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WORLD HEALTH ORGANIZATION
TECHNICAL REPORT SERIES

No. 53

**EXPERT COMMITTEE ON
HEALTH STATISTICS**

Third Report

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WORLD HEALTH ORGANIZATION

PALAIS DES NATIONS

GENEVA

JULY 1952

EXPERT COMMITTEE ON HEALTH STATISTICS

Third Report ¹

The Expert Committee on Health Statistics held its third session in Geneva from 21 to 29 November 1951.

At its second session, held in Geneva in April 1950, the committee made the following recommendation :

“ The Expert Committee on Health Statistics,
Considering the magnitude and complexity of statistical procedures in morbidity,
RECOMMENDS that the next session of the Expert Committee on Health Statistics
be called early in 1951, to which co-opted members suitable for considering the
matter of morbidity statistics should be invited, with the object of obtaining an
orientation, evaluation, and selection of the projects requiring international action
in this field . . . ” ²

In implementation of this recommendation the Director-General convened the third session of the Expert Committee on Health Statistics in two parts : (1) a conference on morbidity statistics, and (2) a series of meetings devoted to consideration of the general problems of health statistics.

¹ The Executive Board, at its ninth session, adopted the following resolution :

The Executive Board

1. NOTES the report of the Expert Committee on Health Statistics on its third session ;
2. THANKS the members of the committee for their work ;
3. AUTHORIZES publication of the report, and
4. RECOMMENDS to the Fifth World Health Assembly the adoption of the following resolution :

The Fifth World Health Assembly,

Having noted the report of the Expert Committee on Health Statistics on its third session,

1. CALLS the attention of Member Governments to the recommendations in this report pertinent to national committees on vital and health statistics, or equivalent bodies ; and
2. CALLS upon Member Governments actively to encourage the medical profession, in particular through university teaching, to collaborate fully in the proper reporting of morbidity and causes of death, employing methods which scrupulously safeguard medical secrecy.

(Resolution EB9.R86, *Off. Rec. World Hlth Org.* 40, 31)

² *World Hlth Org. techn. Rep. Ser.* 1950, 25, 7

CONFERENCE ON MORBIDITY STATISTICS

Geneva, 21-26 November 1951

Participants :

- Professor R. Bachi, Director, Central Bureau of Statistics and Economic Research, Jerusalem, Israel (*Vice-Chairman*)
- Professor F. A. E. Crew, University of Edinburgh, Edinburgh, United Kingdom
- Dr. P. F. Denoix, Chef des Services techniques et de la Section du Cancer, Institut national d'Hygiène, Paris, France
- Dr. H. F. Dorn, Chief, Biometrics Section, National Cancer Institute, National Institutes of Health (US Public Health Service), Bethesda, Md., USA
- Dr. H. L. Dunn, Chief, National Office of Vital Statistics (US Public Health Service), Washington, D.C., USA
- F. Fraser Harris, Director, Health and Welfare Division, Dominion Bureau of Statistics, Ottawa, Canada
- Professor R. B. Lal, Acting Director, All-India Institute of Hygiene and Public Health, Calcutta, India
- Dr. W. P. D. Logan, Chief Statistician (Medical), General Register Office, London, United Kingdom (*Rapporteur*)
- Dr. M. G. Neurdenburg, Medical Inspector, Amsterdam, Netherlands
- Professor L. J. Reed, Vice-President, Johns Hopkins University, Baltimore, Md., USA (*Chairman*)

Representative of the United Nations :

- F. E. Linder, Chief, Demographic and Social Statistics Branch, Statistical Office, United Nations, New York

Observers :

- Miss L. E. Bodmer, Social Security Division, ILO
- L. Féraud, Actuarial Adviser, ILO
- Dr. B. Pirc, Head, Department of Health Statistics, Committee of Public Health Protection, Belgrade, Yugoslavia

Statistical Consultant :

- Dr. D. Mackay, General Register Office, London, United Kingdom

Secretariat :

- Dr. M. Pascua, Director, Division of Health Statistics, WHO (*Secretary*)
- Dr. Marie Cakrtova, Chief, International Statistical Classification of Diseases and Causes of Death Section, WHO
- Dr. M. Pizzi, Chief, Morbidity Statistics Section, WHO
- Dr. P. Stocks, Chief, WHO Centre for the Classification of Diseases, General Register Office, Southport, Lancs., United Kingdom

The report of this conference was originally issued in mimeographed form as document WHO/HS/32, 14 December 1951.

PART I. CONFERENCE ON MORBIDITY STATISTICS

The conference on morbidity statistics was held from 21 to 26 November 1951. Professor L. J. Reed was elected Chairman, Professor R. Bachi, Vice-Chairman, and Dr. W. P. D. Logan, Rapporteur.

I.1 Introduction

I.1.1 *Importance of morbidity statistics*

Morbidity statistics can provide a picture of the amount of illness, disability, and injury within a population and constitute a valuable source of information needed in connexion with a variety of problems. This information is required to amplify that given by mortality statistics, as it is well recognized that the main causes of death in any community are far from being the main causes of sickness in it. The usefulness of morbidity data requires little emphasis. The public-health administrator, at first primarily concerned with the prevention of infectious diseases, soon came to realize that there were many other conditions about which information was required in order that he might implement the work in the community for which he was responsible. To the hospital administrator a knowledge of the amount and nature of the diseases prevailing in his area is of paramount importance if he is to provide adequate facilities for dealing with them. Morbidity data are needed for the planning, development, and management of programmes concerned with all aspects of social security in its widest sense. Industrial undertakings and other organizations engaged in production or concerned with the national economy need morbidity statistics in order to assess and to reduce the effects of sickness upon the availability of man-power. Persons engaged in medical research utilize morbidity statistics in studying the etiology and pathogenesis of sickness, and in seeking methods of prevention or cure. Finally, social research workers need morbidity statistics in order to correlate sickness of varying severity and duration with the social and economic factors that are themselves inextricably bound up with how patients react to their sickness.

I.1.2 *Scope of morbidity statistics*

The committee decided not to adopt any narrow or restrictive definition of morbidity statistics and thereby limit the range of its discussion, but rather to take cognizance of any statistics relating to departure from

health as defined in the Constitution of the World Health Organization :

“ Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity.”³

I.2 Types and Uses of Morbidity Statistics Applicable to Countries in Various Broad Stages of Development

The committee, recognizing from the outset the magnitude and complexity of morbidity statistics, and being aware that in many countries morbidity data are difficult to obtain, decided that a useful purpose would be served by reviewing generally the types and uses of morbidity statistics that are available, particular regard being paid to the varying needs and the varying availability of data in countries at different stages of development in regard to their statistical and health administrations.

I.2.1 Classification of countries

As an initial step the committee adopted the following broad classification of countries by stage of development, without attempting to allocate individual countries to this classification :

A. Countries with no complete enumeration of population and lacking, or with only slightly developed, public-health and vital registration systems.

B. Countries with an overall or partial census and with a well-developed public-health and vital registration system for parts of the population (e.g., for large towns) but not for all.

C. Countries with an overall census and well-developed facilities for obtaining morbidity statistics.

I.2.2 Coverage of population

The committee also adopted the following classification of the sections of the population, within a country or area, that would be covered by different methods of morbidity ascertainment :

W. Whole population of country (or representative sample of it).

X. Population of selected locality (or sample of it).

Y. Selected types of persons in whole population (or samples of them).

Z. Persons applying to selected health services.

³ World Health Organization (1952) *Handbook of basic documents*, 4th ed., Geneva, p. 3

I.2.3 *Coverage of morbidity*

In addition, the committee adopted the following classification of morbidity according to the periods of time covered by any particular method of ascertainment and according to whether all conditions or selected conditions would be included :

1. All sicknesses at a point of time.
2. All sicknesses during a period of time.
3. Selected diseases or impairments at a point of time.
4. Selected diseases or impairments during a period of time.

I.2.4 *Uses of morbidity statistics*

As a further step towards its objective of reviewing and assessing types of morbidity statistics, the committee adopted the following summary classification of the uses of morbidity statistics :

- a. Control of communicable diseases.
- b. Planning for development of preventive services.
- c. Ascertainment of relationship to social factors.
- d. Planning for provision of adequate treatment services.
- e. Estimation of economic importance of sickness.
- f. Research into etiology and pathogenesis.
- g. Research on efficacy of preventive and therapeutic measures.
- h. National and international study of distribution of diseases and impairments.

I.2.5 *Types of morbidity statistics, with coverage, applicability, and uses of each*

The committee then adopted a list of types of morbidity statistics, indicating for each type, and in accordance with the classifications above, the coverage of population and of morbidity, the uses, and the groups of countries in which each type would be found applicable.

The committee did not regard this list of types of morbidity statistics as necessarily exhaustive but rather as illustrative of the wide range of types and uses of morbidity data. It noted also that many of the types of morbidity statistics listed were derived as by-products of machinery set up for other purposes and not primarily established for the purpose of the ascertainment of morbidity.

	Coverage		Uses	Applicability
	population	morbidity		
Sickness surveys by home visitation of :				
all persons in selected area	X	1-4	b, c, d, e	ABC
representative sample of selected area	X	1-4	b, c, d, e	(A)BC
representative sample of whole population	W	1-4	b, c, d, e, h	C
Mass diagnostic and screening surveys (tuberculosis, etc.)	XY	3	a, d	ABC
Census enumeration of sick persons .	W	3	d, h	BC
Census enumeration of certain defects	W	3	h	BC
Records of notifiable communicable diseases	WX	4	a, b, d, e, f	BC
Registration of certain diseases (can- cer, rheumatism, etc.) with or with- out follow-up survey	WX	4	c, d, f, g, h	C
Certification of certain conditions for special benefits (including special food allowances)	W	4	b, d	C
Records of road accidents	WX	4	b	C
Records of industrial and occupational accidents and diseases	Y	4	b	C
General hospital inpatient records .	Z	2-4	c, d, f, g	ABC
General hospital or clinic outpatient records	Z	4	c, d	ABC
General home-visiting and nursing services	Z	4	d	BC
Records of special clinics, hospitals, and agencies (tuberculosis, mental diseases, venereal diseases, dentis- try, etc.)	Z	4	b, c, d, f, g	ABC
Continuous records of doctors' prac- tices	Z	2, 4	d	BC
Social-security schemes, compulsory and voluntary	Y	1-4	c, d, e	BC
Voluntary health plans and funds .	Y	1-4	c, d, e	BC
Pensions and veterans' records . . .	Y	3, 4	d, g	C
Life-insurance and sickness-insurance records	Y	3, 4	e, f	BC
Records of health welfare centres (ma- ternity, infant, and preschool child)	(Y)Z	3, 4	b, c, d, f	BC
Medical records in educational insti- tutions (routine inspections, sick- ness, absenteeism)	Y	1-4	a, b, d	BC
Records of physical examinations and sickness absenteeism in industrial, civil service, and other occupational groups	Y	2-4	b, c, e	ABC
Sickness and recruitment records of the Armed Forces	Y	1-4	a, b, g, h	(A)BC

I.3 Particular Types and Sources of Morbidity Statistics

The committee considered in greater or lesser detail several of the types of morbidity statistics listed in section I.2, paying attention to their range of usefulness and their particular advantages or deficiencies as sources of information on morbidity, and making such recommendations as it considered desirable in order to increase the value of these morbidity statistics both from the national and from the international viewpoint.

I.3.1 *Sickness surveys*

The committee noted with considerable interest the studies of morbidity by means of sickness or population surveys which have been or are now being conducted in a number of countries including Canada, Denmark, England and Wales, and the USA. It was impressed by the fact that the survey method, covering either a whole population or more usually a representative sample of it, is a promising method for obtaining various types of health statistics, for broadening the interpretative base for morbidity data obtained by other means, and for planning health services and health programmes.

It was pointed out in the discussion that the survey method is of wide applicability in the more-advanced countries and may be so also in the countries with relatively undeveloped health facilities where the possibility of obtaining morbidity data from registration or record system is extremely limited and where the same organization could be responsible not only for the planning of health services but also for conducting morbidity surveys to further this objective.

Among others, the following advantages of the survey method are pointed out :

- (a) it provides the possibility of linking morbidity data to a variety of social and economic conditions ;
- (b) the population covered is automatically defined ;
- (c) it offers a means of linking the data in existing medical records to that obtained from the general population ;
- (d) if probability sampling methods are employed, the desired information can be obtained with specified precision at the smallest possible expense ;
- (e) the method is flexible and can be utilized to provide answers to a wide variety of specific questions of practical administrative as well as scientific importance ; and

(f) if the objectives of the investigation are not continuous, once the specific objective has been accomplished the survey can be easily stopped and the personnel utilized for investigations of other problems.

The committee noted, however, that the survey method requires the services of experts in sampling theory, in the planning and the operation of field surveys, and in the analysis of morbidity data. Moreover, it was recognized that close co-operation between these experts and the administrators who are to use and properly interpret the data collected would be highly desirable. Therefore,

I. The Expert Committee on Health Statistics

RECOMMENDS that national agencies responsible for health or health statistics establish groups of experts in sampling theory, in the operation of field surveys, and in the analysis of morbidity data within their organization which can utilize survey methods in the investigation of the varied health problems with which such agencies are confronted and make the services of these experts available for consultation throughout the nation and for international purposes.

The committee felt that the possibilities of the survey method should be further explored by national committees on vital and health statistics, or their equivalents, and other appropriate national health organizations.

The question should be examined of how far the methods of sickness surveys are applicable in underdeveloped countries where difficulties may arise in obtaining reliable answers to questions regarding numbers of illnesses, how long they lasted, and their nature. Accordingly,

II. The Expert Committee on Health Statistics

RECOMMENDS

(1) that national committees on vital and health statistics, or their equivalents, and other national health organizations undertake or promote studies of the methodology and procedures for the validation of surveys and the data obtained by them, including such problems as interview design, response error, interviewer bias, and methods of verification of diagnostic information both for medically attended and medically unattended illness; and

(2) that studies be made of the possibility of utilizing survey methods and sampling procedure to tie together information obtained from the general population and morbidity data in existing records of hospitals, clinics, and similar sources.

III. The Expert Committee on Health Statistics,

Considering the fact that some countries have had experience in this subject and also that it would be desirable that the national com-

mittees on vital and health statistics have some background information in order to facilitate the task,

RECOMMENDS that the national committees on vital and health statistics, or their equivalents, of Canada, Denmark, India, Japan, Switzerland, the United Kingdom, and the USA make a preliminary report on this subject to be distributed by the World Health Organization to the other national committees on vital and health statistics, or their equivalents.

I.3.2 *Census enumeration of certain defects, for example, "blindness"*

While aware that data obtained by this method are in many cases underestimates of the real incidence of such defects within the community, the committee considered that in certain countries where those defects are widespread and where no other statistical sources about them are available, census enumeration could be useful.

I.3.3 *Notifiable communicable diseases*

In this field the committee gave its attention mainly to the following points:

(1) The incompleteness of notification, which affects to a varying and sometimes high degree the value of statistics of infectious diseases in many countries. The degree of incompleteness of notification varies

- (a) between different diseases,
- (b) between different countries and between parts of the same country, and
- (c) from time to time.

This prevents accurate comparisons of the real incidence of the communicable diseases in different countries and at different times.

(2) The variety of criteria by which the same disease may be defined in various countries for the purpose of notification and the variety of procedures used, if any, for correction of diagnosis and for avoiding duplication of notification.

(3) The list of communicable diseases notifiable in various countries differs to a marked extent. The committee did not, of course, enter into discussion of the usefulness of the notification of each infectious disease from the standpoint of each public-health administration.

(4) There are wide differences in the methods by which data on communicable diseases are published in different countries, for example:

- (a) whereas some countries publish data giving the detailed distribution of notifications by sex and age, others publish only general totals;
- (b) in some countries, notifications are classified by area of notification, in others by area of residence.

I. The Expert Committee on Health Statistics,

Recognizing the importance of the problems involved in the notification of communicable diseases and the need for them to be solved so far as possible in order that the usefulness of notifications of communicable diseases may be increased both for national and for international comparisons,

RECOMMENDS that all countries be invited to give thought to improving the methods whereby statistics of notifiable communicable diseases are collected. In particular :

(1) the completeness of notification should be improved by seeking the fullest co-operation from the medical profession and health institutions, and by any other means considered suitable for this purpose ;

(2) for each notifiable disease, it should be made clear whether it is intended that notification be based on

(a) clinical findings alone, or

(b) laboratory or other evidence, or

(c) both (a) and (b) ;

(3) procedures for avoiding duplication of notification and for ensuring correction of final diagnosis should be adopted.

II. The Expert Committee on Health Statistics,

Considering that the implementation of recommendation I would be facilitated if special studies of the main problems involved (i.e., incompleteness of notification, standards for notification, area assignment, and duplication of notification) could be made in a few of the countries that have well-established notification systems,

RECOMMENDS that the national committees on vital and health statistics, or their equivalents, of France, Italy, the Netherlands, the United Kingdom, and the USA be asked to make special studies of the main statistical problems connected with notifications of communicable diseases, and submit reports on the matter to the World Health Organization for distribution to other national committees on vital and health statistics, or their equivalents.

III. The Expert Committee on Health Statistics,

Recognizing that the immediate usefulness of notification statistics is increased by publication as soon as possible after the notifications have been received by each health administration,

RECOMMENDS that notifications of infectious diseases be published weekly when possible.

IV. The Expert Committee on Health Statistics

RECOMMENDS that yearly data of notifications should be detailed by sex and age for those diseases for which medical or social importance, large number of cases, and adequate completeness of reporting warrant such publication.

V. The Expert Committee on Health Statistics,

Having considered the procedure used by the World Health Organization for the collection and publication of statistics of communicable diseases, and

Realizing the importance of such material to morbidity statistics in general,

1. NOTES with satisfaction that the Fourth World Health Assembly requested the Executive Board :

(1) to examine and report on the present arrangements, and their possible improvement, for the collection and analysis of epidemiological information in respect of epidemic diseases other than the six quarantinable diseases mentioned in the International Sanitary Regulations (WHO Regulations No. 2) ;⁴ and

(2) to study the ways and means for co-ordinating the activities of the World Health Organization with regard to such epidemic diseases and, for this purpose, the modification of the terms of reference of the present Expert Committee on International Epidemiology and Quarantine ;⁵

2. RECOMMENDS that this review be extended to cover a critical appraisal of the uses of such statistics and of their value to the epidemiologist, the quarantine official, and the health statistician.

I.3.4 *Hospital inpatient and outpatient records*

The unity of hospital statistics, and their importance in hospital administration, was recognized by WHO when it created an Expert Subcommittee on Hospital Statistics. The committee reviewed the statements contained in the report on the first session of that subcommittee,⁶ concerning the value of hospital morbidity data in investigations of administrative or clinical interest to the individual hospital. In discussing hospital statistics in relation to other sources of morbidity data, however, the committee directed its attention chiefly towards the value of diagnostic

⁴ *World Hlth Org. techn. Rep. Ser.* 1951, 41

⁵ Resolution WHA4.78, *Off. Rec. World Hlth Org.* 35, 51

⁶ *World Hlth Org. techn. Rep. Ser.* 1950, 25, 29

rather than administrative statistics in assessing the levels of morbidity in the community.

It was generally agreed that hospital case-records were important sources for morbidity studies because they are actual or potential archives of precise and comprehensive diagnostic evaluation of laboratory and autopsy findings, and of information about the past medical history of individuals.

The committee re-emphasized the highly selective character of hospital morbidity data and endorsed the conclusion of the above-mentioned subcommittee concerning the danger of generalization from selected material in which the amount and direction of bias is not known.

The committee considered, however, that surveys could provide a useful link between the general morbidity in the population and the selected morbidity treated in the hospitals.

Two important uses of hospital diagnostic records were stressed during the discussion :

- (1) clinical research ;
- (2) morbidity ascertainment.

The importance of the case-record to clinical research within the hospital has received emphasis in recent years.

The committee recognized that the success of follow-up studies, longitudinal studies, and other methods of assessment relying on the records of groups of hospitals (as distinct from individual hospitals) may depend on the acceptance of agreed minimal standards and definitions on reporting and record keeping, beginning at first within each country in relation to specific objectives, e.g., cancer.

Attention was drawn to the important role played by the medical-records personnel in maintaining and developing such standards.

The committee noted the attention now being paid to the possibility of pooling on a national or regional basis the primary diagnostic information relating to inpatients of several or all hospitals, to provide measures of the amount, kind, and relative importance of diseases requiring hospital treatment.

I. The Expert Committee on Health Statistics,

Taking into account the above considerations and the suggestions and recommendations of the Subcommittee on Hospital Statistics,

RECOMMENDS that the problem of the utilization of hospital statistics in defining and analysing different kinds of sickness in the community be referred to national committees on vital and health statistics,

or their equivalents, for further study, and that the following points should be specially analysed :

- (1) the most economical ways, including sampling procedures, of collecting, recording, and analysing information routinely recorded in hospital and associated records ;
- (2) particular subsamples of hospital records taken at random with reference to the general population, with the object of determining the bias of hospital statistics in ascertaining the level of sickness in the community ;
- (3) definition of those diseases which by reason of completeness of hospitalization or of attendance at outpatient departments might offer a profitable field of study in regard to their distribution in the community.

II. The Expert Committee on Health Statistics,

Considering the fact that some countries have had experience in this subject and also that it would be desirable that the national committees on vital and health statistics have some background information in order to facilitate their task,

RECOMMENDS that the national committees on vital and health statistics, or their equivalents, of France, Israel, Italy, the Netherlands, the United Kingdom, and the USA make a preliminary report on this subject to be distributed by the World Health Organization to the other national committees on vital and health statistics, or their equivalents.

I.3.5 *General practitioners' records*

The committee noted that attempts were being made in certain countries to utilize general practitioners' records both as sources of general morbidity statistics and as a means for longitudinal studies on families and for statistics of specific diseases. The importance, and at the same time the difficulty, of obtaining complete and accurate records, and of defining the population at risk in these studies, was recognized.

I.3.6 *Social-security records*

The committee was aware that social-security records were one of the oldest sources of morbidity statistics. However, though they had been used for this purpose for many years such use had not, until lately, been anywhere on an extensive scale.

The committee noted, however, that in some countries efforts were now being made to develop the use of these records more amply.

It was considered that they could provide useful information on morbidity connected with certified incapacity, particularly in regard to morbidity-rates, seasonal variations, and occupational distribution.

I.3.7 Records of health welfare centres and educational institutions

The committee considered that records of medical examinations at health welfare centres and educational institutions (including colleges and universities) might constitute an important source of morbidity statistics. The possibility of utilizing these records for follow-up studies of the physical development of children and of the development of defects and diseases was noted as well as the need for standardization of methods for collecting statistics from this source.

It was further recognized that data on the causes and length of sickness absenteeism, especially if properly checked, could be considered a useful source of morbidity statistics.

I.3.8 Records of sickness absenteeism in industrial, civil service, and other occupational groups

The committee was of the opinion that morbidity statistics from this source had considerable value. Nevertheless, it noted that there were a number of serious pitfalls in regard to the interpretation of these records, mainly because sickness absenteeism, even when medically certified, is influenced by many extraneous circumstances.

I.3.9 Sickness and recruitment records of the Armed Forces

The committee discussed the importance of sickness and recruitment records of the Armed Forces as a source of morbidity statistics and stressed the possibility of utilizing these records :

(a) in order to have data upon a cross-section of persons at young adult ages classified by degree of physical fitness and according to body measurements ;

(b) in order to have continuous morbidity data on this particular section of the population ;

(c) in order to prepare follow-up (longitudinal) studies.

I.3.10 General recommendation

The committee, having discussed and recognized the potential value of the various particular types of morbidity statistics referred to above, and having made specific recommendations respecting several of these, considers that those other sources concerning which no specific recommendation has

been made may also provide fruitful information on general morbidity. Therefore,

The Expert Committee on Health Statistics

RECOMMENDS that national committees on vital and health statistics, or their equivalents, be requested to stimulate the utilization of particular types and sources of morbidity statistics with a view to their potential value as indicators of general morbidity.

I.4 Additional Topics

The committee discussed a number of topics which were not related to any particular type or source of morbidity statistics but which were common to many or to all of them.

I.4.1 *Longitudinal studies*

The committee recognized that major advances in public health have resulted in the past from the longitudinal type of statistical study, i.e., the following of individuals or families through years of contact by physicians or by health agencies. This type of data is not often available and rarely results in massive types of data but, when available, enriches the significance of various types of cross-sectional statistical information. The committee felt that the emerging public-health emphasis on chronic disease at the older ages will find this type of statistics of particular value. Consequently, it urges that under conditions in which particular persons and families are more or less regularly contacted over the years, and when systematic records are kept of the clinical laboratory and other findings, including if possible the social economic conditions in which such persons live, financial and other support be found to stimulate statistical studies in such selected situations and to ensure their publication and distribution.

The committee also recognized the usefulness of longitudinal studies in the epidemiological investigation of chronic diseases which are typically of obscure etiology and have a slow, insidious onset, being present for long periods of time with intermittent acute episodes of illness. These characteristics necessitate the study of groups of persons over long periods of time, a type of study for which the longitudinal method is especially applicable.

I.4.2 *Statistical research into etiology and pathogenesis*

The Expert Committee on Health Statistics,

Recognizing the research potentialities of carefully designed comparative studies of the histories of persons affected and not affected by chronic diseases,

RECOMMENDS that national committees on vital and health statistics, or their equivalents, be asked to encourage statistical researches into factors which might possibly be concerned in the etiology or pathogenesis of chronic diseases whether by follow-up methods or by retrospective comparison of the histories of groups of persons affected and not affected by a disease.

I.4.3 Registration and follow-up of total cases of selected diseases

The committee noted that in some countries comprehensive systems have recently been established for the registration and follow-up of total cases of certain diseases, notably cancer.

The committee considered that morbidity data of great value could be derived from such systems, but that much work remained to be done in developing methods both for the collection and analysis of the material. It also considered that this work would be facilitated if those countries which have already had some experience in the matter could make the results of their experience available to other countries. Accordingly,

The Expert Committee on Health Statistics

RECOMMENDS that the national committees of vital and health statistics, or their equivalents, of Denmark, France, the United Kingdom, and the USA prepare reports on the registration and follow-up of total cases of selected diseases, and that these be distributed by the World Health Organization to other national committees on vital and health statistics, or their equivalents.

I.4.4 Definitions of terms used in morbidity statistics

The committee recognized the need for a wide measure of international agreement in the terms commonly used in connexion with morbidity statistics. It felt, however, that the matter had to be studied on the broadest possible basis, particular attention being paid to the terms already being used in different countries. It considered it desirable, therefore, to refer the matter of terminology and definitions first to selected national committees on vital and health statistics for joint preparatory work, and subsequently to all national committees on vital and health statistics for their consideration and exchange of views.

The committee also considered that definitions and terminology should be one of the matters to receive attention at a conference of national committees on vital and health statistics when such a conference be convened (see section I.5, page 23).

I. The Expert Committee on Health Statistics,

Taking into account the above considerations and the ideas expressed in Annex 1, section on terms to be defined,⁷

RECOMMENDS that the national committees on vital and health statistics, or their equivalents, should prepare, discuss, and evaluate definitions of the terms in current use in morbidity statistics, from the following points of view :

- (1) terms descriptive of ill health ;
- (2) terms used to describe a particular episode of ill health :
 - (a) in relation to previous health experience ;
 - (b) in relation to other episodes of ill health present at the same time ;
- (3) terms used to describe severity ;
- (4) terms used in measuring duration of an episode, or in locating it in time ;
- (5) special terms used in hospital statistics (in addition to those for morbidity in general) ;
- (6) terms referring to medical consultation.

II. The Expert Committee on Health Statistics,

Having regard to the importance of illness in the community, mainly from the point of view of provision of adequate medical care, and to the desirability of having comparable statistics on the matter ; and

Considering the ideas expressed in Annex 1, section on methods of classification,⁸

RECOMMENDS that the national committees on vital and health statistics, or their equivalents, study methods of classification of illness under the following characteristics :

- (1) type ;
- (2) severity ;
- (3) duration ;
- (4) kind of medical attention.

III. The Expert Committee on Health Statistics,

Considering that it would be desirable that the national committees on vital and health statistics have some background information in order to facilitate their task,

⁷ See page 28.

⁸ See page 29.

RECOMMENDS that the national committees on vital and health statistics, or their equivalents, of Canada, Denmark, France, Norway, the United Kingdom, and the USA make a preliminary report on this subject to be distributed by the World Health Organization to the other national committees on vital and health statistics, or their equivalents.

IV. The Expert Committee on Health Statistics,

With the aim of having as far as possible comparable data on morbidity statistics,

RECOMMENDS

- (1) that the organizations responsible for collecting and publishing morbidity data, whether they be national or local, official or non-official, should include in their publications the definitions of the terms used and the limitations and deficiencies of the data ; and
- (2) that national committees on vital and health statistics, or their equivalents, should promote this principle throughout their respective countries.

I.4.5 *Measurements of morbidity*

The committee considered the questions of the standardization of methods for measuring morbidity and of the terms by which they should be described. The importance of this matter was stressed and the fact was acknowledged that wide variety exists among the methods used in the various countries.

It was agreed, therefore, that as a first step towards international standardization in this field certain national committees on vital and health statistics should be asked to give advice on this point and that their reports should be circulated to all national committees on vital and health statistics, or their equivalents, for further consideration.

The types of morbidity measurements to be covered in these reports should be as follows :

- (1) Measurements of the absolute number of illnesses, defects, impairments, etc., found at a single point of time or during a given period of time (which may be expressed in days, weeks, years, etc.).

- (2) Relative measurements which express, e.g., number of illnesses in proportion to population, number of sick persons in proportion to population, number of illnesses per sick person, days of illness per month (or year, etc.) of exposure, days of illness per illness, days of illness per sick person. In devising relative measurements of morbidity, the needs should be taken into consideration of morbidity statistics for a given point of

time, of morbidity statistics for a given period, and of follow-up studies of certain groups of individuals during short or long periods of time.

(3) Measurement of results of treatment and final disposal of the cases considered.

The above matters are elaborated further in Annex 2.⁹

I. The Expert Committee on Health Statistics

RECOMMENDS that the national committees on vital and health statistics, or their equivalents, study methods of measurement of morbidity taking into account the above considerations.

II. The Expert Committee on Health Statistics,

Considering that it would be desirable that the national committees on vital and health statistics have some background information in order to facilitate their task,

RECOMMENDS that the national committees on vital and health statistics, or their equivalents, of Canada, Denmark, France, Norway, the United Kingdom, and the USA make preliminary reports on these matters and that these be distributed by the World Health Organization to the other national committees on vital and health statistics, or their equivalents.

I.4.6 *Morbidity statistics by sex and age*

The committee discussed the presentation of morbidity statistics by sex and age.

The Expert Committee on Health Statistics

RECOMMENDS

(1) that the World Health Organization recall to the attention of agencies responsible for the compilation of morbidity statistics Article 15 of WHO Regulations No. 1 regarding Nomenclature (including the Compilation and Publication of Statistics) with respect to Diseases and Causes of Death, which requires that: "Statistics of morbidity shall, in so far as possible, be compiled and published in accordance with the sex and age groupings specified in Articles 6, 7 and 8 for mortality statistics";¹⁰

(2) that for certain diseases affecting mainly elderly persons the distribution by quinquennial age-groups should be given up to the most

⁹ See page 30.

¹⁰ World Health Organization (1948) *Manual of the International Statistical Classification of Diseases, Injuries, and Causes of Death*, Geneva, vol. 1, p. 374 (*Bull. World Hlth Org., Suppl. 1*)

advanced age for which reliable data can be obtained, if possible up to 85 or even up to 100 years.

I.4.7 *International Statistical Classification of Diseases, Injuries, and Causes of Death*¹¹

The committee considered the need which has become apparent for condensations and elaborations of the Intermediate List of the International Statistical Classification of Diseases, Injuries, and Causes of Death to provide for presentation in convenient form of statistics of sickness surveys, sickness absenteeism, and hospital diagnoses; and noted the experimental lists already being used in several countries, the advantages of seeking for some international agreement on such lists, and the dangers of coding records directly into condensed groups rather than through the medium of the List of Three-digit Categories (Detailed List).

I. The Expert Committee on Health Statistics

RECOMMENDS that the World Health Organization, utilizing such experiences as are already available, prepare drafts derived from the International Statistical Classification of condensations and expansions of the kinds mentioned below, submit them to national committees on vital and health statistics and to national administrations for suggested amendments, and, after incorporating such suggestions as far as possible, present them to the conference of national committees on vital and health statistics for discussion with a view to their adoption as lists recommended for tabulating the types of morbidity data specified:

- (1) list for sickness-survey data—consisting of 100 groups, each definable in terms of items of the Intermediate List;
- (2) condensed list for sickness-survey and sickness-absenteeism data—consisting of 15 groups condensed from the preceding list;
- (3) condensed list for morbidity in schoolchildren—consisting of about 30 groups, each definable in terms of items of the Intermediate List;
- (4) long list for hospital diagnoses—consisting of 300 groups derived from the Intermediate List by subdivision of certain items;
- (5) short list for hospital diagnoses—consisting of 75 groups condensed from the preceding list.

The committee was aware that for countries having few qualified physicians and where morbidity statistics have to be based largely upon very

¹¹ World Health Organization (1948-9) *Manual of the International Statistical Classification of Diseases, Injuries, and Causes of Death*, Geneva, 2 vol. (*Bull. World Hlth Org.*, Suppl. 1)

imperfect diagnoses or symptomatic descriptions the International Statistical Classification is difficult to apply. It was considered advisable that such countries tabulate the recognizable diseases as specifically as possible and aggregate other diseases which cannot be properly distinguished. It was suggested that the Intermediate List provides a good basis for selection and condensation so as to meet the needs of each particular country.

II. The Expert Committee on Health Statistics

RECOMMENDS

- (1) that the World Health Organization ask countries having few qualified physicians and where morbidity statistics have to be based largely upon very imperfect diagnoses or symptomatic descriptions each to design a list consisting of selected diseases, distinguished in the Intermediate List of the International Statistical Classification and recognizable in the country, together with broad groups of other conditions which cannot be properly distinguished; and
- (2) that the World Health Organization study these lists with a view to their eventual integration and co-ordination.

I.4.8 *Confidential nature of medical records*

A problem in the utilization of medical records for statistical purposes is their fundamentally confidential nature as between patients and physicians. This problem is common to all countries but varies in degree among them, and in certain places constitutes a serious barrier towards the fullest use of medical records in connexion with morbidity statistics. In some countries, however, and in connexion with certain inquiries, partial solutions are being attempted.

The committee noted this as a matter requiring further study and experimentation with a view to the development of practical measures and procedures that would satisfy both the ethics of medical practice and the essential needs of scientific research and of medical planning.

I.5 National Committees on Vital and Health Statistics

In the course of discussions on various sources of morbidity statistics, the wide variety of methods employed in different countries to collect and analyse morbidity data became apparent.

The committee recognized that this diversity of procedures was hindering the international comparability of morbidity statistics. It considered, therefore, that if substantial improvement in this field were to be achieved this could be best obtained through the closest contact and exchange of

information and views among the various national agencies responsible for the collection and analysis of morbidity data.

It was the view of the committee that from the national standpoint the national committees on vital and health statistics, or their equivalents, constitute the best means whereby this close international co-operation could be achieved. The committee considered it desirable that steps be taken to enlarge the number of national committees on vital and health statistics and to bring about a fuller exchange of information among them.

The committee recognized that there were a number of basic problems in connexion with morbidity statistics requiring urgent preparatory study and considered that these problems could best be studied by small groups of national committees on vital and health statistics working in close co-operation.

In view of the above considerations,

The Expert Committee on Health Statistics

1. ENDORSES the recommendation of the first session of the Expert Committee on Health Statistics relating to the setting-up of national committees on vital and health statistics ;¹²
2. ENDORSES the recommendation of the second session of the Expert Committee on Health Statistics relating to the convening of an international conference of representatives of national committees on vital and health statistics, or their equivalents, to be sent at the expense of their respective governments ;¹³
3. NOTES that it has not been possible to prepare for such a conference to be held in 1952 ; and
4. RECOMMENDS
 - (1) that such a conference be convened early in 1953 ;
 - (2) that this conference should consider, inter alia :
 - (a) morbidity definitions of a general nature, definitions of hospital terminology, and definitions of various rates of morbidity ;
 - (b) adaptations and selected lists from the International Statistical Classification of Diseases, Injuries, and Causes of Death.

I.6 Role of the World Health Organization

It was the opinion of the committee that in the field of morbidity statistics WHO should, as a first step, stimulate the collection and publication of morbidity data at the national level. It is well recognized

¹² *World Hlth Org. techn. Rep. Ser.* 1950, 5, 3

¹³ *World Hlth Org. techn. Rep. Ser.* 1950, 25, 8

that there is wide variation in the stage of development of health-statistics services in different countries and that the basic responsibility for improving these rests on the respective national administrations. To foster and encourage the improvement of these services should be one of the roles of WHO, by supplying assistance, at the request of governments, in the form of consultants, fellowships, etc. This assistance might be supplemented further by suitable training courses held periodically in the different areas of the world. The committee noted with satisfaction that three such training centres have already been sponsored by WHO in co-operation with the Statistical Office of the United Nations and the governments concerned.

The general responsibility of WHO at the international level, of securing standardization of terms so as to facilitate comparability of data, of course also applies to morbidity statistics and in this connexion the committee has made some recommendations presented elsewhere (see section I.4.4, page 18).

Finally, and in view of the extensive research in morbidity statistics being carried out in some countries, WHO should encourage and co-ordinate these activities by making the pertinent information obtained available to the agencies interested in this field of health statistics. The committee is also of the opinion that even in those countries which do not yet have well-developed public-health services the study of morbidity should not be postponed until a high degree of perfection is achieved but that preliminary studies should be undertaken, provided that the limitations of the basic data are pointed out.

Taking the above considerations into account, the committee discussed the following subjects and passed the following recommendations :

I.6.1 *Exchange of information*

The Expert Committee on Health Statistics,

Recognizing that it is highly desirable that national administrations and national committees on vital and health statistics, or their equivalents, be kept up to date with new developments in morbidity statistics,

RECOMMENDS that the World Health Organization distribute periodically to national administrations and national committees on vital and health statistics, or their equivalents, any information relating to new developments or progress achieved in morbidity statistics, national committees on vital and health statistics being urged to transmit to the World Health Organization any pertinent information of that kind.

I.6.2 *Training*

The Expert Committee on Health Statistics,

Aware of the lack of adequately trained statistical staff in many areas of the world ; and

Considering the importance of this type of personnel in all public-health activities,

RECOMMENDS that in the training programmes of the World Health Organization special consideration be given to granting fellowships for training in vital and health statistics.

I.6.3 *Other forms of assistance*

The Expert Committee on Health Statistics,

Recognizing the importance of research in morbidity statistics and the advantages of making available technical skill in this subject to those countries which are beginning to develop studies on it,

RECOMMENDS that the World Health Organization help and foster the work on morbidity statistics of the national committees on vital and health statistics, or equivalent bodies, through grants-in-aid, short-term consultants, and other forms of assistance.¹⁴

I.6.4 *Sickness surveys*

The Expert Committee on Health Statistics,

Considering that there are a number of countries which for the time being lack adequate public-health and statistical services ;

Considering that the World Health Organization is interested in developing, in its programme, health demonstration projects in some of those countries ; and

Considering that the survey method is one of the most promising methods of obtaining morbidity statistics,

RECOMMENDS that in a suitable health demonstration project a sickness survey be included not only as a means of obtaining information for the adequate planning of the project but also in order to gain experience in sickness surveys conducted in countries lacking adequate public-health services.

¹⁴ The Executive Board, at its ninth session, pointed out that assistance from WHO could only be given on request and that, from a financial point of view, it was the responsibility of the Director-General to make proposals of that type ; furthermore, short-term consultants could be supplied only on the request of governments.

I.6.5 *Exchange of information with other international organizations*

The Expert Committee on Health Statistics,

Recognizing the importance of morbidity statistics in the sphere of social security ; and

Recognizing the need for co-operation among organizations concerned with these statistics,

RECOMMENDS that the World Health Organization transmit to the International Labour Organization (ILO) its recommendations on morbidity statistics with the request that ILO should take them fully into consideration in its efforts to promote the comparability of statistics on the working of social-security services and their standardization.

Annex 1**DEFINITIONS AND METHODS OF CLASSIFICATION**

The following list of terms does not necessarily include all terms which are now being used but it is intended to suggest, or call attention to, the principal concepts for which a standard terminology would be desirable. Synonymous or nearly synonymous terms have been included deliberately in order to point out duplicate or overlapping terminology. No attempt has been made to rank the terms in any order of priority or importance; the primary emphasis has been placed upon terms used in general morbidity statistics.

The suggested axes of classification of morbidity data with respect to type, severity, duration, and kind of medical attention similarly are intended to illustrate some of the possible bases of such classifications and to call attention to the desirability of further study of these problems.

Terms to be Defined**1. *Terms descriptive of ill health***

Sickness, illness, disease, injury, defect, impairment, handicap, complaint, morbid condition.

2. *Terms used to describe a particular episode of ill health***(1) In relation to previous health experience :**

New, old, recurrent, carrier, subclinical, latent (disease), manifest (disease), continued, pre-existing, acute, chronic, relapse.

(2) In relation to other episodes of ill health present at the same time :

Complication, contributory condition, primary, concurrent, accessory, principal condition, index diagnosis.

3. *Terms used to describe severity*

Short-term, long-term, serious, major, minor, disabling, non-disabling, incapacity, invalid, acute, chronic, grave.

4. *Terms used in measuring duration of an episode, or in locating it in time*

Onset, termination, acute, chronic, period (of incapacity), duration (of sickness), length, short-term, long-term.

5. *Special terms used in hospital statistics (in addition to those for morbidity in general)*

Hospital (in widest sense) :

General hospital, special hospital, specialist department, clinic, nursing home, convalescent home.

Bed, bed-complement.

Admission :

First admission, readmission, discharge, transfer, inpatient, out-patient, domiciliary patient.

Duration of stay, patient-day, bed-days, waiting-list.

Diagnosis :

Admission diagnosis, final or discharge diagnosis, index diagnosis, diagnostic index, case-record, operation, treatment.

6. *Terms referring to medical consultation*

Visit, call, attendance, consultation.

**Methods of Classification according to Type, Severity,
Duration, Kind of Medical Attention**

1. *Type*

(1) By the amount or kind of medical care involved.

(2) In terms of the usual prognosis.

(3) In terms of the degree or likelihood of (permanent) incapacity or invalidity.

(4) According to the probable period of invalidity (as distinct from (3)).

(5) According to prospects of effective therapy or cure.

(6) According to a rough scale of health ranging from the state of complete health to extreme ill health.

2. *Severity*

(1) In terms of pathology.

(2) In terms of the patients' reaction to the illness.

(3) In terms of the demands made by the illness on the community's health and social-security programme.

3. *Duration*

- (1) According to the length of the illness itself, distinguishing perhaps its stages (length of time in bed, period of convalescence, etc.).
- (2) According to the length of the period under medical care, including, as necessary distinction, the period in or attending the hospital.
- (3) According to the length of absence from work or similar usual activities.
- (4) According to the time in receipt of compensation benefit, etc.
- (5) According to the time in receipt of social-security cash benefit.

4. *Kind of medical attention*

- (1) Whether there was any medical attention at all.
- (2) Whether the attention was provided exclusively by the family doctor (or by equivalent services in institutional practice) or involved at some stage consultant or specialist care.
- (3) Whether nursing care was required or not.
- (4) Whether the patient was treated on an ambulatory or bed-care basis.

Annex 2

MORBIDITY-STATISTICS RATES

In the absence of either standard terms or accepted definitions, no attempt has been made to list the various morbidity-rates which have been or may be used. Instead, this document attempts to set out, in a general way, the types of measurements which would seem to be useful. It is suggested that the actual listing and naming of rates might be carried out nationally, on the basis of national and local experiences, and within the type of framework herein provided.

The measurement of morbidity appears to be concerned primarily with the frequency of illness in the population and with the results of treatment carried out on the whole or on part of the population.

The formulation of rates depends on information about the illness in a given period of time (which may be expressed in days, weeks, years,

etc.), or at a single point of time. For any given period the four possible classes of illness to be distinguished are :

- (1) Beginning before the period, ending during the period.
- (2) Beginning before the period, ending after the period.
- (3) Beginning during the period, ending during the period.
- (4) Beginning during the period, ending after the period.

For such a period, the various rates would be concerned with the following :

- (1) The number of persons ill during the period.
- (2) The number of illnesses during the period, including the order of illness.
- (3) The number of days (or other time-units) of illness during the period.
- (4) The interrelationship of each of these with each other, with the number of persons at risk, and with demographic, social, and economic factors.

Statistics on the results of treatment over a period involve additional considerations. The results should have regard not only to the number of persons treated but also to all the persons examined, without exclusion of any group.

The population involved would fall into one of several categories at the end of the period of treatment. The survivors might be distinguished as to whether they are still suffering from the same condition (optionally subdivided into "improved" and "unimproved"), or are apparently cured (subdivided eventually into those with sequelae and those without), or if uncertain whether cured or not.

The deaths should be distinguished according to whether the information is based on medical certification or not, and whether the medical certification gives the same cause as that treated, a different cause, or an unknown cause.

The final categories would constitute those treated but subsequently lost sight of, and those who were examined at the beginning of the period but not treated, thus accounting for the whole original population.

EXPERT COMMITTEE ON HEALTH STATISTICS

Third Session

Geneva, 27-29 November 1951

Members :

Professor R. Bachi, Director, Central Bureau of Statistics and Economic Research, Jerusalem, Israel

Dr. P. F. Denoix, Chef des Services techniques et de la Section du Cancer, Institut national d'Hygiène, Paris, France (*Chairman*)

Dr. H. L. Dunn, Chief, National Office of Vital Statistics (US Public Health Service), Washington, D.C., USA (*Rapporteur*)

F. Fraser Harris, Director, Health and Welfare Division, Dominion Bureau of Statistics, Ottawa, Canada

Dr. W. P. D. Logan, Chief Statistician (Medical), General Register Office, London, United Kingdom (*Vice-Chairman*)

Representative of the United Nations :

F. E. Linder, Chief, Demographic and Social Statistics Branch, Statistical Office, United Nations, New York

Observer :

L. Féraud, Actuarial Adviser, ILO

Secretariat :

Dr. M. Pascua, Director, Division of Health Statistics, WHO (*Secretary*)

Dr. Marie Cakrtova, Chief, International Statistical Classification of Diseases and Causes of Death Section, WHO

Dr. P. Stocks, Chief, WHO Centre for the Classification of Diseases, General Register Office, Southport, Lancs., United Kingdom

The report on the third session of this committee was originally issued in mimeographed form as document WHO/HS/32, 14 December 1951.

PART II. GENERAL PROBLEMS OF HEALTH STATISTICS

The second part of the third session of the committee was held from 27 to 29 November 1951. Dr. P. F. Denoix was elected Chairman, Dr. W. P. D. Logan, Vice-Chairman, and Dr. H. L. Dunn, Rapporteur.

II.1 Report of the Subcommittee on the Registration of Cases of Cancer as well as their Statistical Presentation¹⁵

The committee reviewed the work of its Subcommittee on the Registration of Cases of Cancer as well as their Statistical Presentation, which had held its second session in Paris from 18 to 21 September 1951.

The report of the subcommittee was adopted with minor amendments and with the addition of an explanatory paragraph concerning the uses intended to be made of the proposed classification of neoplasms according to anatomical location of the lesion (Appendix 1 of the report, page 49).

The following addition should be made at the head of Appendix 1 :

“Adaptation of International Statistical Classification of Diseases, Injuries, and Causes of Death (1948) for use in morbidity statistics of malignant neoplasms and neoplasms of lymphatic and haematopoietic tissues”

The following paragraph should be added :

“The purpose of this adaptation is to provide greater detail, according to anatomical location of the neoplasms, than is provided by category numbers 140, 141, 143-199 of the International Statistical Classification, for general use in cancer registration and morbidity statistics by fourth-digit subdivisions of those categories; and also to provide an alternative system of classification by anatomical location applicable to category 142 and to the section containing category numbers 200-205. The subdivisions of categories 140, 141, 143-199 can also be used for general mortality statistics; but the alternatives for 142, 200-205 should not be so used.”

II.2 International Statistical Classification of Diseases, Injuries, and Causes of Death¹⁶

The committee divided its considerations of the various problems in connexion with the International Statistical Classification of Diseases, Injuries, and Causes of Death into six categories :

(1) Activities of the WHO Centre for the Problems Arising in the Application of the International Classification of Diseases, Injuries, and Causes of Death.

¹⁵ See Annex 3, page 43.

¹⁶ World Health Organization (1948-9) *Manual of the International Statistical Classification of Diseases, Injuries, and Causes of Death*, Geneva, 2 vol. (*Bull. World Hlth Org., Suppl. 1*)

- (2) Procedure for subsequent revisions of the International Statistical Classification.
- (3) Proposed adaptation of the International Statistical Classification to the use of the Armed Forces.
- (4) Code of surgical, radiological, and anaesthetic procedures.
- (5) Other problems relating to the International Statistical Classification.
- (6) Definition of blindness.

II.2.1 *Activities of the WHO Centre for Problems Arising in the Application of the International Classification of Diseases, Injuries, and Causes of Death*

The Chief of the Centre since its establishment reported on the work carried out during its first year.

The Centre was established as from 1 January 1951 in co-operation with the General Register Office for England and Wales, and is now located at the Southport branch of that Office where mortality records are processed.

Activities of the Centre comprise correspondence with, and visitation of, countries using the International Statistical Classification, to discuss problems arising in its various applications and to seek solutions of them ; preparation of reports on the more important problems for comment and publication ; research on national records with respect to certification of cause of death and morbidity reporting in hospitals and in sickness surveys ; assistance with respect to training courses for coders, preparation of instructions to physicians on medical certification of causes of death,¹⁷ supplementary lists, and other matters connected with the International Statistical Classification.

After discussion and consultation with a number of national vital-statistics offices, a pamphlet giving supplemental interpretations and coding instructions for causes of death was prepared for distribution to national statistical administrations for application and comments ;¹⁸ since the mistakes and difficulties in interpretations made apparent during the first three years' use of the Sixth Revision of the International List are being incorporated in this supplemental pamphlet, it is not considered likely that further supplements of a similar nature will be necessary before the Seventh Revision of the International List takes place.

A study of comparability of statistics of causes of death according to the Fifth and Sixth Revisions of the International List was made by the

¹⁷ See : World Health Organization (1952) *Medical certification of cause of death : Instructions for physicians on use of International Form of Medical Certificate of Cause of Death*, Geneva (*Bull. World Hlth Org.*, Suppl. 3).

¹⁸ In its final revised form, this pamphlet will be published as a supplement to the *Bulletin of the World Health Organization*.

Centre in provisional form and at the time of the session was being revised, with illustrative material added, for printing and circulation.¹⁹

A study of a sample of 4,000 death-certificates is now under way to evaluate the usefulness of the international form of medical certificate with reference to the entry of multiple causes and of interval between onset of illness and death.

In connexion with these various activities the Chief of the Centre visited several countries; the Centre also gave instruction to statistical officers from 14 countries in the use of the International Statistical Classification at a short course held in Geneva during June 1951 under the auspices of the WHO Regional Office for Europe.

The committee received this progress report on the activities of the Centre with gratification, expressing its satisfaction at the vigorous leadership given to this project, and manifesting also its deep appreciation to WHO that the request of the committee for the establishment of the Centre had been so promptly granted and ably executed.

The Expert Committee on Health Statistics,

In view of the real progress being made by the WHO Centre for the Classification of Diseases and the considerable tasks yet remaining,

RECOMMENDS that the Centre be maintained as a regular and continuing activity of the World Health Organization.

II.2.2 *Procedure for subsequent revisions of the International Statistical Classification*

While the committee is fully appreciative of the contribution being made by the WHO Centre for the Classification of Diseases in the current and continuous interpretation of this Classification to Member States, it is also quite aware that its activities are not a substitute for a full-scale, decennial revision of the Classification so as to keep it abreast of medical changes and public-health needs. This type of revision requires consultation with all Member States, and must be made at a single point in time to maintain comparability of health statistics.

The Expert Committee on Health Statistics,

Having considered the procedure by which future revisions of the International Statistical Classification might be made,

RECOMMENDS

(1) that future revisions of the International Statistical Classification should be made decennially;

¹⁹ World Health Organization (1952) *Comparability of statistics of causes of death according to the Fifth and Sixth Revisions of the International List*, Geneva (Bull. World Hlth Org., Suppl. 4) (In press)

(2) that in the intervals between decennial revisions, no changes should be made in the three-digit categories of the Detailed List of the International Statistical Classification other than correction of obvious errors and such minor changes of wording as may be necessary for interpretation ;

(3) that the machinery for preparation of a decennial revision should include full consultation with the appropriate national administrations and national committees on vital and health statistics and should, therefore, provide adequate time for exchange of national views, culminating in an international revision conference to be held under the auspices of the World Health Organization ;

(4) that the timing for conducting each decennial revision should be changed to about the middle of, rather than at the end of, each decennium. Such a change would permit nations to acquire several years' experience in the use of a newly revised International List before undertaking mortality studies related to population censuses, which are usually taken in years ending in " 0 " or " 1 ". The preliminary work on the revision of the List should be started sufficiently far in advance to allow adequate time for national consultations, construction of the List, and the indexing, printing, and distribution of the corresponding *Manual* ; this would mean holding the conference for the revision in a year ending in " 5 " ;

(5) that the most practical time in which to introduce each revised List for actual use by nations should be, on account of the basic reason just mentioned, at the beginning of the year ending in " 8 " in each decennium ;

(6) that if the time-cycle of decennial revisions is changed as recommended above, the 1955 revision should be limited to the issue of a brief *Supplement* incorporating only the most essential changes in the International Statistical Classification of Diseases, Injuries, and Causes of Death, in addition to amendments of errors and inconsistencies already noted. The work of obtaining suggestions from national administrations employing the International Statistical Classification should be started early in 1953. A session of the Expert Committee on Health Statistics should be planned for 1954 in order to consider national viewpoints and to integrate them into the final draft of the *Supplement*.

II.2.3 *Proposed adaptation of the International Statistical Classification to the use of the Armed Forces*

The committee was informed that the adaptation of the International Statistical Classification to the needs of the Armed Forces which had been prepared jointly by the national committees on vital and health statistics

of Canada and the USA had been circulated to Member States and that a number of comments had already been received. The committee reviewed these comments and decided that it would probably be unwise at the present time to take any formal action on the adaptation until further national comments had been received and some national experience been acquired in the actual use of the "adaptation" of the International Statistical Classification to the use of the Armed Forces.

II.2.4 *Code of surgical, radiological, and anaesthetic procedures*

The need for a code of surgical, radiological, and anaesthetic procedures arises mainly in connexion with hospital records and statistics. The problem of standardization of such a code on a national scale is being studied in preliminary form in the United Kingdom. For the present the committee suggested postponement of international consideration of this problem, but it will continue to observe with interest the results of the exploratory work being carried on in this subject.

II.2.5 *Other problems relating to the International Statistical Classification*

(a) The committee expressed concern that some nations had broken down the detailed rubrics using for that purpose fourth-digit numbers instead of letters. It pointed out that this would give rise to confusion between overlapping international and national breakdowns of such rubrics and requested WHO to call specifically the attention of national agencies dealing with classification of diseases and causes of death to the importance of following the direction laid down in the introduction to the *Manual of the International Statistical Classification of Diseases, Injuries, and Causes of Death* :

"If such subdivisions are created, it is recommended that letters instead of numbers be employed, especially in publication, to indicate that the item is not a part of the International Classification."²⁰

(b) The committee discussed the desirability of establishing a selected list of the International Statistical Classification for tabulations of mortality of young children. It decided that this should not be done unless the international need for such a selected list becomes more apparent.

II.2.6 *Definition of blindness*

The committee considered the request submitted by the WHO Section on Social and Occupational Health for assistance in the formulation of

²⁰ World Health Organization (1948) *Manual of the International Statistical Classification of Diseases, Injuries, and Causes of Death*, Geneva, vol. 1, p. xxxiii

an internationally acceptable definition of blindness with particular reference to the definition employed in the *Manual of the International Statistical Classification of Diseases, Injuries, and Causes of Death*.

The committee wishes to state that the International Statistical Classification merely utilizes one of the physiological definitions employed in certain countries. In noting the differences in the physiological definitions indicated in the submitted request the committee recognizes the need for uniformity. Taking into account that the international character of the *Manual* implies a certain degree of acceptance of the definition contained, the committee is of the opinion that the following definition given in the *Manual* (title 389) could be used as a practical starting-point towards international uniformity in the definition of blindness :

“ Blindness, specifically defined, according to the definition generally used in various countries for pension purposes, means a central visual acuity of 6/60 (20/200) or worse with the best correcting lens, or a field defect in which the field has contracted to such an extent that the widest diameter of visual field subtends an angular distance no greater than 20 degrees.

Blindness, not specifically defined, as here used, includes the less specific ‘economic blindness’ which means inability to do any kind of work, industrial or otherwise, for which sight is essential.”²¹

II.3 Matters Relating to the United Nations

II.3.1 “ Proposed standards for vital records and statistics ”, prepared by the United Nations Statistical Office

The Secretary-General of the United Nations prepared a memorandum entitled “ Proposed standards for vital records and statistics ”,²² which was considered by the Statistical Commission and the Population Commission of the United Nations at their respective meetings in 1951.

The Statistical Commission at its sixth session in May 1951 recommended to the Secretary-General that the original paper on proposals for a vital statistics system be revised in the light of the comments of the Population Commission, the Statistical Commission, and other appropriate international agencies, that the draft recommendations be circulated to governments for their official review and comment, and that a revision,

²¹ World Health Organization (1948) *Manual of the International Statistical Classification of Diseases, Injuries, and Causes of Death*, Geneva, vol. 1, p. 126

²² United Nations, Economic and Social Council (1951) *Proposed standards for vital records and statistics* (Document E/CN.3/123—E/CN.9/65)

based on the results of these consultations, be submitted to the Statistical Commission at a later session.²³

The proposed standards were transmitted by the Director-General of WHO to the Expert Committee on Health Statistics for consideration and comment.

The committee reviewed the proposed standards and also the views expressed concerning them by the Population Commission²⁴ and the Statistical Commission.²³

The representative of the United Nations described the background of work and consultation which had led up to the preliminary draft of the proposal and the steps lying ahead before it would become definitive.

The committee concurred substantially with the views expressed by the Population Commission and the Statistical Commission. Minor suggestions and comments for changes were made directly to the representative of the United Nations for consideration in the subsequent editing of the definitive draft.

The committee, however, expressed its desire to record three specific suggestions for modification of the proposed standards :

(1) Paragraph 19 (a) : Add to the second sentence, ending " defined below ", the following phrase : " —or in accordance with definitions which do not differ in principle from those below ".

(2) Paragraph 41 (a) : Strike out " multiple births " in the fourth line of the text, and insert these same words after the word " Sex " in 41 (b) (1) (i) and in 41 (b) (3) (i).

(3) Paragraph 56 : Insert in the second sentence that if the classification is adapted " *this adaptation must fall within the limits permitted by any regulation governing such a classification* ".

II.3.2 Population Commission

The committee noted the report of the sixth session of the Population Commission, and observed that certain sections of this report contained recommendations proposing collaboration with WHO, particularly paragraph 29 (a) on the subject of the refinement of infant mortality-rates,

²³ United Nations, Economic and Social Council (1951) *Economic and Social Council. Official Records : thirteenth session. Supplement No. 5. Statistical Commission : report of the sixth session (7-18 May 1951)*, New York, p. 5 (Document E/1994—E/CN.3/139)

²⁴ United Nations, Economic and Social Council (1951) *Economic and Social Council. Official Records : thirteenth session. Supplement No. 11. Population Commission : report of the sixth session (23 April - 4 May 1951)*, New York, p. 6 (Document E/1989—E/CN.9/88)

i.e., "To continue the work being done on this subject in collaboration with WHO and other interested agencies and experts".²⁵

The committee welcomed this recommendation for collaboration with WHO, seeing in it an awareness on the part of the Population Commission that progress in the refinement of infant mortality-rates could not be achieved satisfactorily unless the medical issues fundamental to the problem were fully understood and constantly taken account of. Accordingly,

The Expert Committee on Health Statistics,

Being of the opinion that there is need for some preparatory work on the part of the World Health Organization in order that collaboration with the Population Commission may be effective in giving proper weight to the medical aspects of the measurement of infant mortality,

RECOMMENDS that the World Health Organization, either directly or through grants-in-aid to a suitable agency,

(1) study from the point of view of medical aspects the methods that have so far been suggested by the Population Commission for the refinement of infant mortality-rates ;

(2) collect, study, and report on such published papers, articles, and reports relating to the methods for refining infant mortality-rates.

II.4 National Committees on Vital and Health Statistics

The committee reviewed with great interest the substantial progress which has been made in the organization of national committees on vital and health statistics throughout the world and noted the wide variety of the subject-matter with which they are working. It feels that already this type of mechanism is beginning to pass from an experimental into a more permanent phase and that the national committees are becoming an increasingly powerful factor for the development of vital and health statistics.

In view of this growth and diverse development it is becoming more and more important that the pattern of national committees be reassessed. Consequently,

The Expert Committee on Health Statistics

RECOMMENDS that the proposed international conference of national committees on vital and health statistics should be convened under the

²⁵ United Nations, Economic and Social Council (1951) *Economic and Social Council. Official Records: thirteenth session. Supplement No. 11. Population Commission: report of the sixth session (23 April - 4 May 1951)*, New York, p. 5 (Document E/1989—E/CN.9/88)

auspices of the World Health Organization early in 1953, if possible, and that this conference should include, as a major element on its agenda, a review of the objectives, organizational patterns, programmes, and working relationships of national committees with each other and with international agencies. Such a review should lead to the establishment by the conference of a set of guiding principles for these various bodies in their mutual interrelationships and thus bring about their maximum effectiveness for the solution of the international statistical problems in which they are jointly concerned.

II.5 Handbooks of Health Statistics

The Expert Committee on Health Statistics,

Having reviewed the different procedures available in the World Health Organization for the preparation of monographs, handbooks, or other similar types of documentation aimed at summarizing the present position in different countries with regard to the collection of health statistics as well as the practical usefulness of several arrangements possible on the subject,

RECOMMENDS

- (1) that the World Health Organization prepare such an informative series according to a plan of treatment of the subject-matter by topics of wide interest (notification of infectious diseases, etc.) rather than by dealing country by country with all the subjects or activities embraced under public-health statistics ;
 - (2) that the gathering of the pertinent information on the ways and methods of collecting such health statistics in each country be obtained through ad hoc questionnaires addressed to the national health administrations.
-

Annex 3

**SUBCOMMITTEE ON THE REGISTRATION OF CASES
OF CANCER AS WELL AS THEIR STATISTICAL PRESENTATION**

Second Report

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**SUBCOMMITTEE ON THE REGISTRATION OF CASES OF CANCER
AS WELL AS THEIR STATISTICAL PRESENTATION**

Second Session

Paris, 18-21 September 1951

Members :

Dr. J. Clemmesen, Chief, Cancer Registry, Copenhagen, Denmark (*Chairman*)

Dr. P. F. Denoix, Chef des Services techniques et de la Section du Cancer,
Institut national d'Hygiène, Paris, France

Dr. H. F. Dorn, Chief, Biometrics Section, National Cancer Institute, National
Institutes of Health (US Public Health Service), Bethesda, Md., USA
(*Rapporteur*)

Secretariat :

Dr. M. Pascua, Director, Division of Health Statistics, WHO (*Secretary*)

Dr. P. Stocks, Chief, WHO Centre for the Classification of Diseases, General
Register Office, Southport, Lancs., United Kingdom

The report on the second session of this subcommittee was originally issued
in mimeographed form as document WHO/HS/CANC/21, 25 September 1951.

**SUBCOMMITTEE ON THE REGISTRATION OF CASES
OF CANCER AS WELL AS THEIR STATISTICAL PRESENTATION**

Second Report ¹

The Subcommittee on the Registration of Cases of Cancer as well as their Statistical Presentation of the Expert Committee on Health Statistics held its second session in Paris from 18 to 21 September 1951, in fulfilment of a recommendation to that effect made by the Expert Committee on Health Statistics at its second session.²

The subcommittee reviewed the tentative agenda and agreed to discuss, as recommended by the Expert Committee on Health Statistics, items of the programme still pending from its first session.

The subcommittee discussed first the general principles which should govern the statistical classification of neoplasms, and agreed that such classification should distinguish :

- (1) the anatomical site,
- (2) the histological type, and
- (3) the degree of malignancy.

To ensure the necessary flexibility and ease in coding, a separate classification of neoplasms with respect to each of these three aspects should be available.

**1. Classification of Neoplasms according to Anatomical Location
of the Lesion**

The subcommittee recognized the need for two series of subdivisions of the International Statistical Classification (1948) according to anatomical location :

- (a) a very detailed classification for use in clinical and therapeutic studies ; and
- (b) a less detailed classification for general use in cancer registration and morbidity statistics.

¹ For discussion of the report by the Expert Committee on Health Statistics, see section II.1, page 33.

² *World Hlth Org. techn. Rep. Ser.* 1950, **25**, 6

It was agreed that consideration of (a) should be postponed until more experience has been obtained as to the amount of detail desired for certain parts of the body by specialists and institutions, and that the subcommittee should first prepare a classification to fulfil the purposes of (b). The framework of the International Statistical Classification was considered to be satisfactory for further subdivision in most respects, but some modification was thought desirable so as to produce a strictly anatomical classification in certain parts of the list where grouping on a histological basis had been introduced.

The subcommittee recognized that, although the extended classification was being prepared mainly for use in conjunction with a supplementary code according to histological type of neoplasm, it would also be used to furnish more detail of certain anatomical sites than is provided by the three-digit classification in circumstances where a histological code cannot be used, as, for example, with national mortality statistics. Accordingly, this possibility was kept in mind in preparing the modified classification for malignant neoplasms given in Appendix 1.³ If a more detailed classification of benign neoplasms according to anatomical site than is provided by the International Statistical Classification is required, a corresponding series of subdivisions can be used.

2. Classification of Neoplasms according to Histological Type

The subcommittee considered the *Manual of tumor nomenclature and coding*,⁴ published recently in the USA by the American Cancer Society. This *Manual* presents a classification of neoplasms according to both histological type and malignancy, and contains an extensive alphabetical index of English terms at present used to describe the histogenesis of neoplasms. The members of the subcommittee were of the opinion that the completion of this *Manual*, the first serious attempt to prepare a histological code for statistical studies, represents an important advance towards the development of a standard system for classifying neoplasms.

The difficulties involved in the preparation of such a *Manual* were recognized by the subcommittee. These difficulties arose partly from the fact that no generally accepted classification existed as a guide, but more especially from lack of conformity in the usage of present-day histological nomenclature. Some pathologists use the same histological term for neoplasms of different primary sites which ought in fact to have different histological descriptions; this, unfortunately, has necessitated the use of

³ See page 49.

⁴ American Cancer Society, Subcommittee of the Statistics Committee (1951) *Manual of tumor nomenclature and coding*, New York

anatomical terms to differentiate certain types of neoplasms in the histological classification.

Similar problems had to be faced in preparing a code to express the degree of malignancy of neoplasms. Although a general classification into benign, doubtful, and malignant would be widely accepted, considerable disagreement exists concerning the concepts of premalignant conditions and non-invasive carcinoma or carcinoma in situ, and as to the advisability of attempting to classify malignant neoplasms according to degree of cell differentiation.

The subcommittee, while considering it a signal achievement that in the USA these difficulties had been resolved sufficiently to permit publication of the *Manual of tumor nomenclature and coding*, was well aware that it will not be easy to reconcile the viewpoints of different nations about them. It was felt, however, that the need for a standard classification of neoplasms according to histological type and malignancy justified the considerable work necessary for the preparation of such a classification, and that this task would be greatly facilitated by the existence of the *Manual*.

The Subcommittee on the Registration of Cases of Cancer as well as their Statistical Presentation

RECOMMENDS

- (1) that the *Manual of tumor nomenclature and coding* be sent to appropriate organizations in various countries for careful review and for consideration as to what modifications would be required to bring it into conformity with national viewpoints; and
- (2) that national organizations should, where possible, make trials of the *Manual*, or of some modification of it, in coding case-records with a view to making their experience available to the World Health Organization when the preparation of a standard classification of neoplasms by histological type and degree of malignancy is being undertaken.

3. Classification of Neoplasms according to Stage

The subcommittee reviewed with interest the efforts recently made in the staging of cases of cancer by (1) the International Committee on Stage-grouping in Cancer for the Presentation of the Results of Treatment of Cancer, appointed by the International Congress of Radiology, (2) the Committee on Tumor Nomenclature, for the International Cancer Research Commission, (3) the International and Fourth American Congress on Obstetrics and Gynecology, (4) the Institut national d'Hygiène,

France, and (5) the Latin American Committee for the Study of Cancer of the Larynx.

It appeared that there seems to be agreement in principle that cases of cancer of accessible sites might profitably be grouped under four stages to be more precisely defined for each site :

Stage 1 — Tumour strictly confined to the organ and of relatively small size

Stage 2 — Tumour limited to the organ of origin but of relatively large size or with limited extension beyond the original organ

Stage 3 — Tumour with wide infiltration reaching neighbouring organs

Stage 4 — Tumour with considerable involvement of adjacent tissues or having spread to neighbouring organs.

One system suggested for the staging of cervical cancer of the uterus contains a so-called "stage 0" which appears as a pre-stage sometimes developing into cancer. The subcommittee, while feeling that such a preliminary category might prove useful for more than this site of cancer, considers that the term stage 0 of any site of cancer should be reserved for cases not believed to be invasive and that in the presentation of therapeutic statistics this category should be kept apart from stages 1-4.

Secondly, it was pointed out that for some sites observations on direct or metastatic involvement of the lymphatic system or distant organs, whether histologically confirmed or not, would make desirable the establishment of an additional system or systems for this purpose and that the classification of the tumour with respect to stage and the classification with respect to such additional system or systems should be made independently.

Finally, it was pointed out that the stage of each case should be decided at examination prior to treatment and that this classification should be kept except for special purposes.

While recommending the usage of the system for staging of cervical cancer recently adopted at the International and Fourth American Congress on Obstetrics and Gynecology, the subcommittee felt it desirable that any future revision of the said system should bring it into full conformity with the principles here presented.

4. Cancer Registration Systems

The subcommittee then considered the question of cancer registration. It was gratified by the progress reported by various countries, especially Denmark, England and Wales, France, and the USA, and was pleased to learn also of plans for similar programmes which are being made by a

number of countries in Europe, South America, and the Far East. The subcommittee hoped that all possible encouragement and help would be given to countries planning projects of this nature.

To facilitate the international comparison of cancer morbidity data from various countries, the subcommittee urged that as much detail as possible be shown in the statistical tables which are published. The subcommittee was in full agreement with "Recommendation 2" on form and content of publications on demographical studies on cancer passed by the Conference on Geographical Pathology and Demography of Cancer held by the Council for the Co-ordination of International Congresses of Medical Sciences in Oxford, July-August 1950.⁵ Special attention was called to the desirability of publishing both the numbers of cases and the corresponding populations with details of age by 5-year groups whenever possible, extending to the most advanced age for which reliable data are available, preferably up to the age of 85 or even up to 100 if practicable.

⁵ *J. nat. Cancer Inst.* 1950, **11**, 625

Appendix 1*

Classification of Neoplasms according to Anatomical Location of the Lesion

140 Malignant neoplasm of lip

- .0 Upper lip
- .1 Lower lip
- .9 Lip unspecified (including commissure)

Note: Purely cutaneous sites should be classified under 190.

141 Malignant neoplasm of tongue

- .0 Base of tongue
- .8 Other specified parts of tongue
- .9 Part unspecified

Note: A "book-leaf" neoplasm ("tumeur en feuillet de livre") involving both the ventral surface of the tongue and the floor of the mouth should be classified under 143.

* The Expert Committee on Health Statistics, when considering the report of the subcommittee, suggested the addition of a subheading and an explanatory paragraph under the heading of this Appendix (see section II.1, page 33).

142 Malignant neoplasm of salivary gland

- .5 Parotid gland
- .8 Other salivary glands
- .9 Gland unspecified

Note : These subtitles are alternatives to 142.0 and 142.1 of the International Statistical Classification and should not be used in conjunction with them.

143 Malignant neoplasm of floor of mouth**144 Malignant neoplasm of other parts of mouth and mouth unspecified****145 Malignant neoplasm of oral mesopharynx**

- .0 Tonsil (not including pillars)
- .8 Other specified parts of mesopharynx
- .9 Parts unspecified

146 Malignant neoplasm of nasopharynx**147 Malignant neoplasm of hypopharynx****148 Malignant neoplasm of pharynx, unspecified****150 Malignant neoplasm of oesophagus****151 Malignant neoplasm of stomach****152 Malignant neoplasm of small intestine, including duodenum**

- .0 Duodenum
- .8 Other specified parts of small intestine
- .9 Parts unspecified

153 Malignant neoplasm of large intestine, except rectum

- .0 Caecum, appendix, and ascending colon
- .1 Transverse colon, including hepatic and splenic flexures
- .2 Descending colon
- .3 Sigmoid colon
- .8 Intestinal tract, part unspecified
- .9 Large intestine (including colon), part unspecified

154 Malignant neoplasm of rectum**155 Malignant neoplasm of biliary passages and of liver (stated to be primary site)**

- .0 Liver
- .1 Gallbladder and extrahepatic gall ducts, including ampulla of Vater

156 Malignant neoplasm of liver (secondary and unspecified)**157 Malignant neoplasm of pancreas****158 Malignant neoplasm of peritoneum****159 Malignant neoplasm of unspecified digestive organs**

- 160 Malignant neoplasm of nose, nasal cavities, middle ear, and accessory sinuses**
 - .0 Nose (internal) and nasal cavities
 - .1 Eustachian tube and middle ear
 - .2 Maxillary sinus
 - .8 Other specified localizations
 - .9 Localizations unspecified
- 161 Malignant neoplasm of larynx**
- 162 Malignant neoplasm of trachea, and of bronchus and lung specified as primary**
 - .0 Trachea
 - .1 Bronchus and lung
 - .2 Pleura
- 163 Malignant neoplasm of lung and bronchus, unspecified as to whether primary or secondary**
- 164 Malignant neoplasm of mediastinum**
- 165 Malignant neoplasm of thoracic organs (secondary)**
- 170 Malignant neoplasm of breast**
- 171 Malignant neoplasm of cervix uteri**
- 172 Malignant neoplasm of corpus uteri**
- 173 Malignant neoplasm of other parts of uterus, including chorionepithelioma**
- 174 Malignant neoplasm of uterus, unspecified**
- 175 Malignant neoplasm of ovary, Fallopian tube, and broad ligament**
 - .0 Ovary
 - .1 Fallopian tube and broad ligament
- 176 Malignant neoplasm of other and unspecified female genital organs**
 - .0 Vulva
 - .1 Vagina
 - .8 Other specified parts
 - .9 Unspecified part
- 177 Malignant neoplasm of prostate**
- 178 Malignant neoplasm of testis**
- 179 Malignant neoplasm of other and unspecified male genital organs**
 - .0 Penis
 - .1 Scrotum
 - .8 Other specified parts
 - .9 Unspecified part

180 Malignant neoplasm of kidney**181 Malignant neoplasm of bladder and other urinary organs**

- .0 Bladder
- .8 Other urinary organs

190-191 Malignant melanoma and other malignant neoplasm of skin

- .0 Lips
- .1 Eyelids, including canthi
- .2 Ear and external auricular canal
- .3 Other and unspecified parts of face
- .4 Scalp and neck
- .5 Trunk
- .6 Upper limbs
- .7 Lower limbs
- .8 Multiple sites
- .9 Unspecified site

Note : When used in conjunction with a histological classification, 190 and 191 are combined.

192 Malignant neoplasm of eye**193 Malignant neoplasm of brain and other parts of nervous system**

- .0 Brain
- .1 Spinal cord
- .2 Meninges
- .3 Peripheral nerves
- .4 Sympathetic nervous system
- .9 Unspecified part

194 Malignant neoplasm of thyroid gland**195 Malignant neoplasm of other endocrine glands**

- .0 Suprarenal gland
- .1 Parathyroid gland
- .2 Thymus
- .3 Pituitary gland and craniopharyngeal duct
- .4 Pineal gland
- .8 Other specified glands

196 Malignant neoplasm of bone

- .0 Bones of the skull and face (excluding lower jaw)
- .1 Lower jaw bone
- .2 Vertebral column (excluding sacrum and coccyx)
- .3 Ribs, sternum, and clavicle

- .4 Upper limbs, long bones (humerus, radius, ulna) and scapula
- .5 Upper limbs, short bones (carpus, metacarpus, digital bones)
- .6 Pelvic bones, sacrum, and coccyx
- .7 Lower limbs, long bones (femur, tibia, fibula)
- .8 Lower limbs, short bones (tarsus, metatarsus, digital bones)
- .9 Unspecified site

197 Malignant neoplasm of connective tissue

- .0 Head, face, and neck
- .1 Trunk
- .2 Upper limbs (including shoulder)
- .3 Lower limbs (including hip)
- .9 Unspecified site

198 Secondary and unspecified malignant neoplasm of lymph-nodes

- .0 Head, face, and neck
- .1 Intrathoracic
- .2 Intra-abdominal
- .3 Axillary and upper limb
- .4 Inguinal and lower limb
- .5 More than one group involved
- .8 Other specified sites
- .9 Unspecified site

199 Malignant neoplasm of other and unspecified sites

- .0 Specific sites not included in 140-198
- .1 Ill-defined localization in head, face, and neck
- .2 Ill-defined localization in thorax
- .3 Ill-defined localization in abdomen (excluding pelvis)
- .4 Ill-defined localization in pelvis
- .5 Ill-defined localization in limbs
- .6 Generalized neoplasm
- .9 Unspecified localization

205 (Mycosis fungoides)

Note : To be classified under 190-191.

206 Lymphatic system

- .0 Head, face, and neck
- .1 Intrathoracic
- .2 Intra-abdominal
- .3 Axillary and upper limb
- .4 Inguinal and lower limb

- .5 More than one group involved
- .8 Other specified sites
- .9 Unspecified site

Note : 206 and 207.1 are together alternative to 200-202 of the International Statistical Classification.

207 Haematopoietic system

- .0 Bone marrow (including leukaemia of lymphocytic, leukocytic, plasmocytic, and monocytic nature)

Note : 207.0 is alternative to 203-204 of the International Statistical Classification.

- .1 Spleen

Note : 206 and 207.1 are together alternative to 200-202 of the International Statistical Classification.

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