

LEAGUE OF NATIONS

HEALTH ORGANISATION

WORK OF THE HEALTH COMMITTEE DURING ITS  
TWENTY-FOURTH SESSION

*Geneva, February 5th-9th, 1937.*

REPORT OF THE COMMITTEE, SUBMITTED TO THE COUNCIL ON MAY 27TH, 1937.

CONTENTS.

	Page
Tribute to the Memory of the Late Dr. A. Lutrario . . . . .	2
I. Election of the President . . . . .	2
II. Rules of Procedure of the Health Committee . . . . .	2
III. Health Mission sent at the request of the Spanish Government . . . . .	2
IV. Sub-Committees, Commissions, Groups of Experts and Technical Consultations. . . . .	3
A. Sub-Committees of the Health Committee . . . . .	
1. Drafting Sub-Committee for the Committee's Resolutions and Report of its Sessions . . . . .	3
2. Opium Sub-Committee . . . . .	3
3. Sub-Committee for the Study of the Report and the Budget of the Eastern Bureau . . . . .	3
B. Technical Commissions: . . . . .	
1. Biological Standardisation . . . . .	3
2. Malaria . . . . .	4
3. Nutrition . . . . .	5
4. Housing . . . . .	8
5. Physical Fitness . . . . .	8
6. Leprosy . . . . .	8
7. International Nomenclature of Diseases. . . . .	9
8. Cancer . . . . .	9
9. Group of Experts to study the Unification of Methods of determining the Morphine Content of Raw Opium . . . . .	9
C. Collaboration with the International Labour Office . . . . .	9
D. Consultations: . . . . .	
1. National Schools and Institutes of Hygiene . . . . .	10
2. Consultation of Various Learned Societies and Technical Institutions . . . . .	10
3. Serological Tests in Syphilis . . . . .	10
4. Studies of Certain Agglutinins . . . . .	11
5. Salmonellosis . . . . .	11
V. Work in Progress and Three-year Programme . . . . .	11
VI. International Biological Standardisation . . . . .	11
VII. Next Session . . . . .	13
International Leprosy Research Centre: Fourth Session of the Governing Body . . . . .	13

APPENDICES.

1. Draft Rules of Procedure of the Health Committee . . . . .	14
2. International Leprosy Research Centre : Report of the Committee of Management. . . . .	15



## TRIBUTE TO THE MEMORY OF THE LATE DR. A. LUTRARIO.

The Health Committee has just suffered the loss of one of its original members, Dr. A. LUTRARIO. He attended the first session of the provisional Health Committee in the early months of 1921, and since then, had served on the Committee without a break until compelled by sickness to renounce his membership in October 1936.

The whole of his career was spent in the National Public Health Administration of Italy, in which his outstanding qualities enabled him to rise to the highest position, that of Director General of Public Health at the Ministry of the Interior.

As representative of his country on the Permanent Committee of the Office international d'Hygiène publique and as a member of the Health Committee, he had devoted his energies to the cause of international health.

The Health Organisation owes him a great debt. But among his many and important contributions to its work, special prominence should be given to the leading part he played in the Malaria Commission, of which he was Chairman for fifteen years, until sickness overtook him. He combined wide knowledge with a lofty conception of his presidential functions and great tact and kindness. No greater tribute can be paid to him than to place on record the work of this Commission, of which he was the real driving force and to which his name will remain ever attached.

The Health Committee, which loses in Alberto Lutrario a very dear friend, tenders its sincere condolences to his family and to the Italian Public Health Administration.

### I. ELECTION OF THE PRESIDENT.

In opening the session, the Secretary-General invited the Health Committee provisionally to elect a President pending the final approval of the Committee's Rules of Procedure defining the method of his election, his powers and duties and term of office.

The Committee unanimously called upon Dr. Th. MADSEN, Director of the Danish State Serological Institute, to preside.

### II. RULES OF PROCEDURE OF THE HEALTH COMMITTEE.

In accordance with Article 18 of the General Regulations on Committees,<sup>1</sup> the Committee now submits draft Rules of Procedure (see Appendix 1) for endorsement by the Council.

### III. HEALTH MISSION SENT AT THE REQUEST OF THE SPANISH GOVERNMENT.

Having been informed by the Spanish Government of the situation in Spain, the Council on December 12th, 1936,<sup>2</sup> adopted a resolution which included the following passage:

"The Council . . .

"Notes that there are problems of a humanitarian character in connection with the present situation, in regard to which co-ordinated action of an international and humanitarian character is desirable as soon as possible;

"Recognises, further, that for the reconstruction which Spain may have to undertake, international assistance may also be desirable;

"And authorises the Secretary-General to make available the assistance of the technical services of the League of Nations should a suitable opportunity occur."

On the strength of the above decision, the Spanish Minister for Foreign Affairs asked the Secretary-General to send a Health Mission to study the situation on the spot and to consider the possibility of prompt action with a view to the prevention of epidemics among the civil population.

After consultation with the President of the Health Committee, the Secretary-General entrusted the mission to:

Surgeon-General A. LASNET, member of the French Academy of Medicine, former member of the Health Committee of the League of Nations; with Dr. LAIGRET, of the Pasteur Institute, Tunis, as his assistant; and

Dr. C. WROCZYNSKI, former Director-General of Public Health and Under-Secretary of State, Chief Medical Adviser to the Ministry of National Education, Warsaw.

The delegation stayed in Spain from December 29th, 1936, to January 15th, 1937. In full agreement with the Government and with the assistance of the health authorities, it studied the general epidemiological situation, the living conditions of the civil population and the special conditions affecting refugees, more particularly in Valencia, Alicante and Madrid.

Its report (document C.45.1937) was presented to the Council on January 27th last.<sup>3</sup> The

<sup>1</sup> Adopted by the Council on January 24th, 1936. See *Official Journal*, February 1936, page 133.

<sup>2</sup> See *Official Journal*, January 1937, page 19.

<sup>3</sup> See *Official Journal*, February 1937, pages 94 and 210.

Council examined the report and transmitted to the Health Committee "the chapters . . . dealing with the prevention of epidemics", drawing attention to the fact that one of these chapters emphasised the "urgency of the typhus question and the necessity of holding a consultation of experts on that subject".

In considering these questions, the Committee had the advantage of the attendance of Madame Montseny, Spanish Minister of Public Health and of Dr. Lasnet.

"The Health Committee,

"Takes note of the chapters of the report (document C.45.1937) referred to it by the Council on January 27th, 1937, and of the Mission's recommendations relevant thereto, which would appear appropriate to the circumstances of the health situation as recorded by the Mission;

"Takes note of the statements made by the Spanish Minister of Public Health regarding the steps already taken or envisaged with a view to the prevention of epidemics;

"Notes that the Spanish Government has requested the renewal of the Mission's mandate, so that it may have the benefit of its further assistance in the humanitarian work that has been started, and takes note of the Secretary-General's decision to accede to this request;

"Approves the proposal for a consultation of experts regarding the prevention of typhus, which would undoubtedly prove of general interest to all countries from the practical as well as the scientific point of view, and therefore requests that the experts' conclusions be communicated to all Governments."

#### IV. SUB-COMMITTEES, COMMISSIONS, GROUPS OF EXPERTS AND TECHNICAL CONSULTATIONS.

Article 7 of the General Regulations on Committees<sup>1</sup> requires the Council's authorisation for the appointment of permanent or temporary technical committees, consisting in whole or in part of persons other than members of the committee.

The Health Committee submits the following proposals regarding the composition and term of appointment of the sub-committees, permanent technical commissions, groups of experts or the organisation of the technical consultations required in carrying on the activities of the Health Organisation. The bulk of its technical studies are effected through the collaboration of numerous groups of scientists, learned societies, highly qualified medical officers and administrators who have been good enough in the past to devote time and energy to the service of the League.

##### A. *Sub-Committees of the Health Committee.*

###### 1. *Drafting Sub-Committee for the Committee's Resolutions and Reports of its Sessions.*

*Members:* Professor J. PARISOT;  
Dr. M. T. MORGAN.

###### 2. *Opium Sub-Committee (for the duration of the Committee's Mandate).*

*Chairman:* Dr. M. T. MORGAN;  
*Members:* Surgeon-General H. S. CUMMING;  
Dr. N. M. J. JITTA;  
Dr. G. SZULC;  
Col. A. J. H. RUSSELL;  
The "associate" member from China;  
The "associate" member from Japan.

###### 3. *Sub-Committee for the Study of the Report and the Budget of the Eastern Bureau.*

*Chairman:* Dr. N. M. J. JITTA.  
*Members:* Surgeon-General H. S. CUMMING;  
Dr. M. T. MORGAN;  
Professor J. PARISOT;  
Dr. Husamettin KURAL;  
Colonel A. J. H. RUSSELL;<sup>2</sup>  
The "Associate" member from China;  
The "Associate" member from Japan.

##### B. *Technical Commissions.*

###### 1. *Biological Standardisation.*

###### (a) *Permanent Commission on Biological Standardisation:*

*Chairman:*

Dr. Th. MADSEN, Director of the Statens Serum Institute, Copenhagen.

<sup>1</sup> See *Official Journal*, February 1936, page 132.

<sup>2</sup> Nominated after the Session.



*Members :*

- Professor U. G. BIJLSMA, Pharmacological Laboratory of the State University, Utrecht;
- Colonel R. N. CHOPRA, C.I.E., K.H.P., M.A., M.D., M.R.C.P., I.M.S., Professor of Pharmacology and Therapeutics at the Calcutta Medical School;
- Sir Henry H. DALE, National Institute for Medical Research, Hampstead, London;
- Professor J. G. FITZGERALD, Director of the School of Hygiene and Connaught Laboratories, University of Toronto;
- Dr. D. I. HARRISSON, Director at the National Institute of Health, Washington;
- Professor L. HIRZFELD, Professor at the University, Director of the Department of Bacteriology and Experimental Medicine at the State Institute of Hygiene, Warsaw;
- Professor C. IONESCO-MIHAESTI, Director of the Cantacuzène Institute, Bucharest;
- Dr. R. K. S. LIM, Professor of Physiology, Peiping Union Medical College, Peiping;
- Professor R. MAGGIORA, Director of the Bacteriological Laboratory of the Public Health Institute, Rome;
- Professor L. MARTIN, Director of the Pasteur Institute, Paris;
- Professor E. PICK, Head of the Experimental Pharmacological and Balneological Research Institute of the Public Health Department, Federal Ministry of Social Welfare, Vienna;
- Dr. A. SORDELLI, Director of the Bacteriological Institute of the National Department of Health, Buenos Aires;
- Dr. M. TIFFENEAU, Professor of Pharmacology at the Faculty of Medicine, Paris;
- Dr. C. VOEGTLIN, Professor of Pharmacology, National Institute of Health, Washington.

To this list should be added a member to be nominated by the Federal Health Commissariat of the Union of Soviet Socialist Republics and another to be nominated by the Japanese authorities.

(b) *Group Consultations anticipated during 1937.*

- (i) The Health Committee considers that, having regard to the present position of the work on the standardisation of vitamins, the summoning of a new Conference should be considered.
- (ii) Members of the Permanent Commission with special experience in the matter of serology may perhaps have to be consulted on the question of standard toxins.

2. *Malaria.*

(i) During the past three years, the *Malaria Commission* has consisted of titular members, experts and corresponding members, numbering about forty in all.

It was not found possible, in practice, to convene the Commission as a whole, and this gave rise to divergent interpretations as to how far the pronouncements of the Commission may be regarded as expressing the opinions of all its members.

In order to ensure the participation of the different schools of malariology in the Commission's work and to obtain the continuous collaboration of all the specialised malaria services throughout the world, the Committee considers it necessary that the Commission should be so reconstituted as to provide for a fully responsible representation in this respect on the one hand, and, on the other, for a working group of members to be available who could be convened easily for the purpose of formulating advice and drafting reports—the latter only becoming valid after all the members of the Commission had been consulted.

The health administrations of malarious countries will therefore be invited to nominate a member for the Malaria Commission who would ensure permanent liaison with that Commission; in some countries, national malaria commissions may exist or be created, a member from which may best represent national experience on the Commission.

(ii) The Health Committee also appoints Professor G. BASTIANELLI as Chairman of the Commission, and, as during the previous period, it deems it expedient to appoint four Vice-Chairmen, each of whom would follow the work in each of the main branches of the Commission's activities; it further decides to appoint four rapporteurs to work with them.

*Chairman :*

Professor G. BASTIANELLI, Member of the Health Committee, Director of the Institute of Malariology, Rome.

*Vice-Chairmen :*

Professor Ed. SERGENT, Director of the Pasteur Institute, Algiers;

Professor M. CIUCA, Professor in the Faculty of Medicine, Assistant-Director of the Cantacuzène Institute of Bucharest;  
Dr. L. W. HACKETT, of the Malariology Section, Rockefeller Foundation, of the Institute of Public Health, Rome;  
Colonel J. A. SINTON, Former Director of the Malaria Survey, Kasauli, India.

*Rapporteurs :*

Professor G. PITTALUGA, Director of the School of Public Health, Madrid;  
Professor J. RODHAIN, Director of the Prince Leopold Institute of Tropical Medicine, Antwerp;  
Professor P. SERGUIEFF, People's Health Commissioner for the R.F.S.S.R., Moscow;  
Professor W. SCHUFFNER, Director of the Tropical Hygiene Department at the Royal Tropical Institute, Amsterdam.

(iii) The Drafting Committee for the Fourth General Report of the Commission, under the chairmanship of Professor SERGENT, with Professor HACKETT (replaced by Professor BALFOUR), Professor BASTIANELLI and Professor SINTON as members, and Professor PITTALUGA as Rapporteur, has been reconstituted for the year 1937, as its work is not yet completed.

(iv) It is anticipated that a meeting of the Chairman, Vice-Chairmen and Rapporteurs of the Commission will have to be held during the year.

3. *Nutrition.*

(i) *The Technical Commission on Nutrition.* — The mandate of this Commission should be renewed for three years. If new members are to be invited, a proposal will be made at the next session of the Committee after consultation of the Chairmen of the Commission.

*Chairman :*

Professor E. MELLANBY, Secretary-General of the Medical Research Council, Professor of Physiology at the Royal Institution, London.

*Members :*

M. J. ALQUIER, Secretary-general of the "Institut scientifique d'Hygiène alimentaire" and Director of the "Institut national agronomique", Paris;  
Professor F. BOTAZZI, Member of the Royal Academy of Italy, Professor at the University of Naples;  
Professor E. P. CATHCART, Professor of Physiology, Glasgow University;  
Professor A. DURIG, Professor of Physiology at Vienna University;  
Professor L. S. FRIDERICIA, Professor of Hygiene at the University of Copenhagen;  
Professor A. HÖJER, General Director of Health Services, Stockholm;  
Professor A. MAYER, Professor of Physiological Chemistry at the Collège de France, Paris;  
Professor E. V. MCCOLLUM, Professor of Biochemistry, Johns Hopkins University, Baltimore;  
Sir John Boyd ORR, Director of the Imperial Bureau of Animal Nutrition, Rowett Institute, Aberdeen;  
Professor B. SBARSKY, Director of the Central Nutrition Institute, Moscow;  
Professor C. SCHIÖTZ, Professor of Hygiene at the University of Oslo;  
Dr. W. SEBRELL, Chief of the Department of Nutrition, National Institute of Hygiene, Washington, D.C.;  
Dr. Mary SWARTZ ROSE, Department of Nutrition, Columbia University, New York.

*Technical Secretaries :*

Professor J. BIGWOOD, Professor at the Université Libre, Brussels;  
Miss Harlette CHICK, Lister Institute of Preventive Medicine, London.

In its general report,<sup>1</sup> this Commission recommended a list of ten problems for further study—namely:

- (a) Assessment of the nutritional state of children;
- (b) Nutritive food requirements during the first year of life;
- (c) Minimum vitamin and mineral requirements;
- (d) Minimum fat requirements;

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<sup>1</sup> *Bulletin of the Health Organisation*, Volume V, No. 3, page 391.

- (e) The nutritive and "supplementary" values of the different protein-containing foods, to determine to what extent and in what forms animal protein is necessary for growth and health;
- (f) The relative nutritive value of different cereals according to the degree of milling;
- (g) The extent to which the increasing consumption of sugar is detrimental to health;
- (h) Influence of climate on food requirements;
- (i) The extent to which diets in common use fall below the standards recommended in the report;
- (j) The optimum amounts of milk required at different ages.

At its second session (June 1936), it also suggested a series of studies on milk—namely, in regard to the "supplementary" nutritional effects produced by the interaction of the dietetic factors contained in milk on the one hand with those of cereals and potatoes on the other. Four types of research were suggested for this purpose, as follows:

- (a) Metabolism laboratory observations on experimental animals;
- (b) Institutional observations on the health, growth and development of children of all ages;
- (c) Observations made upon large groups of children—for instance, in elementary schools similar to those carried out in the United Kingdom and United States; and
- (d) Observations similar to those under (c) upon groups of pregnant and lactating women.<sup>1</sup>

The Commission also prepared special memoranda on problems (a) and (b) above in order to prepare the way for the consultations of two groups of physiologists and pediatricians, including the officers directing the enquiries, arranged by national committees, who met in Geneva in 1936.

These consultations took place in Geneva in December 1936.

(ii) The first was on *methods of assessing the nutritional state of children*. The group consisted of the following members:

*President:*

Professor H. LAUGIER, Professor at the Sorbonne and at the Conservatoire des Arts et Métiers, Paris.

*Members:*

Dr. E. J. BIGWOOD, Professor of Biochemistry at the Université Libre, Brussels;  
Mme. C. BRUNSCHWIG, Under-Secretary of State, Ministry of National Education, representing the Ministry of Public Health, Paris;  
Dr. Martha M. ELIOT, Assistant Chief, Children's Bureau, United States Department of Labor, Washington;  
Professor L. S. FRIDERICIA, Professor of Public Health at the University of Copenhagen;  
Professor E. GORTER, Professor at the University of Leyden;  
Professor U. HJÄRNE, Privat-Docent in Pediatrics, Upsala.  
Dr. A. G. MAITLAND-JONES of the London Hospital, London;  
Professor M. MICHAŁOWICZ, Senator, Professor of Pediatrics at the Joseph Piłsudski University, Warsaw;  
Dr. M. T. MORGAN, Medical Officer at the Ministry of Health, London;  
Professor P. NOBÉCOURT, Member of the Academy of Medicine, Professor at the Faculty of Medicine, Paris;  
Dr. E. NOBEL, Chief Officer of the Mautner Markhofsche Municipal Children's Hospital, Vienna, Professor of Pediatrics at the University of Vienna;  
Professor J. PARISOT, Director of the Institute of Hygiene of Nancy, member of the "Conseil supérieur d'Hygiène", Paris;  
Professor H. J. PELC, Professor at the Faculty of Medicine of the Charles IV University, Prague;  
Professor C. SCHIÖTZ, Professor at the Oslo Institute of Hygiene;  
Professor J. C. STRENG, Head of the School Inspection Department, The Hague.

The report on their findings and recommendations which has been drafted by Professor Bigwood will appear in the February issue of the *Bulletin*.

(iii) The second group studying the *nutritive food requirements during the first year of life* was presided over by Professor GORTER, Professor at the University of Leyden, and included Professor P. LEREBoullet, Professor of the Medical Treatment of Infants and Infant Hygiene, Paris, Dr. Martha ELIOT and Professor BIGWOOD, Professor HJÄRNE, Professor MAITLAND-JONES, Professor MICHAŁOWICZ, Professor NOBEL and Professor PARISOT, who participated in the other consultation. Most of these experts are rapporteurs appointed by the various learned societies or

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<sup>1</sup> For full details of these studies, reference should be made to page 422 of *Quarterly Bulletin* No. 3, Volume V.



national administrations for the study of this specific problem, and their general recommendations will be published with a covering note by Professor Bigwood in a forthcoming issue of the *Bulletin*. They also distributed among themselves the following three problems for further study:

(1) Has the daily administration of more than 750 c.c. of cow's milk to children between 6 and 12 months any unfavourable influence on the nutritive exchanges and particularly on the absorption of calcium and iron?

(2) What are the differences between the action of an artificial preparation of an irradiated sterol and that of irradiated milk, when quantities containing the same number of international units of vitamin D are administered?

(3) Is it desirable to provide systematic preventive treatment against anæmia for all children between 4 and 12 months by the administration of an iron salt?

(iv) As regards problems (c) to (j) on pages 476 and 477 of the *Bulletin of the Health Organisation*, Vol. V, No. 3, this list has been indicated for study at the end of 1935 to the various scientific institutions and learned societies in different countries, and, in the majority of cases, special committees or rapporteurs were appointed to deal with these subjects.<sup>1</sup>

(v) Finally, the preceding Health Committee recommended the study of the methods employed in different countries to provide the whole population, particularly nursing mothers, infants and growing children, with an abundant supply of *pure milk made safe by technical supervision of its production, preservation and distribution*.

This study was entrusted to a group composed of:

Professor C. BENDIXEN, of the Laboratory of Hygiene and Bacteriology, Veterinary School, Copenhagen;

M. G. J. BLINK, President of the Association for the Production and Hygiene of Milk, The Hague;

M. LEROY, Chef des Travaux de Zootechnie à l'Institut agronomique, Paris;

Professor G. S. WILSON, of the Division of Bacteriology and Immunology, School of Hygiene and Tropical Medicine, London;

who made a joint study from October 16th to November 25th, 1936, in the United Kingdom, Sweden, Denmark, the Netherlands and Switzerland. They are now engaged in drafting their report, which should be available in March and will cover the whole range of milk problems (nutritional, hygienic, economic, social and general). It will include conclusions and recommendations.

<sup>1</sup> List of Studies undertaken in the various countries:

*France:*

Nutritive food requirements during infancy.	Professor LEREBoullet and Professor RIBADEAU-DUMAS.
Tests of the nutritional state.	Professor LAUGIER (physiologist and somatologist).
	Professor NOBÉCOURT and Professor VITRY (from the point of view of school medical inspection).
Value of proteins.	Professor TERROINE (Strasbourg).
Vitamin C.	Professor MOURIQUAND (Lyons).
Minimum vitamin requirements.	Mme. RANDOIN.
Enquiries into malnutrition.	Professor LAPICQUE.

*Netherlands:*

Nutritional food requirements during infancy.	Professor GORTER and Professor DE LANGE.
Tests of the nutritional state.	Dr. STRENG (Inspector of Schools, The Hague).
Vitamin and mineral requirements.	Professor JANSEN (Amsterdam) and Professor WOLFF (Utrecht).
Influence of climate.	Professor VAN LOGHEM (Amsterdam).
Enquiry into malnutrition in families.	Dr. STRAUB.
Education in regard to nutrition.	Professor VAN LOGHEM.

*Norway:*

Tests of the nutritional state.	Professor C. SCHIÖTZ, member of the Health Committee's Expert Committee.
Enquiry into malnutrition.	Professor SCHIÖTZ and Dr. DIESEN, Director of Public Health, Oslo.
Secondary deficiency diseases.	Professor O. HANSEN (Professor of Clinical Medicine, Oslo).
Milk.	Professor SCHIÖTZ, with the collaboration of a milk expert.

*Sweden:*

Nutrition in infancy.	Professor HJÄRNE (Assistant Professor of Pediatrics, Upsala) and Mme. ANDREEN-SEEBERG (Stockholm).
Tests and state of health in school-children (in certain areas).	Dr. HÖJER and Dr. HJÄRNÉ.
Milk.	Professor WESTERLUND (Agricultural High School, Upsala).
Condition of recruits over a period of years.	Dr. ABRAMSON (Karolinska Institute, Secretary of the Swedish Nutrition Commission).
Enquiries into malnutrition.	Under the direction of Dr. HÖJER.

The study mentioned above and that recommended by the Technical Commission at its second session concerning certain nutritive properties of milk (see page 477 of the *Bulletin of the Health Organisation*, Vol. V, No. 3) bear upon separate but cognate aspects of the same question. The Health Committee requests the Director of the Health Section to give effect to the said recommendations of the Technical Commission, in consultation with its Chairman and the experts concerned. To that end, co-operation of the various learned societies and national committees should be invited, and the convening of a consultation might be contemplated at the appropriate moment.

The outcome of all these studies will thus be a *collection of documentary material covering the whole question of milk*. In view of its international character, this material should facilitate the carrying into effect of any recommendation that the *Mixed Committee on the Problem of Nutrition* and the national bodies concerned may make to the various Governments.

#### 4. *Housing.*

The preceding Committee appointed a Permanent Commission on Housing under the Chairmanship of Professor PARISOT.

The Committee decides to reappoint this Commission, which will consist of the representatives of the various national committees set up to study housing:

##### *Chairman:*

Professor J. PARISOT, Professor of Public Health at the Faculty of Medicine, Nancy.

Up till now, the National Committees have appointed the following representatives:

Dr. J. A. HÖJER, Director-General of the Public Health Services of Sweden, Stockholm.  
Professor W. W. JAMESON, Dean of the London School of Hygiene and Tropical Medicine, London.

Monsieur H. VAN DER KAA, Engineer, Inspector-General of Public Health, The Hague.

Dr. B. NOWAKOWSKI, Professor at the State School of Public Health, Warsaw.

Professor H. PELC, Professor of Social Medicine at the Charles IV University, Prague.

Professor C. E. A. WINSLOW, Professor of Public Health at the Medical School of Yale University, New Haven (Connecticut).

The Committee considers that this Commission should meet early in the summer of 1937 and that three groups of experts should be consulted on the following questions: air conditioning of the dwelling, the campaign against noise in dwellings, and sunshine and light.

#### 5. *Physical Fitness.*

The Committee will receive for its next session a general report on the present state of physiological knowledge in regard to the problem of physical fitness, and the measures taken or contemplated in several representative countries to give effect to national policies.

The Committee considers that a Commission on Physical Fitness should be set up, consisting of a small number of specialists in physiology, to study this general report and to advise the Health Committee on a programme of study and action which might be recommended to the League Council. It appoints Professor Dürig Chairman, and requests the Director of the Health Section to submit a final list of members of this Commission after consulting Professor Dürig and the International Labour Office.

This Commission should meet in time for its recommendations to be submitted to the Health Committee before its three year programme of work on this subject is drawn up. Later on, in the course of the year, a consultation of directors of the principal schools of physical fitness might usefully be convened.

#### 6. *Leprosy.*

In 1928, the Health Committee set up a Leprosy Commission and organised the study of the problem raised by this disease in the various continents of the world. This study was undertaken by Professor Etienne BURNET, Director of the Tunis Pasteur Institute. In 1931, the Committee recommended that the Council conclude an agreement with the Brazilian Government with a view to the creation of an international centre for research on leprosy at Rio de Janeiro under the auspices of the League. This centre was inaugurated on April 20th, 1934. Professor E. RABELLO is now the Director, and Dr. H. COLE, of Culion (Philippines), has been asked to undertake research work relating to the chemotherapy of leprosy.

In view of the responsibility undertaken by the Health Organisation for the conduct of international studies in this field, the Committee decides in principle to approach the international organisations concerned with a view to the appointment of a Permanent Leprosy Commission for a period of three years. This Commission should be representative of the various centres and institutions for leprosy research and the big organisations for the campaign against this disease (Africa, China, Europe, India, Japan, Latin-America, Netherlands Indies, Philippines). The Leonard Wood Memorial, the British Empire Leprosy Relief Association, the International Leprosy Association and the International Centre at Rio should also be invited to send representatives. Professor E. BURNET will act as General Rapporteur and the Committee requests the Director of the Health Section to undertake the necessary consultations regarding the election of the Chairman of the Commission.



7. *International Nomenclature of Diseases.*

The International Institute of Statistics and the Health Organisation have been requested by the French Government, in accordance with the Protocol annexed to the International Convention of October 19th, 1929, to set up a Joint Commission to prepare the next decennial revision of the International Nomenclature of Diseases. This Joint Commission includes six members appointed by the Health Committee and six appointed by the Institute. Its mandate is to be for three years. The members appointed by the Committee are:

Dr. H. A. EDIN, Director of the Bureau of Medical Statistics of Sweden;  
Dr. Haven EMERSON, President of the Nomenclature Committee of the American Public Health Association;  
Dr. M. KACPRZAK, Chief of the Health Statistics Service, Warsaw;  
Dr. S. MANUILA, Director of the Central Office of Statistics, Bucharest;  
Mr. S. P. VIVIAN, Registrar-General of England;  
A representative of the Services of Medical Statistics of the Union of Soviet Socialist Republics.

8. *Cancer.*

In 1929/30, the Health Committee organised an enquiry for the purpose of following up the effects of radiological treatment of cancer of the *cervix uteri* for a minimum period of five years after the completion of treatment (see report of the thirteenth session of the Committee).<sup>1</sup>

In November 1934, as the time had come to begin the analysis of the case records furnished by the enquiry, the Committee set up an Advisory Committee of Experts to follow up the progress and future course of the enquiry.

As this body has not yet completed its work, the Committee decided to reconstitute it. Its members are as follows:

Professor J. HEYMAN, of the Radium Institute, Stockholm (Chairman);  
Dr. A. LACASSAGNE, Radium Institute, Paris;  
Colonel A. B. SMALLMAN, Ministry of Health, London.

9. *Group of Experts to study the Unification of Methods of determining the Morphine Content of Raw Opium.*

In order to facilitate the task of the national and international bodies responsible for suppressing the traffic in narcotic drugs, the Advisory Committee on Traffic in Opium and Other Dangerous Drugs requested the Health Committee to establish a standard method of determining the morphine content in samples of opium.

The group of experts to which this task was entrusted has not yet completed its work, especially as it was also asked to establish a similar method of determining the cocaine content of coca leaves. The Committee accordingly decides to reconstitute it.

*Chairman:*

Professor L. VAN ITALLIE, Director of the Pharmacological Institute, Leyden;

*Members:*

Dr. H. BAGGESGAARD-RASMUSSEN, Professor at the Royal College of Pharmacy, Copenhagen;  
Dr. R. EDER, Professor at the Pharmacological Institute of the Polytechnic School, Zurich;  
Dr. A. GORIS, Professor at the School of Pharmacy, Paris;  
Professor A. W. K. DE JONG, former Chemist at the Government Laboratory, Batavia;  
Dr. Yutaka KINUGASA, Director of the Imperial Health Laboratory, Tokio;  
Professor E. KNAFFL-LENZ, Professor at the University of Vienna;  
Dr. J. H. NICHOLLS, Chemist at the Government Laboratory, London;  
A member from the United States, to be nominated in consultation with the United States Government.

C. *Collaboration with the International Labour Office.*

At its meeting in October 1936,<sup>2</sup> the Bureau of the Health Committee had drawn the Council's attention to the importance of securing the assistance of the International Labour Office, in accordance with the suggestions made in the Assembly of 1936, more especially in the investigation of housing, physical fitness, the rational use of leisure, nutrition and maternal and infant welfare.

The collaboration of the International Labour Office had also been provided for in the Assembly resolution of September 1936 for the convocation of a Conference on Rural Hygiene for the American countries. The Council, in January 1937, accepted the principle of this co-

<sup>1</sup> See document C.555.M.175.1928 (*Official Journal*, January 1929, page 90).

<sup>2</sup> See *Official Journal*, February 1937, pages 88 and 195.

operation and entrusted the preparation of this Conference to the Secretary-General in consultation with the Director of the International Labour Office. This collaboration is in accordance with precedent, since the International Labour Office took part in the Rural Hygiene Conference of 1931 and has been invited to be represented at the Conference of Eastern Countries which will open in Java on August 3rd, 1937. Further, at its session in October 1936, the Bureau of the Health Committee had proposed that the International Labour Office, like the other technical organisations of the League, should be associated with the preparations for the Conference on Rural Life which it was desirous of holding; the Council, in January 1937, decided to refer the question to the technical organisations, including the International Labour Office.

The Health Committee notes that the Governing Body of the International Labour Office has lately decided that the Director of the Office shall arrange the details of the proposed collaboration in agreement with the Secretary-General of the League and the Director of the Health Section, on the understanding that the results of their conversations shall be submitted to the Governing Body.

The Health Committee trusts that those conversations will be concluded in time for their results to be examined at its session in April 1937, when it will draw up its three-year programme of work to be submitted to the Council for approval.

#### D. *Consultations.*

1. The preceding Committee had arranged for a study of the present methods of teaching and programme of work of the various *National Schools and Institutes of Hygiene* in Europe and the United States. It had also decided to organise a consultation of representatives of those institutions to discuss the report on the aforesaid studies.<sup>1</sup> The Health Committee decides to arrange for this consultation in due course, when the report has been published and the institutions concerned have had time to study it—probably in the autumn of 1937.

2. *Consultation of Various Learned Societies and Technical Institutions.* — The preceding Committee decided to have recourse to various national learned societies and kindred national agencies for the study of certain problems for which it had constituted neither permanent nor temporary commissions and for the investigation of which it required the services of more than one expert and desired to avail itself of national experience. In addition to the problem of nutrition, already dealt with, the questions involved are: rabies, codeinism, treatment of drug addicts, standardisation of catgut, tuberculin tests.

All qualified institutions might be consulted. Among these, the following have already accepted the functions concerned:

The Academy of Medicine of France (Secretary-General, M. C. ACHARD);  
Council of Scientific Research of the Union of Soviet Socialist Republics (President, M. KAMINSKY);  
Academy of Sciences, Netherlands (delegate, Professor W. SCHÜFFNER);  
Royal Academy of Medicine, Belgium (Permanent Secretary, Professor BRUYNOGHE);  
National Academy of Medicine, Madrid;  
National Academy of Science, Washington (delegate, Dr. W. H. HOWELL);  
Medical Research Council, London (Secretary-General, Professor E. MELLANBY);  
National Council of Research, Rome (delegate, Professor D. DE BLASI);  
Academy of Sciences, Belgium (delegate, Professor J. BORDET).

It is suggested that consultation on the various problems should be conducted by correspondence and that, if necessary, representatives of various learned societies concerned in the particular studies should be convened for a consultation as, for instance, in the case of studies on Nutrition.

3. *Serological Tests in Syphilis.* — From 1922 to 1930, the Health Organisation was engaged in an investigation of the serological tests employed both for the diagnosis of syphilis and for guidance in the clinical treatment of the disease. The object was to compare the value (specificity and sensitivity) of the principal methods in use. The Committee quickly came to the conclusion that the only satisfactory method of investigation was that of "laboratory conferences", at which the actual authors of the methods under consideration would assemble in a single laboratory to conduct simultaneous comparative tests on samples of serum obtained from cases that had been thoroughly studied from the clinical standpoint.

After three conferences of this kind (1923, 1928 and 1930), the recommendations adopted by the Health Committee in 1932 were published in a report by Dr. J. R. MOERCH.<sup>2</sup>

Since then, however, science has progressed; methods have evolved; new methods have come to light, and the Committee feels that the conclusions of 1932 must be reviewed. It has therefore

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<sup>1</sup> See Report on the work of the Twenty-third Session of the Health Committee, document C.198.M.124.III.1936, page 6 (see *Official Journal*, June 1936, page 577).

<sup>2</sup> *Bulletin of the Health Organisation*, Volume I, No. 4, page 732 (1932).



decided to summon a new laboratory conference, at a date to be determined with reference to budgetary considerations. Meanwhile, preparations for this conference should be begun, more especially in order to decide what methods are to be tested and what persons are to be invited.

4. *Studies of Certain Agglutinins.* — In October 1935, the Committee had decided to continue the preliminary investigations undertaken into the possibility of standardising certain agglutinins.

Under Professor Madsen's direction, the following institutes have taken part in these investigations:

Cantacuzène Institute, Bucharest: Professor M. CIUCA;  
National Serum Institute, Copenhagen: Dr. F. KAUFMANN;  
Laboratory of the School of Pathology, Oxford: Dr. A. D. GARDNER;  
Lister Institute of Preventive Medicine, London: Dr. A. FELIX;  
National Institute of Hygiene, Warsaw: Professor L. HIRSZFELD.

The Health Committee, having examined the results of these investigations, has decided that, if possible, a meeting of the above-named specialists should be called. It will transmit their conclusions to the Permanent Commission on Biological Standardisation for its opinion.

5. *Salmonellosis.* — Salmonella diseases seem to play an important part in the epidemiology of certain countries—a part which would appear to have been underestimated hitherto owing to difficulties of diagnosis. For these reasons, Professor Th. MADSEN raised the question of setting up regional centres for the study of this question.

The Committee decides to refer the point to the serologists mentioned in the preceding section.

## V. WORK IN PROGRESS AND THREE-YEAR PROGRAMME.

After reviewing the state of the work in progress and deciding upon the list of sub-committees, commissions, groups of experts and technical consultations, and their terms of office and composition, the Health Committee, in order to give effect to Article 4 of the General Regulations on Committees, requests the Director of the Health Section to prepare and submit to it at its next session a detailed draft programme for the Committee's three-year term, having regard to the exchange of views that took place in the Committee and to the decisions embodied in this report, more especially those relating to the consultations therein provided for.

## VI. INTERNATIONAL BIOLOGICAL STANDARDISATION.

Now that the Health Committee is about to plan its work for 1937-1939, it may be appropriate to review the stage reached in the development of biological standardisation.

1. First, the *raison d'être* of this work may be stated:

The therapeutic armoury comprises agents not amenable to chemical titration, the activity of which can be assessed only by biological means—*i.e.*, by tests on animals. The assay of insulin, for instance, involves the comparison of the effect produced on animals by a given quantity of a standard preparation and by a like quantity of the insulin to be tested. Thus, if the standard preparation chosen is everywhere identical there will be a common basis for assays, which will accordingly be comparable. If, in addition, the results observed are everywhere expressed in terms of the same unit of activity, biological standardisation becomes an accomplished fact.

The institution, on the international plane, of such a standardisation of therapeutic substances is of benefit to the medical practitioner, the public health authorities and the manufacturer. The practitioner is thereby enabled to use, without misgivings, preparations from any source, since they are all labelled, as to strength, in terms of equivalent units. For the same reason, the public health authorities are better able to judge of the value of the products placed on the market. Finally, the manufacturer need only assay his export goods in terms of one unit, the international unit, instead of having to use scales of unitage adjusted to national requirements.

Now, up to 1921, uniformity in the matter of assays was far from achieved; numerous countries had set up national standards, differing, in some cases, in the proportions of 1 to 2,500.

2. It was essential to reduce these conditions to order, and it did not appear that any international organisation could undertake this successfully except the League of Nations. Accordingly, as from its second session (1921), the Health Committee began to consider action in this field.

In 1924, after a period of exploration, it appointed a permanent commission on biological standardisation, which has since then, with remarkable continuity of policy, been working on the standardisation of the principal sera and biological products.

Between 1922 and 1935, this Commission has established international standards for eleven therapeutic sera, one bacterial extract, four vitamins, three sex hormones, five gland preparations and five other therapeutic agents. For all important therapeutic substances requiring biological assay, standards and international units may now be said to be available.



3. The Commission's recommendations in regard to assays have been followed out in all large laboratories, a result that may be ascribed to the scientific standing of its members and of the many experts it has associated with its work. It was important, however, that these recommendations should receive official sanction, and that the standards and units advocated should be introduced in the pharmacopœiæ of the various countries. This was achieved by the Inter-Governmental Conference, which met in October 1935 and was attended by representatives of twenty-four countries. Its principal recommendations were as follows:

"The Conference expresses the hope that the use of the international standards adopted by the Permanent Commission on Biological Standardisation of the Health Organisation will be made effective by the competent authorities of all countries.

"The Conference,

"Looking confidently to the Health Committee to maintain the principle of the free distribution of international standards:

"Recommends that the League of Nations should place the necessary funds at the disposal of the Health Organisation for it to continue to meet the expense entailed by the free distribution of such standards."

By now, acting upon these recommendations, thirty-one countries have officially recognised and adopted the units and standards advocated by the Health Organisation. These comprise nineteen countries in Europe, seven in the American continent, one in Africa, and three in Asia and Australasia. Further, it has been possible, so far, to preserve the principle of free distribution.

It is a striking fact that biological standardisation has, from the outset, received universal support, for it affords a fine example of international co-operation. At the Assembly, several delegations testified to the importance which their Governments attached to it, but no evidence is more convincing than the readiness displayed by public health authorities to adopt the Commission's standards and units.

Furthermore, the Council and Assembly have been kept continuously informed of the developments in biological standardisation. In fact, the Rapporteur on the work of the Health Organisation almost invariably makes some statement on the subject, and the Health Committee's proposals have always obtained formal approval. For example, in 1928, the Council authorised the Secretary-General to communicate the Committee's recommendations to Governments (*Official Journal*, July 1928, page 860);<sup>1</sup> on January 17th, 1935, the Council approved the summoning of the Inter-Governmental Conference intended to "confirm the results of the Health Organisation's work" (*Official Journal*, February 1935, page 126); and on January 23rd, 1936, it decided to give effect to the conclusions of that Conference (*Official Journal*, February 1936, page 107). The Assembly itself has specifically referred to international biological standardisation in the following resolutions:

*September, 1922:*

"The Assembly notes with satisfaction:

"The co-operation effected by the Health Organisation in experimental research concerning the standardisation of sera and serological tests."

*September, 1923:*

"The Assembly approves . . . the proposal of the Second Committee to submit to the Health Committee the study of the means by which the results of the investigation of the standardisation of sera can be utilised by the Governments."

*September, 1924:*

"The Assembly notes with pleasure the results obtained through the efforts of the Health Committee in connection with the standardisation of sera and biological products."

*September, 1933:*

"The Assembly . . . attaches special importance to the work accomplished . . . in connection with biological standardisation."

4. It is important that the highly delicate and protracted work required for the establishment of a standard and the choice of a unit should be realised. In the case of a serum, for instance, the horses must be immunised, blood must be taken and its serum dried to ensure stability; it must then be put into ampoules, protected from the air, and preserved at a low temperature—this again to maintain stability. All this calls for skilled handling and expensive appliances: centrifuges, vacuum pumps, glassware, ice chests, etc. Finally—and this is the essential point—comparative assays must be undertaken in as many laboratories as possible, in order to make certain that the standard selected is suitable and to decide as to the value to be ascribed to the international unit.

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<sup>1</sup> See also *Official Journal*, November 1922, pages 1177 and 1253; November 1923, page 1404; July 1925, page 933; February 1927, page 119; see also Assembly proceedings, Minutes of the Second Committee: 1922, page 59; 1923, page 46; 1928, page 62; 1931, page 72; 1932, page 44; 1934, page 50; 1935, page 77.

For solid substances, the preparation of a standard similarly requires a highly skilled technique.

Each assay should be performed on as large a number of animals as possible (rabbits, guinea-pigs, rats, mice). Not infrequently, a single assay may involve the use of two hundred mice.

These few technical details will show the great intricacy of biological standardisation. Now this work is far from finished. To begin with, it will be necessary to standardise new remedies, certain sex hormones and certain vitamins, for instance. Furthermore, the existing supplies of standard substances must be maintained, periodically tested, and distributed to the national distribution centres which the Inter-Governmental Conference of 1935 proposed to establish and which already exist in many countries. Finally, the standards held by these national centres need to be tested from time to time in relation to the international standard preparations, which are held, in the case of sera, by the Danish State Serum Institute and, in the case of other products, by the National Institute for Medical Research in London, these two institutes acting as central laboratories on behalf of the Health Organisation. Such an undertaking must inevitably entail fairly considerable expenditure if its continuity and development are to be assured.

5. *Conclusion.* — The Health Committee is convinced that the work of international biological standardisation is indispensable and that, under present circumstances, the only organisation able to carry it out would seem to be the League of Nations. Facilities for the expansion of this work should be available in order to meet the increasing requirements of national laboratories and keep abreast of scientific progress.

The Health Organisation is moreover convinced that the principle of free distribution should be upheld; this, incidentally, is a point upon which the Inter-Governmental Conference of 1935 laid great emphasis.

*Biological standardisation is thus an essential function of the Health Organisation, and the latter should have the necessary resources at its command to make provision for the practical work entailed.*

## VII. NEXT SESSION.

The Health Committee decides to place the following questions on the provisional agenda of the next session, which, failing any unforeseen circumstances, will be held at Geneva from April 26th to May 1st, 1937:

- (1) Decisions of the Council and communications from the Secretary-General;
- (2) Detailed three-year programme;
- (3) Work in progress and utilisation of budgetary credits.

## INTERNATIONAL LEPROSY RESEARCH CENTRE.

### *Fourth Session of the Governing Body.*

The Governing Body met on February 9th, 1937, to consider, in accordance with Article 12 of the Organic Statute of the Centre, the administrative, technical and financial report for the period 1935/36 (see report in Appendix 2).

At the request of the Brazilian Government, the Governing Body also examined the draft decree on the question of diplomatic privileges and immunities to be granted to the Centre, in pursuance of Article 10 of the Organic Statute.

### “ I.

“ The Governing Body:

“ Approves the administrative, technical and financial report adopted by the Managing Committee on September 30th, 1936;

“ Thanks M. G. GUINLE, Professor E. RABELLO and Dr. H. COLE for the way in which they are striving to develop the technical work of the Centre.”

### “ II.

“ The Governing Body,

“ Having taken note of the draft decree communicated to it in a letter from the Brazilian Consul-General in Geneva, dated January 9th, 1937, on the question of diplomatic privileges and immunities considered in relation to the International Centre for Research on Leprosy:

“ Thanks the Brazilian Government for kindly making this communication;

“ Expresses the hope that this Government will consider favourably the possibility of extending the said privileges and immunities in such a way that the position of the International Centre for Research on Leprosy may be brought into harmony, in this respect, with that of the other institutes placed at the disposal of the League of Nations.”

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## Appendix 1.

### DRAFT RULES OF PROCEDURE OF THE HEALTH COMMITTEE.

#### *Rule 1.*

The Health Committee shall be constituted and shall exercise its powers in conformity with the Statute of the Health Organisation approved by the Council on September 26th, 1936, and by the Assembly on October 10th, 1936.

As a technical organisation of the League of Nations, it shall assume the functions proper to technical committees. It shall study all questions falling within its provinces, and, in particular:

(a) It shall advise the Council of the League of Nations on such questions as may be referred to it by the Assembly or the Council and in execution of international conventions;

(b) Whenever it thinks fit, and after preliminary consideration, it shall lay before the Council advice or proposals on its own initiative;

(c) In accordance with paragraph 4 of the General Regulations on Committees, it shall, after each general appointment of its members by the Council, draw up and submit to the Council its general programme of work for the duration of its term of office, taking into account the recommendations of the annual assembly of the General Advisory Health Council.

#### *Rule 2.*

The internal procedure of the Committee shall be governed by the General Regulations on Committees, as amplified by these Rules of Procedure.

#### *Rule 3.*

The Committee shall elect a President and a Vice-President from among its members by secret ballot and by the absolute majority of votes cast, provided not less than seven members have taken part in the vote. Abstentions are not counted in reckoning the latter total. These officers shall be elected for the Committee's term of office and until the next President and Vice-President are appointed.

The President of the General Advisory Council shall be Vice-President *ex officio*.

#### *Rule 4.*

The Committee shall hold not more than four ordinary sessions each year, three of which shall, whenever possible, precede the sessions of the Council of the League of Nations.

The Committee may also be convened in extraordinary session at the request of the Council of the League of Nations, or on the initiative of the President, or at the request of not fewer than five members of the Committee, provided, in these last two cases, that funds permit.

#### *Rule 5.*

The President, through the Secretary-General, shall send out notices of meeting to members of the Committee; except in cases of urgency, such notices shall be despatched in time to reach them at least three weeks before the beginning of the session.

Reports and memoranda concerning questions on the agenda of the session shall so far as possible be sent to members of the Committee in time to reach them at least two weeks before the session.

#### *Rule 6.*

The agenda of the session shall be attached to the notices. At the end of the session, the Committee shall decide upon the provisional agenda for the following sessions.

Any member of the Committee may notify the President that he proposes to ask for the inclusion of a particular question in the agenda of the session. The Committee shall decide as to the inclusion of such question in its agenda by a two-thirds majority of the members present.

The Committee may also decide in the course of a session, by a two-thirds majority of the members present, to add a question to its agenda.

#### *Rule 7.*

Minutes of the Committee meetings shall be kept, and the text submitted for approval to the members attending the session.

#### *Rule 8.*

Except as otherwise provided in these Rules, the Committee shall take its decisions by a majority of the members present, seven to form a quorum. Should the voting be equal, the proposal put to the vote shall be deemed to be rejected.



Any reasoned statement of opinion by a minority consisting of one or more members of the Committee shall, if such minority so desires, be communicated to the Council together with the Committee's resolutions.

*Rule 9.*

No draft resolution can be considered by the Committee unless it has been handed to the President in writing.

Unless otherwise decided by a unanimous vote of the Committee, no proposal shall be finally adopted until it has been examined by a drafting sub-committee of two members, which shall lay before the Committee a text in English and French.

Resolutions, when finally adopted by the Committee, shall form an integral part of the report on the work of the session.

*Rule 10.*

In accordance with Section 7, paragraph 1, of the General Regulations on Committees, the Committee may, on its own initiative, appoint sub-committees selected entirely from among its own members.

Furthermore, for the purpose of investigating a group of kindred questions or any particular question, the Committee may, subject to the Council's approval, appoint sub-committees wholly or partly composed of experts other than members of the Committee—*e.g.*, representatives of technical institutions or learned societies.

All such sub-committees shall cease to hold office at the same time as the Committee or earlier.

The Chairmen of sub-committees shall convene the latter through the Secretary-General.

The reports of sub-committees shall not be officially transmitted to Governments until the Committee has had an opportunity to discuss them and lay its conclusions before the Council.

*Rule 11.*

In accordance with Section 5 of the General Regulations on Committees, the Committee may apply for investigations, advice and information to specialists, technical institutions or learned societies.

*Rule 12.*

These Rules may be amended in conformity with the provisions of Rule 8 and subject to approval by the Council.

**Appendix 2.**

INTERNATIONAL LEPROSY RESEARCH CENTRE (RIO DE JANEIRO):  
ADMINISTRATIVE, TECHNICAL AND FINANCIAL REPORT.

LETTER FROM THE PRESIDENT OF THE COMMITTEE OF MANAGEMENT TO THE SECRETARY OF THE  
GOVERNING BODY.

I have the honour to enclose the 1935 accounts and the draft budget and programme for 1937 for submission to the Governing Body for approval. All these documents were duly considered and approved by the Committee of Management at its meeting on September 30th last.

\* \* \*

*Accounts as at December 31st, 1935.*

Receipts for 1935:

Grant from the Brazilian Government . . . . .	175,650\$500	
Grant from Dr. Guilherme Guinle . . . . .	175,650\$500	
		351,301\$000
Balance carried over from 1934 . . . . .		124,366\$400
Total receipts . . . . .		475,667\$400
Expenses incurred and paid up to December 31st, 1935. . . . .		353,527\$500
Balance available at December 31st, 1935 . . . . .		122,139\$900

Expenses incurred and paid under the following headings:

*From the receipts for 1935:*

Staff of the Centre and Sub-Centre. . . . .	212,716\$600	
Motor-car . . . . .	22,891\$100	
Material . . . . .	47,490\$500	
Furniture and equipment . . . . .	1,245\$000	
Animals (for experiments) . . . . .	490\$000	
Library of the Centre . . . . .	104\$800	
Material for chemical laboratory. . . . .	4,868\$100	
Chaulmoogra oil . . . . .	23,371\$800	
Public health dispensaries . . . . .	4,499\$200	
		317,677\$100

*From the Balance carried over from 1934:*

Unforeseen expenditure . . . . .	15,850\$400	
Library of the Centre . . . . .	10,000\$000	
Grant to the Library of the Oswaldo Cruz Institute . .	10,000\$000	
		35,850\$400
Total expenditure . . . . .		353,527\$500

Rio de Janeiro, September 30th, 1936.

(Signed) Arnaldo DA COSTA CRUZ,  
Accountant.

(Signed) Dr. Ed. RABELLO,  
Director.

*Use made of Balances.*

*Balance for 1934.*

In accordance with Articles 5 and 8 of the Financial Regulations of the International Centre for Research on Leprosy, the balance for 1934 was carried over to 1935 as follows:

Reserve fund . . . . .	50,000\$000	
Donation to Oswaldo Cruz Institute Library . . . . .	10,000\$000	
Centre Library . . . . .	10,000\$000	
Equipment of laboratory at new headquarters . . . . .	30,000\$000	
Material (office equipment and publications) . . . . .	5,000\$000	
Unforeseen expenditure . . . . .	19,366\$400	
		124,366\$400

Of this balance, the following sums were spent during 1935:

Unforeseen expenditure . . . . .	15,850\$400	
Centre Library . . . . .	10,000\$000	
Donation to Oswaldo Cruz Institute Library . . . . .	10,000\$000	
		35,850\$400
thus leaving . . . . .		88,516\$000
less Reserve Fund . . . . .		50,000\$000
		38,516\$000
Final balance . . . . .		38,516\$000

This sum was carried over to the 1935 financial year by decision of the Committee of Management (Articles 5 and 8 of the Financial Regulations).

*Balance for 1935.*

The balance of this financial period—namely,		
Receipts . . . . .		351,301\$000
Expenditure . . . . .		317,677\$100

amounts to . . . . . 33,623\$900

In accordance with Articles 5 and 8 of the Financial Regulations of the International Centre for Research on Leprosy, this balance was also carried over to 1936 by decision of the Committee of Management, leaving a balance for 1936 of:

1934 balance carried over to 1935 . . . . .	38,516\$000	
Carried over from 1935 . . . . .	33,623\$900	
Total . . . . .		72,139\$900

Accordingly the following sums remain available for 1936 and have been appropriated as follows:

Unforeseen expenditure . . . . .	52,139\$900
Material . . . . .	20,000\$000
Total . . . . .	72,139\$900

The Reserve Fund of 50,000\$000, owing to its special character, is not included in the available balance.

Rio de Janeiro, September 30th, 1936.

(Signed) Arnaldo DA COSTA CRUZ,  
Accountant.

(Signed) Dr. Ed. RABELLO,  
Director.

*Draft Budget for 1937.*

Grant from the Brazilian Government . . . . .	175,650\$500
Grant from Dr. Guilherme Guinle . . . . .	175,650\$500
Total . . . . .	351,301\$000

*Appropriations:*

1. Administration:			
(a) Director's Remuneration . . . . .	18,000\$000		
(b) Administrative staff . . . . .	25,200\$000		
(c) Material . . . . .	67,000\$000		
			110,200\$000
2. Epidemiological Section:			
(a) Chief . . . . .	18,000\$000		
(b) Deputy Chief . . . . .	14,400\$000		
(c) Assistant . . . . .	3,600\$000		
			36,000\$000
3. Chemical Section:			
(a) Dr. I. H. Cole, Chief (League of Nations).			
(b) Deputy Chief . . . . .	14,400\$000		
(c) Two laboratory assistants . . . . .	7,200\$000		
			21,600\$000
4. Bacteriological and Immunological Section:			
(a) Chief (to be sent by the League of Nations).			
(b) Deputy Chief . . . . .	14,400\$000		
(c) Laboratory assistant . . . . .	3,600\$000		
			18,000\$000
5. Therapeutic Section:			
(a) Treatment of patients in hospital . . . .	37,200\$000		
(b) Treatment of patients in dispensaries . .	36,000\$000		
			73,200\$000
6. Epidemiological research in the interior . . . . .			20,200\$000
7. Work of experts . . . . .			14,400\$000
8. Course of leprology . . . . .			10,000\$000
9. Review of leprology . . . . .			8,000\$000
10. Library . . . . .			5,000\$000
11. Reserve Fund . . . . .			10,000\$000
12. Unforeseen expenditure . . . . .			24,401\$000
Total . . . . .			351,301\$000

Rio de Janeiro, September 30th, 1936.

(Signed) Dr. Ed. RABELLO,  
Director.

*Centre's Programme of Work for 1937.*

*I. Epidemiology:*

- (a) Continuation of the survey in the Federal District;
- (b) Continuation of the survey begun in July at Minas Geraes;
- (c) Continuation of the survey in the State of Espirito Santo;
- (d) Epidemiological analysis of the record cards sent in by the Leprosy Department of the State of São Paulo.



2. *Chemistry:*

- (a) Continuation of the manufacture of drugs for research at the Centre;
- (b) Continuation of the pharmacological study of oil of *Carpotroche brasiliensis* and other *flacourtiæ* of Brazil;
- (c) Constitution of a stock of chaulmoogra preparations, in order to meet requests of foreign Governments at low prices, and also to supply the leprosy services of the Brazilian States in exchange for epidemiological survey work.

3. *Clinical Therapeutics:*

- (a) Continuation of research on the treatment of hospital patients;
- (b) Treatment of patients at dispensaries;
- (c) Experimental treatment of leprosy with oxygen by Professor Osorio de Almeida's method.

4. *Immunology and Bacteriology:*

- (a) Continuation of research on the leprolin test by the Mitsuda-Hayashi method;
- (b) Continuation of the study of concurrent tuberculous infection among lepers;
- (c) Continuation of the study of tubercular leprosy in co-operation with the Dermatological Clinic of the Faculty of Medicine;
- (d) Continuation of serological researches on leprosy, particularly with reference to tests with the Witebsky-Klingerstein and Kuhn antigen;
- (e) Continuation of the study of the inoculation of rats with leprosy on the basis of Jordan's work.

5. *Course of Leprology:*

During 1937, from July to October, a second course of leprology will be organised at the Centre, with the assistance of the Federal Public Health Department, the Oswaldo Cruz Institute, the Rio Dermatological Clinic, the Leprosy Department and Dermatological Clinic of São Paulo and the Leprosy Service of Minas Geraes. With the experience gained by this first trial attempt, we shall, next year, develop more intensive propaganda for the course in the countries of Central and South America, with a view to emphasising its international character.

6. *Work of Experts:*

This work will be continued in 1937, so far as the funds already allocated permit. It comprises the work already proceeding at São Paulo, including the inoculation of human leprosy into rats (Jordan).

7. *Review of Leprology:*

The *Revista Brasileira de Leprologia* has now reached its third issue, and it is evident that it has achieved the object in view, by providing a central organ for the publication of the most important work carried out in our country and, to some extent, in all South America.

The publication of the review will be continued next year with all possible improvements.

8. *Library:*

The organisation of the Library will be continued by the acquisition of books and scientific papers and by the taking out of subscriptions for the principal specialised journals. The Library has already been much used by the students at the Centre, for whom certain hours of the day are set aside for purposes of consultation, in order that they may be able to follow the course of instruction more easily.

9. *Committee of Experts:*

We have already reflected on the organisation of this Committee, and, in this connection, we have reverted to our original idea of appointing to it a certain number of persons whose names had been agreed, in principle, by the Director and Dr. Burnet. We think that it would be preferable for this Committee to consist, not so much of persons already engaged in the study of other questions, whose co-operation would not be assured, as of experts taken from among the younger workers, who are engaged in leprosy research and have already published papers on this question. These workers would naturally be stimulated by this appointment and could furnish interesting contributions. For that purpose, I have proposed a number of Brazilian and South American names to the Committee for approval, and I am certain that all the persons concerned will co-operate effectively with the Centre.

10. *Relations with Other Countries:*

In our earlier reports, we recorded the information which is relevant to this question. At the present moment, Dr. Salomon Schujman, who has been sent by the " Patronato de Leprosos ", of Buenos Aires, is working at the Centre.

Next year we are expecting at least two doctors, who are to be sent by the Colombian Government to undertake certain studies at the Centre; as is natural, having regard to our international objects, we are always ready to welcome any doctors who wish to avail themselves of the facilities provided by the Centre.

In the course of the year, we answered a number of requests for information received from various foreign countries concerning leprological questions, especially on the preventive side. At the moment, we are furnishing particulars at the request of the Cuban Minister at Rio. The "Patronato de Leprosos", of Buenos Aires, has just asked for information concerning the sale of our chaulmoogra preparations.

*Supplementary Information concerning the Programme of Work for the Year 1937.*

*Epidemiology:*

The surveys carried out in this connection represent a minimum instalment of the programme; consideration is being given to the extension of these surveys to other States.

In order to secure comparable results, the Centre has drawn up a scheme of a survey with a model record card, which has been accepted by the Leprosy Services of the various States. We hope to be in a position to publish partial results of these surveys as from March next.

*Chemistry:*

Proceeding with his research work, Dr. Cole has been able to isolate all the active acids in *Hydnocarpus wightiana* and *Carpotroche brasiliensis* oils. These studies, which have yielded a certain amount of new physico-chemical knowledge, will be published shortly and an account will be included in our half-yearly report, which will be seen at the end of the year.

*Clinical Therapeutics:*

We regard the present year as having been a period of preliminary research with a view to the obtaining of good standardised chaulmoogra preparations. As will be indicated in our next report, this object has been achieved with the preparations made by our Chemical Department. Before the end of the year, we shall lay down a plan of research for 1937, roughly on the following lines:

(a) Treatment of two groups of patients that are similar in regard both to the form and clinical development of the disease, and to age, sex, environment and diet. One of these groups will be treated with chaulmoogra, and the other will receive no anti-leprosy treatment. Both groups will be chosen from among persons who have not yet had chaulmoogra treatment administered to them.

(b) Research will similarly be conducted with three other groups of patients, one of which will be treated with chaulmoogra, the other merely subjected to a given diet and the third treated with chaulmoogra and subjected to a special diet. For this purpose, we contemplate resorting, among others, to Gerson Hermansdorff's diet, which gives good results in skin tuberculosis. We also have in view resuming the study of aniline dyes alone or combined.

*Immunology and Bacteriology:*

Notwithstanding the limitation of resources and the fact that it still lacks a chief, this Department has developed its activity under the guidance of its assistant in working conjunction with one of the assistants of the Dermatological Clinic.

The Witesby *et alt* reaction continues to yield interesting results in regard to a possible difference between tubercular leprosy and the other clinical forms of the disease, as will be seen in our report at the end of the year.

An attempt is being made at the present moment by means of preliminary experiments, to devise a technique for the standardisation of the constituent elements of the test; this will be discussed in the near future in a note to the Biological Society. There are already some indications that it may be possible to devise a method for intensifying the fixation action of leprosy sera, which may assist in interpreting negative reactions in certain clinical forms and which may, possibly, have a certain value for the diagnosis of leprosy and syphilis.

As regards the Mitsuda test, I have been able by means of a scholarship granted by the Centre, to secure the co-operation of Dr. Rotberg of the São Paulo Leprosy Institute. In consultation with the assistant of the Department at the Centre, a study has been made of an approximate method for the standardisation of the antigen, which must be prepared in large quantities in order to develop research work in the States in which the Centre is conducting epidemiological surveys. In this way, an extensive enquiry can be carried out which will lead to conclusions as to the practical value of the test.

*Course of Leprology:*

The 1936 course, the programme of which was sent to the Governing Body on August 11th last, begun on July 15th, is still proceeding and is proving highly successful. At the present moment, eighty-six persons, including doctors and sixth-year students, are following the course. I have the impression, having regard to this evidence of the popularity of the course and the interest taken by the various Government Departments, which have sent doctors to follow it, that the Centre has rendered great service to the leprosy prevention organisations, the value of which has just been recognised by an official declaration of the Director-General of the Federal Public Health Department.

Rio de Janeiro, October 1st, 1936.

(Signed) Dr. Ed. RABELLO,  
Director.

