



STUDY GROUP ON THE
 CLASSIFICATION OF DISEASES

Geneva, 20-24 October 1969



INDEXED

REPORT

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Members:*

- Dr M. J. Aubenque, Technical Adviser, National Statistics and Economics Institute, Paris, France
- Dr C. Ferrero, Chief, Department of Health Statistics, Office of the Secretary for Public Health, Buenos Aires, Argentina
- Mr F. Harris, Director, Health and Welfare Division, Dominion Bureau of Statistics, Ottawa, Canada
- Dr M. A. Heasman, Co-Director, Health Services Research and Intelligence Unit, Scottish Home and Health Department, Edinburgh, Scotland (Chairman)
- Dr L. M. F. Massé, Professor, National School of Public Health, Rennes, France
- Dr I. M. Moriyama, Director, Office of Health Statistics Analysis, National Center for Health Statistics, Health Services and Mental Health Administration, Department of Health, Education and Welfare, Washington, D.C., USA
- Dr R. H. C. Wells, First Assistant Director-General, Commonwealth Department of Health, Canberra, A.C.T., Australia (Rapporteur)
- Dr A. A. Romensky, Chief, Department of Medical Statistics, Ministry of Health, Moscow, USSR (Vice-Chairman)
- Dr K. B. Westlund, Director, Life Insurance Companies' Institute for Medical Statistics at the Oslo City Hospitals, Oslo, Norway

Heads of WHO Centres for Classification of Diseases

- Dr A. M. Adolstein, Head, WHO Centre for Classification of Diseases, General Register Office, London, England
- Dr R. Fuenmayor, Director, Latin-American Center for Classification of Diseases, Caracas, Venezuela
- Dr M. Guidevaux, Head, WHO Centre for Classification of Diseases, National Institute of Health and Medical Research, Paris, France
- Dr V. K. Ovčarov, Head, WHO Centre for Classification of Diseases, Semasko Institute of Social Hygiene and Public Health Administration, Moscow, USSR

Representatives of other organizations:

International Labour Organisation:

- Dr M. Stilon de Piro, Social Security Branch, ILO, Geneva, Switzerland

Secretariat:

- Dr K. Kupka, Chief, International Classification of Diseases, WHO (Secretary)
- Dr W. P. D. Logan, Director, Division of Health Statistics, WHO
- Dr C. S. Muir, Chief, Epidemiology, International Agency for Research on Cancer, Lyons, France
- Dr A. H. T. Robb-Smith, Nuffield Reader in Pathology, University of Oxford, England (Temporary Adviser)
- Dr F. Ueda, Technical Officer, Division of Statistics, Ministry of Health and Welfare, Tokyo, Japan (Temporary Adviser)

* Unable to attend: Dr R. Richterich, Senior Medical Officer, Inselspital, Berne, Switzerland.

A WHO Study Group on the Classification of Diseases met in Geneva from 20 to 24 October, 1969. Dr W. P. D. Logan, Director, Division of Health Statistics, opened the meeting on behalf of the Director-General and welcomed the participants. He pointed out that the Study Group had been convened to advise WHO on the requirements and programme for the Ninth Revision of the International Classification of Diseases, and stressed that members were attending as individuals and not as representatives of national organizations.

1. REQUIREMENTS FOR THE NINTH REVISION OF THE INTERNATIONAL CLASSIFICATION OF DISEASES

1.1 General objectives

The uses to which the ICD is being put have expanded considerably in recent years, and it should be the general objective of the Ninth Revision to provide a classification that is basically suitable, either as it stands or by extension, for a wide variety of health and social requirements. These applications require the classification not only of medical causes of mortality, morbidity, and hospital utilization, but also of investigational and therapeutic procedures and of non-medical causes of health care and social service utilization.

1.2 Implications of multiple-condition analysis requirements

The Study Group broadly agreed that the following features are desirable in the Ninth Revision of the ICD so that the most value can be obtained from multiple-condition analysis:

(1) The present mortality orientation of the Classification and the assumptions of etiology should be discontinued.

(2) It would be preferable to study the association of diseases by multiple-condition coding rather than by using combination categories, and the latter should be eliminated wherever possible.

(3) Multiple-condition coding and analysis would enable certain additional categories of relevant information to be used, and the Ninth Revision should therefore provide scope for the classification of impairments, symptoms, other secondary diagnoses, and less precise information that would not normally be used if only a single diagnosis could be coded.

1.3 Implications of hospital indexing requirements

The Group noted that WHO did not propose to adapt the Eighth Revision of the ICD for hospital indexing purposes for the following reasons:

(1) Special consideration was given to this need in preparing the Eighth Revision, and there are indications that some countries find it suitable for this purpose;

(2) A number of countries have themselves adapted the ICD for hospital purposes and it would seem reasonable to study the usefulness of these adaptations;

(3) In view of WHO's resources, an adaptation of the Eighth Revision could not be completed before the Ninth Revision of the ICD is published, and so would be out-of-date before it could be used; and

(4) It is intended that the Ninth Revision of the ICD will be adequate for hospital indexing.

It will be an advantage for the purposes of hospital indexing if the Classification remains a single variable-axis classification. There should be better provision for classifying certain matters, such as complications of medical and surgical procedures, symptomatology, and other causes of hospital admission that cannot be covered by diagnoses of physical and psychiatric illnesses. It seems inevitable that hospital indexing will frequently involve multiple-condition coding.

There was some uncertainty among the Group about the degree of specificity needed for hospital indexing. This can only be settled after closer study by WHO.

1.4 Implications of diagnostic coding by computer

A computer programme for coding diagnoses is being used in the United Kingdom. At present computers with large memories are required but it is hoped to revise the programme for smaller machines. The handling of long descriptions of external causes of injury may be a problem. The use of this programme could assist in removing archaic, rarely-used terms from the ICD. The only other relevant implication of coding by computer is that changes in the numbering of rubrics will entail extensive re-programming, but this should not be allowed to become an obstacle to necessary changes.

Another programme, developed in the USA, is used for determining the underlying cause of death. Further simplification of the selection rules of this programme is desirable.

1.5 Implications of the standardization of diagnostic nomenclature

The Study Group noted that increasing specificity in the ICD could lead to some confusion unless improved definitions of the terms used are also provided. However, it would be more appropriate merely to give an indication of the content of the ICD rubrics than to supply a precise and formal definition of individual terms.

The standardization of nomenclature would increase the value of data coded in accordance with the ICD, but at present not enough is known about what terms are actually used by doctors or the interpretations placed upon them. A number of studies are being made to investigate the frequency and meaning of terms used. It is recommended that such studies be encouraged by WHO, be conducted in countries with different languages, and be extended to include all the major forms of medical service. The information gained would be of particular assistance in developing the ICD Tabular List and in producing internationally accepted preferred terms.

1.6 Other necessary modifications

Attention was drawn to the use of the ICD for social security, health insurance, and social welfare schemes. It was noted particularly that the Y List of the Eighth Revision has had to be extended slightly in some countries to give more specificity for such purposes, and it was generally agreed that the special needs of many agencies should be investigated and considered when making the Ninth Revision.

When the Eighth Revision of the ICD was being prepared, the International Labour Organisation carried out a survey to find out to what extent List C in the Seventh Revision (Special List of 50 Causes for Tabulation of Morbidity for Social Security Purposes) was being adopted in social security programmes. Of 27 countries surveyed, seven were using List C, three were using List C with modifications, seven were using other international lists, and eight were using their own classification. The limited utilization of this ICD list indicates that there is scope for a joint ILO/WHO study with the aim of achieving wider utilization of the ICD, both for coding and tabulation.

The special requirements for rehabilitation projects and some types of morbidity surveys were mentioned, and it was noted that the classification of impairments and disabilities in the Eighth Revision is inadequate for such purposes. These requirements could be met by expanding the N or Y Lists and/or reintroducing a list of impairments. These lists should then be reconsidered together to determine whether some form of combination is desirable.

Additional rubrics should be incorporated in supplementary classifications associated with the ICD (e.g., the Y Code) to cover cases where non-medical disorders of a social nature, such as poverty, family problems, or lack of housing, food, or personal care, necessitate the provision of health care. This is essentially an ICD requirement that is quite distinct from general

classifications of socio-economic factors being developed by other organizations, although such general classifications may sometimes be used for special purposes in conjunction with the ICD.

There is a need for codes of surgical, medical, and other forms of health care.

The classification of drugs, mentioned particularly in connexion with the E Code of the ICD, should be investigated in consultation with the WHO Drug Monitoring Unit so as to ensure that consistency is maintained.

In summary, the next revision of the ICD should provide for the classification of all important circumstances leading to the utilization of health care. At the same time it must provide for the classification of causes of death, morbidity, and impairments to full health that do not necessarily require medical care.

1.7 Scope, content, and form of the Ninth Revision

The Study Group discussed an outline for the Ninth Revision, prepared by WHO on the basis of suggestions made in the various working papers for the meeting. This outline envisaged an open-ended numbering system that is capable of sub-division to any extent required for the identification of clinical entities, while conserving the ability to produce meaningful statistical tabulations at 2, 3 or 4 digit level, and which makes a rigorous separation of etiological agents and their systemic manifestations, so that double coding would be necessary to identify, for example, the anatomical locations of neoplasms or congenital anomalies.

The Group found many aspects of the outline attractive, but concluded that a revision of such magnitude and implications could be recommended only after extensive development and testing, and that it would be unwise to rely solely on this as yet untried proposal as a basis for the Ninth Revision. However, it was felt that this outline must be seriously considered as a basis for the Tenth Revision, and the Group recommended continued development of the outline if this is possible without prejudice to the preparation of the Ninth Revision.

The Group concluded that the following requirements should be taken into account in preparing the Ninth Revision:

- (1) The essential basis of the Eighth Revision should be retained in respect of the axes of classification, the approximate number of sections, and the decimal numbering system; to give the Classification a completely pyramidal structure is not considered feasible.
- (2) The Classification should be meaningful at the three-digit level, and this level should be the limit for mandatory requirements for international statistical purposes.
- (3) For the purposes of diagnostic indexing, all rubrics should be examined, particularly the residual categories; where greater specificity is required to identify clinical entities, a draft should be prepared using fourth and fifth digits if necessary.
- (4) The combination categories should be examined with the needs of multiple-condition analysis and diagnostic indexing in mind, and a list should be prepared of those that could be eliminated.
- (5) The E Code is indispensable as a complementary classification of the external causes of the cases classified in the N Code; the number of rubrics, however, need not necessarily be limited to the present series 800-999.
- (6) The N Code should be reconsidered, with particular attention to the identification of complications of therapeutic procedures and the elimination of categories duplicated in the E Code (e.g., those identifying drugs); it is not necessary to use the prefix N for this code.

(7) The Y Code should be revised to eliminate the axis of classification according to laboratory examination - this parameter needs a separate code, see below - and to include rubrics to identify social reasons for the utilization of health care.

(8) The section dealing with symptoms and ill-defined conditions requires extension, as it may be needed for use with laymen's descriptions of ill health.

- (9) Additional classifications, either within or complementary to the ICD, are needed for:
- (a) disabilities and impairments
 - b) morphological (histological) classification of neoplasms
 - (c) surgical operations
 - (d) other medical and surgical procedures, including laboratory examinations.

1.7.1 Tabular list

The Tabular List should indicate the content of rubrics, but should not attempt to define the meaning of diagnostic terms. The List should also be the prime reference source of preferred terms.

Although the Tabular List must show what is in each rubric, it should not give the rules relating to the use of individual rubrics for mortality, morbidity, and other coding purposes. Instructions of this type would be better collated in a separate section on rules for medical certification and classification.

The draft Tabular List prepared for the Ninth Revision should show the "inclusion terms" for each rubric. The selection of these terms should, where possible, be based upon studies of the terms actually used in various countries.

1.7.2 Index

The Group strongly recommended that the programme for the Ninth Revision should ensure that both Volume 1 (Tabular List) and Volume 2 (Index) are published in good time and well before the new Revision comes into operation. If possible, both volumes should be published together.

The Index could be abbreviated considerably by eliminating most of the cross references. The feasibility of using different type faces to indicate whether or not reference to the Tabular List is desirable for the most appropriate coding of terms should be investigated.

1.7.3 Rules of selection and classification

An effort should be made to simplify the rules that relate mainly to single coding for mortality statistics. It is not feasible to formulate general rules that will be appropriate for all the other uses of the ICD; it was noted in passing that morbidity uses could be the predominant influence in developing the Ninth Revision.

Although the Classification will remain basically unchanged, there are some inconsistencies in the handling of manifestations and their etiological agents. When such inconsistencies come to light WHO should prepare suggestions for consideration at the next preparatory meeting.

1.7.4 Certificate of cause of death

Experiments should be encouraged with various forms of death certificate, including forms for multiple-cause analysis and for single-cause analysis based on some alternative to the

underlying cause, e.g., the condition that was the main consumer of medical care. The results of these experiments will be needed by the end of 1972 if any change in the form of certificate is to be considered for the next Revision.

2. PROGRAMME OF THE NINTH REVISION

2.1 Working methods

The use of automatic data-processing methods to produce the final versions of the Ninth Revision and any intermediate drafts was discussed. The Group concluded that such methods are essential to the efficient and timely completion of the Ninth Revision.

2.2 Respective roles of WHO Headquarters units. Centres for Classification of Diseases and Regional Offices

The ICD unit has established liaison with other specialized WHO headquarters units and with the International Agency for Research on Cancer, which will assist in formulating proposals for revision of the ICD. Representatives of some units have indicated a number of areas of special interest to them that may need revision, but no major matters of principle are involved. The Group expressed deep appreciation of the assistance being given by the other WHO headquarters units, and welcomed further collaboration.

WHO Centres for Classification of Diseases have an important function in relation to the interpretation, application, and revision of the ICD. They work in the four reference languages, and are able to contact specialists working in the field in their own language and to promote inter-country and inter-Centre activities. They also have some responsibilities in assisting development of the various official-language versions of the ICD. WHO should see that the various tasks connected with the Ninth Revision are suitably shared out.

The WHO Regional Offices assist, in so far as their facilities allow, by promoting studies and organizing seminars and meetings on classification problems of special regional interest.

2.3 Role of other agencies

CIOMS is developing an international nomenclature of diseases in English, French, Russian, and Spanish. This will be a valuable reference work, giving clinical descriptions of diseases that could be used as criteria for diagnoses. The CIOMS project is linked to ICD rubric terms, and close liaison will be maintained between the ICD Unit and the CIOMS team.

National committees dealing with health classification and statistics could be a helpful source of advice to WHO, and the Organization should make full use of them. The assistance of national committees would be particularly valuable in the study of areas of the Classification not covered by WHO headquarters units, and lists of these areas could be circulated to national committees.

The International Labour Office has also stated its willingness to assist in certain special areas.

2.4 Time-table and resources needed

A programme analysis will be made after the Group's recommendations have been considered. This PERT approach (programme evaluation and review technique) should make it possible to draw up a detailed time-table and to assess the resources that will be required.

The Group considered that regional and inter-country seminars to organize preparatory work for the Ninth Revision would be most helpful.

It is essential that governments be given adequate time prior to the Ninth Revision Conference to consider the final draft.

Subject to a few minor changes of priority, the Group endorsed the main features of the time-table proposed by WHO in Working Paper ICD/WP/69.4, and requested that the following items be available for consideration at the next meeting of the Study Group:

- (1) The general outline at least of those parts of the Classification that are undergoing major change, and if possible a complete first draft of the Ninth Revision.
- (2) A list of individual terms requiring re-classification, discussed above in section 1.7 together with WHO's recommendations.
- (3) A progress report on the computer coding of ICD terms.

The main features of the time-table can be summarized as follows:

- 1969 Consideration of the present Group's report and PERT study.
- 1970 Next preparatory meeting to review the first draft of the Ninth Revision.
- 1971 Further preparatory meeting.
- 1972 All major proposals for revision must be received by the end of this year.
Circulation of the second draft of the ICD for comment.
- 1973 Review of national comments, re-circulation.
- 1974 Expert Committee to recommend the final draft.
- 1975 International Revision Conference, submission of the Ninth Revision to the World Health Assembly.
- 1976 Publication of the Manual.

The Group attaches great importance to this programme, although the staff and financial resources needed to carry it out can only be determined in detail by WHO. The highest priority should be placed on the preparation of all working drafts in English, French, Russian and Spanish.

2.5 Education

The Study Group welcomed the proposal to hold regional and other seminars to introduce the Ninth Revision, and to produce sets of teaching material for coders in English, French, Russian, and Spanish. Any local training courses that might follow the seminars should be widely publicized.

The problem of familiarizing medical students and, where relevant, other health personnel with the ICD was discussed. The introduction of this topic at an appropriate stage in the curriculum should be encouraged.

3. ASSISTANCE TO COUNTRIES PRODUCING VERSIONS OF THE ICD IN OTHER LANGUAGES

Countries producing versions of the ICD in languages other than English, French, Russian and Spanish will need to receive the Manual at least a year before the Ninth Revision comes into operation. WHO could assist by providing experts and consultants, but the major form of assistance may be to provide information on the use of automatic data-processing methods similar to and compatible with those being used by the Organization. Countries wishing to prepare their own versions of the ICD should consider the preparation of computer tapes of glossaries in their own language as a first priority. They could then work with WHO's own programme.

4. REVIEW OF EXISTING DEFINITIONS AND RECOMMENDATIONS, WITH SPECIAL EMPHASIS ON PERINATAL MORTALITY

The definitions of foetal death, live birth, and other related terms require further study. It is not essential to deal with this problem at the Revision Conference, but it would be very desirable to do so. It is recommended that WHO investigate the various national practices and findings on this point with a view to discussion at a subsequent meeting of the Group or by a specially convened committee.

5. ADAPTATION OF THE ICD TO SPECIAL NEEDS, WITH EMPHASIS ON NON-MEDICAL CERTIFICATION OF MORBIDITY AND MORTALITY

Attention was drawn to the impossibility of obtaining medical certification for the majority of deaths in many less developed areas with low doctor/population ratios. It has been estimated that the proportion of deaths throughout the world for which the cause is certified by medical practitioners is at present somewhat less than 30%. There is a substantial demand for better classification schemes, for non-medical certification, and a special study should be carried out by WHO. However, this should not be allowed to interfere with the orderly progress of work on the ICD. If this study is carried out, and proves successful, it may be possible to incorporate some of the special requirements for non-medical certification in the Ninth Revision.

6. OTHER ACTIVITIES

6.1 Compendium of recommendations, definitions, and standards

The Group examined a draft compendium, prepared by WHO, of recommendations, definitions, and standards relating to health statistics. It was felt that the draft compendium gave some unnecessary historical details and recommendations and should be re-drafted in a more concise form. The compendium should be published as soon as practicable, preferably in loose-leaf form. It will have to be brought up to date from time to time.

6.2 Code of surgical operations

A draft classification of surgical operations and procedures has been prepared by WHO. It is suggested that the draft be circulated for comment to countries concerned, together with the code of operations published in the US adaptation of the ICD. Although WHO does not intend to submit the final draft for consideration by the International Revision Conference, the next preparatory meeting should consider the code and the comments received from Member States.