DOMINION BUREAU OF STATISTICS

OTTAWA

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VITAL STATISTICS HANDBOOK

CONTAINING

INTERNATIONAL LIST OF CAUSES OF DEATH

(FIFTH (1938) REVISION)



EDMOND CLOUTIER, C.M.G., O.A., D.S.P.
QUEEN'S PRINTER AND CONTROLLER OF STATIONERY
OTTAWA, 1957

DOMINION BUREAU OF STATISTICS DEPARTMENT OF TRADE AND COMMERCE OTTAWA

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INTERNATIONAL LIST OF CAUSES

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THE HONOURABLE GORDON CHURCHILL
MINISTER OF TRADE AND COMMERCE

PREFACE

The Vital Statistics Handbook has been prepared with the object of presenting to the public through professional groups, the generally accepted principles which should guide them in co-operating with the local registrars, the provincial governments and the Dominion Bureau of Statistics in the registration, collection, compilation and analysis of vital records. If this co-operation could be accomplished the reliability of the statistics of births, marriages, deaths and related events as they affect the individual citizen would be materially improved and their relative value increased.

This booklet takes the place of the first edition of one entitled "Handbook on Death Registration and Certification" which was published in 1935.

Following the establishment of the National System of Vital Statistics in Canada, a "Physicians' Pocket Reference" was issued by the Dominion Bureau of Statistics to present to physicians the International List of Causes of Death in a convenient form, indicating to them how they could assist materially in producing more valuable vital statistics. A new edition of this Pocket Reference was issued after the Fourth Decennial Revision of the International List in 1929.

A new death registration form was placed in the field in 1935 which included a revision in the format of the Medical Certificate of Death. It then seemed advisable that the Pocket Reference should be revised to include an explanation of the new medical certificate, indicating clearly that its main object was to make an official record of Causes of Death a more accurate summary of the opinions expressed by the physician than was possible heretofore. At the same time, on the advice of the Committee on Certification of Causes of Death of the Vital Statistics Section of the Canadian Public Health Association, and with the concurrence of the Department of Pensions and National Health and the Provincial Vital Statistics offices, it was decided to increase the size of the booklet, and in keeping with the extended scope of the material presented, the title was changed to "Handbook on Death Registration and Certification".

After the Fifth revision of the International List of Causes of Death in 1938, which came into use in Canada in 1941, and after consultation with the medical profession generally and the Provincial Departments of Health and Vital Statistics offices, it was decided to present the revised list to the physicians in the same form as the original Physicians' Pocket Reference and to revert to the former vest-pocket size. The Pocket Reference was enlarged in its scope to include an abridged index of acceptable terms which might be used in the certifying of causes of death, and a list of indefinite and undesirable terms which should not be used. It also included a list of communicable diseases reportable in each of the provinces in Canada.

It was felt, however, that the Physicians' Pocket Reference fills only one particular need in the vital statistics field consequently it was decided that in addition to the Pocket Reference it was expedient to print an enlarged edition of the previous Handbook including in it the general principles of registration of vital facts. The Pocket Reference was designed primarily to improve the accuracy of reporting causes of death, whereas the Handbook places particular emphasis on the generally accepted principles concerning the completion of Vital records. The Handbook follows the internationally accepted structure for such Publications, yet is designed to fit directly the Canadian principle.

The Dominion Bureau of Statistics appreciates the assistance it has received from the Department of National Health and Welfare, the Provincial Departments of Health, particularly the Vital Statistics offices, the Vital Statistics Section of the Canadian Public Health Association, and others, for their suggestions and criticisms in the preparation of the material. The material was prepared in the Vital Statistics Division of the Dominion Bureau of Statistics.

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VITAL REGISTRATION AND VITAL STATISTICS IN CANADA

Early History

The collection of Vital Statistics commenced in Canada, as in England, with the registration of baptisms, marriages and burials by the ecclesiastical authorities. In so far as the Province of Quebec (Lower Canada) was concerned these registers, maintained by the priests, made possible a compilation of the vital statistics of the Roman Catholic population from the establishment of the earliest settlement to the year 1875.*

The system of registration by the clergy was continued after the cession of the country to the British and was extended to the newly formed Protestant congregations of Lower Canada by the Act of 1795, but registration amongst the latter remained seriously defective: The vital statistics of the Province of Quebec were published regularly from the year 1893.

In the other provinces of Canada the earlier schemes of registration of baptisms, burials and marriages by the clergy was later succeeded by Acts for the enforcement of registration of births, deaths and marriages with the civil authorities. Such Acts were passed in Nova Scotia in 1864, Ontario in 1869, British Columbia in 1872, Manitoba in 1881, New Brunswick in 1887, and in Prince Edward Island in 1906. The Provinces of Saskatchewan and Alberta were not established until 1905 and until Provincial Acts were passed after this date, civil registration in these provinces was governed by ordinances for the Northwest Territories, the first of which was passed in 1888. Registration, particularly of births, was at first very defective in the various provinces.

Slow Development

Prior to 1920 it was impossible to compile any satisfactory series of vital statistics figures for Canada as a whole. Obstacles to such a national compilation were variations in the Vital Statistics laws as between provinces, incomplete-

^{*}See Vol. V. Census of Canada, 1870-71. This series was later extended by the Dominion Census Office and by the Provincial authorities.

ness of registration, lack of uniformity in classification and method of presentation, omission of important data, choice of the fiscal instead of the calendar year as the unit of time, and the fact that, for some of the provinces within comparatively recent years, the series of publications was broken. In New Brunswick no vital statistics were published from 1895 until 1920.

Two attempts had been made in the past to remedy this situation. In the year 1882 the Dominion Government instituted a plan for recording annually the mortuary statistics of cities of 25,000 and over, by subsidizing local boards of health to supply the necessary information under special regulations. By 1891, twenty-five cities were included in this plan. With the organization of provincial records, the work of the Dominion in this connection was abandoned.

The other attempt to meet the situation was through the medium of the Census. In the earlier censuses of the Dominion questions were included in the schedules requiring the number of births and the number and causes of deaths occurring during the preceding year. This method was followed until 1911 when the obviously untrustworthy character of the results led to the elimination of the questions from the census schedules.

Dominion Provincial Conference—1918

As a result of conferences held at Ottawa, in June and December, 1918, a plan was devised whereby the Dominion Bureau of Statistics and the Vital Statistics Registration Office in each province would co-operate in the production of the Vital Statistics of the Dominion. Under this National System, while registration of births, stillbirths, marriages and deaths is carried out as heretofore by the provincial authorities, the legislation of each province conforms in essential features to a Model Vital Statistics Act, one of the features of which is compulsory registration.

An essential part of the scheme of co-operation was that the registration of births, stillbirths, marriages and deaths should be made on standard "Registration Forms" approved by the conferences, and that the Dominion Bureau of Statistics was to supply these and all other forms used in collecting the data free of charge to the Provincial Offices. Copies of the Registration Forms were to be forwarded to the Bureau for central compilation of the national statistics and of the main tables for the Provincial Annual Reports of Vital Statistics, thus ensuring uniformity in the treatment of the material.

The operation of the arrangement did not in any way prevent cities or provinces from making any compilations which they might desire.

On January 1, 1920, eight provinces entered into the co-operative system for the production of national vital statistics. A summary report covering these eight provinces was issued for that year but the first detailed report published by the Dominion Bureau of Statistics was for the year 1921. For reasons connected with its system of registration, Quebec, the oldest province in Canada, found it impossible to enter into the national system at the time it was established. Later the difficulties were overcome and this province entered the registration area from the beginning of the year 1926. (1)

Statistics of causes of death were compiled according to the Third Revision of the International List of the Causes of Death for the first time in 1921, and continued to be so compiled up to and including the year 1930. Compilation according to the Fourth Revision (1929) commenced with the year 1931 and was followed up to the end of the year 1940. From January 1, 1941, the list according to the Fifth Revision (1938) was adopted.

The Model Bill

The Model Bill was based upon tested principles of successful registration methods as worked out by practical registration officials in the United States, England, Australia, New Zealand, France and the Provinces of Canada. The Draft form of the Bill was prepared by the Dominion Bureau of Statistics and submitted to a conference, called in June, 1918, by the Bureau, and composed of Health Officers and others interested in the production of a system of National Vital Statistics which would meet modern requirements.

The Provinces of Nova Scotia and Prince Edward Island enacted into legislation the Model Bill with only such changes as were necessary to meet local conditions. New Brunswick was empowered under its Health Act to provide the necessary machinery for collecting Vital Statistics by regulations approved by Order in Council. These regulations brought

⁽¹⁾ Under the existing arrangement the statistics of births, still-births, marriages and deaths in the province of Quebec are not compiled from registration forms but from statistical bulletins which are completed when the entries are made in the civil registers. These statistical bulletins contain the same information which appears on the registration forms used by the other provinces and are transmitted to the Provincial Ministry of Health by the clergymen in charge of the civil registers, who thus act as collectors of vital statitics.

into effect the important features of the Model Bill, and an amendment to the Health Act in 1935 made the provisions more definite. In Ontario, Manitoba, Saskatchewan, Alberta and British Columbia, where necessary, the existing legislation was amended to bring it into conformity with the principles of the Model Bill. The Province of Quebec, while retaining its existing system of Civil Registration, enacted a new law which provided for compulsory returns in order to meet the requirements of the Model Bill.

All the co-operating provinces require the registrations of births, stillbirths, marriages and deaths to be made on forms which incorporate all the principal factors on a standard basis as approved by the Provinces and the Dominion. These forms are supplied free of charge by the Dominion Bureau of Statistics.

Principles of Registration

The primary function of the registration system is to obtain and preserve such documentary evidence concerning births, stillbirths, marriages and deaths as is necessary to protect the legal rights of the individual. The production of statistics is of secondary importance. The ever-increasing necessity for proof of the fact of these events is the principle inherent in the demand for registration as complete and accurate as possible. An appreciation of this value of registration to the individual is essential in order to understand the motives and methods of the nation-wide registration organization. The laws of every province provide for the permanent filing of all original registrations under proper safeguards, and as a result at any future time the individual concerned may refer to the records for proof of the pertinent facts concerning a birth, marriage or death.

The essential principles of registration may be summarized as follows:—

- 1. Use of registration forms standard in essential details.
- 2. Immediate notification of all births by the attending physicians.
- 3. Registration of all births by the parents within a specific time.
- 4. Registration of all deaths before interment.

- 5. Responsibility for registering all deaths placed upon the undertakers or persons disposing of the bodies.
- 6. Compulsory issuance of Burial or Removal Permit for all deceased persons.
- An effective check on the accuracy of birth registration (by a check with deaths of infants under one year, by special enumeration, by tabulation of newspaper notices, etc.).
- 8. Enforcement of the provisions and regulations as laid down in the Vital Statistics Acts by the Provincial officers vested with full power and responsibility.
- 9. Establishment of efficient local registration offices.
- 10. Prompt periodic returns of the original registrations to the Provincial offices, together with a statement of completeness of registration and reports of delinquency in the registration divisions.

Value of Birth Registration

There is hardly a relation of life, social, legal, or economic, in which the evidence furnished by an accurate registration of births may not prove to be of the greatest value, not only to the individual but also to the public at large. It is not only a convention of modern civilization to require the registration of births, but it is also good business, for birth certificates are frequently used in many practical ways:—

- 1. To prove the FACT of birth for-
 - (a) the administration of estates;
 - (b) the settlement of insurance and pensions;
 - (c) the establishment of legal dependency, and
 - (d) the establishment of identity.

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- 12	MG. V	22. How many children born to this mother—up to the time of and BOCLUSTIN (b) Are now living? (c) Were born door	IG THIS BIRTH: (a) Wore born alive?
OT PER SE	BINDING.	23. Name and post office address of informent	
E		24. Name of doctor, name or other person in precidence at birth, and poet office address	
10	Style Fe	35 bilangunal notationes (Office use only)	
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		Division Registrar's Remed Ho.	
A.		Date of registration 19	
	1	1 flow man of Advision Auginorus and p.	(Alignature of Directors Suggistery)

Value of Death Registration

- (a) To the individual—Certificates of death, or certified copies, are constantly required in courts and elsewhere, to establish necessary facts for life-insurance claims, tracing ancestry, settlement of pensions, etc.
- (b) To the local medical officer of health—The complete and accurate certification and registration of deaths enables the local health officer to determine promptly the number of people who die, and from what causes, and should reveal and

RACIAL ORIGIN is defined in terms of the people or race to which the person-transf through the father—belongs, whether English, Irah, Scottish, French, German, Russian, etc. The terms "Canadian" or "American" should not be used for RACIAL ORIGIN, as they express CITIZENSHIP (NATIONALITY).

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13. Date deceased last worked at this occupation			Total yea	rs spent in ation		
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Signature of informant						

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Given under my hand at		day	of			ły
Signature of informant	######################################	Relations	thip to decess	ed		
Address						
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Funeral Director:		Address				
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Was there a surgical operation?		Date of operation				19
State findings			there an aut	upsy?		
If death was due to external causes						
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Nature of injury						
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nion Registrar's Record No.						
of Bushinston			1 200			
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	10					
	13					

define the extent of those problems for which preventive, remedial or investigational measures might or should be instituted.

- (c) To private physicians and research workers—The risk of death from various causes at different ages, the combinations of morbid conditions resulting in death are problems of interest to the medical profession and are revealed by the accurate certification of death. The importance of mortality data in medical research directed at the control and prevention of disease is to show the influence on mortality of various conditions—occupation, environment, etc.
- (d) To Provincial and Dominion Government Departments—Data are essential (1) for the formulation of policy and proper allocation of funds where special precautions should be instituted; and (2) as far as mortality data will reflect the state of the public health, to compare the general level of health conditions in different areas and with past experience.

Value of Marriage Registration

An accurate registration of marriages provides the means of furnishing statistical evidence of great value. From the standpoint of a long-time study of the characteristics of a changing population they are of value in connection with birth and death statistics to measure the fertility of various racial, economic and social groups. They also furnish valuable statistical information in their relationship to the social life of a community in both marketing and consumer research.

Marriage certificates are frequently used to prove the FACT of Marriage:—

(a) in the administration of estates;

(b) in the settlement of insurance and pensions, and

(c) in the establishment of legal dependency.

Form 2

PERMANENT RECORD.

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FOR

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MARGIN

Officiating Clergyman

Pilled at

Religious Denomination

District Registration No.

registration and

8

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PROVINCE OF

1. PLACE OF MARRIAGE: Name of City or place

PROVINCIAL BOARD OF HEALTH-DIVISION OF VITAL STATISTICS REGISTRATION OF MARRIAGE

Name of Munici-

Street or Road.

Of marriage occurred in a Church, give name. If in a private residence give at BRIDEGROOM 2. PRINT name in full ... Scottish, French, (NATIONALITY). Kind of industry or business as paper mill, lumber, bank, 5. Trade, profession or kind of work as descriptive country. spinner, grader, clerk, etc..... 5. Barbelos 6. Age 7. Religious denomination another Divorced (State which) (In pam) Common English, Irlah, CITIZENSHIP 8. Citisenship (see marginal definition) .2 ā citizen "Canadian" should 10. Residence.
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 24. Place of birth (If born in Canada, province, county and post office address. If foreign-born, country) people or race 25. Name of father 8 (Tilem or Christian name) has rights o She 27. Birthpiace: Father.... Lerman Mother (Province or Country) of the p who] 29. Lipence 28. Date of Darriage (Month by name) (Doy) Canada or w 8 Thet 31. Marginal Notations: (Office use only) do to (MATIONALITY) 5 to defined tr. born ì 52. Signature ORIGIN I who of CITIZENSHIP person Name RACIAL C Address Signatures Witnesse Name I certify the above stated particulars are true to the best of my knowledge and belief.

Rog. No. (Office use only) Of labourer specify total of work shows) 9. Racial Origin (see marginal definition) (Given or Christian names) (Olymp or Christian name) (Previous or Country) (Gives or Christian masses) (If memployed answer "At Home")

(Olives or Christian names)

(Province or Country)

30. Licence

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19...

District Registrer Chief O'THERN SHEET

Value of Stillbirth Registration

The primary value of the registration of stillbirths is in the field of medical statistics. Due to the relationship between fœtal deaths and maternal morbidity and mortality, stillbirth data provide one of the important indexes by which is measured the great loss of human life in the prenatal and natal periods. Stillbirths added to live births provide the total number of all births which, generally speaking, have passed a particular period of gestation (see definition of Stillbirth, page 57).

Stillbirth registrations, from a legal aspect, are linked with the inheritance rights of living children born to the same mother, as in most countries the rules of the Probate Courts require the identification of all children born to the parents concerned before the estate can be closed. Stillbirth registration also enables law enforcement officers to check up on cases of infanticide and illegal abortion.

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	Lharve	r, pag or sol	Mesta	(Day) (Pe
9. Name of physician is attendance at birth (if may).		Mid	wife (if any)	
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		PRODUCTION		
Dute of Sterial or Renneval				
•		23. Dietriet Registra	'e Hecord Number	

The following examples illustrate the essential principles in the use of the form.

1.	Example 1			Example 2		
Immediate cause						
Give the morbid condition which caused feetal death, not mode of dying, as asphyxia, etc.	(a)	Cerebral hæmorrhage	(a)	Excessive cranial stress (feetal asphyxia)		
		due to		due to		
Morbid conditions, if any, giving rise to immediate cause (stated in	(b)	Dystocia	(b)	Dystocia		
order proceeding backwards from immediate cause).		due to		due to		
	(c)	Breech presentation	(c)	Contracted pelvis		
II.						
Other morbid conditions (if im- portant) contributing to feetal death but not causally related to immedi- ate cause.	ĺ		e	lative placental insuffici ncy; infarction and de eneration of placenta.		

Value of Registration of Adoptions, Divorces, etc.

Adoptions.—As adoptions, divorces and other related events reflect the social happenings in communities, their registration is an important factor in the demographic field.

In the legal sense, registration of adoptions plays as important a part in the administration of estates, the establishment of identity and other related requirements as that played by birth, marriage and death registration.

Divorces.—Legally, divorce registration falls into two categories:—

(a) dissolution of marriage where the marital ties are completely severed, and

(b) nullities of marriage where the marital ties to all intents and purposes were never established.

Such divorce registration enables the citizen: -

(a) to establish the right to re-marry;

(b) to establish identity, etc., and

(c) to provide accurate information regarding marital status.

Statistically, divorce registration provides data for fertility and social studies, particularly in the case of juvenile delinquency when an important factor is a broken home.

The Provinces of Canada, in consultation with the Dominion through the Vital Statistics Council, are at present studying the value of the registration of these events in their relationship to the three basic factors—births, marriages and deaths.

REGISTRATION OF DEATH

The present form in use for registration of deaths in the provinces was drawn up after consultation by the Dominion Bureau of Statistics with representatives of leading groups in the medical profession. It was approved by the Vital Statistics Section of the Canadian Public Health Association and also by the Deputy Ministers of Health (or the Registrars-General) in the nine provinces.

The form for registration of death may be described as consisting of two parts, personal and medical.

THE PERSONAL PARTICULARS

The standard form for registration of deaths provides for certain personal or civil information of great import in medical and demographical record. The responsibility for supplying this information is set forth in the Vital Statistics Act and regulations thereto of each province. The medical practitioner's responsibility, as a rule, is confined to the entries on the medical certificate of death, but in some circumstances (when there is no relative to act as the informant) he may fill out the entire registration form. In the interest of statistical accuracy, as well as to ensure trustworthy legal records, it is important that the personal particulars recorded on the form be correct. The interest of those concerned should be solicited to obtain complete and correct registrations in all respects, especially in regard to the statement of residence, sex, racial origin, marital status, birthplace, age and occupation.

- (1) Citizenship (Nationality) is defined in terms of the country to which the person owes allegiance. The term "Canadian" should be used as descriptive of every person who was born in Canada or who has rights of citizenship in Canada, unless he or she has subsequently become a citizen of another country.
- (2) Racial Origin of decedents furnishes important information as to the potential value of the different peoples who take up residence in Canada. It is particularly impor-

tant in connection with statistics of births and infant mortality to know to what races or peoples the parents belong. It is also valuable in determining to what extent environment has an influence on birth rates and infant mortality rates. Racial origin should be described by stating to what race or people the deceased person belonged, whether English, Irish, Scottish, French, German, etc. In the case of parentage of races of different origin, the origin should be traced through the male parent. The term "Canadian" or "American" should not be used, as they express citizenship and not a race or people.

- (3) Age is of special importance, and, as a check on the accuracy of the statement, the date of birth is required on the death registration. For an infant living less than one day the hours, and, if less than one hour, the minutes of life should be stated. This information is imperative in order that stillbirths may be distinguished from deaths of children born alive.
- (4) Occupation.—A precise statement of occupation is very important as a basis for studies of mortality in relation to the type of employment. The information required under this heading on the form should be stated as exactly as possible, and the medical practitioner should make special note of occupational influences which related to the cause of death. An entry should be made on death registrations for every person ten years of age and over. If the deceased had retired from business, the occupation prior to retirement should be reported. Children not gainfully employed should be reported as at school or at home. For a woman whose only occupation was that of housework in her own home, the entry should be housewife. . For a person employed in personal service for wages, however, the occupation should be designated by an appropriate term, such as house-keeper. servant-private family, cook-Hotel, etc. For a person without an occupation, the entry should be none.

In stating occupation, the use of such terms as "employee", "worker", "operative", etc., should be avoided. The particular kind of work done should be stated clearly as spinner, weaver, etc. In stating the industry or business, the use of such general terms as "store", "factory", "mill", etc., should be avoided. The particular kind of store, factory, mill, etc., should be stated as grocery store, soap factory, cotton mill, etc., not the name of the firm.

Care should be taken in designating the different kinds of engineers by giving the full descriptive titles, such as civil engineer, mining engineer, stationary engineer, etc. The term "labourer" should be avoided when a more precise statement of the occupation can be secured. The word "mechanic" should not be used but the exact occupation as painter, machinist, etc. A careful distinction should be made between retail merchants and wholesale merchants. The term "clerk" without qualification should be avoided. A person who sells goods should be called a salesman. A stenographer, typist, accountant, book-keeper, cashier, etc., should be reported as such, never as a "clerk". The occupation stated should be the permanent civil status of the deceased.

THE MEDICAL CERTIFICATE OF CAUSE OF DEATH

The revised medical certificate of death issued in 1935 has been retained in its original form, with minor additions which have been inserted at the request of some of the provinces. The major objective of this revision was to make official records of causes of death a more accurate summary of the opinions expressed by medical practitioners on the medical certificate.

The Medical Practitioner's Statement of Cause of Death

For the purpose of medical records of causes of death, what is desired primarily is a clear indication of the disease or injury which initiated the train of events leading to death. One important reason for this information is to direct attention to the point at which preventive measures may best be applied. Thus, while it is of value to know how many persons died who had peritonitis at death, it is much more valuable to know what clinical condition produced the peritonitis, viz., appendicitis, etc. Similarly, in the case of a child dying of broncho-pneumonia complicating measles, it is the specific infectious disease, measles, which is of fundamental interest. It is this fact that the questions relating to cause of death on the medical certificate are designed to secure.

The morbid conditions relating to death are divided on the certificate into two sections. In Section I are those related to the "Immediate Cause" of death, and in Section II, those "other important morbid conditions which contributed to death but which were not causally related to the statements of cause under Section I will suffice. The entry of a single cause is preferred where this can be regarded as adequate.

General Procedure in Certifying the Cause of Death

When certifying a death, it is suggested that the medical practitioner first consider if a single statement will describe the case adequately, e.g., lobar pneumonia. Where, however, more than one statement is felt desirable, it is important that the medical practitioner distinguish whether or not the conditions to be certified were or were not causally related, by making the entries in the proper section of the form.

- (a) Name first the "Immediate Cause" of death in Section I, i.e., the disease, injury or complication which caused death (not the mode of dying or terminal condition).
- (b) If this single statement does not describe the case adequately, give other morbid conditions (if any) of which it was the consequence, in order of causal relationship, stating the most recent one first and then others in order.
- (c) If there are other and independent "morbid conditions" which are considered by the medical practitioner to have contributed in very definite measure to the death, these should be entered in Section II. Statements in this section concern those cases in particular where death was due to a combination of maladies, of which none alone would have been fatal. In such cases, an expression of the medical practitioner's judgment can afford guidance in the classification of the correct cause.
- (d) Only accepted terms should be used for morbid conditions as in Examples on page 26. Mere symptoms or terminal conditions should always be avoided.

Attention is also drawn to the following special points of importance in certification:

(a) In making a statement on the medical certificate of death it is desirable that the medical practitioner should use, as far as possible, the terms contained in the last decennial revision of the International List of Causes of Death, as recommended by the International Commission assembled for that purpose. In particular, the medical practitioner is urged to avoid the use of vague and ill-defined terms. The identification of a disease by the use of a proper name, e.g., Recklinghausen's disease, sometimes gives rise to misinterpretation. Entries should be made in each space applicable on

the form; where inapplicable, a line should be drawn through the space. All questions should be answered with precision and clarity, e.g., in the case of "autopsy" always state either "yes" or "no". In cases where the answer to a question is not known definitely, the word "unknown" should be entered in the space provided, as it is better to state "cause unknown" than to make a statement unsupported by evidence.

- (b) Cancer.—The site of primary occurrence should be indicated in all cases, where known.
- (c) Infant deaths.—Accurate and complete information is required concerning causes of deaths of infants, particularly within the first month of life. Such terms as "infantile atrophy" or "debility" should be avoided in every case. More specific clinical designations such as "atelectasis" and "intra-cranial hæmorrhage due to birth injury" should be used.
- (d) Maternal Deaths.—For purposes of classification, maternal deaths include diseases of pregnancy, childbirth and the puerperal state. Definitions of these terms are given on page 46. It is very important to distinguish between septicæmia originating in abortion and in childbirth so that septic abortion may be classified properly.
 - (e) Stillbirths.—See page 57.
- (f) Violent Deaths.—Coroners, medical examiners and medical practitioners who certify to deaths from violent causes should indicate clearly the fundamental distinction of whether the death was due to accident, suicide, or homicide, and then state the manner and nature of injury. The circumstances of each accident should be stated as fully as possible, e.g., an automobile accident should be designated as such.
- (g) Anæsthetics.—When a death occurs during anæsthesia, or was in any degree attributable to such, the type of anæsthetic used should be specified, as well as the morbid condition leading to its administration.

See sample of Medical Certificate of Death on page 56.

DUTIES OF THE MEDICAL PRACTITIONER

(1) The medical practitioner last in attendance upon a deceased person, or if death has occurred without medical attendance, the coroner holding an inquest or conducting an enquiry into the circumstances regarding the death of any

person, is required to provide a certificate of the cause of death in the prescribed form, in accordance with the provisions of the Vital Statistics Act of his province. It is required further, that the certificate be signed by the practitioner or coroner in question, and that no other person shall sign the certificate for him.

- (2) Entries should be made carefully in unfading ink, as the registrations are permanent records.
- (3) It is the duty of the medical practitioner or coroner to sign the Medical Certificate of Death and to deliver the form completed as to the cause of the death to the undertaker having charge of the body.

DUTIES OF THE INFORMANT

- (1) In most provinces the informant must supply the personal particulars regarding the deceased as required on the Registration of Death form.
- (2) It is the duty of the informant to sign the registration in every case and to deliver the document completed as to the personal particulars to the undertaker having charge of the body.

DUTIES OF THE UNDERTAKER

The duties of the undertaker are specified in the Vital Statistics Act of each province. Generally speaking, the undertaker, or person acting as the undertaker, must obtain the Registration of Death form with the personal particulars supplied and signed by the informant and the medical certificate of death signed by the medical practitioner or coroner. He must enter the particulars regarding the burial or other disposition of the body on the form and file the registration with the local registrar, who then issues the burial permit. In all the provinces registration is required before burial.

THE INTERNATIONAL LIST OF CAUSES OF DEATH

In order to classify and tabulate statistics of causes of death certified by physicians on the medical certificate of death, a convenient and workable grouping of diseases is essential. The International List of Causes of Death is such a system of nosology. No claim is made that it is a scientific classification—it is primarily intended to serve as a practical medium in the Statistical Classification of Causes of Death. The important merit of the International List is that it assists

in maintaining continuity and comparability of statistics of causes of death over a period of years and is the first and fundamental step toward international comparability of mortality records.

Without such a list it would be impossible to publish the data collected in useful form, because the number of medical terms used by physicians is so great that tables presented in this way would be just a list of clinical titles or diagnoses. The necessity and value of grouping related titles or rubrics together is obvious. Thus many causes of death of similar general character or etiology, and many causes of death usually considered together, are considered as a group—viz., deaths from puerperal diseases, from diseases of early infancy, from accidental causes, from communicable diseases, etc.

It is interesting to observe that Dr. William Farr, as early as 1839, discussed the question of uniform statistical classification of diseases. The present International List had its beginning in 1853, with the appointment of Dr. Farr and Dr. Marc d'Espine, by the First Statistical Congress at Brussels, to prepare a report on a tentative international classification of causes of death. As late as 1893, however, no two countries used exactly the same statistical classification for compiling statistics of causes of death. At the session of the International Statistical Institute in 1893, Dr. Jacques Bertillon, on behalf of a study committee, presented a draft list which was adopted by the Institute and later became known as the "International List of Causes of Death" To keep the list abreast of developments in medical science provision was made for the decennial revision of the list by an international commission and all such international conferences have met at Paris, at the invitation of the French government-1900, 1909, 1920, 1929 and 1938.

The International List is provided in three forms, (1) Detailed, (2) Intermediate and (3) Abridged. Practically all countries which collect and compile statistics of morbidity and mortality, use this classification in one of its forms. This ensures practical agreement among the principal countries of the world in this fundamental aspect of mortality statistics.

THE PHYSICIAN AND THE INTERNATIONAL LIST OF CAUSES OF DEATH

In certifying causes of death, physicians are urged to use, where possible, the exact names in the Detailed International List given in the succeeding pages. Only the most

important diseases appear separately in this list, but place is provided under "Others" for the remaining group. For these latter, it is desirable that only terms be used which are recommended in the Nomenclature of Diseases of the Royal College of Physicians of London, or in some other recognized list of diseases such as the Standard Classified Nomenclature of Disease.

Two purposes are served in presenting the International List of Causes of Death in its detailed form to physicians. It provides an opportunity for practitioners to become acquainted with the working list of titles or rubrics used by the Dominion Bureau of Statistics in compiling mortality data, and to assist and guide the physician attention is drawn throughout the list to the essential requirements in certifying deaths from the various causes. Particularly is it hoped that this will aid the physician in avoiding certain vague, ambiguous or otherwise undesirable terms. the cause of death is, in general, "the disease which initiated the train of events leading to death," such terms as "heart failure", "asphyxia", etc., which merely indicate the mode of dying, are of little value to medical research, and, as specified on the medical certificate on the Registration of Death form, should not be used. "Cancer" is unsatisfactory unless the organ affected is given. Signs and symptoms such as "hæmorrhage", "septicæmia", "toxæmia", "exhaustion", "weakness", "anasarca", etc., should be qualified by the particular disease giving rise to these conditions.

At times it may be very difficult or even impossible to determine definitely the cause of death, even if an autopsy is performed. If such is the case, it is better to state "cause unknown" or "unknown disease" than to make a statement not supported by evidence.

It is the desire of the Dominion Bureau of Statistics to secure reliable data relating to causes of death in Canada. To achieve this objective, the Bureau has to depend entirely on the co-operation of the medical profession. In order to secure the necessary information for the proper classification of causes of death the Bureau is required to send out a large number of queries to the medical practitioners each year. These communications are strictly confidential and the data collected are used for statistical purposes only. Mortality statistics can never be more accurate than the statements made by the medical practitioners.

EXAMPLES OF CERTIFYING CAUSE OF DEATH

I	EXAMPLE 1	EXAMPLE 2
Immediate cause Give disease, injury or compli- cation which caused death, not the mode of dying, such as heart failure, asphyxia, asthenia, etc.	(a) Lobar pneumonia	(a) Acute peritonitis
Morbid conditions, if any, giving rise to immediate cause (stated in order proceeding backwards from immediate cause).	due to (b) due to (c)	due to (b) Acute appendicitis due to (c)
Oakes as abld as distance (if in	, II	II
Other morbid conditions (if important) contributing to death but not causally related to immediate cause		••••
I Immediate cause	EXAMPLE 3	EXAMPLE 4
Give disease, injury or compli- cation which caused death, not the mode of dying, such as heart failure, asphyxia, asthenia, etc.	(a) Broncho- pneumonia	(a) Carcinoma of liver
Morbid conditions, if any, giving rise to immediate cause (stated in order proceeding backwards from immediate cause).	due to (b) Operation due to (c) Strangulated hernia	due to (b) Carcinoma of rectum due to (c)
Other morbid conditions (if im- portant) contributing to death but not causally related to immediate cause	Chronic inter- stitial nephritis	II
I Immediate cause	EXAMPLE 5	EXAMPLE 6
Give disease, injury or compli- cation which caused death, not the mode of dying, such as heart failure, asphyxia, asthenia, etc.	(a) Pyelo- nephritis	(a) Puerperal eclampsia
Morbid conditions, if any, giving rise to immediate cause (stated in order proceeding backwards	due to (b) Myelitis due to	due to (b) due to
from immediate cause).	(c) Syphilis	(c)
Other morbid conditions (if important) contributing to death but not causally related to immediate cause	{ II	II

The above deaths would be classed as follows: example 1, lobar pneumonia; example 2, appendicitis; example 3, strangulated hernia; example 4, carcinoma of rectum; example 5, syphilis; example 6, puerperal eclampsia.

THE INTERNATIONAL LIST—GROUPING OF CAUSES OF DEATH

In the Detailed International List of Causes of Death there are 200 titles or rubrics. These are grouped under eighteen main headings. Some of the main groups are subdivided as are some of the 200 titles. For instance, Group I, Infectious and Parasitic Diseases is divided into Diseases due to Bacteria; Dysentery; Diseases due to Protozoa; Diseases due to Spirochætes; etc., while Rubric No. 46, "Cancer of the Digestive Organs and Peritoneum" has 9 subdivisions, i.e., æsophagus, stomach, duodenum, rectum and anus, etc. For the convenience of the physicians and others using this Handbook the group headings and subheadings are given below. The title or rubric numbers under each group are also shown.

Group No	Group Heading	Int. List Nos
I	Infectious and Parasitic Diseases Diseases due to Bacteria Dysentery Diseases due to Protozoa Diseases due to Spirochætes Diseases due to Filterable Viruses Diseases due to Rickettsia Diseases due to Helminths Diseases due to Fungi Other Infectious and Parasitic Diseases	. 1- 26 . 27 . 28, 29 . 30- 32 . 33- 38 . 39 . 40- 42
II	Cancer and Other Tumours Cancer and Other Malignant Tumours. Non-Malignant Tumours and Tumour of Undetermined Nature	. 45- 57 . 45- 55
III	Rheumatism, Diseases of Nutrition, and of the Endocrine Glands, Other General Diseases and Vitamin Deficiency Diseases. Rheumatic Diseases Diseases of Nutrition and of the Endocrine Glands and Other General Diseases Vitamin Deficiency Diseases	d y . 58– 71 . 58, 59
IV	Diseases of the Blood, and Blood-formin Organs	600 CD 600 CD
V	Chronic Poisoning and Intoxication	

droup No	Group Heading	Int. List Nos.
VI	Diseases of the Nervous System and Sens Organs	
VII	Diseases of the Circulatory System	. 90–103
VIII	Diseases of the Respiratory System	. 104–114
IX	Diseases of the Digestive System	. 115–129
X	Diseases of the Urinary and Genits Systems. (Non-venereal or not associated with pregnancy or the puerpers state)	1
XI	Diseases of Pregnancy, Childbirth and the Puerperal State	
XII	Diseases of the Skin and Cellular Tissue.	. 151–153
XIII	Diseases of the Bones and Organs of Movement	
XIV	Congenital Malformations	. 157
XV	Diseases Peculiar to the First Year of Life	. 158–161
XVI	Senility, Old Age	
XVII	Violent or Accidental Deaths Suicide Homicide Accidental Deaths (Including deaths not known to b due to suicide or homicide) Operations of War and Legal Execution	. 163, 164 . 165–168 . 169–195
XVIII	Ill-defined and Unknown Causes of Deat	h 199, 200

Nature of Injury 0- Illustrations for Classification of Accidental Deaths (See page 55).	8

THE DETAILED INTERNATIONAL LIST OF CAUSES OF DEATH

Note: Rubric Sub-divisions indicated by an (*) have been added to meet the requirements of the Department of National Health and Welfare regarding certain communicable diseases.

I. INFECTIOUS AND PARASITIC DISEASES (1-44) (Communicable Diseases)

DISEASES DUE TO BACTERIA (1-26)

Where death followed a specific fever, specify the disease associated with the "fever", e.g., lobar pneumonia, malaria, typhoid fever, undulant fever, etc.—Avoid use of "fever" unqualified.

- 1. Typhoid Fever.
- 2. Paratyphoid Fever.
- 3. Plague.
- 4. Cholera.
- 5. Undulant Fever (Brucellosis).
- 6. Cerebro-spinal (Meningococcal) Meningitis.
 In deaths from this cause, the specific nature of the disease should be made clear in every case by use of proper synonyms as "meningococcal meningitis". Where possible, when a meningitis of other than meningococcal origin is recorded, the cause of the condition should be given as "traumatic", "tuberculous", "pneumococcal", etc., so that the death may be properly classified to No. 195e, No. 14, No. 81a, etc.
- 7. Anthrax (Bacillus Anthracis) and Malignant Pustule.
- 8. Scarlet Fever.
- 9. Whooping Cough.
- 10. Diphtheria.

 Avoid use of term "croup".
- 11. Erysipelas.
- 12. Tetanus. State cause.
- 13-22. Tuberculosis.

Name the particular organ or organs of the body affected, as "tuberculosis of the lungs", "tuberculous meningitis", "miliary tuberculosis", etc. Where tuberculosis is of occupational origin, this should be indicated clearly.

13. Tuberculosis of the Respiratory System.

- (a) With mention of occupational diseases of lungs.
- (b) Without mention of occupational diseases of lungs.
- (c) Tuberculosis of unspecified site.

(d) With mention of dementia præcox.

- 14. Tuberculosis of the Meninges and Central Nervous System.
- 15. Tuberculosis of the Intestines and Peritoneum.

The term "tabes mesenterica" for tuberculosis of the peritoneum or intestines should be avoided since it is used sometimes to denote other wasting diseases not due to tuberculosis.

- 16. Tuberculosis of the Vertebral Column.
- 17. Tuberculosis of Other Bones and Joints.
 - (a) Bones (except vertebral column).
 - (b) Joints.
- 18. Tuberculosis of the Skin and Subcutaneous Cellular Tissue.
- 19. Tuberculosis of the Lymphatic System (excluding tuberculosis of the mediastinal or bronchial glands (13a or 13b), and mesenteric or retroperitoneal glands (15)).
- 20. Tuberculosis of the Genito-urinary System.
- 21. Tuberculosis of Other Organs.
 - (a) Tuberculosis of the adrenal glands (including Addison's disease specified as tuberculous).
 - (b) Tuberculosis of other organs.
- 22. Disseminated Tuberculosis.
 - (a) Acute generalized miliary tuberculosis.
 - (b) Other and unspecified generalized tuberculosis.
- 23. Leprosy.
- 24. Purulent Infection and Septicæmia (Non-puerperal).

(a) Septicæmia.

"Septicemia", "sepsis", etc., are undesirable terms. Where possible, the cause of such condition and part affected (if localized) should be indicated. Avoid the term "blood poisoning".

- (b) Pyæmia.
- (c) Gas bacillus gangrene.
- (d) Generalized bacillus coli infection.
- 25. Gonococcal Infection.
 - (a) Ophthalmia neonatorum.
 - (b) Other gonococcal infections.*

26. Other Diseases due to Bacteria (Dysentery excepted).

(a) Tularæmia.

(b) Other diseases due to bacteria.

(c) Glanders.*

DYSENTERY (27)

27. Dysentery.

- (a) Bacillary.
- (b) Amæbic.
- (c) Other and unspecified dysentery.

DISEASES DUE TO PROTOZOA (28, 29)

- 28. Malaria (all forms).
- Other diseases due to Parasitic Protozoa (Spirochætes excepted).

(a), Tick paralysis.*

(b) Other diseases due to parasitic protozoa.*

DISEASES DUE TO SPIROCHÆTES (30-32)

30. Syphilis.

Do not report "positive" sero-diagnostic tests in lieu of a definite statement of syphilis.

(a) Locomotor ataxis (tabes dorsalis).

(b) General paralysis of the insane.

(c) Other syphilis of the central nervous system.

(d) Aneurysm of the aorta.
All deaths certified as due to aneurysm of the aorta are considered to be of syphilitic origin. Where an aortic aneurysm of non-syphilitic nature occurs, the physician should indicate this fact clearly, i.e., aertic aneurysm (non-syphilitic).

(e) Other syphilis of the circulatory system.

(f) Congenital syphilis.

(g) Other and unspecified syphilis.

31. Relapsing Fever.

32. Other diseases due to Spirochætes.

(a) Spirochætosis ictero-hæmorrhagica (Weil's disease).

(b) Other diseases due to spirochætes.

DISEASES DUE TO FILTERABLE VIRUSES (33-38)

33. Influenza.

(a) With respiratory complications.

(b) Without respiratory complications.

- 34. Smallpox.
- 35. Measles.
- 36. Acute Poliomyelitis and Polioencephalitis.
 - (a) Acute poliomyelitis.* Never use the term "infantile paralysis" to mean paralysis caused by delivery, etc.
 - (b) Acute polioencephalitis.*
- 37. Acute Infectious Encephalitis (Epidemic or Lethargic).
 - (a) Acute infectious encephalitis (lethargic).
 - (b) Sequelæ of encephalitis lethargica.
 - (c) Encephalitis lethargic (unqualified).
 - (d) Acute encephalomyelitis.*
- 38. Other Diseases due to Filterable Viruses.
 - (a) Yellow fever.
 - (b) Rabies.
 - (c) Herpes Zoster.
 - (d) German Measles (Rubella).
 - (e) Chickenpox.
 - (f) Other diseases due to viruses.
 - (g) Psittacosis.*

DISEASES DUE TO RICKETTSIA (39)

- 39. Typhus Fever and Typhus-like Diseases (Rickettsioses).
 - (a) Typhus fever (all forms).
 - (b) Rocky Mountain spotted fever.
 - (c) Other or unspecified typhus-like diseases.

DISEASES DUE TO HELMINTHS (40-42)

- 40. Ankylostomiasis.
- 41. Hydatid Disease.
- 42. Other Diseases due to Helminths.
 - (a) Trichinosis.
 - (b) Other diseases due to helminths.*

DISEASES DUE TO FUNGI (43)

- 43. Mycoses.
 - (a) Actinomycosis.*
 - (b) Other mycoses.

OTHER INFECTIOUS AND PARASITIC DISEASES (44)

- 44. Other Infectious and Parasitic (communicable) Diseases.
 - (a) Venereal diseases (gonorrhæa and syphilis excepted).
 - (b) Lymphogranulomatosis (Hodgkin's disease).
 - (c) Mumps.
 - (d) Other infectious and parasitic (communicable) diseases.

II. CANCER AND OTHER TUMOURS (45-57)

CANCER AND OTHER MALIGNANT TUMOURS (45-55)

The term "cancer" as used in rubrics 45-55 includes the following and all other types of malignant growth, which are assigned to the part of the body affected:

Astrocytoma Blastocytoma Blastoma (with or without prefix) Cancer (of any variety) Cancerous (any condition so qualified) Carcinoma (of any variety) Chloroma Chordoma Endothelioma Epithelioma Ewing's tumour Glioma (unless specified as benign) Malignant growth (of any variety) neoplasm reticulosis tumour Melanoma Myeloma Papilloma choroideum Pinealoma. Reticular endotheliosis Rodent ulcer Sarcoma (of any variety) Scirrhus Seminoma Spongioblastoma

In all cases, the organ affected or the site of the primary occurrence of the cancer should be specified. A statement of the malignancy of the growth is of great importance and the terms "tumour", "neoplasm", "new growth", should never be used unless qualified, as "malignant", "non-malignant", or "benign". If malignant it is preferable to report as "carcinoma", "sarcoma", etc.

- 45. Cancer of the Buccal Cavity and Pharynx.
 - (a) Lip.
 - (b) Tongue.
 - (c) Mouth.
 - (d) Jaw bone.
 - (e) Unspecified parts of the buccal cavity.
 - (f) Pharynx.
- 46. Cancer of the Digestive Organs and Peritoneum.
 - (a) Œsophagus.
 - (b) Stomach.
 - (c) Duodenum.
 - (d) Rectum and anus.
 - (e) Intestines (duodenum and rectum excepted).
 - (f) Liver and biliary passages.
 - (g) Pancreas.
 - (h) Mesentery and peritoneum.
 - (m) Other and unspecified digestive organs.
- 47. Cancer of the Respiratory System.
 - (a) Larynx.
 - (b) Trachea.
 - (c) Bronchus.
 - (d) Lung.
 - (e) Pleura.
 - (f) Mediastinum and unspecified sites.
- 48. Cancer of the Uterus.
 - (a) Specified as cancer of the cervix.
 - (b) Other and unspecified cancer of uterus.
- 49. Cancer of Other Female Genital Organs.
 - (a) Ovary.
 - (b) Fallopian tube and parametrium.
 - (c) Vagina.
 - (d) Vulva.
 - (e) Other and unspecified female genital organs.
- 50. Cancer of the Breast.
- 51. Cancer of the Male Genital Organs.
 - (a) Scrotum.
 - (b) Prostate.
 - (c) Testes.
 - (d) Penis.
 - (e) Other and unspecified male genital organs.

- 52. Cancer of the Urinary Organs (both sexes).
 - (a) Kidney.
 - (b) Bladder.
 - (c) Other and unspecified urinary organs.
- 53. Cancer of the Skin (Scrotum and Vulva excepted).
- 54. Cancer of the Brain and other parts of the Central Nervous System.
 - (a) Glioma (not specified as benign).
 - (b) Other and unspecified cancers of the brain and central nervous system.
- 55. Cancer of Other and Unspecified Organs.
 - (a) Adrenal gland.
 - (b) Bone (jaw bone and accessory sinuses excepted).
 - (c) Thyroid gland.
 - (d) Nasal cavity and accessory sinuses.
 - (e) Other and unspecified organs.

 This is a residual sub-division made necessary, in some measure, by incomplete certification of the site of the cancer, and includes deaths which cannot be assigned under rubrics 45-55d. Definite statements should be made regarding the site of the cancer in all cases in order that they may be assigned to their proper rubric.

Non-Malignant Tumours and Tumours of Undetermined Nature (56, 57)

The term "tumour" as used in rubrics 56 and 57 includes the following varieties being assigned according to the parts of the body affected.

Adenofibroma Adenoma Adenomyoma Adenomyxoma Angioma Arterial angioma Benign tumour Cavernous nævus Cholesteatoma Chondroma Craniopharyngioma Cyst Cystadenoma Cystic hygroma tumour Cystoms Dermoid cyst Embryoma (except of kidney)

Enchondroma
Endometrioma
Endometriosia
Endotheliosis
Epulis
Exostosia
Fatty tumour
Fibro-adenoma
Fibrocystic disease of jaw

Fibroid
tumour
Fibrolipoma
Fibroma
Glioma (stated to be benign)
Granuloma
Hæmangioma
Hæmatoma
Lipoma

Lymphangioma
Lymphatic nævus
Lymphatocele
Meningioma
Molluseum fibrosum
Myoadenoma
Myoma
Myxochondroma
Myxofibroma
Myxoma
Neurofibroma
New growth (non-malignant)

Odontoma
Osteoma
Papilloma
Polypus
Psammoma
Recklinghausen's disease
Reticulosis
Rhabdomyoma
Teratoma (except of ovary
or testicle)
Tumour (non-malignant)

Villous tumour

56. Non-Malignant Tumours (Dermoid Cysts included).

(a) Ovary.

(b) Uterus.

(c) Other female genital organs.

(d) Brain and other parts of the central nervous system.

(e) Other and unspecified organs.

57. Tumours of Undetermined Nature.

(a) Ovary.

(b) Uterus.

(c) Other female genital organs.

(d) Brain and other parts of the central nervous system.

(e) Other and unspecified organs.

III. RHEUMATISM, DISEASES OF NUTRITION, AND OF ENDOCRINE GLANDS. OTHER GENERAL DISEASES AND VITAMIN DEFICIENCY DISEASES (58-71)

RHEUMATIC DISEASES (58, 59)

Never use the term "rheumatism" without qualifying it as acute, chronic or gouty.

58. Acute Rheumatic Fever.

This rubric does not include gonorrhoeal rheumatism (25), rheumatic chorea or chorea described as due to rheumatism (not acute) (87a). It excludes organic diseases of rheumatic origin unless rheumatic fever was present at the time of death. For the heart conditions listed below presence of rheumatism at the time of death is presumed unless stated otherwise. Heart conditions listed under Nos. 90b, 91 or 93a, when described as rheumatic or due to rheumatism or when associated with rheumatic fever at the time of death are also included in Nos. 58a, 58b or 58c respectively. Heart conditions listed under Nos. 92, 93b or 95b and described as rheumatic or due to rheumatism are included under those titles unless it is stated or enquiry shows that rheumatic fever was present at the time of death in which case they are assigned to Nos. 58b, 58c or 58d respectively.

- (a) Acute rheumatic pericarditis.
- (b) Acute rheumatic endocarditis.
- (c) Acute rheumatic myocarditis.
- (d) Other acute rheumatic heart diseases.
- (e) Other forms of acute rheumatic fever.
- (f) Rheumatism (not specified as acute or chronic).
- 59. Chronic Rheumatism and other Rheumatic Diseases.
 - (a) Rheumatoid arthritis.
 - (b) Other chronic articular rheumatism.
 - (c) Other and unspecified forms of chronic rheumatism.

DISEASES OF NUTRITION AND OF THE ENDOCRINE GLANDS AND OTHER GENERAL DISEASES (60-66)

- 60. Gout.
- 61. Diabetes mellitus.
- 62. Diseases of the Pituitary Gland.
- 63. Diseases of the Thyroid and Parathyroid Glands.
 - (a) Simple goitre.
 - (b) Exophthalmic goitre.
 - (c) Myxœdema and cretinism.
 - (d) Other diseases of the thyroid glands.
 - (e) Diseases of the parathyroid glands.
- 64. Diseases of the Thymus Gland.
- 65. Diseases of the Adrenal Glands (not specified as tuberculous).
 - (a) Addison's disease (not specified as tuberculous).
 - (b) Other diseases of the adrenal glands.
- 66. Other General Diseases.
 - (a) Osteomalacia.
 - (b) Other general diseases. This sub-division does not include: amyloid or fatty degeneration of specified organs which are classed to diseases of those organs.

VITAMIN DEFICIENCY DISEASES (67-71)

- 67. Scurvy.
- 68. Beri-beri.
- 69. Pellagra (Alcoholic excepted).
- 70. Rickets.
- 71. Other Vitamin Deficiency Diseases.

IV. DISEASES OF THE BLOOD AND BLOOD-FORMING ORGANS (72-76)

- 72. Hæmorrhagic conditions.
 - (a) Primary purpura.
 - (b) Hæmophilia.
 - (c) Other hæmorrhagic conditions.
- 73. Anæmias (Splenic excepted).
 - (a) Pernicious anæmia.
 - (b) Other hyperchromic anæmias.
 - (c) Hypochromic anæmias.
 - (d) Other and unspecified ansemias.
 The term "ansemia" should be qualified by specifying the form or cause of the ansemia.
- 74. Leukæmias and Aleukæmias.
 - (a) Leukæmias.
 - (b) Aleukæmias.

This sub-division does not include: pseudoleukæmia (Hodgkin's disease) (44b); infantile pseudoleukæmia (73d); agranulocytosis (76a).

75. Diseases of the Spleen.

Name the disease.

- (a) Splenic anæmia.
- (b) Splenomegaly (of undetermined nature).

(c) Other diseases of the spleen.

This rubric does not include: lymphadenoma of spleen (76d).

- Other diseases of the Blood and Blood-forming Organs.
 Name the disease and organ.
 - (a) Agranulocytosis.
 - (b) Erythrocytosis.
 - (c) Hæmoglobinæmia.
 - (d) Other diseases of the blood and blood-forming organs.

V. CHRONIC POISONING AND INTOXICATION (77-79)

With the exception of "acute alcoholism", this group includes only chronic forms of poisoning. All other acute poisonings are classified as suicides (163); homicides (168); or accidents (177-179) as the case may be.

- 77. Alcoholism (Ethylism).
 - (a) Alcoholic pellagra.
 - (b) Other deficiency states associated with alcoholism.
 - (c) Acute alcoholism.
 - (d) Chronic alcoholism.
 - (e) Other and unspecified alcoholism.

78. Lead Poisoning.

(a) Specified as occupational.

(b) Not specified as occupational.

- 79. Chronic Poisoning by Other Mineral and Organic Substances.
 - (a) Specified as occupational.

(b) Not specified as occupational.

VI. DISEASES OF THE NERVOUS SYSTEM AND SENSE ORGANS (80-89)

Terms such as "paralysis"; "general paralysis"; "paresis"; "general paresis"; "palsy", etc., should be avoided and the precise clinical designation given as acute ascending paralysis; paralysis agitans; bulbar paralysis; etc.

80. Encephalitis (non-epidemic).

· State cause of this condition, if known.

(a) Intracranial abscess.

(b) Other encephalitis (non-epidemic).

This sub-division does not include: sleeping sickness (trypanosomiasis) (29); acute infectious encephalitis (lethargic) (37); post-infectious encephalitis (disease not stated) (44d); post-vaccinal encephalitis (195a); traumatic encephalitis (195e).

81. Meningitis (non-meningococcal).

Tuberculous and meningococcal meningitis are not included under this rubric.

(a) Simple meningitis.

(b) Acute cerebro-spinal meningitis (non-meningococcal).

(c) Lymphocytic choriomeningitis.*

82. Diseases of the Medulla and Spinal Cord (Locomotor Ataxia and Disseminated Sclerosis excepted).

Name the disease.

83. Intracranial Lesions of Vascular Origin.

Wherever possible, name disease giving rise to such conditions as arteriosclerosis, chronic myocarditis and hypertension.

- (a) Cerebral hæmorrhage or effusion (birth injuries excepted).
- (b) Cerebral embolism and thrombosis.

(c) Cerebral softening.

(d) Hemiplegia and other paralysis of unspecified origin.

(e) With mention of arteriosclerosis.

84. Mental disorders and deficiency (General Paralysis of

the Insane excepted).

Unless the form of insanity is actually the disease causing death, it should be entered under Section II of the Medical Certificate of Death "Other morbid conditions (if important) contributing to death, but not causally related to immediate cause".

(a) Mental deficiency.

(b) Schizophrenia (dementia præcox).

(c) Manic-depressive psychosis.

(d) Other mental diseases.

85. Epilepsy.

Where an accidental death results from epilepsy, the nature of the accident should be indicated.

86. Convulsions (in children under 5 years of age).

This term should be qualified by stating the disease giving rise to the convulsions.

87. Other Diseases of the Nervous System.

(a) Choren.

(b) Neuritis (non-rheumatic and non-alcoholic).

(c) Paralysis agitans (resulting from encephalitis excepted).

(d) Disseminated sclerosis.

- (e) Other diseases of the nervous system.
- 88. Diseases of Organs of Vision.

Name the disease.

(a) Trachoma.*

(b) Acute conjunctivitis (Pink eye included).*

(c) Other diseases of organs of vision.*

89. Diseases of the Ear and of the Mastoid Process.

(a) Otitie and other diseases of the ear.

(b) Diseases of the mastoid process.

VII. DISEASES OF THE CIRCULATORY SYSTEM (90-103)

In deaths involving cardiac affections state whether acute or chronic. Lack of this information makes necessary rubrics such as 91c, "Endocarditis unspecified under 45 years of age". Terms such as "cardiac insufficiency", "cardiac degeneration", "cardiac weakness", "heart failure", "cardiac asthenia", "cardiac exhaustion", "paralysis of the heart", are unsatisfactory, and if used at all, the clinical disease which gave rise to such conditions should be indicated on the certificate. State the

exact type of disease and the particular valves involved. When it is known that the affection has resulted from some previous disease, state the disease, e.g., syphilis, acute rheumatic fever, etc. Statements such as "heart disease", "heart trouble", "organic heart trouble", etc., should be replaced by a record of the exact form of the cardiac affection, as chronic rheumatic myocarditis, etc.

- 90. Pericarditis (Acute Rheumatic excepted).
 - (a) Chronic rheumatic pericarditis.
 - (b) Other pericarditis.
- 91. Acute Endocarditis (Non-rheumatic).
 - (a) Bacterial endocarditis (acute, sub-acute or unspecified).
 - (b) Other acute or sub-acute endocarditis.
 - (c) Endocarditis (not specified as acute, sub-acute or rheumatic, under 45 years of age).
- 92. Chronic Affections of the Valves and Endocardium.
 - (a) Diseases of the aortic valve (without mitral disease).
 - (b) Diseases of the mitral valve (rheumatic or non-rheumatic).
 - (c) Diseases of other and unspecified valves and chronic endocarditis (rheumatic).
 - (d) Diseases of other and unspecified valves and chronic endocarditis (non-rheumatic).
 - (e) Endocarditis (not specified as acute, chronic or rheumatic, 45 years of age and over).
- 93. Diseases of the Myocardium.
 - (a) Acute myocarditis.
 - (b) Myocarditis (not specified as acute, chronic or rheumatic, under 45 years of age).
 - (c) Chronic myocarditis and myocardial degeneration (rheumatic).
 - (d) Chronic myocarditis and myocardial degeneration (non-rheumatic).
 - (e) Other myocarditis (not specified as acute, chronic or rheumatic).
- 94. Diseases of the Coronary Arteries, Angina Pectoris.
 - (a) Diseases of the coronary arteries.
 - (b) Angina pectoris.

95. Other Diseases of the Heart.

Name the disease where possible.

(a) Functional diseases of the heart (without mention of organic lesion).

(b) Other diseases of the heart (rheumatic, but other-

wise ill-defined).

- (c) Other diseases of the heart (non-rheumatic).
- 96. Aneurysm (Heart and Aorta excepted) (See Note under 30d).
- 97. Arteriosclerosis (Coronary or Renal Sclerosis or Cerebral Hæmorrhage excepted).
- 98. Gangrene.
 State part affected and the disease or injury giving rise to this condition.
- 99. Other Diseases of the Arteries.
- 100. Diseases of the Veins.

(a) Varices.

- (b) Other diseases of the veins.
- Diseases of the Lymphatic System.
 Indicate the morbid condition giving rise to this disease.
- 102. High Blood Pressure (Idiopathic).
- 103. Other Diseases of the Circulatory System.

VIII. DISEASES OF THE RESPIRATORY SYSTEM (104-114)

- Diseases of the Nasal Fossæ and Accessory Sinuses.
 Name the disease.
 - (a) Diseases of the nasal fossæ.
 - (b) Diseases of the accessory sinuses.
- 105. Diseases of the Larynx.
 - Name the disease. Under this heading "cedema of glottis" should be qualified by the cause.
- 106. Bronchitis.

State whether acute or chronic.

- (a) Acute.
- (b) Chronic.
- (c) Unspecified.

- 107. Bronchopneumonia (Capillary Bronchitis included).

 When the bronchopneumonia follows measles, whooping cough or some other morbid condition, this fact should be indicated.
- 108. Lobar Pneumonia.

109. Pneumonia (unspecified).

Pneumonia should be qualified as bronchopneumonia (107) or lobar pneumonia (108). When a pneumonia occurs in the course of, or following another disease, the relationship should be indicated. Avoid reporting such terminal events as "hypostatic pneumonia", and state the disease giving rise to

such conditions.

110. Pleurisy.

Except when the pleurisy is primary, the cause should be indicated as lobar pneumonia, acute rheumatism, tuberculosis, etc.

(a) Empyema.

- (b) Other and unspecified forms of pleurisy.
- 111. Hæmorrhagic Infarction, Congestion, Œdema and Thrombosis of the Lungs.

In every case state the cause of the congestion, cedema, etc.

(a) Hæmorrhagic infarction and thrombosis of the lungs.

(b) Acute ædema of the lungs.

- (c) Chronic and unspecified congestion of the lungs.
- 112. Asthma.

State type, as cardiac, bronchial, etc.

- 113. Pulmonary Emphysema.
- 114. Other Diseases of the Respiratory System (Tuberculosis excepted).

(a) Silicosis.

- (b) Other and unspecified forms of pneumoconioses.
- (c) Gangrene of lung.

(d) Abscess of lung.

(e) Other and unspecified diseases of the respiratory system.

IX. DISEASES OF THE DIGESTIVE SYSTEM (115-129)

In deaths involving diseases of the digestive system, "gastritis", "gastric catarrh", "acute indigestion", and other such terms should be avoided. The condition should be specified as acute or chronic. Where an operation has been performed, this should be indicated.

115. Diseases of the Buccal Cavity and Annexa, and of the Pharynx and Tonsils.

Name the disease and the organ affected. If diphtheria, specify as such.

(a) Diseases of the teeth and gums.

(b) Septic sore throat.

(c) Diseases of the pharynx and tonsils.

- (d) Diseases of other and unspecified parts of the buccal cavity and annexa.
- 116. Diseases of the Œsophagus.

 Name the disease and state the cause, e.g., in stricture of the cosophagus, state whether congenital or due to tumour, cicatricial contraction, etc.
- 117. Ulcer of the Stomach or Duodenum.
 - (a) Ulcer of the stomach.
 - (b) Ulcer of the duodenum.
- 118. Other Diseases of the Stomach (Cancer excepted).
- 119. Diarrhœa and Enteritis (under 2 years of age).

 Avoid certifying under this rubric where the diarrhœa was merely symptomatic.

(a) Diarrhœa and enteritis.

- (b) Ulceration of the intestines (duodenum excepted).
- 120. Diarrhœs and Enteritis (2 years of age and over).

(a) Diarrhæa and enteritis.

- (b) Ulceration of the intestines (duodenum excepted).
- 121. Appendicitis.
- 122. Hernia, Intestinal Obstruction.

(a) Hernia.

State form and whether strangulated.

(b) Intestinal obstruction.

State the cause of this condition.

- 123. Other Diseases of the Intestines.

 Name the disease.
- 124. Cirrhosis of the Liver.
 State cause of this condition.

(a) With mention of alcoholism.

- (b) Without mention of alcoholism.
- 125. Other Diseases of the Liver.
 - (a) Acute yellow atrophy (non-puerperal).

(b) Other diseases of the liver.

Name the disease.

126. Biliary Calculi.

- 127. Other Diseases of the Gall Bladder and Bile Ducts.
 - (a) Cholecystitis (without mention of biliary calculi).
 - (b) Other diseases of the gall bladder and bile ducts.
- 128. Diseases of the Pancreas (Diabetes Mellitus excepted).

 Name the disease.
- 129. Peritonitis without stated cause.

If the result of abortion, miscarriage or labour, specify as such. Since peritonitis is usually a sequelse of other conditions such as hernia, perforating ulcer, appendicitis, metritis, extensions of morbid processes from other organs (which should be named), etc., this fact should be stated in every case. If traumatic, state whether accidental, suicidal or homicidal and give manner and nature of injury.

X. DISEASES OF THE URINARY AND GENITAL SYSTEMS (NON-VENEREAL OR NOT ASSOCIATED WITH PREGNANCY OR THE PUERPERAL STATE) (130-139)

130-132. Nephritis.

Nephritis should be qualified in every case as acute or chronic. If acute and a complication or sequelze of another disease or condition, such as scarlet fever, pregnancy, etc., this should be indicated. "Dropsy" or "uræmia" should never be returned as cause of death without particulars as to its probable origin, e.g., disease of heart, liver, kidneys, etc.

- 130. Acute Nephritis (including unspecified under 10 years of age).
- 131. Chronic Nephritis.
 - (a) Arteriosclerotic kidney.
 - (b) Other chronic nephritis.
- 132. Nephritis unspecified (10 years of age and over).
- 133. Other Diseases of the Kidneys and Ureters (Puerperal Diseases excepted).

Name the disease.

- (a) Pyelitis, pyelonephritis and pyelocystitis.
- (b) Other diseases of the kidneys and ureters.
- 134. Calculi of the Urinary passages.
 - (a) Calculi of the kidneys and ureters.
 - (b) Calculi of the bladder.
 - (c) Calculi of other and unspecified parts of the urinary passages.

- 135. Diseases of the Urinary Bladder (Tumours excepted).

 Name the disease. If "cystitis" state the cause.
 - (a) Cystitis.
 - (b) Other diseases of the bladder.
- 136. Diseases of the Urethra, Urinary Abscess, etc., (Calculus excepted).

Name the disease and if gonorrhoal in origin, specify as such.

- (a) Stricture of the urethra.
- (b) Other diseases of the urethra.
- 137. Diseases of the Prostate.

Name the disease.

- (a) Hypertrophy of the prostate.
- (b) Other diseases of the prostate.
- 138. Diseases of other Male Genital Organs (Non-Venereal).

 Name the disease.
- 139. Diseases of the Female Genital Organs (Non-Venereal).
 - (a) Diseases of the ovaries, Fallopian tubes, and parametria.

In the case of "salpingitis", indicate whether gonorrheeal, syphilitic, puerperal or traumatic in origin.

- (b) Diseases of the uterus.
- (c) Other and unspecified diseases of the female genital organs.

XI. DISEASES OF PREGNANCY, CHILDBIRTH AND THE PUERPERAL STATE (140-150)

For purposes of classifying maternal deaths, abortion (miscarriage) is defined as the termination of a uterine pregnancy prior to 7 lunar months (28 weeks) of gestation (regardless of whether the child was born dead or alive). Childbirth, therefore, is defined as the termination of a uterine pregnancy after 7 lunar months (28 weeks) or more, of gestation (regardless of whether the child was born dead or alive). Puerperium (puerperal state) is defined as the period of 6 weeks following the termination of pregnancy.

Do not use "abortion" or "miscarriage" to mean "premature birth". The age of viability has been defined as 28 weeks and deaths of mothers after this period of utero-gestation should not be certified to abortion. Where abortion is self-induced or criminal, such should be stated.

Formerly the term "puerperal" included all diseases of pregnancy, parturition and lactation. The Revision of the International List of Causes of Death of 1938 divided diseases of pregnancy, childbirth and puerperal state into two classes, those occurring prior to the onset of labour, "pregnancy", and those occurring after the onset of labour and post-partum, "puerperal". To insure the correct assignment of all conditions included in the Group 140-150, physicians are urged to state, in every instance, whether or not a birth occurred.

Parturition or miscarriage occurring within one month before the death of the patient should be so certified, even though childbirth may not have contributed to the fatal issue. Whenever a woman of childbearing age, especially if married, is reported to have died from a disease which might have been of puerperal origin, there should be an explicit statement by the physician as to whether the disease was or was not puerperal in character. The following diseases and symptoms are of this class:—

Abscess of the breast
Acute nephritis
Albuminuria
Cellulitis
Coma
Convulsions
Eclampsia
Embolism
Gastritis
Hæmorrhage (uterine or unqualified)
Lymphangitis
Metritis
Metroperitonitis

Metrorrhagia
Nephritis
Pelvic abscess
Pelviperitonitis
Peritonitis
Phlegmasia alba dolens
Phlebitis
Pyæmia
Septicæmia
Sudden death
Tetanus
Thrombosis
Uræmia

In every case where any of the foregoing terms appear, and any others which might be puerperal in character, the physicians should state if a pregnancy existed, and if so, whether or not the birth had occurred. If not puerperal, this fact should be stated, i.e., (non-puerperal).

140. Abortion with mention of infection (Gestation less than 28 weeks)

- (a) Abortion—(spontaneous, therapeutic or of unspecified origin) with mention of pyelitis.
- (b) Abortion—(spontaneous, therapeutic or of unspecified origin) with mention of other infection.
- (c) Self-induced abortion.
- (d) Abortion induced by other persons for nontherapeutic reasons.

141. Abortion without mention of Infection (Gestation less than 28 weeks).

(a) Abortion—(spontaneous, therapeutic or of unspecified origin) with mention of hæmorrhage, trauma

or shock, and toxemia.

(b) Abortion—(spontaneous, therapeutic or of unspecified origin) with mention of hæmorrhage, trauma or shock, but not toxæmia.

(c) Abortion—(spontaneous, therapeutic or of unspecified origin) with mention of toxemia, but not

hæmorrhage, trauma, or shock.

(d) Abortion—(spontaneous, therapeutic or of unspecified origin) without mention of hæmorrhage, trauma or shock, or toxæmia.

(e) Self-induced abortion.

(f) Abortion induced by other persons for nontherapeutic reasons.

142. Ectopic Gestation.

(a) With mention of infection.

(b) Without mention of infection.

143. Hæmorrhage of Pregnancy (Death prior to delivery).

(a) Placenta prævia.

(b) Premature separation of placenta.

(c) Other and unspecified hæmorrhages of pregnancy. Toxemias of Pregnancy (Death prior to delivery).

(a) Eclampsia of pregnancy.

(b) Albuminuria and nephritis of pregnancy.

(c) Acute yellow atrophy of liver (during period of pregnancy).

(d) Other toxemias of pregnancy.

145. Other Diseases and Accidents of Pregnancy (Death prior to delivery).

This rubric was subdivided as of January 1, 1944, for tabulation purposes in order to facilitate comparability of data between the Fourth and Fifth Revisions of the International List of Causes of Death.

(a) With mention of septic conditions.

(b) Without mention of septic conditions.

146. Hæmorrhage of Childbirth and the Puerperium (Gestation—28 weeks and over, or unspecified).

(a) Placenta prævia (with childbirth).

- (b) Premature separation of placenta (with child-birth).
- (c) Other and unspecified hæmorrhages of childbirth and the puerperium.

147. Infection during Childbirth and the Puerperium (Gestation—28 weeks and over, or unspecified).

tion—28 weeks and over, or unspecified).

This rubric includes infection, whether or not described as puerperal, when associated with childbirth or the puerperal state, unless it is known and stated that the infection was independent of, or had originated prior to, pregnancy.

(a) Puerperal pyclitis and pyclonephritis.

- (b) General or local puerperal infection (pyelitis excepted).
- (c) Puerperal thrombophlebitis.
- (d) Puerperal embolism and sudden death.

148. Puerperal Toxæmias (Following delivery) (Gestation —28 weeks and over, or unspecified).

Toxemias known and stated to have originated before pregnancy, or known to have been independent of pregnancy, childbirth, or the puerperal state, are not considered puerperal toxemias.

- (a) Puerperal eclampsia.
- (b) Puerperal albuminuria and nephritis.
- (c) Acute yellow atrophy of liver (puerperal).
- (d) Other puerperal toxæmias.
- 149. Other accidents of Childbirth (Gestation—28 weeks and over, or unspecified).

Specify injury and cause which resulted in death.

- (a) Laceration, rupture or other trauma of pelvic organs and tissues.
- (b) Other conditions of childbirth.
- 150. Other and unspecified Conditions of Childbirth and the Puerperal State.
 - (a) Infection of breast during lactation.

(b) Psychosis of the puerperal state.

(c) Other and unspecified conditions of childbirth and the puerperal state.

XII. DISEASES OF THE SKIN AND CELLULAR TISSUE (151-153)

- 151. Carbuncle, Furuncle.
- 152. Phlegmon, Acute Abscess.

 Name the part affected, and where possible, state the cause, as trauma, tuberculosis, etc.
- 153. Other Diseases of the Skin and Cellular Tissue. Name the disease.

XIII. DISEASES OF THE BONES AND ORGANS OF MOVEMENT (154-156)

- 154. Osteomyelitis and Periostitis.
 - (a) Acute.
 - (b) Chronic or unspecified.
- 155. Other Diseases of the Bones (Tuberculosis excepted).
- 156. Diseases of the Joints and Other Organs of Movement.
 - (a) Diseases of the joints (tuberculosis and rheumatism excepted).
 - (b) Diseases of other and unspecified organs of movement.

XIV. CONGENITAL MALFORMATIONS (157)

This rubric applies only to children born alive. It should be restricted to congenital malformations sufficiently serious to cause death, i.e., incompatible with life.

- 157. Congenital Malformations (Stillbirths excepted).
 - (a) Congenital hydrocephalus. Deaths from hydrocephalus of tuberculous origin should be specified as "Tuberculous meningitis", to distinguish them from deaths caused by simple inflammation or other diseases of the brain or its membranes. "Congenital hydrocephalus" should be stated in every case.
 - (b) Spina bifida and meningocele.
 - (c) Anencephalus.
 - (d) Other congenital malformations of the central nervous system.
 - (e) Congenital malformations of the heart.
 - (f) Congenital malformations of the cardio-vascular system.
 - (g) Congenital malformations of the digestive system.
 - (h) Congenital malformations of the genito-urinary system.
 - (m) Other and unspecified congenital malformations.

XV. DISEASES PECULIAR TO THE FIRST YEAR OF LIFE (158-161)

In certifying infant deaths such terms as "infantile atrophy", "asthenia", "debility", "inanition", "weakness", should be avoided in every case. Use more specific clinical designations such as atelectasis, intra-cranial hæmorrhage due to birth injury.

- 158. Congenital Debility (no mention of cause).

 State a more definite cause, if known.
- 159. Premature Birth (no mention of cause).

 State a more definite cause, if known.
- 160. Injury at Birth.
 - (a) Intra-cranial or spinal hæmorrhage.
 - (b) Other intra-cranial or spinal injuries.
 - (c) Other injuries at birth.
- 161. Other Diseases Peculiar to the First Year of Life.
 - (a) Asphyxia (unspecified), atelectasis.
 - (b) Infection of the umbilicus, pemphigus, and other infections (non-syphilitic).
 - (c) Other specified diseases peculiar to the first year of life.

XVI. SENILITY, OLD AGE (162)

Deaths should not be assigned to "old age" or "senility" when there is a definite disease. This rubric is restricted to deaths of persons aged 65 years and over.

162. Senility.

- (a) Senility with mention of dementia.
- (b) Senility without mention of dementia.

XVII. VIOLENT OR ACCIDENTAL DEATHS (163-198)

SUICIDE (163, 164)

Whenever a death is of a violent or accidental character, the sequence of events should be indicated clearly on the medical certificate. Such terms as "accident", "injury", "burn", "drowning", "external causes", etc., cannot be classified properly. Coroners, medical examiners and physicians who certify to deaths from these causes should indicate clearly, first, the fundamental distinction of whether the death was due to accident, suicide, or homicide, and then state the nature of the injury and how it was sustained. For instance, in the case of fracture of femur followed by death, state the cause of circumstances, such as accidental fall, struck by automobile, etc.

- 163. Suicide by Poisoning.
 - (a) Suicide by corrosive substances.
 - (b) Suicide by analgesic and narcotic drugs.
 - (c) Suicide by soporific drugs.

(d) Suicide by other solid and liquid poisons.

(e) Suicide by coal and illuminating gases.

(f) Suicide by automobile exhaust gas. (a) Suicide by other poisonous gases.

164. Suicide by Other Means.

(a) Suicide by hanging and strangulation.

(b) Suicide by drowning.

(c) Suicide by firearms and explosives.

(d) Suicide by cutting or piercing instruments.

(e) Suicide by jumping from high places.

(f) Suicide by crushing.

(a) Suicide by other or unspecified means.

Homicide (165-168)

165. Infanticide (infants under 1 year of age).

166. Homicide by Firearms.

167. Homicide by Cutting or Piercing Instruments.

168. Homicide by other or Unspecified Means.

ACCIDENTAL DEATHS (169-195) (1)

Deaths from violence should always be specified as to whether due to homicide, suicide, or accident. If not so stated, they will be considered as accidental.

In reporting accidental deaths, the following items should be stated:

(a) Injury which caused death.
(b) Vehicle, machinery, or other object involved.
(c) Manner in which injury was incurred.

(d) Place and date of accident.

(e) Whether accident occurred at home, on farm, in industrial place, or in public place.

169. Railway accidents (Collision with Motor Vehicles excepted).

Motor Vehicle Accidents.

(a) Collisions with trains.

(b) Collisions with street-cars.

(c) Automobile accidents (collisions with trains or street-cars excepted).

(d) Motorcycle accidents (collisions with automobiles excepted).

Street-car and other Road Transport Accidents.

(a) Street-car accidents (collisions with trains or motor vehicles excepted).

(b) Other and unspecified road transport accidents.

- 172. Water Transport Accidents.
- 173. Air Transport Accidents.
- 174. Accidents in Mines and Quarries.

175. Agricultural and Forestry Accidents.

This rubric includes all deaths resulting from accidents specified as occurring in the course of agricultural or forestry operations, including market gardening and reforestation. If not so specified, they will be classified under other accident rubrics.

(a) Accidents involving agricultural machinery and

vehicles.

(b) Injury by animals, in agriculture.

(c) Other agricultural accidents.

- (d) Accidents involving forestry machinery and vehicles.
- (e) Other forestry accidents.
- 176. Other Accidents involving Machinery.
- 177. Food poisoning.
 - (a) Botulism.*
 - (b) Other food poisoning.*
- 178. Accidental Absorption of Poisonous Gas.
 - (a) Accidental absorption of coal and illuminating gases.
 - (b) Accidental absorption of motor vehicle exhaust gas.
 - (c) Accidental absorption of other carbon-monoxide gas.
 - (d) Accidental absorption of other poisonous gases.
- 179. Acute Accidental Poisoning by Solids or Liquids.
- 180. Conflagration.
- 181. Accidental Burns (Conflagration excepted).
- 182. Accidental Mechanical Suffocation.
- 183. Accidental Drowning.
- 184. Accidental Injury by Firearms.
- 185. Accidental Injury by Cutting or Piercing Instruments.
- 186. Accidental Injury by Fall or Crushing.
 - (a) Fall.
 - (b) Crushing.

- 187. Cataclysm (any cause of death).
- 188. Injury by Animals (not specified as Venomous, or occurring in the course of Agricultural and Forestry Operations).
- 189. Hunger or Thirst.
- 190. Excessive Cold.
- 191. Excessive Heat.
- 192. Lightning.
- 193. Accidents due to Electric Currents (Lightning excepted).
- 194. Attack by Venomous Animals (non-occupational).
- 195. Other Accidents.
 - (a) Sequelæ of preventive immunization, inoculation or vaccination.

This sub-division does not include: deaths resulting from treatment administered for curative purposes (assign to disease or injury necessitating treatment); or deaths resulting from accidental overdose of drugs (179).

(b) Other accidents due to medical or surgical intervention.

This sub-division includes deaths from ansesthesia administered for unstated purposes, and operations performed for purposes other than curative. It does not include deaths following medical or surgical intervention for the alleviation of known disease or injury (assign to disease or injury involved).

- (c) Lack of care of the newborn.
- (d) Obstruction, suffocation, or puncture by ingested objects.
- (e) Other and unspecified accidents. This is a residual sub-division under which deaths should be classified only when the lack of information prevents their inclusion under more specific rubrics. Many of the deaths tabulated under this sub-division could be more satisfactorily allocated if more complete information were given as to the circumstances in which death occurred.

OPERATIONS OF WAR AND LEGAL EXECUTION (196-198)

- 196. Deaths of Persons in Military Service during Operations of War.
- 197. Deaths of Civilians due to Operations of War.
- 198. Legal Executions.

XVII. Ill-Defined and Unknown Causes of Death (199-200)

199. Sudden Death.

200. Ill-Defined and Unknown Causes.

- (a) Ill-defined causes.
- (b) Found dead (cause unknown).
- (c) Unknown or unspecified cause.
- (1) In addition to the classification according to the circumstances involving accidental deaths—Rubrics 169-176, 180 and 187, the International List requires an additional classification according to the nature of the injury for which purpose use of the following supplementary code is recommended.

Supplemental Code for Nature of Injury

	orbitality
Code	Nature of injury
0.	Accidental absorption of poisonous gas.
1.	Accidental burns (conflagration excepted)
2.	Accidental mechanical suffocation.
3.	Accidental drowning.
4.	Accidental cutting or piercing.

- 5. Accidental fall.
- 6. Accidental crushing.
- 7. Accidental injury by electric current.
- Other and unspecified injuries.

ILLUSTRATIONS FOR CLASSIFICATION OF ACCIDENTAL DEATHS

Nature of Injury	Circumstances of Death	List No.	Supple- mental Code
Drowning	Derailed train ran into river	169	3
Burns	Collision automobile and train	170a	1
Crushing	Cave-in in quarry	174	6
Fall	Logging accident, broken high lead	175e	5
Asphyxiation	Gassed in a mine	174	0

As a result of the recommendations made by a special Committee of the Canadian Public Health Association the forms for registration of death for all provinces have been standardized as to the medical certificate.

The major objective in the reporting of causes of death upon the "Medical Certificate of Death" is to make of these official records an accurate summary of the opinions of the medical profession. It was with this object in view that the medical certificate was revised in 1935.

Example of Certification of Cause of Death

	MEDICAL CERTIFICATE OF DEATH			
22. DATE OF DEATH 277	arch	26		1945
	Month by name)	(Date)		(Year)
23. I HEREBY CERTIFY that I attende	d deceased from			1945
w. March 26	1945, and last saw her alive on 2	Jasch.	26	1945
	CAUSE OF DEATH		DURATIO	DN
immediate cases Give disease, injury or complication which caused death, see the mode of dying, such as heart failure, asplyins, asthonia, etc.	(a) Franktswade Prips	Yrs.	Mes.	94.
Marhid conditions, Il any, giving rise to imme- diate cases (stated in order proceeding backwards from immediate cause). If Other modeld conditions (if important) con- tributing to death but not cascally related	due to	ial 4		-
	Date of operation			19
	Was ti			
Manner of injury Franchisch	ence) fill in also the following: cideset Date of injury Miss	reh z		1045
Signed by E. Stasto.	St. Date March		D., Coro	

Note.—Certain provinces have one or more additional questions for purposes of the Provincial Office.

REGISTRATION OF STILLBIRTHS

Registration of stillbirths is required in all provinces of Canada. Prior to 1932 stillbirths were registered both as births and deaths on the regular birth and death certificates. In that year Quebec introduced a special single form for the registration of stillbirths and all children who live less than 24 hours. By 1941 the other eight provinces had adopted a single registration form for stillbirths.

Definition of a Stillbirth

Two facts which are necessary for the proper classification of stillbirths are:

(a) the period of gestation, and

(b) that the child has not breathed after complete birth.

The Canadian definition of a stillbirth adopted for statistical purposes is as follows: "A stillbirth is the birth of a (viable) fœtus after at least 28 weeks pregnancy in which pulmonary respiration does not occur; such fœtus may die either (a) before, (b) during, or (c) after birth, but before it has breathed".

Prior to 1932 the minimum period of gestation for statistical classification of stillbirths was six months. The definition was revised when the Dominion Bureau of Statistics after consultation with the provinces adopted, with some modification, the definition drafted in 1925 by a special committee of the Health Section of the League of Nations. This definition had been approved by the Vital Statistics Section of the Canadian Public Health Association in 1931.

Sometimes the period of gestation is not recorded in the medical certificate and therefore this criterion cannot be applied in every case. As the physician certifies that the particulars on the form concern a stillborn child his statement is accepted.

The principles and general procedure to be followed by the medical practitioner preparing the medical certificate should be identical with those followed in completing the medical certificate on the Registration of Death (see Page 21).

Tabulation

The Canadian practice is to make separate tabulations for stillbirths, i.e., to exclude stillbirths from birth and death tables. Exceptions to this rule are found in tables of multiple births and order of birth in which stillbirths are included.

Classification of Causes of Stillbirth

The International Commission for the Revision of the International List of Causes of Death in 1929 adopted a tentative classification of causes of stillbirth which was divided into three main groups. The results obtained by the use of this list, which provided only thirteen titles, were far from satisfactory due to the inadequacy of its coverage. The list was revised and enlarged to four classes and fifteen causes and was adopted by the International Commission in 1938.

In 1940 a classification of causes of stillbirth was prepared and published by the Children's Bureau of the Department of Labor, Washington, D.C. This list was used by the Dominion Bureau of Statistics for the years 1943 and 1944.

In 1945 the Dominion Bureau of Statistics, following a Dominion-Provincial Conference on Vital Statistics held in Ottawa, September, 1944, and after consultation with a special committee of the Canadian Public Health Association, prepared a "Manual of the Classification of Causes of Stillbirth for Canada". This manual is in experimental draft form and comprises:

Part I—Detailed List of Causes of Stillbirth;
Part II—Tabular List of Causes of Stillbirths;

Part III—Index to the Tabular List of Causes of Stillbirth, and

Part IV—Index to the Joint Causes of Stillbirth Relationships.

It has been prepared for distribution to the provinces and other groups interested in health and welfare for experimental purposes, to study the list of causes, the use of the

index and other parts of the classification.

The classification of causes is based on the list which was prepared by the Children's Bureau in the United States. The main point of difference between the two classifications is that in the American classification preference is given to conditions which are found in the fœtus, while in the Canadian manual, on the recommendation of the Canadian Public Health Association, preference is given to the conditions which arise in the mother.

The laws of Canada and the formulated rules of statistical practice have had the effect of creating uniform Canadian statistics. Considerable care is required in making international comparisons due to variations in definition and statistical practice in the different countries.

DEFINITIONS OF TERMS

Certificate.—A form issued in respect of any registration filed in the office of the Registrar General certifying certain facts concerning a birth, stillbirth, marriage or death.

Complete birth.—A live birth or stillbirth is considered "complete" when the child or fœtus is altogether (head, trunk, and limbs) outside the body of the mother, even if the cord is uncut and the placenta still attached.

Demography.—Human bookkeeping. The gathering together of facts relating to human life or the science of human generation, growth, decay and death as studied by statistical methods.

Disease entity.—A combination of symptoms or findings in an individual, which is recognized by the medical profession as a distinct morbid condition.

External causes of death.—These consist of homicidal, suicidal, and accidental deaths, commonly known as violent deaths.

Immediate cause of death.—See definition, page 21.

International List of Causes of Death .- See page 23.

Legally qualified medical practitioner.—A person authorized to practise medicine under the medical licence regulations of a province.

Life Table.—Life Tables give a summary of the health and general conditions of mortality of the population in a conventional, standardized form. A hypothetical number of births of each (100,000) is assumed. The Life Tables then show how, on the basis of the age-specific death rates by sex, in the country and years for which the Life Tables are being calculated (e.g., Canada 1940-42), the 100,000 births of each sex are reduced in number as age increases, until finally they have all died. The Life Tables thus present an abstract stationary population in which there is no emigration and immigration, births exactly balance deaths, and mortality at each age is determined by the age-specific death rates in the given years.

The Life Tables also show the probability of death at each age, its reciprocal, the probability of survival to the next higher age, and the expectation of life at each age, that is to say, the average number of years of life to which a person might look forward if the mortality rates found for the Life Table were to remain constant.

Local registrar.—A person duly appointed and authorized by law, who, under the supervision and direction of the provincial registrar, is in charge of the registration of births, stillbirths, marriages and deaths, within a registration district.

Morbidity.—Frequency of disease (see Rates page 63).

Mortality.—Frequency of death (see Rates page 62).

Physician.—See legally qualified medical practitioner.

Place of Occurrence.—The province, division or county, and city, town, village, or rural location, and the name of hospital or institution (if any) where a live birth, stillbirth, or death occurs.

Place of residence.—The province, division or county, and city town, village, or rural location where (a) a woman giving birth to a child or stillborn feetus usually lives, or (b) a deceased person usually lived.

Registration.—The recording of vital facts concerning an individual, under governmental direction and by the use of individual records.

Registration district.—A division of a province created for convenience in the registration of vital records. Boundaries of registration districts are usually the same as political units, such as cities, towns, townships, civil districts, etc.

Reproduction Rate .- See page 61.

Stillbirth.—See definition and discussion, pages 57 and 58.

Underlying cause of death.—See definition, page 20.

Violent deaths.—Deaths from violence or of an accidental character. The fundamental distinction as to whether the death was due to accident, suicide or homicide should be indicated clearly, stating the nature of the injury and how it was sustained.

(a) Accidental deaths .-

(1) Industrial accidents should be distinctly defined stating

where, and how they occurred.

- (2) Other accidents require to have the circumstances stated as fully as possible, i.e., in automobile collisions, specify whether with train, tramway or other automobile.
- (b) Suicides.—The means employed should be definitely stated as drowning, hanging, poisoning, etc.
- (c) Homicides.—Whether by firearms, cutting or piercing instruments or by what other means.

Vital Statistics.—The collection, tabulation, and interpretation of data concerning human natality, mortality, morbidity, marriage, adoption and divorce.

COMMONLY USED STATISTICAL TERMS

Arithmetic mean or average.—The sum total of values recorded in a series of observations, divided by the number of observations.

Median.—The centre value in a series of observations, when the observations are ranged in order from lowest to highest.

Mode.—The value which occurs most frequently in a series of observations.

Standard deviation.—The square root of the arithmetic mean of the squares of the differences between the observations in a series and the mean of the series.

Standard error.—A measure of the sampling error of a statistical quantity, such as the mean, standard deviation, percentage, etc., which shows the variability of that quantity when repeated samples are drawn at random from the same universe of observations.

Coefficient of correlation.—A measure of the degree of association between two characteristics in a series of observations. Either a plus 1 or minus 1 indicates perfect correlation between the two characteristics; zero denotes no correlation between them. A plus sign indicates that an upward movement of one characteristic is accompanied by an upward movement in the other; a negative sign, that an upward movement of one is accompanied by a downward movement of the other.

RATES IN VITAL STATISTICS

General Birth Rate.—The number of live births reported in the calendar year per 1,000 population (actual or estimated) at the middle of the year.

Number of live births
Population × 1,000

Age-Specific Fertility Rate.—The number of live births to women at a specified age (or in specified age group) per 1.000 women at that age (or in that age group). Separating legitimate from illegitimate births and married from unmarried mothers, age-specific legitimate and illegitimate fertility rates may also be calculated.

Number of births to women at a specified age X 1,000

Gross Reproduction Rate.—The Gross Reproduction Rate shows the average number of female children born to women living through the child-bearing ages (15 to 50 years). It is obtained by adding the age-specific fertility rates of women from 15 to 50 years, reducing the sum by the ratio of female to total live births, and then dividing by 1,000. For example, in Canada in 1940-42, the sum of the age-specific fertility rates was 2857 per 1,000 women; the ratio of female to total live births was 1,000 to 2059. Hence the Gross Reproduction Rate was 2857 × 1/2059=1.388.

A Gross Reproduction of 1 indicates that, on the basis of current fertility and without making any allowance for loss as a result of mortality to women from age 0 to 50, the present generation of child-

bearing women would exactly maintain itself.

Net Reproduction Rate.—The Net Reproduction Rate shows the average number of future mothers born to women living through the child-bearing ages. The Net Reproduction Rate thus makes allowances for the mortality to women from age 0 to child-bearing age. This mortality is obtained from the Life Table, which gives the number of women out of an original 1,000 or 100,000 who survive to the different ages. In calculating the Net Reproduction Rate, each age-specific fertility rate is reduced by the appropriate proportion derived from the Life Table. For example in Canada in 1940-42, the fertility rate of women 30-34 years of age was 124-6 per 1,000. According to the 1941 Life Table, of 1,000 girls born on the average only 894 survive to age 30-34. The sum of the age-specific fertility rates, each reduced by the appropriate proportion derived from the Life Table, was 2576 (compared to 2857 above) and the Net Reproduction Rate was 2576 × 1/2059=1.251.

A Net Reproduction Rate of 1 indicates that on the basis of current fertility and female mortality to age 50, the present genera-

tion of child-bearing women is exactly maintaining itself.

The essential purpose of reproduction rates is to provide measures of fertility which are unaffected by differences in the sex and age com-

position of the population.

Rate of Stillbirths.—The number of stillbirths per 1,000 live births, or per 1,000 total births. In Canada and the United States, rates per 1,000 live births are usually given; in the United Kingdom rates per 1,000 total births are the rule.

Number of stillbirths
Number of live births × 1,000
(or total births)

General Death Rate.—The number of deaths reported in the calendar year per 1,000 population (actual or estimated) at the middle of the year.

 $\frac{\text{Number of deaths}}{\text{Population}} \times 1,000$

Age Specific Death Rate.—The number of deaths at a specified age (or in a specified age group) per 1,000 population at that age (or in that age group). Age specific death rates by sex and by conjugal condition may also be calculated.

Number of deaths at a specified age
Total population at the same age × 1,000

Specific Cause of Death Rate.—The number of deaths from a specified disease (e.g., measles, pneumonia, etc.) per 100,000 population.

Number of deaths from a specified disease

Total Population × 100,000

Maternal Mortality Rate.—The number of deaths ascribed to puerperal causes per 1,000 live births, or per 1,000 total births. In Canada and the United States, rates per 1,000 live births are usually given; in the United Kingdom, rates per 1,000 total births are the rule.

Number of maternal deaths

Total number of live births × 1,000

Infant Mortality Rate.—The number of deaths of infants under 1 year of age per 1,000 live births. Infant mortality rates are thus a special case of age-specific death rates, namely at age 0.

Number of infant deaths under 1 year

Total number of live births × 1,000

Neo-Natal Mortality Rate.—The number of deaths of infants under 1 month of age per 1,000 live births.

 $\frac{\text{Number of infant deaths under 1 month}}{\text{Total number of live births}} \times 1,000$

Standardized Death Rate.—The death rate which would result if the age specific death rates by sex were "weighted" according to the age and sex distribution of a standard population (e.g., the "standard million" derived from the population of England and Wales in 1901). The general death rate is thus the simplest and most general example of a standardized death rate; the age specific death rates by sex are "weighted" according to the age and sex distribution of the population under consideration.

Sum of {Standard population in each age group } × {Specific death rates in each corresponding age group of the given community} × 1,000

Birth-Death Rate.—The number of live births per 100 deaths in a given population. This ratio is one of the earliest measurements of the balance of births and deaths, but is seldom used at present.

Number of live births
Number of deaths
× 100

Divorce Rate.—The number of divorces reported in the calendar year per 100,000 population (actual or estimated) at the middle of the year.

Number of divorces
Population × 100,000

Morbidity Rate.—The number of reported cases of a specified disease (e.g., tuberculosis, whooping cough, etc.) per 100,000 (10,000 or 1,000) population.

Number of cases of a specified disease

Total population × 100,000 (10,000 or 1,000)

Case Fatality Rate.—The number of deaths ascribed to a specified disease per 100 (or 1,000) reported cases of the same disease.

Number of deaths from a specified disease × 100 or 1,000

Marriage Rate.—The number of marriages reported in the calendar year per 1,000 population (actual or estimated) at the middle of the year.

Number of Marriages
Population × 1,000

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- Violent Deaths, published in 1945, covering the year 1943, being an amalgamation of reports entitled "Violent Deaths in Canada" and "Automobile Accidents" published from 1930 to 1943 and "Circumstances of Accidental Deaths" published for 1936 and 1937.
- Vital Statistics—A reprint of an interpretive Chapter published annually in the Canada Year Book. The reprints are available since the 1934-44 edition.

BRITISH EMPIRE PUBLICATIONS RELATING TO VITAL STATISTICS

- Demography, Official Statistics, Commonwealth of Australia, issued annually since 1906.
- Report of Chief Medical Officer of the Ministry of Health, England and Wales, on the State of the Public Health, issued annually since 1919, formerly being a series presented by the Privy Council and the Local Government Board.
- The Medical Officer, London, England, issued weekly since 1908.
- Report of the Department of Public Health, Union of South Africa, issued annually since 1939. Report on Vital Statistics of the Union, 1926-38.
- Report of Registrar-General for England and Wales, issued annually since 1839.
- Report of the Registrar-General for Northern Ireland, issued annually since 1922.
- Report of the Registrar-General of Scotland, issued annually. Reports in Bureau Library since 1883, being the 29th report.
- Vital Statistics of the Dominion of New Zealand, issued annually since 1922. An Amalgamation of reports entitled "Report of Statistics of New Zealand", and "Official Year Book"; issued since 1890, embodying figures from 1881.

UNITED STATES BUREAU OF THE CENSUS PUBLICATIONS

- Mortality Index (covering major cities) published weekly since April, 1941. Previously called "Weekly Health Index", published from January, 1932.
- Motor Vehicle Accident Deaths—published weekly since September 5, 1936.
- The Registrar—(a co-operative official news bulletin) published monthly since 1936.
- Vital Statistics Bulletin-published monthly since March, 1938.
- Vital Statistics—Special Reports (Analytical Studies Series). Series first published in January, 1936.
- Vital Statistics of the United States—Part 1 and 2, published annually since 1936, previously published under the title of "Mortality Statistics", dating from 1923.

OTHER PUBLICATIONS RELATING TO VITAL STATISTICS

- Introduction to the Vital Statistics of the United States, 1900 to 1930, by Walter F. Willcox. A Bureau of the Census monograph. Government Printing Office, Washington: 1933.
- Monthly Bulletin of Statistics, League of Nations, Geneva.
- Population Index, issued quarterly by the School of Public Affairs, Princeton University, and the Population Association of America.
- Statistical Year Book of the League of Nations, Geneva.

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