Technical Notes

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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. 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.

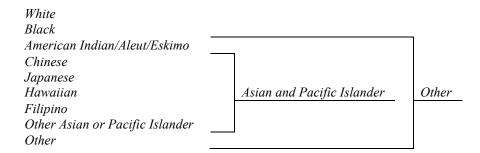
The second method is a more sophisticated technique that statistically "adjusts" for demographic differences between populations and allows direct comparisons between overall population rates. The major

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

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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_{adj} .

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

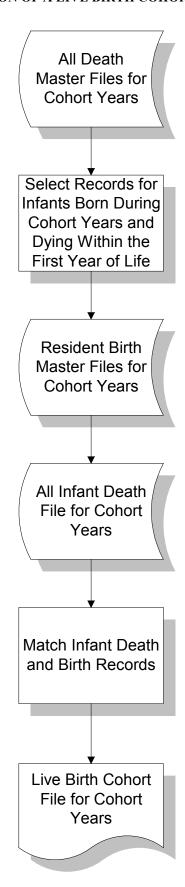
Comparison of two infant mortality rates - When the number of events for one or both of the rates was less than 100, comparisons between rates were based on the confidence intervals for each. If they overlapped, the difference was not significant. When the number of events for both rates was 100 or more, 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		es according to
	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
Diptheria	A36	037,771.3
Whooping cough	A37	032
Meningococcal infection	A39	036
Septicemia	A40-A41	038
Congenital syphilis	A50	090
Gonococcal infection	A54	098
Acute poliomyelitis	A80	045
/aricella (chickenpox)	B01	052
Measles	B05	055
Human immunodeficiency virus (HIV)	B20-B24	042-044
Mumps	B26	072
Candidiasis	B37	112
Malaria	B50-B54	084
Pneumocystosis	B59	136.3
Malignant Neoplasms	C00-C97	140-208
n situ, benign, and neoplasms of uncertain or unk behavior	D00-D48	210-239
Diseases of blood and blood-forming organs and certain	DE0 D00	125 270 200
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 palance	E86-E87	276
Meningitis	G00,G03	320-322
nfantile spinal muscular atrophy, type I	G12.0	335.0
nfantile 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
nfluenza 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 nernia	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	Category	codes according to
Cause of death	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
ntrauterine hypoxia and birth asphyxia	P20-P21	768
Respiratory distress of newborn	P22	769
Congenital pneumonia	P23	770.0
Neonatal aspiration syndrome	P24	770.1
nterstitial emphysema and related conditions originating in the	1 27	770.1
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		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	000 000	740 750
abnormalities Sudden infant death syndrome	Q00-Q99	740-759
Accidents	R95	798.0
Homicide	V01-X59	800-869,880-929
	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		es according to
	ICD-10 ¹	ICD-9 ²
Salmonella infections	A01-A02	002-003
Shigellosis 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
Viral hepatitis	B15-B19	070
Human immunodeficiency virus (HIV)	B20-B24	042-044
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	I71	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 code	es 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)CERTIFICATE OF LIVE BIRTH STATE FILE# 4. DATE OF BIRTH (Mo/Day/Yr) 1 CHILD'S NAME (First Middle Last Suffix) 2. TIME OF BIRTH CHILD 5. FACILITY NAME (If not institution, give street and number) 6. CITY, TOWN, OR LOCATION OF BIRTH COUNTY OF BIRTH Ba MOTHER'S CURRENT LEGAL NAME (First, Middle, Last, Suffix) 8b. MOTHER'S DATE OF BIRTH (Mo/Day/Yr) MOTHER 8c. MOTHER'S NAME PRIOR TO FIRST MARRIAGE (First, Middle, Last, Suffix) 8d. BIRTHPLACE (State, Territory, or Foreign Country) 9a. RESIDENCE OF MOTHER-STATE 9b. COUNTY 9c. CITY, TOWN, OR LOCATION 9g. INSIDE CITY LIMITS? 9d STREET AND NUMBER 9e APT NO 9f ZIP CODE 10c. BIRTHPLACE (State, Territory, or Foreign Country) 10a FATHER'S CURRENT LEGAL NAME (First, Middle, Last, Suffix) 10b. DATE OF BIRTH (Mo/Day/Yr) **FATHER** 12. DATE CERTIFIED 13: DATE FILED BY REGISTRAR TITLE: MD DO HOSPITAL ADMIN. CNM/CM OTHER MIDWIFE CERTIFIER MM DD YYYY INFORMATION FOR ADMINISTRATIVE USE 14. MOTHER'S MAILING ADDRESS: ☐ Same as residence, or CITY, TOWN, OR LOCATION MOTHER 17. FACILITY ID. (NPI) STREET & NUMBER: APARTMENT NO. OTHER MARRIED? (At birth, conception, or any time between)

☐ Yes ☐ No REQUESTED FOR CHILD? IF NO, HAS PATERNITY ACKNOWLEDGMENT BEEN SIGNED IN THE HOSPITAL?

☐ Yes ☐ No

18. MOTHER'S SOCIAL SECURITY NUMBER: 19. FATHER'S SOCIAL SECURITY NUMBER: INFORMATION FOR MEDICAL AND HEALTH PURPOSES ONLY MOTHER'S RACE (Check one or more races to indicate what the mother considers herself to be) 20. MOTHER'S EDUCATION (Check the box 21.MOTHER OF HISPANIC ORIGIN? (Check the box that best describes whether the mother is Spanish/Hispanic/Latina. Check the "No" box if mother is not Spanish/Hispanic/Latina) MOTHER that best describes the highest degree or level of school completed at the time of delivery) | White | Black or African American | American Indian or Alaska Native (Name of the enrolled or principal tribe) | Asian Indian | Chinese | Filipino | Japanese | Korean | Vietnamese | Other Asian (Specify) | Native Hawaiian | Guamanian or Chamoro Samoan | Other Pacific Islander (Specify) | Other (Specify) | Other (Specify) | ☐ White □ 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, BS)
□ Master's degree (e.g., MA, MS, MEngMEd, MSW, MBJ,
□ Doctorate (e.g., PhD, EdD) or
Professional degree (e.g., MD, DDS, DVM, LLB, JD) ☐ No. not Spanish/Hispanic/Latina Yes, Mexican, Mexican American, Chicana MOTHER'S MEDICAL ☐ Yes, Puerto Rican ☐ Yes, Cuban Yes, other Spanish/Hispanic/Latina Predominant Race 23. FATHER'S EDUCATION (Check the box that best describes the highest degree or level of school completed at the time of 25. FATHER'S RACE (Check one or more races to indicate what the 24 FATHER OF HISPANIC ORIGIN? (Check the box that best describes whether the father is Spanish/Hispanic/Latino. Check the "No" box if father is not Spanish/Hispanic/Latino) father considers himself to be) **FATHER** father considers himself to be)

Vhite
Black or African American

American Indian or Alaska Native
(Name of the enrolled or principal tribe)

Asian Indian

Chinese
Filipino
Japanese
Vorean
Vietnamese
Other Asian (Specify)

Native Hawaiian

Guamanian or Chamorro
Samoan

Other Pacific Islander (Specify)

Other (Specify) □ e^{lh} grade or less
□ sth − 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, BS)
□ Master's degree (e.g., MA, MS, MEng, M, Ed., MSW, MBA)
□ Declarate (e.g. - D. EdD) or □ No, not Spanish/Hispanic/Latino T Yes Mexican Mexican American Chicano ☐ Yes, Puerto Rican Yes, Cuban ☐ Yes, other Spanish/Hispanic/Latino M.Ed., MSW, MBA)

□ Doctorate (e.g., Ph.D., EdD) or Professional degree (e.g., MD, DDS, DVM, LLB, JD) (Specify) ___ Predominant Race 26. PLACE WHERE BIRTH OCCURRED (Check one)

Hospital
Freestanding birthing center
Home Birth: Planned to deliver at home?
Yes No MOTHER TRANSFERRED FOR MATERNAL MEDICAL OR FETAL 27. ATTENDANT'S NAME, TITLE, AND NPI STATE IF YES, ENTER NAME OF FACILITY MOTHER TRANSFERRED FROM: TITLE: MD DO CNM/CM Clinic/Doctor's o DPH REV 4/2005

APPENDIX F (cont.)

STATE OF DELAWARE CERTIFICATE OF LIVE BIRTH STATISTICAL SECTION

MOTHER	29a DATE OF VISIT	FIRST PRENAT		29b.	DATE OF LAST PRENATA	L CARE VISIT		REGNANCY	OF PRENATAL VISITS FOR THIS
MOTILLI	MM DD YY	YYY	Prenatal Care		MM DD Y				(If none, enter "0")
	31. MOTHER'S	HEIGHT	32 MOTHER'S PRE-PREGNANCY	33, N	MOTHER'S WEIGHT AT DE	ELIVERY		MOTHER GET WIG GNANCY?	C FOOD FOR HERSELF DURING THIS
	(feet/ir	nches)	WEIGHT (pounds)	-	(pounds)		□YE	ES NO	
	35. NUMBER O		36. NUMBER OF OTHER			ORE AND DURING PREGN			38, PRINCIPAL SOURCE OF
	include th	HS (Do not his child)	PREGNANCY OUTCOMES	1F	NONE, ENTER "0" Ave	ter the number of cigare rage number of cigarette	ettes smoked es or packs		PAYMENT FOR THIS DELIVERY
			(Spontaneous or induced losses or	of	cigarettes smoked pe	r day			☐ Private Insurance
			ectopic pregnancies)			# of Cigarettes	# or pack	S	☐ Medicaid
	35a.	35b.	36a. OTHER		ee Months Before Pre	gnancy(OR		
	Now Living Number	Now Dead Number	OUTCOMES NUMBER	Se	st Three Months of Pre cond Three Months of	Pregnancy (OR		☐ Self pay
		1		Las	st Trimester of Pregnar	ncy O	R		Other (Specify)
	☐ None	☐ None	☐ None						- A
	35c. DATE OF	F LAST LIVE	36b. DATE OF LAST OTHER		39. DATE LAST NORM	MAL MENSES BEGAN	4. (40. MG	OTHER'S MEDICAL RECORD NUMBER
	BIRTH		PREGNANCY OUTCOME						
MEDIOAL	MM 41 RISK FAC	YYYY TORS IN THIS PE	MM YYYY REGNANCY (Check all that apply)			D YYYY (CHECK ALL THAT APPLY)	1.48	6 METHOD OF D	ELIVERY
MEDICAL	Diabetes		(☐ Premature Ruptur				ry with forceps attempted but
AND	☐ Pre-Pre	egnancy (Diag	nosis prior to this pregnancy)		(prolonged, >= 1			unsuccessful?	
HEALTH	Hypertensio	n	is in this pregnancy)		☐ Precipitous Labor	(2 hrad			Yes No
INFORMATION	☐ Pre-Pre ☐ Gestati	egnancy (Chro onal	nic)		☐ Frecipilous Labor	(~31/18.)	В	 Was delivery but unsuccess 	with vacuum extraction attempted ful?
mir ommunitation	☐ Eclamp	sia			☐ Prolonged Labor (>= 20 hrs.)			Yes No
	☐ Other pre	vious poor preg	nancy outcome (includes		☐ None of the Above	9	C	Fetal presentat	tion at birth
	growth	restricted birth	for-gestational age/intrauterine				1	☐ Cephalic ☐ Breech	
	all that ag	oply:	infertility treatment-if yes, chec					☐ Other	
		tility-enhancing erine inseminal	drugs, Artificial insemination or	,			D	 Final route and Vaginal/Spi 	method of delivery (Check one)
	☐ Ass	sisted reproduc	tive technology (e.g. in vitro lete intrafallopian transfer					☐ Vaginal/For☐ Vaginal/Va	rceps
	[GIFT])						Cesarean	GUGHT
	If yes	s, how many	esarean delivery	V					vas a trial of labor attempted?
	None of the	NS PRESENT AN	D/OR		45. CHARACTERISTICS	OF LABOR AND DELIVER	Y 4	7. MATERNAL MO	Yes No RBIDITY (Check all that
		DURING THIS P	REGNANCY	1	☐ Induction of labor	or		apply) (Complication	s associated with labor
	☐ Gonorrhe				☐ Augmentation o ☐ Non-vertex pres	flabor		and delivery	
	Syphilis Chlamydi				Steroids (glucoc	orticoids) for fetal lung wed by the mother prior		☐ Maternal trans	sfusion
	☐ Hepatitis	В			delivery		1		degree perineal
	☐ Hepatitis ☐ None of ti			77,1	labor	ved by the mother durin		laceration	
	43. OBSTETS	RIC PROCEDURE	s (Check all that apply)		labor or matern	nnionitis diagnosed duri nal temperature >38° C		☐ Ruptured uter	
	☐ Cervica	al cerclage			(100.4°F) ☐ Moderate/heavy	meconium staining of the		☐ Unplanned hy	sterectomy
	☐ Tocoly:	SIS		1	amniotic fluid	e of labor such that one	1	Admission to	intensive care unit
	External cep	halic version;			more of the follo	wing actions was taken ative measures, further		Unplanned op	perating room procedure
	☐ Fai			-	fetal assessmer				2
	☐ None o	of the above		100	delivery			■ None of the a	bove
					☐ Epidural or spin ☐ None of the abo	al anesthesia during lab ive	or		
				1	NEWBORN IN		1 22		
NEWBORN	48. NEWBOR	N MEDICAL REC	ORD NUMBER	54.	ABNORMAL CONDITION (Check all that apply)	S OF THE NEWBORN		CONGENITAL AND EWBORN (Check	
	49. BIRTHWE	IGHT (grams pr	eferred, specify unit)		Assisted ventilation rec	uired immediately		nencephaly	
	1111				following delivery	vite d'Engance Managali		Meningomyelocel Vanotic congeni	e/Spina bifida tal heart disease
	EO opozer	grams			Hours	uired for more than six	□ C	congenital diaphr Imphalocele	ragmatic hernia
	JU. OBSIEIR	CIC ESTIMATE OF	(completed weeks)		NICU admission		□ G	Sastroschisis imb reduction de	oracian statistical control
	71 1		(will present the enay		Antibiotics received by	ant replacement therapy the newborn for	C	ongenital amputa	ation and dwarfing
	51. APGAR'S				suspected neonatal se Seizure or serious neu	psis	□ C	yndromes) left Lip with or w	rithout Cleft Palate
	Score at 5 m				Seizure or serious neu Significant birth injury (left Palate alone lown Syndrome	
	If 5 minute	score is less t	han 6,	- 3	peripheral nerve injury,	and/or soft tissue/solid ich requires intervention		 ☐ Karyotype co ☐ Karyotype pe 	
	Score at 10				None of the above	Separate Hiller Vol. Hill I	□S	uspected chrom Karyotype co	osomal disorder
	52, PLURALI	TY - Single, Tw	in, Triplet, etc.					☐ Karyotype pe	ending
	(Specify) _							lypospadias lone of the abovi	e
	53 IF NOT O	NGI E BIDTU . D	orn first, second, third, etc.						
		NOTE DIVING THE	garante, accord, tillia, etc.						
	(Specify) _								
	56. WAS INF	ANT TRANSFERE	RED WITHIN 24 HOURS OF DELIVE	RY?	Yes No	57. IS INFANT LIVING AT	TIME OF REF	PORT?	58. IS INFANT BEING BREASTFED AT DISCHARGE?
	TRANSFERRE		CITI			☐ Yes ☐ No ☐ Infar	nt transferred.	status unknown	☐ Yes ☐ No

APPENDIX G

STATE OF DELAWARE CERTIFICATE OF DEATH

OFFICE OF VITAL STATISTICS

CERTIFICATE OF DEATH

State of Delaware
DEPARTMENT OF HEALTH AND SOCIAL
SERVICES

State File Number

(107)

			SLIV	ICLO					
	DECEDENT'S LEGAL	L NAME (Include AKA's	if any) (First, Middle, La	ast)			2. SEX	3. SOCIAL SECURI	TY NUMBER
	4a. AGE-Last Birthday (Years)	4b. UNDER 1 YEAR Months Days	4c. UNDER 1 DAY ! Hours Minutes	5. DATE OF BIRT (Mo/Day/Yr)	H	6. BIRTHPLA	CE (City and St	tate or Foreign Count	try)
	7a. RESIDENCE-STATI	E	7b. COUNTY	7c.	CITY OR	TOWN			
	7d. STREET AND NUM	BER	1	7e. AF	T. NO.	7f. ZIP CODE	7g. INSI No	DE CITY LIMITS?	☐ Yes ☐
	8. EVER IN US ARMED FORCES? Yes No		ATUS AT TIME OF DE Widowed Divorce d Unknown	ATH 10.	SURVIVI	I NG SPOUSE'S	NAME (If wife,	give name prior to fin	rst marriage)
By:	11. FATHER'S NAME (First, Middle, Last)			12. MO	THER'S NAME	PRIOR TO FIF	RST MARRIAGE (Fire	st, Middle, Last)
Completed/ Verified I	13a. INFORMANT'S NA	ME	13b. RELATIONS DECEDENT	SHIP TO	13c. M/	AILING ADDRE	SS (Street and	Number, City, State,	Zip Code)
ed/\			14. PLACE OF D	EATH (Check only	one; see	instructions)			
3e Complet FUNERAL I		D IN A HOSPITAL: ency Room/Outpatient 【		H OCCURRED Solice facility Number				AL: ecedent's home	Other (Specify):
To Be Co	15. FACILITY NAME (If	not institution, give stree	t & number)	CITY OR TOWN	STATE,	AND ZIP CODE		17. COUNTY	OF DEATH
Ĕ	State_	OSITION:	19. PLACE O	F DISPOSITION (I	Name of co	emetery, crema	atory, other place	e)	
	Other (Specify): 20. LOCATION-CITY, T	TOWN, AND STATE	21. NAME AND O	COMPLETE ADDR	ESS OF F	UNERAL FAC	ILITY		
	22. SIGNATURE OF FU	INERAL SÉRVICE LICEI	NSEE OR OTHER AGE	ENT			23. L	ICENSE NUMBER (Of Licensee)
	ITEMS 24-28 MUST WHO PRONOUNCE		10 -0000000 V	DATE PRONOUN	CED DEA	D (Mo/Day/Yr)		25. TIME PRONOU	NCED DEAD
	26. SIGNATURE OF PE			oplicable)	27. l	ICENSE NUM	BER	28. DATE SIGN	IED (Mo/Day/Yr)
	29. ACTUAL OR PRESU (Mo/Day/Yr) (Spell I		30. ACTUA	AL OR PRESUME	TIME OF	DEATH	31. WAS	L MEDICAL EXAMINE TED?	R
1	32. PART I. Enter the		SE OF DEATH (Ses, injuries, or complica					-	Approximate interval: Onset to
	additional	arrest, or ventricular fibri	lation without showing	the etiology. DO N	IOT ABBF	REVIATE. Ente	r only one cause	e on a line. Add	death
By:	lines if necessary. IMMEDIATE CAUSE (I disease or condition								
leted	a resulting in death)		Due to	o (or as a conseque	nce of):				_
Completed By:	Sequentially list conditi b.	ions,							
To Be Con	if any, leading to the collisted on line a. Enter to UNDERLYING CAUSE	the	Due to	o (or as a conseque	ence of):				_
	(disease or injury that initiated the events resin death) LAST	ulting	Due to	o (or as a conseque	ence of):				
	d								
									_
	PART II. Enter other sig	nificant conditions contril	outing to death but not	resulting in the und	erlying ca	use given in PA		S AN AUTOPSY PE Yes ☐ No ☐ U	Inknown
							AVAILA		
								MPLETE THE CAUS Yes ☐ No ☐ Un	

APPENDIX G (cont.)

STATE OF DELAWARE CERTIFICATE OF DEATH

		35. DID TOBACCO USE CONTRIBUTE TO DEATH? See Probation No See Unknown	│ Not p │ Pregr │ Not p │ Not p │ Not p │ Unkn	E: regnant within past year nant at time of death regnant, but pregnant within regnant, but pregnant 43 day lown if pregnant within the pa	ys to 1 year bef	oth fore death	37. MANNER (Natural Accident Investigation Suicide determined	☐ Homicide
		38. DATE OF INJURY (Mo/Day/Yr) (Spell Month)	39. TIME OF INJURY	40. PLACE OF INJURY (e.g., area)	, Decedent's hor	ne; construction site; restaura	ant; wooded	41. INJURY AT WORK?
		42. LOCATION OF INJUR Street & Number: 43. DESCRIBE HOW INJ				SPI	IF TRANSPOR ECIFY: Driver/Operator Passenger Pedestrian	Zip Code: TATION INJURY,
		Pronouncing & Certify Medical Examiner-On stated. Signature of certifier:	o the best of my knowledgying physician-To the best in the basis of examination,	ge, death occurred due to the coof my knowledge, death occurred and/or investigation, in my opion COMPLETING CAUSE OF	red at the time, o	date, and place, and due to the urred at the time, date, and pl		manner stated.
		47. TITLE OF CERTIFIER		(Mo/I	DATE CERTIFIEI Day/Yr)	(Mo/Day/Yr)	SISTRAR ONLY	
Amendmen t Code:		51. DECEDENT'S EDUC/ the box that best describe degree or level of school of time of death. 8th grade or less	es the highest completed at the box that Span dece	EEDENT OF HISPANIC ORIGI best describes whether the de nish/Hispanic/Latino. Check the dent is not Spanish/Hispanic/L	ecedent is ne "No" box if Latino.	the decedent considered him White Black or African America	nself or herself to	
Amendmen t Number:		☐ 9th - 12th grade; no d ☐ High school graduate completed ☐ Professional Trade Sc ☐ Some college credit, l	or GED No,	not Spanish/Hispanic/Latino , Mexican, Mexican American, , Puerto Rican		American Indian or Alas (Name of the enrolled or) Asian Indian Chinese Filipino Japanese Korean Vietnamese Other Asian	ra Native principal tribe)	
User ID:	Be Completed By:	Associate degree (e.g. Bachelor's degree (e.g. Master's degree (e.g. MEd, MSW, MBA)	g., BA, AB, BS) Yes , MA, MS,	, Cuban , other Spanish/Hispanic/Latino ecify)		(Specify) Native Hawaiian Guamanian or Chamorro Samoan Other Pacific Islander (Specify)	0	
SFN:	To Be C	DVM, LLB, JD) Unknown	(e.g., MD, DDS,	type of work done during most		Other (Specify): Unknown		
		55. KIND OF BUSINESS/	•	type of work done during most	co. Working inc.	20.101 GOL NETINED.)		

APPENDIX H

STATE OF DELAWARE CERTIFICATE OF FETAL DEATH

	DEPARTMENT	E OF DELAN OF HEALTH AND SOCI	AL SERVICES		(107)
FTTHE	NAME OF FETUS (optional-at the discretion of the parents.)	EPORT OF FETAL DEA	2. TIME OF DELIVERY 3.	SEX (M/F/Unk) 4. 0	STATE FILE # DATE OF DELIV ERY (Mo/Day/Yr)
FETUS			(24hr)	Ta manu massista	
		Hospital	RY OCCURRED (Check one)	number)	(If not institution, give street and
		reestanding birthing center			
	5b. ZIP CODE OF DELIVERY	Hame Delivery: Planned to del	iver at home? Yes No		
	6. COUNTY OF DELIVERY	Clinic/Dector's office		9 FACILITY ID (NE	20
	D	Other (Specify)			
MOTHER	10a, MOTHER'S CURRENT LEGAL NAME (First, Middle, Last, S.	uffix)		10b DATE OF E	SIRTH (MorDay/Yr)
	10c MOTHER'S NAME PRIOR TO FIRST MARRIAGE (First, M.	ddle, Last, Suffix)		10d BIRTHPLA	CE (State, Territory, or Foreign
	A STATE OF THE STA			Country)	
	11a RESIDENCE OF MOTHER-STATE 11b COL	INTY		11c CITY, TOWN, OR	LOCATION
	11d. STREET AND NUMBER		11e APT NO.	11f ZIP CODE	11g. INSIDE CITY
	THE STREET PAGENDAGEN		116.79 1110.	THE ZEE GODE	LIMITS?
FATHER	12a. FATHER'S CURRENT LEGAL NAME (First, Middle, Last, St.	offix) 12b	DATE OF BIRTH (Mo/Day/Yr	12c BIRTHPLACE	E (State, Territory, or Foreign Cour
LWINES					
		E/CONDITIONS CO	NTRIBUTING TO FETA		
CAUSE	13a INITIATING CAUSE/CONDITION		AGE S. STANDARD	ANT CAUSES OR COND	
OF	(AMONG THE CHOICES BELOW, PLEASE SELECT THE ON BEGAN THE SEQUENCE OF EVENTS RESULTING IN THE D	E WHICH MOST LIKELY DEATH OF THE FETUS)		ALL OTHER CONDITION	NS CONTRIBUTING TO DEATH
FETAL	Maternal Conditions/Diseases (Specify)		Maternal ConditionalDisa	eases (Specify)	
DEATH					
10 101 1 1 1	Complications of Placenta, Cord. or Membranes		Complications of Placen	ta, Cord, or Membranes	
	Rupture of membranes prior to onset of labor.		☐ Rupture of men	nbranes prior to onset of I	abor
	☐ Abruptio placenta		☐ Abruptio placer	rta .	
	☐ Placental insufficiency		☐ Placental insuff	ficiency	
	☐ Prolapsed cord		☐ Prolapsed cord		
	☐ Chorioamnionitis		☐ Chorioamnionit	tis	
	Other Specify)		☐ Other Specify)		
	Other Obstetrical or Pregnancy Complications (Specify)		Other Obstetrical or Pre-	gnancy Complications (St	secify)
			34		
	Fetal Anomaly (Specify)		Fetal Anomaly (Specify)		
	Fetal (njury (Specify)		Fetal Injury (Specify) _		
	Fetal Infection (Specify)		Fetal Infection (Specify)		
	Other Fetal Conditions/Disorders (Specify)		Other Fetal Conditions/	Disorders (Specify)	
			<u> </u>		
	Unknown		☐ Unknown		
	13c. WEIGHT OF FETUS (grams preferred, specify unit)	13e ESTIMATED	TIME OF FETAL DEATH		OPSY PERFORMED? ☐ No ☐ Planned
	☐ grams ☐ lb/oz		inst assessment, no labor ongoing		OLOGICAL PLACENTAL
			irst assessment, labor ongoing	EXAMINATIO	N PERFORMED?
	13d OBSTETRIC ESTIMATE OF GESTATION AT DELIVERY		r, after first assessment	13h WERE AUTO	PSY OR HISTOLOGICAL EXAMINATION RESULTS USE
	(completed weeks)	Unknown time of	f fetal death	IN DETERMI	NING THE CAUSE OF FETAL Yes No
	14. METHOD OF DISPOSITION:			1 DOMINI L	1100 12110
	14. HETHOUGH DIGITOR				
ISPOSITION	☐ Burial ☐ Cremation ☐ Hospital Disposition	□ Donation □	Removal from State C	Other (Specify)	
		Donation D		ther (Specify)	LE
ISPOSITION CERTIFIER AND	☐ Burial ☐ Cremation ☐ Hospital Disposition		ANT'S NPI	15c ATTENDANT'S TIT	LE W/CM OTHER MIDWIFE
	Burial Cremation Hospital Disposition	15b. ATTEND	ANT'S NPI	15c ATTENDANT'S TITE MD DO CNE OTHER(Specify)	WOM OTHER MIDWIFE
CERTIFIER AND	Burial Cremation Hospital Disposition 15a. ATTENDANT'S NAME 16a. I CERTIFY THAT THIS DELIVERY OCCURRED ON THE	15b. ATTEND	ANT'S NPI	15c ATTENDANT'S TITE MD DO CNE OTHER(Specify)	W/OM OTHER MIDWIFE
CERTIFIER AND EGISTRATION	Burial Cremation Hospital Disposition 15a: ATTENDANT'S NAME 16a: I CERTIFY THAT THIS DELIVERY OCCURRED ON THE SIGNATURE	15b. ATTEND	ANT'S NPI	15c ATTENDANT'S TITE MD DO CNE OTHER(Specify)	WOM OTHER MIDWIFE
CERTIFIER AND EGISTRATION	Burial Cremation Hospital Disposition 15a. ATTENDANT'S NAME 16a. I CERTIFY THAT THIS DELIVERY OCCURRED ON THE	15b. ATTEND	ANT'S NPI HAT THE FETUS WAS BORN	15c. ATTENDANTS TITE MD D C CNI OTHER(Specify) I DEAD 15b DATE SIG	M/CM OTHER MIDWIFE
CERTIFIER AND EGISTRATION	Burial Cremation Hospital Disposition 15a: ATTENDANT'S NAME 16a: I CERTIFY THAT THIS DELIVERY OCCURRED ON THE SIGNATURE	15b. ATTEND	ANT'S NPI	15c. ATTENDANTS TITE MD D C CNI OTHER(Specify) I DEAD 15b DATE SIG	M/CM OTHER MIDWIFE

APPENDIX H (cont.)

STATE OF DELAWARE CERTIFICATE OF FETAL DEATH

MOTHER	degree or levet of the time of delive. 8th grade or les. 9th - 12th grade. High school gracompleted. Same college of Associate degree. Bachelor's degree. Master's degree. Meng, MEd, M. Doctorate (e.g.	cribes the highest f school completed in fry) is so, no diploma adulate or GED redit but no degree are (e.g., AA, AS). Free (e.g., BA, AB, BS, SW, MBA). PhD, EdD) or agree (e.g., MD, DD). DP, no anytime	the box mother 'No' bo No. no Yes. No Yes. O Yes.	other Spanish/Hispanic/	sther the inna. Check the sh/Hispanic/Latina) ina can, Chicana ican, Chicana Latina 24b. DA CA enatal Care	what the mother co White Black or African A American Indian o	or Alaska Native lled or principal tribe	Υ
	26 MOTHER'S HEIGI (feet/in) 30 NUMBER OF PRE LIVE BIRTHS 30a. Now Living Number None	ches)	(pounds)	THER PREGNANCY contaneous or induced to pregnancies)	OTHER'S WEIGHT, AT (pounds) 32 CIGARETTE SMO For each time peri cigarettes amoked	DELIVERY 29, DID MC DURIN KING BEFORE AND DUR od, enter eitner the number 15 NONE, ENTER '07 iggarettes or packs of cigar a Pregnancy of Pregnancy	THER GET WIC FOOD FOR HERSELF IG THIS PREGNANCY? Yes No LING PREGNANCY ar of cigarettes or the number of packs of	lo:
		Y Y	MM	YYYY R FETAL INDICATION	Third Trimester of P 33 DATE LAST NORM MENSES BEGA MM D.D YYY	regnancy MAL 34 PLURALITY- Twin, Triplet: (Y (Specify)	OR Single, 35. IF NOT SINGLE BIRTH-	etc.
MEDICAL AND HEALTH INFORMATION	37. RISK FACTORS IN Diabetes Pre-pregriant Gestational Hypertension Pre-pregriant Gestational Eclampsia Previous preterr Other previous pregrowth restrict Pregnancy result Fertility-enha	N THIS PREGNANC Cy (Diagnosis prior i (Diagnosis in this p cy (Chronic) (PIH, preeclampsia) n birth our pregnancy outco ted birth) ted from infertility tre uncing drugs, Artifica roductive technology evicus cesarean deli any	Y (Check all that app to this pregnancy) pregnancy) me (Includes perinate atment-if yes, check all insemination or intri (e.g., in vitro ferbliza	il death, small-for-gesta		THIS PREGNAL Gonorrhea Syphilis Chlamydia Listeria Group B Strey Cytomegalovi Parvovirus Toxoplasmosi	s s	
	39 METHOD OF DELI A Was delivery with in Yes Y	forceps attempted b No vacuum extraction a No at delivery ethod of delivery (Chontaneous ceps buum twas a trial of labor rectomy	stempted but	Complications assor Maternal trans Third or fourth Ruptured uters Unplanned hy	degree perineal laceratus sterectomy ntensive care unit erating room procedure	Ilivery)	yelocele/Spina bifida ongenital heart disease disphragmatic hernia le sis tion defect (excluding congenital and dwarfing syndromes) th or without Cleft Palate alone trome yee confirmed yee pending chromosomal disorder yee pending chromosomal disorder yee pending	

APPENDIX H (cont.)

STATE OF DELAWARE CERTIFICATE OF FETAL DEATH

	VITAL DEPARTMENT OF	HEALTH AND SOCIAL			107)
rrrue	STATISTICS REPORT 1. NAME OF FETUS (optional at the discretion of the parents)	T OF FETAL DEATH	2. TIME OF DELIVERY 3.		TATE FILE # OF DELIV ERY (Mo/Day/Yr)
FETUS	5a CITY TOWN, OR LOCATION OF DELIVERY 7. PL	ACE WHERE DELIVER	(24hr) RY OCCURRED (Check one)	8. FACILITY NAME III.	ot institution, give street and number)
	□ Hos				
	Sh. ZIP CODE OF DELIVERY		wrathome? □ Yes □ No		
	6. COUNTY OF DELIVERY	nic/Doctor's office		9. FACILITY ID. (NPI)	
1/2/2012 10/20 10/20	10a. MOTHER'S CURRENT LEGAL NAME (First, Middle, Last, Su	er (Specify)		10b. DATE OF BIRT	Li Mas Prancisco
MOTHER	IVAL MOTHER'S CORREST LEGAL NAME (FIRST MUDBE, LAST, SL	nous		THE DATE OF BIRT	(murbay) (1)
	10c. MOTHER'S NAME PRIOR TO FIRST MARRIAGE (First, Middl	le, Last, Suffix)		10d BIRTHPLACE (Country)	State, Territory, or Foreign
	11a. RESIDENCE OF MOTHER-STATE 11b. COUNT	TY		11e CITY, TOWN, OR LO	CATION
	11d STREET AND NUMBER		11e APT NO.	111. ZIP CODE	11g. INSIDE CITY LIMITS?
FATHER	12a. FATHER'S CURRENT LEGAL NAME (First, Middle, Last, Suffo	d 12b	DATE OF BIRTH (Mo/Day/Yr)	12c BIRTHPLACE (SI	Yes No ate, Territory, or Foreign Country)
	13. CAUSE/	CONDITIONS COL	NTRIBUTING TO FETA	L DEATH	
CAUSE	13a INITIATING CAUSE/CONDITION		13b. OTHER SIGNIFICA	NT CAUSES OR CONDITIO	NS .
OF	(AMONG THE CHOICES BELOW, PLEASE SELECT THE ONE BEGAN THE SEQUENCE OF EVENTS RESULTING IN THE DE-		(SELECT OR SPECIFY IN ITEM 13b)	ALL OTHER CONDITIONS (ONTRIBUTING TO DEATH
FETAL	Maternal Conditions/Diseases (Specify)		Maternal Conditions/Dise	ases (Specify)	
DEATH	Complications of Placenta, Cord, or Membranes		Complications of Placenta	a, Cord, or Membranes	
	☐ Rupture of membranes prior to onset of labor			branes prior to onset of labor	
	☐ Abruptio placenta		☐ Abruptio placent	in.	
	☐ Placental insufficiency		☐ Placental insuffic	ciency	
	☐ Prolapsed cord		☐ Prolapsed-cord		
	☐ Chorioamnionitis		☐ Chorigamnionitis		
	☐ Other Specify)		Other Specify)		
	Other Obstetrical or Pregnancy Complications (Specify)		Other Obstetrical or Preg	nancy Complications (Specif	0
			_		
	Fetal Anomaly (Specify)	4	Fetal Anomaly (Specify)		
			300000000000000000000000000000000000000		
	Fetal Injury (Specify)		Fetal Injury (Specify)		
	Petal Intection (opecity)		Fetal Infection (Specify)		
	Other Fetal Conditions/Disorders (Specify)		Other Fetal Conditions/L	isorders (Specify)	
	Unknown		☐ Unknown		
	13c WEIGHT OF FETUS (grams preferred, specify unit)	Winds Consulter Action	TIME OF FETAL DEATH	131 WAS AN AUTOPS	Y PERFORMED? No Planned
	grams lb/oz		st assessment, no labor origoing st assessment, labor ongoing	13g. WAS A HISTOLO EXAMINATION P	GICAL PLACENTAL ERFORMED? No Planned
	13d. OBSTETRIC ESTIMATE OF GESTATION AT DELIVERY (completed weeks).	☐ Died during labor. ☐ Unknown lime of f		13h, WERE AUTOPSY PLACENTAL EXA	OR HISTOLOGICAL MINATION RESULTS USED THE CAUSE OF FETAL
210200171011	14. METHOD OF DISPOSITION			DEATH? LIYE	I INO
DISPOSITION	☐ Burial ☐ Cremation ☐ Hospital Disposition			her (Specify)	
CERTIFIER AND	15s. ATTENDANTS NAME	15b ATTENDA		50. ATTENDANT'S TITLE MD DO DOMMON	OTHER MIDWIFE
REGISTRATION	16a. I CERTIFY THAT THIS DELIVERY OCCURRED ON THE D	ATE SHOWN AND TH		OTHER(Specify) DEAD 16b DATE SIGNED)
INFORMATION	SIGNATURE >				
	16c. MAILING ADDRESS				
MOTHER'S MEDICAL RECORD NO			176 LOCATION (CITY, TO		
	18a DATE RECEIVED 18b REGISTRAR'S SIGNATURE BY REGISTRAR		19. FUNERAL DIRECTOR'S	S SIGNATURE	ADDRESS

APPENDIX H (cont.)

STATE OF DELAWARE CERTIFICATE OF FETAL DEATH

			AUTHORITY FOR BURIAL, TRANSPORTATION AND REMOVAL
			etely filled in and bearing items 16a and 19, the signatures of the attending physician and a authority for Burial, Transportation and Removal of the above named Decedent.
	39	This permit is n	of authority for cremation; separate authorization must be obtained.
		CEMETA	RY OR CREMATORY SHALL FILL OUT SECTION BELOW
	The Dec	edent named a	bove was buried cremated in the cemetery or crematory in item 17a.
BURIAL W	AS IN		
Section	Lot	Grave	The appropriate entry in the Cemetery Crematory registry has been made.
Signature			
		Sexton a	other person in charge Date Signed
cemetery, to	he Funeral Di	irector may sign	d above by the Cemetery or Crematory Authority. If no full time person is in charge of the as Sexton. This Burial-Transit Permit is to be retained by the Manager, Superintendent, rge of Burial, Entombment or Cremation, or if none, then the Funeral Director.

REV: 04/2005

APPENDIX I

STATE OF DELAWARE CERTIFICATE OF MARRIAGE

	OFFICE			ICATE OF			STATE FII	E NUMBE
	OF VITAL STATISTICS		State	ION OF PUBL				
	LOCAL REGISTRAR'S NO.	LICE NO.	ENSE 5880	1 NO.	LICENSE PLICATION	PLACE LICENS ISSUED		
P.O. Box 637, Dover, DE 19903.	NAME FIF	GROOM AST MII	DDLE LAS	ST	FIRST	BR MID	IDE DLE	LAST
	RESIDENCE STREET OR I	NUMBER, CITY	- 14-5	R	RESIDENCE S	TREET OR NUMBER, CITY		
903.	STATE	ZIP	COUNTY	S	TATE	Table 160	ZIP	COUNTY
	DATE OF E	IIRTH	AGE			DATE OF BIRTH	AGE	
	BIRTHPLACE (STATE OR FO	REIGN COUNTRY)		В	BIRTHPLACE	STATE OR FOREIGN COUNTRY).	
1	WE HEREB					THE BEST OF OUR KN	NOWLEDGE AND BEL	EF
200	SIGNATURE X				SIGNATURE OF BRIDE	The state of the s		
	NAME FIF	RST MII	DDLE LA		NAME		MIDDLE	LAS
	BIRTHPLACE (STA	TE OR FOREIGN COUNTRY)			BIRTH	PLACE (STATE OR FOREIGN C	COUNTRY)	
7 8 7	MAIDEN NAME	FIRST MI	DOLE	ST	MAID!	NAME FIRST	MIDDLE	LAS
	BIRTHPLACE A	TE OR FOREIT COUN Y)				LACE (STATE OR FOREIGN C	COUNTRY)	
	TT 1 12		V A	1 (
2							19 ,	HOUR
5	the aforementi	oned persons u	vere by me un	ited in ma	arriage i	at	TOWN, OR LOCATION)	
	County of			, in acco	rdance	with the Laws o		elawar
	Signature of Clergy or Other Official							
	or other others				IIILE_	YA		
	RESIDENCE-STATE							
					COUNT	Υ		
	Witnesses 1. NAME_	Philipping			COUNT			
IO: OFFICE OF VIIAL SIAIISTICS,	Witnesses (two are required.) 2. NAME_		i ji			ENCE		
	(two are required.) 2. NAME_				RESIDE	ENCE		
	(two are	NATURE			RESIDE	ENCE	CAL REGISTRAR	
	(two are required.) 2. NAME REGISTRAR'S SIG		E OF DELAWAR	E	RESIDE	ENCE	CAL REGISTRAR	
	(two are required.) 2. NAME REGISTRAR'S SIG	NATURE	E OF DELAWAR	ΙE	RESIDE	ENCE	CAL REGISTRAR STATE FILE CO	DPY
	(Iwo are required.) 2. NAME_ REGISTRAR'S SIG		E OF DELAWAR	ΙE	RESIDE	ENCE	STATE FILE CO	
THE REAL PROPERTY OF THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON	(Iwo are required.) 2. NAME_ REGISTRAR'S SIG VALID ON Number of this Marriage - 1st, 2nd, etc.	LY IN THE STATI	If Previously Married		RESIDE RESIDE	ENCE DATE RECEIVED BY LO	STATE FILE CO	cation
	(Iwo are required.) 2. NAME REGISTRAR'S SIG VALID ON Number of this Marriage -				RESIDE RESIDE	ENCE	STATE FILE CO	cation ighest oleted)
M	(Iwo are required.) 2. NAME_ REGISTRAR'S SIG VALID ON Number of this Marriage - 1st, 2nd, etc.	Date of First Marriage	If Previously Married Last Marriage Ended by Death Divorce or Annul.	Last Marria Ended on:	RESIDE RESIDE	ENCE	STATE FILE CO	cation ighest pleted)
	(Iwo are required.) 2. NAME_ REGISTRAR'S SIG VALID ON Number of this Marriage - 1st, 2nd, etc.	Date of First Marriage	If Previously Married Last Marriage Ended by Death Divorce or Annul.	Last Marria Ended on:	RESIDE RESIDE	ENCE	STATE FILE CO	cation ighest oleted)

APPENDIX J

STATE OF DELAWARE CERTIFICATE OF DIVORCE OR ANNULMENT

ACK INK	State of Delaware OFFICE OF VITAL STATISTICS DIVISION OF PUBLIC HEALTH											
			State File	State File Na								
(HUSBAND'S NAME (First, Middle, Last)											
BAND	RESIDENCE - STREET	OR NUMBER, CITY			2b. C	COUNTY						
- 2	2c. STATE ZIP 3. BIRTHPLACE (4. D/	4. DATE OF BIRTH (Month, Day, Year)						
>	5a. WIFE'S NAME (First, A	fiddle, Last)			5b. M	5b. MAIDEN SURNAME						
	Sa. RESIDENCE - STREET	RESIDENCE - STREET OR NUMBER, CITY				6b. COUNTY						
VIFE	Sc. STATE	ZIP	7. BIRTHPLACE /	7. BIRTHPLACE (State or Foreign Country)			DATE OF BIRTH (Month, Day, Year)					
	PLACE OF THIS MARK LOCATION	RIAGE - CITY, TOWN, OR	9b. COUNTY	9c: STATE C	OR FOREIGN COUNTRY	10. DATE OF THIS (Month, Day	MARRIAGE Year)					
RRIAGE	HOUSEHOLD 14a. NAME OF PETITIONER	YS ATTORNEY (Type/Print)	AS TI DA	TEIF TEM 11 () N treet and Number or Rural R	не	() Husband () Wife () E () Other (Specify) State, Zip Code)	Soth					
15. I CERTIFY THAI NAMED PERSO (Month, Day, Ye		MARRIAGE OF THE S DISSOLVED	16. TYPE OF DE	ECREE - Divorce or Annulms (Specify)	ent 17. [17. DATE RECORDED (Month, Day, Year)						
		EN UNDER 18 WHOSE PHYSICAL	L CUSTODY WAS	19. COUNTY OF DECI	REE 20. 1	TITLE OF COURT						
CREE	18. NUMBER OF CHILDRE AWARDED TO: Husband Joint (Husband/Wife) () No Children CONTES		 NO									
CREE	AWARDED TO: Husband Joint (Husband/Wile) () No Children	Other		RTIFYING OFFICIAL		DATE SIGNED Month, Day, Year)	- 1 × 1					
CREE	AWARDED TO: Husband Joint (Husband/Wife) () No Children CONTES	Other	22. TITLE OF CEI									
CREE	AWARDED TO: Husband Joint (Husband/Wife) () No Children CONTES	Other	22. TITLE OF CEI	FILE CO			, se					
CREE T	AWARDED TO: Husband Joint (Husband/Wife) () No Children CONTES 21. SIGNATURE OF CERT	Other	STATE	FILE COI	PY leave with Clerk	of the Court.						
CREE T	AWARDED TO: Husband Joint (Husband/Wile). () No Children CONTES 21. SIGNATURE OF CERT ATTORNEY - Com CLERK OF THE C	Other	STATE	FILE COI filing petition and item 15-23 and f O. Box 637, DOVE	leave with Clerk orward to: ER, DELAWARE 1	of the Court. 9903 27. Ed (Specify highest	ucation					
CREE T	AWARDED TO: Husband Joint (Husband/Wife) () No Children CONTES 21. SIGNATURE OF CERT	other	STATE and 24-27 when ecree complete ital Statistics, P.0	FILE COI filing petition and item 15-23 and f O. Box 637, DOVE	PY leave with Clerk	of the Court. 9903 27. Ed (Specify highest	ucation grade comple College					
P	AWARDED TO: Husband Joint (Husband/Wile). () No Children CONTES 21. SIGNATURE OF CERT ATTORNEY - Com CLERK OF THE C 24. Number of this Marriage - 1st, 2nd, etc.	Other	STATE and 24-27 when ecree complete ital Statistics, P. d. 25. If Previously Married by Death, Divorce or Annulment	filing petition and item 15-23 and f D. Box 637, DOVE	leave with Clerk orward to: ER, DELAWARE 1 26. Race/American In Black, White, etc.	of the Court. 9903 27. Ed (Specify highest Elementary/ Secondary)	ucation					

APPENDIX K

STATE OF DELAWARE REPORT OF INDUCED TERMINATION OF PREGNANCY



REPORT OF INDUCED TERMINATION OF PREGNANCY

FACILITY NAME (if not clinic or hospital, give address)		CITY, TOWN, OR LOCATION OF PREGNANCY TERMINATION				COUNTY OF PREGNANCY TERMINATION			
4. FORM NUMBER		AGE LAST BIRTHDAY		6. MARRIED? 7. □Yes □No		DATE OF PREGNANCY TERMINATION (Month, Day, Year)			
8a. RESIDENCE - STATE 8b. C	OUNTY	TY 8c. CITY, TOWN, OR LOCATION			N	8d. ZIP CODE			
9. OF HISPANIC ORIGIN?	10. F	10. RACE			11. EDUCATION (Specify only highest grade completed)				
(Specify No or Yes - If yes, specify Cuban, Mexican, Puerto Rican, etc □No □Yes	:.)	☐ White ☐ Black ☐ Other (Specify)			Elementary/Secondary College (1-4 or 5+)				
Specify:				A	A				
12. DATE LAST NORMAL MENSES BEGAN (Month, Day, Year) 13. CLINICAL ESTIMATI GESTATII (Weeks)		EOF		PREVIOUS PREGNAVE BIRTHS ing 14b. Not Living		NCIES (Complete each OTHER TERI 14c. Spontaneous Number	MINATIONS		
		None	7	None		None	None		
15. TYPE OF TERMINATION PROCEDURE (Check only one) Suction Curettage Medical (Nonsurgical), Specify Medication(s) Dilation and Evacuation (D&E) Intra-Uterine Instillation (Saline or Prostoglandin) Sharp Curettage (D&C) Hysterotomy/Hysterectomy Other (Specify)									

(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

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