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# Instruction Manual

## Part 11

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### **Computer Edits for Mortality Data, Including Separate Section for Fetal Deaths Effective 2005**

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 2005**

**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  
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## Acknowledgments

This instruction manual was prepared by the Division of Vital Statistics (DVS) under the general direction of Robert N. Anderson, Ph.D., Lead Statistician of the Mortality Statistics Branch (MSB) and Charles Rothwell, Chief (MSB). Arialdi Minino (MSB) wrote the text and coordinated production of the manual. Donna Glenn, Chief of Mortality Medical Classification Branch (MMCB), Joyce Bius, Tanya Pitts, Julia Raynor, June Pearce, and Tyinga Ambrose (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 and Charles E. Royer of the Systems, Programming, and Statistical Resources Branch, (DVS) provided review of the demographic edits.

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Computer Systems: Systems Programming, and Statistical Resources Branch, Division of Vital Statistics, National Center for Health Statistics, 3311 Toledo Road, Hyattsville, Maryland 20782.

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.

## CONTENTS

<u>Section</u>	<u>Page</u>
I Introduction.....	1
A. Purpose of This Manual .....	1
B. Revisions from Previous Manual.....	2
II Final Mortality File Computer Edits.....	3
A. Demographic Items .....	4
B. Medical Items .....	5
1. Codes Valid for Both Underlying and Multiple Causes of Death.....	5
2. Codes Valid for Multiple Cause Only .....	5
3. Created Codes .....	5
C. Composite Medical/Demographic Record.....	6
1. Age/Cause, Sex/Cause Consistency Edits.....	6
<b>2. Edits on Manner of Death .....</b>	<b>6</b>
3. Infrequent and Rare Cause-of-Death Edits .....	6
4. Place-of-Occurrence Edits for Selected External Causes of Death.....	7
III Preliminary Mortality File Computer Edits.....	7
A. Demographic Items .....	8
B. Medical Items.....	8
1. Codes Valid for Both Underlying and Multiple Causes of Death.....	8
2. Codes Valid for Multiple Cause Only .....	9
3. Created Codes .....	9
C. Composite Medical/Demographic Record.....	9
1. Age/Cause, Sex/Cause Consistency Edits.....	9
<b>2. Edits on Manner of Death .....</b>	<b>10</b>

3. Infrequent and Rare Cause-of-Death Edits .....	10
4. Place-of-Occurrence Edits for Selected External Causes of Death.....	10

IV Tables

A. Demographic Edits and ICD-10 Cause-of-Death Edits for Final Mortality File and Preliminary Mortality File and Resulting Action if a Record Fails the Edit .....	11
B-1. Edits for Demographic Items.....	12
B-2. Edits for Demographic Items Under New (2003) U.S. Standard Certificate Format .....	17
C. ICD-10 Codes Valid for Both Underlying and Multiple Cause-of-Death Classification.....	26
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).....	34
E. ICD-10 Codes Valid for Multiple Cause Classification Only (From Chapters I-XVIII and XX).....	35
F. Created Codes and Their Complementary Valid ICD-10 Codes .....	36
G. Age/Cause and Sex/Cause Consistency Edits for ICD-10 Codes Valid for Both Underlying and Multiple Cause-of-Death Classification .....	37
H. Age/Cause, Sex/Cause Consistency Edits for ICD-10 Codes Valid for Multiple Cause-of-Death Classification Only .....	50
<b>I. Age and Cause Consistency Edits for “Manner of Death” Variable.....</b>	<b>51</b>
J. Infrequent and Rare Cause-of-Death Edits for Underlying and Multiple Cause-of-Death Classification .....	52
K. Place-of-Occurrence Edits for Selected External Causes of Death (ICD-10 W00-Y34, except Y06._, Y07._) .....	54

Section on the Fetal Death File

<u>Section</u>	<u>Page</u>
V Fetal Death File Cause-of-Death Computer Edits.....	56
A. Medical Items .....	56
1. Codes Valid for Underlying Causes of Fetal Death .....	56
2. Created Codes .....	56
3. Sex/Cause Consistency Edits.....	56
4. Plurality/Cause Consistency Edits.....	56
VI Fetal Death File Tables	
L. ICD-10 Codes Valid for Underlying Causes of Fetal Death.....	57
M. Sex/Cause and Plurality/Cause Consistency Edits for ICD-10 Codes Valid for Underlying Causes of Fetal Death .....	63

Appendix I

Bridging of Multiple Race Data into a Single Race Category .....	68
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VITAL STATISTICS COMPUTER EDITS  
FOR  
MORTALITY DATA, EFFECTIVE **2005**

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 beginning with data year **2005**. 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 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.

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. Data entry edits are specified in Part 2d of this Vital Statistics Instruction Manual series.

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 **2004**) are shown in **bold** print and following are the major changes:

1. **An edit on the variable “manner of death” has been implemented on the composite medical/demographic record section of this manual. “Suicide” is not an acceptable value of “manner of death” for decedents aged less than five years old. A new table (Table I) is now dedicated to documenting edits on this variable. This change implies that the table formerly known as Table I (“Infrequent and Rare Cause-of-Death Edits”) has been renamed Table J, and so forth for subsequent tables.**



**2. 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):**

**- Added edits:**

<b>E64 (added to table G as age-absolute)</b>	<b>Effective 2005;</b>
<b>E68 (added to table G as age-absolute)</b>	<b>Effective 2005;</b>
<b>I69 (added to table G as age-absolute)</b>	<b>Effective 2005;</b>
<b>*U03 (added to table G as age-absolute)</b>	<b>Effective 2005;</b>

**- Modified edits:**

**N91-N92, N94-O99, as shown on Table G, Effective 2003;**  
**were modified to indicate that each code is edited differently depending on decedent's age: The edit on females < 10 years old is absolute, whereas if the female decedent was older than 54 years the edit would be conditional. This modification has been in place since data year 2003, but was not documented until now.**

Codes and text that have been deleted from tables have been ~~struck out~~ and the text color appears lighter.

**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 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

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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.

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.

Detailed instructions for processing edit rejects are given in Part 2d of this Vital Statistics Instruction Manual series. 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.

Detailed instructions for processing edit rejects are given in Part 2d of this Vital Statistics Instruction Manual series. 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

<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 13.)

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

<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>1870-2005</b> are valid for <b>2005</b> . For subsequent data years, add 1 to the lower and upper limits of the range (e.g. for <b>2006</b> , the range is <b>1871-2000</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

<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 57), then code Mexican (code 1); if birthplace is Puerto Rico (code 52) then code to Puerto Rican (code 2); and if birthplace is Cuba (code 56), then code Cuban (code 3). Otherwise, keep the original code 5 or 9.
Race of Decedent	Code must be valid.	Imputation: Code record to the race of preceding record.
	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. NOTE: Race imputation flags are shown separately for "Not stated", "Other entries" and "Multi-racial".

Table B-1. Edits for Demographic Items

<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 greater than the maximum shown for given age, assign education to “not classifiable” code.
	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
Injury at work	Code must be valid.	Imputation: Convert invalid code to “not classifiable” code.

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 III, Part 8 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 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-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 V, Part 8 manual).	Imputation: Convert invalid / blank code to “not classifiable” code ('ZZ').
State of Birth	Code must be valid FIPS value (Section III, Part 8 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').

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 III, 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, State of Residence must be blank.</p>	<p>For Final: Reject for correction</p> <p>For Preliminary: Impute to State of Death</p>
Country of Residence	<p>Code must be valid FIPS value (Section V, Part 8 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 “not classifiable” 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') and other than "Not Classifiable" ('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.
	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'.

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>																		
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 differs for the given minimum age, then code education to "Unknown" (9).																		
	<table border="1"> <thead> <tr> <th>Minimum Age</th> <th>Education</th> </tr> </thead> <tbody> <tr><td>None</td><td>1</td></tr> <tr><td>9</td><td>2</td></tr> <tr><td>16</td><td>3</td></tr> <tr><td>17</td><td>4</td></tr> <tr><td>18</td><td>5</td></tr> <tr><td>20</td><td>6</td></tr> <tr><td>21</td><td>7</td></tr> <tr><td>23</td><td>8</td></tr> <tr><td>None</td><td>9</td></tr> </tbody> </table>		Minimum Age	Education	None	1	9	2	16	3	17	4	18	5	20	6	21	7	23	8
Minimum Age	Education																			
None	1																			
9	2																			
16	3																			
17	4																			
18	5																			
20	6																			
21	7																			
23	8																			
None	9																			
Decedent of Hispanic (Mexican) Origin	Code must be valid ('N', 'H', 'U') and not be blank.	Imputation: Convert blank Mexican origin to "No, not Mexican" ('N').																		
Decedent of Hispanic (Puerto Rican) Origin	Code must be valid ('N', 'H', 'U') and not be blank.	Imputation: Convert blank Puerto Rican origin to "No, not Puerto Rican" ('N').																		
Decedent of Hispanic (Cuban) Origin	Code must be valid ('N', 'H', 'U') and not be blank.	Imputation: Convert blank Cuban origin to "No, not Cuban" ('N').																		
Decedent of Hispanic (Other) Origin	Code must be valid ('N', 'H', 'U') and not be blank.	Imputation: Convert blank other Hispanic origin to "No, not other... Hispanic/Latino" ('N').																		

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.

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

A000	A184	A34	A513	A753	A968	B205	B375	B508	B72	C003	C164	C381	C499	C695
A001	A185	A35	A514	A759	A969	B206	B376	B509	B73	C004	C165	C382	C500	C696
A009	A186	A360	A515	A770	A980	B207	B377	B510	B740	C005	C166	C383	C501	C698
A010	A187	A361	A519	A771	A981	B208	B378	B518	B741	C006	C168	C384	C502	C699
A011	A188	A362	A520	A772	A982	B209	B379	B519	B742	C008	C169	C388	C503	C700
A012	A190	A363	A521	A773	A983	B210	B380	B520	B743	C009	C170	C390	C504	C701
A013	A191	A368	A522	A778	A984	B211	B381	B528	B744	C01	C171	C398	C505	C709
A014	A192	A369	A523	A779	A985	B212	B382	B529	B748	C020	C172	C399	C506	C710
A020	A198	A370	A527	A78	A988	B213	B383	B530	B749	C021	C173	C400	C508	C711
A021	A199	A371	A528	A790	A99	B217	B384	B531	B75	C022	C178	C401	C509	C712
A022	A200	A378	A529	A791	B000	B218	B387	B538	B760	C023	C179	C402	C510	C713
A028	A201	A379	A530	A798	B001	B219	B388	B54	B761	C024	C180	C403	C511	C714
A029	A202	A38	A539	A799	B002	B220	B389	B550	B768	C028	C181	C408	C512	C715
A030	A203	A390	A540	A800	B003	B221	B390	B551	B769	C029	C182	C409	C518	C716
A031	A207	A391	A541	A801	B004	B222	B391	B552	B770	C030	C183	C410	C519	C717
A032	A208	A392	A542	A802	B005	B227	B392	B559	B778	C031	C184	C411	C52	C718
A033	A209	A393	A543	A803	B007	B230	B393	B560	B779	C039	C185	C412	C530	C719
A038	A210	A394	A544	A804	B008	B231	B394	B561	B780	C040	C186	C413	C531	C720
A039	A211	A395	A545	A809	B009	B232	B395	B569	B781	C041	C187	C414	C538	C721
A040	A212	A398	A546	A810	B010	B238	B399	B570	B787	C048	C188	C418	C539	C722
A041	A213	A399	A548	A811	B011	B24	B400	B571	B789	C049	C189	C419	C540	C723
A042	A217	A400	A549	A812	B012	B250	B401	B572	B79	C050	C19	C430	C541	C724
A043	A218	A401	A55	A818	B018	B251	B402	B573	B80	C051	C20	C431	C542	C725
A044	A219	A402	A560	A819	B019	B252	B403	B574	B810	C052	C210	C432	C543	C728
A045	A220	A403	A561	A820	B020	B258	B407	B575	B811	C058	C211	C433	C548	C729
A046	A221	A408	A562	A821	B021	B259	B408	B580	B812	C059	C212	C434	C549	C73
A047	A222	A409	A563	A829	B022	B260	B409	B581	B813	C060	C218	C435	C55	C740
A048	A227	A410	A564	A830	B023	B261	B410	B582	B814	C061	C220	C436	C56	C741
A049	A228	A411	A568	A831	B027	B262	B417	B583	B818	C062	C221	C437	C570	C749
A050	A229	A412	A57	A832	B028	B263	B418	B588	B820	C068	C222	C438	C571	C750
A051	A230	A413	A58	A833	B029	B268	B419	B589	B829	C069	C223	C439	C572	C751
A052	A231	A414	A590	A834	B03	B269	B420	B59	B830	C07	C224	C440	C573	C752
A053	A232	A415	A598	A835	B04	B270	B421	B600	B831	C080	C227	C441	C574	C753
A054	A233	A418	A599	A836	B050	B271	B427	B601	B832	C081	C229	C442	C577	C754
A058	A238	A419	A600	A838	B051	B278	B428	B602	B833	C088	C23	C443	C578	C755
A059	A239	A420	A601	A839	B052	B279	B429	B608	B834	C089	C240	C444	C579	C758
A060	A240	A421	A609	A840	B053	B300	B430	B64	B838	C090	C241	C445	C58	C759
A061	A241	A422	A630	A841	B054	B301	B431	B650	B839	C091	C248	C446	C600	C760
A062	A242	A427	A638	A848	B058	B302	B432	B651	B850	C098	C249	C447	C601	C761
A063	A243	A428	A64	A849	B059	B303	B438	B652	B851	C099	C250	C448	C602	C762
A064	A244	A429	A65	A850	B060	B308	B439	B653	B852	C100	C251	C449	C608	C763
A065	A250	A430	A660	A851	B068	B309	B440	B658	B853	C101	C252	C450	C609	C764
A066	A251	A431	A661	A852	B069	B330	B441	B659	B854	C102	C253	C451	C61	C765
A067	A259	A438	A662	A858	B07	B331	B442	B660	B86	C103	C254	C452	C620	C767
A068	A260	A439	A663	A86	B080	B332	B447	B661	B870	C104	C257	C457	C621	C768
A069	A267	A440	A664	A870	B081	B333	B448	B662	B871	C108	C258	C459	C629	C770
A070	A268	A441	A665	A871	B082	B338	B449	B663	B872	C109	C259	C460	C630	C771
A071	A269	A448	A666	A872	B083	B340	B450	B664	B873	C110	C260	C461	C631	C772
A072	A270	A449	A667	A878	B084	B341	B451	B665	B874	C111	C261	C462	C632	C773
A073	A278	A46	A668	A879	B085	B342	B452	B668	B878	C112	C268	C463	C637	C774
A078	A279	A480	A669	A880	B088	B343	B453	B669	B879	C113	C269	C467	C638	C775
A079	A280	A481	A670	A881	B09	B344	B457	B670	B880	C118	C300	C468	C639	C778
A080	A281	A482	A671	A888	B150	B348	B458	B671	B881	C119	C301	C469	C64	C779
A081	A282	A483	A672	A89	B159	B349	B459	B672	B882	C12	C310	C470	C65	C780
A082	A288	A484	A673	A90	B160	B350	B460	B673	B883	C130	C311	C471	C66	C781
A083	A289	A488	A679	A91	B161	B351	B461	B674	B888	C131	C312	C472	C670	C782
A084	A300	A490	A680	A920	B162	B352	B462	B675	B889	C132	C313	C473	C671	C783
A085	A301	A491	A681	A921	B169	B353	B463	B676	B89	C138	C318	C474	C672	C784
A09	A302	A492	A689	A922	B170	B354	B464	B677	B900	C139	C319	C475	C673	C785
A162	A303	A493	A690	A923	B171	B355	B465	B678	B901	C140	C320	C476	C674	C786
A163	A304	A498	A691	A924	B172	B356	B468	B679	B902	C142	C321	C478	C675	C787
A164	A305	A499	A692	A928	B178	B358	B469	B680	B908	C148	C322	C479	C676	C788
A165	A308	A500	A698	A929	B180	B359	B470	B681	B909	C150	C323	C480	C677	C790
A167	A309	A501	A699	A930	B181	B360	B471	B689	B91	C151	C328	C481	C678	C791
A168	A310	A502	A70	A931	B182	B361	B479	B690	B92	C152	C329	C482	C679	C792
A169	A311	A503	A710	A932	B188	B362	B480	B691	B940	C153	C33	C488	C680	C793
A170	A318	A504	A711	A938	B189	B363	B481	B698	B941	C154	C340	C490	C681	C794
A171	A319	A505	A719	A94	B190	B368	B482	B699	B942	C155	C341	C491	C688	C795
A178	A320	A506	A740	A950	B199	B369	B483	B700	B948	C158	C342	C492	C689	C796
A179	A321	A507	A748	A951	B200	B370	B484	B701	B949	C159	C343	C493	C690	C797
A180	A327	A509	A749	A959	B201	B371	B487	B710	B99	C160	C348	C494	C691	C798
A181	A328	A510	A750	A960	B202	B372	B488	B711	C000	C161	C349	C495	C692	C80
A182	A329	A511	A751	A961	B203	B373	B49	B718	C001	C162	C37	C496	C693	C810
A183	A33	A512	A752	A962	B204	B374	B500	B719	C002	C163	C380	C498	C694	C811
C812	C820	C829	C833	C837	C841	C845	C859	C883	C901	C912	C917	C922	C927	C932
C813	C821	C830	C834	C838	C842	C850	C880	C887	C902	C913	C919	C923	C929	C937
C817	C822	C831	C835	C839	C843	C851	C881	C889	C910	C914	C920	C924	C930	C939
C819	C827	C832	C836	C840	C844	C857	C882	C900	C911	C915	C921	C925	C931	C940













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

V437	V516	V595	V674	V753	V829	V909	W11	W91	X69	Y31	Y453	Y538	Y616	Y771
V439	V517	V596	V675	V754	V830	V910	W12	W92	X70	Y32	Y454	Y539	Y617	Y772
V440	V519	V598	V676	V755	V831	V911	W13	W93	X71	Y33	Y455	Y540	Y618	Y773
V441	V520	V599	V677	V756	V832	V912	W14	W94	X72	Y34	Y458	Y541	Y619	Y778
V442	V521	V600	V679	V757	V833	V913	W15	W99	X73	Y350	Y459	Y542	Y620	Y780
V443	V522	V601	V680	V759	V834	V914	W16	X00	X74	Y351	Y460	Y543	Y621	Y781
V444	V523	V602	V681	V760	V835	V915	W17	X01	X75	Y352	Y461	Y544	Y622	Y782
V445	V524	V603	V682	V761	V836	V916	W18	X02	X76	Y353	Y462	Y545	Y623	Y783
V446	V525	V604	V683	V762	V837	V917	W19	X03	X77	Y354	Y463	Y546	Y624	Y788
V447	V526	V605	V684	V763	V839	V918	W20	X04	X78	Y355	Y464	Y547	Y625	Y790
V449	V527	V606	V685	V764	V840	V919	W21	X05	X79	Y356	Y465	Y548	Y626	Y791
V450	V529	V607	V686	V765	V841	V920	W22	X06	X80	Y357	Y466	Y549	Y628	Y792
V451	V530	V609	V687	V766	V842	V921	W23	X08	X81	Y360	Y467	Y550	Y629	Y793
V452	V531	V610	V689	V767	V843	V922	W24	X09	X82	Y361	Y468	Y551	Y630	Y798
V453	V532	V611	V690	V769	V844	V923	W25	X10	X83	Y362	Y470	Y552	Y631	Y800
V454	V533	V612	V691	V770	V845	V924	W26	X11	X84	Y363	Y471	Y553	Y632	Y801
V455	V534	V613	V692	V771	V846	V925	W27	X12	X85	Y364	Y472	Y554	Y633	Y802
V456	V535	V614	V693	V772	V847	V926	W28	X13	X86	Y365	Y473	Y555	Y634	Y803
V457	V536	V615	V694	V773	V849	V927	W29	X14	X87	Y366	Y474	Y556	Y635	Y808
V459	V537	V616	V695	V774	V850	V928	W30	X15	X88	Y367	Y475	Y557	Y636	Y810
V460	V539	V617	V696	V775	V851	V929	W31	X16	X89	Y368	Y478	Y560	Y638	Y811
V461	V540	V619	V698	V776	V852	V930	W32	X17	X90	Y369	Y479	Y561	Y639	Y812
V462	V541	V620	V699	V777	V853	V931	W33	X18	X91	Y400	Y480	Y562	Y640	Y813
V463	V542	V621	V700	V779	V854	V932	W34	X19	X92	Y401	Y481	Y563	Y641	Y818
V464	V543	V622	V701	V780	V855	V933	W35	X20	X93	Y402	Y482	Y564	Y648	Y820
V465	V544	V623	V702	V781	V856	V934	W36	X21	X94	Y403	Y483	Y565	Y649	Y821
V466	V545	V624	V703	V782	V857	V935	W37	X22	X95	Y404	Y484	Y566	Y650	Y822
V467	V546	V625	V704	V783	V859	V936	W38	X23	X96	Y405	Y485	Y567	Y651	Y823
V469	V547	V626	V705	V784	V860	V937	W39	X24	X97	Y406	Y490	Y568	Y652	Y828
V470	V549	V627	V706	V785	V861	V938	W40	X25	X98	Y407	Y491	Y569	Y653	Y830
V471	V550	V629	V707	V786	V862	V939	W41	X26	X99	Y408	Y492	Y570	Y654	Y831
V472	V551	V630	V709	V787	V863	V940	W42	X27	Y00	Y409	Y493	Y571	Y655	Y832
V473	V552	V631	V710	V789	V864	V941	W43	X28	Y01	Y410	Y494	Y572	Y658	Y833
V474	V553	V632	V711	V790	V865	V942	W44	X29	Y02	Y411	Y495	Y573	Y66	Y834
V475	V554	V633	V712	V791	V866	V943	W45	X30	Y03	Y412	Y496	Y574	Y69	Y835
V476	V555	V634	V713	V792	V867	V944	W49	X31	Y04	Y413	Y497	Y575	Y700	Y836
V477	V556	V635	V714	V793	V869	V945	W50	X32	Y05	Y414	Y498	Y576	Y701	Y838
V479	V557	V636	V715	V794	V870	V946	W51	X33	Y060	Y415	Y499	Y577	Y702	Y839
V480	V559	V637	V716	V795	V871	V947	W52	X34	Y061	Y418	Y500	Y578	Y703	Y840
V481	V560	V639	V717	V796	V872	V948	W53	X35	Y062	Y419	Y501	Y579	Y708	Y841
V482	V561	V640	V719	V798	V873	V949	W54	X36	Y068	Y420	Y502	Y580	Y710	Y842
V483	V562	V641	V720	V799	V874	V950	W55	X37	Y069	Y421	Y508	Y581	Y711	Y843
V484	V563	V642	V721	V800	V875	V951	W56	X38	Y070	Y422	Y509	Y582	Y712	Y844
V485	V564	V643	V722	V801	V876	V952	W57	X39	Y071	Y423	Y510	Y583	Y713	Y845
V486	V565	V644	V723	V802	V877	V953	W58	X40	Y072	Y424	Y511	Y584	Y718	Y846
V487	V566	V645	V724	V803	V878	V954	W59	X41	Y073	Y425	Y512	Y585	Y720	Y847
V489	V567	V646	V725	V804	V879	V958	W60	X42	Y078	Y426	Y513	Y586	Y721	Y848
V490	V569	V647	V726	V805	V880	V959	W64	X43	Y079	Y427	Y514	Y588	Y722	Y849
V491	V570	V649	V727	V806	V881	V960	W65	X44	Y08	Y428	Y515	Y589	Y723	Y850
V492	V571	V650	V729	V807	V882	V961	W66	X45	Y09	Y429	Y516	Y590	Y728	Y859
V493	V572	V651	V730	V808	V883	V962	W67	X46	Y10	Y430	Y517	Y591	Y730	Y86
V494	V573	V652	V731	V809	V884	V968	W68	X47	Y11	Y431	Y518	Y592	Y731	Y870
V495	V574	V653	V732	V810	V885	V969	W69	X48	Y12	Y432	Y519	Y593	Y732	Y871
V496	V575	V654	V733	V811	V886	V970	W70	X49	Y13	Y433	Y520	Y598	Y733	Y872
V498	V576	V655	V734	V812	V887	V971	W73	X50	Y14	Y434	Y521	Y599	Y738	Y880
V499	V577	V656	V735	V813	V888	V972	W74	X51	Y15	Y435	Y522	Y600	Y740	Y881
V500	V579	V657	V736	V814	V889	V973	W75	X52	Y16	Y436	Y523	Y601	Y741	Y882
V501	V580	V659	V737	V815	V890	V978	W76	X53	Y17	Y438	Y524	Y602	Y742	Y883
V502	V581	V660	V739	V816	V891	V98	W77	X54	Y18	Y439	Y525	Y603	Y743	Y890
V503	V582	V661	V740	V817	V892	V99	W78	X57	Y19	Y440	Y526	Y604	Y748	Y891
V504	V583	V662	V741	V818	V893	W00	W79	X58	Y20	Y441	Y527	Y605	Y750	Y899
V505	V584	V663	V742	V819	V899	W01	W80	X59	Y21	Y442	Y528	Y606	Y751	
V506	V585	V664	V743	V820	V900	W02	W81	X60	Y22	Y443	Y529	Y607	Y752	
V507	V586	V665	V744	V821	V901	W03	W83	X61	Y23	Y444	Y530	Y608	Y753	
V509	V587	V666	V745	V822	V902	W04	W84	X62	Y24	Y445	Y531	Y609	Y758	
V510	V589	V667	V746	V823	V903	W05	W85	X63	Y25	Y446	Y532	Y610	Y760	
V511	V590	V669	V747	V824	V904	W06	W86	X64	Y26	Y447	Y533	Y611	Y761	
V512	V591	V670	V749	V825	V905	W07	W87	X65	Y27	Y449	Y534	Y612	Y762	
V513	V592	V671	V750	V826	V906	W08	W88	X66	Y28	Y450	Y535	Y613	Y763	
V514	V593	V672	V751	V827	V907	W09	W89	X67	Y29	Y451	Y536	Y614	Y768	
V515	V594	V673	V752	V828	V908	W10	W90	X68	Y30	Y452	Y537	Y615	Y770	

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)

S000	S069	S202	S307	S379	S499	S617	S709	S832	S940	T065	T190	T269	T346	T420
S001	S070	S203	S308	S380	S500	S618	S710	S833	S941	T07	T191	T270	T347	T421
S002	S071	S204	S309	S381	S501	S619	S711	S834	S942	T08	T192	T271	T348	T422
S003	S078	S207	S310	S382	S507	S620	S717	S835	S943	T090	T193	T272	T349	T423
S004	S079	S208	S311	S383	S508	S621	S718	S836	S947	T091	T198	T273	T350	T424
S005	S080	S210	S312	S390	S509	S622	S720	S837	S948	T092	T199	T274	T351	T425
S007	S081	S211	S313	S396	S510	S623	S721	S840	S949	T093	T200	T275	T352	T426
S008	S088	S212	S314	S397	S517	S624	S722	S841	S950	T094	T201	T276	T353	T427
S009	S089	S217	S315	S398	S518	S625	S723	S842	S951	T095	T202	T277	T354	T428
S010	S090	S218	S317	S399	S519	S626	S724	S847	S952	T096	T203	T280	T355	T430
S011	S091	S219	S318	S400	S520	S627	S727	S848	S957	T098	T204	T281	T356	T431
S012	S092	S220	S320	S407	S521	S628	S728	S849	S958	T099	T205	T282	T357	T432
S013	S097	S221	S321	S408	S522	S630	S729	S850	S959	T10	T206	T283	T360	T433
S014	S098	S222	S322	S409	S523	S631	S730	S851	S960	T110	T207	T284	T361	T434
S015	S099	S223	S323	S410	S524	S632	S731	S852	S961	T111	T210	T285	T362	T435
S017	S100	S224	S324	S411	S525	S633	S740	S853	S962	T112	T211	T286	T363	T436
S018	S101	S225	S325	S417	S526	S634	S741	S854	S967	T113	T212	T287	T364	T438
S019	S107	S228	S327	S418	S527	S635	S742	S855	S968	T114	T213	T288	T365	T439
S020	S108	S229	S328	S420	S528	S636	S747	S857	S969	T115	T214	T289	T366	T440
S021	S109	S230	S330	S421	S529	S637	S748	S858	S970	T116	T215	T300	T367	T441
S022	S110	S231	S331	S422	S530	S640	S749	S859	S971	T118	T216	T301	T368	T442
S023	S111	S232	S332	S423	S531	S641	S750	S860	S978	T119	T217	T302	T369	T443
S024	S112	S233	S333	S424	S532	S642	S751	S861	S980	T12	T220	T303	T370	T444
S025	S117	S234	S334	S427	S533	S643	S752	S862	S981	T130	T221	T304	T371	T445
S026	S118	S235	S335	S428	S534	S644	S757	S863	S982	T131	T222	T305	T372	T446
S027	S119	S240	S336	S429	S540	S647	S758	S867	S983	T132	T223	T306	T373	T447
S028	S120	S241	S337	S430	S541	S648	S759	S868	S984	T133	T224	T307	T374	T448
S029	S121	S242	S340	S431	S542	S649	S760	S869	S997	T134	T225	T310	T375	T449
S030	S122	S243	S341	S432	S543	S650	S761	S870	S998	T135	T226	T311	T378	T450
S031	S127	S244	S342	S433	S547	S651	S762	S878	S999	T136	T227	T312	T379	T451
S032	S128	S245	S343	S434	S548	S652	S763	S880	T002	T138	T230	T313	T380	T452
S033	S129	S246	S344	S435	S549	S653	S764	S881	T003	T139	T231	T314	T381	T453
S034	S130	S250	S345	S436	S550	S654	S767	S889	T008	T140	T232	T315	T382	T454
S035	S131	S251	S346	S437	S551	S655	S770	S897	T009	T141	T233	T316	T383	T455
S040	S132	S252	S348	S440	S552	S657	S771	S898	T012	T142	T234	T317	T384	T456
S041	S133	S253	S350	S441	S557	S658	S772	S899	T013	T143	T235	T318	T385	T457
S042	S134	S254	S351	S442	S558	S659	S780	S900	T019	T144	T236	T319	T386	T458
S043	S135	S255	S352	S443	S559	S660	S781	S901	T021	T145	T237	T320	T387	T459
S044	S136	S257	S353	S444	S560	S661	S789	S902	T022	T146	T240	T321	T388	T460
S045	S140	S258	S354	S445	S561	S662	S797	S903	T023	T147	T241	T322	T389	T461
S046	S141	S259	S355	S447	S562	S663	S798	S907	T024	T148	T242	T323	T390	T462
S047	S142	S260	S357	S448	S563	S664	S799	S908	T025	T149	T243	T324	T391	T463
S048	S143	S268	S358	S449	S564	S665	S800	S909	T028	T150	T244	T325	T392	T464
S049	S144	S269	S359	S450	S565	S666	S801	S910	T029	T151	T245	T326	T393	T465
S050	S145	S270	S360	S451	S567	S667	S807	S911	T031	T158	T246	T327	T394	T466
S051	S146	S271	S361	S452	S568	S668	S808	S912	T032	T159	T247	T328	T398	T467
S052	S150	S272	S362	S453	S570	S669	S809	S913	T033	T16	T250	T329	T399	T468
S053	S151	S273	S363	S457	S578	S670	S810	S917	T038	T170	T251	T330	T400	T469
S054	S152	S274	S364	S458	S579	S678	S817	S920	T039	T171	T252	T331	T401	T470
S055	S153	S275	S365	S459	S580	S680	S818	S921	T041	T172	T253	T332	T402	T471
S056	S157	S276	S366	S460	S581	S681	S819	S922	T042	T173	T254	T333	T403	T472
S057	S158	S277	S367	S461	S589	S682	S820	S923	T043	T174	T255	T334	T404	T473
S058	S159	S278	S368	S462	S597	S683	S821	S924	T048	T175	T256	T335	T405	T474
S059	S16	S279	S369	S463	S598	S684	S822	S925	T049	T178	T257	T336	T406	T475
S060	S170	S280	S370	S467	S599	S688	S823	S927	T050	T179	T260	T337	T407	T476
S061	S178	S281	S371	S468	S600	S689	S824	S929	T052	T180	T261	T338	T408	T477
S062	S179	S290	S372	S469	S601	S697	S825	S930	T053	T181	T262	T339	T409	T478
S063	S18	S297	S373	S47	S602	S698	S826	S931	T055	T182	T263	T340	T410	T479
S064	S197	S298	S374	S480	S607	S699	S827	S932	T058	T183	T264	T341	T411	T480
S065	S198	S299	S375	S481	S608	S700	S828	S933	T059	T184	T265	T342	T412	T481
S066	S199	S300	S376	S489	S609	S701	S829	S934	T062	T185	T266	T343	T413	T482
S067	S200	S301	S377	S497	S610	S707	S830	S935	T063	T188	T267	T344	T414	T483
S068	S201	S302	S378	S498	S611	S708	S831	S936	T064	T189	T268	T345	T415	T484

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)

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
G3090	G309
G3500	G35
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
J1010	J101
J1110	J111
J8410	J841
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

ICD-10 code	Age/sex limitation	0 - Conditional 1 - Absolute 2 - Not Applicable			Edit code <sup>1</sup>
		Age	Sex		
A32	28 days and over	1	2	03	
A33	Under 1 year	1	2	02	
A34	Female, 10-54 years	0	1	04	
A35	28 days and over	1	2	03	
A40	28 days and over	1	2	03	
A41	28 days and over	1	2	03	
A50.3	2 years and over	0	2	05	
A50.4	2 years and over	0	2	05	
A50.5	2 years and over	0	2	05	
A50.6	2 years and over	0	2	05	
A50.7	2 years and over	0	2	05	
A52	2 years and over	0	2	05	
A53.9	2 years and over	0	2	05	
A56	28 days and over	1	2	03	
A74	28 days and over	1	2	03	
B26.0	Male	2	1	10	
B30	28 days and over	1	2	03	
B37.0	28 days and over	1	2	03	
B37.1	28 days and over	1	2	03	
B37.2	28 days and over	1	2	03	
B37.3	Female, 28 days and over	1	1	13	
B37.4	28 days and over	1	2	03	
B37.5	28 days and over	1	2	03	
B37.6	28 days and over	1	2	03	
B37.7	28 days and over	1	2	03	
B37.8	28 days and over	1	2	03	
B37.9	28 days and over	1	2	03	
B90	1 year and over	1	2	04	
B91	1 year and over	1	2	04	
B92	1 year and over	1	2	04	
B94	1 year and over	1	2	04	
C51	Female	2	1	11	
C52	Female	2	1	11	
C53	Female	2	1	11	
C54	Female	2	1	11	
C55	Female	2	1	11	
C56	Female	2	1	11	
C57	Female	2	1	11	
C58	Female, 10-54 years	0	1	14	
C60	Male	2	1	10	
C61	Male	2	1	10	
C62	Male	2	1	10	

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

ICD-10 code	Age/sex limitation	0 - Conditional 1 - Absolute 2 - Not Applicable			Edit code <sup>1</sup>
		Age	Sex		
C63	Male	2	1	10	
C79.6	Female	2	1	11	
D06	Female	2	1	11	
D07.0	Female	2	1	11	
D07.1	Female	2	1	11	
D07.2	Female	2	1	11	
D07.3	Female	2	1	11	
D07.4	Male	2	1	10	
D07.5	Male	2	1	10	
D07.6	Male	2	1	10	
D17.6	Male	2	1	10	
D25	Female	2	1	11	
D26	Female	2	1	11	
D27	Female	2	1	11	
D28	Female	2	1	11	
D29	Male	2	1	10	
D39.0	Female	2	1	11	
D39.1	Female	2	1	11	
D39.2	Female, 10-54 years	0	1	14	
D39.7	Female	2	1	11	
D39.9	Female	2	1	11	
D40	Male	2	1	10	
D65	28 days and over	1	2	03	
D75.1	28 days and over	1	2	03	
E05	28 days and over	1	2	03	
E10	28 days and over	1	2	03	
E11	28 days and over	1	2	03	
E12	28 days and over	1	2	03	
E13	28 days and over	1	2	03	
E14	28 days and over	1	2	03	
E16.2	28 days and over	1	2	03	
E28	Female	2	1	11	
E29	Male	2	1	10	
E56.1	28 days and over	1	2	03	
E63	28 days and over	1	2	03	
<b>E64</b>	<b>1 year and over</b>	<b>1</b>	<b>2</b>	<b>04</b>	
<b>E68</b>	<b>1 year and over</b>	<b>1</b>	<b>2</b>	<b>04</b>	
E83.4	28 days and over	1	2	03	
E83.5	28 days and over	1	2	03	
E86	28 days and over	0	2	03	
F01	20 years and over	0	2	07	
F03	55 years and over	0	2	23	

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

ICD-10 code	Age/sex limitation	0 - Conditional 1 - Absolute 2 - Not Applicable			Edit code <sup>1</sup>
		Age	Sex		
F10	28 days and over	1	2	03	
F11	28 days and over	1	2	03	
F12	28 days and over	1	2	03	
F13	28 days and over	1	2	03	
F14	28 days and over	1	2	03	
F15	28 days and over	1	2	03	
F16	28 days and over	1	2	03	
F17	28 days and over	1	2	03	
F18	28 days and over	1	2	03	
F19	28 days and over	1	2	03	
F52.4	Male, 10 years and over	1	1	19	
F52.5	Female, 10 years and over	1	1	18	
F53	Female, 10-54 years	1	1	04	
G09	1 year and over	0	2	04	
G30.0	30 years and over	0	2	24	
G30.1	65 years and over	0	2	09	
G30.8	30 years and over	0	2	24	
G30.9	30 years and over	0	2	24	
G47.3	28 days and over	1	2	03	
G70.0	28 days and over	1	2	03	
I48	28 days and over	1	2	03	
I49	28 days and over	1	2	03	
I50	28 days and over	1	2	03	
I61	28 days and over	1	2	03	
I62	28 days and over	1	2	03	
<b>I69</b>	<b>1 year and over</b>	<b>1</b>	<b>2</b>	<b>04</b>	
I86.1	Male	2	1	10	
I86.3	Female	2	1	11	
J12	28 days and over	1	2	03	
J13	28 days and over	1	2	03	
J14	28 days and over	1	2	03	
J15	28 days and over	1	2	03	
J16	28 days and over	1	2	03	
J18	28 days and over	1	2	03	
J43	28 days and over	1	2	03	
J80	28 days and over	1	2	03	
J84.9	28 days and over	1	2	03	
J96	28 days and over	1	2	03	
J98.1	28 days and over	1	2	03	
J98.2	28 days and over	1	2	03	
J98.4	28 days and over	1	2	03	
J98.8	28 days and over	1	2	03	

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

ICD-10 code	Age/sex limitation	0 - Conditional 1 - Absolute 2 - Not Applicable			Edit code <sup>1</sup>
		Age	Sex		
K27	28 days and over	1	2	03	
K31.1	1 year and over	1	2	04	
K31.3	1 year and over	1	2	04	
K56.6	28 days and over	0	2	03	
K63.1	28 days and over	1	2	03	
K65	28 days and over	1	2	03	
K92	28 days and over	1	2	03	
L01	28 days and over	1	2	03	
L10	28 days and over	1	2	03	
L29.1	Male	2	1	10	
L29.2	Female	2	1	11	
L50	28 days and over	1	2	03	
L53.0	28 days and over	1	2	03	
L70.0	1 year and over	1	2	04	
L70.1	1 year and over	1	2	04	
L70.2	1 year and over	1	2	04	
L70.3	1 year and over	1	2	04	
L70.5	Female, 1 year and over	1	1	21	
L70.9	1 year and over	1	2	04	
M34	28 days and over	1	2	03	
M80.0	Female	2	1	11	
M80.1	Female	2	1	11	
M81.0	Female	2	1	11	
M81.1	Female	2	1	11	
M83.0	Female, 10-54 years	1	1	04	
M83.1	10 years and over	1	2	20	
M83.2	10 years and over	1	2	20	
M83.3	10 years and over	1	2	20	
M83.4	10 years and over	1	2	20	
M83.5	10 years and over	1	2	20	
M83.8	10 years and over	1	2	20	
M83.9	10 years and over	1	2	20	
N39.0	28 days and over	1	2	03	
N40	Male	2	1	10	
N41	Male	2	1	10	
N42	Male	2	1	10	
N43	Male	2	1	10	
N44	Male	2	1	10	
N45	Male	2	1	10	
N46	Male	2	1	10	
N47	Male	2	1	10	
N48	Male	2	1	10	

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

ICD-10 code	Age/sex limitation	0 - Conditional 1 - Absolute 2 - Not Applicable			Edit code <sup>1</sup>
		Age	Sex		
N49	Male	2	1	10	
N50	Male	2	1	10	
N61	28 days and over	1	2	03	
N70	Female	2	1	11	
N71	Female	2	1	11	
N72	Female	2	1	11	
N73	Female	2	1	11	
N75	Female	2	1	11	
N76	Female	2	1	11	
N80	Female	2	1	11	
N81	Female	2	1	11	
N82	Female	2	1	11	
N83	Female	2	1	11	
N84	Female	2	1	11	
N85	Female	2	1	11	
N86	Female	2	1	11	
N87	Female	2	1	11	
N88	Female	2	1	11	
N89	Female	2	1	11	
N90	Female	2	1	11	
N91	Female	0	1	14	
' '	<b>(edit for N91 is absolute if age &lt; 10)</b>	1	1	18	
N92	Female	0	1	14	
' '	<b>(edit for N92 is absolute if age &lt; 10)</b>	1	1	18	
N93	Female	2	1	11	
N94	Female	0	1	14	
' '	<b>(edit for N94 is absolute if age &lt; 10)</b>	1	1	18	
N95	Female	0	1	14	
' '	<b>(edit for N95 is absolute if age &lt; 10)</b>	1	1	18	
N96	Female, 10-54 years	0	1	14	
' '	<b>(edit for N96 is absolute if age &lt; 10)</b>	1	1	18	
N97	Female, 10-54 years	0	1	14	
' '	<b>(edit for N97 is absolute if age &lt; 10)</b>	1	1	18	
N98	Female, 10-54 years	0	1	14	
' '	<b>(edit for N98 is absolute if age &lt; 10)</b>	1	1	18	
O00	Female, 10-54 years	0	1	14	
' '	<b>(edit for O00 is absolute if age &lt; 10)</b>	1	1	18	
O01	Female, 10-54 years	0	1	14	
' '	<b>(edit for O01 is absolute if age &lt; 10)</b>	1	1	18	
O02	Female, 10-54 years	0	1	14	
' '	<b>(edit for O02 is absolute if age &lt; 10)</b>	1	1	18	
O03	Female, 10-54 years	0	1	14	

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

ICD-10 code	Age/sex limitation				Edit code <sup>1</sup>
		Age	Sex		
				0 - Conditional	
				1 - Absolute	
				2 - Not Applicable	
' '	<b>(edit for O03 is absolute if age &lt; 10)</b>	<b>1</b>	<b>1</b>		<b>18</b>
O04	Female, 10-54 years	0	1		14
' '	<b>(edit for O04 is absolute if age &lt; 10)</b>	<b>1</b>	<b>1</b>		<b>18</b>
O05	Female, 10-54 years	0	1		14
' '	<b>(edit for O05 is absolute if age &lt; 10)</b>	<b>1</b>	<b>1</b>		<b>18</b>
O06	Female, 10-54 years	0	1		14
' '	<b>(edit for O06 is absolute if age &lt; 10)</b>	<b>1</b>	<b>1</b>		<b>18</b>
O07	Female, 10-54 years	0	1		14
' '	<b>(edit for O07 is absolute if age &lt; 10)</b>	<b>1</b>	<b>1</b>		<b>18</b>
O10	Female, 10-54 years	0	1		14
' '	<b>(edit for O10 is absolute if age &lt; 10)</b>	<b>1</b>	<b>1</b>		<b>18</b>
O11	Female, 10-54 years	0	1		14
' '	<b>(edit for O11 is absolute if age &lt; 10)</b>	<b>1</b>	<b>1</b>		<b>18</b>
O12	Female, 10-54 years	0	1		14
' '	<b>(edit for O12 is absolute if age &lt; 10)</b>	<b>1</b>	<b>1</b>		<b>18</b>
O13	Female, 10-54 years	0	1		14
' '	<b>(edit for O13 is absolute if age &lt; 10)</b>	<b>1</b>	<b>1</b>		<b>18</b>
O14	Female, 10-54 years	0	1		14
' '	<b>(edit for O14 is absolute if age &lt; 10)</b>	<b>1</b>	<b>1</b>		<b>18</b>
O15	Female, 10-54 years	0	1		14
' '	<b>(edit for O15 is absolute if age &lt; 10)</b>	<b>1</b>	<b>1</b>		<b>18</b>
O16	Female, 10-54 years	0	1		14
' '	<b>(edit for O16 is absolute if age &lt; 10)</b>	<b>1</b>	<b>1</b>		<b>18</b>
O20	Female, 10-54 years	0	1		14
' '	<b>(edit for O20 is absolute if age &lt; 10)</b>	<b>1</b>	<b>1</b>		<b>18</b>
O21	Female, 10-54 years	0	1		14
' '	<b>(edit for O21 is absolute if age &lt; 10)</b>	<b>1</b>	<b>1</b>		<b>18</b>
O22	Female, 10-54 years	0	1		14
' '	<b>(edit for O22 is absolute if age &lt; 10)</b>	<b>1</b>	<b>1</b>		<b>18</b>
O23	Female, 10-54 years	0	1		14
' '	<b>(edit for O23 is absolute if age &lt; 10)</b>	<b>1</b>	<b>1</b>		<b>18</b>
O24	Female, 10-54 years	0	1		14
' '	<b>(edit for O24 is absolute if age &lt; 10)</b>	<b>1</b>	<b>1</b>		<b>18</b>
O25	Female, 10-54 years	0	1		14
' '	<b>(edit for O25 is absolute if age &lt; 10)</b>	<b>1</b>	<b>1</b>		<b>18</b>
O26	Female, 10-54 years	0	1		14
' '	<b>(edit for O26 is absolute if age &lt; 10)</b>	<b>1</b>	<b>1</b>		<b>18</b>
O28	Female, 10-54 years	0	1		14
' '	<b>(edit for O28 is absolute if age &lt; 10)</b>	<b>1</b>	<b>1</b>		<b>18</b>
O29	Female, 10-54 years	0	1		14
' '	<b>(edit for O29 is absolute if age &lt; 10)</b>	<b>1</b>	<b>1</b>		<b>18</b>
O30	Female, 10-54 years	0	1		14



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

ICD-10 code	Age/sex limitation				Edit code <sup>1</sup>
		Age	Sex		
				0 - Conditional	
				1 - Absolute	
				2 - Not Applicable	
' '	<b>(edit for O30 is absolute if age &lt; 10)</b>	1	1		18
O31	Female, 10-54 years	0	1		14
' '	<b>(edit for O31 is absolute if age &lt; 10)</b>	1	1		18
O32	Female, 10-54 years	0	1		14
' '	<b>(edit for O32 is absolute if age &lt; 10)</b>	1	1		18
O33	Female, 10-54 years	0	1		14
' '	<b>(edit for O33 is absolute if age &lt; 10)</b>	1	1		18
O34	Female, 10-54 years	0	1		14
' '	<b>(edit for O34 is absolute if age &lt; 10)</b>	1	1		18
O35	Female, 10-54 years	0	1		14
' '	<b>(edit for O35 is absolute if age &lt; 10)</b>	1	1		18
O36	Female, 10-54 years	0	1		14
' '	<b>(edit for O36 is absolute if age &lt; 10)</b>	1	1		18
O40	Female, 10-54 years	0	1		14
' '	<b>(edit for O40 is absolute if age &lt; 10)</b>	1	1		18
O41	Female, 10-54 years	0	1		14
' '	<b>(edit for O41 is absolute if age &lt; 10)</b>	1	1		18
O42	Female, 10-54 years	0	1		14
' '	<b>(edit for O42 is absolute if age &lt; 10)</b>	1	1		18
O43	Female, 10-54 years	0	1		14
' '	<b>(edit for O43 is absolute if age &lt; 10)</b>	1	1		18
O44	Female, 10-54 years	0	1		14
' '	<b>(edit for O44 is absolute if age &lt; 10)</b>	1	1		18
O45	Female, 10-54 years	0	1		14
' '	<b>(edit for O45 is absolute if age &lt; 10)</b>	1	1		18
O46	Female, 10-54 years	0	1		14
' '	<b>(edit for O46 is absolute if age &lt; 10)</b>	1	1		18
O47	Female, 10-54 years	0	1		14
' '	<b>(edit for O47 is absolute if age &lt; 10)</b>	1	1		18
O48	Female, 10-54 years	0	1		14
' '	<b>(edit for O48 is absolute if age &lt; 10)</b>	1	1		18
O60	Female, 10-54 years	0	1		14
' '	<b>(edit for O60 is absolute if age &lt; 10)</b>	1	1		18
O61	Female, 10-54 years	0	1		14
' '	<b>(edit for O61 is absolute if age &lt; 10)</b>	1	1		18
O62	Female, 10-54 years	0	1		14
' '	<b>(edit for O62 is absolute if age &lt; 10)</b>	1	1		18
O63	Female, 10-54 years	0	1		14
' '	<b>(edit for O63 is absolute if age &lt; 10)</b>	1	1		18
O64	Female, 10-54 years	0	1		14
' '	<b>(edit for O64 is absolute if age &lt; 10)</b>	1	1		18
O65	Female, 10-54 years	0	1		14

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

ICD-10 code	Age/sex limitation				Edit code <sup>1</sup>
		Age	Sex		
				0 - Conditional	
				1 - Absolute	
				2 - Not Applicable	
' '	<b>(edit for O65 is absolute if age &lt; 10)</b>	<b>1</b>	<b>1</b>		<b>18</b>
O66	Female, 10-54 years	0	1		14
' '	<b>(edit for O66 is absolute if age &lt; 10)</b>	<b>1</b>	<b>1</b>		<b>18</b>
O67	Female, 10-54 years	0	1		14
' '	<b>(edit for O67 is absolute if age &lt; 10)</b>	<b>1</b>	<b>1</b>		<b>18</b>
O68	Female, 10-54 years	0	1		14
' '	<b>(edit for O68 is absolute if age &lt; 10)</b>	<b>1</b>	<b>1</b>		<b>18</b>
O69	Female, 10-54 years	0	1		14
' '	<b>(edit for O69 is absolute if age &lt; 10)</b>	<b>1</b>	<b>1</b>		<b>18</b>
O70	Female, 10-54 years	0	1		14
' '	<b>(edit for O70 is absolute if age &lt; 10)</b>	<b>1</b>	<b>1</b>		<b>18</b>
O71	Female, 10-54 years	0	1		14
' '	<b>(edit for O71 is absolute if age &lt; 10)</b>	<b>1</b>	<b>1</b>		<b>18</b>
O72	Female, 10-54 years	0	1		14
' '	<b>(edit for O72 is absolute if age &lt; 10)</b>	<b>1</b>	<b>1</b>		<b>18</b>
O73	Female, 10-54 years	0	1		14
' '	<b>(edit for O73 is absolute if age &lt; 10)</b>	<b>1</b>	<b>1</b>		<b>18</b>
O74	Female, 10-54 years	0	1		14
' '	<b>(edit for O74 is absolute if age &lt; 10)</b>	<b>1</b>	<b>1</b>		<b>18</b>
O75	Female, 10-54 years	0	1		14
' '	<b>(edit for O75 is absolute if age &lt; 10)</b>	<b>1</b>	<b>1</b>		<b>18</b>
O85	Female, 10-54 years	0	1		14
' '	<b>(edit for O85 is absolute if age &lt; 10)</b>	<b>1</b>	<b>1</b>		<b>18</b>
O86	Female, 10-54 years	0	1		14
' '	<b>(edit for O86 is absolute if age &lt; 10)</b>	<b>1</b>	<b>1</b>		<b>18</b>
O87	Female, 10-54 years	0	1		14
' '	<b>(edit for O87 is absolute if age &lt; 10)</b>	<b>1</b>	<b>1</b>		<b>18</b>
O88	Female, 10-54 years	0	1		14
' '	<b>(edit for O88 is absolute if age &lt; 10)</b>	<b>1</b>	<b>1</b>		<b>18</b>
O89	Female, 10-54 years	0	1		14
' '	<b>(edit for O89 is absolute if age &lt; 10)</b>	<b>1</b>	<b>1</b>		<b>18</b>
O90	Female, 10-54 years	0	1		14
' '	<b>(edit for O90 is absolute if age &lt; 10)</b>	<b>1</b>	<b>1</b>		<b>18</b>
O91	Female, 10-54 years	0	1		14
' '	<b>(edit for O91 is absolute if age &lt; 10)</b>	<b>1</b>	<b>1</b>		<b>18</b>
O92	Female, 10-54 years	0	1		14
' '	<b>(edit for O92 is absolute if age &lt; 10)</b>	<b>1</b>	<b>1</b>		<b>18</b>
O95	Female, 10-54 years	0	1		14
' '	<b>(edit for O95 is absolute if age &lt; 10)</b>	<b>1</b>	<b>1</b>		<b>18</b>
O96	Female, 10-54 years	1	1		14
' '	<b>(edit for O96 is absolute if age &lt; 10)</b>	<b>1</b>	<b>1</b>		<b>18</b>
O97	Female, 10-54 years	1	1		14

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

ICD-10 code	Age/sex limitation	0 - Conditional 1 - Absolute 2 - Not Applicable			Edit code <sup>1</sup>
		Age	Sex		
' '	<b>(edit for O97 is absolute if age &lt; 10)</b>	<b>1</b>	<b>1</b>	<b>18</b>	
O98	Female, 10-54 years	0	1	14	
' '	<b>(edit for O98 is absolute if age &lt; 10)</b>	<b>1</b>	<b>1</b>	<b>18</b>	
O99	Female, 10-54 years	0	1	14	
' '	<b>(edit for O99 is absolute if age &lt; 10)</b>	<b>1</b>	<b>1</b>	<b>18</b>	
P00	Under 1 year	0	2	02	
P01	Under 1 year	0	2	02	
P02	Under 1 year	0	2	02	
P03	Under 1 year	0	2	02	
P04	Under 1 year	0	2	02	
P05	Under 1 year	0	2	02	
P07	Under 1 year	0	2	02	
P08	Under 1 year	0	2	02	
P10	Under 1 year	0	2	02	
P11	Under 1 year	0	2	02	
P12	Under 1 year	0	2	02	
P13	Under 1 year	0	2	02	
P14	Under 1 year	0	2	02	
P15	Under 1 year	0	2	02	
P20	Under 1 year	0	2	02	
P21	Under 1 year	0	2	02	
P22	Under 1 year	0	2	02	
P23	Under 1 year	0	2	02	
P24	Under 1 year	0	2	02	
P25	Under 1 year	0	2	02	
P26	Under 1 year	0	2	02	
P27	Under 1 year	0	2	02	
P28	Under 1 year	0	2	02	
P29	Under 1 year	0	2	02	
P35	Under 1 year	0	2	02	
P36	Under 1 year	0	2	02	
P37	Under 1 year	0	2	02	
P38	Under 1 year	0	2	02	
P39	Under 1 year	0	2	02	
P50	Under 1 year	0	2	02	
P51	Under 1 year	0	2	02	
P52	Under 1 year	0	2	02	
P53	Under 1 year	0	2	02	
P54.0	Under 1 year	0	2	02	
P54.1	Under 1 year	0	2	02	
P54.2	Under 1 year	0	2	02	
P54.3	Under 1 year	0	2	02	

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

ICD-10 code	Age/sex limitation	0 - Conditional 1 - Absolute 2 - Not Applicable			Edit code <sup>1</sup>
		Age	Sex		
P54.4	Under 1 year	0	2	02	
P54.5	Under 1 year	0	2	02	
P54.6	Female, under 1 year	0	1	22	
P54.8	Under 1 year	0	2	02	
P54.9	Under 1 year	0	2	02	
P55	Under 1 year	0	2	02	
P56	Under 1 year	0	2	02	
P57	Under 1 year	0	2	02	
P58	Under 1 year	0	2	02	
P59	Under 1 year	0	2	02	
P60	Under 1 year	0	2	02	
P61	Under 1 year	0	2	02	
P70	Under 1 year	0	2	02	
P71	Under 1 year	0	2	02	
P72	Under 1 year	0	2	02	
P74	Under 1 year	0	2	02	
P76	Under 1 year	0	2	02	
P77	Under 1 year	0	2	02	
P78	Under 1 year	0	2	02	
P80	Under 1 year	0	2	02	
P81	Under 1 year	0	2	02	
P83	Under 1 year	0	2	02	
P90	Under 1 year	0	2	02	
P91	Under 1 year	0	2	02	
P92	Under 1 year	0	2	02	
P93	Under 1 year	0	2	02	
P94	Under 1 year	0	2	02	
P96	Under 1 year	0	2	02	
Q50	Female	2	1	11	
Q51	Female	2	1	11	
Q52	Female	2	1	11	
Q53	Male	2	1	10	
Q54	Male	2	1	10	
Q55	Male	2	1	10	
Q96	Female	2	1	11	
Q97	Female	2	1	11	
Q98	Male	2	1	10	
R00	28 days and over	1	2	03	
R01	28 days and over	1	2	03	
R04.8	28 days and over	1	2	03	
R06.8	28 days and over	0	2	03	
R09.0	28 days and over	1	2	03	

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

ICD-10 code	Age/sex limitation			Edit code <sup>1</sup>
		Age	Sex	
R09.2	28 days and over	1	2	03
R11	28 days and over	1	2	03
R17	28 days and over	1	2	03
R23.0	28 days and over	1	2	03
R23.3	28 days and over	1	2	03
R29.0	28 days and over	1	2	03
R40	28 days and over	1	2	03
R50	28 days and over	1	2	03
R53	28 days and over	1	2	03
R54	65 years and over	0	2	09
' '	(edit for R54 is absolute if age < 30)	1	2	24
R56	28 days and over	1	2	03
R58	28 days and over	1	2	03
R60	28 days and over	1	2	03
R63.3	28 days and over	1	2	03
R68.0	28 days and over	1	2	03
R68.1	28 days and over	1	2	03
R73	28 days and over	0	2	03
R86	Male	2	1	10
R87	Female	2	1	11
R95	Under 1 year	1	2	02
R96.0	1 year and over	1	2	04
R96.1	1 year and over	0	2	04

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/sex limitation	Age	Sex	Edit code <sup>1</sup>
<b>*U0.3</b>	<b>5 years and over</b>	<b>1</b>	<b>2</b>	<b>06</b>
X60	5 years and over	1	2	06
X61	5 years and over	1	2	06
X62	5 years and over	1	2	06
X63	5 years and over	1	2	06
X64	5 years and over	1	2	06
X65	5 years and over	1	2	06
X66	5 years and over	1	2	06
X67	5 years and over	1	2	06
X68	5 years and over	1	2	06
X69	5 years and over	1	2	06
X70	5 years and over	1	2	06
X71	5 years and over	1	2	06
X72	5 years and over	1	2	06
X73	5 years and over	1	2	06
X74	5 years and over	1	2	06
X75	5 years and over	1	2	06
X76	5 years and over	1	2	06
X77	5 years and over	1	2	06
X78	5 years and over	1	2	06
X79	5 years and over	1	2	06
X80	5 years and over	1	2	06
X81	5 years and over	1	2	06
X82	5 years and over	1	2	06
X83	5 years and over	1	2	06
X84	5 years and over	1	2	06

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

ICD-10 code	Age/sex limitation	0 - Conditional 1 - Absolute 2 - Not Applicable			Edit code <sup>1</sup>
		Age	Sex		
Y06.1	Under 18 years	0	2		17
Y07.1	Under 18 years	0	2		17
Y42.4	Female, 10-54 years	1	1		14
Y42.5	Female	2	1		11
Y59.0	Under 20 years	0	2		25
Y76	Female	2	1		11
Y85	1 year and over	1	2		04
Y86	1 year and over	1	2		04
Y87.0	5 years and over	1	2		06
Y87.1	1 year and over	1	2		04
Y87.2	1 year and over	1	2		04
Y88	1 year and over	1	2		04
Y89	1 year and over	1	2		04

<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	14	Female, 10-54 years
03	28 days and over	17	Under 18 years
04	1 year and over	18	Female, 10 years and over
05	2 years and over	19	Male, 10 years and over
06	5 years and over	20	10 years and over
07	20 years and over	21	Female, 1 year and over
09	65 years and over	22	Female, under 1 year
10	Male	23	55 years and over
11	Female	24	30 years and over
13	Female, 28 days and over	25	Under 20 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

ICD-10 code	Age/sex limitation	0 - Conditional 1 - Absolute 2 - Not Applicable			Edit code <sup>1</sup>
		Age	Sex		
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>
<b>2 (suicide)</b>	<b>5 years and over</b>	<b>None at this moment</b>	<b>Set value to blank</b>

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

ICD-10 <u>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)
B50-B54	Malaria
B55	Leishmaniasis
B56	African trypanosomiasis
B57	Chagas' disease (including American trypanosomiasis)
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)
P35.0	Congenital rubella syndrome
W88-W91	Exposure to radiation
Y36.5	War operation involving nuclear weapons
	Causing adverse effects in therapeutic use:
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

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

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

Table L lists the ICD-10 codes valid for coding underlying 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.

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 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 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 Underlying / Initiating Causes of Fetal Death

A000	A165	A267	A448	A752	A921	B080	B340	B461	B651
A001	A167	A268	A449	A753	A922	B150	B341	B462	B652
A009	A168	A269	A46	A759	A923	B159	B342	B463	B653
A010	A169	A270	A480	A770	A924	B160	B343	B464	B658
A011	A170	A278	A482	A771	A928	B161	B344	B465	B659
A012	A171	A279	A483	A772	A929	B162	B348	B468	B660
A013	A178	A280	A484	A773	A930	B169	B349	B469	B661
A014	A179	A281	A488	A778	A931	B170	B380	B470	B662
A020	A180	A282	A490	A779	A932	B171	B381	B471	B663
A021	A181	A288	A491	A78	A938	B178	B382	B479	B664
A022	A182	A289	A492	A790	A94	B180	B383	B480	B665
A028	A183	A300	A493	A791	A950	B181	B384	B481	B668
A029	A184	A301	A498	A798	A951	B182	B387	B482	B669
A030	A185	A303	A499	A799	A959	B188	B388	B483	B670
A031	A186	A305	A500	A800	A960	B189	B389	B484	B671
A032	A187	A308	A502	A802	A961	B190	B390	B487	B672
A033	A188	A309	A503	A803	A962	B199	B391	B488	B673
A038	A190	A310	A504	A804	A968	B200	B392	B49	B674
A039	A191	A311	A505	A809	A969	B201	B393	B500	B675
A040	A192	A318	A509	A810	A980	B202	B394	B508	B676
A041	A198	A319	A540	A811	A981	B203	B395	B509	B677
A042	A199	A320	A541	A812	A982	B204	B399	B510	B678
A043	A200	A321	A542	A818	A983	B205	B400	B518	B679
A044	A201	A327	A543	A819	A984	B206	B401	B519	B680
A045	A202	A328	A544	A820	A985	B208	B402	B520	B681
A046	A203	A329	A545	A821	A988	B209	B403	B528	B689
A047	A207	A360	A546	A829	A99	B210	B407	B529	B690
A048	A208	A361	A548	A830	B000	B211	B408	B530	B691
A049	A209	A362	A549	A831	B001	B212	B409	B531	B698
A050	A210	A363	A600	A832	B002	B220	B410	B538	B699
A051	A211	A368	A601	A833	B003	B221	B417	B54	B700
A052	A212	A369	A609	A834	B004	B222	B418	B550	B701
A053	A213	A370	A65	A835	B005	B230	B419	B551	B710
A058	A217	A371	A660	A836	B007	B231	B420	B552	B711
A059	A218	A378	A661	A838	B008	B232	B421	B559	B718
A060	A219	A379	A662	A839	B009	B238	B427	B560	B719
A061	A220	A38	A663	A840	B010	B24	B428	B561	B72
A062	A221	A390	A664	A841	B011	B250	B429	B569	B73
A063	A222	A391	A665	A848	B012	B251	B430	B570	B740
A064	A227	A392	A666	A849	B018	B252	B431	B571	B741
A065	A228	A393	A667	A850	B019	B258	B432	B572	B743
A066	A229	A394	A669	A851	B020	B259	B438	B573	B744
A067	A230	A395	A670	A852	B021	B260	B439	B574	B748
A068	A231	A398	A671	A858	B022	B261	B440	B575	B749
A069	A232	A399	A673	A86	B023	B262	B441	B580	B75
A072	A233	A420	A679	A870	B027	B263	B442	B581	B760
A073	A238	A421	A680	A871	B028	B268	B447	B582	B761
A078	A239	A422	A681	A872	B029	B269	B448	B583	B768
A079	A240	A427	A689	A878	B03	B270	B449	B588	B769
A082	A241	A428	A690	A879	B04	B271	B450	B589	B770
A083	A242	A429	A691	A880	B050	B278	B451	B59	B778
A084	A243	A430	A692	A881	B051	B279	B452	B600	B779
A085	A244	A431	A698	A888	B052	B330	B453	B601	B780
A09	A250	A438	A699	A89	B053	B331	B457	B602	B781
A162	A251	A439	A70	A90	B054	B332	B458	B608	B787
A163	A259	A440	A750	A91	B058	B333	B459	B64	B789
A164	A260	A441	A751	A920	B059	B338	B460	B650	B79

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

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
C050	C169	C328	C461	C572	C717	C844	D010	D103	D181
C051	C170	C329	C462	C573	C718	C845	D011	D104	D190



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

D191	D304	D401	D511	D641	D808	E209	E725	E850	G803
D197	D307	D407	D512	D642	D809	E210	E728	E851	G804
D199	D309	D409	D513	D643	D810	E213	E729	E852	G808
D200	D310	D410	D518	D644	D811	E214	E740	E853	G809
D201	D311	D411	D519	D648	D812	E215	E741	E854	G900
D210	D312	D412	D520	D649	D813	E221	E742	E858	G901
D211	D313	D413	D521	D66	D814	E228	E743	E859	G902
D212	D314	D414	D528	D67	D815	E229	E744	E880	G903
D213	D315	D417	D529	D680	D816	E230	E748	E881	G908
D214	D316	D419	D530	D681	D817	E233	E749	E882	G909
D215	D319	D420	D531	D682	D818	E236	E750	E888	G910
D216	D320	D421	D532	D683	D819	E237	E751	E889	G911
D219	D321	D429	D538	D684	D820	E240	E752	G000	G912
D220	D329	D430	D539	D688	D821	E241	E753	G001	G913
D221	D330	D431	D550	D689	D822	E243	E754	G002	G918
D222	D331	D432	D551	D690	D823	E248	E755	G003	G919
D223	D332	D433	D552	D691	D824	E249	E756	G008	G935
D224	D333	D434	D553	D692	D828	E250	E760	G009	G950
D225	D334	D437	D558	D693	D829	E258	E761	G030	G951
D226	D337	D439	D559	D694	D830	E259	E762	G038	G952
D227	D339	D440	D560	D695	D831	E260	E763	G039	G958
D229	D34	D441	D561	D696	D832	E268	E768	G040	G959
D230	D350	D442	D562	D698	D838	E269	E769	G041	I210
D231	D351	D443	D563	D699	D839	E270	E770	G042	I211
D232	D352	D444	D564	D70	D840	E271	E771	G048	I212
D233	D353	D445	D568	D71	D841	E272	E778	G120	I213
D234	D354	D446	D569	D720	D848	E274	E779	G121	I214
D235	D355	D447	D570	D721	D849	E275	E780	G122	I219
D236	D356	D448	D571	D728	D860	E278	E781	G128	I220
D237	D357	D449	D572	D729	D861	E279	E782	G129	I221
D239	D358	D45	D573	D730	D862	E310	E783	G318	I228
D24	D359	D460	D578	D731	D863	E311	E784	G319	I229
D250	D360	D461	D580	D732	D868	E318	E785	G361	I241
D251	D361	D462	D581	D733	D869	E319	E786	G368	I248
D252	D367	D463	D582	D734	D890	E320	E788	G369	I249
D259	D369	D464	D588	D735	D891	E321	E789	G370	I251
D260	D370	D467	D589	D738	D892	E328	E791	G371	I255
D261	D371	D469	D590	D739	D898	E329	E798	G372	I300
D267	D372	D470	D591	D740	D899	E341	E799	G373	I301
D269	D373	D471	D592	D748	E000	E345	E800	G374	I308
D27	D374	D472	D593	D749	E001	E348	E801	G375	I309
D280	D375	D473	D594	D750	E002	E349	E802	G378	I319
D281	D376	D477	D595	D752	E009	E700	E803	G379	I330
D282	D377	D479	D596	D758	E030	E701	E804	G403	I339
D287	D379	D480	D598	D759	E031	E702	E805	G404	I400
D289	D380	D481	D599	D760	E071	E703	E806	G600	I409
D290	D381	D482	D600	D761	E079	E708	E807	G601	I424
D291	D382	D483	D601	D762	E15	E709	E830	G608	I460
D292	D383	D484	D608	D763	E160	E710	E831	G609	I461
D293	D384	D485	D609	D800	E161	E711	E832	G710	I469
D294	D385	D486	D610	D801	E163	E712	E833	G711	I600
D297	D386	D487	D611	D802	E164	E713	E838	G712	I601
D299	D390	D489	D612	D803	E168	E720	E839	G719	I602
D300	D391	D501	D613	D804	E169	E721	E840	G723	I603
D301	D397	D508	D618	D805	E200	E722	E841	G800	I604
D302	D399	D509	D619	D806	E201	E723	E848	G801	I605
D303	D400	D510	D640	D807	E208	E724	E849	G802	I606

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

I607	M009	P022	P129	P280	P540	P760	Q052	Q164	Q245
I608	M329	P023	P130	P281	P541	P768	Q053	Q165	Q246
I609	M359	P024	P131	P285	P542	P769	Q054	Q169	Q248
I630	M600	P025	P132	P288	P543	P77	Q055	Q170	Q249
I631	M898	P026	P133	P289	P544	P780	Q056	Q171	Q250
I632	N040	P027	P134	P290	P545	P781	Q057	Q172	Q251
I633	N041	P028	P138	P291	P546	P782	Q058	Q173	Q252
I634	N042	P029	P139	P292	P548	P783	Q059	Q174	Q253
I635	N043	P030	P140	P294	P549	P788	Q060	Q175	Q254
I636	N044	P031	P141	P298	P550	P789	Q061	Q178	Q255
I638	N045	P032	P142	P299	P551	P830	Q062	Q179	Q256
I639	N046	P033	P143	P350	P558	P831	Q063	Q180	Q257
I780	N047	P034	P148	P351	P559	P832	Q064	Q181	Q258
I789	N048	P035	P149	P352	P560	P833	Q068	Q182	Q259
J100	N049	P036	P150	P353	P569	P910	Q069	Q183	Q260
J101	N050	P038	P151	P358	P570	P911	Q070	Q184	Q261
J108	N051	P039	P152	P359	P578	P912	Q078	Q185	Q262
J110	N052	P040	P153	P360	P579	P914	Q079	Q186	Q263
J111	N053	P041	P154	P361	P580	P915	Q100	Q187	Q264
J118	N054	P042	P155	P362	P581	P918	Q101	Q188	Q265
K400	N055	P043	P156	P363	P582	P919	Q102	Q189	Q266
K401	N056	P044	P158	P364	P583	P940	Q103	Q200	Q268
K402	N057	P045	P159	P365	P584	P941	Q104	Q201	Q269
K403	N058	P046	P200	P368	P585	P942	Q105	Q202	Q270
K404	N059	P048	P201	P369	P588	P948	Q106	Q203	Q271
K409	N070	P049	P209	P370	P589	P949	Q107	Q204	Q272
K410	N071	P050	P219	P371	P591	P95	Q110	Q205	Q273
K411	N072	P051	P228	P372	P60	P960	Q111	Q206	Q274
K412	N073	P052	P229	P373	P612	P961	Q112	Q208	Q278
K413	N074	P059	P230	P374	P613	P962	Q113	Q210	Q279
K414	N075	P070	P231	P375	P614	P963	Q120	Q211	Q280
K419	N076	P071	P232	P378	P619	P965	Q121	Q212	Q281
K420	N077	P072	P233	P379	P700	P968	Q122	Q213	Q282
K421	N078	P073	P234	P38	P701	P969	Q123	Q214	Q283
K429	N079	P080	P235	P392	P702	Q000	Q124	Q218	Q288
K430	P000	P081	P236	P393	P703	Q001	Q128	Q219	Q289
K431	P001	P082	P238	P394	P704	Q002	Q129	Q220	Q300
K439	P002	P100	P239	P398	P708	Q010	Q130	Q221	Q301
K450	P003	P101	P240	P399	P709	Q011	Q131	Q222	Q302
K451	P004	P102	P241	P500	P711	Q012	Q132	Q223	Q303
K458	P005	P103	P242	P501	P712	Q018	Q133	Q224	Q308
K460	P006	P104	P243	P502	P713	Q019	Q134	Q225	Q309
K461	P007	P108	P248	P503	P714	Q02	Q135	Q226	Q310
K469	P008	P109	P249	P504	P718	Q030	Q138	Q228	Q311
K550	P009	P110	P250	P505	P719	Q031	Q139	Q229	Q312
K740	P010	P111	P251	P508	P720	Q038	Q140	Q230	Q313
K741	P011	P112	P252	P509	P721	Q039	Q141	Q231	Q315
K742	P012	P113	P253	P519	P722	Q040	Q142	Q232	Q318
K743	P013	P114	P258	P520	P728	Q041	Q143	Q233	Q319
K745	P014	P115	P260	P521	P729	Q042	Q148	Q234	Q320
K768	P015	P119	P261	P522	P741	Q043	Q150	Q238	Q321
K828	P016	P120	P268	P523	P742	Q045	Q158	Q239	Q322
K838	P017	P121	P269	P524	P743	Q046	Q159	Q240	Q323
M000	P018	P122	P270	P525	P744	Q048	Q160	Q241	Q324
M001	P019	P123	P271	P526	P745	Q049	Q161	Q242	Q330
M002	P020	P124	P278	P528	P748	Q050	Q162	Q243	Q331
M008	P021	P128	P279	P529	P749	Q051	Q163	Q244	Q332

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

Q333	Q422	Q532	Q644	Q724	Q796	Q894	Q982	*U014	V825
Q334	Q423	Q539	Q645	Q725	Q798	Q897	Q984	*U015	V826
Q335	Q428	Q540	Q646	Q726	Q799	Q898	Q985	*U016	V827
Q336	Q429	Q541	Q647	Q727	Q800	Q899	Q987	*U017	V828
Q338	Q430	Q542	Q648	Q728	Q801	Q900	Q988	*U018	V829
Q339	Q431	Q543	Q649	Q729	Q802	Q901	Q989	*U019	V839
Q340	Q432	Q544	Q652	Q730	Q803	Q902	Q990	V060	V849
Q341	Q433	Q548	Q658	Q731	Q804	Q909	Q991	V061	V859
Q348	Q434	Q549	Q659	Q738	Q808	Q910	Q992	V069	V869
Q349	Q435	Q550	Q660	Q740	Q809	Q911	Q998	V090	V870
Q351	Q436	Q551	Q661	Q741	Q810	Q912	Q999	V091	V871
Q353	Q437	Q552	Q662	Q742	Q811	Q913	R75	V092	V872
Q355	Q438	Q553	Q663	Q743	Q812	Q914	R780	V093	V873
Q357	Q439	Q554	Q664	Q748	Q818	Q915	R781	V099	V874
Q359	Q440	Q555	Q665	Q749	Q819	Q916	R782	V190	V875
Q360	Q441	Q556	Q666	Q750	Q820	Q917	R783	V191	V876
Q361	Q442	Q558	Q667	Q751	Q821	Q920	R784	V192	V877
Q369	Q443	Q559	Q668	Q752	Q822	Q921	R785	V193	V878
Q370	Q444	Q560	Q669	Q753	Q823	Q922	R786	V194	V879
Q371	Q445	Q561	Q670	Q754	Q824	Q923	R787	V195	V880
Q372	Q446	Q562	Q671	Q755	Q825	Q924	R788	V196	V881
Q373	Q447	Q563	Q672	Q758	Q828	Q925	R789	V198	V882
Q374	Q450	Q564	Q673	Q759	Q829	Q926	R830	V199	V883
Q375	Q451	Q600	Q674	Q760	Q830	Q927	R831	V201	V884
Q378	Q452	Q601	Q675	Q761	Q831	Q928	R832	V205	V885
Q379	Q453	Q602	Q676	Q762	Q832	Q929	R833	V215	V886
Q380	Q458	Q603	Q677	Q763	Q833	Q930	R834	V225	V887
Q381	Q459	Q604	Q678	Q764	Q838	Q931	R835	V255	V888
Q382	Q500	Q605	Q680	Q765	Q839	Q932	R836	V271	V889
Q383	Q501	Q606	Q681	Q766	Q840	Q933	R837	V299	V890
Q384	Q502	Q610	Q682	Q767	Q841	Q934	R838	V304	V891
Q385	Q503	Q611	Q683	Q769	Q842	Q935	R839	V399	V892
Q386	Q504	Q612	Q684	Q770	Q843	Q936	R840	V456	V899
Q387	Q505	Q613	Q685	Q771	Q844	Q937	R841	V471	V900
Q388	Q506	Q614	Q688	Q772	Q845	Q938	R842	V499	V901
Q390	Q510	Q615	Q690	Q773	Q846	Q939	R843	V599	V902
Q391	Q511	Q618	Q691	Q774	Q848	Q951	R844	V699	V903
Q392	Q512	Q619	Q692	Q775	Q849	Q952	R845	V799	V904
Q393	Q513	Q620	Q699	Q776	Q850	Q954	R846	V800	V905
Q394	Q514	Q621	Q700	Q777	Q851	Q955	R847	V803	V906
Q395	Q515	Q622	Q701	Q778	Q858	Q958	R848	V807	V907
Q396	Q516	Q623	Q702	Q779	Q859	Q959	R849	V809	V908
Q398	Q517	Q624	Q703	Q780	Q860	Q960	R850	V810	V909
Q399	Q518	Q625	Q704	Q781	Q861	Q961	R851	V811	V910
Q400	Q519	Q626	Q709	Q782	Q862	Q962	R852	V812	V911
Q401	Q520	Q627	Q710	Q783	Q868	Q963	R853	V813	V912
Q402	Q521	Q628	Q711	Q784	Q870	Q964	R854	V814	V913
Q403	Q522	Q630	Q712	Q785	Q871	Q968	R855	V815	V914
Q408	Q523	Q631	Q713	Q786	Q872	Q969	R856	V816	V915
Q409	Q524	Q632	Q714	Q788	Q873	Q970	R857	V817	V916
Q410	Q525	Q633	Q715	Q789	Q874	Q971	R858	V818	V917
Q411	Q526	Q638	Q718	Q790	Q875	Q972	R859	V819	V918
Q412	Q527	Q639	Q719	Q791	Q878	Q973	R99	V820	V919
Q418	Q528	Q640	Q720	Q792	Q890	Q978	*U010	V821	V920
Q419	Q529	Q641	Q721	Q793	Q891	Q979	*U011	V822	V921
Q420	Q530	Q642	Q722	Q794	Q892	Q980	*U012	V823	V922
Q421	Q531	Q643	Q723	Q795	Q893	Q981	*U013	V824	V923

Table L. ICD-10 Codes Valid for Underlying / **Initiating** Causes of Fetal Death

V924	W31	X38	Y350
V925	W32	X39	Y351
V926	W33	X40	Y353
V927	W34	X41	Y354
V928	W35	X42	Y356
V929	W36	X43	Y357
V930	W37	X44	Y360
V931	W38	X45	Y361
V932	W39	X46	Y362
V933	W40	X47	Y364
V934	W41	X48	Y365
V935	W42	X49	Y366
V936	W43	X53	Y367
V937	W44	X54	Y368
V938	W45	X57	Y369
V939	W49	X58	
V940	W50	X59	
V941	W51	X85	
V942	W52	X88	
V943	W53	X89	
V944	W58	X90	
V945	W59	X99	
V946	W60	X93	
V947	W64	X94	
V948	W74	X95	
V949	W83	X96	
V950	W84	X97	
V951	W85	X98	
V952	W86	Y00	
V953	W87	Y01	
V954	W88	Y02	
V958	W89	Y03	
V959	W90	Y04	
V960	W91	Y05	
V961	W92	Y08	
V962	W93	Y09	
V968	W99	Y10	
V969	X09	Y11	
V970	X19	Y12	
V971	X20	Y13	
V972	X21	Y14	
V973	X22	Y15	
V978	X23	Y16	
V98	X24	Y17	
V99	X25	Y18	
W19	X26	Y19	
W20	X27	Y22	
W21	X28	Y23	
W22	X29	Y24	
W23	X30	Y25	
W24	X31	Y26	
W25	X32	Y27	
W26	X33	Y28	
W27	X34	Y29	
W28	X35	Y32	
W29	X36	Y33	
W30	X37	Y34	

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

ICD-10 code	Sex/plurality limitation	Sex	Plurality	0 - Conditional
				1 - Absolute
				2 - Not Applicable
				_____
				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 Underlying Cause of Fetal Death

ICD-10 code	Sex/plurality limitation	Sex	Plurality	0 - Conditional
				1 - Absolute
				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 Underlying Cause of Fetal Death

ICD-10 code	Sex/plurality limitation	Sex	Plurality	Edit code <sup>1</sup>	
				0 - Conditional	1 - Absolute
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 Underlying Cause of Fetal Death

ICD-10 code	Sex/plurality limitation	Sex	Plurality	0 - Conditional
				1 - Absolute
				2 - Not Applicable
				_____
				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"