MANUAL FOR COULSE

CAUSES OF ILLNESS

ACCORDING TO A

DIAGA USIS CODE FOR TABULATING
MORRITHTY STATISTICS

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# MANUAL FOR CODING CAUSES OF ILLNESS

ACCORDING TO A

DIAGNOSIS CODE FOR TABULATIN MORBIDITY STATISTICS

PREPARED BY DIRECTION OF THE SURGEON GENERAL

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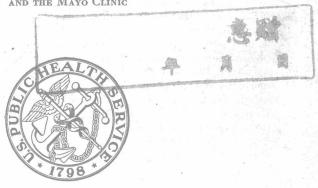
DIVISION OF PUBLIC HEALTH METHODS, U. S. PUBLIC HEALTH SERVICE

WITH THE COOPERATION AND ASSISTANCE OF THE

DIVISION OF VITAL STATISTICS, U. S. BUREAU OF THE CENSUS

THE JOHNS HOPKINS HOSPITAL AND SCHOOL OF HYGIENE AND PUBLIC HEALTH

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Page

Introduction	1
Disease classification for statistical purposes	1
Nature of classification by morbidity code	6
Adaptation of code to punchcard system	6
Methods of listing in alphabetical index	11
Where to look in index for specific terms	12
Abbreviations used in index	13
Special use of parentheses	14
Acute and chronic	15
Current and old	15
Special use of "except as below" EAB	16
Terms involving two or more diagnoses, including sequelae and	
complications	16
Injury	18
Poisoning	20
Deformity, malformation, absence, and amputation	22
Neoplasm	23
Surgery and other special procedures	23
Other references	24
Heart disease	24
Meningitis	24
Encephalitis	24
Puerperal complications	25
Infants and their illnesses	25
Morbidity code with corresponding numbers in the International List of	
Causes of Death	26
Classified listing of morbidity categories with representative inclusions	51
Alphabetical index to the morbidity code	127
Appendix I. International List of Causes of Death with corresponding	
morbidity code numbers	462
Appendix II. Changes in original morbidity code as published in the Public	
Health Reports for August 30, 1940, with equivalent numbers in the	
revised morbidity code.	479
Appendix III. Alphabetical index to supplementary code for circumstances	
of accidents	483
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### INTRODUCTION

# DISEASE CLASSIFICATION FOR STATISTICAL PURPOSES

The orderly tabulation of data on the causes of death in different places and in various time periods has been encouraged, fostered, and made at least roughly comparable by the existence of a suitable list of important causes of death and a complete alphabetical index to assist the diagnosis coder to secure uniformity in the assignment of diagnostic statements to the various rubrics of the list.

Morbidity is far less definite than mortality. The occurrence of death is a definite event and the number of such events can be counted. An illness, on the other hand, varies from a minor deviation from normal health which does not interfere with the performance of regular duties and activities, to the bed or institutional chronic case which calls for bedside or custodial care for an indefinite period with

an eventual fatal ending.

In both mortality and morbidity the assigned cause or diagnosis of the illness is a matter that often deviates rather widely from the true situation. However, progress toward accuracy in diagnosis can be fostered by the assembly and comparison of statistics on the reported causes of illness. A primary requisite is a diagnosis list that is short enough for statistical purposes and that has an alphabetical index that will assist a reasonably intelligent diagnosis coder to assign diagnostic statements to the various categories of the list as accurately as is possible from the stated causes of illness. Without a coding manual of this kind it is impossible for different coders to obtain uniformity in the assignment of specific diagnoses to the categories of a morbidity code.

In the field of mortality the International List of Causes of Death and the United States Census Manual based on that list have provided the tools for classifying causes of death for statistical tabulations in States, counties, cities, and villages. It is hoped that the List for Tabulating Morbidity Statistics and the manual which accompanies it will serve in the field of the causes of illness the same functions which have been served in the field of mortality by the United States Census Manual of the International List of Causes of Death. While States, counties, and cities have morbidity data on only a limited number of communicable diseases, this morbidity manual should be useful for hospital and clinic annual and special reports, plans pro-

viding hospital, clinic, and other medical care on a prepaid or insurance basis, and studies and surveys of general morbidity and medical care.

It should be emphasized that a morbidity code and alphabetical index of this kind will not take the place of or conflict with any nomenclature which may be in use in an institution. The function of a nomenclature is to train the physician to use the clearest and most acceptable diagnostic terms to describe a particular clinical case; the function of this coding manual is to aid a capable diagnosis coder or record librarian, with occasional medical advice, to assign the terms and disease names used by the attending physician to the proper category in the list for the purpose of statistical tabulations. better the nomenclature the more accurate will be the assignment of diagnoses for statistical purposes, but with a complete index to the code the manual will be usable in connection with any nomenclature. Many hospital and medical care plans which need a morbidity diagnosis code of this kind have no control over nomenclature and must accept diagnostic terms from a great variety of physicians and hospitals using different nomenclatures. To meet all coding needs it has been necessary to include in this morbidity index many ill-defined and undesirable terms to indicate to the diagnosis coder where the case should be assigned even when it goes to an ill-defined rubric. Therefore, the presence of a term in this manual should never be taken as any sanction of its usage in medical terminology. No organization should attempt to make this morbidity manual serve as a nomenclature any more than the United States Census Manual for Coding Causes of Death.

The morbidity list is really composed of a reasonably short list and a detailed list. In the 3-digit numbering system, the first 2 of the 3 digits designate important or summary categories and the third digit subdivides these into more specific groups. Thus 01 as the first 2 digits of the code represents a group of common communicable diseases of childhood, while the third digit subdivides these into seven specific diseases. Similarly, 03 represents nonrespiratory tuberculosis, while the third digit separates these cases into tuberculosis of 10 specific sites or types. Of the total of 91 categories in the abridged (2-digit) list, 80 are devoted to diseases, 10 to the nature of current injuries and poisonings, and 1 to conditions without sickness; 4 other numbers constitute a duplicate set-up for circumstances of accidents. Of the 516 categories in the detailed (3-digit) list, 409 are devoted to diseases, 99 to the nature and site of current injuries and poisonings, and 8 to conditions without sickness; 22 other numbers make up a duplicate set-up for circumstances of accidents. The diagnosis categories included were selected as: (a) Those that occur with considerable frequency in hospital, clinic, survey, and other morbidity data, (b) those that could be diagnosed with reasonable accuracy and would thus be codeable from available records, and (c) a few categories of small frequency but of general interest from various viewpoints.

This diagnosis list is deemed suitable for morbidity tabulations by hospitals and clinics and for sickness surveys to provide a general statement of the frequency of various types of illness. Although some classes of diseases are shown in considerable detail, it was considered impossible in a list adapted to general use to provide all of the detail that would be desirable in special studies of particular diseases. To make this general list suitable for such studies, it will be found necessary to subdivide the diagnosis categories pertaining to the particular specialty under consideration. There are three ways in which the present list can be expanded: (a) The rubrics in this list have been numbered in a way to leave unused numbers at frequent intervals, (b) the code has not employed the symbols X and V (except V as the first digit in the supplementary code, p. 49) which are frequently used to supplement the digits, particularly on punchcards, (c) the code may be expanded by introducing subdivisions of any present code number to be designated by a letter or preferably a decimal.

The arrangement and order of the diseases in this list of the Causes of Morbidity follow closely that of the International List of Causes of Death. Some rare diseases that have separate numbers in the International Death List are here combined with "other disease" categories; for example, plague and anthrax are coded with "other infectious diseases." A few diseases have been put in different sections from their place in the International List, to conform to the most recent information about them. Thus, Hodgkin's disease and leukemia have been put with neoplasms. The places of other diseases have been changed because as causes of morbidity they more nearly resemble other disease categories; thus, influenza, tonsillitis, and other diseases of the pharynx appear among the upper respiratory infections; arthritis appears with other joint and bone diseases; and hypertensive cardiovascular-renal diseases appear with heart diseases. A few indefinite but commonly reported symptomatic diagnoses have been given separate numbers in an ill-defined group. Throughout the list the categories which have been assigned separate numbers are generally the ones that occur frequently as sickness diagnoses; thus, the respiratory diseases which are frequent as causes of illness have more numbers in this morbidity code than in the mortality code.

Accidental injuries are classified in a way better suited to the many nonfatal cases that occur in morbidity coding. Persons interested in the nature of injury can obtain from this code such data as the number of burns, foreign body injuries, simple and compound

fractures, joint injuries, lacerations, superficial injuries, and other injuries, with each of these categories classified by anatomical site. Likewise, those interested in the prevention of accidents can obtain from the duplicate set-up data on the circumstances of the accident insofar as that information is available in the original record.

The above deviations from the International List of Causes of Death have been made to provide a list more suitable for tabulating the causes of morbidity. However, by those very changes the morbidity list becomes less suitable for tabulating causes of death and is not intended for that purpose except as fatal cases of illness are tabulated along with nonfatal cases; to obtain any idea of case fatality it is necessary to classify both types of cases according to the same code. But it is possible to obtain reasonably accurate correspondence between the morbidity and the mortality lists by combining some of the categories into broader diagnosis groups.

Terms included in the alphabetical index are a collection of those in actual use in hospitals and clinics, on death certificates, in sickness surveys, and in certain nomenclatures. Specifically, the index includes terms appearing in the Census Bureau Manual of the International List of Causes of Death, terms collected in a long experience of cross-indexing and tabulating diagnoses at the Mayo Clinic, 2, 3 and at the Johns Hopkins Hospital, and terms appearing in the Canadian Morbidity Manual, Standard Classified Nomenclature of Disease, the United States Army, Navy, Public Health Service, and the Veterans' Administration disease nomenclatures, and other miscellaneous sources.

This diagnosis list for morbidity tabulations was originally published in tentative form by the Surgeon General of the United States Public Health Service and the Director of the United States Bureau

<sup>&</sup>lt;sup>1</sup> U. S. Census Bureau, Manual of the International List of Causes of Death (Fifth Revision, Paris, 1938), and Manual of Joint Causes of Death (Fourth Edition, 1939), Government Printing Office, 1940.

<sup>&</sup>lt;sup>2</sup>Berkson, Joseph: A tabular outline for use in reporting hospital morbidity. Am. J. Pub. Health, 28: 723-729 (June 1938). (From Mayo Clinic, Rochester, Minn.)

<sup>&</sup>lt;sup>8</sup> Berkson, Joseph: A system of codification of medical diagnoses for application to punchcards, with a plan of operation. Am. J. Pub. Health, 26: 606-612 (June 1936). (Supplemented by an unpublished alphabetical index, from Mayo Clinic, Rochester, Minn.)

<sup>&</sup>lt;sup>4</sup> Johns Hopkins Hospital, Statistical Department: Classification of diagnoses for indexing. Mimeographed alphabetical index published by Johns Hopkins Hospital.

<sup>&</sup>lt;sup>5</sup> Canadian Morbidity Code and Index, Appendix to Bulletin of British Columbia Board of Health, Vol. 7, No. 1, 1937.

<sup>&</sup>lt;sup>6</sup> Standard Classified Nomenclature of Disease, American Medical Assn., Chicago, 1938, and Standard Nomenclature of Diseases and of Operations, American Medical Assn., Chicago, 1942.

<sup>&</sup>lt;sup>7</sup> U. S. Army: Coding Book, Diseases and Traumatisms, with mimeographed revisions, Medical Department of the U. S. Army, Government Printing Office, 1919.

<sup>&</sup>lt;sup>8</sup> U. S. Navy, Diagnostic Nomenclature for the Medical Department of the United States Navy, Government Printing Office, 1938.

<sup>&</sup>lt;sup>9</sup> U. S. Public Health Service, Nomenclature of Diseases and Conditions, U. S. Public Health Service Miscellaneous Publication No. 16, Revised 1935, Government Printing Office, 1935. (Reprinted and used also by the U. S. Veterans' Administration.)

of the Census in the Public Health Reports for August 30, 1940.<sup>10</sup> The form of the present code includes such revisions as have seemed appropriate in the course of the preparation of the index. Aside from a new set-up for accidental injuries and the inclusion of more detail on mental diseases, the revisions are minor. A detailed list of the changes is included in Appendix II, p. 479.

The code was arranged by a committee of consultants appointed by the Surgeon General to work with the Public Health Service and the Bureau of the Census in setting up a suitable morbidity diagnosis list. The most active of the officers and consultants were:

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Halbert L. Dunn, M. D., Ph. D., chief statistician for vital statistics, United States Bureau of the Census.

Lowell J. Reed, Ph. D., Sc. D., professor of biostatistics and dean, School of Hygiene and Public Health, Johns Hopkins University.

Edwin L. Crosby, M. D., Dr. P. H., assistant director and supervisor of records, Johns Hopkins Hospital.

Joseph Berkson, M. D., Sc. D., chief, Division of Biometry and Medical Statistics, Mayo Clinic, and Colonel, United States Army Medical Corps in the Air Forces.

W. Thurber Fales, Sc. D., director, Statistical Section, Baltimore City Health Department.

Lily Vanzee Welch, A. B., assistant statistician, United States Public Health Service.

Many others have cooperated with and furnished helpful advice and material to the committee, particularly Drs. James A. Crabtree, Burnet M. Davis, W. M. Gafafer, James Q. Gant, Jr., Frederick H. Goldman, Norman R. Goldsmith, James W. Hawkins, James P. Leake, Carroll E. Palmer, Samuel M. Peck, and others in the United States Public Health Service; Miss Clara E. Councell and Mrs. Josephine Lehman, formerly of the United States Public Health Service; Mr. Theodore Janssen, formerly of the Division of Vital Statistics, United States Bureau of the Census; Dr. Marta Fraenkel, New York Welfare Council; Miss Dorothy Kurtz, Record Librarian, Presbyterian Hospital, New York; and Mr. John T. Marshall, Chief, Vital Statistics Branch, Dominion Bureau of Statistics of Canada. Drs. L. Huntley Cate, Marie Cakrtova, Muriel Cuykendall, and Elizabeth Smith made a complete medical check of the code numbers assigned. The cooperation and assistance of this whole group has been invaluable in the preparation of the index which was done in the Division of Public Health Methods of the United States Public Health Service, with the assistance of the Division of Vital Statistics of the Bureau of the Census.

<sup>&</sup>lt;sup>16</sup> Parran, Thomas, and Austin, William L.: A Diagnosis Code for Use in Tabulating Morbidity Statistics, Pub. Health Rep., 55: 1558-1575 (Aug. 30, 1940). (Reprint 2194.)

#### NATURE OF CLASSIFICATION BY MORBIDITY CODE

Since this morbidity list follows the general order of causes of death in the International List (Fifth Revision, 1938), it represents the same general principles of classifying as used in that code, namely:

- (a) Specific infectious diseases generally recognized as communicable are listed in a section on infectious diseases. Two important exceptions to this principle exist: influenza, tonsillitis, septic sore throat, and pneumonia are left with coryza, colds, bronchitis, laryngitis, and other respiratory diseases; certain infectious diseases of the skin are left with skin diseases.
- (b) Acute injuries are classified according to the nature of the injury with a supplementary code for circumstances of the accident. Acute poisonings are classified according to the toxic substance involved. Deformities and other old results of injuries and poisonings are classified according to the nature of the residual condition.
- (c) There are special sections for neoplasms, for delivery and other conditions of pregnancy and childbirth, and for congenital malformations and diseases peculiar to the first year of life.
- (d) Other diseases are grouped in general according to the system or part of the body most severely affected.

At present it seems impossible to follow consistently any one principle in classifying the many different kinds of diseases into a reasonably short list.

The complete list of disease categories with morbidity code numbers and equivalent International List numbers is shown on pages 26–50. Notes and cross references are included to indicate the position of similar diseases that appear in other parts of the code.

On pages 51–126 is a numerical listing of the morbidity categories with representative diseases that are included in each rubric. It was not feasible and did not seem necessary to include here every listing in the index since many are synonyms or otherwise unimportant and others appear only as a cross-index item in an alternate form. The terms listed as inclusions are therefore the minimum necessary to give a concept of the type of disease assigned to the given rubric. For information as to the category to which a specific term is assigned, refer to the alphabetical index.

#### ADAPTATION OF CODE TO PUNCHCARD SYSTEM

It is assumed that any punchcard for hospital, clinic, or other cases would carry such items as age, sex, and color of the patient; date of onset of illness; date of admission; number of days of hospital care; number of physician calls classified as home, hospital, office, and clinic;

and other known facts about the case. The recommendations below refer solely to the recording of diagnoses on the punchcard:

A. Leave space on each punchcard for three diagnoses (three fields of three columns each) and a single column to describe and classify the diagnoses.

B. Make a separate punchcard for each diagnosis:

If the illness had only one diagnosis, there would be only one punchcard and the second and third diagnosis fields on it would be blank.

If the illness had two diagnoses, there would be two punchcards. On the first card the principal diagnosis would be in the first field and the contributory would be in the second field; the second punchcard would be practically a duplicate of the first except that the contributory cause would be in the first field and the principal cause in the second diagnosis field. On both cards the third diagnosis field would be blank. Thus each of the two diagnoses would appear in the first field of one and only one punchcard.

If the illness had three diagnoses there would be three punchcards. On the first punchcard the principal diagnosis would be in the first diagnosis field and the two contributory causes would be in the second and third fields. On practically a duplicate punchcard for the same illness the first contributory diagnosis would be in the first field, the principal diagnosis in the second field, and the second contributory in the third diagnosis field. Another duplicate punchcard would have the second contributory cause in the first field, the principal cause again in the second field, and the first contributory cause in the third field. When the principal cause is not in the first field, it would always appear in the second field. Each of the three diagnoses would appear in the first field of one and only one punchcard.

If there are more than three diagnoses that seem to be independent disease entities that are worth coding as causes contributing to this particular period of illness, other punchcards can be made with an additional diagnosis in the first field, the principal diagnosis in the second field, and the most important contributory cause in the third field.

In mortality statistics the common practice is to tabulate only one cause of death for nearly all purposes. In morbidity statistics chief interest centers on the frequency of specific diseases, whether they are the major factor in the illness or are complications and sequelae. Thus, in pneumonia the cases that follow influenza and the acute communicable diseases are of interest as well as primary pneumonia. Again, empyema complicating pneumonia, septicemia complicating trauma, and otitis media complicating pharyngitis are of interest and importance even though they are second in the train of circumstances that constitute the illness. Thus, most morbidity tabulations should

show totals for each disease category, whether principal or contribu-

tory diagnoses.

However, for certain purposes it may be useful to designate one diagnosis as the principal cause of the illness and to use this cause when counting total admissions to hospitals or clinics and for other summary tabulations. The system of a separate punchcard for each diagnosis involved in each illness provides a file of cards for all cases of each disease category in the code which can be conveniently tabulated according to age, sex, duration, or other factors, and as sole causes or those complicated by other diseases.

Even though the principal cause is not used extensively, some general rules may be set down to secure uniformity in its selection. In hospital practice the principal diagnosis should be selected as the one which was chiefly responsible for the period of hospitalization; i. e., the one that led the patient to seek hospital care. In nonhospital private and clinic practice, the same considerations with respect to the period of medical care, of inability to work, or of confinement to bed should govern the selection regardless of the chronological order of the onset of the different conditions. The following rules may be helpful in selecting the principal cause of the illness:

1. Current injuries and acute poisonings are usually coded as principal causes except when: (a) a minor injury results from a disease, as in a fall in an apoplectic or epileptic attack; (b) a serious disease results from a minor injury, as tetanus or septicemia from a scratch, or pneumonia from submersion; or (c) a poisoning represents a reaction to therapeutic procedures, in which case the disease under treatment is coded as the principal cause; reactions from immunizations and other prophylactic procedures are usually sole causes.

2. Deliveries and abortions are usually coded as principal causes and the com-

plications as contributory.

3. When the diagnosis index includes a single code number for two or more conditions, e. g., influenza with bronchitis, consider the two as a single cause.

4. If there are three or more female genital conditions (650-657, 660-666), use the single code 658-multiple pelvic diseases of the female.

5. Drop ill-defined conditions represented by codes 780-789 if there are more specific diagnoses covering the case. 6. Drop all symptoms that are not independent of other diagnoses for the case.

7. Drop old orthopedic conditions that are not a factor in the present illness,

e. g., drop stiff knee or absent arm for a patient admitted for appendicitis.

8. An acute attack of a disease will usually take precedence over a background of mild chronic disease; e. g., grippe and chronic rheumatism are usually coded with grippe as the principal cause.

9. The condition or disease most specifically associated with the period of illness or medical care is preferred over a prior condition that is no longer active; e. g., in arthritis due to tooth abscess, arthritis is usually coded as the principal cause.

10. A specific cause is usually preferred over a symptomatic or less specific cause.

C. Use the following single-digit code to describe and classify the diagnosis punched in the first of the three diagnosis fields on each card; this column has no reference to the other diagnoses on the card. Diagnosis in first diagnosis field is:

- 0-Sole diagnosis for this illness and no history of prior complications.
- 1-Principal of two or more diagnoses for this illness, except as below.
- 2—Principal diagnosis for this illness, but condition is a deformity or other old result of a former injury or poisoning, except birth injury.
- 3—Principal diagnosis for this illness, but secondary to another anatomical site of the same disease no longer involved, or secondary to an unknown site.
- 4-Contributory diagnosis, except as below.
- 5—Contributory diagnosis which is a sequela or true complication of the principal diagnosis.
- 6—Contributory diagnosis of which the principal diagnosis is a sequela or true complication.
- 7—Contributory diagnosis: condition is a deformity or other old result of a former injury or poisoning, except birth injury.
- 8—Contributory to another disease or injury of the same kind but of a different anatomical site.
- 9—Current injury contributory to another type of current injury received in the same accident or violence.
- 0, 1, 2, 3—counts illnesses or admissions.
- 0, 1, 2, 3, 4, 5, 6, 7—counts independent diagnoses and true complications, exclusive of duplicate sites or types for the same disease or injury.
- 0—counts cases with only one diagnosis and no history of prior complications.
- 1, 2, 3—counts cases with two or more independent diagnoses or a history of prior complications.
- 1, 2, 3, 4, 5, 6, 7—counts total independent diagnoses on cases with two or more independent diagnoses or with history of prior complications.
- 8, 9-counts duplicate sites or conditions for same disease or accident.

The above column is essential to separate cards of the different types and make counts of total admissions, total but unduplicated cases for broad disease groups and for all injuries, and total cases of given diseases and types of injuries exclusive of duplicate anatomical sites. In this column, all numbers except 0 (sole) and 2 and 3 will indicate that there are two or more diagnoses on the case; 2 and 3 may have only a single diagnosis because the complications refer to prior illness only, but they may have other complications also.

A separate designation for "sole diagnosis" is provided because uncomplicated cases of this kind usually average fewer days of hospital and other care and fewer days of confinement to bed and of inability to work than complicated cases of the same disease.

When the diagnosis in the first field is the sole cause, the other fields will be blank; when it is the principal cause, the other fields will be contributory diagnoses, or will be duplicate sites or types of the same disease or injury, such as tuberculosis of the bone complicating pulmonary tuberculosis, cancer of the liver complicating cancer of the intestine, or laceration of the hand complicating fracture of the leg.

When the diagnosis in the first field is a contributory diagnosis, the one in the second field will always be the principal cause of the illness.

D. Termination of the case is an important and essential item. Since surgery is so frequent in hospital practice, it seems important to indicate that item also. The following single digit code is recommended to record both items:

## Surgery and termination:

Case discharged\* as living:

I-Surgery used in treatment of this diagnosis for this admission.

2—Surgery used in treatment of a complicating diagnosis for this admission, but not on this diagnosis.

3-No surgery on any diagnosis for this admission.

Case still sick:\*

4-Surgery used in treatment of this diagnosis for this admission.

5—Surgery used in treatment of a complicating diagnosis for this admission, but not on this diagnosis.

6-No surgery on any diagnosis for this admission.

Case discharged as death:

7-Surgery used in treatment of this diagnosis for this admission.

8—Surgery used in treatment of a complicating diagnosis for this admission, but not on this diagnosis.

9-No surgery on any diagnosis for this admission.

For all causes (sole or principal diagnoses only):

1, 2, 4, 5, 7, 8—counts admissions in which patient was treated surgically.

3, 6, 9-counts admissions in which treatment was nonsurgical.

For specific diagnoses (sole, principal, or contributory):

1, 4, 7—counts diagnoses treated surgically.

2, 3, 5, 6, 8, 9—counts diagnoses not treated surgically.

Termination of sickness for each admission, by sole or principal diagnosis:

1, 2, 3—discharged\* as living.

4, 5, 6—still sick.\*

7, 8, 9—discharged as death.

Termination for specific diagnoses whether sole, principal, or contributory:

1, 2, 3—discharged\* as living.

4, 5, 6—still sick.\*

7, 8, 9—discharged as death.

The "still sick" or not ended cases would arise in making tabulations of admissions or new cases during a year or other specified period, because some cases would be "still in the hospital," "still under medical care," or "still unable to work" at the end of the period. However, this designation could be used for any case whose duration in hospital days or doctors' consultations is incomplete because of discharge from one hospital to another or from one doctor or clinic to another.

E. Special data about occupation may be available and desired by some organizations. The following single-digit code classifies current

<sup>\*</sup>If tabulating only hospital cases, "discharged" would mean discharged from the hospital, and "still sick" would mean still in the hospital; if tabulating cases under medical treatment, "discharged" would mean discharged from further treatment and "still sick" would mean still under treatment.

accidents according to place of occurrence and as occupational or nonoccupational. If desired the same code can be applied to diseases and poisonings to earmark cases of chronic poisoning, tuberculosis, pneumoconiosis, dermatitis, and any other diseases of occupational origin.

Place of accident, industry involved, and whether accident or disease was of occupational origin:

V-Unknown whether occupational and unknown place.

0-Nonoccupational, at home.

1-Nonoccupational, motor vehicle accident.

2-Nonoccupational, other accident on street or in public place.

3—Occupational, clerks, salespeople, merchants, managers, and professional persons in all industries.

4-Occupational, workers in manufacturing.

5-Occupational, workers in transportation and public utilities.

6-Occupational, workers in construction industry.

7-Occupational, workers in mining, quarrying, and oil and gas well industries.

8-Occupational, workers in agriculture, forestry, and lumbering industries.

9-Occupational, workers in other and unspecified industries.

Note that these three special columns describe only the diagnosis in the first diagnosis field of the card; since a separate card would be made for each diagnosis, every diagnosis would appear in the first field of one and only one card. The other two diagnoses put on the card would never be used for counting cases or counting diagnoses of a given kind; the causes punched in the second and third diagnosis fields would be used only to relate one diagnosis to another on the same admission or case of illness.

#### METHODS OF LISTING IN ALPHABETICAL INDEX

This section explains how to use the alphabetical index (p. 127) to the morbidity code. Since the two-digit short code consists of the first two digits of the detailed code, the same index and coding procedure serve to classify the cases according to both codes. It is essential to read these pages before attempting to use the index for assigning morbidity code numbers to specific causes of illness.

In comparing assignments of diagnosis terms in this morbidity index with those in the United States Census index to the International List of Causes of Death, it should be remembered that certain indefinite terms may have a different meaning when the patient dies from what they can be assumed to mean for a nonfatal case. For example, "rheumatism" as a cause of death may be assumed to refer to "rheumatic fever," but when reported as a cause of illness "rheumatism" probably refers to certain indefinite pains rather than to the specific disease called rheumatic fever. Therefore, the assignment of this and other indefinite disease names may differ in the death manual and in this

morbidity manual. However, in the great majority of instances the assignments of specific terms are similar in the two manuals.

Where to look in index for specific terms.—The diagnosis coder should look at the place in the alphabet indicated by the disease or pathological condition and under this disease name look for the anatomical site and other modifiers. For example, under "tuberculosis" appear the various sites with the proper code numbers, but since there are so many sites to be covered the reverse indexing is not made. Therefore, to find "tuberculosis of the hip," look under T for "tuberculosis" and not under H for "hip"; to find "stomach ulcer" look under U for "ulcer, stomach" and not under S for "stomach ulcer." This principle is carried even to indefinite statements such as "heart disease," which is listed under D as "disease, heart"; and "chest inflammation" which is listed under I as "inflammation, chest." For similar entries of ill-defined diagnoses by site, see "disease." In general, the anatomical site will follow in the index immediately under the pathological condition with any further descriptive adjectives in third place; however, it was not possible to maintain this rule wthout some ex-

Diseases designated by a man's name are listed under "disease" followed by the name. Thus for "Ménière's disease," look under D for "disease, Ménière's" and not under M for the name. Similar situations for "syndrome," "fever," and words other than disease are listed under the word involved but may be listed also under the man's name.

Descriptive adjectives which constitute an important part of the disease name usually appear in their place in the index also. For example, "combined sclerosis, spinal cord" appears under C in that form and also under S as "sclerosis, spinal cord, combined," but not under S as "spinal" or C as "cord." In both of the other instances spinal cord appears as an anatomical site under the condition. Terms and disease descriptions of this kind with two or more important words are usually cross indexed, that is, they appear in the alphabet with the words rearranged. For example, rheumatic fever appears under R as "rheumatic fever" and under F as "fever, rheumatic." When the modifying word is not a medical term and not an important part of the disease name, or when there is doubt about these facts, look for the disease or pathological condition, as all terms are listed in this way except where there is no single word which constitutes a pathological condition. Thus in "delayed conduction time, cardiac," conduction time is not a pathological condition unless it is delayed. For the same reason "diminished hearing" is not listed under H but only under D as "diminished." "Waxy kidney" and similar terms are listed only as above because the index does not list anatomical sites as first words. Usually, however, there is a noun form which represents a pathological condition; thus to find "malignant neoplasm" look under N for "neoplasm" and not under M for "malignant," and to find "fulminant appendicitis" look under A for "appendicitis, fulminant" and not under F for "fulminant." To find "chronic bronchitis," look under B for "bronchitis, chronic" and not under C for "chronic"; similarly for "bronchitis, acute." "Acute" and "chronic" are omitted even as second or later words in the disease name unless the two forms of the disease have different code numbers.

A rather complete set-up for diseases that complicate pregnancy are listed under "pregnancy." A similarly complete set-up for diseases that complicate pregnancy, childbirth, or the puerperium are listed under "puerperal." The same diagnoses are listed by the disease names with codes for both puerperal and nonpuerperal forms. Under "congenital" are listed the more common conditions of this kind but others appear under the disease name followed by the word "congenital"; in general the disease names that are not followed by "congenital" take the same code for the congenital and the noncongenital forms.

A fairly complete list of the different types of acute or current injuries appears under I for "injury." Throughout the index there are terms which refer to "injury" but the place to look for an acute or current injury or accident diagnosis is under I for "injury." Similarly, for all poisonings look under P for "poisoning" where there is a list of drugs, chemicals, and other substances with code numbers for each. Old chronic residuals of former injuries and poisonings are listed under the name of the residual disease; if the nature of the residual condition is unknown, the codes are listed by site under "deformity, acquired."

While a few explanatory notes as to the differences between certain codes that may be confused have been put into the alphabetical part of the index, it is impossible to get all such explanations at the proper place in the index. Therefore, those who are to use this code should familiarize themselves with the various categories in the classified code (pp. 51–126), including notes and references and the general type of diseases assigned to each category.

Abbreviations used in index.—The terms in this index are to be understood with only the qualifications listed. That is, the expression "not otherwise specified" (abbreviated NOS) is implied in each title included; other modifiers may or may not change the code. In some instances where it is particularly important that the term as listed be considered as exclusive of any other modifying expressions, it is followed by the abbreviation "NOS." This is a warning that any other word whatsoever that appears with the diagnosis may change the code number.

Abbreviations used in the morbidity code and index are:

B-bacillus

Diag.—diagnosed or diagnosis

Dis.—disease

EAA-except as above (refers always to titles under same lead heading)

EAB—except as below (refers always to titles under same lead heading)

NOS-not otherwise specified

Surg.—surgery or surgical

Unk.-unknown

For some of the titles the code number to be used depends upon the age of the patient. The following symbols will illustrate the abbreviations used in such cases:

-1 mo.=Under 1 month.

1 mo.+=1 month and over.

−1 yr.=Under 1 year.

1 yr.+=1 year and over.

−15 yr.=Under 15 years.

65 yr.+=65 years and over.

15 yr.-44 yr.=15 to 44 years, inclusive. 1 yr.-65 yr.=1 to 65 years, inclusive.

In some places in the code, organs or parts of the body are listed either as adjective or noun forms; thus "abdomen" may be read as either "abdomen" or "abdominal." Similarly, "abscess" may be read as "abscess" or "abscessed;" "tuberculosis" may be read as "tuberculosis" or "tuberculous."

Special use of parentheses.—To avoid the necessity of repeated listing of certain modifying terms that do not change the code, this index makes a special use of parentheses and it is particularly important that the coder keep their meaning in mind. Throughout this index and the classified section any word that is in parentheses can be disregarded; that is, the word can appear as a part of the diagnosis term but will make no difference in the code number to be assigned. These parentheses are used particularly on "lead headings" under which a great many anatomical sites and other modifying terms appear. At times two more or less opposite terms may appear in parentheses, such as "local" and "general" which would mean that the local and general forms take the same code number.

In some instances where the description of the nature of the illness is not complete the parentheses are used to assign a condition to the most probable code number; for example, clubfoot should be specified as "congenital" or "acquired," but since the great majority are congenital, the word "congenital" is put in parentheses, which would mean that clubfoot of unspecified origin is assumed to be congenital and is assigned to the congenital number. On the other title, "clubfoot, acquired," the "acquired" is not put in parentheses, which means that to assign a clubfoot as acquired it must be so specified. Note that the parentheses used in this way have no effect upon the assignment if the statement of the diagnosis is complete, and every effort should be made to get complete diagnosis statements.