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# **Instruction Manual**

## **Part 11**

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**Computer Edits for Mortality Data, Including Separate Section for Fetal Deaths  
Effective 2011**

From the CENTERS FOR DISEASE CONTROL AND PREVENTION/ National Center for Health Statistics

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# **Instruction Manual**

## **Part 11**

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### **Computer Edits for Mortality Data, Including Separate Section for Fetal Deaths Effective 2011**

#### **Vital Statistics**

Data Preparation

U.S. DEPARTMENT of HEALTH AND HUMAN SERVICES  
Centers for Disease Control and Prevention  
National Center for Health Statistics  
Hyattsville, Maryland  
**January, 2011**

## Acknowledgments

This instruction manual was prepared by the Division of Vital Statistics (DVS) under the general direction of Robert N. Anderson, Ph.D., Chief of the Mortality Statistics Branch (MSB) and Charles Rothwell, Director of DVS. Arialdi Minino (MSB) wrote the text and coordinated production of the manual. Donna Glenn (ret.) of Mortality Medical Classification Branch (MMCB), Joyce Bius (ret.), Tanya Pitts (ret.), Julia Raynor (ret.), June Pearce, and Tyinga Crawford (MMCB, DVS) provided expertise in creating the valid and invalid ICD-10 codes and the edits. Sherry L. Murphy, Donna L. Hoyert, Robert N. Anderson and Kenneth D. Kochanek provided review of the instruction manual. David Johnson of the Systems, Programming, and Statistical Resources Branch, (DVS) provided review of the demographic edits.

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Questions concerning interpretation of mortality data should be referred to the Mortality Statistics Branch, Division of Vital Statistics, National Center for Health Statistics, 3311 Toledo Road, Room 7318, Hyattsville, Maryland 20782.

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VITAL STATISTICS COMPUTER EDITS  
FOR  
MORTALITY DATA, EFFECTIVE **2011**

I. INTRODUCTION

A. Purpose of This Manual

This manual presents a comprehensive description of the mainframe computer edits used by the National Center for Health Statistics (NCHS) in processing mortality data. **Relative to the last revision published<sup>†</sup>, this manual includes edits that are effective for data year 2011.** The edits include both medical edits for the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems, Corrected and Updated by NCHS (ICD-10) and demographic edits. Edits for three different applications are discussed in this manual:

- (1) the final mortality file which consists of death certificates filed for all deaths occurring in the United States in a calendar year. For this file, the data are tabulated and published annually.
- (2) the preliminary mortality file which is based on a continuous receipt of a large sample of death certificates that are processed and tabulated on a semi-annual basis for U.S. deaths occurring in the 12-month period January-December. The purpose of the preliminary mortality file is to produce data on an expedited basis compared with the final file.
- (3) the fetal death file which is based on reports of fetal death received by NCHS from State registration offices. All 50 States, the District of Columbia, Puerto Rico, the Virgin Islands, and Guam participate in the fetal-death reporting system. The U.S. Standard Report of Fetal Death issued by the Public Health Service (last revision 2003) served as a model to attain uniformity in the contents of documents used to collect fetal mortality information. The fetal death file is separate from the mortality files discussed above.

<sup>†</sup> "Instruction Manual Part 11: Computer Edits for Mortality Data, Including Separate Section for Fetal Deaths, Effective **2010**." [http://www.cdc.gov/nchs/data/dvs/2010\\_PT11.pdf](http://www.cdc.gov/nchs/data/dvs/2010_PT11.pdf)



It should be noted that the final mortality file essentially consists of the January-December preliminary mortality file plus all additional and adjudicated death records received through nine months after the end of the calendar year.

Edits used for mainframe processing of the final mortality file are likely to be of greatest relevance and interest to the States, while edits used for the preliminary file are used by NCHS on a current flow to produce annual preliminary mortality statistics.

Both the final and the preliminary mortality files are generated through a series of processing steps including data collection, data entry, and computer processing. Editing of the coded data to assure code validity and consistency among variables is carried out at both the data entry and mainframe computer processing stages. The data entry edits, performed either manually or interactively on a data entry computer, enable detection and correction of major inconsistencies at the point of data entry. The mainframe edits utilize greater computer capability to provide a more comprehensive edit, yet generally require reject reconciliation for correction of errors. Thus, the data entry edits are composed of a small selective subset of the more comprehensive mainframe edits. This manual contains only the mainframe edits.

The mainframe computer edits are performed at strategic locations (appropriate to their function and application) within the processing flow. They are applied only after the data have passed key entry quality control standards and key entry edit criteria.

## B. Revisions from Previous Manual

Changes between this manual and the previous one (effective **2011**) are shown in **bold** print. Codes and text that have been deleted from tables have been ~~struck out~~ and the text color appears lighter.

Following is a summary of the major changes:

1. The following ICD-10 codes have been deleted from the table of codes valid for both underlying and multiple cause-of-death classification (table C): E108, E118, E128, E138, E148, H547, K350, K351, K359, L89, N180, N188, O96, O97, X34.
2. The following ICD-10 codes have been added to the table of codes valid for both underlying and multiple cause-of-death classification (table C): B179, D685, D686, D893, E883, G14, G214, H549, I725, J123, J211, K123, K352, K353, K358, L890, L891, L892, L893, L899, N181, N182, N183, N184, N185, N423, O142, O432, O960, O961, O969, O970, O971, O979, O987, X340, X341, X348, X349.
3. The following created code has been deleted from the table of NCHS created codes (table F): J8410.
4. The following changes were made to the table for age / cause and sex / cause consistency edits for ICD-10 codes valid for both underlying and multiple cause-of-death classification (table G):
  - An “absolute” age edit was added for code G14.
  - The sex edit for the following code has been changed from “absolute” to “conditional”: Y42.5
5. The following ICD-10 code has been added to the table of infrequent and rare cause-of-death edits for underlying and multiple cause of death classification (table J): B60.2.
6. The following ICD-10 codes were added to the table of codes valid for causes of fetal death (table L): B179, B334, D685, D686, E164, G904, I422, I513, P220, P916, P510, P610, P616, P618, P810, P819, P838, P913, P93, Q315, Q716, Q983, R14, R18, R190, R220, R238, R298, R456, R772, R898, \*U01, and S000-T983.

## II. FINAL MORTALITY FILE COMPUTER EDITS

The final mortality file is used to produce annual detailed tabulations of demographic and geographic data and contains both underlying and multiple cause-of-death data. The demographic and medical data are entered and processed separately. The demographic data are first key entered and sample verified with interactive key entry editing. The resultant demographic record is then established as a master control record in checks of file completeness and subsequent edits of the geographic, demographic, and control variables. On a separate track, the medical data are key entered and sample verified. The mainframe edits are then applied to check code validity for each variable. Finally, the demographic and medical data are merged into one composite record at which point demographic/medical consistency edits are applied. In addition, this stage rechecks medical code validity and lists rare causes for review.

Since NCHS receives the death records on a flow basis, all of the above edits are performed on a continuous basis and records that fail the edits are adjudicated on a continuous basis. At the time the final mortality file is closed (9 months after the end of the data year), all records have been included in the file and adjudicated.

It should be noted that at many points during the processing of the file computer software will reject records for reasons other than failure to meet the edit criteria in this manual. In particular, the MICAR<sup>1</sup>, ACME<sup>2</sup>, and TRANSAX<sup>3</sup> automatic coding systems reject records for resolution of issues which cannot be handled automatically.

The automated edits are designed to (1) assure code validity for each variable and (2) verify codes or code combinations which are considered either impossible or unlikely occurrences. Additionally, for certain demographic variables, the edits convert codes which are unacceptable for statistical analysis to acceptable codes. In edit failures, the proper code is determined in one of two ways. In specific situations, the proper code is imputed or automatically

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<sup>1</sup>Acronym for Mortality Medical Indexing, Classification, and Retrieval which is used to initially enter cause-of-death information.

<sup>2</sup>Acronym for Automated Classification of Medical Entities system which checks the condition codes for validity and automatically assigns the underlying cause of death from the condition codes.

<sup>3</sup>Acronym for Translation of Axis system which translates the condition codes from an entity axis of classification to a record axis of classification for purposes of general multiple cause tabulation and analysis.

generated without reference to the source certificate. In other situations, the record is rejected and listed for adjudication of the codes with the information in the source document and/or with the State health department.

The kind of action is dependent on the variable category involved in the edit. Edits for unlikely occurrences (conditional edits) are always checked with the source document. When a data record is edit rejected, the corrected record is once again processed through the edits to verify passage of the edit (conditional edits are deactivated in the second pass). The edits and their resulting actions are summarized in table A.

A detailed description of all mainframe computer edits is provided below.

A. Demographic Items

Table B-1 provides, for each demographic variable, the edit criteria (if any) which are applied to each category of the variable. This table generally follows the variable structure and value criteria defined by the old (1989) version of the U.S. Standard Certificate of Death. Table B-2 provides edit criteria that are applicable to demographic variables modified in the revised U.S. Standard Certificate of Death. It is important to note, however, that some states that are still using the old Standard Certificate of Death are using the new Federal Information Processing Standard (FIPS) codes and / or are providing multiple race information in the revised race format (or some variation of it). That is, for some states, table B-2 applies to the geographic and / or race variables while table B-1 applies to the balance of the variables. Records that are received by NCHS from States that have implemented the new (2003) standard certificate must be processed following the guidelines indicated on table B-2.

Failed edits are identified in terms of whether the results are imputed or rejected for adjudication. Records having failed edits on the “place of death” (occurrence) and “residence of decedent” items are rejected and are listed for reference to the source document to establish the proper code assignment.

B. Medical Items

Valid cause-of-death codes in ICD-10 are categorized in terms of their validity for underlying and multiple cause-of-death classification.

1. Codes Valid for Both Underlying and Multiple Causes of Death

Table C lists the codes valid for both underlying and multiple cause classification.

2. Codes Valid for Multiple Cause Only

Tables D and E list the ICD-10 codes which are valid for multiple cause coding but not for underlying cause coding. Table D contains the Nature of Injury codes from Chapter XIX, Injury, poisoning and certain other consequences of external causes (S00-T98).

Table E lists other codes in ICD-10 Chapters I-XVIII and XX which are valid for multiple cause coding only. Included in this group are Postprocedural endocrine, metabolic, nervous system, eye, adnexa, ear, mastoid process, circulatory system, respiratory, digestive system, musculoskeletal, and genitourinary system disorders, not elsewhere classified. Also included in this group are Complications following abortion and ectopic and molar pregnancy. The rules for underlying cause-of-death classification prefer other codes over those listed in this table. (For more detail, see Part 2a of this Vital Statistics Instruction Manual series.)

3. Created Codes

Table F contains a list of special five-digit codes (plus R97) and their complementary valid ICD-10 codes. The created codes are used at the stage medical conditions are coded. They have been created to facilitate automated identification of causal and modification relationships between certain medical conditions when they are processed by the ACME and TRANSAX computer systems. After they have served this purpose, they are converted to their complementary valid ICD-10 codes and do not appear on the final master death tape or in NCHS tabulations of causes of death. Further explanation of the use of these codes may be found in Parts 2b and 2c of this Vital Statistics Instruction Manual series.

C. Composite Medical/Demographic Record

After the demographic and medical data are merged, the following edits are performed:

1. Age/Cause, Sex/Cause Consistency Edits

The purpose of this computer edit is to maintain consistency between a reported underlying or multiple cause of death and the age and/or sex of the decedent. Table G lists the consistency edits applicable to codes given earlier in Table C (codes valid for both underlying and multiple causes of death). Table H lists consistency edits applicable to codes given earlier in Tables D and E (codes valid for multiple cause coding only). The limitations embody the concept that certain combinations of cause of death with age or sex are either impossible (absolute limitation) or that the combinations are highly improbable (conditional limitation). The causes of death shown in these lists include age and/or sex absolute or conditional limitations explicit in ICD-10. Additional conditional

limitation edits are applied to ICD-10 categories where occurrence of the category with particular age/sex combinations is considered to be highly improbable or where experience has shown that a particular cause is especially prone to coding error. In general, the source document is examined to determine if the medical and demographic data are accurately coded based on reporting. Where inaccurate, the codes are corrected. When coded data agree with reported information, no change is made if the edit is conditional in nature. If the edit is absolute, the age (or sex) is arbitrarily retained as coded, and the cause(s) are changed to the minimum necessary to pass the edit.

2. Edits on Manner of Death

Table I contains a list of edits performed on values of the variable “Manner of Death,” as appears on item 29 of the U.S. Standard Certificate of Death (1989 revision) or on item 37 of the 2003 revision of the same document. The purpose of these edits is to maintain consistency between the reported manner of death (natural, accident, suicide, homicide, pending investigation, cannot be determined) and the age of the decedent and the reported underlying cause of death.

3. Infrequent and Rare Cause-of-Death Edits

Table J contains a list of infrequent and rare causes of death in the United States. These causes of death occur rarely and/or present threats to public health in the United States. As a result, each case should be verified to make sure there was no error in certification. When NCHS requests confirmation of a rare cause of death, the Vital Statistics Cooperative Program (VSCP) project director should work with staff to verify that the cause-of-death coding is correct and obtain corroboration from the State Health Officer before signing the confirmation letter. A notation of confirmation should also be recorded on the copy of the certificate sent to NCHS. In the absence of this notation, the NCHS coder will code the disease as stated; the VSCP project officer will be contacted at the time of reconciliation of rejected data records by control cycle to confirm the accuracy of the certification.

4. Place-of-Occurrence Edits for Selected External Causes of Death

Table K lists the place-of-occurrence edits for selected external causes of death (ICD-10 W00-Y34, except Y06.\_ and Y07.\_) that may be either an underlying or a multiple cause of death. The table includes valid place-of-occurrence codes that denote the place where the external cause of death occurred. For a listing of place-of-occurrence codes and their definitions see ICD-10, Vol. 1, in the beginning of Chapter XX. The place-of-occurrence codes assigned are based on reported entries on State death

certificate items equivalent to the 1989 revision of the U.S. Standard Certificate of Death item "30e. Place of injury".

### III. PRELIMINARY MORTALITY FILE COMPUTER EDITS

The preliminary mortality file has less detailed tabulations of demographic and geographic data than the final mortality file and is restricted to tabulations of only the underlying cause of death. It includes death records received by NCHS about four months after the end of the 12-month period January-December. The preliminary mortality file consists of a substantial sample (usually, at least 75 percent for each State) of the death certificates included in the final mortality file.

The demographic and medical data are entered and processed separately. The demographic data are first key entered and sample verified with interactive key entry editing. The resultant demographic record is then established as a master control record in checks of file completeness and in subsequent edits of the geographic, demographic, and control variables. On a separate track, the medical data are key entered and sample verified. The mainframe edits are then applied to check code validity for each variable. Finally, the demographic and medical data are merged into one composite record at which point demographic/medical consistency edits are applied.

Since NCHS receives the death records on a flow basis, all of the above edits are performed on a continuous basis and records that fail the edits are adjudicated on a continuous basis. However, at the cut point, the point at which records are no longer accepted for a preliminary mortality file (about four months after the January-December period), some records that failed the edits have not been adjudicated. Due to the need for timely release of the preliminary mortality data, there is not enough time to adjudicate all errors in the preliminary mortality file. Therefore, some of the edit procedures for the preliminary mortality file differ from those for the final mortality file. For example, for the demographic/medical consistency edits, records that fail the "absolute" edits are deleted from the preliminary mortality file. Records that fail the "conditional" edits are not reviewed, but are retained in the preliminary mortality file.

The automated edits are designed to (1) assure code validity for each variable and (2) verify codes or code combinations which are considered either impossible or unlikely occurrences. Additionally, for certain demographic variables, the edits convert codes which are unacceptable for statistical analysis to acceptable codes. In edit failures, the proper code is determined in one of two ways. In specific situations, the proper code is imputed or automatically generated without reference to the source certificate. In other situations, the

record is rejected and listed for adjudication of the codes with the information on the source document and/or with the State health department.

All the demographic items that fail the demographic edits (except place of death) and “residence of decedent” (county/city) are imputed and all records that fail the “absolute” demographic/medical edits are deleted from the file. The edits and their resulting actions are summarized in table A.

A detailed description of all mainframe computer edits is provided below.

A. Demographic Items

Tables B-1 and B-2 provide, for each demographic variable, the edit criteria (if any) which are applied to each category of the variable. Records that fail edits for demographic items other than “place of death” (occurrence) and “residence of decedent” (county/city) are imputed. At the cut point, if the edit for “place of death” (State of occurrence) fails, the record is deleted. The edits for “place of death” (county of occurrence) and “residence of decedent” (county/city) are not used. The edit for “residence of decedent” (State of residence), however, is used.

B. Medical items

Valid cause-of-death codes in ICD-10 are categorized in terms of their validity for underlying and multiple cause-of-death classification.

1. Codes Valid for Both Underlying and Multiple Causes of Death

Table C lists the codes valid for both underlying and multiple cause classification. At the cut point, if a cause-of-death code is invalid, the record is deleted from the preliminary mortality file.

2. Codes Valid for Multiple Cause Only

Tables D and E list the ICD-10 codes which are valid for multiple cause coding but not for underlying cause coding. Table D contains the Nature of Injury codes from Chapter XIX, Injury, poisoning and certain other consequences of external causes (S00-T98).

Table E lists other codes in ICD-10 Chapters I-XVIII and XX which are valid for multiple cause coding only. Included in this group are Postprocedural endocrine, metabolic, nervous system, eye, adnexa, ear, mastoid process, circulatory system, respiratory, digestive system, musculoskeletal, and genitourinary system disorders, not elsewhere classified. Also included in this group are Complications following abortion and ectopic and molar pregnancy. The rules for underlying cause-of-death classification prefer other codes over those listed in this table. (For more detail, see Part 2a of this Vital Statistics Instruction



Manual series.) At the cut point, if a cause-of-death code is invalid, the record is deleted from the preliminary mortality file.

### 3. Created Codes

Table F contains a list of special five-digit codes (plus R97) and their complementary valid ICD-10 codes. The created codes are used at the stage medical conditions are coded. They have been created to facilitate automated identification of causal and modification relationships between certain medical conditions when they are processed by the ACME and TRANSAX computer systems. After they have served this purpose, they are converted to their complementary valid ICD-10 codes and do not appear on the final master death tape or in NCHS tabulations of causes of death. Further explanation of the use of these codes may be found in Parts 2b and 2c of this Vital Statistics Instruction Manual series.

### C. Composite Medical/Demographic Record

After the demographic and medical data are merged, the following edits are performed:

#### 1. Age/Cause, Sex/Cause Consistency Edits

The purpose of this computer edit is to maintain consistency between a reported underlying or multiple cause of death and the age and/or sex of the decedent. Table G lists the consistency edits applicable to codes given earlier in Table C (codes valid for both underlying and multiple causes of death). Table H lists consistency edits applicable to codes given earlier in Tables D and E (codes valid for multiple cause coding only). The limitations embody the concept that certain combinations of cause of death with age or sex are either impossible (absolute limitation) or that the combinations are highly improbable (conditional limitation). The causes of death shown in these lists include age and/or sex absolute or conditional limitations explicit in ICD-10. Additional conditional limitation edits are applied to ICD-10 categories where occurrence of the category with particular age/sex combinations is considered to be highly improbable or where experience has shown that a particular cause is especially prone to coding error. At the cut point, the conditional limitation edits, shown in tables G and H, are not used for the preliminary mortality file. In general, the source document is examined to determine if the medical and demographic data are accurately coded based on reporting. At the cut point, records that fail the “absolute” edits shown in tables G and H are deleted from the preliminary mortality file. The “conditional” edits shown in tables G and H are not used.

2. Edits on Manner of Death

Edits on variable “Manner of Death” are not used for the preliminary mortality file.

3. Infrequent and Rare Cause-of-Death Edits

The infrequent and rare cause-of-death edits shown in table J are not used for the preliminary mortality file.

4. Place-of-Occurrence Edits for Selected External Causes of Death

Table K lists the place-of-occurrence edits for selected external causes of death (ICD-10 W00-Y34, except Y06.\_ and Y07.\_) that may be either an underlying or a multiple cause of death. The table includes valid place-of-occurrence codes that denote the place where the external cause of death occurred. For a listing of place-of-occurrence codes and their definitions see ICD-10, Vol. 1, in the beginning of Chapter XX. The place-of-occurrence codes assigned are based on reported entries on State death certificate items equivalent to the 1989 revision of the U.S. Standard Certificate of Death item “30e. Place of injury”.

Table A. Demographic Edits and ICD-10 Cause-of-Death Edits for the Final Mortality File and the Preliminary Mortality File and Resulting Action if a Record Fails the Edit (impute; reject and adjudicate; or delete the record)

Edit table	Edit	Final file		Preliminary file	
		Impute	Reject	Impute	Delete
<i>Demographic</i>					
B-1, B-2	All items, except Place of death and Residence of decedent	X		X	
B-1, B-2	Place of death (State)		X		X
B-1, B-2	Place of death (county)		X	Not used	
B-1, B-2	Residence of decedent (State)		X	X	
B-1, B-2	Residence of decedent (county/city)		X	Not used	
<i>Cause-of-death</i>					
C	ICD-10 codes valid for underlying and multiple causes		X		X
D	ICD-10 nature-of-injury codes valid for multiple causes only		X		X
E	ICD-10 codes valid for multiple causes only		X		X
G	Age/cause and sex/cause consistency edits for ICD-10 codes valid for both underlying and multiple causes (absolute)		X		X
G	Age/cause and sex/cause consistency edits for ICD-10 codes valid for both underlying and multiple causes (conditional)		X	Not used	
H	Age/cause and sex/cause consistency edits for ICD-10 codes valid for multiple causes only (absolute)		X		X
H	Age/cause and sex/cause consistency edits for ICD-10 codes valid for multiple causes only (conditional)		X	Not used	
I	Age and Cause Consistency Edits for "Manner of Death" Variable	X		Not used	
J	Infrequent and rare cause-of-death edits for underlying and multiple cause-of-death		X	Not used	
K	Place-of-occurrence edits for selected external causes of death	X		X	

Table B-1. Edits for Demographic Items Under 1989 U.S. Standard Certificate Format

<u>Variable</u>	<u>Edit Criterion</u>	<u>Fail Edit Corrected By</u>
Sex	Code must be valid and other than "not stated".	Imputation: If last digit of certificate number is odd number, sex is assigned female code.  If last digit of certificate number is even number, sex is assigned male code.
Date of Death: Month	Code must be valid and other than "not stated".	Imputation: Date of death from last preceding record containing a valid date of death is substituted.
Day	Code must be valid (month is valid also).	Imputation: Assign to "not classifiable" code.
Age of Decedent: Number of Units	Both codes must be valid.	Imputation: Assign to "not classifiable" code (999).
Units	Combination of unit and number of units must be acceptable.	(See page 14.)

IF UNIT OF AGE IS:	AND NO. OF UNITS IS:	THEN FINAL EDITED AGE IS:
9 (not classifiable)	Anything -----	)
Codes 0, 2-6	00 -----	)
Code 1 (100 or more years)	Greater than 35 -----	)
Code 2 (months)	Greater than 23 -----	)
Code 3 (weeks)	Greater than 47 -----	) 999 (not
Code 4 (days)	Greater than 60 -----	) classifiable)
Code 5 (hours)	Greater than 72 -----	)
Code 6 (minutes)	Greater than 95 -----	)
Code 0 (years - less than 100)	01-99	001-099
Code 1 (100 or more years)	00-35	100-135
Code 2 (months)	01-11	201-211
Code 2 (months)	12-23	001 (1 year)
Code 3 (weeks)	01-03	301-303
Code 3 (weeks)	04-08	201 (1 month)
Code 3 (weeks)	09-12	202 (2 months)
" " "	13-17	203 (3 months)
" " "	18-21	204 (4 months)
" " "	22-25	205 (5 months)
" " "	26-29	206 (6 months)
" " "	30-34	207 (7 months)
" " "	35-38	208 (8 months)
" " "	39-42	209 (9 months)
" " "	43-47	210 (10 months)
Code 4 (days)	01-27	401-427
" " "	28-59	201 (1 month)
" " "	60	202 (2 months)
Code 5 (hours)	01-23	501-523
Code 5 (hours)	24-72	401-403 (days)
Code 6 (minutes)	01-59	601-659
Code 6 (minutes)	60-95	501 (1 hour)
Codes 2-6 (months-minutes)	99 (no. of units not classifiable)	2-6, 99*

\*In the age recoding process, unknown number of months is allocated to 1 month; unknown number of weeks is allocated to 1 week; unknown number of days is allocated to 1 day; unknown number of hours is allocated to 1 hour; unknown number of minutes is allocated to under 1 hour.

Table B-1. Edits for Demographic Items Under 1989 U.S. Standard Certificate Format

<u>Variable</u>	<u>Edit Criterion</u>	<u>Fail Edit Corrected By</u>
Date of Birth: Month	Code must be valid.	Imputation: Assign to "not classifiable" code.
Day	Code must be valid.	Imputation: Assign to "not classifiable" code.
Year	Code must be valid. <b>1876-2011</b> are valid for <b>2011</b> . For subsequent data years, add 1 to the lower and upper limits of the range (e.g. for <b>2012</b> , the range is <b>1877-2012</b> ).	Imputation: Assign to "not classifiable" code.
State of Birth of Decedent	Code must be valid.	Imputation: Convert invalid code to "not classifiable" code.
Place of Death: State/County	State/county code combination must be valid.	For Final: Reject for correction. For Preliminary: State-Delete record. County-Edit not used.
Type of Place of Death	Code must be valid.	Imputation: Convert invalid code to "not classifiable" code.
Marital Status of Decedent	Code must be valid.	Imputation: Convert invalid code to "not classifiable" code.
	If age of decedent is less than 12 years, marital status must be "single."	Imputation: Convert to "single" code.
Occupation of Decedent	Code must be valid.	Imputation: Convert invalid code to "not classifiable" code.
	Age under 14 years.	Imputation: Code to 917 (child).

Table B-1. Edits for Demographic Items Under 1989 U.S. Standard Certificate Format

<u>Variable</u>	<u>Edit Criterion</u>	<u>Fail Edit Corrected By</u>
Type of Industry	Code must be valid.	Imputation: Convert invalid code to "not classifiable" code.
	Age under 14 years.	Imputation: Code to 961 (own home).
Residence of Decedent	State, County/City code combination must be valid.	For Final: Reject for correction. For Preliminary: State-Impute to place of death (State). County/City-Edit not used.
Hispanic Origin of Decedent	Code must be valid.	Imputation: Convert invalid code to "not classifiable" code.
	"Not classifiable" (code 9) and "Other and unknown Hispanic" (code 5).	Imputation: Use "State of birth" and if birthplace is Mexico (code 2), then code Mexican (code 1); if birthplace is Puerto Rico (code 52) then code to Puerto Rican (code 2); if birthplace is Cuba (code 56), then code Cuban (code 3); and if birthplace is any of the following: Argentina, Bolivia, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala, Honduras, Nicaragua, Panama, Panama Canal Zone, Paraguay, Peru, Spain, Uruguay or Venezuela, then code "Other and unknown Hispanic" (code 5). Otherwise, keep the original code 5 or 9.



Table B-1. Edits for Demographic Items Under 1989 U.S. Standard Certificate Format

<u>Variable</u>	<u>Edit Criterion</u>	<u>Fail Edit Corrected By</u>
Race of Decedent	Code must be valid.  If code is: "Not stated" (code 9) or "Other entries" ( code 0) or "Multi-racial" (code F).	Imputation: Code record to the race of preceding record.  Imputation: Code record to the race of preceding record. NOTE: Race imputation flags are shown separately for "Not stated", "Other entries" and "Multi-racial".  Note: For imputation of race among decedents of Hispanic origin, "preceding record" is restricted to those also of Hispanic origin that have valid race data.

Table B-1. Edits for Demographic Items Under 1989 U.S. Standard Certificate Format

<u>Variable</u>	<u>Edit Criterion</u>	<u>Fail Edit Corrected By</u>																																		
Education of Decedent	Code must be valid.	Imputation: Assign to “not classifiable” code.																																		
	Combination of education and age must be acceptable.	Imputation: If education is not valid or not classifiable and age is under 5 years, then assign education to “00.”  Else, if education is greater than the maximum shown for given age, assign education to “not classifiable” code.																																		
	<table border="1"> <thead> <tr> <th>Age</th> <th>Maximum Education</th> </tr> </thead> <tbody> <tr><td>Under 5 years</td><td>00</td></tr> <tr><td>5 years</td><td>01</td></tr> <tr><td>6 years</td><td>02</td></tr> <tr><td>7 years</td><td>03</td></tr> <tr><td>8 years</td><td>04</td></tr> <tr><td>9 years</td><td>05</td></tr> <tr><td>10 years</td><td>06</td></tr> <tr><td>11 years</td><td>07</td></tr> <tr><td>12 years</td><td>08</td></tr> <tr><td>13 years</td><td>09</td></tr> <tr><td>14 years</td><td>10</td></tr> <tr><td>15 years</td><td>11</td></tr> <tr><td>16 years</td><td>12</td></tr> <tr><td>17 years</td><td>13</td></tr> <tr><td>18 years</td><td>14</td></tr> <tr><td>19 years</td><td>15</td></tr> </tbody> </table>	Age	Maximum Education	Under 5 years	00	5 years	01	6 years	02	7 years	03	8 years	04	9 years	05	10 years	06	11 years	07	12 years	08	13 years	09	14 years	10	15 years	11	16 years	12	17 years	13	18 years	14	19 years	15	
Age	Maximum Education																																			
Under 5 years	00																																			
5 years	01																																			
6 years	02																																			
7 years	03																																			
8 years	04																																			
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14 years	10																																			
15 years	11																																			
16 years	12																																			
17 years	13																																			
18 years	14																																			
19 years	15																																			
Injury at Work	Code must be valid. Record must include injury code (S00-T98) somewhere in medical portion of certificate, or record must be classified to underlying cause in the range C45, J60 – J704 <sup>1</sup> .	Imputation: If record does not include injury code (S00-T98) somewhere in medical portion of certificate, or if record is not classified to underlying cause C45, J60 – J70 <sup>1</sup> then convert code to “Not applicable.”																																		

<sup>1</sup> Conditions on chapters I-XVIII that are “effects of external causes.” See Instruction Manual Part 2b.

Table B-2. Edits for Demographic Items Under New U.S. Standard Certificate (2003) Format

<u>Variable</u>	<u>Edit Criterion</u>	<u>Fail Edit Corrected By</u>
State of Death	Code must be valid FIPS value (section II, Part 8A manual).	For Final: Reject for correction  For Preliminary: Delete record
Sex	Code must be valid ('M', 'F') and other than 'Unknown' ('U').	Imputation: If last digit of certificate number is odd number, sex is assigned female code.  If last digit of certificate number is even number, sex is assigned male code.

Table B-2. Edits for Demographic Items Under New U.S. Standard Certificate (2003) Format - Continued

Variable: Decedent's Age:

IF UNIT OF AGE IS:                      AND NO. OF UNITS IS:                      THEN FINAL EDITED AGE IS:

---

9 (not classifiable)	Anything -----	)
Codes 1-6	000 -----	)
Code 1 (years)	Greater than 135 -----	)
Code 2 (months)	Greater than 023 -----	) 9999 (not
Code 4 (days)	Greater than 060 -----	) classifiable)
Code 5 (hours)	Greater than 072 -----	)
Code 6 (minutes)	Greater than 095 -----	)
Code 1 (years)	001-135	1001-1135
Code 2 (months)	001-011	2001-2011
Code 2 (months)	012-023	1001 (1 year)
Code 4 (days)	001-027	4001-4027
" " "	028-059	2001 (1 month)
" " "	060	2002 (2 months)
Code 5 (hours)	001-023	5001-5023
Code 5 (hours)	024-047	4001 (1 day)
Code 5 (hours)	048-071	4002 (2 days)
Code 5 (hours)	072	4003 (3 days)
Code 6 (minutes)	001-059	6001-6059
Code 6 (minutes)	60-95	5001 (1 hour)
Codes 1-6 (years-minutes)	999 (no. of units unknown/ not classifiable)	1-6, 999*

\*In the age recoding process, unknown number of months is allocated to 1 month; unknown number of days is allocated to 1 day; unknown number of hours is allocated to 1 hour; unknown number of minutes is allocated to under 1 hour. If age of decedent is not stated, age is derived by referring to date of birth and date of death.

Table B-2. Edits for Demographic Items Under New U.S. Standard Certificate (2003) Format

<u>Variable</u>	<u>Edit Criterion</u>	<u>Fail Edit Corrected By</u>
Country of Birth	Code must be valid FIPS value (Section III, Part 8A manual).	Imputation: Convert invalid / blank code to “not classifiable” code ('ZZ').
State of Birth	Code must be valid FIPS value (Section II, Part 8A manual).  If Country of Birth (see preceding) is not U.S., then State of Birth must be blank.	Imputation: Convert invalid code to “unknown or blank” code ('ZZ').
City of Residence	Code must be valid FIPS value (FIPS table 55-3).  Code combination for Country, State, County, and City of residence must be valid.  If Country of Residence (see further below) is not U.S. or Canada, City of Residence must be blank.	Imputation: Convert invalid code to “not classifiable” code ('99999').  For foreign residents, convert invalid /blank code to '000.'

Table B-2. Edits for Demographic Items Under New U.S. Standard Certificate (2003) Format

<u>Variable</u>	<u>Edit Criterion</u>	<u>Fail Edit Corrected By</u>
County of Residence	<p>Code must be valid FIPS value (Section IV, Part 8 manual).</p> <p>Code combination for Country, State, County, and City of residence must be valid.</p> <p>If Country of Residence (see further below) is not U.S. or Canada, County of Residence must be blank.</p>	<p>Imputation: Convert invalid / blank code to "not classifiable" code ('999').</p>
State of Residence	<p>Code must be valid FIPS value (Section II, Part 8A manual).</p> <p>Code combination for Country, State, County, and City of residence must be valid.</p> <p>If Country of Residence (see further below) is not U.S. or Canada, State of Residence must be 'XX'. If Country of Residence is 'unknown,' then State of Residence must be 'ZZ.'</p>	<p>For Final: Reject for correction</p> <p>For Preliminary: Impute to State of Death</p> <p>Imputation: For foreign residents, convert invalid / blank code to 'XX' ('not applicable.')</p> <p>For unknown Country of Residence, convert invalid / blank code to 'ZZ.'</p>
Country of Residence	<p>Code must be valid FIPS value (Section III, Part 8A manual) and not be blank.</p> <p>Code combination for Country, State, County, and City of residence must be valid.</p>	<p>Imputation: Convert invalid / blank code to 'unknown' code ('ZZ').</p>

Table B-2. Edits for Demographic Items Under New U.S. Standard Certificate (2003) Format

<u>Variable</u>	<u>Edit Criterion</u>	<u>Fail Edit Corrected By</u>
Marital Status	Code must be valid ('M', 'A', 'W', 'D', 'S', 'U')	Imputation: Code record to the marital status of preceding record of same 5-year age group and sex. Initial marital status (as set by programmers) should be established by modal value for the given age group of most recent data year. Note: Value "A" (Married but separated) is recoded to "M" (Married).
	If age of decedent is less than 12 years, marital status must be "Never Married" ('S').	Imputation: Convert marital status code to "Never Married" ('S').
Place of Death (type of facility included)	Code must be valid (1-7, 9).  Note: changes to coding from previous certificate revision include: 4= "Decedent's home <sup>1</sup> ," 5= "Hospice facility," 6= "Nursing home/Long term care facility," 9= "Unknown"	Imputation: Convert place of death code to "Unknown" ('9').

<sup>1</sup> This code extends to homes other than the decedent's own.

Table B-2. Edits for Demographic Items Under New U.S. Standard Certificate (2003) Format

<u>Variable</u>	<u>Edit Criterion</u>	<u>Fail Edit Corrected By</u>																			
County of Death	Code must be valid FIPS value (Section IV, Part 8 manual).  Code combination for State and County of death must be valid.	For Final: Reject for correction  For Preliminary: Not used																			
Method of Disposition	Code must be valid ('B', 'C', 'D', 'E', 'R', 'O', 'U').	Imputation: Code invalid / blank method of disposition to "Unknown" ('U').																			
Time of Death	Code must be valid (0000-2400, 9999).	Imputation: Convert '2400' to '0000'.  Convert invalid / blank Time of Death to '9999'.																			
Education of Decedent	Code must be valid (1-9).	Imputation: Code invalid / blank education to "Unknown" ('9').																			
	Combination of education and age of decedent must be acceptable.	Imputation: If education is not valid or not classifiable and age is less than 8 years, then assign education to "1."																			
	<table border="1"> <thead> <tr> <th>Minimum Age</th> <th>Education</th> </tr> </thead> <tbody> <tr> <td>Any age</td> <td>1</td> </tr> <tr> <td>9 years</td> <td>2</td> </tr> <tr> <td>16 years</td> <td>3</td> </tr> <tr> <td>17 years</td> <td>4</td> </tr> <tr> <td>18 years</td> <td>5</td> </tr> <tr> <td>20 years</td> <td>6</td> </tr> <tr> <td>21 years</td> <td>7</td> </tr> <tr> <td>23 years</td> <td>8</td> </tr> <tr> <td>None</td> <td>9</td> </tr> </tbody> </table>	Minimum Age	Education	Any age	1	9 years	2	16 years	3	17 years	4	18 years	5	20 years	6	21 years	7	23 years	8	None	9
Minimum Age	Education																				
Any age	1																				
9 years	2																				
16 years	3																				
17 years	4																				
18 years	5																				
20 years	6																				
21 years	7																				
23 years	8																				
None	9																				



Table B-2. Edits for Demographic Items Under New U.S. Standard Certificate (2003) Format

<u>Variable</u>	<u>Edit Criterion</u>	<u>Fail Edit Corrected By</u>
Decedent of Hispanic <sup>2</sup> (Mexican) Origin	Code must be valid ('N', 'H', 'U') and not be blank.	Imputation: If Country of Birth is Mexico, code blank to "Yes, Mexican." Otherwise, convert blank Mexican origin to "No, not Mexican" ('N').
Decedent of Hispanic <sup>2</sup> (Puerto Rican) Origin	Code must be valid ('N', 'H', 'U') and not be blank.	Imputation: If Country of Birth is Puerto Rico, code blank to "Yes, Puerto Rican." Otherwise, convert blank Puerto Rican origin to "No, not Puerto Rican" ('N').
Decedent of Hispanic <sup>2</sup> (Cuban) Origin	Code must be valid ('N', 'H', 'U') and not be blank.	Imputation: If Country of Birth is Cuba, code blank to "Yes, Cuban." Otherwise, convert blank Cuban origin to "No, not Cuban" ('N').
Decedent of Hispanic <sup>2</sup> (Other) Origin	Code must be valid ('N', 'H', 'U') and not be blank.	Imputation: If country of birth is among the following: -Argentina -Bolivia -Chile -Colombia -Costa Rica -Dominican Republic -Ecuador -El Salvador -Guatemala -Honduras -Nicaragua -Panama -Panama Canal Zone -Paraguay -Peru -Spain -Uruguay -Venezuela  Then convert blank other Hispanic origin to "Yes, other... Hispanic/Latino" ('Y').

<sup>2</sup> Hispanic Origin item is not part of the death certificate in Puerto Rico, American Samoa nor Northern Marianas – therefore, it is unnecessary to run these imputation procedures for these territories.

Table B-2. Edits for Demographic Items Under New U.S. Standard Certificate (2003) Format

<u>Variable</u>	<u>Edit Criterion</u>	<u>Fail Edit Corrected By</u>
Decedent's Race: Race item 'White'	Code must be valid ('Y', 'N') and not be blank.	Imputation: Convert blank race item to "No" ('99'; box for given race not checked).
Decedent's Race: Race item 'Black or African American'	Code must be valid ('Y', 'N') and not be blank.	Imputation: Convert blank race item to "No" ('99'; box for given race not checked).
Decedent's Race: Race item 'American Indian or Alaska Native'	Code must be valid ('Y', 'N') and not be blank.	Imputation: Convert blank race item to "No" ('99'; box for given race not checked).
Decedent's Race: Race item 'Asian Indian'	Code must be valid ('Y', 'N') and not be blank.	Imputation: Convert blank race item to "No" ('99'; box for given race not checked).
Decedent's Race: Race item 'Chinese'	Code must be valid ('Y', 'N') and not be blank.	Imputation: Convert blank race item to "No" ('99'; box for given race not checked).
Decedent's Race: Race item 'Filipino'	Code must be valid ('Y', 'N') and not be blank.	Imputation: Convert blank race item to "No" ('99'; box for given race not checked).
Decedent's Race: Race item 'Korean'	Code must be valid ('Y', 'N') and not be blank.	Imputation: Convert blank race item to "No" ('99'; box for given race not checked).
Decedent's Race: Race item 'Vietnamese'	Code must be valid ('Y', 'N') and not be blank.	Imputation: Convert blank race item to "No" ('99'; box for given race not checked).

Table B-2. Edits for Demographic Items Under New U.S. Standard Certificate (2003) Format

<u>Variable</u>	<u>Edit Criterion</u>	<u>Fail Edit Corrected By</u>
Decedent's Race: Race item 'Other Asian'	Code must be valid ('Y', 'N') and not be blank.	Imputation: Convert blank race item to "No" ('99'; box for given race not checked).
Decedent's Race: Race item 'Native Hawaiian'	Code must be valid ('Y', 'N') and not be blank.	Imputation: Convert blank race item to "No" ('99'; box for given race not checked).
Decedent's Race: Race item 'Guamanian or Chamorro'	Code must be valid ('Y', 'N') and not be blank.	Imputation: Convert blank race item to "No" ('99'; box for given race not checked).
Decedent's Race: Race item 'Samoan'	Code must be valid ('Y', 'N') and not be blank.	Imputation: Convert blank race item to "No" ('99'; box for given race not checked).
Decedent's Race: Race item 'Other Pacific Islander'	Code must be valid ('Y', 'N') and not be blank.	Imputation: Convert blank race item to "No" ('99'; box for given race not checked).
Decedent's Race: Race item 'Other'	Code must be valid ('Y', 'N') and not be blank.	Imputation: Convert blank race item to "No" ('99'; box for given race not checked).

Note: For a technical discussion on bridging multiple-race data to a single race value, see Appendix I.

Note: For imputation of race among decedents of Hispanic origin, "preceding record" is restricted to those also of Hispanic origin that have valid race data.

















Table C. ICD-10 Codes Valid for Both Underlying and Multiple Cause-of-Death Classification - Continued

Y582	Y598	Y609	Y620	Y632	Y650	Y702	Y723	Y748	Y770	Y791	Y812	Y833	Y845	Y880
Y583	Y599	Y610	Y621	Y633	Y651	Y703	Y728	Y750	Y771	Y792	Y813	Y834	Y846	Y881
Y584	Y600	Y611	Y622	Y634	Y652	Y708	Y730	Y751	Y772	Y793	Y818	Y835	Y847	Y882
Y585	Y601	Y612	Y623	Y635	Y653	Y710	Y731	Y752	Y773	Y798	Y820	Y836	Y848	Y883
Y586	Y602	Y613	Y624	Y636	Y654	Y711	Y732	Y753	Y778	Y800	Y821	Y838	Y849	Y890
Y588	Y603	Y614	Y625	Y638	Y655	Y712	Y733	Y758	Y780	Y801	Y822	Y839	Y850	Y891
Y589	Y604	Y615	Y626	Y639	Y658	Y713	Y738	Y760	Y781	Y802	Y823	Y840	Y859	Y899
Y590	Y605	Y616	Y628	Y640	Y66	Y718	Y740	Y761	Y782	Y803	Y828	Y841	Y86	
Y591	Y606	Y617	Y629	Y641	Y69	Y720	Y741	Y762	Y783	Y808	Y830	Y842	Y870	
Y592	Y607	Y618	Y630	Y648	Y700	Y721	Y742	Y763	Y788	Y810	Y831	Y843	Y871	
Y593	Y608	Y619	Y631	Y649	Y701	Y722	Y743	Y768	Y790	Y811	Y832	Y844	Y872	



Table D. ICD-10 Nature-of-Injury Codes Valid for Multiple Cause Classification Only (from Chapter XIX, Injury, poisoning and certain other consequences of external causes) - Continued

T485	T572	T690	T817	T887
T486	T573	T691	T818	T888
T487	T578	T698	T819	T889
T490	T579	T699	T820	T900
T491	T58	T700	T821	T901
T492	T590	T701	T822	T902
T493	T591	T702	T823	T903
T494	T592	T703	T824	T904
T495	T593	T704	T825	T905
T496	T594	T708	T826	T908
T497	T595	T709	T827	T909
T498	T596	T71	T828	T910
T499	T597	T730	T829	T911
T500	T598	T731	T830	T912
T501	T599	T732	T831	T913
T502	T600	T733	T832	T914
T503	T601	T738	T833	T915
T504	T602	T739	T834	T918
T505	T603	T740	T835	T919
T506	T604	T741	T836	T920
T507	T608	T742	T838	T921
T508	T609	T743	T839	T922
T509	T610	T748	T840	T923
T510	T611	T749	T841	T924
T511	T612	T750	T842	T925
T512	T618	T751	T843	T926
T513	T619	T752	T844	T928
T518	T620	T753	T845	T929
T519	T621	T754	T846	T930
T520	T622	T758	T847	T931
T521	T628	T780	T848	T932
T522	T629	T781	T849	T933
T523	T630	T782	T850	T934
T524	T631	T783	T851	T935
T528	T632	T784	T852	T936
T529	T633	T788	T853	T938
T530	T634	T789	T854	T939
T531	T635	T790	T855	T940
T532	T636	T791	T856	T941
T533	T638	T792	T857	T950
T534	T639	T793	T858	T951
T535	T64	T794	T859	T952
T536	T650	T795	T860	T953
T537	T651	T796	T861	T954
T539	T652	T797	T862	T958
T540	T653	T798	T863	T959
T541	T654	T799	T864	T96
T542	T655	T800	T868	T97
T543	T656	T801	T869	T980
T549	T658	T802	T870	T981
T55	T659	T803	T871	T982
T560	T66	T804	T872	T983
T561	T670	T805	T873	
T562	T671	T806	T874	
T563	T672	T808	T875	
T564	T673	T809	T876	
T565	T674	T810	T880	
T566	T675	T811	T881	
T567	T676	T812	T882	
T568	T677	T813	T883	
T569	T678	T814	T884	
T570	T679	T815	T885	
T571	T68	T816	T886	

Table E. ICD-10 Codes Valid for Multiple Cause Classification Only (from Chapters I-XVIII and XX)

E890	O086
E891	O087
E892	O088
E893	O089
E894	
E895	
E896	
E898	
E899	
G970	
G971	
G972	
G978	
G979	
H590	
H598	
H599	
H950	
H951	
H958	
H959	
I970	
I971	
I972	
I978	
I979	
J950	
J951	
J952	
J953	
J954	
J955	
J958	
J959	
K910	
K911	
K912	
K913	
K914	
K915	
K918	
K919	
M960	
M961	
M962	
M963	
M964	
M965	
M966	
M968	
M969	
N990	
N991	
N992	
N993	
N994	
N995	
N998	
N999	
O080	
O081	
O082	
O083	
O084	
O085	

Table F. Created Codes and their Complementary Valid ICD-10 Codes

Created code	Valid ICD-10 code
A1690	A169
E0390	E039
G1220	G122
G2000	G20
I2190	I219
I4200	I420
I4210	I421
I4220	I422
I4250	I425
I4280	I428
I4290	I429
I5000	I500
I5140	I514
I5150	I515
I6000	I600
I6060	I606
I6070	I607
I6080	I608
I6090	I609
I6100	I610
I6110	I611
I6120	I612
I6130	I613
I6140	I614
I6150	I615
I6180	I618
I6190	I619
I6300	I630
I6310	I631
I6320	I632
I6330	I633
I6340	I634
I6350	I635
I6360	I636
I6380	I638
I6390	I639
I6400	I64
I6910	I691
I6930	I693
I6940	I694
J1010	J101
J1110	J111
<del>J8410</del>	<del>J841</del>
J8490	J849
J9840	J984
K3190	K319
K5500	K550
K6310	K631
K7200	K720
K7210	K721
K7290	K729
M1990	M199
Q2780	Q278
Q2820	Q282
Q2830	Q283
R5800	R58
R97	R99

Table G. Age/Cause and Sex/Cause Consistency Edits for ICD-10 Codes Valid for Both Underlying and Multiple Cause-of-Death Classification

0 - Conditional 1 - Absolute 2 - Not Applicable					
ICD-10 code	Age exclusion	Age	Sex exclusion	Sex	Edit code <sup>1</sup>
A32	Under 28 days	1	No	2	3
A33	1 year and over	1	No	2	2
A34	Under 10 years or 55 years and over	0	Male	1	14
A35	Under 28 days	1	No	2	3
A40	Under 28 days	1	No	2	3
A41	Under 28 days	1	No	2	3
A50.3	Under 2 years	0	No	2	5
A50.4	Under 2 years	0	No	2	5
A50.5	Under 2 years	0	No	2	5
A50.6	Under 2 years	0	No	2	5
A50.7	Under 2 years	0	No	2	5
A52	Under 2 years	0	No	2	5
A53.9	Under 2 years	0	No	2	5
A56	Under 28 days	1	No	2	3
A74	Under 28 days	1	No	2	3
B26.0	No	2	Female	1	10
B30	Under 28 days	1	No	2	3
B37.0	Under 28 days	1	No	2	3
B37.1	Under 28 days	1	No	2	3
B37.2	Under 28 days	1	No	2	3
B37.3	Under 28 days	1	Male	1	13
B37.4	Under 28 days	1	No	2	3
B37.5	Under 28 days	1	No	2	3
B37.6	Under 28 days	1	No	2	3
B37.7	Under 28 days	1	No	2	3
B37.8	Under 28 days	1	No	2	3
B37.9	Under 28 days	1	No	2	3
B90	Under 1 year	1	No	2	4
B91	Under 1 year	1	No	2	4
B92	Under 1 year	1	No	2	4
B94	Under 1 year	1	No	2	4
C51	No	2	Male	1	11
C52	No	2	Male	1	11
C53	No	2	Male	1	11
C54	No	2	Male	1	11
C55	No	2	Male	1	11



Table G. Age/Cause and Sex/Cause Consistency Edits for ICD-10 Codes Valid for Both Underlying and Multiple Cause-of-Death Classification

0 - Conditional 1 - Absolute 2 - Not Applicable					
ICD-10 code	Age exclusion	Age	Sex exclusion	Sex	Edit code <sup>1</sup>
C56	No	2	Male	1	11
C57	No	2	Male	1	11
C58	Under 10 years or 55 years and over	0	Male	1	14
C60	No	2	Female	1	10
C61	No	2	Female	1	10
C62	No	2	Female	1	10
C63	No	2	Female	1	10
C79.6	No	2	Male	1	11
D06	No	2	Male	1	11
D07.0	No	2	Male	1	11
D07.1	No	2	Male	1	11
D07.2	No	2	Male	1	11
D07.3	No	2	Male	1	11
D07.4	No	2	Female	1	10
D07.5	No	2	Female	1	10
D07.6	No	2	Female	1	10
D17.6	No	2	Female	1	10
D25	No	2	Male	1	11
D26	No	2	Male	1	11
D27	No	2	Male	1	11
D28	No	2	Male	1	11
D29	No	2	Female	1	10
D39.0	No	2	Male	1	11
D39.1	No	2	Male	1	11
D39.2	Under 10 years or 55 years and over	0	Male	1	14
D39.7	No	2	Male	1	11
D39.9	No	2	Male	1	11
D40	No	2	Female	1	10
D65	Under 28 days	1	No	2	3
D75.1	Under 28 days	1	No	2	3
E05	Under 28 days	1	No	2	3
E10	Under 28 days	1	No	2	3
E11	Under 28 days	1	No	2	3
E12	Under 28 days	1	No	2	3
E13	Under 28 days	1	No	2	3

Table G. Age/Cause and Sex/Cause Consistency Edits for ICD-10 Codes Valid for Both Underlying and Multiple Cause-of-Death Classification

						0 - Conditional
						1 - Absolute
						2 - Not Applicable
ICD-10 code	Age exclusion	Age	Sex exclusion	Sex	Edit code <sup>1</sup>	
E14	Under 28 days	1	No	2	3	
E16.2	Under 28 days	1	No	2	3	
E28	No	2	Male	1	11	
E29	No	2	Female	1	10	
E30	Under 5 years	1	No	2	6	
E56.1	Under 28 days	1	No	2	3	
E63	Under 28 days	1	No	2	3	
E64	Under 1 year	1	No	2	4	
E68	Under 1 year	1	No	2	4	
E83.4	Under 28 days	1	No	2	3	
E83.5	Under 28 days	1	No	2	3	
E86	Under 28 days	0	No	2	3	
F01	Under 20 years	0	No	2	7	
F03	Under 55 years	0	No	2	23	
F10	Under 1 year	1	No	2	4	
F11	Under 1 year	1	No	2	4	
F12	Under 1 year	1	No	2	4	
F13	Under 1 year	1	No	2	4	
F14	Under 1 year	1	No	2	4	
F15	Under 1 year	1	No	2	4	
F16	Under 1 year	1	No	2	4	
F17	Under 1 year	1	No	2	4	
F18	Under 1 year	1	No	2	4	
F19	Under 1 year	1	No	2	4	
F20	Under 1 year	1	No	2	4	
F21	Under 1 year	1	No	2	4	
F22	Under 1 year	1	No	2	4	
F23	Under 1 year	1	No	2	4	
F24	Under 1 year	1	No	2	4	
F25	Under 1 year	1	No	2	4	
F28	Under 1 year	1	No	2	4	
F29	Under 1 year	1	No	2	4	
F30	Under 1 year	1	No	2	4	
F31	Under 1 year	1	No	2	4	
F32	Under 1 year	1	No	2	4	
F33	Under 1 year	1	No	2	4	
F34	Under 1 year	1	No	2	4	

Table G. Age/Cause and Sex/Cause Consistency Edits for ICD-10 Codes Valid for Both Underlying and Multiple Cause-of-Death Classification

						0 - Conditional
						1 - Absolute
						2 - Not Applicable
ICD-10 code	Age exclusion	Age	Sex exclusion	Sex	Edit code <sup>1</sup>	
F38	Under 1 year	1	No	2	4	
F39	Under 1 year	1	No	2	4	
F40	Under 1 year	1	No	2	4	
F41	Under 1 year	1	No	2	4	
F42	Under 1 year	1	No	2	4	
F43	Under 1 year	1	No	2	4	
F44	Under 1 year	1	No	2	4	
F45	Under 1 year	1	No	2	4	
F48	Under 1 year	1	No	2	4	
F50	Under 1 year	1	No	2	4	
F51	Under 1 year	1	No	2	4	
F52.0	Under 10 years	1	No	2	20	
F52.1	Under 10 years	1	No	2	20	
F52.2	Under 10 years	1	No	2	20	
F52.3	Under 10 years	1	No	2	20	
F52.4	Under 10 years	1	Female	1	19	
F52.5	Under 10 years	1	Male	1	18	
F53	Under 10 years or 55 years and over	1	Male	1	14	
F54	Under 1 year	1	No	2	4	
F55	Under 1 year	1	No	2	4	
F59	Under 1 year	1	No	2	4	
F60	Under 1 year	1	No	2	4	
F61	Under 1 year	1	No	2	4	
F62	Under 1 year	1	No	2	4	
F63	Under 1 year	1	No	2	4	
F64	Under 1 year	1	No	2	4	
F65	Under 1 year	1	No	2	4	
F66	Under 1 year	1	No	2	4	
F68	Under 10 years	1	No	2	20	
F69	Under 10 years	1	No	2	20	
G09	Under 1 year	0	No	2	4	
<b>G14</b>	<b>Under 1 year</b>	<b>1</b>	<b>No</b>	<b>2</b>	<b>4</b>	
G30.0	Under 30 years	0	No	2	24	
G30.1	Under 65 years	0	No	2	9	
G30.8	Under 30 years	0	No	2	24	
G30.9	Under 30 years	0	No	2	24	

Table G. Age/Cause and Sex/Cause Consistency Edits for ICD-10 Codes Valid for Both Underlying and Multiple Cause-of-Death Classification

0 - Conditional 1 - Absolute 2 - Not Applicable						
ICD-10 code	Age exclusion	Age	Sex exclusion	Sex	Edit code <sup>1</sup>	
G47.3	Under 28 days	1	No	2	3	
G70.0	Under 28 days	1	No	2	3	
H25	Under 10 years	1	No	2	20	
I48	Under 28 days	1	No	2	3	
I49	Under 28 days	1	No	2	3	
I50	Under 28 days	1	No	2	3	
I61	Under 28 days	1	No	2	3	
I62	Under 28 days	1	No	2	3	
I69	Under 1 year	1	No	2	4	
I86.1	No	2	Female	1	10	
I86.3	No	2	Male	1	11	
J12	Under 28 days	1	No	2	3	
J13	Under 28 days	1	No	2	3	
J14	Under 28 days	1	No	2	3	
J15	Under 28 days	1	No	2	3	
J16	Under 28 days	1	No	2	3	
J18	Under 28 days	1	No	2	3	
J43	Under 28 days	1	No	2	3	
J80	Under 28 days	1	No	2	3	
J84.9	Under 28 days	1	No	2	3	
J96	Under 28 days	1	No	2	3	
J98.1	Under 28 days	1	No	2	3	
J98.2	Under 28 days	1	No	2	3	
J98.4	Under 28 days	1	No	2	3	
J98.8	Under 28 days	1	No	2	3	
K27	Under 28 days	1	No	2	3	
K31.1	Under 1 year	1	No	2	4	
K31.3	Under 1 year	1	No	2	4	
K56.6	Under 28 days	0	No	2	3	
K63.1	Under 28 days	1	No	2	3	
K65	Under 28 days	1	No	2	3	
K70	Under 1 year	1	No	2	4	
K92	Under 28 days	1	No	2	3	
L01	Under 28 days	1	No	2	3	
L10	Under 28 days	1	No	2	3	
L29.1	No	2	Female	1	10	
L29.2	No	2	Male	1	11	

Table G. Age/Cause and Sex/Cause Consistency Edits for ICD-10 Codes Valid for Both Underlying and Multiple Cause-of-Death Classification

						0 - Conditional
						1 - Absolute
						2 - Not Applicable
ICD-10 code	Age exclusion	Age	Sex exclusion	Sex	Edit code <sup>1</sup>	
L50	Under 28 days	1	No	2	3	
L53.0	Under 28 days	1	No	2	3	
L70.0	Under 1 year	1	No	2	4	
L70.1	Under 1 year	1	No	2	4	
L70.2	Under 1 year	1	No	2	4	
L70.3	Under 1 year	1	No	2	4	
L70.5	Under 1 year	1	Male	1	21	
L70.9	Under 1 year	1	No	2	4	
M34	Under 28 days	1	No	2	3	
M42.1	Under 10 years	1	No	2	20	
M80.0	No	2	Male	1	11	
M80.1	No	2	Male	1	11	
M81.0	No	2	Male	1	11	
M81.1	No	2	Male	1	11	
M83.0	Under 10 years or 55 years and over	1	Male	1	14	
M83.1	Under 10 years	1	No	2	20	
M83.2	Under 10 years	1	No	2	20	
M83.3	Under 10 years	1	No	2	20	
M83.4	Under 10 years	1	No	2	20	
M83.5	Under 10 years	1	No	2	20	
M83.8	Under 10 years	1	No	2	20	
M83.9	Under 10 years	1	No	2	20	
N39.0	Under 28 days	1	No	2	3	
N40	No	2	Female	1	10	
N41	No	2	Female	1	10	
N42	No	2	Female	1	10	
N43	No	2	Female	1	10	
N44	No	2	Female	1	10	
N45	No	2	Female	1	10	
N46	No	2	Female	1	10	
N47	No	2	Female	1	10	
N48	No	2	Female	1	10	
N49	No	2	Female	1	10	
N50	No	2	Female	1	10	
N61	Under 28 days	1	No	2	3	
N70	No	2	Male	1	11	

Table G. Age/Cause and Sex/Cause Consistency Edits for ICD-10 Codes Valid for Both Underlying and Multiple Cause-of-Death Classification

0 - Conditional 1 - Absolute 2 - Not Applicable						
ICD-10 code	Age exclusion	Age	Sex exclusion	Sex	Edit code <sup>1</sup>	
N71	No	2	Male	1	11	
N72	No	2	Male	1	11	
N73	No	2	Male	1	11	
N75	No	2	Male	1	11	
N76	No	2	Male	1	11	
N80	No	2	Male	1	11	
N81	No	2	Male	1	11	
N82	No	2	Male	1	11	
N83	No	2	Male	1	11	
N84	No	2	Male	1	11	
N85	No	2	Male	1	11	
N86	No	2	Male	1	11	
N87	No	2	Male	1	11	
N88	No	2	Male	1	11	
N89	No	2	Male	1	11	
N90	No	2	Male	1	11	
N91	Under 10 years	1	Male	1	18	
N91	55 years and over	0	Male	1	26	
N92	Under 10 years or 55 years and over	0	Male	1	14	
N93	No	2	Male	1	11	
N94	Under 10 years or 55 years and over	0	Male	1	14	
N95	Under 10 years	1	Male	1	18	
N95	55 years and over	0	Male	1	26	
N96	Under 10 years	1	Male	1	18	
N96	55 years and over	0	Male	1	26	
N97	Under 10 years	1	Male	1	18	
N97	55 years and over	0	Male	1	26	
N98	Under 10 years	1	Male	1	18	
N98	55 years and over	0	Male	1	26	
O00	Under 10 years	1	Male	1	18	
O00	55 years and over	0	Male	1	26	
O01	Under 10 years	1	Male	1	18	
O01	55 years and over	0	Male	1	26	
O02	Under 10 years	1	Male	1	18	
O02	55 years and over	0	Male	1	26	
O03	Under 10 years	1	Male	1	18	

Table G. Age/Cause and Sex/Cause Consistency Edits for ICD-10 Codes Valid for Both Underlying and Multiple Cause-of-Death Classification

						0 - Conditional
						1 - Absolute
						2 - Not Applicable
ICD-10 code	Age exclusion	Age	Sex exclusion	Sex	Edit code <sup>1</sup>	
O03	55 years and over	0	Male	1	26	
O04	Under 10 years	1	Male	1	18	
O04	55 years and over	0	Male	1	26	
O05	Under 10 years	1	Male	1	18	
O05	55 years and over	0	Male	1	26	
O06	Under 10 years	1	Male	1	18	
O06	55 years and over	0	Male	1	26	
O07	Under 10 years	1	Male	1	18	
O07	55 years and over	0	Male	1	26	
O10	Under 10 years	1	Male	1	18	
O10	55 years and over	0	Male	1	26	
O11	Under 10 years	1	Male	1	18	
O11	55 years and over	0	Male	1	26	
O12	Under 10 years	1	Male	1	18	
O12	55 years and over	0	Male	1	26	
O13	Under 10 years	1	Male	1	18	
O13	55 years and over	0	Male	1	26	
O14	Under 10 years	1	Male	1	18	
O14	55 years and over	0	Male	1	26	
O15	Under 10 years	1	Male	1	18	
O15	55 years and over	0	Male	1	26	
O16	Under 10 years	1	Male	1	18	
O16	55 years and over	0	Male	1	26	
O20	Under 10 years	1	Male	1	18	
O20	55 years and over	0	Male	1	26	
O21	Under 10 years	1	Male	1	18	
O21	55 years and over	0	Male	1	26	
O22	Under 10 years	1	Male	1	18	
O22	55 years and over	0	Male	1	26	
O23	Under 10 years	1	Male	1	18	
O23	55 years and over	0	Male	1	26	
O24	Under 10 years	1	Male	1	18	
O24	55 years and over	0	Male	1	26	
O25	Under 10 years	1	Male	1	18	
O25	55 years and over	0	Male	1	26	
O26	Under 10 years	1	Male	1	18	
O26	55 years and over	0	Male	1	26	

Table G. Age/Cause and Sex/Cause Consistency Edits for ICD-10 Codes Valid for Both Underlying and Multiple Cause-of-Death Classification

						0 - Conditional
						1 - Absolute
						2 - Not Applicable
ICD-10 code	Age exclusion	Age	Sex exclusion	Sex	Edit code <sup>1</sup>	
O28	Under 10 years	1	Male	1	18	
O28	55 years and over	0	Male	1	26	
O29	Under 10 years	1	Male	1	18	
O29	55 years and over	0	Male	1	26	
O30	Under 10 years	1	Male	1	18	
O30	55 years and over	0	Male	1	26	
O31	Under 10 years	1	Male	1	18	
O31	55 years and over	0	Male	1	26	
O32	Under 10 years	1	Male	1	18	
O32	55 years and over	0	Male	1	26	
O33	Under 10 years	1	Male	1	18	
O33	55 years and over	0	Male	1	26	
O34	Under 10 years	1	Male	1	18	
O34	55 years and over	0	Male	1	26	
O35	Under 10 years	1	Male	1	18	
O35	55 years and over	0	Male	1	26	
O36	Under 10 years	1	Male	1	18	
O36	55 years and over	0	Male	1	26	
O40	Under 10 years	1	Male	1	18	
O40	55 years and over	0	Male	1	26	
O41	Under 10 years	1	Male	1	18	
O41	55 years and over	0	Male	1	26	
O42	Under 10 years	1	Male	1	18	
O42	55 years and over	0	Male	1	26	
O43	Under 10 years	1	Male	1	18	
O43	55 years and over	0	Male	1	26	
O44	Under 10 years	1	Male	1	18	
O44	55 years and over	0	Male	1	26	
O45	Under 10 years	1	Male	1	18	
O45	55 years and over	0	Male	1	26	
O46	Under 10 years	1	Male	1	18	
O46	55 years and over	0	Male	1	26	
O47	Under 10 years	1	Male	1	18	
O47	55 years and over	0	Male	1	26	
O48	Under 10 years	1	Male	1	18	
O48	55 years and over	0	Male	1	26	
O60	Under 10 years	1	Male	1	18	



Table G. Age/Cause and Sex/Cause Consistency Edits for ICD-10 Codes Valid for Both Underlying and Multiple Cause-of-Death Classification

						0 - Conditional
						1 - Absolute
						2 - Not Applicable
ICD-10 code	Age exclusion	Age	Sex exclusion	Sex	Edit code <sup>1</sup>	
O60	55 years and over	0	Male	1	26	
O61	Under 10 years	1	Male	1	18	
O61	55 years and over	0	Male	1	26	
O62	Under 10 years	1	Male	1	18	
O62	55 years and over	0	Male	1	26	
O63	Under 10 years	1	Male	1	18	
O63	55 years and over	0	Male	1	26	
O64	Under 10 years	1	Male	1	18	
O64	55 years and over	0	Male	1	26	
O65	Under 10 years	1	Male	1	18	
O65	55 years and over	0	Male	1	26	
O66	Under 10 years	1	Male	1	18	
O66	55 years and over	0	Male	1	26	
O67	Under 10 years	1	Male	1	18	
O67	55 years and over	0	Male	1	26	
O68	Under 10 years	1	Male	1	18	
O68	55 years and over	0	Male	1	26	
O69	Under 10 years	1	Male	1	18	
O69	55 years and over	0	Male	1	26	
O70	Under 10 years	1	Male	1	18	
O70	55 years and over	0	Male	1	26	
O71	Under 10 years	1	Male	1	18	
O71	55 years and over	0	Male	1	26	
O72	Under 10 years	1	Male	1	18	
O72	55 years and over	0	Male	1	26	
O73	Under 10 years	1	Male	1	18	
O73	55 years and over	0	Male	1	26	
O74	Under 10 years	1	Male	1	18	
O74	55 years and over	0	Male	1	26	
O75	Under 10 years	1	Male	1	18	
O75	55 years and over	0	Male	1	26	
O85	Under 10 years	1	Male	1	18	
O85	55 years and over	0	Male	1	26	
O86	Under 10 years	1	Male	1	18	
O86	55 years and over	0	Male	1	26	
O87	Under 10 years	1	Male	1	18	
O87	55 years and over	0	Male	1	26	

Table G. Age/Cause and Sex/Cause Consistency Edits for ICD-10 Codes Valid for Both Underlying and Multiple Cause-of-Death Classification

						0 - Conditional
						1 - Absolute
						2 - Not Applicable
ICD-10 code	Age exclusion	Age	Sex exclusion	Sex	Edit code <sup>1</sup>	
O88	Under 10 years	1	Male	1	18	
O88	55 years and over	0	Male	1	26	
O89	Under 10 years	1	Male	1	18	
O89	55 years and over	0	Male	1	26	
O90	Under 10 years	1	Male	1	18	
O90	55 years and over	0	Male	1	26	
O91	Under 10 years	1	Male	1	18	
O91	55 years and over	0	Male	1	26	
O92	Under 10 years	1	Male	1	18	
O92	55 years and over	0	Male	1	26	
O95	Under 10 years	1	Male	1	18	
O95	55 years and over	0	Male	1	26	
O96	Under 10 years	1	Male	1	18	
O96	55 years and over	0	Male	1	26	
O97	Under 10 years	1	Male	1	18	
O97	55 years and over	0	Male	1	26	
O98	Under 10 years	1	Male	1	18	
O98	55 years and over	0	Male	1	26	
O99	Under 10 years	1	Male	1	18	
O99	55 years and over	0	Male	1	26	
P00	1 year and over	0	No	2	2	
P01	1 year and over	0	No	2	2	
P02	1 year and over	0	No	2	2	
P03	1 year and over	0	No	2	2	
P04	1 year and over	0	No	2	2	
P05	1 year and over	0	No	2	2	
P07	15 years and over	0	No	2	27	
P08	1 year and over	0	No	2	2	
P10	1 year and over	0	No	2	2	
P11	1 year and over	0	No	2	2	
P12	1 year and over	0	No	2	2	
P13	1 year and over	0	No	2	2	
P14	1 year and over	0	No	2	2	
P15	1 year and over	0	No	2	2	
P20	1 year and over	0	No	2	2	
P21	1 year and over	0	No	2	2	
P22	1 year and over	0	No	2	2	

Table G. Age/Cause and Sex/Cause Consistency Edits for ICD-10 Codes Valid for Both Underlying and Multiple Cause-of-Death Classification

0 - Conditional 1 - Absolute 2 - Not Applicable						
ICD-10 code	Age exclusion	Age	Sex exclusion	Sex	Edit code <sup>1</sup>	
P23	1 year and over	0	No	2	2	
P24	1 year and over	0	No	2	2	
P25	1 year and over	0	No	2	2	
P26	1 year and over	0	No	2	2	
P27	1 year and over	0	No	2	2	
P28	1 year and over	0	No	2	2	
P29	1 year and over	0	No	2	2	
P35	1 year and over	0	No	2	2	
P36	1 year and over	0	No	2	2	
P37	1 year and over	0	No	2	2	
P38	1 year and over	0	No	2	2	
P39	1 year and over	0	No	2	2	
P50	1 year and over	0	No	2	2	
P51	1 year and over	0	No	2	2	
P52	1 year and over	0	No	2	2	
P53	1 year and over	0	No	2	2	
P54.0	1 year and over	0	No	2	2	
P54.1	1 year and over	0	No	2	2	
P54.2	1 year and over	0	No	2	2	
P54.3	1 year and over	0	No	2	2	
P54.4	1 year and over	0	No	2	2	
P54.5	1 year and over	0	No	2	2	
P54.6	1 year and over	0	Male	1	22	
P54.8	1 year and over	0	No	2	2	
P54.9	1 year and over	0	No	2	2	
P55	1 year and over	0	No	2	2	
P56	1 year and over	0	No	2	2	
P57	1 year and over	0	No	2	2	
P58	1 year and over	0	No	2	2	
P59	1 year and over	0	No	2	2	
P60	1 year and over	0	No	2	2	
P61	1 year and over	0	No	2	2	
P70	1 year and over	0	No	2	2	
P71	1 year and over	0	No	2	2	
P72	1 year and over	0	No	2	2	
P74	1 year and over	0	No	2	2	
P76	1 year and over	0	No	2	2	

Table G. Age/Cause and Sex/Cause Consistency Edits for ICD-10 Codes Valid for Both Underlying and Multiple Cause-of-Death Classification

0 - Conditional 1 - Absolute 2 - Not Applicable					
ICD-10 code	Age exclusion	Age	Sex exclusion	Sex	Edit code <sup>1</sup>
P77	1 year and over	0	No	2	2
P78	1 year and over	0	No	2	2
P80	1 year and over	0	No	2	2
P81	1 year and over	0	No	2	2
P83	1 year and over	0	No	2	2
P90	1 year and over	0	No	2	2
P91	1 year and over	0	No	2	2
P92	1 year and over	0	No	2	2
P93	1 year and over	0	No	2	2
P94	1 year and over	0	No	2	2
P96	1 year and over	0	No	2	2
Q50	No	2	Male	1	11
Q51	No	2	Male	1	11
Q52	No	2	Male	1	11
Q53	No	2	Female	1	10
Q54	No	2	Female	1	10
Q55	No	2	Female	1	10
Q96	No	2	Male	1	11
Q97	No	2	Male	1	11
Q98	No	2	Female	1	10
R00	Under 28 days	1	No	2	3
R01	Under 28 days	1	No	2	3
R04.8	Under 28 days	1	No	2	3
R06.8	Under 28 days	0	No	2	3
R09.0	Under 28 days	1	No	2	3
R09.2	Under 28 days	1	No	2	3
R11	Under 28 days	1	No	2	3
R17	Under 28 days	1	No	2	3
R23.0	Under 28 days	1	No	2	3
R23.3	Under 28 days	1	No	2	3
R29.0	Under 28 days	1	No	2	3
R40	Under 28 days	1	No	2	3
R50	Under 28 days	1	No	2	3
R53	Under 28 days	1	No	2	3
R54	Under 65 years	0	No	2	9
R54	Under 30 years	1	No	2	24
R56	Under 28 days	1	No	2	3

Table G. Age/Cause and Sex/Cause Consistency Edits for ICD-10 Codes Valid for Both Underlying and Multiple Cause-of-Death Classification

0 - Conditional 1 - Absolute 2 - Not Applicable						
ICD-10 code	Age exclusion	Age	Sex exclusion	Sex	Edit code <sup>1</sup>	
R58	Under 28 days	1	No	2	3	
R60	Under 28 days	1	No	2	3	
R63.3	Under 28 days	1	No	2	3	
R68.0	Under 28 days	1	No	2	3	
R68.1	Under 28 days	1	No	2	3	
R73	Under 28 days	0	No	2	3	
R86	No	2	Female	1	10	
R87	No	2	Male	1	11	
R95	1 year and over	1	No	2	2	
R96.0	Under 1 year	1	No	2	4	
R96.1	Under 1 year	0	No	2	4	
*U03	Under 5 years	1	No	2	6	
V10.0	Under 10 years	0	No	2	20	
V10.4	Under 10 years	0	No	2	20	
V11.0	Under 10 years	0	No	2	20	
V11.4	Under 10 years	0	No	2	20	
V12.0	Under 10 years	0	No	2	20	
V12.4	Under 10 years	0	No	2	20	
V13.0	Under 10 years	0	No	2	20	
V13.4	Under 10 years	0	No	2	20	
V14.0	Under 10 years	0	No	2	20	
V14.4	Under 10 years	0	No	2	20	
V15.0	Under 10 years	0	No	2	20	
V15.4	Under 10 years	0	No	2	20	
V16.0	Under 10 years	0	No	2	20	
V16.4	Under 10 years	0	No	2	20	
V17.0	Under 10 years	0	No	2	20	
V17.4	Under 10 years	0	No	2	20	
V18.0	Under 10 years	0	No	2	20	
V18.4	Under 10 years	0	No	2	20	
V19.0	Under 10 years	0	No	2	20	
V19.4	Under 10 years	0	No	2	20	
V20.0	Under 10 years	0	No	2	20	
V20.4	Under 10 years	0	No	2	20	
V21.0	Under 10 years	0	No	2	20	
V21.4	Under 10 years	0	No	2	20	
V22.0	Under 10 years	0	No	2	20	

Table G. Age/Cause and Sex/Cause Consistency Edits for ICD-10 Codes Valid for Both Underlying and Multiple Cause-of-Death Classification

0 - Conditional 1 - Absolute 2 - Not Applicable						
ICD-10 code	Age exclusion	Age	Sex exclusion	Sex	Edit code <sup>1</sup>	
V22.4	Under 10 years	0	No	2	20	
V23.0	Under 10 years	0	No	2	20	
V23.4	Under 10 years	0	No	2	20	
V24.0	Under 10 years	0	No	2	20	
V24.4	Under 10 years	0	No	2	20	
V25.0	Under 10 years	0	No	2	20	
V25.4	Under 10 years	0	No	2	20	
V26.0	Under 10 years	0	No	2	20	
V26.4	Under 10 years	0	No	2	20	
V27.0	Under 10 years	0	No	2	20	
V27.4	Under 10 years	0	No	2	20	
V28.0	Under 10 years	0	No	2	20	
V28.4	Under 10 years	0	No	2	20	
V29.0	Under 10 years	0	No	2	20	
V29.4	Under 10 years	0	No	2	20	
V30.0	Under 10 years	0	No	2	20	
V31.0	Under 10 years	0	No	2	20	
V31.5	Under 10 years	0	No	2	20	
V32.0	Under 10 years	0	No	2	20	
V32.5	Under 10 years	0	No	2	20	
V33.0	Under 10 years	0	No	2	20	
V30.5	Under 10 years	0	No	2	20	
V33.5	Under 10 years	0	No	2	20	
V34.0	Under 10 years	0	No	2	20	
V34.5	Under 10 years	0	No	2	20	
V35.0	Under 10 years	0	No	2	20	
V35.5	Under 10 years	0	No	2	20	
V36.0	Under 10 years	0	No	2	20	
V36.5	Under 10 years	0	No	2	20	
V37.0	Under 10 years	0	No	2	20	
V37.5	Under 10 years	0	No	2	20	
V38.0	Under 10 years	0	No	2	20	
V38.5	Under 10 years	0	No	2	20	
V39.0	Under 10 years	0	No	2	20	
V39.4	Under 10 years	0	No	2	20	
V40.0	Under 10 years	0	No	2	20	
V40.5	Under 10 years	0	No	2	20	

Table G. Age/Cause and Sex/Cause Consistency Edits for ICD-10 Codes Valid for Both Underlying and Multiple Cause-of-Death Classification

0 - Conditional 1 - Absolute 2 - Not Applicable						
ICD-10 code	Age exclusion	Age	Sex exclusion	Sex	Edit code <sup>1</sup>	
V41.0	Under 10 years	0	No	2	20	
V41.5	Under 10 years	0	No	2	20	
V42.0	Under 10 years	0	No	2	20	
V42.5	Under 10 years	0	No	2	20	
V43.0	Under 10 years	0	No	2	20	
V43.5	Under 10 years	0	No	2	20	
V44.0	Under 10 years	0	No	2	20	
V44.5	Under 10 years	0	No	2	20	
V45.0	Under 10 years	0	No	2	20	
V45.5	Under 10 years	0	No	2	20	
V46.0	Under 10 years	0	No	2	20	
V46.5	Under 10 years	0	No	2	20	
V47.0	Under 10 years	0	No	2	20	
V47.5	Under 10 years	0	No	2	20	
V48.0	Under 10 years	0	No	2	20	
V48.5	Under 10 years	0	No	2	20	
V49.0	Under 10 years	0	No	2	20	
V49.4	Under 10 years	0	No	2	20	
V50.0	Under 10 years	0	No	2	20	
V50.5	Under 10 years	0	No	2	20	
V51.0	Under 10 years	0	No	2	20	
V51.5	Under 10 years	0	No	2	20	
V52.0	Under 10 years	0	No	2	20	
V52.5	Under 10 years	0	No	2	20	
V53.0	Under 10 years	0	No	2	20	
V53.5	Under 10 years	0	No	2	20	
V54.0	Under 10 years	0	No	2	20	
V54.5	Under 10 years	0	No	2	20	
V55.0	Under 10 years	0	No	2	20	
V55.5	Under 10 years	0	No	2	20	
V56.0	Under 10 years	0	No	2	20	
V56.5	Under 10 years	0	No	2	20	
V57.0	Under 10 years	0	No	2	20	
V57.5	Under 10 years	0	No	2	20	
V58.0	Under 10 years	0	No	2	20	
V58.5	Under 10 years	0	No	2	20	
V59.0	Under 10 years	0	No	2	20	

Table G. Age/Cause and Sex/Cause Consistency Edits for ICD-10 Codes Valid for Both Underlying and Multiple Cause-of-Death Classification

0 - Conditional 1 - Absolute 2 - Not Applicable						
ICD-10 code	Age exclusion	Age	Sex exclusion	Sex	Edit code <sup>1</sup>	
V59.4	Under 10 years	0	No	2	20	
V60.0	Under 10 years	0	No	2	20	
V60.5	Under 10 years	0	No	2	20	
V61.0	Under 10 years	0	No	2	20	
V61.5	Under 10 years	0	No	2	20	
V62.0	Under 10 years	0	No	2	20	
V62.5	Under 10 years	0	No	2	20	
V63.0	Under 10 years	0	No	2	20	
V63.5	Under 10 years	0	No	2	20	
V64.0	Under 10 years	0	No	2	20	
V64.5	Under 10 years	0	No	2	20	
V65.0	Under 10 years	0	No	2	20	
V65.5	Under 10 years	0	No	2	20	
V66.0	Under 10 years	0	No	2	20	
V66.5	Under 10 years	0	No	2	20	
V67.0	Under 10 years	0	No	2	20	
V67.5	Under 10 years	0	No	2	20	
V68.0	Under 10 years	0	No	2	20	
V68.5	Under 10 years	0	No	2	20	
V69.0	Under 10 years	0	No	2	20	
V69.4	Under 10 years	0	No	2	20	
V70.0	Under 10 years	0	No	2	20	
V70.5	Under 10 years	0	No	2	20	
V71.0	Under 10 years	0	No	2	20	
V71.5	Under 10 years	0	No	2	20	
V72.0	Under 10 years	0	No	2	20	
V72.5	Under 10 years	0	No	2	20	
V73.0	Under 10 years	0	No	2	20	
V73.5	Under 10 years	0	No	2	20	
V74.0	Under 10 years	0	No	2	20	
V74.5	Under 10 years	0	No	2	20	
V75.0	Under 10 years	0	No	2	20	
V75.5	Under 10 years	0	No	2	20	
V76.0	Under 10 years	0	No	2	20	
V76.5	Under 10 years	0	No	2	20	
V77.0	Under 10 years	0	No	2	20	
V77.5	Under 10 years	0	No	2	20	



Table G. Age/Cause and Sex/Cause Consistency Edits for ICD-10 Codes Valid for Both Underlying and Multiple Cause-of-Death Classification

0 - Conditional 1 - Absolute 2 - Not Applicable						
ICD-10 code	Age exclusion	Age	Sex exclusion	Sex	Edit code <sup>1</sup>	
V78.0	Under 10 years	0	No	2	20	
V78.5	Under 10 years	0	No	2	20	
V79.0	Under 10 years	0	No	2	20	
V79.4	Under 10 years	0	No	2	20	
V83.0	Under 10 years	0	No	2	20	
V83.5	Under 10 years	0	No	2	20	
V84.0	Under 10 years	0	No	2	20	
V84.5	Under 10 years	0	No	2	20	
V85.0	Under 10 years	0	No	2	20	
V85.5	Under 10 years	0	No	2	20	
V86.0	Under 10 years	0	No	2	20	
V86.5	Under 10 years	0	No	2	20	
X60	Under 5 years	1	No	2	6	
X61	Under 5 years	1	No	2	6	
X62	Under 5 years	1	No	2	6	
X63	Under 5 years	1	No	2	6	
X64	Under 5 years	1	No	2	6	
X65	Under 5 years	1	No	2	6	
X66	Under 5 years	1	No	2	6	
X67	Under 5 years	1	No	2	6	
X68	Under 5 years	1	No	2	6	
X69	Under 5 years	1	No	2	6	
X70	Under 5 years	1	No	2	6	
X71	Under 5 years	1	No	2	6	
X72	Under 5 years	1	No	2	6	
X73	Under 5 years	1	No	2	6	
X74	Under 5 years	1	No	2	6	
X75	Under 5 years	1	No	2	6	
X76	Under 5 years	1	No	2	6	
X77	Under 5 years	1	No	2	6	
X78	Under 5 years	1	No	2	6	
X79	Under 5 years	1	No	2	6	
X80	Under 5 years	1	No	2	6	
X81	Under 5 years	1	No	2	6	
X82	Under 5 years	1	No	2	6	
X83	Under 5 years	1	No	2	6	
X84	Under 5 years	1	No	2	6	

Table G. Age/Cause and Sex/Cause Consistency Edits for ICD-10 Codes Valid for Both Underlying and Multiple Cause-of-Death Classification

0 - Conditional 1 - Absolute 2 - Not Applicable						
ICD-10 code	Age exclusion	Age	Sex exclusion	Sex	Edit code <sup>1</sup>	
Y06.0	Under 10 years	1	No	2	20	
Y06.1	18 years and over	0	No	2	17	
Y07.0	Under 10 years	1	No	2	20	
Y07.1	18 years and over	0	No	2	17	
Y36	Under 10 years	0	No	2	20	
Y42.4	Under 10 years or 55 years and over	1	Male	1	14	
Y42.5	No	2	Male	0 ±	11	
Y59.0	20 years and over	0	No	2	25	
Y76	No	2	Male	1	11	
Y85	Under 1 year	1	No	2	4	
Y86	Under 1 year	1	No	2	4	
Y87.0	Under 5 years	1	No	2	6	
Y87.1	Under 1 year	1	No	2	4	
Y87.2	Under 1 year	1	No	2	4	
Y88	Under 1 year	1	No	2	4	
Y89	Under 1 year	1	No	2	4	

Table G. Age/Cause and Sex/Cause Consistency Edits for ICD-10 Codes Valid for Both Underlying and Multiple Cause-of-Death Classification – list of edit codes

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<sup>1</sup> Edit codes may be useful for programming the age/sex limitations as follows:

<u>Edit code</u>	<u>Limited to</u>	<u>Edit code</u>	<u>Limited to</u>
02	Under 1 year	17	Under 18 years
03	28 days and over	18	Female, 10 years and over
04	1 year and over	19	Male, 10 years and over
05	2 years and over	20	10 years and over
06	5 years and over	21	Female, 1 year and over
07	20 years and over	22	Female, under 1 year
09	65 years and over	23	55 years and over
10	Male	24	30 years and over
11	Female	25	Under 20 years
13	Female, 28 days and over	26	Female under 55 years
14	Female, 10-54 years	27	Under 15 years

Note: Edit codes 01, 08, 12, 15, and 16 are not used for table G.

Table H. Age/Cause and Sex/Cause Consistency Edits for ICD-10 Codes Valid for Multiple Cause-of-Death Classification Only

0 - Conditional 1 - Absolute 2 - Not Applicable				
ICD-10 code	Age/sex limitation	Age	Sex	Edit code <sup>1</sup>
E89.4	Female	2	1	11
E89.5	Male	2	1	10
N99.2	Female	2	1	11
N99.3	Female	2	1	11
O08	Female, 10-54	1	1	14
S31.2	Male	2	1	10
S31.3	Male	2	1	10
S31.4	Female	2	1	11
S37.4	Female	2	1	11
S37.5	Female	2	1	11
S37.6	Female	2	1	11
T38.4	Female	2	0	11
T38.5	Female	2	0	11
T70.3	12 years and over	0	2	16
T83.3	Female	2	1	11

<sup>1</sup> Edit codes may be useful for programming the age/sex limitations as follows:

<u>Edit code</u>	<u>Limited to</u>
10	Male
11	Female
14	Female, 10-54 years
16	12 years and over

Note: Edit codes 01-09, 12-13, 15, and 17-22 are not used for table H.

**Table I. Age and Cause Consistency Edits for “Manner of Death” Variable**

<b>“Manner of Death” value</b>	<b>Age limitation</b>	<b>ICD-10 code(s) limitation</b>	<b>Edit failure corrected by</b>
2 (suicide)	5 years and over	None at this moment	Set value to blank

Note: For queries of infrequent or rare causes of death, exclude any records with mention of Human immunodeficiency infection in combination with any of the conditions listed in table J.

Table J. Infrequent and Rare Cause-of-Death Edits for Underlying and Multiple Cause-of-Death Classification

<u>ICD-10 code</u>	<u>Cause</u>
A00	Cholera
A01	Typhoid and paratyphoid fevers
A05.1	Botulism (including infant and wound botulism)
A07.0-.2,.8-.9	Other protozoal intestinal diseases (excluding coccidiosis)
A20	Plague
A21	Tularemia
A22	Anthrax
A23	Brucellosis
A24.0	Glanders
A24.1-.4	Melioidosis
A25	Rat-bite fevers
A27	Leptospirosis
A30	Leprosy [Hansen's disease]
A33	Tetanus neonatorum
A34	Obstetrical tetanus
A35	Other tetanus (Tetanus)
A36	Diphtheria
A37	Whooping cough
A44	Bartonellosis
A49.1	Streptococcal infection, unspecified (edit exercised only when coding for <i>Streptococcus pneumoniae</i> infection occurring to children under 5 years old)
A65	Nonvenereal syphilis
A66	Yaws
A67	Pinta [carate]
A68	Relapsing fever
A69	Other spirochetal infection
A70	Chlamydia psittaci infection (ornithosis)
A75.0	Epidemic louse-borne typhus fever due to <i>Rickettsia prowazekii</i>
A75.1-.9	Other typhus fever
A77.1	Spotted fever due to <i>Rickettsia conorii</i> (Boutonneuse fever)
A77.2	Spotted fever due to <i>Rickettsia siberica</i> (North Asian tick fever)
A77.3	Spotted fever due to <i>Rickettsia australis</i> (Queensland tick typhus)
A77.8	Other spotted fevers (Other tick-borne rickettsioses)
A77.9	Spotted fever, unspecified (unspecified tick-borne rickettsioses)
A78	Q fever
A79	Other rickettsioses
A80	Acute poliomyelitis
A81	Atypical virus infections of central nervous system
A82	Rabies
A84	Tick-borne viral encephalitis
A85.2	Arthropod-borne viral encephalitis, unspecified (Viral encephalitis transmitted by other and unspecified arthropods)

Table J. Infrequent and Rare Cause-of-Death Edits for Underlying and Multiple Cause-of-Death Classification

<u>ICD-10 code</u>	<u>Cause</u>
A90	Dengue fever [classical dengue]
A91	Dengue hemorrhagic fever
A92	Other mosquito-borne viral fevers
A93	Other arthropod-borne viral fevers, not elsewhere classified (including Oropouche fever, sandfly fever, Colorado tick fever and other specified fevers)
A94	Unspecified arthropod-borne viral fever
A95	Yellow fever
A96	Arenaviral hemorrhagic fever
A98-A99	Other and unspecified viral hemorrhagic fevers (including Crimean-Congo, Omsk, Kyasanur Forest, Ebola virus, Hanta virus)
B01	Varicella [chickenpox]
B03	Smallpox
B04	Monkeypox
B05	Measles
B06	Rubella [German measles]
B08.0	Other orthopoxvirus infections (including cowpox and paravaccinia)
B15	Acute hepatitis A (when occurring to children under 20 years old)
B16	Acute hepatitis B (when occurring to children under 20 years old)
B26	Mumps
B33.0	Epidemic myalgia (epidemic pleurodynia)
B33.4	Hantavirus (cardio-)pulmonary syndrome [HPS] [HCPS]
B50-B54	Malaria
B55	Leishmaniasis
B56	African trypanosomiasis
B57	Chagas' disease (including American trypanosomiasis)
<b>B60.2</b>	<b>Naegleriasis</b>
B65	Schistosomiasis [bilharziasis]
B66	Other fluke infections (including other trematode infections)
B67	Echinococcosis
B68	Teniasis
B69	Cysticercosis
B70	Diphyllobothriasis and sparganosis
B71	Other cestode infections
B72	Dracunculiasis (Dracontiasis)
B73	Onchocerciasis
B74	Filariasis (Filarial infection)
J09	Influenza due to identified avian influenza virus
P35.0	Congenital rubella syndrome
U04.9	Severe acute respiratory syndrome [SARS], unspecified
W88-W91	Exposure to radiation
Y36.5	War operation involving nuclear weapons
	<u>Causing adverse effects in therapeutic use:</u>
Y58	Bacterial vaccines
Y59.0	Viral vaccines
Y59.1	Rickettsial vaccines
Y59.2	Protozoal vaccines
Y59.3	Immunoglobulin

Table K. Place-of-Occurrence Edits for Selected External Causes of Death, ICD-10 W00-Y34, except Y06.\_, Y07.\_

[Place-of-occurrence codes are used for ICD-10 codes W00 - Y34 (except Y06.\_ and Y07.\_). For a listing of place-of-occurrence codes and their definitions see International Statistical Classification of Diseases and Related Health Problems, Tenth Revision, Vol. 1, in the beginning of Chapter XX.]

ICD-10 Code	Place-of-Occurrence Codes Allowed	Allocate Invalid Codes To:
W06	0,1,2,3,5,6,7,8,9	9
W07	0,1,2,3,5,6,7,8,9	9
W08	0,1,2,3,5,6,7,8,9	9
W09	0,1,2,3,5,6,8,9	9
W16	0,1,2,3,5,6,7,8,9	9
W35	0,1,2,3,5,6,7,8,9	9
W65	0,1,2,5,7,8,9	9
W66	0,1,2,5,7,8,9	9
W67	0,1,2,3,5,6,7,8,9	9
W68	0,1,2,3,5,6,7,8,9	9
W69	6,8,9	9
W70	6,8,9	9
W75	0,1,2,3,5,6,7,8,9	9
X00	0,1,2,3,5,6,7,8,9	9
X02	0,1,2,5,6,7,8,9	9
X05	0,1,2,3,4,5,7,8,9	9
X15	0,1,2,3,5,6,7,8,9	9
X52	1,2,5,6,8,9	9
X71	0,1,2,3,5,6,7,8,9	9
X92	0,1,2,3,5,6,7,8,9	9
Y21	0,1,2,3,5,6,7,8,9	9

NOTE 1: For ICD-10 codes included in the range W00 - Y34 (except Y06.\_ and Y07.\_) and not specified above, the place-of-occurrence codes 0 through 9 are allowed. Invalid codes will be allocated to code 9.

NOTE 2: The place-of-occurrence codes may be used for selected external causes of death W00-Y34 (except Y06.\_ and Y07.\_) that may be either an underlying or a multiple cause of death.

NOTE 3: The place-of-occurrence codes assigned are based on reported entries on State death certificate items equivalent to the 1989 revision of the U.S. Standard Certificate of Death item "30e. Place of injury".



## Section on Fetal Death File

## V Fetal Death File Cause-of-Death Computer Edits

The fetal death file is used to produce annual detailed tabulations of demographic and geographic data and contains cause-of-death data in most States. The edits are designed to assure code validity for cause of death and verify codes or code combinations which are considered either impossible or unlikely occurrences.

### A. Medical Items

Cause-of-death codes in ICD-10 are categorized in terms of their validity for cause-of-death classification.

#### 1. Codes Valid for Causes of Fetal Death

Table L lists the ICD-10 codes valid for coding cause of fetal death. For records that fail the edit, NCHS will review, but then the cause of death will be recoded to P95- cause unknown. This list may also be used for determining the validity of other causes entered on the fetal death report.

Note: The term “underlying cause” is no longer acceptable under the framework of the new (2003) U.S. Standard Report of Fetal Death. “Initiating cause” is the proper term under the new format.

#### 2. Created Codes

The fetal death file does not use created codes in ICD-10.

#### 3. Sex/Cause Consistency Edits

The purpose of this computer edit is to maintain consistency between a reported underlying / initiating cause of death and the sex of the fetus. Table M lists the ICD codes which are applicable only to males or only to females. The sex/cause edit will be done after the imputation for not-stated sex. If sex is coded 1 (male) or 9 (unknown), and the cause of death is listed in table M as being applicable only to females, the sex will be changed to 2 (female). If sex is coded 2 (female) or 9 (unknown) and the cause of death is listed in table M as being applicable only to males, the sex will be changed to 1 (male).

#### 4. Plurality/Cause Consistency Edits

The purpose of this computer edit is to maintain consistency between a reported underlying / initiating cause of death and the plurality of the fetus. Some ICD codes are applicable only to multiple births. If the cause of fetal death is assigned to ICD-10 codes P01.5 or Q89.4, plurality should be coded other than 1 (singleton). The check for consistency between plurality and cause of death should be done after the processing for plurality. If the cause of fetal death is assigned to ICD code Q89.4 and plurality is coded 1, the ICD code will be changed to Q89.9. If the cause of fetal death is coded to ICD code P01.5 and plurality is coded 1, the ICD code will be changed to P01.9.

Table L. ICD-10 Codes Valid for Causes of Fetal Death

A000	A165	A267	A448	A752	A921	B080	<b>B334</b>	B459	B64
A001	A167	A268	A449	A753	A922	B150	B338	B460	B650
A009	A168	A269	A46	A759	A923	B159	B340	B461	B651
A010	A169	A270	A480	A770	A924	B160	B341	B462	B652
A011	A170	A278	A482	A771	A928	B161	B342	B463	B653
A012	A171	A279	A483	A772	A929	B162	B343	B464	B658
A013	A178	A280	A484	A773	A930	B169	B344	B465	B659
A014	A179	A281	A488	A778	A931	B170	B348	B468	B660
A020	A180	A282	A490	A779	A932	B171	B349	B469	B661
A021	A181	A288	A491	A78	A938	B178	B380	B470	B662
A022	A182	A289	A492	A790	A94	<b>B179</b>	B381	B471	B663
A028	A183	A300	A493	A791	A950	B180	B382	B479	B664
A029	A184	A301	A498	A798	A951	B181	B383	B480	B665
A030	A185	A303	A499	A799	A959	B182	B384	B481	B668
A031	A186	A305	A500	A800	A960	B188	B387	B482	B669
A032	A187	A308	A502	A802	A961	B189	B388	B483	B670
A033	A188	A309	A503	A803	A962	B190	B389	B484	B671
A038	A190	A310	A504	A804	A968	B199	B390	B487	B672
A039	A191	A311	A505	A809	A969	B200	B391	B488	B673
A040	A192	A318	A509	A810	A980	B201	B392	B49	B674
A041	A198	A319	A540	A811	A981	B202	B393	B500	B675
A042	A199	A320	A541	A812	A982	B203	B394	B508	B676
A043	A200	A321	A542	A818	A983	B204	B395	B509	B677
A044	A201	A327	A543	A819	A984	B205	B399	B510	B678
A045	A202	A328	A544	A820	A985	B206	B400	B518	B679
A046	A203	A329	A545	A821	A988	B208	B401	B519	B680
A047	A207	A360	A546	A829	A99	B209	B402	B520	B681
A048	A208	A361	A548	A830	B000	B210	B403	B528	B689
A049	A209	A362	A549	A831	B001	B211	B407	B529	B690
A050	A210	A363	A600	A832	B002	B212	B408	B530	B691
A051	A211	A368	A601	A833	B003	B220	B409	B531	B698
A052	A212	A369	A609	A834	B004	B221	B410	B538	B699
A053	A213	A370	A65	A835	B005	B222	B417	B54	B700
A058	A217	A371	A660	A836	B007	B230	B418	B550	B701
A059	A218	A378	A661	A838	B008	B231	B419	B551	B710
A060	A219	A379	A662	A839	B009	B232	B420	B552	B711
A061	A220	A38	A663	A840	B010	B238	B421	B559	B718
A062	A221	A390	A664	A841	B011	B24	B427	B560	B719
A063	A222	A391	A665	A848	B012	B250	B428	B561	B72
A064	A227	A392	A666	A849	B018	B251	B429	B569	B73
A065	A228	A393	A667	A850	B019	B252	B430	B570	B740
A066	A229	A394	A669	A851	B020	B258	B431	B571	B741
A067	A230	A395	A670	A852	B021	B259	B432	B572	B743
A068	A231	A398	A671	A858	B022	B260	B438	B573	B744
A069	A232	A399	A673	A86	B023	B261	B439	B574	B748
A072	A233	A420	A679	A870	B027	B262	B440	B575	B749
A073	A238	A421	A680	A871	B028	B263	B441	B580	B75
A078	A239	A422	A681	A872	B029	B268	B442	B581	B760
A079	A240	A427	A689	A878	B03	B269	B447	B582	B761
A082	A241	A428	A690	A879	B04	B270	B448	B583	B768
A083	A242	A429	A691	A880	B050	B271	B449	B588	B769
A084	A243	A430	A692	A881	B051	B278	B450	B589	B770
A085	A244	A431	A698	A888	B052	B279	B451	B59	B778
A09	A250	A438	A699	A89	B053	B330	B452	B600	B779
A162	A251	A439	A70	A90	B054	B331	B453	B601	B780
A163	A259	A440	A750	A91	B058	B332	B457	B602	B781
A164	A260	A441	A751	A920	B059	B333	B458	B608	B787

Table L. ICD-10 Codes Valid for Causes of Fetal Death

B789	C050	C169	C328	C461	C572	C717	C844	D010	D103
B79	C051	C170	C329	C462	C573	C718	C845	D011	D104
B80	C052	C171	C33	C463	C574	C719	C850	D012	D105
B810	C058	C172	C340	C467	C577	C720	C851	D013	D106
B811	C059	C173	C341	C468	C578	C721	C857	D014	D107
B812	C060	C178	C342	C469	C579	C722	C859	D015	D109
B813	C061	C179	C343	C470	C600	C723	C880	D017	D110
B814	C062	C180	C348	C471	C601	C724	C881	D019	D117
B818	C068	C181	C349	C472	C602	C725	C882	D020	D119
B820	C069	C182	C37	C473	C608	C728	C883	D021	D120
B829	C07	C183	C380	C474	C609	C729	C887	D022	D121
B830	C080	C184	C381	C475	C61	C73	C889	D023	D122
B831	C081	C185	C382	C476	C620	C740	C900	D024	D123
B832	C088	C186	C383	C478	C621	C741	C901	D030	D124
B833	C089	C187	C384	C479	C629	C749	C902	D031	D125
B834	C090	C188	C388	C480	C630	C750	C910	D032	D126
B838	C091	C189	C390	C481	C631	C751	C911	D033	D127
B839	C098	C19	C398	C482	C632	C752	C912	D034	D128
B870	C099	C20	C399	C488	C637	C753	C913	D035	D129
B871	C100	C210	C400	C490	C638	C754	C914	D036	D130
B872	C101	C211	C401	C491	C639	C755	C915	D037	D131
B873	C102	C212	C402	C492	C64	C758	C917	D038	D132
B874	C103	C218	C403	C493	C65	C759	C919	D039	D133
B878	C104	C220	C408	C494	C66	C760	C920	D040	D134
B879	C108	C221	C409	C495	C670	C761	C921	D041	D135
B880	C109	C222	C410	C496	C671	C762	C922	D042	D136
B881	C110	C223	C411	C498	C672	C763	C923	D043	D137
B882	C111	C224	C412	C499	C673	C764	C924	D044	D139
B883	C112	C227	C413	C500	C674	C765	C925	D045	D140
B888	C113	C229	C414	C501	C675	C767	C927	D046	D141
B889	C118	C23	C419	C502	C676	C768	C929	D047	D142
B89	C119	C240	C430	C503	C677	C80	C930	D048	D143
B99	C12	C241	C431	C504	C678	C810	C931	D049	D144
C000	C130	C248	C432	C505	C679	C811	C932	D050	D150
C001	C131	C249	C433	C506	C680	C812	C937	D051	D151
C002	C132	C250	C434	C508	C681	C813	C939	D057	D152
C003	C138	C251	C435	C509	C688	C817	C940	D059	D157
C004	C139	C252	C436	C510	C689	C819	C941	D060	D160
C005	C140	C253	C437	C511	C690	C820	C942	D061	D161
C006	C142	C254	C438	C512	C691	C821	C943	D067	D162
C008	C148	C257	C439	C518	C692	C822	C944	D069	D163
C009	C150	C259	C440	C519	C693	C827	C945	D070	D164
C01	C151	C260	C441	C52	C694	C829	C947	D071	D165
C020	C152	C261	C442	C530	C695	C830	C950	D072	D166
C021	C153	C268	C443	C531	C696	C831	C951	D073	D167
C022	C154	C269	C444	C538	C698	C832	C952	D074	D168
C023	C155	C300	C445	C539	C699	C833	C957	D075	D169
C024	C158	C301	C446	C540	C700	C834	C959	D076	D170
C028	C159	C310	C447	C541	C701	C835	C960	D090	D171
C029	C160	C311	C448	C542	C709	C836	C961	D091	D172
C030	C161	C312	C449	C543	C710	C837	C962	D092	D173
C031	C162	C313	C450	C548	C711	C838	C963	D093	D174
C039	C163	C318	C451	C549	C712	C839	C967	D097	D175
C040	C164	C319	C452	C55	C713	C840	C969	D099	D176
C041	C165	C321	C457	C56	C714	C841	D000	D100	D177
C048	C166	C322	C459	C570	C715	C842	D001	D101	D179
C049	C168	C323	C460	C571	C716	C843	D002	D102	D180

Table L. ICD-10 Codes Valid for Causes of Fetal Death

D181	D302	D399	D509	D619	D804	E169	E721	E840	G723
D190	D303	D400	D510	D640	D805	E200	E722	E841	G800
D191	D304	D401	D511	D641	D806	E201	E723	E848	G801
D197	D307	D407	D512	D642	D807	E208	E724	E849	G802
D199	D309	D409	D513	D643	D808	E209	E725	E850	G803
D200	D310	D410	D518	D644	D809	E210	E728	E851	G804
D201	D311	D411	D519	D648	D810	E213	E729	E852	G808
D210	D312	D412	D520	D649	D811	E214	E740	E853	G809
D211	D313	D413	D521	D66	D812	E215	E741	E854	G900
D212	D314	D414	D528	D67	D813	E221	E742	E858	G901
D213	D315	D417	D529	D680	D814	E228	E743	E859	G902
D214	D316	D419	D530	D681	D815	E229	E744	E880	G903
D215	D319	D420	D531	D682	D816	E230	E748	E881	<b>G904</b>
D216	D320	D421	D532	D683	D817	E233	E749	E882	G908
D219	D321	D429	D538	D684	D818	E236	E750	E888	G909
D220	D329	D430	D539	<b>D685</b>	D819	E237	E751	E889	G910
D221	D330	D431	D550	<b>D686</b>	D820	E240	E752	G000	G911
D222	D331	D432	D551	D688	D821	E241	E753	G001	G912
D223	D332	D433	D552	D689	D822	E243	E754	G002	G913
D224	D333	D434	D553	D690	D823	E248	E755	G003	G918
D225	D334	D437	D558	D691	D824	E249	E756	G008	G919
D226	D337	D439	D559	D692	D828	E250	E760	G009	G935
D227	D339	D440	D560	D693	D829	E258	E761	G030	G950
D229	D34	D441	D561	D694	D830	E259	E762	G038	G951
D230	D350	D442	D562	D695	D831	E260	E763	G039	G952
D231	D351	D443	D563	D696	D832	E268	E768	G040	G958
D232	D352	D444	D564	D698	D838	E269	E769	G041	G959
D233	D353	D445	D568	D699	D839	E270	E770	G042	I210
D234	D354	D446	D569	D70	D840	E271	E771	G048	I211
D235	D355	D447	D570	D71	D841	E272	E778	G120	I212
D236	D356	D448	D571	D720	D848	E274	E779	G121	I213
D237	D357	D449	D572	D721	D849	E275	E780	G122	I214
D239	D358	D45	D573	D728	D860	E278	E781	G128	I219
D24	D359	D460	D578	D729	D861	E279	E782	G129	I220
D250	D360	D461	D580	D730	D862	E310	E783	G318	I221
D251	D361	D462	D581	D731	D863	E311	E784	G319	I228
D252	D367	D463	D582	D732	D868	E318	E785	G361	I229
D259	D369	D464	D588	D733	D869	E319	E786	G368	I241
D260	D370	D467	D589	D734	D890	E320	E788	G369	I248
D261	D371	D469	D590	D735	D891	E321	E789	G370	I249
D267	D372	D470	D591	D738	D892	E328	E791	G371	I251
D269	D373	D471	D592	D739	D898	E329	E798	G372	I255
D27	D374	D472	D593	D740	D899	E341	E799	G373	I300
D280	D375	D473	D594	D748	E000	E345	E800	G374	I301
D281	D376	D477	D595	D749	E001	E348	E801	G375	I308
D282	D377	D479	D596	D750	E002	E349	E802	G378	I309
D287	D379	D480	D598	D752	E009	E700	E803	G379	I319
D289	D380	D481	D599	D758	E030	E701	E804	G403	I330
D290	D381	D482	D600	D759	E031	E702	E805	G404	I339
D291	D382	D483	D601	D760	E071	E703	E806	G600	I400
D292	D383	D484	D608	D761	E079	E708	E807	G601	I409
D293	D384	D485	D609	D762	E15	E709	E830	G608	I422
D294	D385	D486	D610	D763	E160	E710	E831	G609	I424
D297	D386	D487	D611	D800	E161	E711	E832	G710	I460
D299	D390	D489	D612	D801	E163	E712	E833	G711	I461
D300	D391	D501	D613	D802	<b>E164</b>	E713	E838	G712	I469
D301	D397	D508	D618	D803	E168	E720	E839	G719	I513

Table L. ICD-10 Codes Valid for Causes of Fetal Death

I600	K768	P015	P119	P260	P520	P720	Q012	Q132	Q223
I601	K828	P016	P120	P261	P521	P721	Q018	Q133	Q224
I602	K838	P017	P121	P268	P522	P722	Q019	Q134	Q225
I603	M000	P018	P122	P269	P523	P728	Q02	Q135	Q226
I604	M001	P019	P123	P270	P524	P729	Q030	Q138	Q228
I605	M002	P020	P124	P271	P525	P741	Q031	Q139	Q229
I606	M008	P021	P128	P278	P526	P742	Q038	Q140	Q230
I607	M009	P022	P129	P279	P528	P743	Q039	Q141	Q231
I608	M329	P023	P130	P280	P529	P744	Q040	Q142	Q232
I609	M359	P024	P131	P281	P540	P745	Q041	Q143	Q233
I630	M600	P025	P132	P285	P541	P748	Q042	Q148	Q234
I631	M898	P026	P133	P288	P542	P749	Q043	Q150	Q238
I632	N040	P027	P134	P289	P543	P760	Q045	Q158	Q239
I633	N041	P028	P138	P290	P544	P768	Q046	Q159	Q240
I634	N042	P029	P139	P291	P545	P769	Q048	Q160	Q241
I635	N043	P030	P140	P292	P546	P77	Q049	Q161	Q242
I636	N044	P031	P141	P294	P548	P780	Q050	Q162	Q243
I638	N045	P032	P142	P298	P549	P781	Q051	Q163	Q244
I639	N046	P033	P143	P299	P550	P782	Q052	Q164	Q245
I780	N047	P034	P148	P350	P551	P783	Q053	Q165	Q246
I789	N048	P035	P149	P351	P558	P788	Q054	Q169	Q248
J100	N049	P036	P150	P352	P559	P789	Q055	Q170	Q249
J101	N050	P038	P151	P353	P560	<b>P810</b>	Q056	Q171	Q250
J108	N051	P039	P152	P358	P569	<b>P819</b>	Q057	Q172	Q251
J110	N052	P040	P153	P359	P570	P830	Q058	Q173	Q252
J111	N053	P041	P154	P360	P578	P831	Q059	Q174	Q253
J118	N054	P042	P155	P361	P579	P832	Q060	Q175	Q254
K400	N055	P043	P156	P362	P580	P833	Q061	Q178	Q255
K401	N056	P044	P158	P363	P581	<b>P838</b>	Q062	Q179	Q256
K402	N057	P045	P159	P364	P582	P910	Q063	Q180	Q257
K403	N058	P046	P200	P365	P583	P911	Q064	Q181	Q258
K404	N059	P048	P201	P368	P584	P912	Q068	Q182	Q259
K409	N070	P049	P209	P369	P585	<b>P913</b>	Q069	Q183	Q260
K410	N071	P050	P219	P370	P588	P914	Q070	Q184	Q261
K411	N072	P051	P220	P371	P589	P915	Q078	Q185	Q262
K412	N073	P052	P228	P372	P591	<b>P916</b>	Q079	Q186	Q263
K413	N074	P059	P229	P373	P60	P918	Q100	Q187	Q264
K414	N075	P070	P230	P374	<b>P610</b>	P919	Q101	Q188	Q265
K419	N076	P071	P231	P375	P612	<b>P93</b>	Q102	Q189	Q266
K420	N077	P072	P232	P378	P613	P940	Q103	Q200	Q268
K421	N078	P073	P233	P379	P614	P941	Q104	Q201	Q269
K429	N079	P080	P234	P38	<b>P616</b>	P942	Q105	Q202	Q270
K430	P000	P081	P235	P392	<b>P618</b>	P948	Q106	Q203	Q271
K431	P001	P082	P236	P393	P619	P949	Q107	Q204	Q272
K439	P002	P100	P238	P394	P700	P95	Q110	Q205	Q273
K450	P003	P101	P239	P398	P701	P960	Q111	Q206	Q274
K451	P004	P102	P240	P399	P702	P961	Q112	Q208	Q278
K458	P005	P103	P241	P500	P703	P962	Q113	Q210	Q279
K460	P006	P104	P242	P501	P704	P963	Q120	Q211	Q280
K461	P007	P108	P243	P502	P708	P965	Q121	Q212	Q281
K469	P008	P109	P248	P503	P709	P968	Q122	Q213	Q282
K550	P009	P110	P249	P504	P711	P969	Q123	Q214	Q283
K740	P010	P111	P250	P505	P712	Q000	Q124	Q218	Q288
K741	P011	P112	P251	P508	P713	Q001	Q128	Q219	Q289
K742	P012	P113	P252	P509	P714	Q002	Q129	Q220	Q300
K743	P013	P114	P253	<b>P510</b>	P718	Q010	Q130	Q221	Q301
K745	P014	P115	P258	P519	P719	Q011	Q131	Q222	Q302

Table L. ICD-10 Codes Valid for Causes of Fetal Death

Q303	Q393	Q513	Q620	Q699	Q775	Q849	Q952	R836	<b>S033</b>
Q308	Q394	Q514	Q621	Q700	Q776	Q850	Q954	R837	<b>S034</b>
Q309	Q395	Q515	Q622	Q701	Q777	Q851	Q955	R838	<b>S035</b>
Q310	Q396	Q516	Q623	Q702	Q778	Q858	Q958	R839	<b>S040</b>
Q311	Q398	Q517	Q624	Q703	Q779	Q859	Q959	R840	<b>S041</b>
Q312	Q399	Q518	Q625	Q704	Q780	Q860	Q960	R841	<b>S042</b>
Q313	Q400	Q519	Q626	Q709	Q781	Q861	Q961	R842	<b>S043</b>
<b>Q315</b>	Q401	Q520	Q627	Q710	Q782	Q862	Q962	R843	<b>S044</b>
Q318	Q402	Q521	Q628	Q711	Q783	Q868	Q963	R844	<b>S045</b>
Q319	Q403	Q522	Q630	Q712	Q784	Q870	Q964	R845	<b>S046</b>
Q320	Q408	Q523	Q631	Q713	Q785	Q871	Q968	R846	<b>S047</b>
Q321	Q409	Q524	Q632	Q714	Q786	Q872	Q969	R847	<b>S048</b>
Q322	Q410	Q525	Q633	Q715	Q788	Q873	Q970	R848	<b>S049</b>
Q323	Q411	Q526	Q638	Q716	Q789	Q874	Q971	R849	<b>S050</b>
Q324	Q412	Q527	Q639	Q718	Q790	Q875	Q972	R850	<b>S051</b>
Q330	Q418	Q528	Q640	Q719	Q791	Q878	Q973	R851	<b>S052</b>
Q331	Q419	Q529	Q641	Q720	Q792	Q890	Q978	R852	<b>S053</b>
Q332	Q420	Q530	Q642	Q721	Q793	Q891	Q979	R853	<b>S054</b>
Q333	Q421	Q531	Q643	Q722	Q794	Q892	Q980	R854	<b>S055</b>
Q334	Q422	Q532	Q644	Q723	Q795	Q893	Q981	R855	<b>S056</b>
Q335	Q423	Q539	Q645	Q724	Q796	Q894	Q982	R856	<b>S057</b>
Q336	Q428	Q540	Q646	Q725	Q798	Q897	<b>Q983</b>	R857	<b>S058</b>
Q338	Q429	Q541	Q647	Q726	Q799	Q898	Q984	R858	<b>S059</b>
Q339	Q430	Q542	Q648	Q727	Q800	Q899	Q985	R859	<b>S060</b>
Q340	Q431	Q543	Q649	Q728	Q801	Q900	Q987	<b>R898</b>	<b>S061</b>
Q341	Q432	Q544	Q652	Q729	Q802	Q901	Q988	R99	<b>S062</b>
Q348	Q433	Q548	Q658	Q730	Q803	Q902	Q989	<b>S000</b>	<b>S063</b>
Q349	Q434	Q549	Q659	Q731	Q804	Q909	Q990	<b>S001</b>	<b>S064</b>
Q351	Q435	Q550	Q660	Q738	Q808	Q910	Q991	<b>S002</b>	<b>S065</b>
Q353	Q436	Q551	Q661	Q740	Q809	Q911	Q992	<b>S003</b>	<b>S066</b>
Q355	Q437	Q552	Q662	Q741	Q810	Q912	Q998	<b>S004</b>	<b>S067</b>
Q356	Q438	Q553	Q663	Q742	Q811	Q913	Q999	<b>S005</b>	<b>S068</b>
Q357	Q439	Q554	Q664	Q743	Q812	Q914	R14	<b>S007</b>	<b>S069</b>
Q359	Q440	Q555	Q665	Q748	Q818	Q915	<b>R18</b>	<b>S008</b>	<b>S070</b>
Q360	Q441	Q556	Q666	Q749	Q819	Q916	<b>R190</b>	<b>S009</b>	<b>S071</b>
Q361	Q442	Q558	Q667	Q750	Q820	Q917	<b>R220</b>	<b>S010</b>	<b>S078</b>
Q369	Q443	Q559	Q668	Q751	Q821	Q920	<b>R238</b>	<b>S011</b>	<b>S079</b>
Q370	Q444	Q560	Q669	Q752	Q822	Q921	<b>R298</b>	<b>S012</b>	<b>S080</b>
Q371	Q445	Q561	Q670	Q753	Q823	Q922	<b>R456</b>	<b>S013</b>	<b>S081</b>
Q372	Q446	Q562	Q671	Q754	Q824	Q923	R75	<b>S014</b>	<b>S088</b>
Q373	Q447	Q563	Q672	Q755	Q825	Q924	<b>R772</b>	<b>S015</b>	<b>S089</b>
Q374	Q450	Q564	Q673	Q758	Q828	Q925	R780	<b>S017</b>	<b>S090</b>
Q375	Q451	Q600	Q674	Q759	Q829	Q926	R781	<b>S018</b>	<b>S091</b>
Q378	Q452	Q601	Q675	Q760	Q830	Q927	R782	<b>S019</b>	<b>S092</b>
Q379	Q453	Q602	Q676	Q761	Q831	Q928	R783	<b>S020</b>	<b>S097</b>
Q380	Q458	Q603	Q677	Q762	Q832	Q929	R784	<b>S021</b>	<b>S098</b>
Q381	Q459	Q604	Q678	Q763	Q833	Q930	R785	<b>S022</b>	<b>S099</b>
Q382	Q500	Q605	Q680	Q764	Q838	Q931	R786	<b>S023</b>	<b>S100</b>
Q383	Q501	Q606	Q681	Q765	Q839	Q932	R787	<b>S024</b>	<b>S101</b>
Q384	Q502	Q610	Q682	Q766	Q840	Q933	R788	<b>S025</b>	<b>S107</b>
Q385	Q503	Q611	Q683	Q767	Q841	Q934	R789	<b>S026</b>	<b>S108</b>
Q386	Q504	Q612	Q684	Q769	Q842	Q935	R830	<b>S027</b>	<b>S109</b>
Q387	Q505	Q613	Q685	Q770	Q843	Q936	R831	<b>S028</b>	<b>S110</b>
Q388	Q506	Q614	Q688	Q771	Q844	Q937	R832	<b>S029</b>	<b>S111</b>
Q390	Q510	Q615	Q690	Q772	Q845	Q938	R833	<b>S030</b>	<b>S112</b>
Q391	Q511	Q618	Q691	Q773	Q846	Q939	R834	<b>S031</b>	<b>S117</b>
Q392	Q512	Q619	Q692	Q774	Q848	Q951	R835	<b>S032</b>	<b>S118</b>

Table L. ICD-10 Codes Valid for Causes of Fetal Death

S119	S230	S322	S397	S500	S607	S683	S809	S907	T012
S120	S231	S323	S398	S501	S608	S684	S810	S908	T013
S121	S232	S324	S399	S507	S609	S688	S817	S909	T019
S122	S233	S325	S400	S508	S610	S689	S818	S910	T021
S127	S234	S327	S407	S509	S611	S697	S819	S911	T022
S128	S235	S328	S408	S510	S617	S698	S820	S912	T023
S129	S240	S330	S409	S517	S618	S699	S821	S913	T024
S130	S241	S331	S410	S518	S619	S700	S822	S917	T025
S131	S242	S332	S411	S519	S620	S701	S823	S920	T028
S132	S243	S333	S417	S520	S621	S707	S824	S921	T029
S133	S244	S334	S418	S521	S622	S708	S825	S922	T031
S134	S245	S335	S420	S522	S623	S709	S826	S923	T032
S135	S246	S336	S421	S523	S624	S710	S827	S924	T033
S136	S250	S337	S422	S524	S625	S711	S828	S925	T038
S140	S251	S340	S423	S525	S626	S717	S829	S927	T039
S141	S252	S341	S424	S526	S627	S718	S830	S929	T041
S142	S253	S342	S427	S527	S628	S720	S831	S930	T042
S143	S254	S343	S428	S528	S630	S721	S832	S931	T043
S144	S255	S344	S429	S529	S631	S722	S833	S932	T048
S145	S257	S345	S430	S530	S632	S723	S834	S933	T049
S146	S258	S346	S431	S531	S633	S724	S835	S934	T050
S150	S259	S348	S432	S532	S634	S727	S836	S935	T052
S151	S260	S350	S433	S533	S635	S728	S837	S936	T053
S152	S268	S351	S434	S534	S636	S729	S840	S940	T055
S153	S269	S352	S435	S540	S637	S730	S841	S941	T058
S157	S270	S353	S436	S541	S640	S731	S842	S942	T059
S158	S271	S354	S437	S542	S641	S740	S847	S943	T062
S159	S272	S355	S440	S543	S642	S741	S848	S947	T063
S16	S273	S357	S441	S547	S643	S742	S849	S948	T064
S170	S274	S358	S442	S548	S644	S747	S850	S949	T065
S178	S275	S359	S443	S549	S647	S748	S851	S950	T07
S179	S276	S360	S444	S550	S648	S749	S852	S951	T08
S18	S277	S361	S445	S551	S649	S750	S853	S952	T090
S197	S278	S362	S447	S552	S650	S751	S854	S957	T091
S198	S279	S363	S448	S557	S651	S752	S855	S958	T092
S199	S280	S364	S449	S558	S652	S757	S857	S959	T093
S200	S281	S365	S450	S559	S653	S758	S858	S960	T094
S201	S290	S366	S451	S560	S654	S759	S859	S961	T095
S202	S297	S367	S452	S561	S655	S760	S860	S962	T096
S203	S298	S368	S453	S562	S657	S761	S861	S967	T098
S204	S299	S369	S457	S563	S658	S762	S862	S968	T099
S207	S300	S370	S458	S564	S659	S763	S863	S969	T10
S208	S301	S371	S459	S565	S660	S764	S867	S970	T110
S210	S302	S372	S460	S567	S661	S767	S868	S971	T111
S211	S307	S373	S461	S568	S662	S770	S869	S978	T112
S212	S308	S374	S462	S570	S663	S771	S870	S980	T113
S217	S309	S375	S463	S578	S664	S772	S878	S981	T114
S218	S310	S376	S467	S579	S665	S780	S880	S982	T115
S219	S311	S377	S468	S580	S666	S781	S881	S983	T116
S220	S312	S378	S469	S581	S667	S789	S889	S984	T118
S221	S313	S379	S47	S589	S668	S797	S897	S997	T119
S222	S314	S380	S480	S597	S669	S798	S898	S998	T12
S223	S315	S381	S481	S598	S670	S799	S899	S999	T130
S224	S317	S382	S489	S599	S678	S800	S900	T002	T131
S225	S318	S383	S497	S600	S680	S801	S901	T003	T132
S228	S320	S390	S498	S601	S681	S807	S902	T008	T133
S229	S321	S396	S499	S602	S682	S808	S903	T009	T134



Table L. ICD-10 Codes Valid for Causes of Fetal Death

T135	T220	T287	T356	T424	T483	T564	T658	T796	T855
T136	T221	T288	T357	T425	T484	T565	T659	T797	T856
T138	T222	T289	T360	T426	T485	T566	T66	T798	T857
T139	T223	T300	T361	T427	T486	T567	T670	T799	T858
T140	T224	T301	T362	T428	T487	T568	T671	T800	T859
T141	T225	T302	T363	T430	T490	T569	T672	T801	T860
T142	T226	T303	T364	T431	T491	T570	T673	T802	T861
T143	T227	T304	T365	T432	T492	T571	T674	T803	T862
T144	T230	T305	T366	T433	T493	T572	T675	T804	T863
T145	T231	T306	T367	T434	T494	T573	T676	T805	T864
T146	T232	T307	T368	T435	T495	T578	T677	T806	T868
T147	T233	T310	T369	T436	T496	T579	T678	T808	T869
T148	T234	T311	T370	T438	T497	T58	T679	T809	T870
T149	T235	T312	T371	T439	T498	T590	T68	T810	T871
T150	T236	T313	T372	T440	T499	T591	T690	T811	T872
T151	T237	T314	T373	T441	T500	T592	T691	T812	T873
T158	T240	T315	T374	T442	T501	T593	T698	T813	T874
T159	T241	T316	T375	T443	T502	T594	T699	T814	T875
T16	T242	T317	T378	T444	T503	T595	T700	T815	T876
T170	T243	T318	T379	T445	T504	T596	T701	T816	T880
T171	T244	T319	T380	T446	T505	T597	T702	T817	T881
T172	T245	T320	T381	T447	T506	T598	T703	T818	T882
T173	T246	T321	T382	T448	T507	T599	T704	T819	T883
T174	T247	T322	T383	T449	T508	T600	T708	T820	T884
T175	T250	T323	T384	T450	T509	T601	T709	T821	T885
T178	T251	T324	T385	T451	T510	T602	T71	T822	T886
T179	T252	T325	T386	T452	T511	T603	T730	T823	T887
T180	T253	T326	T387	T453	T512	T604	T731	T824	T888
T181	T254	T327	T388	T454	T513	T608	T732	T825	T889
T182	T255	T328	T389	T455	T518	T609	T733	T826	T900
T183	T256	T329	T390	T456	T519	T610	T738	T827	T901
T184	T257	T330	T391	T457	T520	T611	T739	T828	T902
T185	T260	T331	T392	T458	T521	T612	T740	T829	T903
T188	T261	T332	T393	T459	T522	T618	T741	T830	T904
T189	T262	T333	T394	T460	T523	T619	T742	T831	T905
T190	T263	T334	T398	T461	T524	T620	T743	T832	T908
T191	T264	T335	T399	T462	T528	T621	T748	T833	T909
T192	T265	T336	T400	T463	T529	T622	T749	T834	T910
T193	T266	T337	T401	T464	T530	T628	T750	T835	T911
T198	T267	T338	T402	T465	T531	T629	T751	T836	T912
T199	T268	T339	T403	T466	T532	T630	T752	T838	T913
T200	T269	T340	T404	T467	T533	T631	T753	T839	T914
T201	T270	T341	T405	T468	T534	T632	T754	T840	T915
T202	T271	T342	T406	T469	T535	T633	T758	T841	T918
T203	T272	T343	T407	T470	T536	T634	T780	T842	T919
T204	T273	T344	T408	T471	T537	T635	T781	T843	T920
T205	T274	T345	T409	T472	T539	T636	T782	T844	T921
T206	T275	T346	T410	T473	T540	T638	T783	T845	T922
T207	T276	T347	T411	T474	T541	T639	T784	T846	T923
T210	T277	T348	T412	T475	T542	T64	T788	T847	T924
T211	T280	T349	T413	T476	T543	T650	T789	T848	T925
T212	T281	T350	T414	T477	T549	T651	T790	T849	T926
T213	T282	T351	T415	T478	T55	T652	T791	T850	T928
T214	T283	T352	T420	T479	T560	T653	T792	T851	T929
T215	T284	T353	T421	T480	T561	T654	T793	T852	T930
T216	T285	T354	T422	T481	T562	T655	T794	T853	T931
T217	T286	T355	T423	T482	T563	T656	T795	T854	T932

Table L. ICD-10 Codes Valid for Causes of Fetal Death

<b>T933</b>	V321	V606	V819	V934	W44	Y03
<b>T934</b>	V326	V611	V820	V935	W45	Y04
<b>T935</b>	V331	V616	V821	V936	W49	Y08
<b>T936</b>	V336	V621	V822	V937	W50	Y09
<b>T938</b>	V341	V626	V823	V938	W51	Y10
<b>T939</b>	V346	V631	V825	V939	W52	Y11
<b>T940</b>	V351	V636	V826	V940	W55	Y12
<b>T941</b>	V356	V641	V827	V941	W58	Y13
<b>T950</b>	V361	V646	V828	V942	W64	Y14
<b>T951</b>	V366	V651	V829	V943	W85	Y15
<b>T952</b>	V371	V656	V831	V944	W86	Y16
<b>T953</b>	V376	V661	V836	V945	W87	Y17
<b>T954</b>	V381	V666	V841	V946	W88	Y18
<b>T958</b>	V386	V671	V846	V947	W89	Y19
<b>T959</b>	V391	V676	V851	V948	W90	Y22
<b>T96</b>	V395	V681	V856	V949	W91	Y23
<b>T97</b>	V401	V686	V861	V950	W92	Y24
<b>T980</b>	V406	V691	V866	V951	W93	
<b>T981</b>	V411	V695	V870	V952	W99	
<b>T982</b>	V416	V701	V871	V953	X19	
<b>T983</b>	V421	V706	V872	V954	X30	
<b>*U010</b>	V426	V711	V873	V958	X31	
<b>*U011</b>	V431	V716	V874	V959	X32	
<b>*U012</b>	V436	V721	V875	V960	X33	
<b>*U013</b>	V441	V726	V876	V961	X34	
<b>*U014</b>	V446	V731	V877	V962	X35	
<b>*U015</b>	V451	V736	V878	V968	X36	
<b>*U016</b>	V456	V741	V879	V969	X37	
<b>*U017</b>	V461	V746	V880	V970	X39	
<b>*U018</b>	V466	V751	V881	V973	X40	
<b>*U019</b>	V471	V756	V882	V978	X41	
V191	V476	V761	V883	V98	X42	
V195	V481	V766	V884	V99	X43	
V201	V486	V771	V885	W20	X44	
V205	V491	V776	V886	W21	X45	
V211	V495	V781	V887	W22	X46	
V215	V501	V786	V888	W23	X47	
V221	V506	V791	V889	W24	X48	
V225	V511	V795	V890	W25	X49	
V231	V516	V800	V891	W26	X52	
V235	V521	V801	V892	W27	X57	
V241	V526	V802	V893	W28	X58	
V245	V531	V803	V899	W29	X59	
V251	V536	V804	V910	W30	X85	
V255	V541	V805	V911	W31	X87	
V261	V546	V806	V912	W32	X88	
V265	V551	V807	V913	W33	X89	
V271	V556	V808	V914	W34	X90	
V275	V561	V809	V915	W35	X99	
V281	V566	V810	V916	W36	X93	
V285	V571	V811	V917	W37	X94	
V291	V576	V812	V918	W38	X95	
V295	V581	V813	V919	W39	X96	
V301	V586	V815	V930	W40	X97	
V306	V591	V816	V931	W41	X98	
V311	V595	V817	V932	W42	Y00	
V316	V601	V818	V933	W43	Y02	

Table M. Sex/Cause and Plurality/Cause Consistency Edits for ICD-10 Codes Valid for Cause of Fetal Death

0 - Conditional  
 1 - Absolute  
 2 - Not Applicable

ICD-10 code	Sex/plurality limitation	Sex	Plurality	Edit code <sup>1</sup>
B26.0	Male	1	2	10
C51.0	Female	1	2	11
C51.1	Female	1	2	11
C51.2	Female	1	2	11
C51.8	Female	1	2	11
C51.9	Female	1	2	11
C52	Female	1	2	11
C53.0	Female	1	2	11
C53.1	Female	1	2	11
C53.8	Female	1	2	11
C53.9	Female	1	2	11
C54.0	Female	1	2	11
C54.1	Female	1	2	11
C54.2	Female	1	2	11
C54.3	Female	1	2	11
C54.8	Female	1	2	11
C54.9	Female	1	2	11
C55	Female	1	2	11
C56	Female	1	2	11
C57.0	Female	1	2	11
C57.1	Female	1	2	11
C57.2	Female	1	2	11
C57.3	Female	1	2	11
C57.4	Female	1	2	11
C57.7	Female	1	2	11
C57.8	Female	1	2	11
C57.9	Female	1	2	11
C60.0	Male	1	2	10
C60.1	Male	1	2	10
C60.2	Male	1	2	10
C60.8	Male	1	2	10
C60.9	Male	1	2	10
C61	Male	1	2	10
C62.0	Male	1	2	10
C62.1	Male	1	2	10
C62.9	Male	1	2	10
C63.0	Male	1	2	10
C63.1	Male	1	2	10
C63.2	Male	1	2	10
C63.7	Male	1	2	10
C63.8	Male	1	2	10
C63.9	Male	1	2	10

Table M. Sex/Cause and Plurality/Cause Consistency Edits for ICD-10 Codes Valid for Cause of Fetal Death

0 - Conditional  
 1 - Absolute  
 2 - Not Applicable

ICD-10 code	Sex/plurality limitation	Sex	Plurality	Edit code <sup>1</sup>
D06.0	Female	1	2	11
D06.1	Female	1	2	11
D06.7	Female	1	2	11
D06.9	Female	1	2	11
D07.0	Female	1	2	11
D07.1	Female	1	2	11
D07.2	Female	1	2	11
D07.3	Female	1	2	11
D07.4	Male	1	2	10
D07.5	Male	1	2	10
D07.6	Male	1	2	10
D17.6	Male	1	2	10
D25.0	Female	1	2	11
D25.1	Female	1	2	11
D25.2	Female	1	2	11
D25.9	Female	1	2	11
D26.0	Female	1	2	11
D26.1	Female	1	2	11
D26.7	Female	1	2	11
D26.9	Female	1	2	11
D27	Female	1	2	11
D28.0	Female	1	2	11
D28.1	Female	1	2	11
D28.2	Female	1	2	11
D28.7	Female	1	2	11
D28.9	Female	1	2	11
D29.0	Male	1	2	10
D29.1	Male	1	2	10
D29.2	Male	1	2	10
D29.3	Male	1	2	10
D29.4	Male	1	2	10
D29.7	Male	1	2	10
D29.9	Male	1	2	10
D39.0	Female	1	2	11
D39.1	Female	1	2	11
D39.7	Female	1	2	11
D39.9	Female	1	2	11
D40.0	Male	1	2	10
D40.1	Male	1	2	10
D40.7	Male	1	2	10
D40.9	Male	1	2	10
P01.5	Plural	2	1	24

Table M. Sex/Cause and Plurality/Cause Consistency Edits for ICD-10 Codes Valid for Cause of Fetal Death

0 - Conditional  
 1 - Absolute  
 2 - Not Applicable

ICD-10 code	Sex/plurality limitation	Sex	Plurality	Edit code <sup>1</sup>
P54.6	Female	1	2	11
Q50.0	Female	1	2	11
Q50.1	Female	1	2	11
Q50.2	Female	1	2	11
Q50.3	Female	1	2	11
Q50.4	Female	1	2	11
Q50.5	Female	1	2	11
Q50.6	Female	1	2	11
Q51.0	Female	1	2	11
Q51.1	Female	1	2	11
Q51.2	Female	1	2	11
Q51.3	Female	1	2	11
Q51.4	Female	1	2	11
Q51.5	Female	1	2	11
Q51.6	Female	1	2	11
Q51.7	Female	1	2	11
Q51.8	Female	1	2	11
Q51.9	Female	1	2	11
Q52.0	Female	1	2	11
Q52.1	Female	1	2	11
Q52.2	Female	1	2	11
Q52.3	Female	1	2	11
Q52.4	Female	1	2	11
Q52.5	Female	1	2	11
Q52.6	Female	1	2	11
Q52.7	Female	1	2	11
Q52.8	Female	1	2	11
Q52.9	Female	1	2	11
Q53.0	Male	1	2	10
Q53.1	Male	1	2	10
Q53.2	Male	1	2	10
Q53.9	Male	1	2	10
Q54.0	Male	1	2	10
Q54.1	Male	1	2	10
Q54.2	Male	1	2	10
Q54.3	Male	1	2	10
Q54.4	Male	1	2	10
Q54.8	Male	1	2	10
Q54.9	Male	1	2	10
Q55.0	Male	1	2	10
Q55.1	Male	1	2	10
Q55.2	Male	1	2	10

Table M. Sex/Cause and Plurality/Cause Consistency Edits for ICD-10 Codes Valid for Cause of Fetal Death

0 - Conditional  
 1 - Absolute  
 2 - Not Applicable

ICD-10 code	Sex/plurality limitation	Sex	Plurality	Edit code <sup>1</sup>
Q55.3	Male	1	2	10
Q55.4	Male	1	2	10
Q55.5	Male	1	2	10
Q55.6	Male	1	2	10
Q55.8	Male	1	2	10
Q55.9	Male	1	2	10
Q89.4	Plural	2	1	24
Q96.0	Female	1	2	11
Q96.1	Female	1	2	11
Q96.2	Female	1	2	11
Q96.3	Female	1	2	11
Q96.4	Female	1	2	11
Q96.8	Female	1	2	11
Q96.9	Female	1	2	11
Q97.0	Female	1	2	11
Q97.1	Female	1	2	11
Q97.2	Female	1	2	11
Q97.3	Female	1	2	11
Q97.8	Female	1	2	11
Q97.9	Female	1	2	11
Q98.0	Male	1	2	10
Q98.1	Male	1	2	10
Q98.2	Male	1	2	10
Q98.4	Male	1	2	10
Q98.5	Male	1	2	10
Q98.6	Male	1	2	10
Q98.7	Male	1	2	10
Q98.8	Male	1	2	10
Q98.9	Male	1	2	10

<sup>1</sup> Edit codes may be useful for programming the sex/plurality limitations as follows:

<u>Edit code</u>	<u>Limited to</u>
10	Male
11	Female
24	Plural

## APPENDIX I

## Bridging of Multiple Race Data into a Single Race Category

### *Background*

Population data used to calculate death rates are routinely produced under a collaborative arrangement with the U.S. Census Bureau. The 2000 Census allowed respondents to report more than one race, in accordance with the new standards for the classification of race and ethnicity issued in 1997 by the U.S. Office of Management and Budget (OMB). In addition, the standards specified five minimum race categories to be used for tabulation (American Indian or Alaska Native, Asian, Black or African American, Native Hawaiian or Other Pacific Islander, and White). This is a modification of the previous 1977 OMB standards in which only four race categories were specified (Asian and Pacific Islander persons were treated as a single group) and respondents reported only one of the four.

The death certificates that were then received from the States collected only one race for the decedent, according to the 1977 OMB guidelines, and were incompatible with population data based on the 2000 Census for calculating death rates.

In order to produce 2000 populations with race categories comparable to those used on the death certificate, the enumerated population data with multiple race categories was "bridged" back to single race categories. In addition, the 2000 census counts were modified to be consistent with the old OMB racial categories, i.e., data for Asian persons and Native Hawaiians or other Pacific Islanders were combined into a single category, Asian or Pacific Islanders. It is anticipated that "bridged" population data will be used over the next few years for computing population-based rates.

Beginning with deaths occurring in 2003, a few States started to collect multiple race data on the death certificate. Once all States begin collecting data on race according to the new OMB standards, it is expected that the use of "bridged" populations will be discontinued. Until such time, however, death certificates that are received with multiple race data must also be "bridged" back to single race categories to ensure the compatibility between numerator and denominator data that is needed to produce race-specific death rates. For the purposes of the mortality data file, this single race data value is now called the Bridged Race field.

### *Bridging of multiple race data discussed*

The Bridged Race field is an overloaded variable combining reported single race and a single selected race (when multiple races are reported).

When one race is mentioned, the codes assigned to this field include values "01" through "15"<sup>1</sup>. These single race codes are also used when more than one checkbox / literal entry is reported and they all equate to the same delineated race group.

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<sup>1</sup> The race values corresponding to these codes are: 1=White, 2=Black or African American, 3=American Indian or Alaska Native, 4=Asian Indian, 5=Chinese, 6=Filipino, 7=Japanese, 8=Korean, 9=Vietnamese, 10=Other Asian, 11=Native Hawaiian, 12=Guamanian or Chamorro, 13=Samoan, 14=Other Pacific Islander and 15=Other.



Examples:

“White” checkbox is checked and write-in is “Irish,” then code as White, “01”.

“Black” checkbox is checked and write-in is “Nigerian,” then code as Black, “02”.

Multiple American Indian tribes or Alaskan Natives are mentioned, then code as AIAN, “03”.

“Chinese” checkbox is checked and write-in is “Taiwanese,” then code as Chinese, “05”.

When multiple race codes are reported and they all are Asian and/or Pacific Islanders, code as Bridged API, “24”.

Example:

“Chinese” and “Japanese” check boxes checked, then code is “24”.

When one delineated group is reported with one or more “Some Other Race”, the former code is used.

Example:

“White” checkbox is checked and “Bolivian” is a literal write-in, then code as White, “01”.

When more than one basic race group is reported (White, Black, AIAN, API), a “bridging probability matrix” is applied. The current probability matrix is indexed by five variables:

Residence (FIPS State and county),

Age (<1, single years 1 through 69 and 70+),

Sex,

Ethnicity (Non-Hispanic/Hispanic), and

Basic race combination

(White/Black, White/AIAN, White/API, Black/AIAN, Black/API, AIAN/API,

White/Black/AIAN, White/Black/API, Black/AIAN/API, White/Black/AIAN/API).

Each event with multiple reported races is assigned a pseudo-probability that is generated using the last three digits of the certificate number; the order of the digits is then reversed, and the resulting value is divided by 1000. When the assigned pseudo-probability is less than or equal to the cut point (a probability) dictated by the bridging probability matrix, the assigned code is that of the first basic race. If the assigned pseudo-probability is greater than the matrix’s cut point, then the second basic race is selected as the bridged code. The bridging probability matrix includes two cut points for three-race combinations. The bridging code for the latter basic race is used when the pseudo-probability is greater than the second critical value indicated by the bridging matrix. Similarly, three cut points are included for the matrix consisting of the combination of the four basic races (White/Black/AIAN/API).

Examples:

Certificate number: 023001.

Assigned pseudo-probability: 0.100

White/Black matrix probability cut point: 0.200

Assigned bridged race: White, "21"

Certificate number: 023003.

Assigned pseudo-probability: 0.300

White/Black matrix probability cut point: 0.200

Assigned bridged race: Black, "22"

Certificate number: 023302.

Assigned pseudo-probability: 0.203

White/Black/API matrix probability cut points: 0.100 and 0.300

Assigned bridged race: Black, "22"