Technical Notes

TECHNICAL NOTES

SOURCES OF DATA

BIRTHS, DEATHS AND FETAL DEATHS: Birth, death and fetal death certificates were the source documents for data on vital events to Delaware residents. A copy of each certificate is included as Appendices F, G and H.

The cut-off date for data in this report was October 31 after the close of the calendar year. Any data pertaining to an event for which a certificate was filed after this date, are not included in this report. It is possible that data obtained directly from the Delaware Health Statistics Center (DHSC) may differ slightly from that which appear in this report. If this should occur, it is the result of an update that was made after the cut-off date for this report.

Births and deaths to Delaware residents which took place in other states are included in this report. The inclusion of these data is made possible by an agreement among all registration areas in the United States for the exchange of copies of resident certificates.

MARRIAGES AND DIVORCES: Each of Delaware's three counties has a state office for the collection of marriage certificates. All of these certificates are processed and maintained by the Office of Vital Statistics in the Division of Public Health's central office in Dover. Copies of divorce certificates are forwarded to the Office of Vital Statistics from the Delaware Family Court system so that certain selected data items can be processed for statistical purposes. A copy of each of these certificates is included as Appendices I and J.

INDUCED TERMINATIONS OF PREGNANCY: Beginning on January 1, 1997, all induced terminations of pregnancy (ITOP) were required to be reported to the Department. Reports of induced termination of pregnancy are filed directly with the DHSC. The reports are filed for statistical purposes only and are shredded and discarded when all reports for the data year have been coded. ITOP records are currently not being exchanged among the states, so events to Delaware residents occurring out-of-state are not included in this report. A copy of the reporting form is included as Appendix K.

REPORTED PREGNANCIES: Reported pregnancies refer to live births, fetal deaths, and ITOP. When used in combination, these three events can yield a great deal of information regarding pregnancy and pregnancy outcomes that is not possible by looking at each individual event separately. For example, live birth rates can be calculated using live births in conjunction with population data. However, differences observed between live birth rates in two or more geographic areas or within the same area at different points in time may be due to differences in the rate of pregnancy, differences in pregnancy outcomes (i.e., live birth, fetal death, or ITOP), or a combination of these factors. Only pregnancy rates allow such questions to be thoroughly examined. It should be kept in mind that both

births and fetal deaths of Delaware residents are reported regardless of state of occurrence, while induced

terminations are reported for only those that occur in Delaware.

POPULATION PROJECTIONS: The state, county and city population figures used in this report are estimates and projections produced by the Delaware Population Consortium (DPC). The DHSC is a member of the DPC and supplies birth and death data used in making the projections. Copies of the most recent projections for Delaware's population by age, race, sex, and geographic location are available at

http://stateplanning.delaware.gov/information/dpc projections.shtml.

DATA QUALITY

QUERY AND FIELD PROGRAMS: The quality of vital statistics data presented in this report is directly related to the completeness and accuracy of the information contained on the certificates and forms. The DHSC works with the Office of Vital Statistics to ensure that the information received is as complete and accurate as possible. The Office of Vital Statistics operates two programs related to improving the quality of information received on vital records--the query and field programs.

The query program is a system used to follow-back to hospital and clinic personnel, funeral directors and/or physicians concerning data quality problems. The follow-back contact is usually via mail and/or telephone. The field program attempts to improve vital statistics data quality by educating the participants in the vital registration system (i.e., hospital personnel, funeral directors, physicians, etc.) of the uses and importance of vital statistics data.

The field program completes this mission by conducting seminars with various associations representing the individuals listed above.

The National Center for Health Statistics (NCHS) monitors Delaware's coding of statistical data on death certificates. A 20 percent sample of death records coded and submitted monthly by the state are used as a quality control mechanism by NCHS. NCHS codes these sample records independently and then conducts an item-by-item computer match of codes entered by the state and NCHS. NCHS has established an upper limit of two percent for coding differences involving any one data item of these sample records, with the exception of cause of death. NCHS independently codes cause of death information.

COMPUTER EDITS AND DATA PROCESSING: Another dimension of data quality is related to the procedures and methodologies used in preparing the data for presentation. Beginning with the 1991 Annual Vital Statistics Report, methodologies for editing and processing vital data were standardized to match the procedures used by NCHS in tabulating national vital statistics data. These procedures include checking for valid codes, computation of data items (e.g., age, live-birth order, weeks of gestation, duration of marriage, interval between divorce and remarriage), consistency checks between data items (e.g., age and education), and imputation of missing values.

FETAL DEATHS: In terms of the completeness of the data, the reporting of deaths and live births is considered to be virtually complete. However, in Delaware, a spontaneous termination of pregnancy is not required to be reported when the fetus weighs less than 350 grams or, when weight is unattainable, if the duration of pregnancy is less than 20 weeks. National estimates (Ventura, Taffel and Mosher, 1985) indicate that over 90 percent of all spontaneous terminations of pregnancy may occur before this 20-week period and thus go unreported. In addition, the exchange agreement among states for resident fetal death records is problematic due to different reporting requirements; it is unknown whether complete exchange is taking place. The result is that a large number of spontaneous terminations may not be reported.

GEOGRAPHY ALLOCATION

In Delaware's registration program, as in other states, vital events are classified geographically in two ways. The first way is by place of occurrence (i.e., the actual state and county in which the birth or death took place). The second and more customary way is by place of residence (i.e., the state, county, and census tract) stated to be the usual residence of the decedent in the case of death, or of the mother in the case of a newborn.

While occurrence statistics are accurate and have both administrative value and some statistical importance, residence statistics are by far the more useful tool in developing health indices for planning and evaluation purposes. The natality and mortality statistics provided in this report are based upon Delaware residence data. However, the marriage and divorce statistics are occurrence data. This is primarily due to the fact that two separate residences are usually involved in a marriage or a divorce, and there are no accepted standard procedures for classification of residence in these events.

Allocation of vital events by place of residence is sometimes difficult because classification depends entirely on a statement of the usual place of residence furnished by the informant at the time the original certificate is completed. For various reasons, this statement may be incorrect or incomplete. However, in recent years, the DHSC has invested a great deal of effort into editing of address information leading to a significant improvement in data quality.

In any case, geographical allocation is generally a problem only at the level of census tract. Resident counts at the State level are, for all practical purposes, complete. County resident figures are substantially correct and can be used with a high degree of confidence.

Most of the data provided in this report are available at the census tract level. This information can be obtained by contacting the DHSC.

BIRTH WEIGHT

This report presents birth weight in grams in order to provide data comparable to that published for the United States and other countries. For those live birth certificates where birth weight is reported in pounds and ounces, DHSC converts the birth weight into grams.

The equivalents of the gram intervals in pounds and ounces are as follows:

```
499 grams or less = 1 lb. 1 oz. or less
500 - 999 grams = 1 lb. 2 ozs. - 2 lbs. 3ozs.
1,000 - 1,499 grams = 2 lbs. 4 ozs. - 3 lbs. 4ozs.
1,500 - 1,999 grams = 3 lbs. 5 ozs. - 4 lbs. 6ozs.
2,000 - 2,499 grams = 4 lbs. 7 ozs. - 5 lbs. 8ozs.
2,500 - 2,999 grams = 5 lbs. 9 ozs. - 6 lbs. 9ozs.
3,000 - 3,499 grams = 6 lbs. 10 ozs. - 7 lbs. 11ozs.
3,500 - 3,999 grams = 7 lbs. 12 ozs. - 8 lbs. 12ozs.
4,000 - 4,499 grams = 8 lbs. 13 ozs. - 9 lbs. 14ozs.
4,500 - 4,999 grams = 9 lbs. 15 ozs. - 11 lbs. 0ozs.
5,000 grams or more = 11 lbs. 1 oz. or more
```

RATES

Absolute counts of births and deaths do not readily lend themselves to analysis and comparison between years and various geographic areas because of differences in population characteristics (e.g., age, sex, and race). In order to account for such differences, the absolute number of events is converted to a relative number such as a percentage, rate, ratio, or index. These conversions are made by relating the number of events to the population at risk in a particular area at a specified time.

Precautions should always be taken when comparing any rates based on vital events. Both the number of events and the characteristics of the population are important to take into account when interpreting a rate.

All statistics are subject to random variation.¹ Rates based on a relatively small number of events tend to be subject to more random variation than rates based on a large number of events.

In addition to the problem of small numbers, demographic characteristics of populations (i.e., age, race and sex) can affect the comparability of rates. Since mortality rates vary substantially by age, race and sex, comparisons between rates from populations that differ in these characteristics could be misleading. However, there are two methods that can be used separately or in combination to improve the comparability of mortality rates. The first method involves comparing rates for specific age, race, and/or sex groups in the populations of interest. With this method, the rates are easily calculated and very specific groups may be compared. However, when very specific groups are compared the numbers are often small, and relationships between the overall populations are difficult to determine.

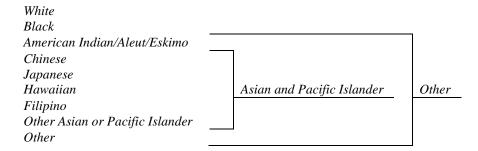
The second method is a more sophisticated technique that statistically "adjusts" for demographic differences between populations and allows direct comparisons between overall population rates. The major

¹See Appendix A for more details.

disadvantages of adjusted rates are that they can be cumbersome to calculate without the aid of a computer and they only have meaning when compared to other rates adjusted in the same manner.

RACE

All Delaware vital records contain an item(s) regarding race. Race is self-reported in all records except on death certificates where it is provided by an informant. Although the question allows for a free form response, all race data are grouped for purposes of data analysis into the following categories established by NCHS:



The categories Chinese, Japanese, Hawaiian, Filipino, and Other Asian or Pacific Islander can be combined to form the category Asian or Pacific Islander. For purposes of this report, American Indian/Aleut/Eskimo, Chinese, Japanese, Hawaiian, Filipino, Other Asian or Pacific Islander, and Other have been combined to form the category Other.

In the case of death, race of decedent from the death certificate is reported in all tables except in the birth cohort (see next paragraph). However, in the case of birth and fetal death, race is indicated on the birth and fetal death certificates for the mother and father only (i.e., race of the newborn is not given). Consequently, birth and fetal death data are reported by race of the mother in most tables throughout this report. However, some tables containing historical birth data prior to 1989 are reported by race of child. For these tables, race of child was imputed using criteria established by NCHS.

In the birth cohort section of this report, birth certificate data for infants dying in the first year of life are combined with information from their death certificates. Therefore, data are available for race of the mother and race of the deceased infant for each case. In the vast majority of these cases, the race listed for the mother and infant

are the same. However, in a small number of cases the race of the mother and infant differ. To maintain consistency with data in the natality section, race of the mother is used for all tables in the birth cohort section.

HISPANIC ORIGIN

Beginning in 1989, a specific question regarding Hispanic origin was added to the birth and death certificates. This question is considered to be separate from the Race question. Therefore, a person may report Hispanic origin in combination with any race category. The Hispanic question has two parts. The first simply asks whether the person is of Hispanic origin (Yes or No). The second part is a free-form item that asks for the specific origin (e.g., *Cuban*, *Mexican*, *Puerto Rican*, etc.).

MISSING INFORMATION REGARDING FATHERS

The Delaware vital statistics law specifies that information regarding the father should not be entered on the birth certificate if the mother is single. As such, there is no information regarding the father for the vast majority of births to single mothers. However, in a few cases, information about the father was entered on the certificate when the mother was single. Some tables in the natality section (e.g., births to parents of Hispanic origin) may contain information regarding the father that includes such cases.

Beginning on January 1, 1995, a new program was instituted to allow fathers to acknowledge paternity through completion of a simple form in cases where the mother and father are not married. This form can be completed at any time up to the child's eighteenth birthday. When such acknowledgments are completed at the hospital at the time of birth, the DHSC is able to add father information to its electronic data base.

SOURCE OF PAYMENT FOR DELIVERY

Beginning with the 1991 data year, the Center began obtaining information regarding the source of payment for delivery on birth certificates (private insurance, Medicaid, and self pay). However, this information was not available for all Delaware resident mothers giving birth in other states (approximately 5 percent of all resident births). For purposes of this report, all such mothers were assigned to the private insurance category. This assignment was based on detailed analyses of the characteristics of these mothers. These analyses indicated that the

demographic characteristics of these mothers very closely matched the characteristics of Delaware resident mothers who gave birth within the State and had private insurance listed as their source of payment. Furthermore, an examination of Medicaid data indicated that it is extremely rare for Medicaid mothers to give birth out-of-state.

2000 POPULATION STANDARD

Beginning with the 1999 report, all mortality rates were age-adjusted using the projected 2000 U.S. population standard. All previous versions of the vital statistics report used the 1940 U.S. population standard from the census of the same year. All historical mortality data have been adjusted to the new standard to allow comparisons over time. Comparisons between rates using the old standard and the new standard are not valid and should not be made.

A more detailed explanation of the rationale for updating the population standard can be found in a special report from NCHS (Anderson and Rosenberg, 1998).

Appendices

APPENDIX A

RANDOM VARIATION

In this report, the number of vital events represent complete counts for the U.S., Delaware, and county populations. Therefore, they are not subject to sampling error, although they are subject to certain errors in the registration process such as age misreporting. However, the number of events and the corresponding rates are subject to random variation. That is, the rates that actually occurred may be considered as one of a large number of possible outcomes that could have arisen under the same circumstances (National Office of Vital Statistics, 1961). As a result, rates in a given population may tend to fluctuate from year to year even when the health of the population is unchanged. Random variation in rates based on a relatively small number of events, tends to be larger than for rates based upon events that occur more frequently. Delaware rates for some events (e.g., infant deaths) are particularly subject to such variations due to the small number of events that occur by definition in a relatively small population. Therefore, caution should be exercised when drawing conclusions about rates based on small numbers.

The issue of random variation was handled in two ways in this report. First, multi-year average rates were reported instead of annual rates. This tended to reduce the effects of random variation since the number of events in a five-year period was much larger. Second, tests of statistical significance were used to make comparisons between rates when appropriate. These statistical tests were used to determine the chance that the observed differences would occur in populations with equal rates by random variation alone. The methods used to calculate infant mortality rates are described in Appendix B.

APPENDIX B

METHODS FOR CALCULATION AND STATISTICAL ANALYSIS OF FIVE-YEAR AVERAGE INFANT MORTALITY RATES

Due to the small number of infant deaths in Delaware, slight year-to-year changes in the number of deaths can lead to substantial fluctuations in annual rates. In many cases, this problem makes interpretation of annual rates extremely difficult, if not impossible. Since there is far less random fluctuation in five-year average (FYA) rates, they are much better for assessing the health status of infants in Delaware. When rolling FYA rates (e.g., rates for 1980-1984, 1981-1985, and 1982-1986) are used, the patterns of changes in infant mortality over a number of years can be determined.

A description of the methods used to calculate the running FYA rates and the statistical methodology used to compare infant mortality rates are described below.

FIVE-YEAR AVERAGE INFANT MORTALITY RATES: Running FYA infant, neonatal, and postneonatal mortality rates (see Definitions) were calculated by race for the U.S., Delaware, and Delaware's three counties. The rates (i.e., infant, neonatal, or postneonatal) were computed by dividing the total number of deaths over each five-year period by the total number of live births over the same five-year period and multiplying the result by 1,000.

STATISTICAL TESTS:

Confidence intervals for rates based on fewer than 100 deaths:

$$LCL = R_1 * L(.95, D_{adj})$$

$$UCL = R_1 * U(.95, D_{adj})$$

$$where D_{adj} = \frac{D * B}{D + B}$$

L and U are upper and lower confidence factors based on a gamma distribution with parameter D_{adi} .

²See Appendix A for a description of random variation and rationale for use of five-year average rates.

Confidence intervals for rates based 100 or more deaths:

$$R_1 \pm 1.96 * SE$$

where $SE(R_1) = R_1 * \frac{RSE(R_1)}{100}$
and $RSE(R_1) = 100 * \sqrt{\frac{1}{D} + \frac{1}{B}}$

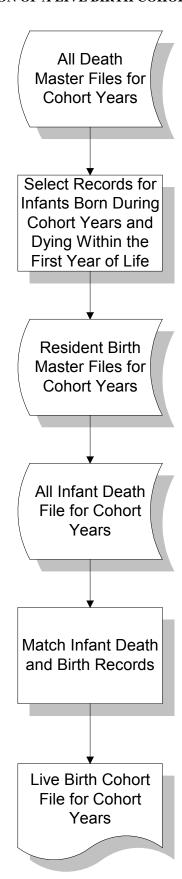
Comparison of two infant mortality rates - When the number of events for one or both of the rates was less than 100, comparisons between rates were based on the confidence intervals for each. If they overlapped, the difference was not significant. When the number of events for both rates was 100 or more, the following z-test was used to define a significant test statistic:

$$z = \frac{R_1 - R_2}{\sqrt{R_1^2 \left(\frac{RSE(R_1)}{100}\right)^2 + R_2^2 \left(\frac{RSE(R_2)}{100}\right)^2}}$$

If $|z| \ge 1.96$ then the difference between the rates was statistically significant at the 0.05-level.

APPENDIX C

CREATION OF A LIVE BIRTH COHORT FILE



APPENDIX D

COMPARABLE CATEGORY CODES FOR SELECTED CAUSES OF INFANT DEATH

Cause of death -	Category codes according to				
Sauce of acath	ICD-10 ¹	ICD-9 ²			
Diarrhea and gastroenteritis of infectious origin	A09	009			
Tuberculosis	A16–A19	010-018			
Tetanus	A33,A35	037,771.3			
	A36	037,771.3			
Diptheria	A37	032			
Whooping cough					
Meningococcal infection Septicemia	A39 A40-A41	036 038			
Congenital syphilis	A50	090			
Gonococcal infection	A54	098			
Acute poliomyelitis	A80	045			
•	B01	052			
Varicella (chickenpox)					
Measles	B05	055			
Human immunodeficiency virus (HIV)	B20-B24	042-044			
Mumps Condidinais	B26	072			
Candidiasis	B37	112			
Malaria	B50-B54	084			
Pneumocystosis	B59	136.3			
Malignant Neoplasms	C00-C97	140-208			
In situ, benign, and neoplasms of uncertain or unk behavior	D00-D48	210-239			
Diseases of blood and blood-forming organs and certain disorders involving the immune mechanism	D50-D89	135,279-289			
Short stature, not elsewhere classified	E34.3	259.4			
Nutritional deficiencies	E40-E64	260-269			
Cystic fibrosis	E84	277.0			
Volume depletion, disorders of fluid, electrolyte and acid-base		211.0			
balance	E86-E87	276			
Meningitis	G00,G03	320-322			
Infantile spinal muscular atrophy, type I	G12.0	335.0			
Infantile cerebral palsy	G80	343			
Anoxic brain damage, not elsewhere classified	G93.1	348.1			
Diseases of the ear and mastoid process	H60-H93	380-389			
Diseases of the circulatory system	100-199	390-434,436-459			
Acute upper respiratory infections	J00-J06	034.0,460-465			
Influenza and pneumonia	J10-J18	480-487			
Acute bronchitis and bronchiolitis	J20-J21	466			
Bronchitis, chronic and unspecified	J40-J42	490-491			
Asthma	J45-J46	493			
Pneumonitis due to solids and liquids	J69	507			
Gastritis, duodenitis, and noninfective enteritis and colitis	K29,K50-K55	535,555-558			
Hernia of abdominal cavity and intestinal obstruction without hernia	K40-K46,K56	550-553,560			
Renal failure and other disorders of kidney	N17-N19,N25,N27	584-589			
Newborn affected by maternal hypertensive disorders	P00.0	760.0			
Newborn affected by other maternal conditions which may be unrelated to present pregnancy	P00.1-P00.9	760.1-760.6,760.8- 760.9			
Newborn affected by maternal complications of pregnancy Newborn affected by complications of placenta, cord, and	P01	761			
membranes	P02	762			

APPENDIX D (cont.)

COMPARABLE CATEGORY CODES FOR SELECTED CAUSES OF INFANT DEATH

Cause of death		codes according to
	ICD-10 ¹	ICD-9 ²
Newborn affected by other complications of labor and delivery Newborn affected by noxious influences transmitted via placenta	P03	763.0-763.4,763.6-763.9
or breast milk	P04	760.7,763.5
Slow fetal growth and fetal malnutrition	P05	764
Disorders related to short gestation and low birth weight, not elsewhere classified	P07	765
Disorders related to long gestation and high birth weight	P08	766
Birth trauma	P10-P15	767
Intrauterine hypoxia and birth asphyxia	P20-P21	768
Respiratory distress of newborn	P22	769
Congenital pneumonia	P23	770.0
Neonatal aspiration syndrome	P24	770.1
Interstitial emphysema and related conditions originating in the		
perinatal period	P25	770.2
Pulmonary hemorrhage originating in the perinatal period	P26	770.3
Chronic respiratory disease originating in the perinatal period	P27	770.7
Atelectasis	P280P28.1	770.4-770.5
Bacterial sepsis of newborn	P36	771.8
Omphalitis of newborn with or without mild hemorrhage	P38	771.4
Neonatal hemorrhage	P50-P52,P54	772
Hemorrhagic disease of newborn	P53	776.0
Hemolytic disease of newborn due to isoimmunization and other	P55-P59	
perinatal jaundice		773-774
Hematological disorders	P60-P61	776.1-776.9
Syndrome of infant of a diabetic mother and neonatal diabetes	P70.0-P70.2	
mellitus	D77	775.0-775.1
Necrotizing enterocolitis of newborn	P77	777.5
Hydrops fetalis not due to hemolytic disease	P83.2	778.0
Congenital malformations, deformations, and chromosomal abnormalities	Q00-Q99	740-759
Sudden infant death syndrome	R95	798.0
Accidents	V01-X59	800-869,880-929
Homicide	X85-Y09	960-968
Complications of medical and surgical care	Y40-Y84,Y88	E870-E879,E930-E949

International Classification of Diseases, Tenth Revision.
 International Classification of Diseases, Ninth Revision.

APPENDIX E

COMPARABLE CATEGORY CODES FOR SELECTED CAUSES OF DEATH

Cause of death	Category codes according to					
	ICD-10 ¹	ICD-9 ²				
Salmonella infections	A01-A02	002-003				
Shingellosis and amebiasis	A03,A06	004,006				
Tuberculosis	A16–A19	010-018				
Whooping cough	A37	033				
Scarlet fever and erysipelas	A38,A46	034.1-035				
Meningococcal infection	A39	036				
Septicemia	A40-A41	038				
Syphilis	A50–A53	090-097				
Acute poliomyelitis	A80	045				
Arthropod-borne viral encephalitis	A83-A84,A85.2	062-064				
Measles	B05	055				
	B15–B19	070				
Viral hepatitis	B20-B24	042-044				
Human immunodeficiency virus (HIV) Malaria	B50-B54	084				
Malignant Neoplasms In situ, benign, and neoplasms of uncertain or unk	C00-C97	140-208				
behavior	D00-D48	210-239				
Anemias	D50-D64	280-285				
Diabetes mellitus	E10-E14	250				
Nutritional deficiencies	E40-E64	260-269				
Meningitis	G00.G03	320-322				
Parkinson's disease	G20-G21	332				
Alzheimer's Disease	G30	331.0				
Diseases of the Heart	100-109, 111, 113, 120-151	390-398, 402, 404, 410-429				
Essential (primary) hypertension and hypertensive	, , ,	, , ,				
renal disease	I10, I12	401, 403				
Cerebrovascular Diseases	160-169	430-434, 436-438				
Atherosclerosis	170	440				
Aortic aneurysm and dissection	171	441				
Influenza and pneumonia	J10-J18	480-487				
Acute bronchitis and bronchiolitis	J20-J21	466				
Chronic Lower Respiratory Diseases	J40-J47	490-494, 496				
Pneumoconioses and chemical effects	J60-J66,J68	500-506				
Pneumonitis due to solids and liquids	J69	507				
Peptic ulcer	K25-K28	531-534				
Disease of the appendix	K35-K38	540-543				
Hernia	K40-K46	550-553				
Chronic liver disease and cirrhosis	K70, K73-K74	571				
Cholelithiasis and other disorders of gallbladder	K80-K82	574-575				
Nephritis, nephrotic syndrome, and nephrosis	N00-N07, N17-N19, N25-N27	580-589				
Infections of kidney	N10-N12,N13.6,N15.1	590				
Hyperplasia of prostate	N40	600				
Inflammatory disease of female pelvic organs	N70-N76	614-616				
Pregnancy, childbirth and the puerperium	O00-O99	630-676				
Certain conditions originating in the perinatal period	P00-P96	760-771.2, 771.4-779				

APPENDIX E (cont.)

COMPARABLE CATEGORY CODES FOR SELECTED CAUSES OF DEATH

Cause of death	Category codes according to					
Cause of death	ICD-10 ¹	ICD-9 ²				
Congenital malformations, deformations and chromosomal abnormalities	Q00-Q99	740-759				
Accidents (unintentional injuries)	V01-X59,Y85-Y86	E800-E869, E880-E929				
Intentional self-harm (suicide)	*U03, X60-X84,Y87.0	E950-E959				
Assault (Homicide)	*U01-*U02, X85-Y09, Y87.1	E960-E969				
Legal intervention	Y35,Y89.0	E970-E978				
Operations of war and their sequelae	Y36,Y89.1	E990-E999				
Complications of medical and surgical care	Y40-Y84,Y88	E870-E879,E930-E949				

International Classification of Diseases, Tenth Revision.
 International Classification of Diseases, Ninth Revision.

APPENDIX F

STATE OF DELAWARE CERTIFICATE OF LIVE BIRTH

STATE OF DELAWARE
DEPARTMENT OF HEALTH AND SOCIAL SERVICES

(107)

		CERTIFIC	CATE OF L	VE BIRT	H			S	TATE FILE#
CHILD	CHILD'S NAME (First, Middle, Last, Suffix)					2. TIME OF B	IRTH (24HR)	3. SEX	4. DATE OF BIRTH (Mo/Day/
	5. FACILITY NAME (If not institution, give street a	and number)		6. CITY, T	OWN, OR	LOCATION OF	BIRTH		7. COUNTY OF BIRTH
MOTHER	8a, MOTHER'S CURRENT LEGAL NAME (First, Mic	ddle, Last, Suffix)		8	вь. мотн	ER'S DATE OF	BIRTH (Mo/	Day/Yr)	
	Bc. MOTHER'S NAME PRIOR TO FIRST MARRIAGE	(First, Middle, Last, S	Suffix)	8	Bd. BIRTH	PLACE (State,	Territory, or	r Foreign (Country)
	9a. RESIDENCE OF MOTHER-STATE	9b. COUNTY			9c, cn	Y, TOWN, OR I	OCATION	7	
	9d. STREET AND NUMBER			9e. APT. N	10	9f. ZIP CODE	1		9g. INSIDE CITY LIMITS?
FATHER	10s. FATHER'S CURRENT LEGAL NAME (First, Mi	ddle, Last, Suffix)	10b. DATE	OF BIRTH (Mo					rntory, or Foreign Country)
CERTIFIER	11. CERTIFIER'S NAME_ TITLE: □ MD □ DO □ HOSPITAL ADMIN. (□ OTHER (SPECIFY)	CNM/CM COTHER	MIDWIFE			DATE CERTI	FIED	13. DAT	E FILED BY REGISTRAR MM DD YYYYY
			RMATION FO	R ADMIN	-				
MOTHER	14. MOTHER'S MAILING ADDRESS: Same as	residence, or	STATE		City,	TOWN, OR LO	CATION		7
	STREET & NUMBER: 15. MOTHER MARRIED? (At birth, conception, o	L SECURI	APARTMENT NO. ZIP CODE: SECURITY NUMBER 17. FACILITY ID. (NPI) 17. FACILITY ID. (NPI)						
	IF NO, HAS PATERNITY ACKNOWLEDGMENT BEEN ☐ Yes ☐ No 18. MOTHER'S SOCIAL SECURITY NUMBER:	SIGNED IN THE HOSPI	TAL?		ER'S SOCI	AL SECURITY	NUMBER:	300	
		INFORMATION	FOR MEDIC	AL AND H	EALTH	PURPOSE	SONLY		
IOTHER'S MEDICAL ECORD NO.	mother is not Spanish/Hispanic/Latina) No, not Spanish/Hispanic/Latina Yes, Mexican, Mexican American, Chii Yes, Puerto Rican Yes, Cuban Yes, Cuban Yes, other Spanish/Hispanic/Latina (Specify)			American Indian or Alaska Native American Indian or Alaska Native (Name of the enrolled or principal trib Asian Indian Chinese Filipino Japanese Korean		mal tribe)			
FATHER	23. FATHER'S EDUCATION (Check the box that best describes the highest degree or level of school completed at the time of delivery) 8º grade or less 9º - 12º grade, no diploma High school graduate or GED completed Some college credit but no degree Associate degree (e.g., AA, AS) Bachelor's degree (e.g., BA, AB, BS) Master's degree (e.g., BA, MS, MEng, M, Ed, MSV, MBA) Doctorate (e.g., Ph.D., EdD) or Professional degree (e.g., MD, DDS, DVM, LLB, JD)	Spanish/Hispan	ibes whether the nic/Latino. Che- senish/Hispanic/Lat- ish/Hispanic/Lat- n, Mexican Amer Rican	e father is sk the "No" b Latino) ino rican, Chican	ox if	father of White Black or / American (Name of Asian Indi Chinese Filipino Japanese Korean Vietname: Other Asia Damania Samoan Other Pac Other (Sp	African Ame Indian or A the enrolled an (Specify) waiian an or Chame offic Istander ecify)	nself to be erican laska Nati d or princi	ve pal (nbe)
STATE OFFICE USE ONLY	26. PLACE WHERE BIRTH OCCURRED (Check one) Hospital Freestanding birthing center Home Birth: Planned to deliver at home? Yes No Clinic/Doctor's office Other (Specify)	27. ATTENDANT'S I NAME: NPI TITLE: MD C OTHER N OTHER (Specify	DO CNM/CM) NPI		INDICA	TRANSFE TIONS FOR I	No No	MATERNAL MEDICAL OR FETAL TY MOTHER TRANSFERRED FROM:

APPENDIX F (cont.)

STATE OF DELAWARE CERTIFICATE OF LIVE BIRTH STATISTICAL SECTION

мотигр	29a. DATE O	FIRST PRENAT	AL CARE	296.	DATE OF LAST PRENAT.	AL CARE VISIT	30. TO	TAL NUMBER C	F PRENATAL VISITS FOR THIS
MOTHER	MM DD Y		Prenatal Care		MM DD 1	MY.			(If none, enter "0")
	31. MOTHER		32 MOTHER'S	33.	MOTHER'S WEIGHT AT D				FOOD FOR HERSELF DURING THIS
	(feet/i	nches)	PRE-PREGNANCY WEIGHT		(pounds)			EGNANCY?	
	35. NUMBER	OF PREVIOUS	(pounds) 36. NUMBER OF OTHER	37.0	CIGARETTE SMOKING BE	FORE AND DURING PREGNA	NCY		38 PRINCIPAL SOURCE OF
	LIVE BIRT include th	HS (Do not	PREGNANCY OUTCOMES	F	For each time period, e	nter the number of cigaret erage number of cigarette	tes smoked	i	PAYMENT FOR THIS DELIVERY
	include ii	as cracy	(Spontaneous or induced losses or		of cigarettes smoked p		a di pauka		MANUAL CONTRACTOR
	1.7		ectopic pregnancies)			# of Cigarettes	# or pack	s	☐ Private Insurance
	75-	756	36a OTHER	Th	nree Months Before Pre				Medicaid
	35a. Now Living	35b. Now Dead	OUTCOMES	Fi	rst Three Months of Pri	egnancyO	R		☐ Self pay
	Number	Number	NUMBER		econd Three Months of est Trimester of Pregna	PregnancyO)HC	100	☐ Other (Specify)
	T None	C None	None		THE STREET STREET				1-07201101101010101011
	NAME OF TAXABLE PARTY.	1-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0	Martin Martin Sal					7	
		F LAST LIVE	36b. DATE OF LAST OTHER PREGNANCY OUTCOME		39. DATE LAST NOR	MAL MENSES BEGAN		40. MC	OTHER'S MEDICAL RECORD NUMBER
		NAME OF THE PARTY.	MM YYYY			DD YYYY			
MEDICAL			REGNANCY (Check all that apply)):		(CHECK ALL THAT APPLY)	1.4	6. METHOD OF DE	ELIVERY
	Diabetes				☐ Premature Ruptu	re of Membranes		. Was deliver	y with forceps attempted but
AND	☐ Pre-Pre		nosis prior to this pregnancy)		(prolonged, >=		1500	unsuccessful?	Yes No
HEALTH	Hypertensic	n	Property of the Company of the Compa		☐ Precipitous Labo	r / C 2 hear l			
INFORMATION			nic)		L Precipitous cabo	(-Sha)	E	 Was delivery but unsuccess! 	with vacuum extraction attempted ful?
mionimanion	☐ Eclamp	sia			☐ Prolonged Labor	(>= 20 hrs.)			Yes No
	Other pre	vious poor preg	gnancy outcome (includes		☐ None of the Abox	re .		Fetal presentat	ion at birth
							100	☐ Cephalic ☐ Breech	
			infertility treatment-if yes, chec	sk.				☐ Other	
	☐ Fer	tility-enhancing	drugs, Artificial insemination or	e					method of delivery (Check one)
	☐ Ass	sisted reproduc	tive technology (e.g. in vitro					☐ Vaginal/Spo	ceps
			ete intrafallopian transfer					☐ Vaginal/Vac	cuum
	☐ Mother h	ad a previous o	esarean delivery		A 75				vas a trial of labor attempted?
	☐ None of t	he above		100					Yes No
					45. CHARACTERISTIC	S OF LABOR AND DELIVERY	1	 MATERNAL MOI apply) 	RBIDITY (Check all that
	(Check a	ill that apply)			☐ Induction of late	or of labor		(Complication and delivery)	s associated with labor
		8			□ Non-vertex pre	sentation			
	☐ Chlamydi	a			maturation rece	corticoids) for fetal lung lived by the mother prior t	to	☐ Maternal trans	
					delivery	erved by the mother during		☐ Third or fourth laceration	degree perineal
					Jabor	mnionitis diagnosed durin		☐ Ruptured uter	
	43. OBSTET	RIC PROCEDURE	s (Check all that apply)		labor or mater	nal temperature ≥38° C	_		
	☐ Cervice	al cerclage			(100.4°F) ☐ Moderate/heav	y meconium staining of th	e	☐ Unplanned hy	sterectomy
					amniotic fluid	ce of labor such that one of	- 13	Admission to	intensive care unit
	External cep	halic version:			more of the foll	owing actions was taken:		☐ Unplanned op	erating room procedure
	☐ Fai	led			fetal assessme	itative measures, further nf, or operative		following deli	
	☐ None o	of the above			delivery			None of the a	bove
	-				☐ Epidural or spir	nal anesthesia during labo	er.		
			P. C.			NFORMATION			
NEMBODA	48 NEWBOR	N MEDICAL REC	ORD NUMBER	54	ABNORMAL CONDITION (Check all that apply			CONGENITAL AND	
MEMBORM		200							
	49. BIRTHWE	IGHT (grams pr	eferred, specify unit)		Assisted ventilation re following delivery	quired immediately		Anencephaly Meningomyelocel	e/Spina bifida
	-	O orams	□ lb/oz		Assisted ventilation re	quired for more than six		yanotic congenit congenital diaphr	tal heart disease
	Diabetes Gestational (Diagnost Pre-Pregnancy (Diagnost Pre-Pregnancy (Diagnost Pre-Pregnancy (Chrogetational Gestational Previous pretry pregnancy resulted from all that apply; Pertility-enhancing intrauterine inseminat Assisted reproduct Fersional Presentation (IVF), gam GiFT) Mother had a previous of fyes, how many None of the above 42. INFECTIONS PRESENT AN TREATED DURING THIS PRESENT AN TREATED DURING THE PRESEN	FGESTATION	Hours □ NICU admission				Omphalocele	oginario nerma	
	-		(completed weeks)			tant replacement therapy		Sastroschisis .imb reduction de	
	51. APGART	CORE		- 0	Antibiotics received by suspected neonatal se			ongenital amputa syndromes)	ation and dwarfing
	Score at 5 m	ninutes		0	Seizure or serious nec				ithout Cleft Palate
	0.3825503.0000	V 1929/333	han C		Significant birth injury	(skeletal fracture(s),		Jown Syndrome	
	NOTES OF THE PARTY		eran d,		organ hemorrhage wi	 and/or soft tissue/solid nich requires intervention) 		☐ Karyotype co ☐ Karyotype pe	nding
			on Triplet etc		None of the above			Suspected chromi Karyotype co	nfirmed
	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	rr - aingle, Tw	m, implet, etc.				г.	☐ Karyotype pe typospadias	nding
	(Specify) _							Typospadias None of the above	0
	53 IENOTE	NGI F RIPTH . D	orn first second third etc	-					
	100000000000000000000000000000000000000		and an analysis and state						
	(Specify) _								
			RED WITHIN 24 HOURS OF DELIVE	RY? [☐ Yes ☐ No	57. IS INFANT LIVING AT	TIME OF RE	PORT?	58. IS INFANT BEING BREASTFED AT DISCHARGE?
			FANT			☐ Yes ☐ No ☐ Infant	t transferred	status unknown	BREASTFED AT DISCHARGE?

APPENDIX G

STATE OF DELAWARE CERTIFICATE OF DEATH

OFFICE OF VITAL STATISTICS

CERTIFICATE OF DEATH

多tate of **Belaware** DEPARTMENT OF HEALTH AND SOCIAL

State File Number

(107)

						RVICES								
	1.	. DECEDENT'S LEGAL	NAME (Include	AKA's if a	any) (First, Midd	le, Last)				2. S	EX	3. SC	OCIAL SECURIT	Y NUMBER
	4	a. AGE-Last Birthday (Years)	4b. UNDER 1 Months Day		c. UNDER 1 D.	(Mo/Day		Н	6. BIRTHPI	LACE (C	City and S	tate or	Foreign Country	y)
	7:	a. RESIDENCE-STATE		7	b. COUNTY	•	7c.	CITY OR	TOWN					
	7	d. STREET AND NUME	BER				7e. AF	T. NO.	7f. ZIP COI	DE	7g. INS No	IDE CI	TY LIMITS?	□ Yes □
	8.	EVER IN US ARMED FORCES? Yes No	☐ Marrie	ed 🔲 V	US AT TIME OF Vidowed		10.	SURVIVIN	I NG SPOUSE	'S NAME	E (If wife,	give n	name prior to firs	t marriage)
3.5	1	1. FATHER'S NAME (F	First, Middle, Last	t)				12. MO	THER'S NAM	ME PRIC	OR TO FIF	RST M	ARRIAGE (First	, Middle, Last)
Completed/ Verified By:	בן 1:	3a. INFORMANT'S NAI	ME		13b. RELATI DECEDENT	ONSHIP TO		13c. M/	AILING ADD	RESS (S	Street and	Numb	per, City, State, 2	'ip Code)
ed/					14. PLACE C	OF DEATH (Ch	eck only	y one; see	instruction	s)				
omplet	5 [IF DEATH OCCURRED ☐ Inpatient ☐ Emerge rrival				EATH OCCUP Hospice facility							ent's home	Other (Specify):
ag i	2 1	5. FACILITY NAME (If r	not institution, giv	e street &	number)	16. CITY OR	TOWN	, STATE, A	AND ZIP CO	DE			17. COUNTY	OF DEATH
To	С	8. METHOD OF DISPO rremation	_	urial emoval fro		CE OF DISPOS	SITION (I	Name of co	emetery, crer	matory, o	other plac	œ)		
	2	0. LOCATION-CITY, To	OWN, AND STAT	TE	21. NAME A	ND COMPLET	E ADDR	ESS OF F	UNERAL FA	CILITY				
	2	2. SIGNATURE OF FUI	NERAL SERVICE	ELICENS	EE OR OTHER	AGENT					23. L	ICENS	SE NUMBER (C	of Licensee)
		TEMS 24-28 MUST E				24. DATE PR	ONOUN	CED DEA	D (Mo/Day/Y	r)		25. T	IME PRONOUN	CED DEAD
		6. SIGNATURE OF PE				en applicable)		27. l	ICENSE NU	MBER		28	8. DATE SIGNE	D (Mo/Day/Yr)
	2	9. ACTUAL OR PRESU (Mo/Day/Yr) (Spell N		DEATH	30. AC	CTUAL OR PR	ESUME	TIME OF	DEATH		31. WAS		CAL EXAMINER	₹
	Ca	32. PART I. Enter the ardiac arrest, respiratory additional	chain of events	diseases,	•	plicationsthat	directly	caused the	e death. DO	NOT er				Approximate interval: Onset to death
Completed By:	י ובא	lines if necessary. IMMEDIATE CAUSE (F disease or condition												
plete	۳ ا	resulting in death)			D	ue to (or as a c	onseque	ence of):					_	_
lwo:	D.	Sequentially list condition	ons,											
To Be	ב	if any, leading to the callisted on line a. Enter the UNDERLYING CAUSE	he		D	ue to (or as a d	conseque	ence of):					_	_
		(disease or injury that initiated the events result in death) LAST	ulting		C	ue to (or as a	consequ	ence of):					_	
	d	•											_	
	P	ART II. Enter other sign	nificant conditions	contribut	ing to death but	not resulting in	the und	lerlying ca	use given in	PART I			AUTOPSY PER	
											34. WE AVAILA CO	RE AU BLE T MPLE	☐ No ☐ Un JTOPSY FINDIN O TE THE CAUSE	NGS E OF DEATH?

APPENDIX G (cont.)

STATE OF DELAWARE CERTIFICATE OF DEATH

		35. DID TOBACCO USE CONTRIBUTE TO DEATH? Yes Proba No Unkno 38. DATE OF INJURY (Mo/Day/Yr) (Spell	ably	ALE: pregnant within past year pnant at time of death pregnant, but pregnant within 42 days pregnant, but pregnant 43 days to 1 y cnown if pregnant within the past year 40. PLACE OF INJURY (e.g., Decedence)	year before death ·	37. MANNER OF DEATH Natural Homicide Accident Pending Investigation Could not be determined urant; wooded 41. INJURY AT WORK?
		Month) 42. LOCATION OF INJUR Street & Number: 43. DESCRIBE HOW INJU		dicay		Zip Code: 4. IF TRANSPORTATION INJURY, PECIFY:
		=	o the best of my knowled	dge, death occurred due to the cause(s)	and manner stated.	☐ Driver/Operator ☐ Passenger ☐ Pedestrian ☐ Other (Specify)
		Medical Examiner-On stated. Signature of certifier:	the basis of examination	on COMPLETING CAUSE OF DEATH	ath occurred at the time, date, and	the cause(s) and manner stated. place, and due to the cause(s) and manner
		47. TITLE OF CERTIFIER 51. DECEDENT'S EDUCA		(Mo/Day/Yr)	(Mo/Day/Yr	EGISTRAR ONLY -DATE FILED Check one or more races to indicate what
Amendmen t Code:		the box that best describes degree or level of school of time of death. 8th grade or less 9th - 12th grade; no di	box the highest completed at the Sp dec	t best describes whether the decedent anish/Hispanic/Latino. Check the "No" l cedent is not Spanish/Hispanic/Latino.	the is decedent considered h	imself or herself to be)
Amendmen t Number:		☐ High school graduate completed☐ Professional Trade Sc☐ Some college credit, b	or GED No	o, not Spanish/Hispanic/Latino ss, Mexican, Mexican American, Chicano ss, Puerto Rican	(Name of the enrolled of Asian Indian Chinese	or principal tribe)
User ID:	Completed By: RAL DIRECTOR		g., BA, AB, BS)	es, Cuban es, other Spanish/Hispanic/Latino pecify)	(Specify) Native Hawaiian Guamanian or Chamc Samoan Other Pacific Islander (Specify)	по
SFN: 	To Be C FUNER	□ Doctorate (e.g., PhD, Professional degree (c DVM, LLB, JD) □ Unknown		e type of work done during most of work	Other (Specify): Unknown	
		55. KIND OF BUSINESS/I	,	STATES OF WORK STATES COLUMN THE STATES OF WORK	g DO NOT OOL NETINED.)	

APPENDIX H

STATE OF DELAWARE CERTIFICATE OF FETAL DEATH

STATE OF DELAWARE DEPARTMENT OF HEALTH AND SOCIAL SERVICES
REPORT OF FETAL DEATH
(the parents) | 2. TIME OF DELIVERY | 3. SEX (WIFfUnk) (107) STATE FILE # 4. DATE OF DELIV ERY (Mo/Day/Yr) NAME OF FETUS (optional at the discretion of the parents FETUS 7 PLACE WHERE DELIVERY OCCURRED (Check FACILITY NAME (If not institution; give street and 58. CITY, TOWN, OR LOCATION OF DELIVERY ☐ Freestanding birthing center 5b. ZIP CODE OF DELIVERY ☐ Hame Delivery: Planned to deliver at home? ☐ Yes ☐ No ☐ Clinic/Dector's office 6. COUNTY OF DELIVERY 9 FACILITY ID (NPI) 10a. MOTHER'S CURRENT LEGAL NAME (First, Middle, Lisst, Suffix) 10b. DATE OF BIRTH (Mo/Day/Yr) MOTHER 10c MOTHER'S NAME PRIOR TO FIRST MARRIAGE (First, Middle, Last, Suffix) 10d BIRTHPLACE (State, Territory, or Foreign 11a CITY, TOWN, OR LOCATION 11a RESIDENCE OF MOTHER-STATE 11b COUNTY 11e APT NO. 11d. STREET AND NUMBER 11f ZIP CODE ☐ Yes □ No 12a FATHER'S CURRENT LEGAL NAME (First, Middle, Last, Suffix) 12b DATE OF BIRTH (Mo/Day/Yr) **FATHER** 13. CAUSE/CONDITIONS CONTRIBUTING TO FETAL DEATH 13h OTHER SIGNIFICANT CAUSES OF CONDITIONS 13a INITIATING CAUSE/CONDITION CAUSE (AMONG THE CHOICES BELOW, PLEASE SELECT THE <u>ONE</u> WHICH MOST LIKELY BEGAN THE SEQUENCE OF EVENTS RESULTING IN THE DEATH OF THE FETUS) (SELECT OR SPECIFY ALL OTHER CONDITIONS CONTRIBUTING TO DEATH IN ITEM 138) OF FETAL Maternal ConditionalDiseases (Specify) DEATH Complications of Placenta, Cord, or Membranes Complications of Placenta, Gord, or Membranes ☐ Rupture of membranes poor to onset of labor Rupture of membranes prior to onset of labor ☐ Abruptio placenta ☐ Abruptio placenta ☐ Placental insufficiency ☐ Placental insufficiency TI Prolanged cord Prolapsed cord ☐ Chorioamnionitis Other Obstetrical or Pregnancy Complications (Specify) Other Obstetrical or Pregnancy Complications (Specify) Fetal Anomaly (Specify) Fetal Anomaly (Specify) Fetal Injury (Specify) Fetal Injury (Specify) Fetal Infection (Specify) Fetal Infection (Specify) Other Fetal Conditions/Disorders (Specify) Other Fetal Conditions/Disorders (Specify) Unknown

13c. WEIGHT OF FETUS (grams preferred, specify unit) 3e ESTIMATED TIME OF FETAL DEATH 131. WAS AN AUTOPSY PERFORMED? grams | Ib/oz Dead at time of first assessment, labor ongoing Died during labor, after first assessment 13d OBSTETRIC ESTIMATE OF GESTATION AT DELIVERY ☐ Unknown time of fetal death 14. METHOD OF DISPOSITION DISPOSITION ☐ Hospital Disposition ☐ Donation ☐ Removal from State ☐ Other (Specify) ☐ Burial ☐ Cremation 158 ATTENDANT'S NAME 15b. ATTENDANT'S NPI 15c ATTENDANT'S TITLE CERTIFIER ☐ MD ☐ DO ☐ CNM/CM ☐ OTHER MIDWIFE AND OTHER(Specify)

16a. I CERTIFY THAT THIS DELIVERY OCCURRED ON THE DATE SHOWN AND THAT THE FETUS WAS BORN DEAD 16b. DATE SIGNED REGISTRATION INFORMATION SIGNATURE > 16c MAILING ADDRESS 17a. NAME OF CEMETARY OR CREMATORY 17b. LOCATION (CITY, TOWN, COUNTY) (STATE) MOTHER'S MEDICAL RECORD NO 18b REGISTRAR'S SIGNATURE 19 FUNERAL DIRECTOR'S SIGNATURE ADDRESS 18a DATE RECEIVED BY REGISTRAR

APPENDIX H (cont.)

STATE OF DELAWARE CERTIFICATE OF FETAL DEATH

MOTHER	20. MOTHER'S EDUCATION (Check the box that best describes the highest degree or level of school completed the time of delivery) 8th grade or less 9th - 12th grade, no diploma High school graduate or GED completed Some college credit but no degree Associate degree (e.g., AA, AS) Bachelor's degree (e.g., BA, AB, E. Master's degree (e.g., BA, AB, E. Master's degree (e.g., MBA) Doctorate (e.g., PND, EdD) or Professional degree (e.g., MD, DD, DVM, LLB, JC) 3. MOTHER MARRIED? (Af delivery, conception, or anytime between) 19th 19th 19th 19th 19th 19th 19th 19th	the box that best describes who mother is Spanish/Hispanic/Lati 'No' box if mother is not Spanish 'Hispanic/Lati 'No' box if mother is not Spanish 'Hispanic/Lati 'Yes, Mexican, Mexican Ameri 'Yes, Puerto Rican 'Yes, Cuban 'Yes, Cuban 'Yes, Cuban 'Yes, Other Spanish/Hispanic/L (Specify)	ther the na. Check the in/Hispanic/Latina) na can, Chicana atina atina 24b. DATE CARI enatal Care	
	(feet/inches)	(pounds) 31. NUMBER OF OTHER PREGNANCY OUTCOMES (spontaneous or induced Lasses or edopic pregnancies)	(pounds) 32 CIGARETTE SMOKII For each time period cigarettes smoked. Average number of cig Three Months Before I First Three Months of Second Three Months Third Timester of Pre 33 DATE LAST NORMM MENSES BEGAN. J. J. J. Y.Y.Y.	DURING THIS PREGNANCY?
MEDICAL AND HEALTH INFORMATION	growth restricted birth) Pregnancy resulted from infertility tr Fertility-enhancing drugs, Artific Assisted reproductive technolog Mother had a previous cesarean de If yes, how many None of the above	to this pregnancy) pregnancy) ome (Includes perinatal death, small-for-gestate teatment-if yes, check all that apply: teal insemination or intrauterine insemination gy (e.g., in vitro fertilization (IVF), gamete intraf	allopian transfer (GIFT))	38. INFECTIONS PRESENT AND/OR TREATED DURING THIS PREGNANCY (Check all that apply) Gonorrhea Syphilis Chlamydia Listeria Group B Streptococcus Cytomegalovirus Paryovirus Toxoplasmosis None of the above Other (Specify)
	39. METHOD OF DELIVERY A. Was delivery with forceps attempted in yes No. B. Was delivery with vacuum extraction unsuccessful? Yes No. C. Fetal presentation at delivery Cephalic Breech Other D. Final route and method of delivery (C. Vaginal/Forceps Vaginal/Force	but binsuccessful? (Complications associate transfer attempted but Third or fourth Ruptured uteru Unplanned hys Admission to in Unplanned operations of the Admission to Inc.	degree perineal lacerations s terectomy tensive care unit rating room procedure ry	(Check all that apply) Anencephaly Meringomyelocele/Spina bifida

APPENDIX H (cont.)

STATE OF DELAWARE CERTIFICATE OF FETAL DEATH

		E OF DELAWAR			107)
	STATISTICS REPORT IN AME OF FETUS (optional at the discretion of the parents)	ORT OF FETAL DEATH	2. TIME OF DELIVERY [3.		TATE FILE # E OF DELIV ERY (Mo/Day/Yr)
FETUS	1. Tenne of 1 c 100 jopium at the doublest of the parametr		(24hr)	5. 5.	na areas mas (massay) and
		Hospital	RY OCCURRED (Check one)	8. FACILITY NAME (III	ot institution, give street and number
	Sh. ZIP CODE OF DELIVERY	Freestanding birthing center. Home Delivery: Planned to deli-	ver at home? Yes No		
	6. COUNTY OF DELIVERY	Clinic/Dector's office Other (Specify)		9 FACILITY ID. (NPI)	
MOTHER	10a, MOTHER'S CURRENT LEGAL NAME (First, Middle, Last			10b DATE OF BIRT	H (Mo/Day/Yr)
MOTHER		Note: 1906			native method
	10c. MOTHER'S NAME PRIOR TO FIRST MARRIAGE (First, N	fiddle, Last, Suffix)		10d BIRTHPLACE (Country)	State, Territory, or Foreign
	11a. RESIDENCE OF MOTHER-STATE 11b. CO	UNTY		11c CITY, TOWN, OR LO	SATION
	11d STREET AND NUMBER		11e APT NO	11f. ZIP CODE	11g INSIDE CITY LIMITS?
FATHER	12a. FATHER'S CURRENT LEGAL NAME (First, Middle, Last, 8	suffix) 12b	DATE OF BIRTH (Mo/Day/Yr)	12c BIRTHPLACE (S	tate, Territory, or Foreign Country
1	13. CAUS	E/CONDITIONS CO	NTRIBUTING TO FETA	LDEATH	
CAUSE	13a INITIATING CAUSE/CONDITION		13b. OTHER SIGNIFICA	NT CAUSES OR CONDITIO	NS
OF	(AMONG THE CHOICES BELOW, PLEASE SELECT THE Q BEGAN THE SEQUENCE OF EVENTS RESULTING IN THE		(SELECT OR SPECIFY IN ITEM 13b)	ALL OTHER CONDITIONS (CONTRIBUTING TO DEATH
FETAL DEATH	Maternal Conditions/Diseases (Specify)		Maternal Conditions/Dise	ases (Specify)	
IN ESS II ES	Complications of Placenta, Cord, or Membranes		Complications of Piacents	, Cord, or Membranes	- 47
	Rupture of membranes prior to onset of labor		☐ Rupture of mem	branes prior to onset of labor	
	☐ Abruptio placenta		☐ Abruptio placent	B:	
	☐ Placental insufficiency		☐ Placental insuffi	piency	
	☐ Prolapsed cord		☐ Prolapsed cord		
	☐ Choricamnionitis		☐ Choricamnioniti		
	Other Specify)		☐ Other Specify)		
	Other Obstetrical or Pregnancy Complications (Specify)		Other Obstetrical or Preg	nancy Complications (Specif	y)
	Part Carrier Control Carrier Carrier	-			
	Fetal Anomaly (Specify)		Fetal Anomaly (Specify)	D.	
	Fetal Injury (Specify)		Fetal Injury (Specify)	_	
	Fetal Infection (Specify)		Fetal infection (Specify)		
	Other Fetal Conditions/Disorders (Specify)		Other Fetal Conditions/D	isorders (Specify)	
	Unknown		☐ Unknown		
	13c. WEIGHT OF FETUS (grams preferred, specify unit)	No no security results	TIME OF FETAL DEATH	131 WAS AN AUTOPS	Y PERFORMED? No Planned
	grants Ib/oz		nst assessment, no labor ongoing	13g WAS A HISTOLO EXAMINATION P	ERFORMED?
	13d. OBSTETRIC ESTIMATE OF GESTATION AT DELIVER (completed weeks)	Died during labor. Unknown lime of	after first assessment	13h. WERE AUTOPSY PLACENTAL EXA IN DETERMINING	MINATION RESULTS USED THE CAUSE OF FETAL
	14. METHOD OF DISPOSITION			DEATH? Ye	s 🗆 No
DISPOSITION	☐ Burial ☐ Cremation ☐ Hospital Disposition	☐ Donation ☐ R	Removal from State 🔲 Ot	her (Specify)	
CERTIFIER AND	15a. ATTENDANT'S NAME	15b ATTENDA		50 ATTENDANT'S TITLE	✓ □ OTHER MIDWIFE
REGISTRATION				OTHER(Specify)	
INFORMATION	16a I CERTIFY THAT THIS DELIVERY OCCURRED ON TH SIGNATURE	E DATE SHOWN AND TH	AT THE FETUS WAS BORN	DEAD 166 DATE SIGNED	
	166. MAILING ADDRESS				
MOTHER'S MEDICAL RECORD NO	17a. NAME OF CEMETARY OR CREMATORY		176 LOCATION (CITY, TO	WN, COUNTY) (STATE)	
	18a DATE RECEIVED 18b REGISTRAR'S SIGNATURE		19. FUNERAL DIRECTOR	S SIGNATURE	ADDRESS
	BY REGISTRAR		-		

APPENDIX H (cont.)

STATE OF DELAWARE CERTIFICATE OF FETAL DEATH

	-			AUTHORITY FOR BURIAL, TRANSPORTATION AND REMOVAL
CEMETARY OR CREMATORY SHALL FILL OUT SECTION BELOW The Decedent named above was buried cremated in the cemetery or crematory in item 17a. BURIAL WAS IN Section Lot Grave The appropriate entry in the Cemetery Crematory registry has been in				
The Decedent named above was buried cremated in the cemetery or crematory in item 17a. BURIAL WAS IN Section Lot Grave Grave The appropriate entry in the Cemetery Crematory registry has been in			This permit is n	of authority for cremation; separate authorization must be obtained.
BURIAL WAS IN Section Lot Grave The appropriate entry in the Cemetery Crematory registry has been m			CEMETA	RY OR CREMATORY SHALL FILL OUT SECTION BELOW
Section Lot Grave The appropriate entry in the Cemetery Crematory registry has been in		The Dec	edent named a	bove was buried cremated in the cemetery or crematory in item 17a.
	BURIAL W	AS IN		
Signature	Section	Lot	Grave	. The appropriate entry in the Cemetery Crematory registry has been made.
	Signature			
Sexton or other person in charge Data Signed			Sexton a	r other person in charge Date Signed
				as Sexton. This Burial-Transit Permit is to be retained by the Manager, Superintendent, arge of Burial, Entombment or Cremation, or if none, then the Funeral Director.

REV 04/2005

APPENDIX I

STATE OF DELAWARE CERTIFICATE OF MARRIAGE

	OFFICE		State	FICATE OF MA			STATEFI	LE NUMBEF
	OF VITAL STATISTICS			ION OF PUBLIC				
	LOCAL	LICE NO.	ENSE 5880	1 NO. LI	CENSE	PLACE	SE	
	REGISTRAR'S NO.	GROOM		APPLI	CATION	ISSUED	RIDE	
	NAME FIRS	T MII	DDLE LA	ST	FIRST	MIC	DDLE	LAST
ı	RESIDENCE STREET OR NU	IMBER, CITY		RES	IDENCE ST	TREET OR NUMBER, CITY		
	STATE	ZIP	COUNTY	STA	TE		ZIP	COUNTY
	DATE OF BIF	тн	AGE		C	DATE OF BIRTH	AGE	
	BIRTHPLACE (STATE OR FORE	EIGN COUNTRY)		BIRT	HPLACE (S	STATE OR FOREIGN COUNTRY	n	
						AWS OF THIS STATE	NOWLEDGE AND BEL	IEF
	OF GROOM X				NATURE BRIDE	Χ		
	NAME FIRS	T MII	DDLE LA	ST	NAME	FIRST	MIDDLE	LAS
	BIRTHPLACE (STATE	OP FOREIGN COUNTRY)		FATHER	BIRTHE	PLACE (STATE OR FOREIGN	COUNTRY)	
	THE PROPERTY OF THE PARTY OF TH	FIRST MI	DDLE	ST E	MAID	NAME FIRST	MIDDLE	LAS
	BIRTHPLACE ATE	OR FOREIT JOUN Y)			BIRTH	LACE (STATE OR FOREIGN	COUNTRY)	
			A V As	ALE				
	I hereby certify	that on the _		day of			19,	HOUR 1
	the aforementio	ned persons u	ere by me un	ited in mar	riage a	ıt		
	County of			, in accord	lance v		of the State of E	Delawar
OC OFFICE OF VITAL STATISTICS, P.O. BOX 637, DOVER, DE 19903.	Signature of Clergy or Other Official ▶							
	or Other Official				_ TITLE _			
	RESIDENCE-STATE				COUNT			
	Witnesses 1. NAME				RESIDE	NCE		
	(two are required.) 2. NAME				RESIDE	NCE		
	3. NAME REGISTRAR'S SIGN.	ATURE			RESIDE	NCE DATE RECEIVED BY LC	CAL DECISTOAD	
	hedistran's side	ATORE				DATE RECEIVED BY CO	CAL REGISTRAN	
	VALID ONL	Y IN THE STATI	OF DELAWAR	RE			STATE FILE CO	OPY
_					4			
	Number of this		If Previously Married	141-15				ıcation
	Marriage - 1st, 2nd, etc. (Specify below)	Date of First Marriage	Last Marriage Ended by Death	Last Marriage Ended on:		ace/American Indian, ack, White, etc.	(Specify h	nighest pleted)
		(Mth./Day/Year)	Divorce or Annul. (Specify below)	Mth./Day/Year	1	pecify below)	Elementary/ Secondary (0-12)	College (1-4 or
							and the said	(3.73)
M								
					7/=	100/10		

APPENDIX J

STATE OF DELAWARE CERTIFICATE OF DIVORCE OR ANNULMENT

RMANENT ACK INK	CERTIFICATE OF DIVORCE OR ANNULMENT State of Delaware OFFICE OF VITAL STATISTICS DIVISION OF PUBLIC HEALTH									
	State File No.									
	1.	HUSBAND'S NAME (Firs								
SBAND	2a.	RESIDENCE - STREET	OR NUMBER, CITY			26. 0	OUNTY			
10	2c.	STATE	ZIP	3. BIRTHPLACE (State or Foreign Country)	4. DA	TE OF BIRTH (Month, Day	, Year)		
	5a.	WIFE'S NAME (First, Mic	(dle, Last)			5b. N	AIDEN SURNAME			
WIFE	6a.	RESIDENCE - STREET	OR NUMBER, CITY			6b. C	OUNTY			
to the same	6c.	STATE	ZIP	7. BIRTHPLACE (State or Foreign Country)	8. DA	TE OF BIRTH (Month, Day	, Year)		
	9a.	PLACE OF THIS MARRIA LOCATION	AGE - CITY, TOWN, OR	9b. COUNTY	9c. STATE O	R FOREIGN COUNTRY	10. DATE OF THIS (Month, Day,			
ARRIAGE	11.	DATE COUPLE LAST RI HOUSEHOLD	DED IN SAME	12. NUV EL DE CAS ETE DA	CHILL EN UNDER 18 IN T) Husband () Wife () B	loth		
TORNEY	15.	I CERTIFY THAT THE M NAMED PERSONS WAS (Month, Day, Year)		16. TYPE OF DE	ECREE - Divorce or Annulme (Specify)	17. D	ATE RECORDED (Month,	Day, Year)		
CREE	18.	AWARDED TO: Husband Joint (Husband/Wile) () No Children			19. COUNTY OF DECR	REE 20. T	ITLE OF COURT			
	21.	SIGNATURE OF CERTIF	the same of the sa	NO 22. TITLE OF CE	RTIFYING OFFICIAL		ATE SIGNED Month, Day, Year)	- 10		
				STATE	FILE COP	PΥ				
		Land Street	lete items 1-14h	and 24-27 when		leave with Clerk orward to: ER, DELAWARE 1				
	ATT	ORNEY - Comp ERK OF THE CO	OURT - After final		O. BOX 637, DOVE			27. Education (Specify highest grade complet		
	CLE	ERK OF THE CO	OURT - After final			1777	27. Edi	ucation grade complet		
	CLE	ORNEY - Comp PRK OF THE CO 24. Number of this Marriage - 1st, 2nd, etc. (Specify below)	OURT - After final	25. If Previously Married Last Marriage Ended by Death, Divorce or		26. Race/American Inc Black, White, etc. (Specify below)	(Specify highest	grade complete		
JSBAND	CLE	24. Number of this Marriage - 1st, 2nd, etc.	OURT - After final Office of V	Vital Statistics, P.0 25. If Previously Married Last Marriage Ended	d Last Marriage Ended	Black, White, etc.	ian, Elementary/ Secondary	College (1-4 or 5+		

APPENDIX K

STATE OF DELAWARE REPORT OF INDUCED TERMINATION OF PREGNANCY



REPORT OF INDUCED TERMINATION OF PREGNANCY

1.	FACILITY NAME (if not clinic hospital, give address)	2. CITY, TOWN, OR LOCATION OF PREGNANCY TERMINATION				F	COUNTY OF PREGNANCY TERMINATION			
4.	. FORM NUMBER 5.			AGE LAST BIRTHDAY 6. MARRIED? 7.				DATE OF PREGNANCY TERMINATION (Month, Day, Year)		
8a.	RESIDENCE - STATE	8b. COUN	ITY	8c. CITY	, TOWN	, OR LOCAT	ION	8d. ZIP CODE		
9.	OF HISPANIC ORIGIN? (Specify No or Yes - If yes, s Cuban, Mexican, Puerto Ric			RACE White Black Other (Specify)	7		11. EDUC (Specify only highest Elementary/Secondar (0-12)	grade completed)	
12	DATE LAST NORMAL MENSES BEGAN (Month, Day, Year)	CLINICAL ESTIMAT GESTATI (Weeks)	E OF	14a. Nov	LIVE w Living	REVIOUS PF BIRTHS 14b. Not Number _ Number _	Living	NCIES (Complete each OTHER TER 14c. Spontaneous Number None	MINATIONS	
	000000	Dilation Intra-Ute Sharp C	Curet (Non- and E erine Curetta tomy/	ttage surgical), Evacuatio Instillatio age (D&C Hysterec	Spec on (D& n (Sali c) tomy	ify Medicat	ion(s)	din)	, 	

(Instructions on back)

Mail completed forms to: Delaware Health Statistics Center 417 Federal Street Dover, DE 19903 (302) 744-4541

Doc. No. 35-01-20-96-12-01

APPENDIX L

List of 113 selected causes of death and Enterocolitis due to Clostridium difficile

[An asterisk (*) preceding a cause-of-death code indicates that the code is not included in the *International Classification of Diseases, Tenth Revision* (ICD–10); see Technical Notes]

Number ¹	Cause of death (based on ICD-10)						
#	Salmonella infections	(A01–					
#	Shigellosis and amebiasis						
	Certain other intestinal infections						
	Tuberculosis						
	Respiratory tuberculosis.	•					
	Other tuberculosis						
	Whooping cough	,					
	Scarlet fever and erysipelas						
	Meningococcal infection						
	Septicemia						
#	Syphilis						
#	Acute poliomyelitis.						
#	Arthropod-borne viral encephalitis.						
#	Measles.						
#	Viral hepatitis	,					
#	Human immunodeficiency virus (HIV) disease						
#	Malaria						
#	Other and unspecified infectious and parasitic diseases and their sequelae						
	Malignant neoplasms						
	Malignant neoplasms	(C00–					
	Malignant neoplasms of lip, oral cavity and pharynx						
	Malignant neoplasm of esophagus	()					
	Malignant neoplasm of stomach	(
	Malignant neoplasms of colon, rectum and anus	(C18–					
	Malignant neoplasms of liver and intrahepatic bile ducts						
	Malignant neoplasm of pancreas						
	Malignant neoplasm of larynx						
	Malignant neoplasms of trachea, bronchus and lung	(C33–					
	Malignant melanoma of skin	()					
	Malignant neoplasm of breast						
	Malignant neoplasm of cervix uteri						
	Malignant neoplasms of corpus uteri and uterus, part unspecified	(C54–					
	Malignant neoplasm of ovary	(001)					
	Malignant neoplasm of prostate	(1					
	Malignant neoplasms of kidney and renal pelvis	//					
	Malignant neoplasm of bladder						
	Malignant neoplasms of meninges, brain and other parts of central nervous system						
	Malignant neoplasms of lymphoid, hematopoietic and related tissue						
	Hodgkin's disease						
	Non-Hodgkin's lymphoma						
	Leukemia						
	Multiple myeloma and immunoproliferative neoplasms						
	Other and unspecified malignant neoplasms of lymphoid, hematopoietic and related tis						
	All other and unspecified malignant neoplasms	(C17,C23-C24,C26-C31,C37-C41,C44-C49,C51- C57-C60,C62-C63,C66,C68-C69,C73-C80,					
ŧ	In situ neoplasms, benign neoplasms and neoplasms of uncertain or unknown behavior						
¥	Anemias	,					
ŧ	Diabetes mellitus .	,					
	Nutritional deficiencies	,					
	Malnutrition	,					
	Other nutritional deficiencies	,					
<u>.</u>		,					
<u>!</u> !	Meningitis	· · ·					
!	Parkinson's disease	,					
!	Alzheimer's disease	· · · · · · · · · · · · · · · · · · ·					
	Major cardiovascular diseases	(
	Diseases of heart						
	Acute rheumatic fever and chronic rheumatic heart diseases						

APPENDIX L (cont.)

List of 113 selected causes of death and Enterocolitis due to Clostridium difficile—Con.

[An asterisk (*) preceding a cause-of-death code indicates that the code is not included in the *International Classification of Diseases, Tenth Revision* (ICD–10); see Technical Notes]

Number ¹	Cause of death (based on ICD-10)	
	Ischemic heart diseases	0–125
52	Acute myocardial infarction(12 ⁻	
53	Other acute ischemic heart diseases	
54	Atherosclerotic cardiovascular disease, so described	
55	All other forms of chronic ischemic heart disease	125.9
	Other heart diseases	
56	Acute and subacute endocarditis	
57	Diseases of pericardium and acute myocarditis(I30–I3	
58	Heart failure	
59	All other forms of heart disease	
60#	Essential hypertension and hypertensive renal disease	
61#	Cerebrovascular diseases(160	
62#	Atherosclerosis	
	Other diseases of circulatory system	
63#	Aortic aneurysm and dissection	
64	Other diseases of arteries, arterioles and capillaries	
65	Other disorders of circulatory system	0–199
#	Influenza and pneumonia	
66	Influenza	
67	Pneumonia	2–J18
	Other acute lower respiratory infections(J20–J2:	2,U04
68#	Acute bronchitis and bronchiolitis	
69	Other and unspecified acute lower respiratory infection(J22	
#	Chronic lower respiratory diseases	
70	Bronchitis, chronic and unspecified(J40	
71	Emphysema	. (J43
72	Asthma(J45	
73	Other chronic lower respiratory diseases	
74#	Pneumoconioses and chemical effects(J60–J6	6,J68
75#	Pneumonitis due to solids and liquids.	
76	Other diseases of respiratory system(J00–J06,J30–J39,J67,J7(
77#	Peptic ulcer	
78#	Diseases of appendix	
79#	Hemia	
#	Chronic liver disease and cirrhosis	
80	Alcoholic liver disease	
81	Other chronic liver disease and cirrhosis	
82#	Cholelithiasis and other disorders of gallbladder	
#	Nephritis, nephrotic syndrome and nephrosis	
83 84	Acute and rapidly progressive nephritic and nephrotic syndrome	
0 4 85	Chronic glomerulonephritis, nephritis and nephropathy not specified as acute or chronic, and renal sclerosis unspecified (N02–N03,N05–N07	
oo 86	Renal failure	
87#	Infections of kidney	
88#	Hyperplasia of prostate	
89#	Inflammatory diseases of female pelvic organs	
#	Pregnancy, childbirth and the puerperium	
" 90	Pregnancy with abortive outcome(000	
91	Other complications of pregnancy, childbirth and the puerperium	
92#	Certain conditions originating in the perinatal period(POC	
93#	Congenital malformations, deformations and chromosomal abnormalities	
94	Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	
95	All other diseases	
#	Accidents (unintentional injuries) (V01–X59,Y85	
	Transport accidents	
96	Motor vehicle accidents	V80.5
97	Other land transport accidents	V19.9
98	Water, air and space, and other and unspecified transport accidents and their sequelae (V90–V99	

APPENDIX L (cont.)

Table A. List of 113 selected causes of death and Enterocolitis due to Clostridium difficile—Con.

[An asterisk (*) preceding a cause-of-death code indicates that the code is not included in the *International Classification of Diseases, Tenth Revision* (ICD-10); see Technical Notes]

Number ¹	Cause of death (based on ICD-10)					
	Nontransport accidents					
99	Falls					
100	Accidental discharge of firearms(W32–W3 ²					
101	Accidental drowning and submersion(W65–W7 ²					
102	Accidental exposure to smoke, fire and flames					
103	Accidental poisoning and exposure to noxious substances					
104	Other and unspecified nontransport accidents and their sequelae					
#	Intentional self-harm (suicide)					
105	Intentional self-harm (suicide) by discharge of firearms					
106	Intentional self-harm (suicide) by other and unspecified means and their sequelae(*U03,X60–X71,X75–X84,Y87.0					
#	Assault (homicide)(*U01-*U02,X85-Y09,Y87:1					
107	Assault (homicide) by discharge of firearms					
108	Assault (homicide) by other and unspecified means and their sequelae (*U01.0-*U01.3,*U01.5-*U01.9,*U02,X85-X92,X96-Y09,Y87.1					
109#	Legal intervention					
	Events of undetermined intent(Y10–Y34,Y87.2,Y89.9					
110	Discharge of firearms, undetermined intent(Y22–Y24					
111	Other and unspecified events of undetermined intent and their sequelae(Y10–Y21,Y25–Y34,Y87.2,Y89.9					
112#	Operations of war and their sequelae(Y36,Y89.1					
113#	Complications of medical and surgical care(Y40–Y84,Y88					
#	Enterocolitis due to <i>Clostridium difficile</i> (A04.7					

¹Causes labeled # are ranked to determine leading causes of death for specified population groups. Only mutually exclusive categories are numbered. ²Included in "Certain other intestinal infections (A04,A07–A09)" shown above.

Source: Heron M. Deaths: Leading causes for 2014.

National vital statistics reports;vol 65 no 5.

Hyattsville, MD: National Center for Health Statistics. 2016

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