

Part I

Summary of Basic Principles

Part I contains:

- *Background information on the history of the death certificate*
- *Responsibilities of various parties in regard to the death certificate*
- *Basic principles for completing cause-of-death statements*

Part I is provided as a brief, yet comprehensive, general summary of death certification issues, and may be useful for quick review and basic courses or lectures about death certification.

What is the Death Certificate?

Each state has vital statistics regulations that require that a death certificate be completed and officially filed when the death of a human being occurs.

The *death certificate* serves multiple purposes, including:

- Legal documentation that the named person is dead
- Information about the deceased, such as age, race, sex, date of birth, birth place, and other basic descriptive information
- Information that may be used to evaluate the cause, manner, and circumstances of death
- Information that may be used to settle the deceased's estate
- Information about disposition of the remains, such as where burial occurred, and the funeral director or other agent responsible for making that disposition
- Information that may be used by the government, public health agencies, other state or federal agencies, or researchers to plan or fund programs designed to analyze, reduce, or prevent mortality

In some states, the death certificate is first filed at the county level, then at the state level. In other states, the death certificate is filed directly with the state. No matter which occurs in your state, the death certificate information is eventually forwarded to the National Center for Health Statistics (NCHS), which keeps data for the death of every person in the United States (and associated territories and possessions). These NCHS data are used by researchers and government to plan and fund programs and research that have national impact on the nation's health and safety. For these reasons, it is very important that death certificate information be accurate, not to mention that survivors of the deceased should also have an accurate understanding of the cause and circumstances of death.

It is usually the funeral director's responsibility (or other person assuming responsibility for disposition such as burial, cremation, other) to ensure that all parts of the death certificate are completed and that the completed death certificate is officially filed as required in the state. Usually, the funeral director (or other responsible person) will complete all parts of the death certificate, except the part that describes the cause and circumstances of death. The person who completes and signs that part of the death certificate will usually be:

- The physician who was treating the person and knows his/her medical history and other important information (if not a medical examiner or coroner's case)
- A medical examiner or coroner if the death is officially investigated by a medical examiner or coroner's office
- A nurse in certain settings, if allowed to do so by the state, and usually in settings such as hospices or terminal care facilities, and often only when there is no physician available

In some medical examiner or coroner cases, the medical examiner or coroner will review the death certificate as signed by a physician and then co-sign the certificate if it is correctly and accurately completed. If death follows a live birth, a death certificate is completed. A separate fetal or stillbirth certificate is used for stillbirth cases, in which live birth did not occur.

What is the Origin of the Death Certificate?

The World Health Organization (WHO) is a specialized agency of the United Nations, whose overall goal is for the people of all nations to attain the highest possible level of health. To achieve its goals, WHO must understand why people are dying in order to identify ways to improve health and prevent death. The United States is one of 192 member "states" (countries or nations) that form the WHO. As a "signatory" of the WHO, The United States must agree to follow various rules and regulations developed by the WHO. One of the things the WHO does is to develop standardized ways to collect health and cause-of-death information so information from multiple countries may be compared. Thus, each member "state" of the WHO has developed a standard model death certificate that is based on WHO requirements.

The National Center for Health Statistics (NCHS, administratively part of the Centers for Disease Control and Prevention, Atlanta, Georgia, but based in Hyattsville, Maryland) publishes a "U.S. Standard Certificate of Death," the most recent version having been approved in 2003. Through a cooperative agreement between the various states and NCHS, states agree to base their individual state death certificates on the U.S. model. In this way, information for different states may be compared, all states collect data in a similar format, and NCHS is then able to prepare national statistics, which can be compared with other countries around the world.

Thus, each state has a standard certificate of death that is required by state law or vital statistics regulations to be used in that state. Each state's death certificate may vary a little from the other states in size and content, but each state does collect information in a format similar to all other states.

When a death certificate is officially filed at the county or state level, it is considered to have been "registered." Thus, there are two phases in completing the death certificate:

- **Certification.** Completing the cause and circumstances of death information and having the certificate be signed by the physician, medical examiner, or coroner who serves as the "certifier" of death.
- **Registration.** The process of officially filing the death certificate with the county or state, which is usually done by the funeral director.

There are two things that drive the process and make it successful:

- Funeral directors must complete their duties to be paid for their services by the family, and part of their duties include filing of the death certificate. This provides an incentive for funeral directors to complete the filing (registration) process.
- The National Center for Health Statistics, through the cooperative agreement with the states, pays the states for the death information they provide to NCHS. To be paid, the state must provide the data in an acceptable format, and that format is based on the U.S. Standard Certificate of Death.

So, there are incentives to collect death information in a standard format and to get the information filed (registered) with the state so it can be forwarded to the federal level.

Importance of the Death Certificate

The death certificate records the fact that a given person has died. It is useful to the family to settle the estate, clarify the circumstances of death, and come to closure. It is a permanent record that may also be used in legal proceedings to prove that a person is dead.

The death certificate is also a source for local, state, national, and international mortality statistics used for public health purposes and by the government for the planning and funding of programs and research. Further, death certificate data are useful to the medical profession for identifying disease etiologies, evaluating diagnostic or therapeutic techniques, examining medical or mental health conditions that may be found in specific groups of people, and pointing to areas where medical research may have the greatest impact on reducing mortality.

As discussed below, what starts off in the certifier's hands (the death certificate) is passed through many other hands and is used for a multitude of purposes, ultimately at the national and even international levels. It should be self-evident that specific information is more valuable than general information, and that accuracy and completeness is of the utmost importance to the various users of death certificate information.

Physician Responsibilities

If death will not be certified by a medical examiner or coroner, it is the responsibility of the attending physician to complete the cause-of-death section of the death certificate. In some states, failure to do so may be a violation of state law or vital records code. Regardless of whether state law requires it, the attending physician has the professional responsibility of completing the death certificate and should not shirk that duty. Completion of the death certificate may be considered as part of the patient's end-of-life care.

Some states allow ready access to copies of death certificates, while most do not. Regardless of whether death certificates are regarded as open or closed records, the certifier of death should report the cause of death as objectively, completely, and accurately as possible based on information available at the time.

Physicians also need to be aware of:

- State and local regulations regarding deaths that must be reported to the medical examiner or coroner
- How to complete the relevant portions of the death certificate (topic of this book)
- How to make the signed death certificate available to the funeral director for filing
- How to assist local or state registrars by promptly responding to queries or other inquiries
- State or local laws that require a death certificate to be filed within a specified number of days following death (usually 2 to 10 days)
- How to file a supplemental report or amendment of the cause of death if autopsy or other information shows the cause of death to be significantly different from what was originally reported on the death certificate
- Ways to write cause-of-death statements that communicate the same essential information as a concise clinical history would, while telling the story of the patient's death in a logical, clear, and medically sound sequence (topic of this book)
- Applicable state laws regarding death certificates, medical examiners, and coroners

Responsibilities of Various Parties

As outlined in the NCHS publication, *Physicians' Handbook on Medical Certification of Death* (available at www.cdc.gov), the responsibilities of various parties usually adhere to the following outline.

Funeral Director

- Obtains personal facts about the decedent
- Obtains certification of the cause of death from the certifying physician, coroner, or medical examiner
- Obtains authorization for final disposition of the body, in accordance with state law
- Completes the personal and disposition sections of the death certificate
- Files the completed certificate with the local or state vital records registrar's office per state law

Certifier of Death (Physician, Medical Examiner, or Coroner)

- Completes the cause-of-death section of the death certificate and signs certificate
- Completes information on decedent name (in margin) as well as date, time, and place of death
- Forwards signed certificate to the funeral director

Local Registrar, City or County Health Department

- Verifies completeness and accuracy of certificate
- Queries incomplete or inconsistent information
- If authorized by state law, makes copy or index for local use
- If authorized by state law, issues authorization to funeral director for final disposition
- Sends certificate to state registrar
- Uses data in allocating medical and nursing services (health department)
- Follows up on infectious diseases (health department)
- Plans programs (health department)
- Measures effectiveness of service (health department)
- Conducts research studies (health department)

State Registrar or Office of Vital Statistics

- Queries incomplete or inconsistent information
- Maintains files for permanent reference and serves as source of certified copies
- Develops vital statistics for use in planning, evaluating, and administering state and local health activities and for research studies
- Compiles health-related statistics for state and civil divisions in the state for groups interested in the fields of medical science, public health, demography, and social welfare
- Sends data for all deaths filed to the Centers for Disease Control and Prevention's (CDC) National Center for Health Statistics (NCHS)

CDC-NCHS

- Evaluates quality of state mortality statistics and works with states to assure quality
- Compiles national mortality data and runs edits to fully process data
- Prepares and publishes national mortality statistics
- Constructs official U.S. life tables and actuarial tables
- Conducts health and social research studies
- Conducts research and methodological studies on vital statistics methods
- Maintains a continuing technical assistance program to improve quality and usefulness of data
- Provides leadership in development of standard certificates, reports, and model laws

Approach to Learning About Cause-of-Death Statements

To learn how to write high-quality and complete cause-of-death statements, important concepts will be covered in the following order:

- Certifier of death
- Underlying cause of death
- Other significant conditions
- Immediate cause of death
- Intermediary (or intermediate) causes of death
- Manner of death
- Additional examples
 - Sequential Part I format
 - Single line Part I format
- Qualifying the cause of death
- Generic cause of death

Then, the above concepts will be expanded in the context of certain case types or topics that may pose dilemmas when writing cause-of-death statements. Topics include:

- External causes such as injury or poisoning
- How injury occurred
- Place of injury
- Address where injury occurred
- Injury at work
- Terminal events, nonspecific processes, and mechanisms of death

Additional topics are presented that are not integral parts of the cause-of-death statement itself, but are important to understand. These include:

- Name of deceased
- Dates and times
- Pronouncement of death
- Interval between onset and death
- Role of tobacco
- Pregnancy status
- Autopsy performance and utilization
- Queries conducted by registrar
- Amending (changing) a death certificate; supplemental reports
- General “rules”

What Does a Death Certificate Look Like?

A copy of the 2003 U.S. Standard Certificate of Death appears on the following page. It is printed on a legal-sized piece of paper and designed with perforations, allowing the lower section to be torn off.

The main thing to realize is that there are three sections, as follows:

1. **Demographic and personal information about the deceased**, as well as disposition of the remains, all to be completed by the funeral director.
2. **The cause-of-death section**, to be completed by the medical examiner, coroner, or physician who will certify the death and sign the death certificate. This basic summary will concentrate on section 2.
3. **An administrative section**, to be completed by the funeral director, which contains race, ethnicity, education, and occupational information.

Cause of Death and the Death Certificate

U.S. STANDARD CERTIFICATE OF DEATH

LOCAL FILE NO.		STATE FILE NO.	
1. DECEDENT'S LEGAL NAME (include AKA's if any) (First, Middle, Last)		2. SEX	3. SOCIAL SECURITY NUMBER
4a. AGE-Last Birthday (Years)	4b. UNDER 1 YEAR Months Days	4c. UNDER 1 DAY Hours Minutes	5. DATE OF BIRTH (Mo/Day/Yr)
6. BIRTHPLACE (City and State or Foreign Country)		7a. RESIDENCE-STATE	
7b. COUNTY		7c. CITY OR TOWN	
7d. STREET AND NUMBER		7e. APT. NO.	7f. ZIP CODE
7g. INSIDE CITY LIMITS? <input type="checkbox"/> Yes <input type="checkbox"/> No		10. SURVIVING SPOUSE'S NAME (if wife, give name prior to first marriage)	
8. EVER IN US ARMED FORCES? <input type="checkbox"/> Yes <input type="checkbox"/> No	9. MARITAL STATUS AT TIME OF DEATH <input type="checkbox"/> Married <input type="checkbox"/> Married, but separated <input type="checkbox"/> Widowed <input type="checkbox"/> Divorced <input type="checkbox"/> Never Married <input type="checkbox"/> Unknown	11. FATHER'S NAME (First, Middle, Last)	
12. MOTHER'S NAME PRIOR TO FIRST MARRIAGE (First, Middle, Last)		13a. INFORMANT'S NAME	
13b. RELATIONSHIP TO DECEDENT		13c. MAILING ADDRESS (Street and Number, City, State, Zip Code)	
14. PLACE OF DEATH (Check only one, see instructions) IF DEATH OCCURRED IN A HOSPITAL: <input type="checkbox"/> Inpatient <input type="checkbox"/> Emergency Room/Outpatient <input type="checkbox"/> Dead on Arrival IF DEATH OCCURRED SOMEWHERE OTHER THAN A HOSPITAL: <input type="checkbox"/> Hospice facility <input type="checkbox"/> Nursing home/long term care facility <input type="checkbox"/> Decedent's home <input type="checkbox"/> Other (Specify)			
15. FACILITY NAME (if not institution, give street & number)		16. CITY OR TOWN, STATE, AND ZIP CODE	
17. COUNTY OF DEATH		18. METHOD OF DISPOSITION: <input type="checkbox"/> Burial <input type="checkbox"/> Cremation <input type="checkbox"/> Donation <input type="checkbox"/> Entombment <input type="checkbox"/> Removal from State <input type="checkbox"/> Other (Specify)	
19. PLACE OF DISPOSITION (Name of cemetery, crematory, other place)		20. LOCATION-CITY, TOWN, AND STATE	
21. NAME AND COMPLETE ADDRESS OF FUNERAL FACILITY		22. SIGNATURE OF FUNERAL SERVICE LICENSEE OR OTHER AGENT	
23. LICENSE NUMBER (Of Licensee)		24. DATE PRONOUNCED DEAD (Mo/Day/Yr)	
25. TIME PRONOUNCED DEAD		26. SIGNATURE OF PERSON PRONOUNCING DEATH (Only when applicable)	
27. LICENSE NUMBER		28. DATE SIGNED (Mo/Day/Yr)	
29. ACTUAL OR PRESUMED DATE OF DEATH (Mo/Day/Yr) (Spell Month)		30. ACTUAL OR PRESUMED TIME OF DEATH	
31. WAS MEDICAL EXAMINER OR CORONER CONTACTED? <input type="checkbox"/> Yes <input type="checkbox"/> No		CAUSE OF DEATH (See instructions and examples) 32. PART I. Enter the chain of events—disease, injuries, or complications—that directly caused the death. DO NOT enter terminal events such as cardiac arrest, respiratory arrest, or ventricular fibrillation without showing the etiology. DO NOT ABBREVIATE. Enter only one cause on a line. Add additional lines if necessary. IMMEDIATE CAUSE (Final disease or condition resulting in death) → a. _____ Due to (or as a consequence of) _____ Sequentially list conditions, if any, leading to the cause listed on line a. Enter the UNDERLYING CAUSE (Disease or injury that initiated the events resulting in death) LAST c. _____ Due to (or as a consequence of) _____ d. _____	
33. WAS AN AUTOPSY PERFORMED? <input type="checkbox"/> Yes <input type="checkbox"/> No		34. WERE AUTOPSY FINDINGS AVAILABLE TO COMPLETE THE CAUSE OF DEATH? <input type="checkbox"/> Yes <input type="checkbox"/> No	
35. DID TOBACCO USE CONTRIBUTE TO DEATH? <input type="checkbox"/> Yes <input type="checkbox"/> Probably <input type="checkbox"/> No <input type="checkbox"/> Unknown		36. IF FEMALE: <input type="checkbox"/> Not pregnant within past year <input type="checkbox"/> Pregnant at time of death <input type="checkbox"/> Not pregnant, but pregnant within 42 days of death <input type="checkbox"/> Not pregnant, but pregnant 43 days to 1 year before death <input type="checkbox"/> Unknown if pregnant within the past year	
37. MANNER OF DEATH <input type="checkbox"/> Natural <input type="checkbox"/> Homicide <input type="checkbox"/> Accident <input type="checkbox"/> Pending investigation <input type="checkbox"/> Suicide <input type="checkbox"/> Could not be determined		38. DATE OF INJURY (Mo/Day/Yr) (Spell Month)	
39. TIME OF INJURY		40. PLACE OF INJURY (e.g., Decedent's home, construction site, restaurant, wooded area)	
41. INJURY AT WORK? <input type="checkbox"/> Yes <input type="checkbox"/> No		42. LOCATION OF INJURY: State _____ City or Town _____ Street & Number _____ Apartment No. _____ Zip Code _____	
43. DESCRIBE HOW INJURY OCCURRED:		44. IF TRANSPORTATION INJURY, SPECIFY: <input type="checkbox"/> Driver/Operator <input type="checkbox"/> Passenger <input type="checkbox"/> Pedestrian <input type="checkbox"/> Other (Specify)	
45. CERTIFIER (Check only one) <input type="checkbox"/> Certifying physician-To the best of my knowledge, death occurred due to the cause(s) and manner stated <input type="checkbox"/> Pronouncing & Certifying physician-To the best of my knowledge, death occurred at the time, date, and place, and due to the cause(s) and manner stated <input type="checkbox"/> Medical Examiner/Coroner-On the basis of examination, and/or investigation, in my opinion, death occurred at the time, date, and place, and due to the cause(s) and manner stated Signature of certifier _____			
46. NAME, ADDRESS, AND ZIP CODE OF PERSON COMPLETING CAUSE OF DEATH (Item 32)			
47. TITLE OF CERTIFIER		48. LICENSE NUMBER	
49. DATE CERTIFIED (Mo/Day/Yr)		50. FOR REGISTRAR ONLY: DATE FILED (Mo/Day/Yr)	
51. DECEDENT'S EDUCATION-Check the box that best describes the highest degree or level of school completed at the time of death. <input type="checkbox"/> 8th grade or less <input type="checkbox"/> 9th - 12th grade, no diploma <input type="checkbox"/> High school graduate or GED completed <input type="checkbox"/> Some college credit, but no degree <input type="checkbox"/> Associate degree (e.g., AA, AS) <input type="checkbox"/> Bachelor's degree (e.g., BA, AB, BS) <input type="checkbox"/> Master's degree (e.g., MA, MS, MENG, MEd, MSW, MBA) <input type="checkbox"/> Doctorate (e.g., PhD, EdD) or Professional degree (e.g., MD, DDS, DVM, LLB, JD)		52. DECEDENT OF HISPANIC ORIGIN? Check the box that best describes whether the decedent is Spanish-Hispanic/Latino. Check the "No" box if decedent is not Spanish-Hispanic/Latino. <input type="checkbox"/> No, not Spanish-Hispanic/Latino <input type="checkbox"/> Yes, Mexican, Mexican American, Chicano <input type="checkbox"/> Yes, Puerto Rican <input type="checkbox"/> Yes, Cuban <input type="checkbox"/> Yes, other Spanish-Hispanic/Latino (Specify) _____	
53. DECEDENT'S RACE (Check one or more races to indicate what the decedent considered himself or herself to be) <input type="checkbox"/> White <input type="checkbox"/> Black or African American <input type="checkbox"/> American Indian or Alaska Native (Name of the enrolled or principal tribe) _____ <input type="checkbox"/> Asian Indian <input type="checkbox"/> Chinese <input type="checkbox"/> Filipino <input type="checkbox"/> Japanese <input type="checkbox"/> Korean <input type="checkbox"/> Vietnamese <input type="checkbox"/> Other Asian (Specify) _____ <input type="checkbox"/> Native Hawaiian <input type="checkbox"/> Guamanian or Chamorro <input type="checkbox"/> Samoan <input type="checkbox"/> Other Pacific Islander (Specify) _____ <input type="checkbox"/> Other (Specify) _____			
54. DECEDENT'S USUAL OCCUPATION (Indicate type of work done during most of working life. DO NOT USE RETIRED)			
55. KIND OF BUSINESS/INDUSTRY			

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Cause of Death and the Death Certificate

The Cause-of-Death Section

This basic summary will concentrate on the cause-of-death section because it is the part of the death certificate completed by the attending physician, medical examiner, or coroner. The following generic template will be used to provide examples of *cause-of-death statements*. Note that the cause-of-death statement contains Part I and Part II. The use of Part I and Part II will be described in further detail below. This general template for the cause-of-death statement is applicable to each state.

Part I	A.
	Due to, or as a consequence of:
	B.
	Due to, or as a consequence of:
Part II	C.
	Due to, or as a consequence of:
D.	
OTHER SIGNIFICANT CONDITIONS: Conditions contributing to death but not resulting in the underlying cause of death in Part I	

The items shown above are the critical ones in terms of the cause-of-death statement itself. Other related items, such as dates, places, times, role of tobacco, pregnancy information, and other items in the cause-of-death section, will be discussed individually because they are not as integrally related to the cause-of-death statement itself, and there are rules and procedures that need to be discussed for each item.

In general, the cause-of-death section is designed to record a sequence of conditions in Part I and to list other significant contributing conditions in Part II.

Part I	A. Most recent condition
	Due to, or as a consequence of:
	B. An older condition
	Due to, or as a consequence of:
Part II	C. An even older condition
	Due to, or as a consequence of:
D. Oldest condition (what started it all)	
OTHER SIGNIFICANT CONDITIONS: Conditions contributing to death but not resulting in the underlying cause of death in Part I	
Something that contributed to death but did not cause the sequence listed above in Part I	

General Concepts Applicable to All Death Certificates

Certifier of Death

The certifier of death is the physician, coroner, or medical examiner who completes the cause-of-death section of the death certificate and signs the certificate to attest that the named decedent died of the causes stated, and at the place, date, and time stated. The cause of death reported is the best opinion of the certifier, based on available information, and may be changed later, if needed. There is little liability in serving as certifier unless one is arbitrary or capricious.

Underlying Cause of Death

The *underlying cause of death* is the disease or injury (or poisoning) that initiated the chain of events that led directly and inevitably to death.

Case Scenario 1. A 68-year-old man with well-documented coronary artery disease, requiring nitroglycerin, is found dead in bed. An autopsy is not performed, and it is unknown whether he had an acute myocardial infarction or a fatal dysrhythmia without infarction. The family was well known to the personal physician who had been treating him, and there was no evidence of injury or foul play. Based on information known to the physician, the underlying cause of death is coronary artery atherosclerosis, because it started the chain of events leading to death.

Part I	A. Coronary artery atherosclerosis
	Due to, or as a consequence of:
	B.
	Due to, or as a consequence of:
Part II	C.
	Due to, or as a consequence of:
	D.
OTHER SIGNIFICANT CONDITIONS: Conditions contributing to death but not resulting in the underlying cause of death in Part I	

When writing cause-of-death statements, the certifier should try to write only one condition on each line used in Part I, as shown above. When more than one condition is listed on a given line, the person coding the cause of death for mortality statistics purposes may be confused about which is the most important. As with all rules, the one-condition-per-line rule occasionally needs to be broken or liberally interpreted to accurately report the cause of death. Some subsequent examples will illustrate this “bending of the rules.”