This body can gather and sift the results of observations extending through and beyond the lifetime of more than one generation. Such a body must, in the course of time, if it is to justify its existence, accomplish valuable work in the field in order to impress governments with the necessity of devoting adequate resources to the task before them.

It would appear that the transition from short-term to long-term policy in tuberculosis must be gradual, for it would be unreasonable to expect the underdeveloped areas to succeed where many of the more advanced countries have failed. The richness of our knowledge about tuberculosis today is such, however, that many of the errors of the past can be rectified in the early stages of antituberculosis campaigns, and it must be the function of WHO to see that countries which have still to make much progress in this field are spared the bitter experiences of the pioneers, so that the long-term policies may be attained in a shorter period of time.

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[4] *Off. Rec. World Hlth Org.* **16**, 11

7.4.7.4 Work to be accomplished in 1950

7.4.7.4.1 *Authority*

Article 2 (*c*) of the Constitution of WHO reads: " to assist Governments, upon request, in strengthening health services ".

The first World Health Assembly approved that the programme, as laid down in *Official Records* of WHO, No. 10, page 8, should in general be accepted.

It was decided to establish an Expert Committee on Tuberculosis and a Tuberculosis Section.[5]

The Executive Board, at its first session, approved[6] most of the recommendations of the report of the second session of the Expert Committee on Tuberculosis of the Interim Commission.[7] The Executive Board at its second meeting[8] accepted responsibility for the promotion of medical research in the BCG campaigns, and allocated 100,000 dollars for this purpose.

7.4.7.4.2 *Methods*

It is planned to make as many contacts as possible with governments during 1949 in order that WHO will have a more precise idea of the possibilities for 1950 and onwards. It is not possible to ascertain these needs by correspondence alone with that degree of accuracy which is necessary for long-term planning.

Consequently, it will not be before the middle of 1950 that we shall be in a position to know what the reaction of many countries may be to the services which WHO is in a position to provide. But there are, even now, broad indications that a large number of countries are in grave need of equipment, personnel and instruction in prevention, diagnosis and treatment. Experience has shown that it is not absence of knowledge so much as absence of the necessary capital to put this knowledge into practical application which is at the root of many of the troubles in tuberculosis administration in large areas of the world. Evidence is available to the effect that leadership in tuberculosis is too often absent or defective ; that no provision is made for the establishment of tuberculosis departments for the co-ordination of schemes, and that there is too great a tendency to concentrate on the erection of relatively expensive institutions and dispensaries without taking the necessary preliminary step of forming a central nuclear group of administrators and clinicians to ensure that the campaign can be conducted according to some uniform plan of procedure.

Therefore, in 1950 there may be many demands for consultative services on the administrative side, and there will likewise be increasing need for material assistance in all branches of the anti-tuberculosis campaigns. It is indeed difficult to conceive of WHO's tackling this problem from the financial aspect without its being in possession of ways and means to supply countries with essentials to a much greater extent than is ever likely to be possible with the relatively limited budget resources now at its disposal.

The first World Health Assembly agreed to the setting-up of a joint committee of WHO and UNICEF representatives. It is possible that much of the UNICEF programme may have to be maintained and supervised by WHO in 1950. This applies in particular to the work in connexion with tuberculin-testing and BCG vaccination as at present being conducted by UNICEF ; no financial provision has been made to continue this work on the scale on which it is being conducted at present, although there is financial provision for supplying individual teams to demonstrate tuberculin-testing and BCG techniques in individual countries. The streptomycin research project will have to be continued and provision is made in the 1950 budget for this to be done on a scale which aims at no more than the collection of scientific data under controlled conditions in countries which are prepared to follow out the plan laid down by the Sub-Committee on Streptomycin of the WHO Expert Committee on Tuberculosis. The provision of laboratory facilities and fellowships also will be increasingly necessary in 1950 if the work is to proceed in many areas.

The method by which the work in 1950 will be conducted will be by the provision of consultative services and by sending demonstration teams into countries on their request.

In 1950 also, the headquarters staff will continue with the work of collecting data on recent advances and will continue to send to governments and other interested bodies such information as may enable them to improve their services and add to their knowledge.

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[5] *Off. Rec. World Hlth Org.* **13**, 300

[6] *Ibid.* **14**, 10

[7] *Ibid.* **11**, 5

[8] *Ibid.* **14**, 19

Advisory and Demonstration Services to Governments

7.4.7. TUBERCULOSIS

Budget Estimates

	1949	Estimated Expenditure 1950	
		Regular	**Supplemental**
	US $	US $	**US $**
SECRETARIAT			
Salaries	112,730	146,900	**70,150**
Deduct Lapses and delays	—	7,840	**3,500**
Net	112,730	139,060	**66,650**

Headquarters

	Grade	Number of Posts 1949	1950 Regular	1950 **Supplemental**
	17	1	1	—
	14	1	1	—
	12	—	1	—
	8	1	1	—
	5	1	2	—
	4	1	—	—
Sub-total		5	6	—
Field	Category			
	I	8	8	**2**
	II	10	10	**10**
	III	3	3	**3**
Sub-total		21	21	**15**
Total		26	27	**15**

Consultants	27,000	12,000	**9,000**
Personal services sub-total	139,730	151,060	**75,650**
Allowances	48,215	55,780	**31,830**
Travel and transportation	64,300	87,300	**52,900**
Purchase of motor vehicles	—	7,000	**10,500**
Operation of motor vehicles	—	3,600	**5,400**
Supplies and equipment to teams	20,840	29,000	**62,900**
Special literature	4,000	2,000	**4,000**
Expert advisory committees	11,000	27,300	—
TOTAL OF PROJECT	288,085	363,040	**243,180**

7.4.8. PUBLIC-HEALTH ADMINISTRATION

7.4.8.1 The Problem and its Significance

As with other institutions in organized society, the scope and organization of the public-health services, as well as their relative importance and their role in the life of a nation, depend largely on the level of social, economic and cultural development of the country and on its political structure ; they are also influenced by national traditions. The development of scientific bases of medicine and hygiene, on the one hand, and the development of social science and the scientific organization on the other, however, more precisely determine the position of the public-health services in the fulfilment of their task—namely, to use the products of science and organization in the interests of the health of the entire population. The knowledge, art, technique and practice of this utilization constitute our modern public-health services, which are as " scientific " as they are " administrative " and " social " in their character and approach. With the rapid advance in medical, natural and social sciences, the scope of the public-health services increases or should increase with equal rapidity.

Progress in public health will therefore consist in improvement of utilization of technical methods, broadening of the field of activities and increasing co-ordination of all factors contributing to the promotion of health.

The international aspects of this subject become broader with the development of international relations. A world approach, already well established in technical methods in medicine and hygiene, is gradually extending to the organizational and social bases of the public-health services. This world approach is clearly seen, for example, in social security, which, keeping pace with the changes in modern society, comes to embrace an ever larger proportion of the population. These and similar trends broaden and increase interest in the organizational, administrative and social elements of public-health services.

Satisfactory implementation of international health programmes depends largely on the efficiency and proper organization of national health-services. Collaboration between the health authorities of various countries must be based on knowledge and understanding of the health problems and the systems of health organization in other countries. Exchange of experience has for long been recognized as a valuable method of raising the standards of health services in countries where these are not sufficiently developed. The need for assistance from abroad is recognized everywhere. Since inequality in development of national services clearly and directly affects the world's health, a general improvement in health services is an international responsibility and the establishment of recognized minimal standards for health services will soon be recognized as a subject of international concern. Several problems in public health require particular attention, for example, organization of medical care, nursing, construction and administration of hospitals, medical rehabilitation and industrial or occupational health-services. Information on the most effective methods applied in these branches of health care in comparable environments must be collected and be available as and when required. The relative weakness of some health administrations will not permit them to synthesize and experiment with methods of public-health administrations. It is clear that WHO has an effective and helpful role to play in this scene.

Special problems arise in connexion with the World Health Organization's collaboration with the Trusteeship Division of the United Nations and with the United Nations Special Committee on Information from Non-Self-Governing Territories. These two institutions are interested by nature of the Charter in raising the standards of health of the population in the territories concerned, and collaboration with them was approved by the first World Health Assembly.[1] This collaboration is already in progress in respect of improvements in the form of questionnaire and " standard forms " to be used regarding health conditions in these areas. Further development of this collaboration in the terms of the Constitution of WHO will include qualitative evaluation of the information obtained, participation in field surveys and ultimately in technical advice and recommendation for improvement of the health services in these areas. Eventually all technical questions relative to health conditions in such territories as lie within the competence of the United Nations may well be entrusted to the World Health Organization, except, probably, the immediate synthesis of answers to questionnaires.

Satisfactory organization and efficiency of the public-health administration in many countries is an important prerequisite for the satisfactory functioning of all the other branches of health services. Good public-health administration must support and influence all programmes designed for the raising of standards of health ; without it all plans for improvement of food production, distribution and

[1] *Off. Rec. World Hlth Org.* **13**, 324

ultimate industrialization must be severely prejudiced. Occupational hygiene to protect the health of the most productive groups of the population contributes directly to the control of an avoidable loss of manpower. Development of provision of medical care by reducing disabilities from sickness plays a large part in the preservation and effective utilization of manpower.

The regional labour conferences of the ILO in the Near East and Asia held in 1947 laid particular emphasis on the importance of the development of public-health services in those regions in raising the economic level of the population. This may well be self-evident but has all too infrequently been publicly recognized.

7.4.8.2 Previous Activities

7.4.8.2.1 *Office International d'Hygiène Publique*

The Office International d'Hygiène Publique took interest in the legislative side of the problem. New laws and regulations enacted by Member States were published regularly in the *Bulletin*, in so far as they were submitted by the governments concerned and, significantly, this was a most widely demanded service of OIHP. Interest in the organization of public-health services naturally tended to be confined to the control of epidemic and other contagious diseases, which was the statutory obligation of the Office. There were, however, discussions, notes and articles on the subject of health organization generally in certain countries and special forms of administrative procedure were sometimes discussed.

7.4.8.2.2 *The League of Nations*

The Health Organization of the League of Nations undertook various activities connected with public-health service. Various methods of collecting and interchanging information and experience were evolved.

In June 1923 a scheme was outlined by the Health Committee for the description of the organization of public-health services in different countries.[2] In most cases officers in the health administration of their own countries undertook, at the invitation of the Health Organization of the League of Nations, the writing of monographs on that national public-health organization. Monographs of this type were supplied by members of the organization, showing the results of their investigations. This service was also popular internationally.

About this time, an extensive programme for the " interchange of sanitary personnel " was put into operation. Collective study-tours for public-health officials from various countries were organized and usually the authorities of the country visited prepared a description of its health services. This material was, by and large, published by the Health Organization of the League. The descriptions varied in length, scope and method of presentation; for example, there were concise articles and voluminous works of up to several hundred pages, but in most instances the serial monographs were of 50-100 pages.

The *International Health Year-Book* was published every year but one during the period 1924-1930. The *Year-Book* contained progress reports which brought up to date the information given in national monographs. The *Year-Book* was not world-wide : the first volume contained mostly descriptive reports from 22 countries ; the last (1930) volume gave mostly statistical material from 34 countries and " colonies ".

Altogether this series of monographs, the publications resulting from collective study tours, and the reports in the *Year-Book* covered quite satisfactorily the organization of public-health services in most countries in all continents. These activities were particularly well-developed in the period prior to 1930, but some publications appeared later, mostly in connexion with some study-tours and conferences on special problems, and they were therefore less generally useful and more limited in their scope.

Particular problems connected with public-health services or forming a part of them also engaged the attention of the Health Organization. In 1926 a " plan for a preliminary study of public-health administration and health insurance " was outlined for a number of cities and a joint committee to this end was established with the International Labour Organization. The reference material and reports, however, were confined to some European countries. These were published during 1927 and 1929. Comparative analyses of the problem on a wide viewpoint were issued by ILO.

Rural health-services were the subject of the 1931 conference on rural hygiene in Europe, the 1937 conference on rural hygiene in Far Eastern countries and the conference on rural life which was planned for 1939. Numerous national reports were submitted, many of which touched on the subject of health services in general. A special report summarizing *The Recent Trend of Medico-social Policy in Europe*,[3] with special reference to rural health problems, was drafted by the Secretariat on the basis of a tour of investigation.

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[2] L.o.N. doc. C.H. 117

[3] *Bull. Hlth Org. L.o.N.* 1938, **VIII**, 662

A proposed system of " health indices " was developed by K. Stouman and I. S. Falk [4] and this stimulated several valuable studies on the evaluation of health conditions and health activities in various areas.

Health centres as essential units of public-health services were studied in several countries by members of the Health Committee and of the Secretariat, mostly in 1929 and 1930, and reports on these were published.

The relation between public-health services and many other problems (for example, epidemiology, nutrition, housing, sanitation, social diseases, nursing) was also considered by the Health Organization.

Also, governments approached the Health Organization for advice in connexion with proposed reorganization of the public-health services in their countries. Local investigations were made by members of the Health Committee and the Secretariat, or by invited experts, and recommendations were put forward.

In summary, the activities of the Health Organization of the League of Nations in connexion with public-health services included :

(1) individual and group surveys of health organization in most countries of the world ;

(2) the collection and publication of material in the form of reports, monographs, and the *Year-Book ;*

(3) arrangements for international conferences on special aspects of public-health services (e.g. rural health) ;

(4) the setting-up of joint committees or internal working groups on particular problems (e.g. sickness insurance and public-health administration) ;

(5) assistance and advice given at the request of individual governments in problems of health administration.

7.4.8.2.3 *UNRRA*

The specific character of UNRRA's emergency work set certain limitations on long-term public-health schemes for the strengthening of administration, but emergency work on the rehabilitation of health services in devastated countries reached proportions never before contemplated.

The activities of UNRRA's Health Division included, inter alia, expert advice, medical information and the distribution of large quantities of medical supplies. Travel grants for studies and visiting lecturers were another valuable feature of the work of UNRRA.

7.4.8.2.4 *Pan American Sanitary Organization*

Proceeding on a regional basis, the Pan American Sanitary Organization performs a considerable task by promoting co-operation between the health services of the American countries. Regular conferences of the directors of public-health services of American countries are one of the most useful and valuable methods of co-operation evolved. The *Bulletin* of PASO publishes the reports of national health-administrations as well as much other informational material. Surveys of health services and of particular problems are made by PASO and the impact of its efforts on public-health administration in Latin America cannot be over-estimated.

7.4.8.3 Objectives

7.4.8.3.1 *Long-term*

Preparation and promotion of internationally acceptable standards and of the most applicable methods for use in public-health services; organization of medical care ; medical social work and rehabilitation ; hospital facilities and nursing throughout the world, with special emphasis on occupational and industrial health.

7.4.8.3 2 *Immediate*

(1) To assist national health-administrations in raising their standards of service to the highest level applicable in the circumstances ;

(2) to investigate the variety of systems and methods evolved throughout the world and to synthesize the procedures most suitable in similar conditions ;

[4] *Bull. Hlth Org. L.o.N.* 1936, **V**, 901

(3) to make available the experience gained by all nations to all others which may need it, in a form suitable to the context ;

(4) to demonstrate, in the field, the organization and application of modern schemes for public-health service, for example health centres and comparable techniques ;

(5) to make special studies and give advice on certain problems, such as hospital construction and medical rehabilitation ;

(6) to advise the Director-General on co-ordination and integrated organization of his programmes.

7.4.8.4 Work to be accomplished in 1950

7.4.8.4.1 *Authority*

The Constitution of the World Health Organization (in Article 2 (*c*)) indicates that WHO shall " assist Governments upon request in strengthening health services" and (in Article 2 (*q*)) "provide information, counsel and assistance in the field of health ". The first World Health Assembly decided that problems falling under the heading of public-health administration should receive a major emphasis in the programme of WHO, and made provision for the establishment, in 1949, of certain joint expert committees with ILO : for example, one on industrial hygiene and one on the hygiene of seafarers. An expert committee on nursing was recommended for 1950.

7.4.8.4.2 *Methods*

7.4.8.4.2.1 *Reconnaissance and collection of information* by means of bibliographical research enquiries to, and reports from, governments and other sources, analysis of this information and synthesis of it, so that it shall be at the disposal of the governments, will be a general technique for this section. Other methods of collection of information and opinions will take the form of consultations with and receipt of advice from :

(1) appropriate non-governmental organizations, as in the case of nursing, hospital questions, industrial hygiene, and other subjects ; this will be done by exchange of information and participation in conferences and congresses ;

(2) individual experts who will be encouraged to assist WHO as correspondents ; they will be public-health experts in each country and will be consulted on the following subjects among others ; hospital problems, medical rehabilitation, health centres, with a view to stimulating studies and obtaining the widest and best information at the lowest cost ;

(3) Expert Committees :

Joint Committee with ILO on Occupational Hygiene ;
Joint Committee with ILO on Hygiene of Seafarers ;
Committee on Nursing as approved by the first Health Assembly (see programme for training of nurses, **7.5.1**) ;
Expert Committee on Public-Health Administration; this was not recommended by the first Health Assembly but is provided for in the programme of work for 1950 ;

(4) Surveys of areas selected for health demonstrations or similar studies as required, upon the request of governments, the United Nations or specialized agencies. Such surveys will be made by small teams composed of a qualified officer with international experience along with a public-health officer well-acquainted with local conditions. A systematic survey of general public-health conditions will, over a period of time, be made in all areas or countries receiving assistance from WHO ; such surveys are essential to facilitate the selection of the type and place of assistance and in some cases its advisability. In addition, they will produce a general and continuing picture of the situation of the health administration of all countries in the world.

7.4.8.4.2.2 *Provision of information and advisory services.* General information will be provided by means of correspondence ; notes and reports and replies by the Director-General, expert committees and correspondents ; publication of the most important and valuable material (in part in the *Health Yearbook*).

7.4.8.4.2.3 *Advisory and demonstration services to governments.* Demonstration teams and expert consultants to provide advice and assistance to governments. Special consideration will be given to the organization of health services, hospital construction and administration, nursing and surveys, recommendations and assistance preliminary or prerequisite to inauguration of programmes by WHO.

7.4.8.4.2.4 *Recommendations for incorporation into the WHO programme.* Recommendations made by the expert committees or developed from experience.

7.4.8.4.2.5 *Collaboration with the ILO* and with the appropriate non-governmental organizations on special subjects in industrial and occupational health, as will be recommended by the relevant expert committees.

7.4.8.4.2.6 *International exchange of personnel.* Various methods of international exchange of personnel to promote exchange of valuable experience will be sponsored. This will be done in the following ways : through acting as an intermediary in seconding public-health personnel from one country to another (this could mainly apply to laboratory workers and persons holding teaching positions, but sometimes will apply to public-health officers) ; individual travel grants for persons in positions of responsibility (this group will be strongly represented in fellowship grants by WHO) ; collective study-tours of groups composed of persons with similar qualifications from various countries, for example, groups of public-health officers, of epidemiologists, of directors of public-health nursing and of hospital administrators. Each group would visit appropriate institutions in several countries and hold a series of seminars on the applicability of techniques in various countries.

7.4.8.5 Physical Training

During the first Health Assembly, the importance of physical training was brought forward by the Bulgarian delegation. It was decided that the Executive Board [5] should study the means whereby WHO could ensure physical training being established on a reliable scientific basis and consider placing this question on the agenda of the second World Health Assembly. Information on this subject is obtained from the International Bureau of Education and the Association internationale médico-sportive.

The Executive Board decided at its second meeting [6] " to continue the collection of scientific information on physical training, from appropriate sources, including governments and competent non-governmental organizations, with a view to possible integration of this subject into the programme of the Organization for 1950, and to place this subject on the agenda of the third session " of the Board.

It is understood that a British Commonwealth and Empire Council in the field of the correlation of medical science and physical education is envisaged, with the aim of helping " in the attaining of a better standard of fitness among the people of the British Commonwealth and Empire in relation to their educational, nutritional, social, industrial, medical and other requirements ".

Since more information must be collected and further reconnaissance of the problem is necessary before active planning can be attempted provision for this action has been made in the budget.

7.4.8.6 Stomatology and Dental Hygiene

This item was put forward at the first World Health Assembly by the Polish delegation,[7] when it was pointed out that dental services were much neglected in many countries. The importance of preventive dental medical services was stressed, the study of dental caries was emphasized, and the importance of prophylactic measures underlined.

The Director-General has consulted with the International Dental Federation and with other competent non-governmental organizations. The President of the International Dental Federation has recently visited several countries, including North America, was able to discuss a programme and has received many suggestions. These will be incorporated into a programme. As soon as this programme has been received, it will be possible to plan a programme for WHO activities.

Since further information and reconnaissance is plainly necessary, provision for obtaining it has been made in the budget.

[5] *Off. Rec. World Hlth Org.* **13**, 310

[6] *Ibid.* **14**, 21

[7] *Ibid.* **13**, 310

Advisory and Demonstration Services to Governments

7.4.8 PUBLIC-HEALTH ADMINISTRATION

Budget Estimates

	1949	Estimated Expenditure 1950	
		Regular	**Supplemental**
	US $	US $	**US $**
SECRETARIAT			
Salaries	84,265	99,995	**105,425**
Deduct Lapses and delays	—	4,605	**5,270**
Net	84,265	95,390	**100,155**

Headquarters

Grade	Number of Posts 1949	1950 Regular	1950 **Supplemental**
17	1	1	—
16	1	1	—
14	2	2	**3**
12	1	1	—
8	1	1	**1**
6	1	1	**1**
5	1	1	**2**
4	1	1	—
Sub-total	9	9	**7**
Field Category I	—	7	**6**
II	—	—	**6**
III	—	—	—
Sub-total	—	7	**12**
Total	9	16	**19**

Consultants	12,000	3,000	**15,000**
Personal services sub-total	96,265	98,390	**115,155**
Allowances	51,460	23,090	**54,930**
Travel and transportation	30,500	22,100	**56,100**
Special projects	—	—	**45,000**
1. Exchange of personnel between countries ($15,000)			
2. Collective study-groups ($30,000)			
Supplies and equipment to teams	—	3,000	**3,000**
Special literature	—	1,000	**1,000**
Expert advisory committees	17,200	13,500	**20,625**
TOTAL OF PROJECT	195,425	161,080	**295,810**

NOTE : In the approved budget for 1949 " Education and Training " was included under " Public Health Administration ". The estimated expenditure for 1949 for " Education and Training " has, therefore, been included in the 1949 estimated expenditure as presented above. In 1950, however, this item is being submitted as a separate proposed project under the title " Technical Training of Medical and Auxiliary Personnel."

7.4.9 NUTRITION

7.4.9.1 The Problem and its Significance

Nutrition is perhaps the most important single environmental factor influencing health. The discoveries of recent decades show that inadequate nutrition plays an important part in infant mortality, in the excessive proportion of underdeveloped school-children and adolescents, in the incidence of tuberculosis and some other diseases, and in the poor health and low productivity of a large number of adults. The availability of all kinds of foodstuffs has diminished, and there is a dire need for improvement in nutrition in most countries. Unnecessary starvation still exists in many regions of the world. Better distribution of food in the world is necessary, and FAO and other international organizations are concerned with this problem. Sufficient food is not the only essential factor ; a well-balanced diet and the best use of available foodstuffs are also very important in reaching the highest attainable standard of health. The food habits of some population groups must be changed. The education of public-health administrators, legislators, teachers, etc., in practical nutrition and dietetic knowledge is an essential part of any programme. The food habits of certain types of population are such that deficiencies lead to avoidable avitaminoses, for example beri-beri and pellagra. Inadequate nutrition is responsible for low productivity among millions of workers.

The objective " food for health " is common to FAO and WHO and the closest co-operation between these two organizations will be necessary. In FAO the emphasis is on nutrition in relation to the production, distribution and consumption of food, while in WHO the emphasis will be on nutrition in relation to the maintenance of health and the prevention of disease. Nevertheless, every practical programme of nutrition has aspects which fall within the fields of interest of both organizations. Collaboration must therefore be flexible and no sharp dividing lines of responsibility can be drawn.

7.4.9.2 Methods

To prepare the ground for the long-term objectives, the following programme is suggested for 1950 :

(1) collection, evaluation and distribution of information on recent advances in the science of nutrition ;

(2) educational programmes for the improvement of food habits of individuals and families ;

(3) emphasis on the role of health workers and health centres in nutrition education ;

(4) assistance to governments in sending demonstration teams and consultants ;

(5) allocation of fellowships in nutrition ;

(6) training in nutrition of maternal and infant specialists, of dieticians, of personnel for nutrition surveys and others ;

(7) advice on the nutrition of mothers and children ;

(8) surveys, in close co-operation with existing research institutes, on the assessment of nutritional status ;

(9) inclusion of nutrition specialists in malaria and other teams ;

(10) control and elimination of dietary deficiency diseases.

Advisory and Demonstration Services to Governments

7.4.9 NUTRITION

Budget Estimates

	1949	Estimated Expenditure 1950	
		Regular	**Supplemental**
	US $	US $	**US $**
SECRETARIAT			
Salaries	11,110	38,220	**104,450**
Deduct Lapses and delays	—	1,920	**5,220**
Net	11,110	36,300	**99,230**

Headquarters

	Grade	Number of Posts 1949	1950 Regular	1950 **Supplemental**
	17	1	1	—
	8	—	1	—
	6	—	1	—
	5	1	—	—
Sub-total		2	3	—
Field	Category			
	I	—	3	**10**
	II	—	—	**6**
	III	—	—	—
Sub-total		—	3	**16**
Total		2	6	**16**

Consultants	19,500	6,000	**9,000**
Personal services sub-total	30,610	42,300	**108,230**
Allowances	5,420	5,990	**33,715**
Travel and transportation	11,320	16,700	**65,100**
Special literature	—	1,000	**2,000**
Expert advisory committees	4,500	6,450	—
Training courses	—	—	**60,000**
Purchase of motor vehicles	—	—	**7,000**
Operation of motor vehicles	—	—	**3,600**
Supplies and equipment to teams	—	—	**12,000**
Special projects	—	—	**23,000**
TOTAL OF PROJECT	51,850	72,440	**314,645**

7.4.10 CHOLERA

7.4.10.1 The Problem and its Significance

Cholera prevails endemically in Bengal, whence it is carried to other parts of India and occasionally to other countries, causing severe and highly fatal epidemics. It prevails also in a hypo-endemic form in Burma, Siam, Indo-China and Southern China.

Mortality from year to year varies from 100,000 to half a million or more.

The comparatively limited area of continuous endemicity contrasts with the explosive character of the outbreaks of the disease. It appears advantageous to take the offensive and attempt eradication in well-defined endemic areas, rather than to keep a continuous and sterile watch in many provinces and countries against cholera invasion.

7.4.10.2 Work previously accomplished

In past years the League of Nations limited its action against cholera to studies on the epidemiology of the disease and on the relative efficiency of oral and subcutaneous inoculation.

Its main practical achievement was the establishment of the Singapore Epidemiological Bureau to reduce the danger of the international transmission of cholera by means of efficient telegraphic and wireless reporting of its occurrence.

The Interim Commission of WHO set up jointly with the OIHP a study-group which met twice in 1948 and made recommendations,[1] not only for the drafting of WHO Sanitary Regulations but also for international field studies, with a view to eventual control and eradication of the disease.

7.4.10.3 Statement of Objective

Cholera is a disease for which true eradication—that is to say, world eradication—can and must be aimed at, in the opinion of experts (OIHP/WHO Joint Study Group).

The immediate objective is gradually to clean up the truly endemic area, after a preliminary delineation of this area and a study of the factors of endemicity (both of which are planned for 1949) have been made.

Cholera eradication has never been attempted on an international basis.

7.4.10.4 Programme for 1950

It is proposed to send into two districts of the endemic area of Bengal (situated respectively in the territories of the Indian Union and of Pakistan) two international teams for the demonstration of those methods of control considered most appropriate by the study team sent there in 1949, as recommended by the Expert Committee on International Epidemiology and Quarantine.[2]

It is proposed that the teams should control cholera in successive adjoining districts, so as gradually to reduce the endemic area.

It is expected that further teams may be formed by the local health authorities, using the experience of the previous teams and working in successive years in adjoining districts. Each original team would be made up of three members (a bacteriologist, an epidemiologist and a sanitary engineer) employed by WHO, assisted by two local medical officers, together with subordinate administrative, technical and laboratory staff.

As the first two international teams should serve as training centres for both local and non-local staff, it is suggested that field fellowships be given by WHO to medical officers intended by their health administrations to take up eradication work in the following years. Each fellowship would be granted for three months ; three groups of five fellows could be accommodated in succession by each team (two-thirds of the fellows should be locally recruited).

It will be necessary critically to assess the work performed and possibly recommend changes. This should be done by the OIHP/WHO Joint Study Group (or Expert Committee) on Cholera, to be convened for the purpose in India for one week late in 1950.

Such an appraisal is of paramount importance for planning any further action towards the eradication of cholera.

Co-operation with the section of environmental sanitation is envisaged at all stages of the work both at headquarters and in the field.

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[1] *Off. Rec. World Hlth Org.* **11**, 15 ; **19** (to be published)

[2] To be published in *Off. Rec. World Hlth* Org. **19**

Advisory and Demonstration Services to Governments

7.4.10 CHOLERA

Budget Estimates

	Grade	Number of Posts Supplemental 1950	Estimated Expenditure Supplemental 1950 US $
SECRETARIAT			
Salaries			55,000
Deduct Lapses and delays			2,750
Net			52,250
Headquarters			
	—	—	
Field	Category		
	I	6	
	II	2	
	III	—	
Sub-total		8	
Total		8	
Consultants			—
Personal services sub-total			52,250
Allowances			19,315
Travel and transportation			54,000
Purchase of motor vehicles			15,000
Operation of motor vehicles			7,200
Supplies and equipment to teams			20,000
Expert advisory committees			9,450
TOTAL OF PROJECT			177,215

NOTE: Provision for Headquarters Staff is included under Epidemiological Studies, section 7.5.4.

7.4.11 PLAGUE

7.4.11.1 The Problem and its Significance

Plague, although kept in check at considerable cost in many of its present areas of prevalence, is still a deadly disease which, in its main foci of India and China, caused some 90,000 cases and 45,000 deaths in 1947.

No sanitarian conversant with the history of the last pandemic which began in 1894 can underestimate the power of dissemination of this disease, or its potential havoc (12 million deaths in India alone between 1898 and 1935 ; 100 per cent fatality of the 60,000 pneumonic plague cases of the Manchuria epidemic in 1910-11).

7.4.11.2 Statement of Objectives

The long-term objective must be, if not true eradication—which would require elimination of the infection in wild rodents where it has spread itself over huge areas on the higher plateaux or mountains of the Americas, South Africa and Asia—at any rate, elimination from the human communities close to these areas.

A closer objective is to make sea-ports and air-ports, ships and aircraft, plague-free and plague-proof in order to prevent international transmission of the disease.

As an immediate objective, one may envisage the elimination of plague from endemic areas or small foci, where it has persisted for years, by the combined use of modern rodenticides and insecticides with residual action. Infected islands (Azores, Hainan, Madagascar) appear to be the best areas for attempts at eradication.

7.4.11.3 Work previously accomplished

WHO has already made a survey of recent literature, consulted plague experts during the Fourth International Congress on Tropical Medicine in Washington (June 1948) [1] and formed jointly with OIHP a study group which met in April and October 1948.[2]

The reports of the experts show that the new methods of rat and flea destruction permit effective elimination of plague from towns and villages (even without radical changes in sanitation) and warrant an attack on the infection in limited endemic foci where its reservoirs are domestic rodents.

7.4.11.4 Programme for 1950

It is intended that two international teams for the demonstration of the newer control-methods in infected towns and villages shall be formed, and shall start operation in 1950. Each team should be composed of a staff of three, recruited from health administrations of countries affected by plague so that they may use in plague control the experience they gain while serving in the international team. These officers should, during the first half of 1950, receive special training such as is given in the centre set up in Peru for the training of plague-control personnel.

The first demonstration teams should serve as training centres for both local and non-local staff. It is suggested that field fellowships be given by WHO to sanitarians intending to take up plague-control work in either international or national teams during the following years. This would, in some cases, avoid the language difficulties and travel costs involved in training at the Peruvian centre.

A critical review of the work done, of recent advances in the knowledge of plague, and recommendations for future action, including further research, would require a meeting in 1950 of the Expert Committee on Plague, the setting-up of which was decided upon by the first World Health Assembly.

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[1] *Off. Rec. World Hlth Org.* **11**, 39

[2] *Ibid.* **11**, 12 ; **19** (to be published)

Advisory and Demonstration Services to Governments

7.4.11 PLAGUE

Budget Estimates

	Estimated Expenditure Supplemental 1949 US $	1950 US $
SECRETARIAT		
Salaries		**55,000**
Deduct Lapses and delays		**2,750**
Net	—	**52,250**

Headquarters	Grade	Number of Posts Supplemental 1949	1950
	—	—	—
Field	Category		
	I	—	**6**
	II	—	**2**
	III	—	—
Sub-total		—	**8**
Total		—	**8**

Consultants	—	—
Personal services sub-total	—	**52,250**
Allowances	—	**19,315**
Travel and transportation	—	**42,000**
Purchase of motor vehicles	—	**14,000**
Operation of motor vehicles	—	**9,000**
Supplies and equipment to teams	—	**30,400**
Expert advisory committees	**7,000**	**8,400**
TOTAL OF PROJECT	**7,000**	**175,365**

NOTE : Provision for Headquarters Staff is included under Epidemiological Studies, section **7.5.4.**

7.4.12 TYPHUS FEVER

7.4.12.1 The Problem and its Significance

Louse-borne epidemic typhus is still present in many countries and still constitutes a major public-health problem in a number of them where the vector prevails and where economic conditions are unfavourable.

Over 100,000 cases were recorded in North Africa alone in 1942. Over 17,000 cases were reported in Roumania during the first two months of 1948.

7.4.12.2 Work previously accomplished

International work against typhus has, in the past, been limited to the large-scale application, by the League of Nations, of the classical delousing methods in the chain of quarantine stations established in 1921 on the eastern borders of Poland and the Baltic States, a study of the relative efficacy and respective indications of the then-existing typhus vaccines at an expert conference in February 1937, and action against the disease in the field by League of Nations anti-epidemic units in China from 1938 to 1940.

7.4.12.3 Statement of Objectives

The discovery of effective insecticides with residual action capable of destroying the vectors, and therefore of breaking the chain of infection, justifies fresh action towards gradual elimination of these vectors and consequently of both typhus and louse-borne relapsing fever.

Elimination should be started in typhus endemic foci, and gradually expanded to clean up entire provinces and countries.

It is realized that the machinery required for delousing entire populations and for maintaining these populations louse-free can only be possessed by national health-administrations.

7.4.12.4 Programme for 1950

WHO can only provide demonstration of the feasibility and success of such large-scale delousing and arrange for the procurement of the necessary insecticide for those countries which, for technical or financial reasons, cannot obtain it in the requisite quantities.

The first two demonstration teams should begin operations in 1950.

It is intended that the teams should work in areas of high endemicity and that one of them should operate in an area of Northern Africa, which is not only one of typhus endemicity but which has at the same time been the origin of the last two pandemics of louse-borne relapsing fever.

The above suggestions are merely tentative, as in each case success of a demonstration depends upon a careful preliminary study of its proper location, taking into consideration possibilities for local administrative support and psychological as well as technical epidemiological factors.

In the succeeding years, similar teams may initiate demonstrations in other infected countries, while individual experts should check that the areas previously treated are being maintained in a louse-free condition.

These first international demonstration teams should serve as field training centres for both local and non-local staff intended to apply similar schemes in other areas in the following years, i.e. in infected countries of the Mediterranean area and of Eastern Europe. Such training could be effected by granting fellowships for a period of three months.

It will be necessary critically to assess the work performed and possibly to recommend changes. This should be done by a special expert committee on typhus and typhus-like diseases.

7.4.12.5 Louse-borne Relapsing Fever

The Expert Committee on International Epidemic Control has recommended that louse-borne relapsing fever be treated as a pestilential disease and be the object of the same control measures as louse-borne typhus.

This is fully justified. Before 1941, relapsing fever caused in Russia a higher morbidity-rate than typhus. The number of cases in that country from 1918 to 1921 was estimated between 8 and 10 million.[1] After the First World War, the disease gradually declined in Europe, but a pandemic originating in the Fezzan swept over Africa during 1921 and the following years. A similar pandemic broke out

[1] Tarassevitch, *L.o.N. Epid. Int.* **2**, 1922

in the same area during the Second World War and caused no less than 110,000 cases in Egypt in 1946, and tens of thousands of cases in other African countries.

It is highly desirable to eradicate louse-borne relapsing fever from its endemic areas in the Fezzan and, at the same time, to study the possible role of ticks as reservoirs.

It has been suggested above that the attack on relapsing fever and typhus be carried out simultaneously, through elimination of their vectors, i.e. body-lice. Therefore no special or additional team or other form of action is recommended for this purpose for 1950.

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7.4.12 TYPHUS

Budget Estimates

	Grade	Number of Posts Supplemental 1950	Estimated Expenditure Supplemental 1950 US $
SECRETARIAT			
Salaries			**55,000**
Deduct Lapses and delays			**2,750**
Net			**52,250**
Headquarters			
Field	Category I	**6**	
	II	**2**	
	III	—	
Sub-total		**8**	
Total		**8**	
Consultants			—
Personal services sub-total			**52,250**
Allowances			**19,315**
Travel and transportation			**42,000**
Purchase of motor vehicles			**15,000**
Operation of motor vehicles			**7,200**
Supplies and equipment to teams			**16,000**
Expert advisory committees			**7,350**
TOTAL OF PROJECT			**159,115**

NOTE: Provision for Headquarters staff is included under Epidemiological Studies, section **7.5.4.**

1950

7.4.13 HEALTH EDUCATION OF THE PUBLIC

7.4.13.1 The Problem and its Significance

The view is generally accepted that the success of many if not all public-health programmes depends largely on public response and that the general level of health depends on health habits of the individual and the enlightenment of the public. Popular health education has received much attention from authorities and organizations, and a variety of methods have been developed, aimed at the improved spread of information on health and the securing of the maximum public co-operation. In view of the importance of the psychological element in public education, the methods must be flexible and depend on the psychology of groups or nations. The role of the national component in planning popular health-education is more important than that of the international one. On the other hand, technical equipment and material for health education have now become matters of international concern. An international advisory and procurement service and assistance in production of educational material will facilitate the tasks of the individual countries in popular health-education. In addition to general public opinion, which should be well-informed on matters of health, some groups require more knowledge of health problems : for example, school-teachers and professors of teachers' colleges, architects and engineers, leaders of community life and public opinion. This aspect of health education must receive attention on the international level even if limited only to the collection and exchange of information.

7.4.13.2 Objective

To assist countries in the development of methods and techniques of health education of the public.

7.4.13.3 Authority

Article 2 (*r*) of the WHO Constitution states that it is a function of the Organization " to assist in developing an informed public opinion among all peoples on matters of health."

The first World Health Assembly decided that health education of the public should be included in the actual programme of the Organization in 1949.[1]

The Expert Committees on Venereal Diseases and on Maternal and Child Health stressed the importance of health-education activities and recommended that the necessary arrangements be made within the Secretariat.

7.4.13.4 Methods

It is expected that the experience which will be obtained during 1949 will indicate the best methods for work in 1950 and later. So far, the following are envisaged :

(1) collection and dissemination of information on ways and means of health education as applied in various countries ;

(2) arrangement for consultation services to governments at their request ;

(3) assistance to countries in the production of their own educational material. This should be limited to countries where special difficulties and needs exist.

[1] *Off. Rec. World Hlth Org.* **13**, 308

1950

Advisory and Demonstration Services to Governments

7.4.13 HEALTH EDUCATION OF THE PUBLIC

Budget Estimates

	Grade	Number of Posts Supplemental 1950	Estimated Expenditure Supplemental 1950 US$
SECRETARIAT			
Salaries			**8,665**
Deduct Lapses and delays			**430**
Net			**8,235**
	14	**1**	
	5	**1**	
Total		**2**	
Consultants			**6,000**
Personal services sub-total			**14,235**
Allowances			**3,150**
Travel and transportation			**2,600**
Educational material			**100,000**
TOTAL OF PROJECT			**119,985**

7.5 TECHNICAL SERVICES

7.5.1 TECHNICAL TRAINING OF MEDICAL AND AUXILIARY PERSONNEL

7.5.1.1 The Problem and its Significance

The nature and value of professional training and a relevant social approach to the problems of health on the part of all professions concerned—the medical, dental, nursing and others—are matters of primary interest to all public-health authorities aware of their responsibilities. Responsibility for the national health is often divided among several independent elements within a country—the organized professions, educational authorities or institutions (governmental or autonomous) and others—the public-health administration being but one of the responsible factors. On the international level, in the light of the WHO Constitution, all problems affecting the health of the peoples come within the scope of WHO, irrespective of their nature. The very variety of national experience therefore constitutes a most important field of study, exchange of information and assistance for the benefit of Members. A knowledge of the inter-relation of the various factors bearing on the education and training of professional personnel will be helpful and necessary for the realization of WHO's tasks.

It is well recognized that a sufficiency of medical and auxiliary health-personnel of the right quality is a corner-stone of any sound system of health protection. No modern programme in any field of health, including the programmes of WHO, can develop properly and give lasting results unless the area concerned has a reasonable number of qualified personnel, who would continue the work initiated or demonstrated with the assistance of WHO as part of a general scheme of health action in a given country. Of course, the mere presence of a large number of qualified medical and auxiliary personnel is not in itself sufficient evidence of the adequacy of the health care ; nevertheless, it is a prerequisite for any comprehensive scheme. It is evident that economic and cultural conditions also influence the creation, existence and development of institutions and services.

7.5.1.1.1 *Medical Training*

7.5.1.1.1.1 *Quantitative considerations.* The indicative value of the ratio of the number of medical and auxiliary personnel to the population varies according to the density and economic structure of the population, the development of public and social institutions, transport facilities, sanitary conditions, and many other factors.

This crude index of the availability of health care does not show either the quality of the assistance given or the distribution of assistance enjoyed by the various groups of population. With all these limitations, the view is broadly accepted that the ratio of one physician to about 1,000-1,500 inhabitants indicates the possibility of proper organization of medical and health care for an average community. In fact there is a great variety in this ratio in different countries and in different areas within the same country, the differences being particularly evident when urban and rural, or wealthy and underprivileged regions, are compared. A general picture of the distribution of medical personnel in large areas of the world, based on very rough estimates, is as follows : [1]

The northern zone, comprising North America, Europe and the USSR, has an average ratio of one physician to about 1,200 inhabitants ; the southern zone, consisting of Latin America, the Union of South Africa, Australia, New Zealand and Japan, has an average ratio of one physician to about 1,700 inhabitants; the central zone, consisting of the rest of the world—Africa (except the Union of South Africa) and Asia (except parts of Japan and the USSR)—has much lower ratios, which could be estimated as approaching one physician to, at best, 12,000 people or more. This area is inhabited by more than half of the world's population.

The total number of physicians in the world is estimated to be over 850,000 and perhaps may reach 900,000.

There are great differences in ratio in the different countries of Europe and also in Latin America (for example 1 : 895 in the Argentine, 1 : 13,018 in Guatemala). There are vast, mostly rural, areas in the northern and southern zones with a great shortage of doctors, and there are a few places in the

[1] In view of the incompleteness or lack of official figures for several countries, this rough calculation was based on figures compiled from various sources and in a few instances on ad hoc estimates, particularly with regard to places where qualifications of medical personnel are not uniform.

central zone where the ratio is fairly high (e.g. Palestine, parts of Egypt and large cities in Asia and Africa), but the basic fact remains that a major part of the world's population lives without sufficient health care and without enough doctors for the minimal care of their health. These also are the regions where the needs are extremely serious, where sanitary conditions are generally poor, where many important world health problems (such as epidemic diseases) have their roots and where rich natural resources could be developed. The progress of public health is also impeded by lack of personnel in the war-devastated countries of Eastern and Central Europe and in some countries of Latin America. Moreover, the expansion of health work in many progressive countries increases the demand for medical personnel and increases the relative shortage of doctors. The distribution of training opportunities for doctors, such as medical schools, colleges and faculties, in major world regions, corresponds roughly with the relative value of the ratio of the doctors to the population. Although medical schools vary in the value of training given to their students and in the number of graduates per year, their distribution may give some indication of the training resources for each area. Such an estimated and tentative ratio of medical schools to the total population is as follows :[2]

Northern zone	1 : 2,500,000
Southern zone	1 : 2,500,000
Central zone	1 : 10,000,000 plus

The examples of well-developed countries show that the number of persons whose needs could be served by one school varies, in accordance with the size and equipment of the school, between one and three million. Such a ratio is found in America, in Europe and in some countries on other continents. It has, however, been found necessary in recent years to establish a series of new medical schools in eastern and northern Europe and in some parts of America. Efforts to expand training facilities in the vast lands of Asia and Africa should receive the strongest possible support in the interest of world health. The existing resources in these parts of the world are by no means sufficient. The following summary statement can be made :

(1) There is a great shortage of doctors (and other health personnel) in various parts of the world and this is particularly acute in most areas of Asia and Africa, with the consequence that about half of the world's population has not sufficient access to modern medicine.

(2) The number of medical schools is nearly sufficient (except for some regions) in parts of the world inhabited by about half of the total population, but the existing training facilities in Africa and Asia cannot solve the problem of shortage of health personnel.

(3) The problem is of great and worldwide importance and can be solved only gradually and by intensive international effort and co-operation.

7.5.1.1.1.2 *Qualitative considerations.* The rapid progress of modern science and recent economic and social developments require the adjustment of the training of health personnel to the new situation. Not all countries can keep pace with this progress and in order to continue improvement in teaching and training they need assistance. The modern concept of total and positive health increases a doctor's responsibilities in hygiene, preventive medicine and public health ; it also requires adequate preparation in a medical school and a thorough graduate training.

Recognition of the importance of the mental and social factors in health and disease makes it necessary for a doctor to know and understand all the elements of his patient's life which influence his mental, emotional, physical and social health. Apart from the individual or collective principles of health care, a doctor is expected to be an active member of the community and know its economic and social structure, which has so much influence on health and disease. These broadened responsibilities of the doctor may also be considered as one of the reasons why a physician should, in principle, receive most of his training in his own country, or at least in a country similar to his own.

On the other hand, the increasing similarity in technical developments in various countries, the continuous increase of relations between countries, and the spread of international ideas, promote international approaches to health problems and are decreasing the necessity for strictly national patterns of training. One of the greatest difficulties is that of language. A practical consequence of these trends can be found in the increased interest in the question of evaluation of medical degrees and

[2] One of the difficulties in arriving at this estimate was that in some countries medical education is given on two levels, in two different types of schools. The list compiled by the Director-General comprises about 475 schools. Some schools were added, with some hesitation, for this calculation. This subject shows the grave need for further clarification of the question of standards of medical schools.

the possibilities of international medical licensure. Without subscribing to any theories on uniformity, it can be said that some co-ordination of basic standards in the teaching and training of medical personnel would have a favourable influence on medical education throughout the world. This will be especially important in connexion with the establishment and expansion of teaching resources in underdeveloped regions, where international assistance will be needed for a long period and where education and training must be adapted to local needs on one side, and correlated with international standards on the other. The quality, content and methods of medical education are undergoing an important transition which spreads over the boundaries of countries and continents and represents a subject deserving of worldwide study. Problems of postgraduate training, specialization of personnel, refresher courses and the like must also be considered in the programme of international activities, along with medical education.

7.5.1.1.1.3 *Importance of the Fellowship Programme.* Experience in the operation of the fellowship programmes of the Interim Commission and WHO has shown that a time-lag in the application of new knowledge in the diagnosis, treatment and prevention of disease must always exist, both within a country and, even more, as between countries.

Even were it completely possible, the free and rapid diffusion of medical literature would not meet the problem entirely, since there are types of knowledge and skills which cannot be acquired solely through the printed word. Moreover, these personal contacts are lacking which are so valuable in continuing the exchange of knowledge. On an international level, this need has long been recognized and met by the provision of fellowships, exchanges and study-tours for those unable to visit other countries without assistance.

This time-lag became still more evident through consequences of the Second World War—disruption of the exchange of medical knowledge, which resulted from the complete isolation of many countries for a period of years; material damage to institutions and libraries; loss of life of professional personnel, and the impossibility of research.

During the years to come, a very considerable demand may be expected from underdeveloped areas. Underdeveloped and undeveloped areas should be encouraged to make full use of the fellowship programme, as an essential part of overall plans for their development.

The whole organized effort for better health hinges on the availability of competent leaders and an adequate number of well-trained personnel. The fellowship programme is an investment in individuals selected to lead and introduce new knowledge in their own country. Long experience has shown the great value of this approach in providing better personnel for better health work. The fellows will return to their own countries, not only to give services and to administer, but also to teach others in their native lands how to use the new skills they have acquired.

7.5.1.1.1.2 *Training of nurses and other auxiliary health personnel*

The dearth of doctors is evident in many countries, but the shortage of nurses is universal. Although there have been enormous advances in medical science, there has not been nearly enough investment in making these advances both available and acceptable to the millions of people who need them most. One of the main deficiencies is in the provision of acceptable conditions of work, adequate training facilities and opportunities for nurses.

Even in well-developed countries having excellent standards of medical care and large hospital resources, the lack of nursing personnel handicaps the full use of these resources. In Europe and America, where there are numbers of educated women available, there is a serious shortage of candidates for nursing training. (In England, with a population of under 50 million, there are now some 180,000 nurses employed, and another 50,000 are needed.)

In underdeveloped regions, even the existing health facilities, with a small number of doctors, could give much wider and better service if well-trained auxiliary personnel could be provided. It is very probable that the main bulk of health work in underdeveloped areas, and particularly in maternal and child health, will be carried out by nurses, midwives, medical assistants, etc. There, the greatest need is for simple instruction, simple treatment and leadership. The question of the training, employment and supervision of various grades of auxiliary personnel is of the most urgent importance.

For these reasons, the greatest care and effort should be devoted to the development of educational resources for this type of personnel. WHO should give as great assistance as possible to individual countries in the establishment and development of schools for nurses, midwives, medical assistants and other auxiliary personnel.

Far too little has been done to start experimental schools of nursing or to modify training courses and conditions of service so that the urgent needs of the various countries may be met. Almost every international organization which has operated in the field of health has been compelled to attempt expansion of nursing training facilities. Although the results have been valuable, these efforts have never been on a scale commensurate with the magnitude of the problem and usually have not been co-ordinated.

Another advantage of such non-institutional services is the possibility of making use of part-time workers. In all schemes that employ women, there is always the problem of married women with families. Whereas the time-table in an institution must be rigidly observed, a home-care service can afford a degree of flexibility, and is eminently suitable for part-time workers.

In underdeveloped countries the problems are different and often more serious. The first is the shortage of educated, even of literate, girls, and the second the prejudice against allowing girls either to leave the shelter of their homes or to do any sort of " menial " work. There is still great difficulty in staffing the rural areas.

In some cases, these troubles are being met with considerable success by instituting " pre-nursing " schools. This approach deserves wider encouragement and application. A large number of pupils in such schools will enter matrimony rather than nursing, but they will become better wives and mothers as a result of their training ; they will be a great source of voluntary help and sympathy, and many of them will become available for employment, full- or part-time.

Furthermore, it has been found possible to use as auxiliary personnel a great many women who are completely illiterate, provided that they are (1) worthy of some training, responsibility and prestige ; and (2) supervised intelligently.

Experience in many countries, and especially in underdeveloped areas, has shown clearly that the most effective and quickest way of providing the health services necessary to the population and, incidentally, the health education of the public which is so vital to the success of these services, is the provision of large numbers of suitable trained auxiliary personnel—medical assistants, sanitary inspectors, assistant nurses and others.

Types and standards of nursing education represent a large degree of variety in individual countries and on the international level, particularly with regard to hospital nursing, In public-health nursing, there is more uniformity in standards of training, at least in theory. It may be stated briefly, but with full emphasis, that any international action alongside a national one aimed at improvement of health services through training of medical personnel must simultaneously develop the training of nurses, both problems being " conditio sine quâ non " of health progress.

7.5.1.1.3 *Training of personnel specialized in public health*

Although all professions working in the field of health should be considered as parts of the public-health team and trained accordingly, some groups of personnel have special responsibilities with regard to public-health work and should receive special training. Public-health physicians, health officers, public-health nurses, sanitary inspectors and sanitary engineers form the basic group directly responsible for public health. Some of these specialists work in research and training institutions. The importance of special training of these categories of personnel increases continuously with the broadening scope of public health.

Development of special educational and research institutions for public health is one of the characteristics of modern systems of organized health care. Those relatively young institutions (faculties, schools or institutes of hygiene and public health or social medicine) have won recognition in many parts of the world ; but in the world as a whole, the training of public-health specialists is far from satisfactory. The number of training institutions is much too small (about fifty) and their standards and efficiency are very unequal ; the increase of their number and improvement in the quality of the work of some of them must form the subject of special international efforts. The training of public-health personnel is a field where international co-operation has already achieved considerable success and established a valuable tradition, due to a great extent to the activities of the Rockefeller Foundation and to the progressive international spirit of many teachers and leaders of public health in several countries. The cultivation of worldwide collaboration in this domain requires continuation and development. In the training of personnel for work in underdeveloped countries, emphasis must be laid—as in medical education—on the adaptation of trainees' knowledge and skill to the local environment. Patterns of health work and health training developed in highly modernized countries are not usually applicable in a primitive environment, whereas many technical procedures can remain basically the same. International co-operation will give the advanced specialists (teachers and leaders) a possibility of becoming acquainted with various patterns of health services and health training as developed in

different countries. An eclectic method will be applied to planning for underdeveloped regions and the most suitable elements from different patterns selected for given circumstances.

7.5.1.1.4 *Other groups of health personnel*

In addition to personnel discussed above, there are important groups requiring attention in international training programmes, such as dentists, pharmacists, laboratory and technical assistants, nutritionists, dieticians, x-ray technicians, clinical psychologists, health educators and others. International collaboration in the training of each of these groups, and in some instances co-ordination of training programmes with public-health aspects, must be considered as an important factor in strengthening health services.

7.5.1.2 Examples of previous international work

Several methods of international collaboration were applied in the field of public-health training.

7.5.1.2.1 *League of Nations Health Organization.* A Commission on Education in Hygiene and Preventive Medicine was set up in 1924 under the chairmanship of Professor Léon Bernard. The Commission's function was to investigate and determine :

(1) the type of instruction for experts, medical officers, engineers, architects, nurses and other auxiliary public-health personnel ;

(2) the type of instruction for medical students and (as a supplementary issue) for medical practitioners ;

(3) the type of instruction for other categories of persons—teachers, ministers of religion, administrative authorities, etc.—and popular health propaganda.

The Secretariat collected several reports drawn up locally in response to enquiries by members of the committee or other experts. The reports covered many European countries, the USA and some places in Latin America and Asia.[3]

In 1927, under the auspices of the Commission on Education in Hygiene and Preventine Medicine, a new form of co-operation was started : the conferences of directors of European schools and institutes of hygiene. Programmes of studies, methods of teaching and of recruiting students, relations between schools of hygiene, universities and public-health authorities, co-operation between different schools in research work and in public-health practices, organization of the schools, teaching staff and other similar subjects were studied and discussed at these conferences. The conferences were held several times at a few years' interval, the last being in November 1937.[4]

Interchange of public-health personnel and travel grants were a practical form of international co-operation by means of collective study tours for students (mostly advanced specialists) from different countries and were inaugurated as early as 1922. Activity was particularly intensive in the period prior to 1930, but was continued for some years (e.g. in 1935 a study-tour to the USA was organized). Some 560 members of the health professions took part in interchanges.[5] (Individual study-tours were facilitated by travel grants to over 200 persons.) Nearly all the countries of Europe and America and several countries of other continents were visited in connexion with the " interchange " programme.

International courses in hygiene (public health) were organized in Paris and London in 1927. The lecturers and students came from various countries and the courses were followed by a collective study tour of the students. International courses on malaria were organized in Europe and in Singapore (by the Eastern Bureau).

Opinions and advice on the development of training facilities in the country was given in some instances at the request of the national authorities.

7.5.1.2.2 *UNRRA.* Activities of the UNRRA Health Division for the promotion of international co-operation in the training of public-health personnel from devastated countries comprised :

(1) visiting lecturers, individually and in teams, who were either on the UNRRA staff or had been invited by UNRRA for this purpose ;

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[3] A synthetic summary of the material was prepared by Professor Parisot in 1930. (*L.o.N. Doc. C.H.* 866)

[4] For report see *Bull. Hlth Org.* 1938, **VII,** 169

[5] See *World Health and the League* — L.o.N. Information Section, Geneva 1939.

(2) travel grants (given to 177 persons) of two categories : one for individual studies (56 persons), the other for the group training of nurses ;

(3) other ways of spreading scientific information : supplying of medical literature, publication of pamphlets and articles of practical importance on recent progress in medicine, supplying of micro-film readers, organization of courses for sanitary personnel ;

(4) rehabilitation of teaching centres : (in the framework of the extensive programme of hospital rehabilitation, some equipment was allocated to teaching hospitals and laboratories, thus helping to improve teaching facilities) ;

(5) demonstration and teaching units in several branches of medicine and public health, e.g. epidemiology, surgery, phthisiology, malariology, etc.

7.5.1.2.3 *UNESCO.* With special assistance from, and the collaboration of, several governments and non-governmental organizations UNESCO has undertaken the rehabilitation of war-damaged educational and research centres. It is obvious, however, that in this rehabilitation programme medical institutions could have only a limited share.

7.5.1.2.4 *UNICEF.* Organizes courses and training for paediatricians in connexion with their action in war-devastated and other countries in need.

7.5.1.2.5 *Private agencies.* Several private agencies from abroad, most of them of a religious or charitable nature, have established medical, nursing and pre-nursing schools in China, India, Africa, Oceania and the Near East.

7.5.1.2.6 *American Region.* In 1943, international co-operation in health education on a regional basis in the Americas was formally established at the First Inter-American Conference on Professional Education in Public Health. That conference, followed by another held in 1947 at Caracas, made several recommendations as to principles and methods of co-operation, stressing that adequate training is a fundamental and urgent need for the improvement of health in the Americas. An investigation into the training resources of Latin America should be carried out in 1949 by the Pan American Sanitary Organization.

7.5.1.2.7 *World Medical Association.* An enquiry into the organization of medical training and the structure of medical curricula in various countries was conducted by the World Medical Association in 1948 and has yielded information from 23 countries.

7.5.1.2.8 *WHO.* After its creation in July 1946, the Interim Commission of WHO took over from UNRRA many of its health activities and considerably expanded its fellowship programme. This programme, which began in the spring of 1947, is being continued by WHO. Twelve of the 15 countries which were formerly aided by UNRRA applied for fellowships. Since the inception of the programme, the total number of awards of an average duration of six months had reached 467 by 31 December 1948. The requirements of different countries varied according to their needs : some countries were interested almost exclusively in the training of public-health staff ; in others the building up of medical teaching, both in clinical and in basic sciences, was the most urgent demand.

The Interim Commission recommended for fellowships an amount of $750,000 for the financial year 1949, this sum being reduced by the first Health Assembly to $500,000. This provided for approximately 200 fellowships. In addition, approximately 80 fellowships in special fields connected with maternity and child health will be available in 1949 from the grant of one million dollars to WHO by UNRRA. Administration of the UNICEF individual fellowship programme and of international fellowships from certain governments and other organizations will also be undertaken.

Later work of WHO in the field of training comprised preliminary studies of the systems and the resources available, the collection and supply of information, the preparation of programmes, and collaboration with other agencies on matters of common interest. Assistance to governments was given by the provision of consultants, visiting lecturers and advisers, for the planning and development of training schemes for health personnel.

7.5.1.3 Objectives

7.5.1.3.1 *Long-term*

(1) To sponsor the development of a worldwide programme for the training of medical and other public-health personnel on an adequate level and in sufficient numbers to enable all countries to extend the health care of the masses of their populations ;

(2) to ascertain that high standards of training are internationally accepted and followed ;

(3) to assist in the establishment and development of resources for the training of medical and auxiliary personnel in appropriate places, and in the development of schemes for the expansion of training programmes.

7.5.1.3.2 *Immediate*

(1) To assist individual countries in raising the standards of training to an internationally acceptable level ;

(2) to assist in increasing training facilities in areas where a dearth of medical care is caused by the lack of local personnel ;

(3) to carry out an analysis of medical curricula, including methods of teaching and the material taught, and to make recommendations derived from this analysis ; particular emphasis to be laid on hygiene, public health and preventive and social medicine, and child health ; similar analysis of curricula of other professions related to public health.

(4) The programme of technical training for medical and auxiliary personnel through the provision of fellowships will be available to governments in order to strengthen health services and thereby raise the level of health of the peoples by :

(a) promoting the international exchange of scientific knowledge and techniques in public health and medicine ;

(b) providing opportunities for the training of personnel primarily active in different fields of health as specified by the WHO programme, but not necessarily limited thereto.

Although the ultimate objectives of the fellowship programme will remain the same, the immediate objectives may differ from year to year, inasmuch as the Organization may change the directions in which it will be concentrating its efforts. The 1950 fellowship programme, in its immediate objectives, will reflect, therefore, the emphasis placed on various programmes by the Health Assembly. It will also be influenced by the development of approved activities of the Organization on such subjects as malaria, venereal disease, cholera, plague, typhus, public-health administration, nursing, etc.

7.5.1.4 Work to be done in 1950

7.5.1.4.1 *Authority*

The Constitution of WHO states that one of the aims of the Organization is " to promote improved standards of teaching and training in the health, medical and related professions " (Article 2 *(o)*).

The first World Health Assembly decided that educational problems should be a part of the programme of WHO, and implemented the constitutional provisions by approving the budget for a fellowship programme.

7.5.1.4.2 *Methods*

(1) International collaboration in educational matters could be envisaged in a variety of forms which would develop along with the increase in international experience.

In principle the activities of WHO will be mainly directed towards : co-ordination of international work done by various organizations and institutions with the WHO programmes ; raising of the standards of training by assistance to governments ; and using as far as possible existing institutions for international collaboration in training. Special development of training facilities is envisaged in regions where lack of staff handicaps health work. The following methods are proposed :

(a) Although it may be assumed from indications already received that nearly all Member States, including their dependent territories, are in need of, and will request, participation in the fellowship programme, four types of area are in particular need : (i) those where health services are below the average or show obvious gaps, either through lack of social, educational or economic development or from related causes ; (ii) those which, through any cause, e.g. isolation or lack of foreign exchange, have been unable to keep abreast of advances in medical knowledge ; (iii) those which have not yet repaired the severe losses of health personnel caused by war, or facilities for their training ; (iv) those which, as a result of their size or for other reasons, lack opportunities of training some types of specialized personnel. Fellowships will normally, but not exclusively, be granted for study in a branch

of medicine connected with the WHO priorities and will form part of a general plan for health development.

(b) Fellowships will continue to be granted for the purpose of providing a regular post-graduate course leading to a certificate or a degree, or for observing and discussing practices and techniques or for participating in research. The granting of fellowships is being expanded—in certain well-defined cases—to include undergraduate studies.

(c) The establishment of demonstration areas and teams suggests that the fellowship programme will also be used to attach to these areas suitable persons from other countries, and teams for limited periods, in order to give practical experience and training. Small supplementary fellowships may contribute to the promotion of schemes for exchange of health personnel between countries. Fellowships for attendance at special courses organized or sponsored by WHO may also be envisaged in 1950.

(d) In estimating the size of the programme required, the following factors may be taken into account. The requests so far received for 1949 total 406, at an estimated cost of $1,218,000. Additional requests are expected during 1949 and the number will certainly be increased in 1950 by requests from new Members and other governments which have not yet taken advantage of the programme.

(e) It is expected that regional organizations will arrange for the organization and financing, by agreement between the health administration of the region, of intra-regional fellowships and the exchange of health personnel.

(2) Studies and surveys of training resources of various regions.

(3) Advisory services to countries and regions. Consultants appointed at the request of governments for organization of training and on occasion for actual teaching of various subjects. Visiting professors to be sent to countries or regions with special emphasis on public health and hygiene.

(4) Co-ordination of studies and recommendations made by and in collaboration with the other agencies, such as the United Nations, UNESCO, the International Bureau of Education, the World Medical Association, professors' and students' organizations and other appropriate institutions.

(5) Expert committee, composed of eight members, on education, and the training of public-health personnel and a panel of correspondents on nursing education (jointly with the expert committee on nursing).

(6) Correspondence with experts on special questions (e.g. on individual subjects of medical education) for the study of, and making of recommendations upon, methods of teaching and the scope of what is taught.

(7) Assistance to schools, to serve as examples for other areas: the assistance to include advice, collaboration in planning and providing for the supply of lecturers and consultants.

(8) Organization of the conferences of directors of schools of hygiene and public health, deans of medical schools, professors of hygiene in medical schools. The last two conferences should be held in connexion with the International Conference of Universities scheduled for autumn 1950.

(9) Calling of attention of the governments and peoples of the world to the necessity of an increase of trained personnel if underdeveloped countries are to be brought within the framework of civilization; mobilization of public resources and of private support throughout the world for co-ordinated work on the development of training facilities.

(10) Organization of international courses, conferences, seminars for groups of teachers and leaders of public health on subjects related to international health activities. Such conferences should be organized under the auspices of WHO in the centres of learning. Collective study tours will be combined with these courses.

A special programme should be worked out for future international courses in public health when more experience has been acquired. These courses could be organized in some of the national institutions, but with the participation of foreign lecturers appointed by WHO.

International courses in medical specialities particularly important for public health should be organized in connexion with international congresses of the relative medical discipline. This new way could be used for presentation of public-health and international aspects of certain problems (e.g. cancer, tropical hygiene, tuberculosis, etc). Participation of outstanding scientists in an international congress should be used for the organization of an international course just before, or after, the congress. Students would be recruited partly from participants of the same congress, and partly from other advanced groups. Practical demonstrations and laboratory work would be organized by appropriate institu-

tions at the place of the congress. The scheme should operate in collaboration with the newly-established Permanent Council for Co-ordination of International Congresses of Medical Sciences.

(11) In some parts of the world the tendency is growing among public-health workers to raise the question of creation of an *international association of hygienists* or an international public-health association. The establishment of such a non-governmental body should be a considerable advance in strengthening professional opinion on public-health matters, which may give support to the activities of WHO. Although WHO, according to its policy, should not directly sponsor any non-governmental organization, it seems to be within its competence to co-ordinate efforts of various national groups aiming at the creation of an international body and to assist in convening an international conference for this purpose, should it appear necessary and desirable.

(12) As part of a long-term plan to reduce the world scarcity of nursing and of auxiliary personnel, the appropriate international organizations and the major national organizations concerned with this problem will be asked to collaborate in a co-ordinated effort of training, in co-operation with governmental health services. Encouragement of international interchange of experience and knowledge on nursing theory and practice is even more necessary than in other branches of health work, for until recently there has been little interchange except among the highest ranks of the nursing profession. There is an urgent need for international post-graduate seminars for teachers of nursing, to stimulate and accelerate the incorporation into the nursing training of all countries of what is best in the syllabuses and training methods of others.

(13) Assistance to schools of nurses and auxiliary personnel is envisaged, and would comprise assistance in establishing model schools, improvement of training in existing schools and development of field training facilities.

(14) Provision is made for the supply of the necessary teaching equipment and material. This help, along with technical assistance, is essential to improvement of the standards of teaching institutions.

Technical Services

7.5.1 TECHNICAL TRAINING OF MEDICAL AND AUXILIARY PERSONNEL

Budget Estimates

SECRETARIAT	1949 US $	Estimated Expenditure 1950 Regular US $	Supplemental US $
Salaries	25,330	66,835	**98,480**
Deduct Lapses and delays	—	3,480	**4,920**
Net	25,330	63,355	**93,560**

Headquarters

	Grade	Number of Posts 1949	1950 Regular	1950 Supplemental
	16	1	2	—
	14	—	—	**1**
	10	1	1	—
	9	1	1	—
	8	—	1	—
	7	—	—	**1**
	6	—	1	—
	5	1	1	**1**
	4	2	1	—
Sub-total		6	8	**3**
Field	Category			
	I	—	4	**11**
	II	—	—	—
	III	—	—	—
Sub-total		—	4	**11**
Total		6	12	**14**

Consultants	—	—	**19,500**
Personal services sub-total	25,330	63,355	**113,060**
Allowances	6,350	17,350	**24,020**
Travel and transportation	10,000	19,700	**55,600**
Technical education and training	—	—	**45,000**
Training of auxiliary health personnel (including nurses, midwives, health educators and others)	—	—	**450,000**
Fellowships	755,000	755,200	**920,000**
Teaching equipment and supplies	—	—	**350,000**
Expert advisory committees	—	12,475	**7,000**
TOTAL OF PROJECT	796,680	868,080	**1,964,680**

7.5.2 PUBLICATIONS

7.5.2.1 Bulletin of the World Health Organization

The publication of a bulletin is a statutory obligation inherited from the Office International d'Hygiène Publique. The *Bulletin*, the principal scientific organ of WHO, is a successor to the *Bulletin Mensuel de l'Office International d'Hygiène Publique* and the *Bulletin of the Health Organization of the League of Nations*, and is intended to bring to the knowledge of governments, health administrations and the medical profession communications submitted by the representatives of Member States, reports of expert committees, original articles by experts and specialists, and bibliographical data. Separate editions are published in English and in French.

7.5.2.2 Chronicle of the World Health Organization

The *Chronicle* provides public-health administrations and members of the medical and related professions with monthly information on the current activities of WHO. At its second session, the Executive Board agreed that the *Chronicle* should continue to appear in the five official languages of the Organization.

7.5.2.3 International Digest of Health Legislation

The publication of sanitary legislation is a statutory obligation inherited from the Office International d'Hygiène Publique. This material was published in the *Bulletin* of OIHP, but by a decision of the Interim Commission of WHO, which was endorsed by the first Health Assembly,[1] it is now published as a separate periodical, containing reprints and translations of, or extracts from, the texts of the most important laws and regulations dealing with public health and related subjects adopted in different countries. Separate editions are published in English and in French.

7.5.2.4 Weekly Epidemiological Record : Epidemiological and Vital Statistics Report

The obligations inherited from OIHP and UNRRA to supply public-health administrations with information on the conventional diseases, and with other statistical and epidemiological information, are met by these two publications, both of which are bilingual.

The *Weekly Epidemiological Record* contains statistics on the conventional diseases.

The *Epidemiological and Vital Statistics Report* contains statistical information on non-conventional diseases and vital statistics, supplemented by articles on these subjects.

7.5.2.5 International Health Yearbook

This is intended as a continuation of the *Yearbook* formerly published by the Health Organization of the League of Nations. It would provide an up-to-date description of the public-health organization of each country, either based on, or reproducing in extenso, the reports submitted by Member States under Article 61 of the WHO Constitution. Details concerning hospitals and other accommodation, the medical and allied professions, as well as certain selected vital statistics, would also be included. Separate editions in English and in French are proposed.

7.5.2.6 Epidemiological Telegraphic Code (Codepid)

The purpose of this telegraphic code is to facilitate the telegraphic communication of epidemiological information throughout the world. The map supplement contains grid maps for indicating the precise location of infected areas. This is a bilingual publication.

7.5.2.7 Manual of the International Statistical Classification of Diseases, Injuries and Causes of Death

These are the French and Spanish editions of volume 2 of the *Manual*, the English edition of which was due for publication in 1949.

7.5.2.8 International Pharmacopoeia

English, French and Spanish editions of the international pharmacopoeia, for the preparation of which the Expert Committee on the Unification of Pharmacopoeias was established.

[1] *Off. Rec. World Hlth Org.* **13**, 307

7.5.2.9 Annual Epidemiological and Vital Statistics

The need for more comprehensive and accurate data than those which can be published in a monthly report resulted in the issue by the League of Nations of a series of annual epidemiological reports. It is proposed that WHO should continue their publication, issuing one volume for the years 1939-46, and separate volumes for each of the subsequent years.

7.5.2.10 International List of Treatment Centres for Venereal Diseases under the Brussels Agreement

The administration of the Brussels Agreement of 1924 is a statutory obligation inherited from OIHP. The last list of international treatment centres which was published by OIHP in 1939 is now completely out of date, and the publication of a revised and expanded list is much overdue.

7.5.2.11 Supplements to the Bulletin

It is intended that, as recommended by the Interim Commission, material which is too extensive and too specialized for inclusion as an article in the *Bulletin* should be published in the form of technical supplements.

7.5.2.12 Treatment and control Manuals

It is proposed that WHO should publish short handbooks on newer methods of treatment and control which are of special importance in the WHO programme.

7.5.2.13 Weekly Fasciculus of the Singapore Epidemiological Intelligence Station

The Singapore Epidemiological Intelligence Station, taken over from the League of Nations, has for many years issued a *Weekly Fasciculus* of epidemiological information which confirms and amplifies the information broadcast by its network of wireless stations.

7.5.2.14 Official Records of the World Health Organization

The *Official Records* is the source of all official information on the work and proceedings of WHO and its constituent bodies. Volumes contemplated for 1950 include the proceedings of the third Health Assembly, the reports of the Executive Board, of the Director-General, and of expert committees.

Appendix

ESTIMATED REQUIREMENTS FOR PUBLICATIONS

Title of publication	Language	Number of issues per year	Number of pages per year	Number printed	Cost per copy US $	Cost per page US $	Annual cost of publication US $
Bulletin of the World Health Organization	English	6	1,200	3,500	0.77	0.0038	16,200
	French	6	1,200	2,500	0.92	0.0046	13,800
Chronicle of the World Health Organization	English	12	480	7,000	0.11	0.0028	9,375
	French	12	480	3,000	0.14	0.0036	5,250
	Spanish	12	480	3,000	0.14	0.0035	5,375
	Russian	12	480	1,000	0.36	0.0090	4,350
	Chinese	12	480	1,000	0.34	0.0085	4,150
International Digest of Health Legislation	English	4	640	2,000	0.66	0.0041	5,350
	French	4	640	1,000	1.03	0.0064	4,150
Weekly Epidemiological Record	Bilingual	52	600	1,200	0.12	0.0104	7,500
Epidemiological and Vital Statistics Report	Bilingual	12	450	3,000	0.32	0.0086	11,700
International Health Yearbook	English	1	500	3,000	2.68	0.0053	8,050
	French	1	500	2,000	3.47	0.0069	6,950
Epidemiological Telegraphic Code (Codepid)	Bilingual	1	300	2,000	1.30	0.0043	2,600
Map Supplement	Bilingual	1	32	2,000	0.30	0.0093	600
Annual Epidemiological and Vital Statistics	Bilingual	2	400	3,000	2.50	0.0125	15,000
Technical Supplements to *Bulletin*:							
Manual of the International Statistical Classification of Diseases, Injuries, and Causes of Death, Vol. II	French	1 (bound)	500	6,000	1.58	0.0031	9,500
	Spanish	1 (bound)	500	6,000	1.58	0.0031	9,500
International Pharmacopoeia	English	1 (bound)	800	3,000	3.00	0.0037	9,000
	French	1 (bound)	800	2,500	3.20	0.0040	8,000
	Spanish	1 (bound)	800	2,500	3.20	0.0040	8,000
Various	English	4	400	2,500	0.44	0.0044	4,450
	French	4	400	1,500	0.59	0.0059	3,550

ESTIMATED REQUIREMENTS FOR PUBLICATIONS (continued)

Title of publication	Language	Number of issues per year	Number of pages per year	Number printed	Cost per copy US $	Cost per page US $	Annual cost of publication US $
Treatment and Control Manuals	English	2	400	2,500	0.67	0.0033	3,375
	French	2	400	1,500	0.87	0.0043	2,625
International List of Venereal-Diseases Treatment Centres	English	1	400	2,500	1.34	0.0033	3,350
	French	1	400	1,500	1.76	0.0044	2,650
Statistical Handbooks	English	4	400	2,000	1.60	0.0160	3,200
	French	4	400	2,000	1.60	0.0160	3,200
Weekly Fasciculus, Singapore	English	52	730	350	0.55	0.0392	10,000
Official Records of the World Health Organization:							
Annual Report of the Director-General	English	1	100	2,000	0.77	0.0077	1,555
	French	1	100	1,500	0.89	0.0089	1,345
Summary Analysis of Annual Reports from Members	English	1	150	2,000	1.16	0.0077	2,335
	French	1	150	1,500	1.35	0.0089	2,015
Programme and Budget — Agenda	English	1	150	2,000	1.16	0.0077	2,335
	French	1	150	1,500	1.35	0.0089	2,015
Annual Financial Statement and Report of External Auditor	English	1	60	2,000	0.45	0.0075	910
	French	1	60	1,500	0.53	0.0088	790
Reports of Expert Committees	English	2	200	2,000	1.55	0.0078	3,115
	French	2	200	1,500	1.79	0.0090	2,685
Contingencies							10,000
						TOTAL	229,900

The following *Official Records* are shown below to indicate the complete publications programme, although provision for their cost is included in the estimates for organizational meetings

Proceedings of the Assembly	English	1	400	2,000	3.14	0.0078
	French	1	400	1,500	3.61	0.0090
Summary of Assembly Resolutions	English	1	60	2,000	0.45	0.0075
	French	1	60	1,500	0.53	0.0088
Reports of the Executive Board	English	2	120	2,000	0.94	0.0078
	French	2	120	1,500	0.08	0.0090

Technical Services

7.5.2 PUBLICATIONS

Budget Estimates

	Estimated Expenditure Regular 1949 US $	Estimated Expenditure Regular 1950 US $
SECRETARIAT		
Salaries	124,950	187,370
Deduct Lapses and delays	—	9,370
Net	124,950	178,000

Headquarters

	Grade	Number of Posts Regular 1949	Number of Posts Regular 1950
Editorial Section			
	16	1	1
	13	4	6
	11	3	4
	10	1	1
	9	5	5
	8	4	6
	7	1	1
Sub-total		19	24
Translation Section			
	15	1	1
	13	5	5
	12	1	1
	11	1	1
	10	2	4
	5	1	1
Sub-total		11	13
Publications Section			
	9	1	1
	8	1	1
	6	1	1
	5	1	1
Sub-total		4	4
Total		34	41

Consultants	—	6,000
Personal services sub-total	124,950	184,000
Allowances	33,050	48,055
Travel and transportation	10,100	21,300
Publication costs	148,000	229,900
TOTAL OF PROJECT	316,100	483,255

Technical Services

7.5.3 TUBERCULOSIS RESEARCH GROUP

The primary objective of the Tuberculosis Research Group in the year 1950 will continue to be the collection, analysis and evaluation of essentially medical observations on the role and effectiveness of immunization procedures (BCG) in the control of tuberculosis on a worldwide basis. By the end of 1949, the field work of testing and vaccination in the BCG campaign is expected to be completed in some countries, partially completed in others and perhaps only beginning in still others. Opportunities for research will, therefore, be present for a very wide variety of different subjects. Actual experience with the application of newly-developed technical procedures and vaccines may be obtained and evaluated ; the immediate results of the effects of BCG vaccination under widely different conditions and circumstances can be determined ; and, perhaps of the most significance, the long-range effectiveness of mass-immunization programmes and the place of such programmes in the worldwide control of tuberculosis should begin to emerge as a result of the extensive studies under way.

Work done in 1949 is expected to furnish many new and practical details on the technical problems of tuberculin-testing, vaccination, revaccination, and, as well, to give some indication of the most immediate effects of the whole programme. Also, it should be possible to put into operation the follow-up mechanisms necessary for determining the later effect of vaccination. Further, on the basis of the broad epidemiological researches begun in 1949, it is expected that information will be available for a more effective worldwide attack on the disease, both through the application of immunization procedures and through other methods of control.

Budget Estimates

	Grade	Number of Posts Supplemental 1949	Number of Posts Supplemental 1950	Estimated Expenditure Supplemental 1949 US $	Estimated Expenditure Supplemental 1950 US $
SECRETARIAT					
Salaries				**54,750**	**114,400**
Deduct Lapses and delays				—	**5,720**
Net				**54,750**	**108,680**
Headquarters					
	—	—	—		
Field	Category				
	I	**4**	**7**		
	II	**10**	**10**		
	III	**1**	**6**		
Total		**15**	**23**		
Consultants				—	—
Personal services sub-total				**54,750**	**108,680**
Allowances				**15,900**	**50,300**
Travel and transportation				**29,350**	**38,300**
Supplies and equipment				—	**100,000**
TOTAL OF PROJECT				**100,000**	**297,280**

7.5.4 EPIDEMIOLOGICAL STUDIES

7.5.4.1 Introduction

On the basis of available statistics and medical literature, studies will be made on communicable diseases, at the request of the Executive Board of WHO, with a view to ascertaining whether international action can be useful in their control and what international action to take in that connexion by : (a) setting up an expert committee ; (b) holding an international conference ; (c) creating field study groups, or establishing advisory and demonstration services.

The communicable diseases which will be dealt with as a result of decisions by the first Health Assembly—in addition to those for which " projects " are already proposed—are the following :

(1) *Pestilential diseases:* smallpox and yellow fever ;

(2) *Parasitic diseases:* filariasis (particularly onchocerciasis), trypanosomiasis, leishmaniasis, ankylostomiasis.

(3) *Virus diseases:* poliomyelitis, trachoma, rabies.

(4) *Common communicable diseases of childhood:* diphtheria, whooping cough, measles.

(5) *Leprosy.*

An outline of the importance of these diseases, of the work previously accomplished and of the programme for 1950 is given below.

7.5.4.2 Pestilential Diseases

7.5.4.2.1 Smallpox

7.5.4.2.1.1 The Problem and its Significance

Apart from occasional importation, smallpox has been practically eliminated from countries of temperate climates where vaccination is extensively practised. It persists, however, in most tropical territories, in spite of prolonged efforts towards its eradication. There, fresh outbreaks result from migrations or any slackening in systematic revaccination. Such was the case in Africa and Asia during the war.

In 1944, no fewer than 216,000 deaths were ascribed to smallpox in British India alone.

7.5.4.2.1.2 Objectives

The long-term objective is to make the whole population of the world immune to smallpox by proper vaccination. This involves, in countries in which the disease appears as a remote danger, provision for vaccination at an age sufficiently early to reduce the risks of post-vaccinal encephalitis to negligible proportions and, in tropical endemic countries, improved administrative machinery for bringing vaccination to the most remote and inaccessible population groups and provision of a lymph preserving its activity under all environmental conditions (such as dry vaccine).

7.5.4.2.1.3 Work previously accomplished

Extensive enquiries made by the League of Nations and the Office International d'Hygiène Publique have shown that post-vaccinal encephalitis was not the result of any contamination of the vaccinal lymphs, but of latent infection in human beings, prior to vaccination.

In 1948 a Joint OIHP/WHO Study-Group on Smallpox reviewed existing knowledge, recommended one technique of vaccination and defined and interpreted the various forms of reaction following vaccination and revaccination.[1]

The study-group recommended further studies and observations on :

the duration of immunity after vaccination and revaccination carried out at various ages, as measured by antibody titration and reactions after revaccination in countries free from smallpox, and as proved by actual protective efficacy in countries of smallpox endemicity ;

the means of preparing an active but pure dry vaccine.

[1] *Off. Rec. World Hlth Org.* **11**, 18

7.5.4.2.1.4 Programme for 1950

The above studies are to be carried out in 1949 and continued in 1950.

It is intended that their results, and any new problem that the experts may find it desirable to elucidate, be discussed by an expert committee (or study-group) in 1950.

It is intended to hold, immediately before or after the meeting of smallpox experts, a meeting of medical officers responsible for vaccination in tropical areas, to discuss the most effective means of obtaining universal vaccination in undeveloped territories.

It is intended also to assist interested health administrations in tropical countries in the experimental use and the preparation of dry vaccine.

7.5.4.2.2 Yellow Fever

7.5.4.2.2.1 The Problem and its Significance

Although the number of recognized yellow-fever cases is extremely small owing to measures against *Aedes aegypti* in towns, and to widespread immunization in the rural parts of the " yellow-fever areas ", yellow fever remains a very serious international health problem.

There are definite indications that the virus remains widespread in the tropical belt of South America and Africa, in monkeys and even in human beings. Therefore, as countries of the Mediterranean area and Southern Asia are probably highly infectible, owing to the presence of insect vectors and to the receptivity of the population, it is important to take measures to prevent the establishment of the infection in such countries.

7.5.4.2.2.2 Objectives

The presence of the virus in wild animals makes the possibility of true eradication very remote. The long-term objective appears therefore to render immune the human population in the yellow-fever belt by means of general inoculation and by local measures to deal with the vectors.

This might be accomplished by : (a) a more accurate delineation of the zone of prevalence of the yellow-fever virus ; and (b) making sea and air-ports in both infected and infectible zones incapable of breeding or harbouring yellow-fever vectors.

The latter is considered under Sanitary Conventions and Quarantine, section **7.5.5.3**.

Accurate delineation requires the search for the virus in human beings—by a study of suspected cases and viscerotomy and protection test surveys in those areas where wholesale immunization has not yet been carried out ; and in animals—by surveys of animal immunity.

The survey in animals must, to be effective, be complemented by epidemiological research bearing on :

(1) determination of the forest vectors and reservoirs in the various territories ;

(2) the bionomics of these vectors ;

(3) investigation of the epidemiological factors concerned in outbreaks of the disease in man in partially forested and afforested areas.

7.5.4.2.2.3 Work in process of accomplishment

As research along these lines is being vigorously pursued under the auspices of the Rockefeller Foundation, the Pan American Sanitary Bureau and the health administrations of the territories concerned, it seems that WHO should aim at co-ordination rather than initiation of research, and at assessment of the results achieved by the competent workers already in the field.

Members of the WHO Yellow Fever Panel are due to meet in 1949, in conjunction with the Expert Committee on International Epidemiology and Quarantine, to discuss the delineation of yellow-fever endemic areas.

They will be in a position to advise as to the most practical means by which WHO could further and co-ordinate action.

7.5.4.2.2.4 Programme for 1950

A second meeting must be envisaged in 1950 to assess results and possibly modify the lines of action originally agreed upon.

During 1949 and 1950, WHO should undertake a bibliographical survey of the epidemiological work on yellow fever since 1935.

7.5.4.3 PARASITIC DISEASES

Co-ordination between the Epidemiological Division and the services dealing with environmental sanitation is envisaged at all stages of the work concerning these diseases, as well as cholera, plague and typhus.

7.5.4.3.1 FILARIASIS

7.5.4.3.1.1 **The Problem and its Significance**

The military campaign in the islands of the Western Pacific has focused interest on the severity and wide prevalence of Filaria infections.

The more common—infection by Wuchereria (*Filaria bancrofti*)—prevails in varying degrees in practically all tropical and subtropical countries. The rate of infection often exceeds 20% of the population and in places reaches 90%. Stoll in 1947 estimated the prevalence at 189 million cases, of which 157 million were in Asia, 22 million in Africa, nine million in Central and South America and one million in Oceania.

Onchocerciasis, a form of filariasis, due to *Onchocerca volvulus*, exists in several states of Guatemala, in Mexico and Venezuela, and also in tropical Africa and the Anglo-Egyptian Sudan. Certain forms cause considerable reduction in mobility and working power, e.g. elephantiasis due to *W. bancrofti* and blindness to *O. volvulus*.

7.5.4.3.1.2 **Work previously accomplished**

No international work has been done hitherto on filariasis. In November 1948 the Expert Committee on International Epidemiology and Quarantine recommended [2] that WHO make a preliminary study of the subject in 1949. This might include both collection of recent data on prevalence and consultation of experts by correspondence regarding the best line of international attack on the disease.

7.5.4.3.1.3 **Programme for 1950**

In view of the favourable reports now received of certain new drugs (such as salts of 1-diethylcarbamyl-4-methylpiperazine) in the treatment of both micro- and macrofilarial infection, systematic testing of such drugs should be carried out under controlled conditions.

These therapeutic trials could be started in 1950. For this purpose it would be necessary to distribute to selected hospitals and institutions drugs for co-ordination of research for treatment of filariasis.

The planning of these therapeutic and other researches should be made by a group of six clinicians and parasitologists, who would actually participate in the trials.

An assessment of the results by the same expert group should take place in 1951.

The experts would be requested to advise on further research or the best means of making the drugs available to the populations affected, also on the possible means of attacking the insect vectors under suitable conditions.

Long-term planning must be based on the experts' findings and recommendations.

7.5.4.3.2 TRYPANOSOMIASIS

7.5.4.3.2.1 **The Problem and its Significance**

Infection by *Trypanosoma gambiense* or *T. rhodesiense*—the causes of sleeping sickness—is a most serious health problem in tropical Africa. Foci of infection are distributed unevenly in practically every territory between the 15°N and 15°S parallels, from Senegal to Mozambique.

Untreated sleeping sickness wipes out entire populations. Large areas have to be emptied of their inhabitants to break the chain linking tsetse flies on the one hand with human and other animal reservoirs on the other. Trypanosomiasis militates against the survival of cattle and is directly as well as indirectly a tremendous factor in preventing the agricultural development of Central Africa.

In Central and the tropical part of South America, infection by *T. cruzi* (Chagas'disease) is widespread and frequently fatal; the area of potential expansion of the disease is much larger than the

[2] The report of the Expert Committee on International Epidemiology and Quarantine is to be published in *Off. Rec. World Hlth Org.* **19.**

one in which man is affected, inasmuch as wild mammals are infected over large areas and the insect vectors (Reduviidae) ore widely prevalent.

7.5.4.3.2.2 Work previously accomplished

The sanitary and economic importance of the disease was recognized by the League of Nations which, as early as 1923, had a survey made of the prevalence of the disease in Africa. In the following years several inter-governmental conferences were held (1925-1928) in which representatives of the colonial health administrations participated. These conferences resulted in inter-territorial agreements to prevent the extension of the infection by migrants.

A Central International Trypanosomiasis laboratory was established in Entebbe (Uganda) (1926-27) for experimentation. A number of surveys were made in various infected territories by members of the League Committee on Sleeping Sickness.

Since then sleeping sickness has been the object of co-operative research and administrative action by the British health authorities in Eastern Africa.

In February 1948 an international conference on trypanosomiasis, held at Brazzaville, agreed to centralize information in an ad hoc bureau at Brazzaville or Leopoldville. The British Standing Committee on Tsetse and Trypanosomiasis Research, operating under the Central African Council (Salisbury, Southern Rhodesia) is to co-operate.

The International Scientific Committee on Trypanosomiasis, meeting in London in February 1949, is to co-ordinate the research and field work in the various African territories.

7.5.4.3.2.3 Programme for 1950

It is suggested that WHO should watch the development of the work thus done.

Actual co-ordination might be considered when the WHO regional bureau envisaged for Central Africa is in operation. At present no programme of field action or research is recommended for 1950, for fear of duplicating work already undertaken by existing agencies.

7.5.4.3.3 Leishmaniasis

7.5.4.3.3.1 The Problem and its Significance

The various forms of Leishmania infections—the mild cutaneous one prevailing in the countries bordering on the Mediterranean, kala-azar (Mediterranean (infantile) and Indian) and the ulcerative leishmaniasis of South America—constitute, through their frequency, long duration and (as regards kala-azar) high fatality, a serious international public-health problem.

7.5.4.3.3.2 Work previously accomplished

No international action has so far been taken for the control of these infections. Action, however, appears justified by the possibility now afforded by insecticides with residual action in the control of the Phlebotomus, vector of the Leishmaniae.

7.5.4.3.3.3 Programme for 1950

It is therefore proposed, in accordance with the recommendations of the first World Health Assembly, that specialists in the various forms of leishmaniasis, in parasitology and in insecticides, be convened in 1950 to discuss the best lines of action for the control of the vectors, for the prevention of the disease and for its treatment by suitable drugs. The Expert Committee would meet once.

Long-term plans necessarily depend upon the recommendations of this expert meeting.

7.5.4.3.4 Ankylostomiasis

7.5.4.3.4.1 The Problem and its Significance

Ankylostomiasis is widespread in all of the warmer countries, with the possible exception of North-West Africa. It can also exist in temperate climates under special conditions (miner's anaemia).

Digestive and nervous disturbances and anaemia induced by the parasite have a profoundly depressing effect on the affected population and greatly reduce their working capacity—a very serious loss in agricultural areas.

7.5.4.3.4.2 Work previously accomplished

Eradication has been attempted since 1910 by the workers of the Rockefeller Foundation by means of mass treatment, sanitation, etc. The strikingly favourable immediate results have not been permanently maintained, except where economic and educational rehabilitation of the population could be effected.

This pioneer work has shown to the health administrations the means whereby the disease can be controlled and eradicated. There is therefore no justification for WHO to plan in the near future any direct action in the field, as it would involve large expenditure and may duplicate work already done.

7.5.4.3.4.3 Programme for 1950

Any new development in this sphere, such as the discovery of drugs as effective as, but possibly less toxic than, those now used, will, of course, be watched by WHO.

7.5.4.4 Virus Diseases

7.5.4.4.1 Poliomyelitis

7.5.4.4.1.1 The Problem and its Significance

Poliomyelitis has undoubtedly been spreading during the last 40 years, both within infected countries and from one territory to another. Although uneven, the present distribution is practically worldwide. Some 80,000 cases have been notified in the USA within the last five years.

The several thousand cases reported each year give but an imperfect idea of the number of individuals permanently affected by the disease, in view of its lasting paralytic sequelae and its attendant psychological and economic consequences.

7.5.4.4.1.2 Work previously accomplished

So far there has been no international work undertaken against poliomyelitis, apart from epidemiological information and studies. An international meeting of experts, however, took place in Brussels in 1945 and another in New York in 1948. Interested specialists are now formulating plans for the creation of an international poliomyelitis union, comparable with those existing for tuberculosis, cancer, etc.

Proposals were made to the first World Health Assembly to the effect that WHO should undertake studies on the disease, help in the preparation of further international conferences, and investigate the practicability of building up stocks of artificial respirators that could be loaned, together with competent personnel to operate them, to countries affected by epidemics.

7.5.4.4.1.3 Programme for 1950

It is intended to convene in 1950 a group of poliomyelitis experts, together with virus experts and epidemiologists, to advise WHO on the feasibility of the above proposals, and the best means of co-ordinating research and possibly action against poliomyelitis on the international level.

7.5.4.4.2 Trachoma

7.5.4.4.2.1 The Problem and its Significance

Trachoma is a serious and chronic eye disease, widespread in many tropical and subtropical countries, causing a great deal of disablement and often ending in complete blindness.

Of Egypt's 20 million population, it is estimated that 90% are affected.

The disease may also prevail in temperate climates and occasionally causes epidemics when imported into a hitherto trachoma-free area.

It is therefore a truly international health problem.

7.5.4.4.2.2 Work previously accomplished

Two international technical associations against trachoma were formed in 1923 and 1929 respectively and have combined their publications.

The League of Nations made world surveys of trachoma prevalence and published documents on legislative and medical measures of prevention and cure.

WHO, jointly with the Office International d'Hygiène Publique, convened in October 1948 a special study-group to advise on WHO Sanitary Regulations to prevent the international transmission of the disease.

The study-group recommended [3] further research on the effects of various sulfa drugs which have given remarkable results in both treatment and prevention. It recommended also a survey of trachoma prevalence.

Finally, it advocated the setting-up of a special expert committee.

7.5.4.4.2.3 Programme for 1950

It is suggested that a committee of specialists be set up as recommended by the Joint OIHP/WHO Study-Group on Trachoma and be convened in 1950 to consider the results of the research work recommended by the study-group in October 1948.

7.5.4.4.3 Rabies

7.5.4.4.3.1 The Problem and its Significance

Rabies remains a widespread infection in Eastern Europe, Africa, Asia and some parts of America among wild and domestic animals, and a serious menace to man.

The statistics collected by the League of Nations show that, between 1927 and 1946, the Pasteur Institutes treated more than 1,670,000 people bitten or licked by presumably rabid animals.

7.5.4.4.3.2 Work previously accomplished

The League of Nations convened in Paris in 1927 an International Conference on Rabies, and another conference took place in Bucharest in 1938.

The Executive Board of WHO [4] has instructed the Secretariat to make a preliminary study covering (*a*) the present situation as regards anti-rabies vaccination and rabies prophylaxis ; (*b*) the as yet unimplemented proposals made by the previous conferences ; (*c*) the possible need for holding a further international rabies conference.

WHO proposes to consult, in 1949, experts by correspondence as to the best means of stimulating and co-ordinating field and laboratory research on prevention and vaccine treatment.

7.5.4.4.3.3 Programme for 1950

It is intended that in 1950 an expert committee on rabies, composed of six members, be convened to consider the results of the above-mentioned consultation and make recommendations as to the desirability or otherwise of a conference, and initiate research in which anti-rabies institutes and authorities would be invited to participate.

The same committee might be reconvened after two or three years to assess the results of the research undertaken and make recommendations as to the possible need of an international rabies conference for encouraging the application of new discoveries.

7.5.4.5 Common communicable Diseases of Childhood

7.5.4.5.1 The Problem and its Significance

Diphtheria, whooping cough and measles are still a cause of considerable morbidity and mortality in many countries of the temperate zones, where they constitute the chief causes of death among children of pre-school age.

7.5.4.5.2 Programme for 1950

The Expert Committee on Maternal and Child Health, at its first session, therefore recommended that WHO take steps to make widely available the potent vaccines obtained by new processes. [5]

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[3] The report of the Joint Study-Group on Trachoma is to be published in *Off. Rec. World Hlth Org.* **19**

[4] *Off. Rec. World Hlth Org.* **14**, 21

[5] The report of the Expert Committee on Maternal and Child Health is to be published in *Off. Rec. World Hlth Org.* **19**

It recommended, for the purpose, a conference of paediatricians and experts in the preparation of vaccines, to generalize the newer techniques of vaccine preparation and to arrange for the optimum use of the vaccines.

The conference should, in addition, recommend lines of research for the improvement of immunization procedures for diphtheria, whooping cough, typhoid fever, etc., and particularly combined immunization when practicable. It should also consider possible research on immunization against other diseases of childhood, regarding which specific preventive methods are not yet available. It is intended to hold such a conference in 1950. For the purpose, two meetings of expert groups are envisaged to deal with : (*a*) improvement in the procedures of immunization against diphtheria and whooping cough ; (*b*) methods of control of measles.

7.5.4.6 Leprosy

7.5.4.6.1 The Problem and its Significance

The first World Health Assembly recommended that WHO should study leprosy, a disease still widely prevalent in tropical countries and causing prolonged suffering and progressive invalidity to several million persons.

7.5.4.6.2 Work previously accomplished

Leprosy has received attention in the past from two international voluntary organizations and from the League of Nations, which made a world-wide survey of the disease and set up an expert committee.

7.5.4.6.3 Programme for 1950

While it is not proposed to convene an expert committee in 1950, WHO will keep contact with the field and research work carried out with a view to possible international co-ordination when opportunity arises.

It is intended that a panel of experts be set up, for preliminary exploration of the field by correspondence.

Information collected, particularly as regards the effects of new drugs, should be made available to interested health-administrations and the medical profession by means of suitable publications.

Technical Services

7.5.4 EPIDEMIOLOGICAL STUDIES

Budget Estimates

	1949	Estimated Expenditure 1950	
		Regular	**Supplemental**
SECRETARIAT	US $	US $	**US $**
Salaries	32,400	47,895	**19,755**
Deduct Lapses and delays	—	2,430	**985**
Net	32,400	45,465	**18,770**

Headquarters

Grade	Number of Posts 1949	1950 Regular	1950 Supplemental
14	4	5	**2**
13	1	—	—
8	2	2	—
6	1	1	—
5	1	1	**3**
4	1	1	—
Sub-total	10	10	**5**
Field Category I	—	—	—
II	—	—	—
III	—	—	—
Sub-total	—	—	—
Total	10	10	**5**

Consultants	—	—	—
Personal services sub-total	32,400	45,465	**18,770**
Allowances	9,000	15,100	**7,675**
Travel and transportation	5,500	11,100	**7,250**
Grants	—	—	**25,000**
Co-ordination of research for treatment of filariasis			
Co-ordination of research on smallpox vaccination			
Expert Advisory committees	—	23,850 *	**55,650** †
1. Study group on smallpox			
2. Yellow-fever panel			
3. Expert committee on insecticides			
4. Study group on trachoma			
5. Advisory group on smallpox vaccination			
6. Filariasis			
7. Leishmaniasis			
8. Rabies			
9. Poliomyelitis			
10. Communicable diseases of childhood			
TOTAL OF PROJECT	46,900	95,515	114,345

* This amount applies to items 1-3.
† This amount applies to items 4-10.

7.5.5 SANITARY CONVENTIONS AND QUARANTINE

7.5.5.1 Outline of suggested Five Years' Plan

(1) Following approval by the second Health Assembly of the principles advocated by the Expert Committee on International Epidemiology and Quarantine as a basis for the establishment of WHO International Sanitary Regulations to replace existing International Sanitary Conventions, WHO will be engaged on the preparation (1949-50) and completion (1950) of draft texts of these Regulations, with a view to the adoption of such texts by the third Health Assembly in 1950.

(2) When the Regulations have become binding on all Member countries which have not notified their rejection within a stated time, WHO will, as from 1951, be responsible for the application and interpretation of the provisions of the new Regulations, just as it will continue to act in a similar capacity in regard to the International Sanitary Conventions, which will remain in force for those signatories who do not adopt the relevant WHO Regulations.

(3) The actual administration of the above sanitary legislation will fall, as at present, on the members of the Quarantine Section of the Expert Committee on International Epidemiology and Quarantine who, by consideration at their meetings or by correspondence exchanged with WHO in the intervals between meetings, will deal with such matters arising out of the application and interpretation of the provisions of the legislation as are deemed to be beyond the competence of WHO.

7.5.5.2 Notification Service

(1) Of the greatest importance among obligations, whether under Sanitary Conventions or Regulations, is the maintenance by WHO of a highly efficient notification service for the rapid distribution of urgent epidemiological information. Until recently the service at Geneva fulfilled its obligation in this respect solely by telegraphic communications, but early in 1949, following approval by the Expert Committee on Epidemiology and Quarantine, there was initiated, on an experimental basis, a daily radio-telegraphic broadcast of an epidemiological bulletin containing information on pestilential diseases in seaports and airports, as well as on newly-imposed quarantine and immunization requirements of countries. This radio-telegraphic broadcasting will at first operate concurrently with the telegraphic system of notifications now in force but will, it is expected, progressively replace the latter system, thereby ensuring a cheaper, more rapid and effective dissemination to national health authorities of the epidemiological data collected.

(2) By 1950, an investigation will be made by WHO into the efficacy of the telegraphic broadcasting and, if necessary, a small technical committee will be convened to advise on improvements in the system.

(3) Both for ordinary telegraphic notifications and for radio-telegraphic broadcasting to national health administrations, a cable code will be required and in order to meet this need CODEPID, now in course of preparation, will come into operation in July 1950.

(4) For later consideration the possibility of introducing a teletype system will arise.

(5) On the basis of notifications received from affected countries concerning diseases other than the pestilential, it will be necessary to estimate when type, incidence and distribution have caused the particular disease to become an international menace. To permit such estimates the establishment of criteria in this respect is essential.

7.5.5.3 Administration, application and interpretation of the relevant International Sanitary Legislation (WHO Regulations and/or Conventions still in force)

7.5.5.3.1 *Maritime Sanitary Legislation*

The work envisaged is as follows :

(1) the drawing up of standards for the sanitary equipment and installation of (maritime) quarantine stations ;

(2) the visiting by the competent staff member of quarantine stations to give advice, on request, as to the attainment of the necessary standards ;

(3) representation on the appropriate committee of the International Maritime Organization to advise on quarantine problems, procedure and practice ;

(4) to advise on port health procedure—on the practical aspects of fumigation, deratization and disinsectization within port areas and on measures of rodent control, rat-proofing, trapping, baiting, etc.

7.5.5.3.2 *Land Quarantine Control*

To deal with problems arising out of land frontier control—road and rail—and to suggest principles underlying such control.

7.5.5.3.3 *Aerial Navigation—Sanitary Legislation*

(1) Establishment of sanitary standards for international airports ;

(2) visits to advise on the attainment of such standards and to verify that in areas-at-risk from yellow-fever infection the *Aedes aegypti* index is being maintained at zero in international airports ;

(3) representation on the Facilitation of International Air Transport (FAL) Division of ICAO when quarantine matters are under discussion by that division's appropriate working party ;

(4) advice on the disinsectization, disinfection and deratization of aircraft.

7.5.5.4 **Publications (connected with obligations under sanitary legislation)**

7.5.5.4.1 *Weekly Epidemiological Record*

A record of the incidence of pestilential diseases throughout the world ; of quarantine measures imposed or withdrawn by countries-at-risk ; of the quarantine and immunization requirements of all countries. The *Record* will, inter alia, continue to confirm weekly data of an urgent nature disseminated by telegram or radio-telegraphic broadcast.

7.5.5.4.2 *Lists*

Up-to-date lists for publication in the *Record* and/or in special supplements to it will include ;

(1) ports accepting international quarantine messages by radio ;

(2) ports qualified to effect the deratization of ships and to issue deratization and deratization exemption certificates ;

(3) ports open to arrivals from ports infected with cholera, plague or yellow fever, especially ports open to infected or suspected ships ;

(4) aerodromes declared to be " sanitary aerodromes " ;

(5) authorities empowered to issue international certificates of inoculation against yellow fever :

(6) the basic and current quarantine requirements of all countries ;

(7) inoculation- and vaccination-certificate requirements of all countries ;

(8) laboratories approved as institutes for testing the activity of yellow-fever immunizing vaccines ;

(9) vaccines approved for international use in the inoculation of persons against yellow fever ;

(10) institutes approved for carrying out tests of immunity on persons who have recovered from yellow fever.

7.5.5.4.3 *Annual Statements*

(1) Sanitary state of the Mecca Pilgrimage ;

(2) *Aedes aegypti* index in areas situated within but, for quarantine purposes, excluded from, the yellow-fever endemic zones ;

(3) number of rats destroyed in ports ; methods and results of systematic bacteriological examination of rats for plague infection in ports ;

(4) number of deratization and deratization exemption certificates issued by port sanitary authorities.

7.5.5.4.4 *Manuals*

In 1951, manuals on quarantine (maritime and aerial navigation), prepared in 1949-50 from information resulting from the issue by WHO of questionnaires to all countries concerned in maritime and air traffic, will be published.

To these manuals supplements will be published in 1952 and 1953, while in 1954 a re-issue of the Manuals will most likely be required.

7.5.5.5 Other Duties and Responsibilities of WHO

(1) Arrangements for the periodic control-testing of all yellow-fever vaccines in international use.

(2) Dealing with applications submitted by governments for WHO recognition of laboratories manufacturing or testing yellow-fever vaccines within their territories.

(3) The provision of secretaries to the Quarantine Section of the Expert Committee on International Epidemiology and Quarantine and to the WHO Yellow-Fever Panel, when these expert groups meet to consider questions arising out of the application of the WHO Sanitary Regulations, e.g. complaints made by one government against another for exceeding the provisions of the Regulations (in the case of the former group) and the delineation of yellow-fever areas (in the case of the latter).

(4) Following on the coming-into-force of WHO Sanitary Regulations in 1951, the maintenance by WHO of the closest liaison with regional bureaux and with participating countries' quarantine authorities, with a view to discovering any difficulties in the implementation of the Regulations and any omissions from their texts. Such liaison will certainly entail visits from time to time by WHO staff members to the Bureaux and Quarantine Authorities in order to discuss matters on the spot.

By 1953 note will have been taken of the difficulties operating against the smooth working of the Regulations and of suggested modifications and additions to the relevant texts. In that year the first revision of the Regulations should be envisaged.

7.5.5.6 Programme for 1950

7.5.5.6.1 *Activities (including meetings of expert committees, preliminary studies, etc.)*

(1) completion of draft texts of Regulations for adoption by the third World Health Assembly (**7.5.5.1** (1)) ;

(2) investigation into the efficacy of the daily radio-telegraphic broadcasting of epidemiological bulletins to national health-administrations and, if necessary, the convening of a small technical committee to advise on improvements in the system (**7.5.5.2** (2)) ;

(3) the introduction of the CODEPID cable code for use in telegrams and in the radio-telegraphic broadcasting of epidemiological bulletins (**7.5.5.2** (3)) ;

(4) preparation of new questionnaires in regard to the collection of information required for the establishment of up-to-date lists, as detailed in paragraph **7.5.5.**4.2, and of other lists which may be required under WHO Sanitary Regulations ;

(5) drafting and publication of lists as detailed in paragraph **7.5.5.**4.2 and of statements listed under paragraph **7.5.5.**4.3—lists and statements required under existing Sanitary Conventions ;

(6) preparation of manuals on maritime and air quarantine during 1949-50 for publication in 1951 (**7.5.5.**4.4) ;

(7) the drawing-up of standards for the sanitary equipment and installation of maritime quarantine stations (**7.5.5.**3.1) ;

(8) enquiry regarding current practice in dealing with land frontier control (road and rail) continued (**7.5.5.**3.2) ;

(9) drawing-up of sanitary standards for international airports (**7.5.5.**3.3 (1)) ;

(10) establishment of criteria for determining when a non-pestilential disease becomes an international danger (**7.5.5.2** (5)) ;

(11) continuation of work (as detailed in **7.5.5.**5), in connexion with the control testing of yellow-fever vaccines in international use and with applications submitted for WHO recognition of manufacturing and testing yellow-fever vaccines ;

(12) final report on the administration and application of the International Sanitary Conventions for inclusion in the International Health Year-Book and/or the Director-General's report.

7.5.5.6.2 *Increase in Staff*

As regards the estimated increase in staff, it is considered that one additional medical officer, conversant with all procedure connected with maritime and land quarantine, and one additional medical officer with practical experience of quarantine related to aerial navigation, should be appointed during 1950.

7.5.5.6.3 *Main Duties of the Medical Officer (Maritime and Land Quarantine)*

These will be :

(1) generally to act as WHO adviser on maritime quarantine matters as regards WHO Regulations and the rules for their application ;

(2) to draw up standards for the sanitary equipment and installation of quarantine stations ;

(3) to visit such quarantine stations, when requested, in order to advise on the means whereby the necessary standards can be attained ;

(4) to act as WHO representative on the appropriate committee of the International Maritime Organization to give expert advice on quarantine procedure and practice ;

(5) to advise on port health procedure : on the practical aspect of fumigation, deratization and disinsectization within port areas and on measures of rodent control, rat-proofing, trapping, rodenticides- etc. ;

(6) to prepare material for publication in that part of the *Quarantine Manual* which deals with sanitary information on seaports ;

(7) to see that all returns required under WHO Sanitary Regulations affecting maritime and land quarantine are regularly received and appropriately published.

7.5.5.6.4 *Main Duties of the Medical Officer (Aerial Navigation Quarantine)*

These will be :

(1) generally to act as WHO adviser on aerial navigation quarantine matters as regards WHO Regulations and the rules for their application ;

(2) to draw up sanitary standards for international airports ;

(3) to visit such international airports to advise on the attainment of these standards and to verify that the *Aedes aegypti* index is being maintained at zero ;

(4) to represent WHO on the Facilitation of International Air Transport (FAL) Division of ICAO when quarantine matters are under discussion ;

(5) to advise on the disinsectization, disinfection and deratization of aircraft ;

(6) to prepare material for publication in that part of the *Quarantine Manual* which deals with sanitary information on airports ;

(7) to ensure that all returns required under WHO Regulations affecting aerial navigation are regularly received and appropriately published.

Technical Services

7.5.5 SANITARY CONVENTIONS AND QUARANTINE

Budget Estimates

SECRETARIAT	Estimated Expenditure Regular 1949 US $	1950 US $
Salaries	29,260	51,040
Deduct Lapses and delays	—	2,550
Net	29,260	48,490

Headquarters

	Grade	Number of Posts Regular 1949	1950
	16	1	1
	13	2	4
	10	1	1
	8	1	1
	7	1	1
	4	1	2
	3	1	2
Sub-total		8	12
Field	Category		
	I	—	—
	II	—	—
	III	—	—
Sub-total		—	—
Total		8	12

Consultants	—	7,500
Personal services sub-total	29,260	55,990
Allowances	8,200	14,430
Travel and transportation	9,800	14,800
Expert advisory committees	22,000	31,350
TOTAL OF PROJECT	69,260	116,570

7.5.6 THERAPEUTIC SUBSTANCES

7.5.6.1 Biological Standardization

7.5.6.1.1 The Problem and its Significance

The development in this field will depend on the progress of our knowledge—a factor which it is impossible to foresee. Who can tell how many antibiotics will be ripe for standardization in a year's time ? Furthermore, the Expert Committee on Biological Standardization is bound to broaden its horizon. So far it has satisfied itself with the setting-up of standard preparations without considering the method of assay to be adopted, the choice of which has been purposely left to the individual laboratory workers. The present trend is perhaps not actually to specify the methods to be used but at least to link standard preparations for given substances to the technique to be applied in the estimation of their potency. There is even a broader aspect to this question of methods : experience has shown how diverse were the techniques and the reagents used for certain reactions of a diagnostic character, the Widal test, for instance. The unification of laboratory techniques should be aimed at, so as to render the results comparable and to eliminate possible fallacies.

At present the establishment of standard preparations for vaccines for cholera, diphtheria and tetanus is under consideration. But many other vaccines may require standardization, some of them of capital interest to international transport.

The ultimate goal is to replace biological assays, with all their intricacies and uncertainties, by exact physical or chemical determinations.

7.5.6.1.2 Work previously accomplished

Since 1921 the Health Organization of the League of Nations had been engaged in promoting biological standardization. No fewer than 12 international conferences were held on the standardization of sera, vitamins, hormones, antibiotics and certain other drugs. This led to the setting-up of 35 standard preparations under the auspices of a Permanent Commission on Biological Standards of the League.

For the establishment, maintenance and distribution of these substances, two central laboratories—the State Serum Institute, Copenhagen, and the National Institute for Medical Research, London—had been selected, annual subsidies to cover part of the expense involved being granted in accordance with the agreements passed between the League of Nations on the one hand, the Danish Government and the Medical Research Council of Great Britain, on the other.

7.5.6.1.3 Work to be accomplished in 1950

It will be for WHO's Expert Committee on Biological Standardization to submit a programme of work. It may, however, be stated that the most urgent problems are the establishment of yardsticks for assaying the potency of cholera vaccine, BCG, purified tuberculin and toxoids. The possibility of standardizing streptomycin will have to be explored anew, and the standardization of other antibiotics might also have to be considered. Some of the existing standards, for instance penicillin, may have to be reviewed in the light of future experience, whilst the stock of certain other standards which are nearing exhaustion will have to be replenished. Subsidies to the Copenhagen and London institutes will have to be continued for the execution of the research and routine work required. For the study of some of these problems, the setting-up of temporary sub-committees may be necessary.

7.5.6.2 Unification of Pharmacopoeias

7.5.6.2.1 The Problem and its Significance

The aim of this project is to render therapeutic results comparable from one country to another, to enable a prescription to be made up by pharmacists anywhere with ingredients of standard activity and to permit manufacturers to concentrate on the type of substance which fulfils the requirements of the planned international pharmacopoeia.

7.5.6.2.2 Work previously accomplished

The desire for the unification of the terminology, strength and composition of medicines led, as early as 1874, to attempts to produce an international pharmacopoeia. A first international conference for the unification of the formulae of potent drugs was held in 1902, and a second in Brussels in 1925. The arrangement arrived at by this second conference provided for the setting-up of an international organization for the unification of pharmacopoeias, the League of Nations taking up the administration of this work. A technical commission of pharmacopoeial experts, created by the Health Organi-

zation of the League, began work on the drafting of monographs on important substances commonly listed in the national pharmacopoeias. This led to the publication in 1945 of an interim report consisting of a set of general rules and of a table of usual and maximal doses, and of 47 monographs.

In carrying on the work of the League of Nations, the World Health Organization established an Expert Committee on the Unification of Pharmacopoeias, consisting of seven members, which produced 132 draft monographs with a view to publication—and their possible inclusion in the various national pharmacopoeias—constituting the basis of an international pharmacopoeia. It is expected that the English and French editions will appear in 1949, the Spanish version not until 1950.

7.5.6.2.3 Work to be accomplished in 1950

Once the first set of monographs is published, supplements will have to be issued, for the drafting of which two meetings of the Expert Committee on the Unification of Pharmacopoeias have been planned for 1950.

7.5.6.3 Habit-Forming Drugs

7.5.6.3.1 The Problem and its Significance

The recent discovery of synthetic substances having proved definitely to be habit-forming—such as Dolantin and Methadone—constitutes a menace, inasmuch as many of the numerous derivatives may also prove ultimately to be habit-forming.

It will be for the new convention, which the United Nations will prepare and which will embody the various conventions and protocols now in force, to provide a mechanism according to which these synthetic drugs and their derivatives can be placed under control. Meanwhile, the situation must be carefully watched with a view to ascertaining, on the basis of clinical investigation, which among these derivatives are to be considered as habit-forming.

7.5.6.3.2 Work previously accomplished

Both the 1925 and 1931 Conventions entrusted the Health Organization of the League of Nations with certain duties under Articles 8 and 10 of the 1925 Convention, and Article 11 of the 1931 Convention. The application of these Conventions being now the duty of the Economic and Social Council of the United Nations, the role played by the Health Organization of the League of Nations is now incumbent upon WHO.

7.5.6.3.3 Work to be accomplished in 1950

It will be for WHO, acting upon the advice of its Expert Committee on Habit-Forming Drugs, to decide whether a substance covered by the above-mentioned conventions is or is not capable of producing addiction, and whether it can be converted into a habit-forming drug.

To carry out this work, it has been proposed that two meetings of the Expert Committee on Habit-Forming Drugs should be provided for in 1950.

Technical Services

7.5.6 THERAPEUTIC SUBSTANCES

Budget Estimates

	Estimated Expenditure Regular	
	1949 US $	1950 US $
SECRETARIAT		
Salaries	20,440	34,660
Deduct Lapses and delays	—	1,730
Net	20,440	32,930

Headquarters

	Grade	Number of Posts Regular 1949	1950
Biological standardization			
	17	1	1
	8	1	1
	6	1	1
Unification of pharmacopoeias			
	14	1	1
	6	1	1
Habit-forming drugs			
	16	1	1
	5	—	1
Sub-total		6	7
Field	Category		
	I	—	—
	II	—	—
	III	—	—
Sub-total		—	—
Total		6	7

Consultants	—	—
Personal services sub-total	20,440	32,930
Allowances	6,675	8,580
Travel and transportation	6,150	6,600
Grants	36,000	16,250
Expert advisory committees	53,000	51,450
1. Biological standardization (one) sub-committee (one)		
2. Unification of pharmacopoeias (two)		
3. Habit-forming drugs (two)		
TOTAL OF PROJECT	122,265	115,810

7.5.7 HEALTH STATISTICS

7.5.7.1 The Problem and its Significance

Adequate vital and health statistics in their various components—population, births, incidence of diseases, pathological conditions and registered deaths—constitute the fundamental basis for recording and appraising the state of health of nations and for formulating the structure and extent of suitable public-health administrations, both national and local.

Such statistics are indispensable for the institution of adequate and justifiable plans of action for combating diseases, whether infectious or otherwise.

Furthermore, health statistics might often help to estimate to an important degree the results achieved by programmes carried out by health or administrative agencies with the aim of diminishing or even suppressing the prevalence and incidence of certain diseases in both large and small territories.

The capital importance of having properly organized services of national health statistics need not be discussed and emphasized here as it is a recognized and accepted fact by everybody interested, directly or indirectly, in the public-health work of the State.

It is clear that the responsibility for the creation and development of these basic services pertains essentially to national administrations, which are fully aware of the needs of their respective countries and cognizant of their national traditions and potentialities.

The international approach to this highly important subject must take cognizance of two factors: first, the lack of comparability among the data provided by the various nations, due to differences in definitions and methods employed in the collection and tabulation of medical statistics and to divergences in their basic quality resulting from the different capabilities and facilities of medical and public-health practice; and secondly, the lack, or the still primitive stage, of such vital and public-health statistics in some areas of the world. This is a problem which affects not only the regions concerned, but can also concern other zones on account of the interdependence of disease among nations, particularly in the realm of communicable illnesses. The backward state of health prevailing in some of these areas has considerable repercussions in loss of manpower and food production, with consequential and prejudicial effect on the rest of the world. The protection of health is not really an exclusive and restricted responsibility of each different country; in addition to national considerations, every country has international responsibilities for the preservation of health in the world.

Therefore, any action which would increase and facilitate the usefulness of health statistics (which are an indispensable and powerful instrument in public health) by giving them coherence of meaning (in the sense of referring to the same things under the same names) and by classifying and tabulating them in a parallel manner (that is to say, making them comparable in their statistical presentation) obviously falls within the category of an international duty in this field.

It is a function of a properly international character to encourage national administrations whose health statistics are, as yet, undeveloped or unsatisfactory to establish and constitute systems of registration of vital health statistics and to assist them in carrying out such a task.

The establishment of an international centre entrusted with the work of collecting the different national statistics of sickness and deaths, and other numerical data relating to public health in those countries, and of making them available to the various national health-administrations and to the general or specialized public, is a clear obligation of the World Health Organization.

The stimulation of the effective utilization of available health-statistics in the study of health problems and the fostering of the extension of health statistics to aspects of disease where they are still, as is the case for most nations, in a rather primitive stage (particularly in the ample and complex field of morbidity statistics) will certainly produce immediate and long-range benefits to the health of the world. It is equally certain that this is a subject for international action.

The promotion of statistical methods applicable to public-health work and to medical research, and the dissemination of useful experience obtained in research of a statistical nature are likely to be of great benefit to the health of the nations concerned; such a project would also be suitable for concerted international intervention.

Finally, some investigations or researches into medical or public-health problems require the collection, collation and analysis made internationally of national experience on pertinent subjects. Here, too, operation on an international plane cannot be set aside.

7.5.7.2 Objectives

7.5.7.2.1 *Long-term*

In so far as health statistics are concerned, the aim of the World Health Organization should be, on the one hand, to foster any possible improvement of health statistics in the different countries ; on the other hand, to perfect the collection on an international scale of national statistics referring to different phases of public-health work, and also to shorten, as far as is practicable, the time for assembling and publishing the systematic conspectus of international health statistics, as it is a well-known fact that their usefulness and service depend to a great extent on the rapidity with which they become available.

Both designs will tend to improve the quality of the statistical material on which adequate and reasonable programmes and plans of action should be based, either by national health administrations or by international bodies such as WHO.

The implementation of these aims provides the way for progress on both a national and international level. It must be recognized that some progress is slowly and gradually being achieved in many parts of the world, but the rate of advance could be greatly accelerated by the concerted action of national authorities, the World Health Organization and other international bodies dealing with vital statistics. Large benefits, either immediately tangible or with long-term repercussions, might be derived from active support in this field. In some areas where the organization of vital and public-health statistics is still primitive, or even non-existent, the advantages accrued from aid given by WHO could be sizable and rapid. It must not be forgotten that such help is not only a matter of self-interest to the more advanced nations in protecting their own populations, but also a question of high moral duty towards them, and this in turn reflects on WHO.

7.5.7.2.2 *Immediate Objectives*

The Health Statistics Section of WHO should :

(1) on request, help some national public-health administrations, in collaboration with the Division of Field Services, to improve their public-health statistics ;

(2) help and encourage some national administrations or so-called " undeveloped areas ", on their request and in collaboration with the Division of Field Services, to set up plans and to organize systems of vital and public-health statistics ;

(3) initiate action tending to raise the quality and the comparability of morbidity and mortality data among different nations : to this end the publication of the *International Lists of Diseases, Injuries and Causes of Death* and regulations pertaining thereto, as adopted by the first World Health Assembly, will make a considerable contribution. But this work should be extended by following up the effects of the application of these *Lists* in the corresponding countries. Studies on the diversity of definitions of stillbirth and the definition of abortion to be undertaken by the Expert Committee on Health Statistics would undoubtedly constitute an important step for improving the comparability of mortinatality data ;

(4) undertake studies on the methods and practice of notification and registration and on their statistical classification, with the aim of appraising their quality and improving their meaning and comparability and of analysing their significance as indices of health ;

(5) continue the publication of the *Statistical Handbook Series* initiated by the League of Nations Health Organization, so as to complete the intended series of manuals and to revise those already issued and needing to be brought up to date ;

(6) make special studies on the statistical material already available, or to be procured, on some particular problems in which international analysis might prove to be of profit or utility either as statistical information or as research. (Examples of such problems are infant and childhood mortality, maternal mortality, cancer statistics, rheumatism, morbidity and sanitary surveys, invalidity and organic defects, lunacy, etc.) ;

(7) make possible the training of personnel on health statistics and vital statistics registration systems in collaboration with the WHO fellowship programme ;

(8) obtain statistical information on the number and kind of medical and public-health institutions and establishments and on corresponding professional personnel. A great deal of work is necessary on the definitions and limitations of terms, so that the figures may have a proper meaning and some comparability on an international plane may be permissible.

7.5.7.3 Previous Activities

7.5.7.3.1 *The League of Nations*

Through its Health Organization, the League recognized from the beginning the primary duty it had for health statistics from an international view-point and during its life it developed various activities in this connexion :

(1) It collected statistics of general vital statistics for large towns and for certain countries and also for some causes of death of particular prominence, besides the official reports on the prevalence of notifiable diseases for a great number of nations, publishing those statistics in weekly, monthly, bimonthly and quarterly reports.

(2) Revised or corrected returns were published later in *Annual Epidemiological Reports* and some analysis of the figures or developments were included.

The area covered by this kind of statistical information was progressively and continuously augmented until practically all countries for which data of this sort are available were included.

(3) The League also issued from time to time, under the auspices of the Health Organization, many special articles or papers dealing with particular diseases or characteristics of morbidity or mortality.

(4) It published a series of *Statistical Handbooks* which described the system of official vital statistics and the history of its development in each of the following countries : the Netherlands, Belgium, England and Wales, Spain, Austria, the Scandinavian countries and the Baltic Republics, Portugal, Czechoslovakia, France, Hungary, the Irish Free State and Northern Ireland, Scotland, Canada and Switzerland. They contained details of census ; population registers ; registration of births, stillbirths and deaths ; certification of causes of death and procedure for notification of contagious diseases, and documentation relating to laws and regulations in force.

(5) The League drafted (through the labours of the Mixed Commission, composed of an equal number of representatives of the League Health Organization and of the International Statistical Institute) proposals for the Fourth (1929) and Fifth (1938) revisions of the *International List of Causes of Death*, which served as a basis for the corresponding international conferences convened in Paris on this subject.

Later, the International Health Conference, held in New York in 1946, entrusted the Interim Commission of the World Health Organization with the responsibility of reviewing the machinery for the next decennial revision and of undertaking preparatory work for the establishment of *International Lists of Causes of Morbidity*. To this end the Interim Commission in January 1947 appointed an expert committee.

The International Conference for the Sixth Revision, convened in Paris by the Government of France in April 1948, approved the classification prepared by the above-mentioned expert committee and considered other matters relative to its application.

The first World Health Assembly adopted, in July 1948, the *Classification* and *Regulations*, as well as other recommendations accepted by the Paris International Conference.

It can be said that this work and study has opened a new era in international vital and health statistics ;

(6) In connexion with the tasks assigned to the health experts on infant and child welfare and, more particularly, during the *enquiries into the causes and prevention of stillbirth and mortality during the first year of life* carried out in some countries of Europe and of South America, a great deal of numerical information, and valuable comments on and criticism of some of the statistical features of these problems, were supplied.

(7) The study of several aspects of considerable interest and practical import relative to the interpretation and comparability of cancer statistics and other medical or biostatistical facts, and special features related to this subject, was made also by the Health Organization of the League of Nations,

based on contributions emanating directly from the Cancer Commission, or through researches undertaken by its Sub-Commission of Statisticians.

(8) The Committee of Expert Statisticians, well aware of the lack of uniformity in the definitions of stillbirth in different countries and of the troubles resulting, proposed after prolonged studies a new definition which has already been adopted by some countries. This problem and the related one of the concept and definition of abortion will without doubt be the object of new researches and studies on an international level.

(9) The League also collected yearly a mass of vital and health statistics from between 22 and 30 countries and colonies, and incorporated them in the *International Health Year-Book* published annually from 1924 to 1930, with the exception of that for 1926.

Other statistics relating to public health were given in special monographs describing the organization of public-health services in several countries and towns.

(10) Some of the monographs issued by the Health Organization on special subjects, such as nutrition, or on particular diseases, such as malaria, leprosy, rheumatism, smallpox, leishmaniasis, contained statistical material of considerable value from an international standpoint.

7.5.7.3.2 *Office International d'Hygiène Publique*

The Office also assembled regular statistics of a medical character, chiefly on infectious diseases, giving particular attention to data on the appearance and prevalence of the so-called " conventional " diseases, and published them weekly or in its monthly *Bulletin*.

7.5.7.3.3 *Pan American Sanitary Bureau*

The Pan American Sanitary Bureau, created in 1902, has collected and distributed regularly statistical material pertaining to sanitary information and to epidemiological intelligence, to countries adhering to the Pan American Sanitary Code, through its central co-ordinating agency.

7.5.7.3.4 *International Statistical Institute*

The International Statistical Institute has issued periodically surveys of vital statistics in the different countries of the world. (The Institute was founded in 1885 with the object of stimulating the development of administrative and scientific statistics, in order to secure uniformity of structure and analysis of statistical returns, thus favouring the possibility of international comparisons. A permanent Office of the Institute was set up at The Hague in 1913).

7.5.7.4 Work to be accomplished in 1950

7.5.7.4.1 *Authority*

The Constitution of the World Health Organization makes explicit mention in Article 2 (*f*), (*g*) and (*s*) of functions of a statistical character in the international sphere appertaining to the Organization. Further, many of the other sections of this Article (in particular (*k*), (*i*), (*m*), (*n*), (*p*), (*q*), (*r*)) imply, in their meaning and development, elements of medical and public-health statistics which are really at the very basis of their objectives and activities.

Articles 21 (*b*) and 23 clearly mention the power and authority of the World Health Assembly to adopt regulations and make recommendations in matters clearly dealing with medical and public-health statistics.

Finally, the first World Health Assembly, at its fourteenth plenary meeting, adopted the recommendation of the Committee on Programme [1] that the World Health Organization should establish an expert committee on health statistics and also a health statistics section within its Secretariat.

7.5.7.4.2 *Method*

The objectives stated above will be carried out by :

(1) studies made, either directly by the Health Statistics Section or with the help of recognized experts in the particular fields, on medical statistical subjects or on procedures employed in the collection and compilation of health statistics or on statistical methods as applied to vital and health statistics ;

[1] *Off. Rec. World Hlth Org.* **13**, 304

(2) provision of statistical documentation and advisory services. (Through the work of the Health Statistics Section information of a statistical nature relating to the activities of the other sections of the Secretariat will be provided as far as possible. The Health Statistics Section should also be prepared to proffer advice on suitable methods for the statistical treatment of matters dealt with by the other sections of the Secretariat, whether routine work or research problems.) ;

(3) publications on matters of actual and practical interest on vital statistics, such as the *Statistical Handbook Series*, initiated by the Health Section of the League of Nations, the *Manual of International Lists of Diseases, Injuries and Causes of Death*, and special comprehensive volumes on certain statistical subjects relating to public health, etc. (All these publications will help either to impart detailed information on the medical and public-health statistical organization of countries or will try to fulfil the general objective of achieving greater comparability among morbidity and mortality data of the different nations. The proposed budget for publications includes provision for the printing of these handbooks and manuals.) ;

(4) action following resolutions of the Expert Committee on Health Statistics. It is expected that this committee, either expanded with some co-opted members or in its " nuclear " composition, will hold a first meeting in 1949 to consider several important items in the field of international health statistics (such as definitions of stillbirths and abortion, aspects of morbidity statistics, residence allocation of births and deaths, selection of causes in cases of joint causes of death in the medical certificates and their appropriate coding, cancer statistics, etc.) and will recommend lines of activities to be followed.

An item of especial moment which is likely to receive the committee's attention will be the reports received from countries where the *International Lists of Diseases and Causes of Death* have already been put into use or where preparations are made for implementing them in 1950. The carrying-out of the resolutions and recommendations adopted by the committee will be one of the tasks of the Health Statistics Section, assisted if necessary by other means, which cannot be predicted at the time of the declaration of the budget for 1950. Another meeting of the committee is contemplated for 1950 and is covered by budgetary provision ;

(5) action of national committees on vital and health statistics. The Health Statistics Section will co-ordinate the international aspects of the work of such national committees, whose creation was endorsed by the first World Health Assembly, and it will act as liaison agency for informing the different national public-health administrations of progress achieved in this field of health statistics through the operation of these national committees ;

(6) sending consultants or experts on health or vital statistics appointed ad hoc or from the staff of the Health Statistics Section of WHO to some nations on request, to help them in the organization or reorganization of their vital statistics services. It is expected that, by 1950, aid of this kind might have to be furnished particularly to some " undeveloped areas " and therefore provision for this is included in the budget estimates ;

(7) providing fellowships on health statistics or on vital statistics registration systems to some members of national public-health administrations or to officials of national vital statistics institutions, as the case may be, at the request of the respective governments. This activity will be carried out through the fellowship programme of the Division of Field Operations ;

(8) collaboration with United Nations organs or other specialized agencies in statistical matters of common concern. A clear example of this kind is the proposed study on " Wastage of Human Life " as affecting chiefly infant and childhood mortality, to be carried out conjointly by the Statistical Office and Population Division of the United Nations and the Health Statistics Section of WHO in consultation with other appropriate sections of the Secretariat.

Technical Services

7.5.7 HEALTH STATISTICS

Budget Estimates

	Estimated Expenditure Regular	
	1949 US $	1950 US $
SECRETARIAT		
Salaries	41,920	61,410
Deduct Lapses and delays	—	3,070
Net	41,920	58,340

Headquarters

		Number of Posts Regular	
	Grade	1949	1950
	17	1	1
	14	1	2
	10	1	2
	8	—	1
	7	1	1
	6	4	4
	5	2	5
	4	3	1
	3	1	—
Sub-total		14	17
Field	Category		
	I	—	—
	II	—	—
	III	—	—
Sub-total		—	—
Total		14	17

Consultants	—	6,000
Personal services sub-total	41,920	64,340
Allowances	7,000	11,510
Travel and transportation	4,500	10,080
Expert advisory committees	17,000	18,000
TOTAL OF PROJECT	70,420	103,930

Technical Services

7.5.8 CO-ORDINATION OF RESEARCH

It is indispensable that the Secretariat of WHO should follow the development of research in its various fields of activity and even somewhat outside these fields, to trace the possible practical application to public health of a recent scientific discovery.

Of course, in the case of specialized projects—Malaria, Venereal Diseases, Tuberculosis—it will be for the specialists in charge to be conversant with up-to-date technical knowledge. There is, however, room for a co-ordinating organ, which would establish a link between the scientific aspects of the various projects, remain in liaison with the world centres on salmonella, influenza and perhaps brucellosis, be in a position to supply the material for dealing with external requests for highly technical information, and advise on the research work which will be carried out by regional offices.

Budget Estimates

	Estimated Expenditure Regular	
	1949 US $	1950 US $
SECRETARIAT		
Salaries	14,985	29,705
Deduct Lapses and delays	—	1,485
Net	14,985	28,220

Headquarters

Grade	Number of Posts Regular 1949	1950
17	—	1
16	1	1
15	1	—
12	—	1
8	1	1
6	1	1
5	—	1
Sub-total	4	6
Field Category I	—	—
II	—	—
III	—	—
Sub-total	—	—
Total	4	6

Consultants	—	—
Personal services sub-total	14,985	28,220
Allowances	4,810	8,140
Travel and transportation	2,000	4,900
Grants	3,000	43,000
Expert advisory committees	—	16,800
1. Brucellosis (one)		
2. Influenza (one)		
TOTAL OF PROJECT	24,795	101,060

7.5.9 LIBRARY AND REFERENCE SERVICES

An essential function of the Organization is to provide on request from health administrations, regional offices and other interested bodies, information on health services, on technical questions and on the relevant literature. Responsibility for dealing with such requests lies with the relevant technical sections, which will draw on the library for such materials and services as can most economically be provided centrally.

At present it is an outstanding defect of the Organization that it is unable to provide much of the information for which it is asked.

The work undertaken for the library and its reference service may be classified as follows:

7.5.9.1 *Selection and acquisitions.* It is necessary to seek particulars of and acquire such books and periodicals as are important aids in the work of the Organization. This necessitates regular scanning of medical periodicals and catalogues in many languages, the circulation of particulars of proposed purchases to the Library Committee, and the ordering of the works selected for purchase. Most of the technical periodicals received are obtained by exchange with WHO publications. Thus, of 556 periodicals regularly received by the library in 1948, only 37 were obtained by subscription. In the same year 1,018 books (not including many unbound documents and pamphlets) were received by the library.

7.5.9.2 *Care of materials.* To be of service, the library materials must be adequately catalogued and classified. Arrangements must also be made for binding, shelf space, and the physical equipment of the library.

7.5.9.3 *Effective use of materials.* Periodicals are circulated regularly to members of the Secretariat in accordance with their varying requirements, and during 1948 20,000 separate numbers of periodicals were so circulated. In the same period 3,366 books were loaned to members of the Secretariat, 1,186 coming from the WHO library, 2,078 from the United Nations library, and 102 from other libraries.

7.5.9.4 *Reference works.* Because of the distance of the library from the Secretariat building it has been necessary to establish within the latter building a reference room in which important works of reference, including indexes, dictionaries, encyclopaedias, directories, a selection of technical periodicals, important technical reference works and current documents of WHO, the United Nations and its agencies are housed. In this room, all technical material bearing on the special interests of WHO is indexed. The purpose of this current card index to technical literature is to compensate for the serious delay in the publication of printed indexes to medical literature. Current documents of WHO, the United Nations and other United Nations bodies, are scanned and indexed separately, and a separate index is maintained on health legislation (this index being prepared concurrently with the selection of material for the *International Digest of Health Legislation*).

7.5.9.5 *Bibliographical research.* Particular bibliographical enquiries are undertaken by the library on request.

7.5.9.6 *Supplies of medical literature.* The library has also assumed responsibility for the selection of materials sent in response to general requests for certain types of medical literature, and also the verification and completion of details necessary for placing orders in relation to more specific requests.

Technical Services

7.5.9 LIBRARY AND REFERENCE SERVICES

Budget Estimates

	Estimated Expenditure Regular 1949 US $	1950 US $
SECRETARIAT		
Salaries	40,695	56,700
Deduct Lapses and delays	—	2,835
Net	40,695	53,865

Headquarters

	Number of Posts Regular	
Grade	1949	1950
13	1	1
11	1	1
10	2	2
9	1	1
8	—	1
6	2	3
5	5	5
4	1	2
3	2	2
Sub-total	15	18
Field Category I	—	—
II	—	—
III	—	—
Sub-total	—	—
Total	15	18

Consultants	—	—
Personal services sub-total	40,695	53,865
Allowances	12,500	16,440
Travel and transportation	6,250	8,000
Books and periodicals	—	8,500
TOTAL OF PROJECT	59,445	86,805

7.5.10 EPIDEMIOLOGICAL STATISTICS AND INFORMATION

7.5.10.1 The Problem and its Significance

While for immediate quarantine measures at their ports and frontiers countries require telegraphic notification of pestilential diseases prevailing in foreign ports, airports and countries generally, they are also in need of additional epidemiological information on the importance and trend of epidemics, so that they may proportion their defensive measures to the risk involved. The issue of such information is indeed prescribed under the International Sanitary Conventions.

Health administrations are also interested in the prevalence in neighbouring countries of non-pestilential diseases such as influenza, poliomyelitis, cerebro-spinal meningitis, diphtheria, in order to take in time appropriate administrative measures on their own territory.

Public-health workers need information on the prevalence of communicable diseases in various countries in order to appreciate the influence of immunizing campaigns and other public-health measures, as well as social, economic, climatic and other factors.

WHO itself needs to know the geographical distribution of communicable (i.e. preventible) diseases, and their true morbidity and mortality, in order to concentrate its programmes on subjects of real and international importance.

7.5.10.2 Objectives

Epidemiological statistics must be collected from all over the world and disseminated rapidly to all health administrations, with adequate comments on their significance.

Precise, corrected epidemiological statistics must also be obtained and published for purposes of study and reference.

7.5.10.3 Work previously accomplished

The Office International d'Hygiène Publique, the League of Nations Health Organization and UNRRA's Health Division set up systems for collecting and publishing epidemiological statistics.

Since December 1946 this work has been concentrated in WHO, which has issued regularly from Geneva a *Weekly Epidemiological Record* (pestilential diseases) and a monthly *Epidemiological and Vital Statistics Report*, and has prepared a volume of *Annual Epidemiological and Vital Statistics* 1939-1946.

In addition, a *Weekly Fasciculus* has been issued to health administrations of countries bordering on the Indian and Western Pacific Oceans, by the WHO Epidemiological Intelligence Station at Singapore, since April 1947. (Continuation of the League of Nations publication started in 1925.)

7.5.10.4 Programme for 1950

The above-mentioned publications still fall short of the objectives in several respects, and their improvement is planned in 1950 through adequate staffing.

Collection and publication of the statistical material is to be speeded up ; fuller use is to be made of annual documents issued by health and statistical administrations, to complement the information currently collected.

The statistical material is to be made more intelligible and valuable by appropriate commentaries illustrated with graphs and maps, and taking into account recent medical literature.

Preparation of adequate, authoritative and up-to-date maps of geographical distribution of communicable diseases is to be initiated as a continuous function.

Technical Services

7.5.10 EPIDEMIOLOGICAL STATISTICS AND INFORMATION

Budget Estimates

	Estimated Expenditure Regular	
	1949 US $	1950 US $
SECRETARIAT		
Salaries	32,075	50,625
Deduct Lapses and delays	—	2,530
Net	32,075	48,095

Headquarters

	Number of Posts Regular	
Grade	1949	1950
15	1	1
14	1	1
10	1	1
9	1	2
8	1	2
7	1	1
6	1	1
5	—	3
4	4	2
Sub-total	11	14
Field Category I	—	—
II	—	—
III	—	—
Sub-total	—	—
Total	11	14

Consultants	—	—
Personal services sub-total	32,075	48,095
Allowances	10,480	15,140
Travel and transportation	5,000	16,200
TOTAL OF PROJECT	47,555	79,435

7.5.11 SCHISTOSOMIASIS FIELD STUDY-GROUP

7.5.11.1 The Problem and its Significance

Schistosomiasis, whether in its intestinal, vesical or hepatic forms, prevails over wide areas of the African, Asiatic and American continents. In some areas it may reach 90% of the rural population.

The infection causes such a diminution of the sufferer's strength and capacity for work that it seriously impedes food production in the agricultural areas. It is, therefore, an international problem from the social and economic, as well as from the health, point of view.

7.5.11.2 Statement of Objectives

Eradication of the disease must naturally be aimed at, but the accomplishment of this objective still depends upon the solution of technical problems as yet unsolved.

Immediate objectives are the delimitation of the areas of prevalence of the various types of the disease and determination of the various zoological factors involved in its epidemiology in these areas.

7.5.11.3 Work previously accomplished

Apart from a conference of experts, convened by the League of Nations in 1938 and prevented by the war from producing results, no international action has been taken against this disease.

The Interim Commission of WHO recommended the setting-up of an expert committee on schistosomiasis. The first Health Assembly decided to give the disease priority over other parasitic infections.[1] The Expert Committee on International Epidemiology and Quarantine also recommended that it should be studied in 1949 with a view to field action in 1950.[2]

7.5.11.4 Programme for 1950

Field action should include the sending to an endemic area of a *study-team* of three investigators (an epidemiologist, a helminthologist and a molluscologist) to determine the relative value of available methods of snail destruction and other means of control.

If progress were satisfactory, the study-team would become a demonstration-team.

Members of the study-team should make short visits to infected areas other than the one selected for the main study, in order to compare conditions and envisage local adaptations of methods.

It is desirable that, in order to prepare the extension of the work, officers in charge of schistosomiasis studies and control in other territories be given an opportunity to see the work done and discuss the problem with the members of the team. This might be done by the granting of five field fellowships of one month each to such officers.

The details of the field experiments and other research (particularly as to the use of drugs in treatment) should be planned by a meeting, early in 1950, of experts on schistosomiasis, together with parasitologists (helminthologist, molluscologist). It would be useful for members of the field team to participate in this meeting.

Therapeutic trials might proceed parallel with field work against the snail intermediate host.

Apart from the field work, the Secretariat will collect information on the prevalence of schistosomiasis throughout the world and the epidemiological factors involved in the various countries, and data on the results obtained by prophylactic and therapeutic measures.

The information collected will be made available not only to the expert committee but, by suitable publications, to interested administrations and the medical profession.

[1] *Off. Rec. World Hlth Org.* **13**, 309

[2] The report of the Expert Committee on International Epidemiology and Quarantine is to be published in *Off. Rec. World Hlth Org.* **19.**

Technical Services

7.5.11 SCHISTOSOMIASIS FIELD STUDY-GROUP

Budget Estimates

	Estimated Expenditure		
	1949	1950	
		Regular	**Supplemental**
SECRETARIAT	US $	US $	**US $**
Salaries	—	7,590	**19,910**
Deduct Lapses and delays	—	380	**995**
Net	—	7,210	**18,915**

Headquarters

		Number of Posts		
		1949	1950	
	Grade		Regular	**Supplemental**
Field	—	—	—	—
	Category I	—	1	**2**
	II	—	—	**1**
	III	—	—	—
Sub-total		—	1	**3**
Total		—	1	**3**

Consultants	—	—	—
Personal services sub-total	—	7,210	**18,915**
Allowances	—	2,800	**6,860**
Travel and transportation	—	3,775	**17,225**
Supplies and equipment to teams	—	3,000	**7,000**
Expert advisory committee	—	8,400	—
TOTAL OF PROJECT	—	25,185	**50,000**

Technical Services

7.5.12 CO-ORDINATION OF INTERNATIONAL CONGRESSES OF MEDICAL SCIENCES

7.5.12.1 The Problem and its Significance

International scientific congresses are a recognized means of international collaboration in all fields of science and can also be considered as an important means of advanced education. They facilitate exchange of ideas, spread of information and personal contacts, and in some instances stimulate scientific opinion.

7.5.12.2 Work previously accomplished

The idea of co-ordination of medical congresses was brought up before the First World War, and a bureau was created in Holland whose tasks were, inter alia, to assist in the organization of large general medical congresses composed of all branches of medical science represented in the congress and to function as a permanent link in the period between the congresses.

The war interrupted the activities of the bureau. They were resumed in 1948 and 1949 under the joint auspices of WHO and UNESCO.

7.5.12.3 Work to be accomplished in 1950

The new organization, established under the joint auspices of the WHO and UNESCO, will co-ordinate dates, places and, so far as practical, main subjects of discussions and will assist in the technical organization of congresses and help the congresses in the publishing of their proceedings. The Permanent Council for the Co-ordination of International Congresses of Medical Sciences should represent all congresses organized by the non-governmental medical organizations and will spread information on various problems relative to the congresses. The Council will also facilitate travel of participants to the congresses. WHO has recognized the importance of the work to be performed by this co-ordinating body and the first Health Assembly, acting in the spirit of the WHO Constitution— " to promote co-operation among scientific and professional groups which contribute to the advancement of health " (Article 2 *(j)*)— decided to support the project and expressed the intention of taking more responsibilities in future.[1]

The arrangement between WHO and the Council will include advisory services and technical services provided by WHO.

Budget Estimates

	Estimated Expenditure Regular	
	1949	1950
	US $	US $
TOTAL OF PROJECT	20,000	44,000

[1] *Off. Rec. World Hlth Org.* **13**, 323

7.5.13 RESEARCH ON ANTIBIOTICS

7.5.13.1 The Problem and its Significance

The Interim Commission and its Expert Committee on Venereal Diseases drew attention as early as 1947 to the limited availability and inequitable distribution of penicillin in the world and pointed out that this represented one of the overall restricting factors in the control of venereal disease. The drug has an established value also in the treatment of a number of other diseases.

Although the world production of penicillin had improved considerably by the end of 1948, the exportable surplus is still far short of needs, as is evidenced by the study carried out by the Director-General.

The first Health Assembly provided that :

(1) all possible measures should be taken by WHO to encourage antibiotics production and to ensure an equitable distribution to all countries, particularly those where it is not now available, and

(2) the immediate object of WHO in this field should be to make technical knowledge on penicillin production available to countries contemplating the erection of plants ; to facilitate procurement of penicillin for countries unable to obtain this and similar drugs.

The first Health Assembly also gave authority for penicillin matters to be dealt with as a separate activity.

The WHO Executive Board at its second session [1] decided to carry forward the survey of the UNRRA plants and establish co-operation with the Economic Commissions of the United Nations to promote production and distribution of the drug.

Co-operation with the Economic Commission for Europe was established before the end of 1948. On 17 February 1949 technical consultations took place with representatives of Czechoslovakia, Poland and Yugoslavia, and during these a tentative programme was agreed for action necessary to put the UNRRA plants in these countries into production.

Similar action is pending with the Economic Commission for Asia on an UNRRA penicillin plant in the Far East.

7.5.13.1.1 *Developments*

Following preliminary examination of the problems involved in getting the UNRRA penicillin plants into operation, it became clear that technical information would be required by countries at two stages :

(1) during the period of design, installation, and initial operation of the plants ;

(2) for continued training and research in penicillin production.

The value of extending research in penicillin to include other antibiotics, in view of the great interest of the subject to all Member States, was also recognized.

7.5.13.1.2 *Objectives*

The general objective of WHO, in co-operation with ECE, is to make available to governments sources of technical knowledge on design installation and initial operation of the UNRRA penicillin plants. This is the short-term objective and during 1949 would be largely the financial responsibility of the governments concerned, since there is no special provision in the WHO 1949 budget for this purpose. Also there are certain limited possibilities in the immediate future of finding satisfactory sources, other than commercial and the like, of technological information on plant installation.

With regard to the longer-term and wider subjects of research and after-training in antibiotics in general, without which, incidentally, satisfactory production of penicillin cannot be maintained, it is considered highly desirable that this become an activity of WHO, especially in view of the great importance of antibiotics in modern methods of disease control.

7.5.13.2 Work to be accomplished in 1950

7.5.13.2.1 *Authority*

Activities relevant to increasing penicillin production and to making more widely available current knowledge on penicillin and other antibiotics arise from decisions of the first World Health Assembly and the second and third sessions of the Executive Board and are clearly an essential part of the programme of work for 1950.

[1] *Off. Rec. World Hlth Org.* **14**, 19

7.5.13.2.2 *Method*

Establishment of an Expert Committee on Antibiotics and Technological Problems of WHO will be an essential step in securing collection, analysis and dissemination of the available scientific and technical knowledge on this important subject. It will also be necessary to provide for technical conferences on particular aspects of attendant practical problems, e.g. changes in production-plant design, equipment or processes and various economic possibilities in this field (in co-operation with ECE). Further study will be made on the possibility and advisability of arranging for an institute (or institutes) equipped to concentrate on research in antibiotics (including production methods) to work along with WHO.

Technical Services

7.5.13 RESEARCH ON ANTIBIOTICS

Budget Estimates

	Estimated Expenditure		
	1949	1950	
		Regular	**Supplemental**
	US $	US $	**US $**
Expert Committee on Antibiotics and Technological Problems	—	8,000	—
Conference costs	—	—	**10,000**
Technical conferences on penicillin production Grants	—	—	**22,000**
TOTAL OF PROJECT	—	8,000	**32,000**

Technical Services

7.5.14 CO-ORDINATION OF MEDICAL AND BIOLOGICAL ABSTRACTING SERVICES

7.5.14.1 The Problem

In December 1946 UNESCO called a meeting of representatives of two English-language medical abstracting services which had been recently instituted and whose joint existence seemed to involve the possibility of a wasteful duplication of effort. This meeting led to a consideration of the need for some machinery to limit the amount of duplication of effort involved by the existence of a number of abstracting services covering the same or overlapping fields, and in October 1947 UNESCO convened a Conference on Co-ordination of Medical Abstracting Services, in which a WHO observer participated.

7.5.14.2 What has been accomplished

At this conference it was arranged that an Interim Co-ordinating Committee on Medical and Biological Abstracting should be formed, and a meeting of this committee, attended by two WHO observers, was held on 5 and 6 April 1948. The committee included members from the Netherlands, the United Kingdom and the USA. At this meeting the Executive Committee of the Interim Committee was formed, and it met on 15 and 16 October 1948.

The first World Health Assembly approved collaboration with UNESCO in this activity and voted US $6,000 as the WHO contribution to the expenses involved in 1949.[1] This sum will go towards the expenses of meetings of the Interim Co-ordinating Committee, the membership of which will be enlarged.

7.5.14.3 Proposed for 1950

It is anticipated that provision similar to that for 1949 will be necessary in 1950.

Budget Estimates

	Estimated Expenditure Regular	
	1949 US $	1950 US $
TOTAL OF PROJECT	6,000	6,000

[1] *Off. Rec. World Hlth Org.* **13**, 320, 323

7.6 OTHER PROJECTS

7.6.1 MEDICAL LITERATURE, TEACHING EQUIPMENT AND PROGRAMME SUPPLY SERVICES

7.6.1.1 The Problem and its Significance

The present world need for medical literature and teaching equipment is tremendous. Before the war, the medical profession was able to keep abreast of current medical knowledge because advances in knowledge were made freely available by publications in and dissemination of books and periodicals to libraries, medical schools and individuals. As a result of the lack of free interchange of information and the destruction of libraries and medical schools during the war, and the lack of hard currency since the war, there has grown an urgent need for medical literature to replace what was destroyed and to bring that still existing up to date. In a recent survey in six UNICEF countries in Europe, the need of books and journals for physicians and medical students was found to be very acute.[1] Equally important is that there are other countries, which though unaffected by war, have health services far below average because current medical knowledge is not available to their medical profession.

The same situation and needs exist in connexion with special teaching equipment. The adverse effects of war on the education of the medical and auxiliary professions in many countries have been appalling. The schools are overcrowded and teaching equipment is inadequate or non-existent. As a result of scientific advances, even schools formerly considered first class need to be adapted to meet changing requirements. Many less advanced countries, though unaffected by war, have started the training of medical personnel with similar handicaps—inadequacy or non-existence of teaching equipment because of lack of foreign currency. At a time when competent workers are desperately needed, extremely inadequate facilities are available to train them.

A very acute situation exists concerning the ability of governments to obtain requisite medical supplies. Though economic machinery exists to ameliorate this situation it is not complete and does not cover all fields of action.

7.6.1.2 Work previously accomplished

In 1947 and 1948 medical books and periodicals were supplied to 13 war-devastated countries. The term " medical literature " was enlarged to include special teaching equipment such as films and projectors, micro-film readers, etc.[2] This programme was restricted in 1947 and 1948 to UNRRA-aided countries. Much headway has been made by WHO and national and international bodies, such as the Rockefeller Foundation. However, continuing currency difficulties have prevented the gap from being closed. To continue this programme in 1949 and to make it available to all Member Governments, the WHO Interim Commission recommended an appropriation of $200,000 which was reduced by the first Health Assembly to $150,000.[3] The funds required to cover requests already received would exceed many times the amount budgeted for 1949.

7.6.1.3 Statement of Objectives

In order that the medical profession may keep abreast of recent medical knowledge and that competent workers may be trained to attain the objectives established by the Constitution of WHO, the aim is to provide governments with medical literature and special teaching equipment to give assistance in :

(1) replacing what has been destroyed during the war ;

(2) rehabilitating existing inadequate and outdated libraries and teaching laboratories ;

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[1] UN Doc. E/ICEF/78, 27

[2] *Off. Rec. World Hlth Org.* **6**, 78

Ibid. **13**, 320

(3) furnishing nuclear sets of medical literature and teaching equipment to countries where health services and standards of medical education are below average.

Similarly, on a limited scale, supplies should be made available to governments either to implement programmes after WHO demonstration teams have completed their task or to further health projects carried out by a governmental health-administration.

7.6.1.4 Work to be accomplished in 1950

7.6.1.4.1 *Authority*

Articles 1 and 2 of WHO Constitution, particularly Article 2 (*c*), (*d*), (*g*), (*n*), (*o*), (*q*) and (*v*).

7.6.1.4.2 *Method*

Until economic recovery has reached a level which will enable countries to procure their own requirements of this nature, they will need assistance. It is therefore recommended that this programme of providing governments with medical literature, special teaching equipment and programme supplies on a limited scale be continued where a real need can be demonstrated.

Such provision will be essential to satisfactory implementation of many operations in the 1950 programme.

The volume of services in 1950 is expected to be more than double the volume during 1949, owing to (a) the increase in the field programme which will require action on procurement of supplies and equipment for teams engaged in the advisory and demonstration programmes, (b) the needs, in some cases, of governments carrying out health projects on their own initiative, and (c) the increase in requests from governments for advisory services as the function of this section becomes more widely known.

Other Projects

7.6.1 MEDICAL LITERATURE, TEACHING EQUIPMENT AND PROGRAMME SUPPLY SERVICES

Budget Estimates

	1949	Estimated Expenditure 1950	
		Regular	**Supplemental**
SECRETARIAT	US $	US $	**US $**
Salaries	10,240	24,935	—
Deduct Lapses and delays	—	1,240	—
Net	10,240	23,695	—

Headquarters

		Number of Posts 1949	1950 Regular	1950 **Supplemental**
	Grade			
	15	—	1	—
	14	1	—	—
	12	—	2	—
	5	2	3	—
Sub-total		3	6	—
Field	Category			
	I	—	—	—
	II	—	—	—
	III	—	—	—
Sub-total		—	—	—
Total		3	6	—

Consultants	—	—	—
Personal services sub-total	10,240	23,695	—
Allowances	3,250	10,680	—
Travel and transportation	3,000	10,500	—
Medical literature and teaching equipment	150,000	150,000	**100,000**
Programme supplies to governments	—	115,000	**385,000**
TOTAL OF PROJECT	166,490	309,875	**485,000**

7.7 COMMON SERVICES (OPERATING)

These estimates make provision for that portion of the operating programme staff working at Headquarters. The requirements for the regional offices and other field offices have been included in the total estimates for those offices. Likewise, where such provisions were necessary, the estimates for this type of expenditure have been included in the individual projects estimates.

Budget Estimates

	Estimated Expenditure		
	1949	1950	
		Regular	**Supplemental**
	US $	US $	**US $**
Space and equipment services	154,200	150,000	**17,500**
Other services	131,600	94,780	**30,220**
Supplies and materials	68,000	65,000	**7,000**
Fixed charges and claims	11,000	79,700	**8,750**
Acquisition of capital assets	138,500	116,000	**30,250**
TOTAL	503,300	505,480	**93,720**

NOTE : The above does not include common services estimates for regional offices and other offices. Estimates for supplies and equipment for teams are included under the individual project estimates.