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Generation of Vital Statistics in México

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FOREWORD

México is one of the countries with a federated form of government where the authority and responsibility for civil registration are in the hands of the State officials. The coordination of the registration system is exercised by the General Bureau of Statistics which is responsible for the production of national vital statistics. This is a report of the General Bureau of Statistics which describes how national vital statistics are generated.

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Generation of Vital Statistics in México

by
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México

In 1854, when separation of Church and State took place, Mexico entrusted its civil authorities with the organization and implementation of the Civil Registration System.

VITAL EVENTS

Definition of vital events

Vital events consist of data on live births, deaths, fetal deaths, marriages, and divorces; that is, all vital occurrences pertaining to the legal status of individuals in a community throughout their lives.

México engages in the collection of vital events, such as: live births, deaths, fetal deaths, marriages, and divorces. From the standpoint of complete compilation and editing, all such data are vital statistics. To collect this information, the "Dirección General de Estadística" (Central Statistical Office) uses the following numbered forms:

<u>Form No.</u>	<u>Vital Event</u>
821	live birth
822	marriage
823	death
824	fetal death
825	divorce

Definition of live birth

Live birth is the complete expulsion or extraction from its mother of a product of conception, irrespective of the duration of pregnancy, which after such separation, breathes or shows any other evidence of life such as beating of the heart, pulsation of the umbilical cord, or definite movement of voluntary muscles, whether or not the umbilical cord has been cut or the placenta is attached; each product of such a birth is considered live-born.

Definition of death

Death is the permanent disappearance of all evidence of life at any time after live birth has taken place (post-natal cessation of vital functions without capability of resuscitation). This definition therefore excludes fetal deaths.

Definition of fetal death

Fetal death is death prior to the complete expulsion or extraction from its mother of a product of conception, irrespective of the duration of pregnancy. The death is indicated by the fact that after such separation the fetus does not breathe or show any other evidence of life, such as beating of the heart, pulsation of the umbilical cord, or definite movement of voluntary muscles.

Definition of marriage

Marriage is the act, ceremony or process by which the legal relationship of husband and wife is constituted.

Definition of divorce

Divorce is the legal dissolution of a marriage, that is, the separation by judicial sentence of husband and wife which confers on the parties the right to remarriage under civil provisions, according to the laws of the country.

CIVIL REGISTRATION OPERATION

Legal nature and importance

From the standpoint of its legal nature, civil registration is an organization devoted to implementing one of the most important public services the State renders to its people.

The significance of civil registration is beyond doubt, thus its public nature should be stressed for the purpose of attaining general acknowledgement and appreciation.

It would be futile to enumerate all the instances in which it is required to submit a civil registration record; however, some examples could be mentioned: to obtain passports, to register for social security, to enroll in schools, etc.

Objective of civil registration

Civil registration is an institution whose objective is to set on legal record, by means of an organized system, all events related to the civil

status of individuals, with the assistance of certified state officials in order that the certificates and documents issued by them carry full probative value, both in and out of court. Civil registration comprises all the offices and books where the mentioned events are registered. In addition, this office is an institution of law and order.

Record books to be kept by civil registration officers and their requirements

Civil registration officers are required to keep in duplicate seven record books which will contain, in accordance with the nature and number of the book, the following:

1. Birth and recognition records
2. Adoption records
3. Guardianship and emancipation records
4. Marriage records
5. Divorce records
6. Death records
7. Records of the sentences testifying absence, presumption of death, or loss of legal capacity to manage property.

Civil registration inspection

As it was previously stated, civil registration is an institution for the welfare of not only one individual in particular, but also for third parties and the State itself; hence the legislator's concern regarding its correct functioning and the establishment of supervision guidelines.

Purpose of civil registration inspection

In view of its legal and social significance, the duty of civil registration inspection is to keep the service in an efficient and correct manner in order to adequately achieve its purpose.

PROCESSING OF VITAL EVENTS

Civil registration

At present, all sources of information (civil registration local offices) in México amount to 4, 246, which are distributed throughout the nation as follows:

<u>State</u>	<u>Number of Local Offices</u>
Aguascalientes	29
Baja California North	39
Baja California South	37
Campeche	69
Coahuila	136
Colima	30
Chiapas	114

Chihuahua	269
Distrito Federal	32
Durango	145
Guanajuato	170
Guerrero	323
Hidalgo	84
Jalisco	344
México	137
Michoacan	186
Morelos	34
Nayarit	24
Nuevo León	88
Oaxaca	570
Puebla	397
Querétaro	47
Quintana Roo	7
San Luis Potosí	82
Sinaloa	138
Sonora	165
Tabasco	34
Tamaulipas	55
Tlaxcala	50
Veracruz	203
Yucatán	161
Zacatecas	57

In view of the above, it may be stated that civil registration complies with the recording of vital events taken place within its territorial limits. The documentation is arranged in packages and subsequently sent to the respective State Statistical Office ("Delegación Estadística").

State statistical office

This office is the central collection point for information on all vital events submitted by each civil register within its state jurisdiction.

If the information is to be used efficiently, prompt recording must be enforced. Therefore, all data should be forwarded to the State Statistical Office within its own federal entity in the first five days of the following month to which that information belongs. However, civil registration offices located in the Federal District must transmit their information to the Central Statistical Office every ten days.

Central statistical office

Processing of vital statistics begins at this office with the participation of the "Departamento de Recolección Primaria" (Department of Primary Collection) and in the "Departamento de Estadísticas Continuas y de Divulgación" (Department of Current Demographic and Information Statistics).

Personnel from the "Departamentos de In-

roducción de Datos y Estadísticas Demográficas y Sociales" (Departments of Data Input, and of Demographic and Social Statistics) also participate in data processing.

The objectives, functions and procedures carried out in each of the aforementioned departments are described below in order to help people acquire a better knowledge of their functions.

a. *Department of primary collection*

Objectives:

- To supervise that the local offices situated throughout the Republic report promptly vital events for statistical processing in the departments concerned.

Functions:

- To place in packages, the information submitted by each of the state statistical offices and sort it out by vital event.

- To ascertain that norms and procedures for reporting data on vital events are followed by state statistical offices.

- To expedite information to the Department of Current Demographic Statistics.

Procedures:

- To receive information on all vital events submitted by civil registration offices throughout the country sorting it out by vital event and by state statistical office.

- To record information by state statistical offices and demand explanation for the documentation which has not been received.

- To forward information to the Central Statistical Office after 80 percent of the data from each of the state statistical offices has been collected.

Department of current demographic statistics

Within this department, the Office of Vital Statistics is composed of three important sections where information reaches the necessary statistical characteristics for handling data according to disclosure needs. These sections are:

- a. Receiving and Register Section
- b. Geographic Coding Section
- c. Causes of Death Coding Section

a. *Receiving and register section*

Objectives:

- To obtain on a monthly and annual basis, preliminary information on all vital events at local, municipal, state, and national levels.

Functions:

- To receive, set in order, and systematically register monthly data submitted by the sources of information.

- To control the completeness of information in accordance with established criteria.

- To register monthly statistical data at local, municipal, and state levels.

- To prepare monthly tabulations by vital event at state level.

Procedures:

- To conduct a preliminary recount to obtain the number of vital events.

- To register preliminary data on special cards by source of information.

- To register number of tickets and number of cases on special cards.

- To number packages to facilitate codification.

- To attach routing slip containing ticket and case numbers to verify information.

- To write down on the routing slip the starting and termination dates of the package as well as the name of the person in charge.

- Finally, to prepare a list to be handed over to the Geographic Coding Section.

b. *Geographic coding section*

Objectives:

To code the exact geographical place of occurrence of a vital event which has been recorded in any of the sources of information within the Nation's territorial limits.

Functions:

- To verify that no duplication of information is involved. In the event of duplication, action will be taken according to established procedures.

- To code habitual residence in accordance with the criteria and codes laid down in the "Catalog of Localities."

- To write down on the routing slip the information that this section must fill out:

Procedures:

- To use the entity, municipality, and size of locality codes.

- To sort out tickets by place of residence.

- To determine number of cases by source of information.

- To write down on the routing slip the number of final cases (name of clerk, and starting and termination dates of the finished package).

- In case of death or fetal death, information is forwarded to the Causes of Death Coding Section.

- Should the previous option not turn up, the number of packages is checked against the list to be computerized.*

c. Causes of death coding section.

Objectives:

- To confirm that information is first-rate with regard to coding of the cause of death.

- To avoid duplication of information.

- To have available up-to-date reference material, such as medical dictionaries, anatomical diagrams, WHO publications, etc.

Functions:

- Coding of cause of death item.

- Review of the cause of death item.

- Examination of lists of errors and of preliminary tabulation of vital events.

- Preparation of yearbook tabulations and other work connected with this section.

Procedures:

- To determine the codes related to the basic cause of death, in accordance with WHO International Classification of Diseases.

- To report to the Section Chief the causes of death which are considered to be of an infectious nature, in order to report them to the Department of Health and Welfare.

- To verify if records indicate whether or not death was certified by medical personnel.

- To point out the information concerning the cause of death in the event it has not been certified by medical personnel.

- To write down on the routing slip the pertinent information to be filled out by this section.

- To check test numbers lists against source document (registration ticket).

- To check variables included in preliminary tabulations for final tabulation.

- To bring up to date yearbook tabulations so that accurate data appear in final tabulations, depending on the vital event requested.

Office of electronic computation

Once the previous stages have been completed, the information is channeled to this office where input is carried out. Subsequently, lists of test numbers and of errors detected in vital events are prepared and forwarded to the Department of Current Demographic Statistics for concordance, using source documentation (registration ticket). It is important to emphasize that since the stage order must be kept, the Office of Electronic Computation will necessarily have to wait for the approval of the Department of Current Demographic Statistics to continue with the work. Another explanatory note is that test number lists are prepared for each vital event and processed for each of the months comprising the registration year.

Test number lists. As soon as test number lists are received by the Department of Current Demographic Statistics, an exhaustive count is reviewed by comparing the number of registrations in each state municipality with the figures appearing in the source document (registration ticket). As previously stated, this review is conducted by month and by vital event. When this process is over, the lists are sent again to the Office of Electronic Computation with the authorization to carry on with the work.

Lists of errors. These lists are prepared only when the previous stage has been approved by the Department of Current Demographic Statistics. Similarly, data are submitted to a confrontation stage with the source documentation of each vital event.

The same as with control lists, lists of errors are checked by month and by vital event. An effort is made to clear all errors appearing when information is transcribed or when they are a result of inaccurate reporting of recorded information. When this stage is finished, these lists are forwarded to the Office of Electronic Computation for preliminary tabulation.

Preliminary tabulations. Once the previous stage is approved, preliminary tabulations are prepared for each vital event. These data are forwarded to the Department of Current Demographic Statistics where the last confrontation is carried out. In addition, care should be taken to verify that tabulations show accurate information.

Tabulation programs

In order to meet with information requirements, the Department of Current Demographic Statistics has tabulation programs for each vital event. Each program consists of crossing variables with the view to fulfilling both the internal and external needs of analysis at the Central

*Department of Data Input

Statistical Office.

Number of tabulations for each vital event:

Name of Tabulation Program Number of Tabulations

Live birth Statistics 15
Tabulation Program

Death Statistics 23
Tabulation Program

Marriage Statistics 8
Tabulation Program

Divorce Statistics 10
Tabulation Program

Fetal Death Statistics 7
Tabulation Program

Note: The number of tabulations for each vital event may vary according to the information needs.

EVALUATION OF VITAL STATISTICS

Its importance

In the preparation of any type of statistics, important consideration should be given to the accuracy of available data. This accuracy is subject to the difficulties that arise in each area to secure information, the methods used to collect the information required, and the efficiency with which these methods are applied.

Stages of analysis

It is a well-known fact that at the stage of analyzing demographic information, two sources of error may be found: Discrepancy in the information, and error in computation.

Discrepancy in the original information requires the most attention. It is then recommended that the following points be taken into consideration:

- 1) **Not including the whole of the population (lack of integrity).**
- 2) **Errors in entries in the case of people who are included (Inaccurate statement from the register, faulty preparation, failure to understand questionnaire, questioner, etc.) Obviously, the seriousness of these errors will be subject to their own nature and the manner in which the information will be put to use.**

Errors in computation appear when derivative statistics are secured and from handling original data, such as: rounding off numbers, choosing the amount of significant figures and mathematical operations.