

2017

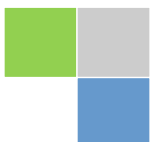


pennsylvania
DEPARTMENT OF HEALTH

Pennsylvania Child Death Review Annual Report

Bureau of Family Health,
Division of Bureau Operations

2017 Annual Report
(Deaths Occurring in 2014)
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The 2017 Child Death Review Annual Report is a publication of the Pennsylvania Department of Health (Department) under the requirements of Act 87 of 2008.

The Department would like to acknowledge the contribution of the 63 Child Death Review (CDR) local teams, without whom this data and the CDR program would not be possible.

This report presents information on the distribution and causes of child deaths in Pennsylvania and reflects information collected during the CDR process. The CDR process and the data derived from it are the result of a collaboration between the Department and local CDR teams.

Vital statistics information is provided to local teams to help them initiate a CDR review. This information is provided throughout the year by the Department of Health, Bureau of Informatics and Information Technology (BIIT). Once the death and birth certificates from Vital Statistics are collected and disseminated to local teams, the review process is initiated. From that point, teams collect data about a case from coroners/medical examiners offices, law enforcement, hospitals, children and youth services, and a variety of other resources. The information is then discussed during the local teams meeting, and possible prevention strategies or recommendations are developed.

Information from the meeting is then entered into the web-based National Child Death Review Case Reporting System (NCDR-CRS). This system was developed in collaboration with the National Center for Fatality Review and Prevention and state CDR programs and was supported, in part, by a grant from the Maternal and Child Health (MCH) Bureau (Title V, Social Security Act), Health Resources and Services Administration, U.S. Department of Health and Human Services. Additional information and data is provided through the Centers for Disease Control and Prevention (CDC), and additional data was accessed using CDC WONDER.

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About this Report

The data provided in this report are based on the year of death and not review year. It focuses on those child deaths occurring in 2014 and the reviews of those deaths. Primarily, the data outlined in this report were extracted from the NCDR-CRS and supplemented by other sources where noted.

The Purpose of Pennsylvania's Child Death Review (CDR) Annual report is twofold. The first is to summarize the findings from the reviews of child deaths and make recommendations about how to utilize those findings to inform programming. Secondly, this report highlights some of the CDR activities accomplished locally and at the state level throughout the year. Pennsylvania's CDR Program continues to explore and pursue opportunities for supporting local teams in their work. The department recognizes the importance of evidence-based prevention strategies and the value of effective death reviews to inform those strategies. Through this program, deaths among Pennsylvania's children can be better understood, and interventions designed to prevent future deaths can be identified.

The National Child Death Review Case Reporting System (NCDR-CRS) is the primary source of data for the Pennsylvania CDR Annual Report. This data is based entirely on information collected and entered by local CDR teams. The report includes child mortality rates from the CDC's Wide-Ranging Online Data for Epidemiologic Research (CDC WONDER) for context and comparison.

An effective child death review requires participation from agencies and individuals at a state and local level. The process is initiated when information collected from death certificates, birth certificates and traffic accident reports is compiled by department staff and securely transferred to local county teams on a quarterly basis. Local teams use this information to initiate collaborative, multidisciplinary reviews. The death review process includes gathering available information related to the child's death and is not limited to only those items contained within death certificates. This includes, among other data, information derived from law enforcement, coroner reports, children and youth services reports, hospital records, and traffic accident reports.

Currently, all 67 counties in Pennsylvania are represented by one of the 63 local review teams. See Appendix A: Local Team Chairs and Co-Chairs, for more information.

The reviews of child deaths occurring in 2014 are the basis for this report. As per Act 87 of 2008, a child is defined as an individual 21 years of age and under. Reviews are conducted on deaths occurring in this age group. Overall, there were fewer deaths of children in 2014 than in 2013. There were 1,743 deaths of children in 2014, reflecting a 9.7 percent decrease from 1,931 deaths in 2013. Of the 1,743 deaths in 2014, 1,258 (72.2 percent) were reviewed by CDR teams and entered in the NCDR-CRS. This represents a 3 percentage point decrease in the number of child deaths reviewed from 2013 when 75.2 percent of deaths were reviewed.

In Pennsylvania, deaths of African-American children occur at a higher rate than those of other races. The last three years have seen a decline in the rate of death for this population, reaching a five-year low of 89.8 per 100,000 population in 2014. However, this rate is still higher than the national rate for African-Americans of 86.2 per 100,000 population (CDC WONDER online database, accessed June 8, 2017).

Additionally, in Pennsylvania white children have seen a decline in the rate of death reaching a five-year low of 44.4 per 100,000 population. The death rate for Asian or Pacific Islander children has increased since last year from 31.9 per 100,000 population to 34.1 per 100,000 population and is also higher than the national rate for the same population of 31.9 per 100,000.¹

Over half of all deaths reviewed were deaths among infants. There were 629 total infant deaths reviewed, representing 50.3 percent of all cases reviewed. Children age 18 years up to 22 years of age accounted for 26.3 percent of child deaths reviewed. Combined, these two age groups represent 76.6 percent of all child deaths reviewed in Pennsylvania.

The highest single cause of death identified among infant cases reviewed was prematurity, wherein 294 cases were reviewed with that cause of death (46.7 percent of all infant deaths reviewed). Further examination of the infant deaths revealed that 83 cases were reviewed in which the death was determined to be related to Sudden Unexpected Infant Death (SUID). According to CDC WONDER data, African-American or black infants are disproportionately the largest race group affected by SUID.

There were 120 cases reviewed in which weapons were involved in the child's death. Weapon-related deaths account for the largest number of external injury deaths. The majority of the deaths involving a weapon (86.7 percent) occurred among children between 15 and 21 years of age. Deaths in males accounted for 85 percent of the cases, and deaths involving weapons among children identified as black or African-American accounted for 70.8 percent of these cases.

Motor vehicle deaths were identified in 96 cases reviewed, of which 91 were determined to be an accidental manner of death. Motor vehicle deaths were the highest number of accidental deaths, representing 40.3 percent of all the accidental deaths reviewed in 2014. The data revealed that 71.4 percent of children involved in motor vehicle deaths were between the ages of 15-21 years.

An examination of the reviewed 2014 deaths revealed that, in 85 cases, children's deaths involved a reported poisoning, overdose or acute intoxication. In 96 percent of these cases, the manner of death was determined to be accidental. Of the 72 accidental deaths related to poisoning, 69.4 percent were due to overdose or acute intoxication.

There were 68 cases reviewed in which suicide was the identified manner of death. In more than 25 percent of these cases, the child's suicidal ideation was known prior to the act.

According to the review data contained within the NCDR-CRS, 293 cases (23.3 percent) of the cases reviewed were determined to have been preventable by the local teams. Of these preventable deaths, more than half, 161 cases, were accidental. It is important to note that the determination of preventability is a subjective measure determined by local teams based on the information available at the time of the review. Additionally, the determination is based on what data is available in the NCDR-CRS at the time of this report.

Recommendations

The Pennsylvania CDR Program should continue to work to identify factors influencing child deaths and use this information to advise strategies targeted at reducing preventable child deaths. Teams have determined that nearly 25 percent of cases reviewed were probably preventable. The data describing the factors influencing preventable deaths could provide a starting point for local collaboration and prevention strategies surrounding child death. In many cases, counties have a variety of services and programs currently under way that are already addressing prevention strategies. It is important to note that local CDR teams are not

expected to provide all the prevention efforts in a community. Instead, teams should tap into resources currently available and share information about the factors surrounding deaths with other partners to aid in identifying and developing prevention strategies. One of the benefits of multi-disciplinary teams is that many entities involved with prevention activities are at the table and the CDR team can act as the catalyst to coordinate prevention efforts.

Data quality is another aspect of the CDR program that should be addressed on an ongoing basis. Data found in the NCDR-CRS is the only data of its kind. There is nothing currently available that could provide this level of detail regarding the circumstances of a child's death. To be effective, the quality and timeliness of this data needs to be addressed, and fields with missing/unknown entries need to be drastically reduced or eliminated.

Complete data entered in a timely fashion would allow local teams to:

- Focus on prevention strategies to address their specific needs;
- Provide data supported recommendations to county executive staff;
- Offer support for policy/ordinance changes; and
- Effectively allow for coordination/collaboration with local entities.

An effective review requires using the information about the set of circumstances leading up to and causing a child death to improve systems and prevent future child deaths.² The process is initiated when information collected from death certificates, birth certificates and traffic accident reports is compiled by department staff and securely transferred to local county teams on a quarterly basis. Local teams use this information to initiate collaborative, multidisciplinary reviews. The death review process includes gathering available information related to the child's death and is not limited to only those items contained within death certificates. This includes, among other data, information derived from law enforcement, coroner reports, children and youth services reports, hospital records, and traffic accident reports.

Currently, all 67 counties in Pennsylvania are represented by one of the 63 local review teams (see appendix A). Local team members are comprised of community leaders who represent organizations and agencies that serve and protect children within their respective counties. Local teams' core membership includes representation from the (1) county children and youth agency, (2) district attorney's or designee's office (3) local law enforcement, (4) court of common pleas, (5) medical and emergency medical communities, (6) coroner's or medical examiner's office, and (7) public health agency. Local team members elect a chairperson annually. See Appendix A for a list of the chairpersons for the 63 teams.

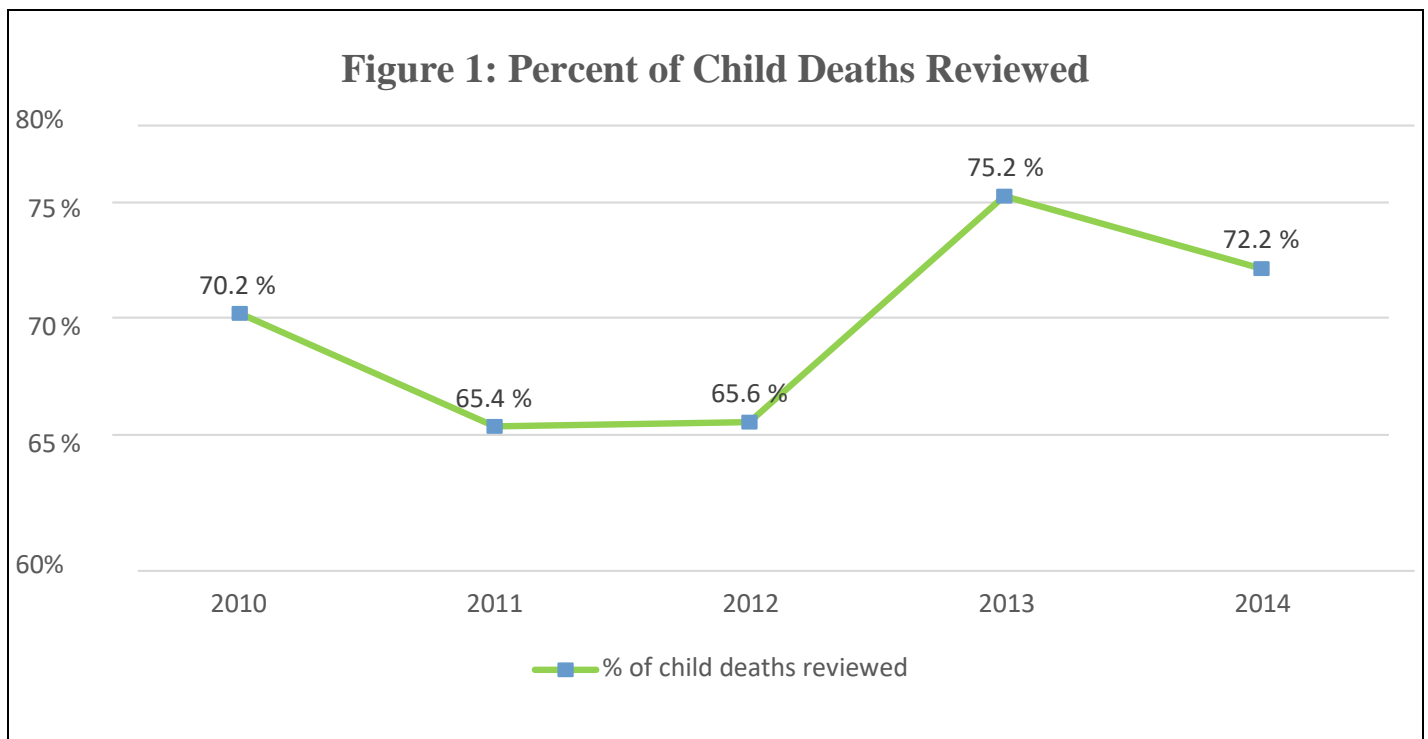
Most deaths are reviewed six to nine months after they occur. In Pennsylvania, local CDR teams review all deaths of children who are Pennsylvania residents and under age 22. This includes deaths due to any cause or manner for infants through a child's 21st birthday, without exception. A comprehensive review of a child's death requires the sharing of case records from multiple sources on the wide-ranging set of circumstances leading up to and causing a child's death. As teams meet to conduct reviews, available information is compiled for each case. Each team has a designated person who subsequently enters this information into the NCDR-CRS. Review data downloaded from the NCDR-CRS were used in the development of this report. The data used in the creation of this report were current as of May 25, 2017.

Given that reviews are triggered by the information available on death certificates, any limitations associated with the accuracy and reliability of the information presented on death certificates may affect the review process. For example, when cause of death is pending, teams sometimes set those cases temporarily aside or locate the information from a participating coroner before initiating the review process.

It is important to recognize that the number of deaths reviewed will not equal the total number of statewide deaths that occurred. According to vital statistics, there were 1,743 deaths in children 21 years of age and younger in 2014. Based on the review data contained within the NCDR-CRS, 1,258 (72.2 percent) were reviewed. Teams review deaths after death investigations are completed and death certificates are filed with the Pennsylvania Department of Health, Bureau of Vital Statistics. Typically, cases involving the judicial system are not reviewed until that process is resolved to avoid jeopardizing the investigative process. Cases are sometimes pulled from the review process when team members representing law enforcement or child protective services determine that conducting a child death review could potentially affect an investigation or case. In other cases, core information surrounding the circumstances of the death is lacking, and a complete review is not possible. This occurs for various reasons, including those cases wherein released records are not provided by an agency, county or state (if the death occurred out of state) or the information on the death certificate is inadequate to proceed.

The information captured by the review team can be entered and stored in the NCDR-CRS. Data downloaded from that system were used in this report, and it is important to note that cases within the system are at varying levels of completeness. While some review cases are initiated, not all the fields of information, or components, are populated during the review or by the time of this report. Data entry into NCDR-CRS is dependent on local teams' ability to identify staff to complete modules. Discussion or findings during reviews that are not entered in NCDR-CRS or other reports completed by local teams are not included in this report. For these reasons, it is important to recognize that frequencies and percentages based on available review data should be applied cautiously in drawing inferences on total deaths statewide.

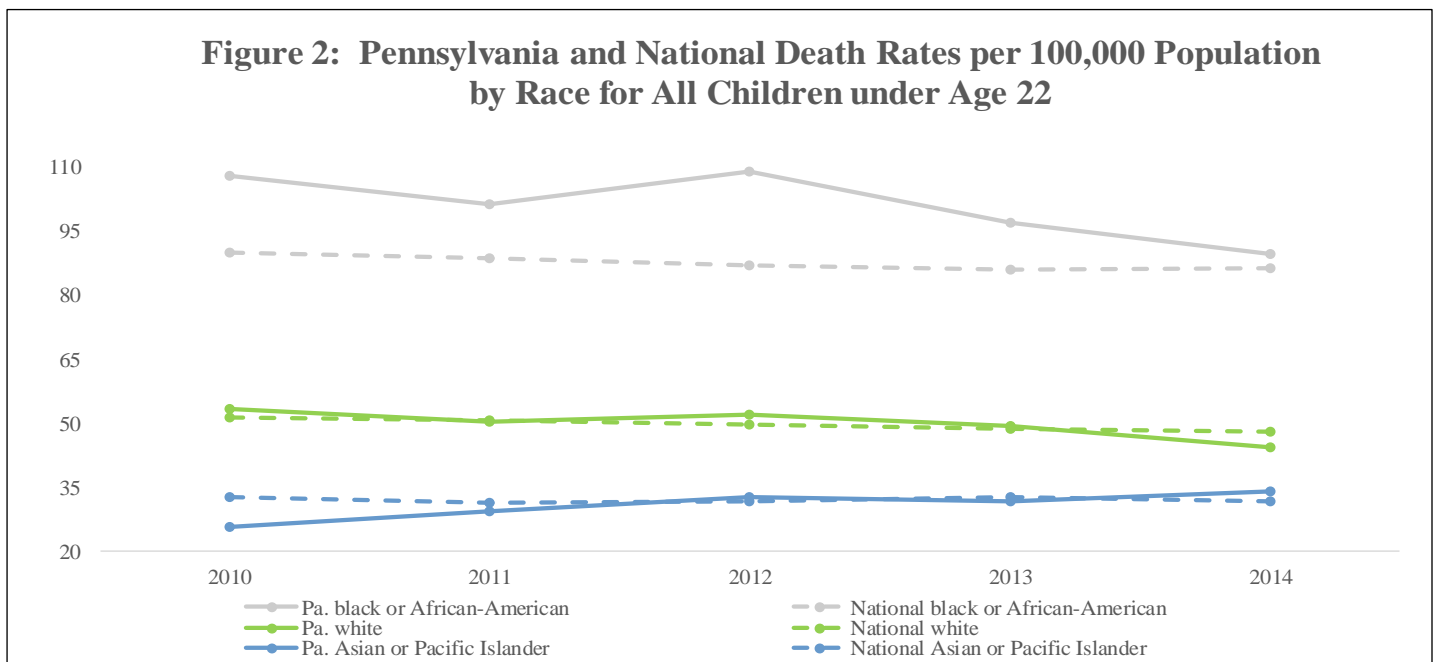
The reviews of child deaths occurring in 2014 are the basis for this report. As per Act 87 of 2008, a child is defined as an individual 21 years of age and under. Reviews are conducted on deaths occurring in this age group. Overall, there were fewer deaths of children in 2014 than in 2013. There were 1,743 deaths of children in 2014, reflecting a 9.7 percent decrease from 1,931 deaths in 2013. Of the 1,743 deaths in 2014, 1,258 (72.2 percent) were reviewed by CDR teams and entered in the NCDR-CRS. This represents a 3 percentage point decrease in the number of child deaths reviewed from 2013 when 75.2 percent of deaths were reviewed. As shown in Figure 1: Percent of Child Deaths Reviewed below, even with this decrease in the percent of deaths reviewed, the percent of cases reviewed in 2014 is higher than the percent of cases reviewed in 2010, 2011 and 2012.



Note: Information provided in this chart is based on BIIT and NCDR-CRS data for 2014 as well as numbers provided from CDR annual reports from 2013-2016. Numbers are as of the time of the writing and may have changed slightly, as death certificates are entered and cases are reviewed after the completion of the annual reports.

It is important to note that while most cases involve white children, there is a larger population of white individuals in Pennsylvania. Rates are used when comparing populations because they standardize population size and provide a more meaningful comparison between population groups. In Figure 2: Pennsylvania and National Death Rates per 100,000 Population by Race for All Children under Age 22 below, data from CDC WONDER highlights rates of death for children in Pennsylvania based on race. In Pennsylvania, deaths of African-American children occur at a higher rate than those of other races. The last three years have seen a decline in this rate of death, reaching a five-year low of 89.8 per 100,000 population in 2014. However, this rate is still higher than the national mortality rate for African-American children of 86.2 per 100,000 population.

In Pennsylvania, the rate of death for white children has also seen a decline, reaching a five-year low rate of 44.4 deaths per 100,000 population. This rate is lower than the national rate of 48.1 deaths per 100,000 population. The rate of death for Asian or Pacific Islander children has increased from 31.9 deaths per 100,000 population in 2013 to 34.1 deaths per 100,000 population and is also higher than the national mortality rate for Asian or Pacific Islanders of 34.1 per 100,000.



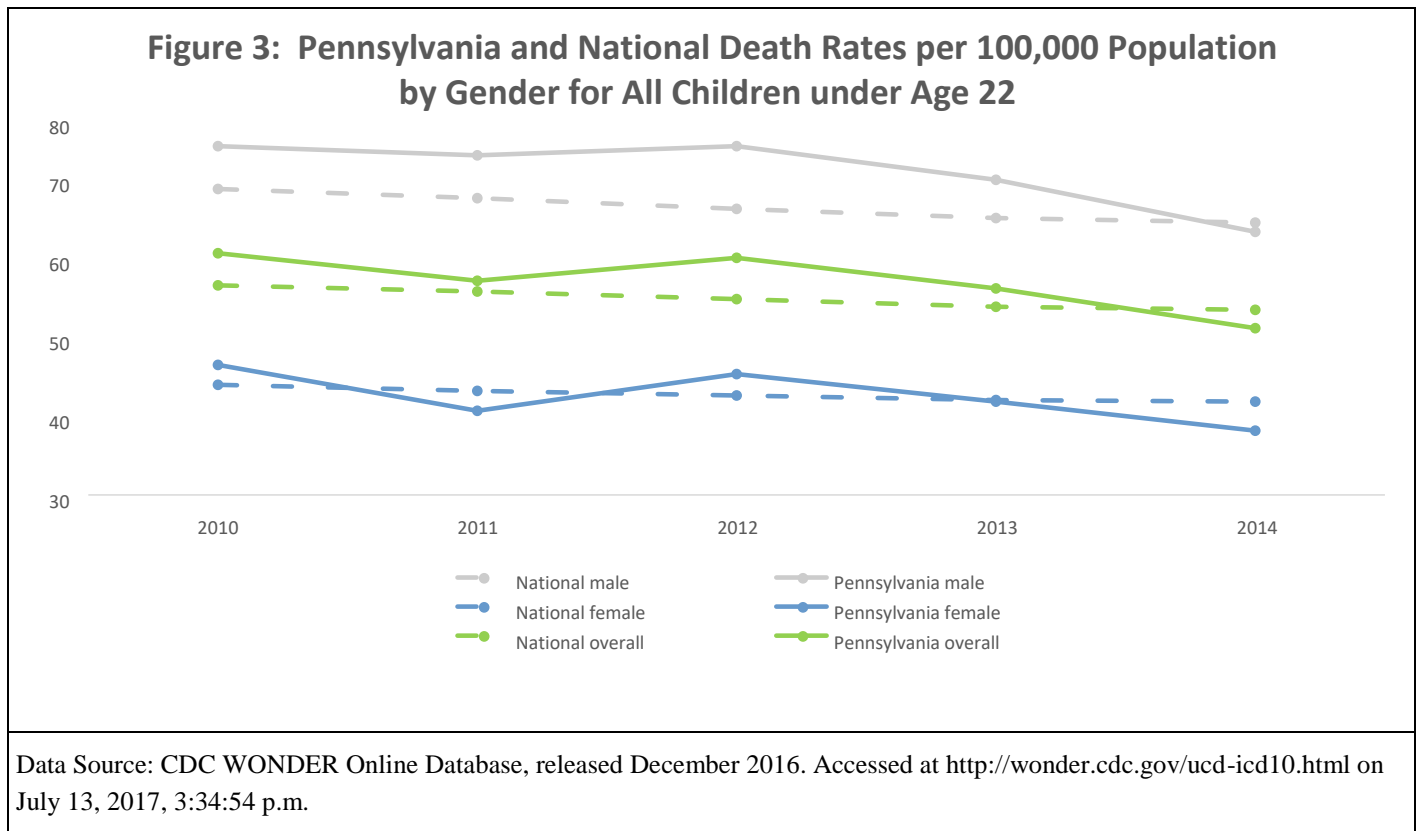
Data Source: CDC WONDER Online Database, released December 2016. Accessed at <http://wonder.cdc.gov/ucd-icd10.html> on June 8, 2017, 8:46:29 a.m.

NOTE: Data provided through CDC WONDER suppresses data when death counts are less than 20. While death rates are collected on all races, some are unable to be reported due to data suppression.

An examination of the 1,258 reviewed child death cases by race and ethnicity revealed that, in 677 cases (53.8 percent), the children were identified as white; in 446 cases (35.5 percent), the children were identified as black or African-American; in 29 cases (2.3 percent), the children were identified as Asian or Pacific Islander; in 17 cases (1.4 percent), the children were identified as multi-racial; and in 88 cases (7.0 percent), the children's race was unknown or no response was recorded. In 133 cases (10.6 percent), the children were identified as Hispanic/Latino (any race).

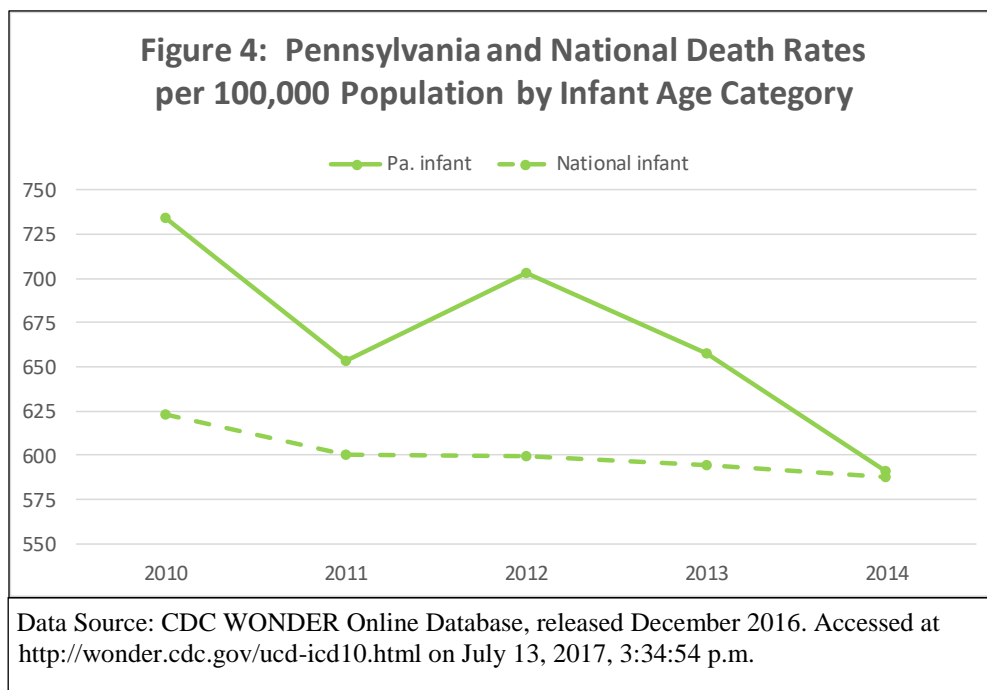
Data from CDC WONDER reveals that male children under the age of 22 have a higher rate of deaths than females. Deaths of male children in Pennsylvania occur at a rate of 63.5 per 100,000, which is a higher than the rate of females (38.3 per 100,000 population). This is also higher than the overall rate of 51.2 per 100,000 population. This is comparable to what is seen nationally. Over the past three years, Pennsylvania has seen a decrease in rates of death by gender and reached a five-year low for males, females and overall rates. The rates for 2014 are all below national rates of death for the first time in the past five years. This is shown below in Figure 3: Pennsylvania and National Death Rates per 100,000 Population by Gender for All Children under Age 22.

Of the 1,258 child death cases reviewed, 769 (62.7 percent) were male and 457 (37.3 percent) were female.

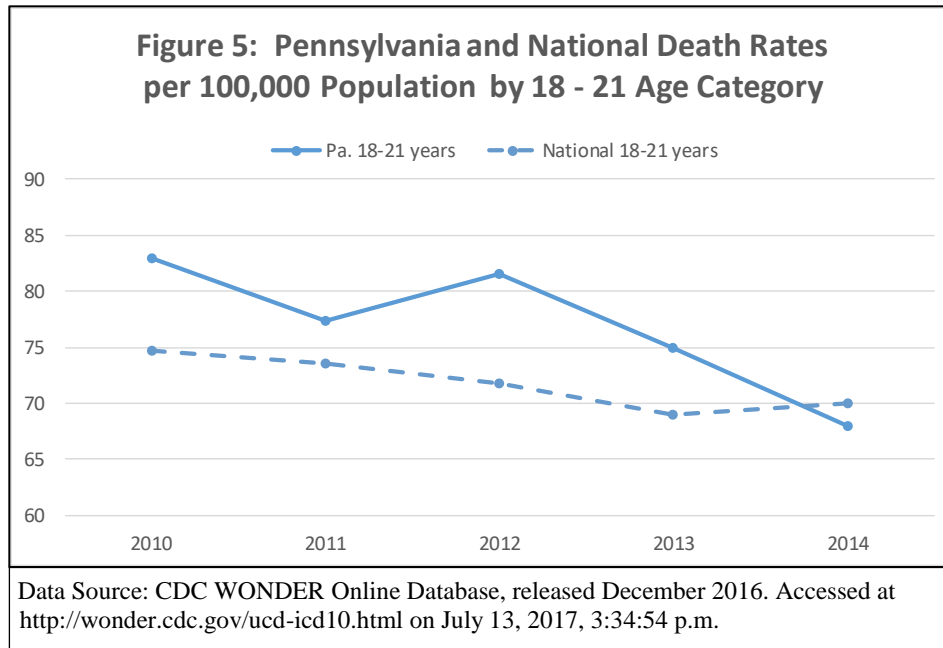


Data from CDC WONDER shows that both nationally and in Pennsylvania, the largest number of deaths by age group is infants (children less than 1 year old). The second largest number of deaths by age group is 18 to 21 years. Both age groups have seen a drop in the death rate over the past three years.

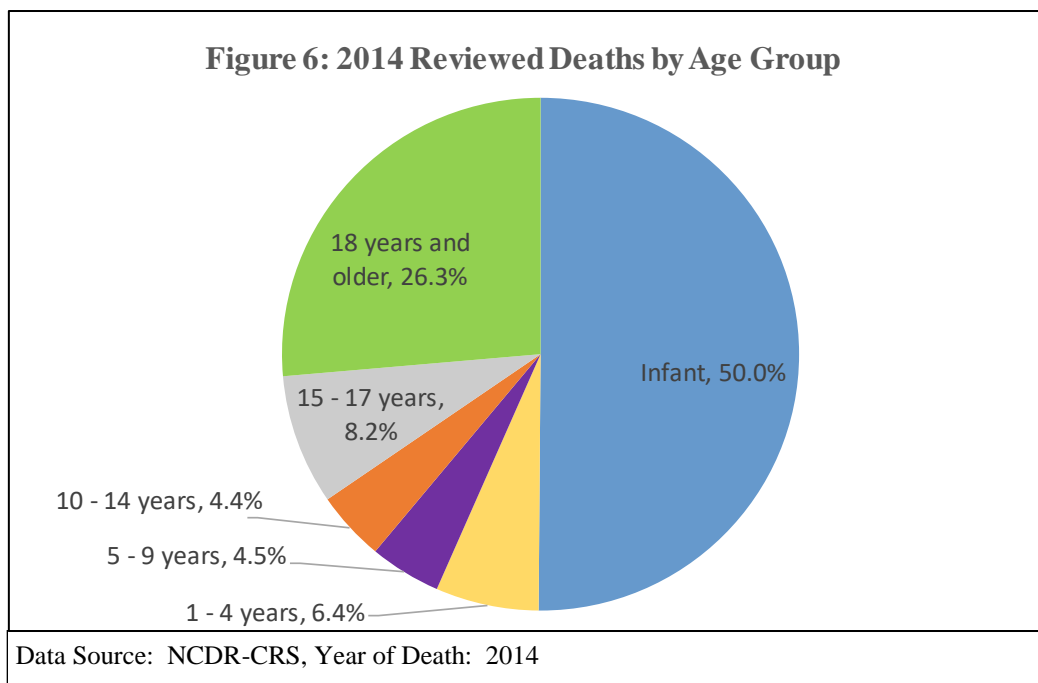
Based on CDC WONDER data for Pennsylvania, the death rate of infants dropped from 734.0 per 100,000 in 2010 to 590.6 per 100,000 in 2014. This was the lowest rate of death for this age group over the past five years (2010-2014) and was slightly higher than the national rate of 588.0 per 100,000 population. This is illustrated below in Figure 4: Pennsylvania and National Death Rates per 100,000 Population by Infant Age Category.



In Pennsylvania, the death rate of children age 18-21 years old has dropped from 83.0 per 100,000 population in 2010 to 67.9 per 100,000 population in 2014. This is the lowest rate of death for this age group over the past five years (2010-2014) and also the first time in the past five-years the rate has dropped below the national rate of 70.0 per 100,000. This is illustrated on page 14 in Figure 5: Pennsylvania and National Death Rates per 100,000 Population by 18 - 21 Age Category.



An examination of the 1,258 reviewed deaths in Pennsylvania reflects what is found in the national and state numbers for age categories. Figure 6: 2014 Reviewed Deaths by Age Group below shows infants (children less than 1 year of age) comprised the largest single age group of cases reviewed (50.0 percent). Infants and young adults ages 18-21 represent 76.3 percent of all child deaths reviewed in Pennsylvania.



Manner and Cause of Death

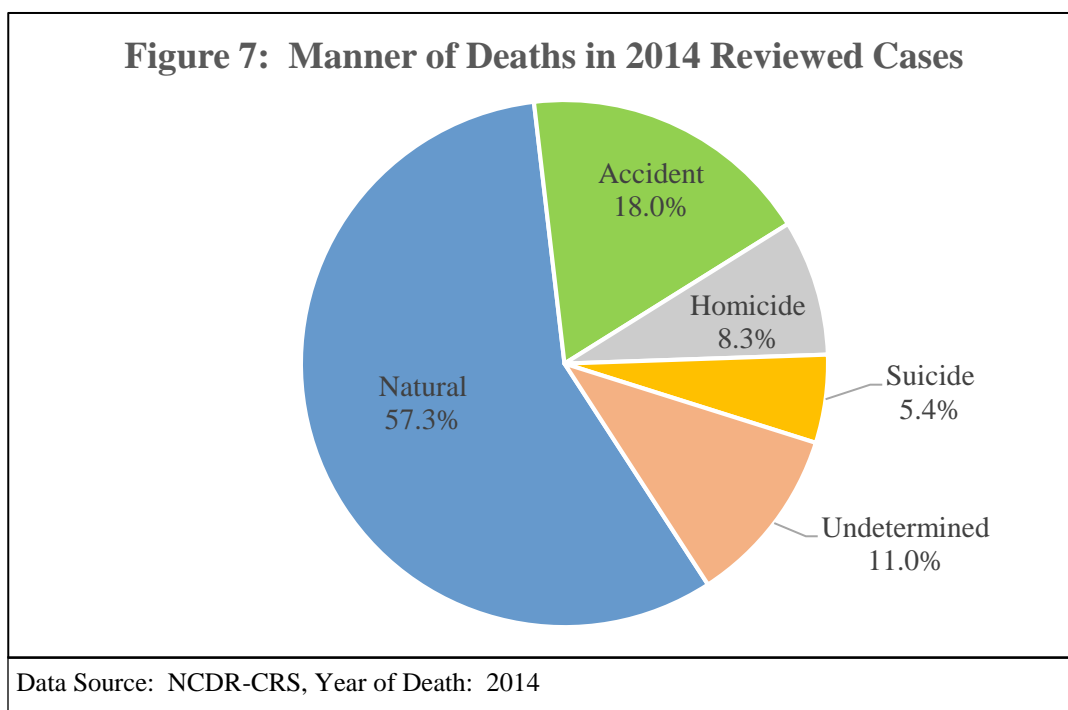
The manner and cause of death are determinations made by either the coroner or medical examiner. Pennsylvania has county government medical examiner offices in Philadelphia, Allegheny and Delaware counties and elected coroners in the other 64 counties. Conclusions are made following either an autopsy or medical review of the death. The manner of death relates to the circumstances of the accident or violence that produced the fatal injury. The five categories of manner of death are natural, homicide, suicide, accident and undetermined. The cause of death is the physical condition that directly contributed to the person's death. The underlying cause of death is either the disease or injury that initiated the train of morbid events leading directly to death or the circumstances of the accident or violence that produced the fatal injury.² A cause of death on the death certificate represents a medical opinion that might vary among individual medical-legal officers.

The International Classification of Diseases (ICD) codes are alphanumeric designations given to every diagnosis, description of symptoms and cause of death attributed to human beings. The classifications are developed, monitored and copyrighted by the World Health Organization (WHO). In the United States, the National Center for Health Statistics oversees all changes and modifications to the ICD codes, in cooperation with WHO. ICD codes are used to classify a cause of death. Every cause-of-death statement is coded and tabulated according to these classifications. The most current list of codes in use is ICD-10, reflecting the tenth revision.

The task of the medical examiner or coroner is to determine whether a death is an accident or the result of intent to end life. The medical examiner or coroner must use all information available to make a determination about the death. This may include information from his or her investigation, police reports, staff investigations, and discussions with the family and friends of the decedent. Determining the manner and cause of death can be straightforward, or it may take weeks to determine.

It is important to note that within the NCDR-CRS, manner of death is captured within seven (not five) possible categories. In addition to the five listed above, the system provides options for (1) pending, and (2) unknown.

Child death review is a mechanism to more accurately describe the manners, causes and circumstances of death among children. Understanding these is important when developing strategies to prevent deaths. The information below in Figure 7: Manner of Deaths in 2014 Reviewed Cases shows the percentage of deaths attributed to the five categories of the manner of death. For children who are infants up to age 15, the most frequent manner of death is identified as natural. Whereas, for children ages 15 and up, deaths are most often identified as accidental.



Once the manner of death is determined, the cause or physical condition that directly contributed to the death needs to be determined. The cause of death is broken down into three broad categories:

- Medical Conditions — deaths directly attributed to some type of disease or illness as the cause of death. The manner of these deaths is typically defined as natural.
- External Causes — deaths which were directly a result of some external action against the body. The manner of these deaths can be accident, homicide or suicide.
- Unknown/Undetermined — deaths for which a cause cannot be immediately identified.

Of the total 1,258 cases reviewed, the category of medical conditions represented the single highest frequency with 679 cases (54 percent of the total deaths reviewed). The highest cause of death for these cases was prematurity (43.3 percent), followed by other medical condition (17.4 percent) and congenital anomalies (13.8 percent).

The next highest category of the cases reviewed was external causes, with 409 (32.5 percent) of the total deaths reviewed. The highest cause of death for these cases was weapons-related (29.3 percent), motor vehicle accidents (23.5 percent) and poison (20.8 percent), which includes overdoses and acute intoxication.

An examination of the causes of death within the infant age group (less than 1 year old) revealed that most reviewed infant deaths were due to prematurity. Of the total 629 infant deaths reviewed, 293 (46.6 percent) were due to prematurity. Congenital anomaly was identified as the second most frequently occurring cause of infant death, identified in 72 cases (11.4 percent). Of the 137 reviews conducted on deaths occurring in children aged 1 through 9 years, the most frequent cause of death was other medical conditions, identified in 22 cases (16.1 percent). In the 158 reviews conducted on deaths occurring in children aged 10 through 17 years, the most frequent cause of death was due to weapons, identified in 31 cases (19.6 percent). That was followed next in frequency by motor vehicle accidents, identified in 27 cases (17.1 percent). An examination of the 331 reviews conducted on children aged 18 through 21 years revealed the most frequently occurring cause of death was weapon-related, identified in 81 cases (24.5 percent). That was followed next by poisoning/overdose, identified in 70 cases (21.1 percent). Table 1: Causes of Death by Age Category below shows child deaths as identified in the 2014 CDR reviews by cause and age category.

Cause of Death	Infant	1 - 4 years	5 - 9 years	10 - 14 years	15 - 17 years	18 years or more	Unknown	Grand Total
External causes								
Weapon	6	1	1	8	23	81	0	120
Motor vehicle	3	5	10	8	19	51	0	96
Poison	1	5	1	0	8	70	0	85
Asphyxia	12	0	0	1	10	21	0	44
Drown	0	7	2	3	6	2	0	20
Fire, burn, electrical	0	7	7	3	1	2	0	20
Fall, crush	0	2	1	1	1	7	0	12
Other	0	3	1	1	1	3	0	9
Exposure	0	0	0	0	0	1	0	1
Undetermined	1	0	0	0	0	0	0	1
Unknown	0	0	0	1	0	0	0	1
Subtotal external causes	23	30	23	26	69	238	0	409
Medical conditions								
Prematurity	293	0	0	0	0	0	1	294
Other medical	67	11	11	6	7	15	1	118
Congenital anomaly	72	13	2	3	3	1	0	94
Cancer	0	6	6	8	5	13	0	38
Cardiovascular	10	6	1	1	2	15	0	35
Other perinatal	31	0	0	0	0	0	0	31
Pneumonia	11	0	1	0	3	1	0	16
SIDS	15	0	0	0	0	0	0	15
Other infection	8	1	0	2	2	2	0	15
Nerological, seizure	1	1	1	2	1	2	0	8
Asthma	0	1	1	2	0	1	0	5
Diabetes	1	0	0	0	1	1	0	3
Unknown	0	0	0	1	0	1	0	2
Low birth weight	2	0	0	0	0	0	0	2
Malnutrition, dehydration	0	0	1	0	0	0	0	1
Influenza	0	0	0	0	1	0	0	1
HIV, AIDS	0	0	0	0	0	1	0	1
Subtotal medical condition	511	39	24	25	25	53	2	679
Unknown								
No response	40	8	6	2	7	34	0	97
Unknown	26	4	3	2	2	6	1	44
Undetermined if medical or external injury	29	0	0	0	0	0	0	29
Subtotal unknown/undetermined	95	12	9	4	9	40	1	170
Grand total	629	81	56	55	103	331	3	1,258

Data Source: NCDR-CRS, Year of Death: 2014

Death Scene Investigations

A death scene investigation is the attempt by a person functioning in an official capacity to gather information at the site where a fatal illness, injury or event occurred for the purpose of determining the cause and circumstances of the death.³

An examination of the 1,258 reviewed cases revealed that there were 259 death scene investigations performed. Of these, 54 (20.8 percent) involved a death in which a weapon was used, and 49 investigation cases (18.9 percent) involved a motor vehicle. In 40 cases (15.4 percent), poisoning was the identified cause of death.

Referrals to Medical Examiners or Coroners

In Pennsylvania, medical examiners or coroners must be notified of any death that is believed to have been due to an accident, suicide, homicide, or to have occurred without medical attendance. According to the available death review data in the NCDR-CRS, in 549 (43.6 percent) of the 1,258 cases reviewed, a referral was made to a medical examiner or a coroner.

Autopsies Performed

An autopsy is the dissection of a dead body for the purpose of inquiring into the cause of death; it is also a post mortem examination to determine the cause or nature of a disease. An autopsy is normally required by statute for violent, unexpected, sudden or unexplained deaths.⁴

According to the review data, 390 cases (31.0 percent) involved autopsies. Of these, 108 cases (27.7 percent) involved medical causes of death, and 65 cases (16.7 percent) involved the use of a weapon. Deaths caused by poisoning accounted for 57 (14.6 percent) of those cases.

Toxicology Screens

A toxicology screen is a test that determines the approximate amount and type of legal or illegal drugs that someone has taken. It may be used to screen for drug abuse, to monitor a substance abuse problem, or to evaluate drug intoxication or overdose. Toxicology screening can be done fairly quickly. The test is most often done using a urine or blood sample. In some cases, a sample of saliva or hair may be used.⁵

In 219 (17.4 percent) of the reviewed cases, a toxicology screen was conducted. Deaths involving poisoning accounted for the most number of cases with toxicology screen (51 or 23.3 percent). Of the 51 confirmed poisoning cases with a toxicology screen, 39 cases (76.5 percent) involved an accidental overdose or acute intoxication.

According to the Centers for Disease Control and Prevention (CDC), about 3,500 infants die suddenly and unexpectedly each year in the United States⁶. These deaths are called sudden unexpected infant deaths (SUID). An autopsy alone cannot always explain these deaths without investigating the scene and reviewing the infant's medical history. The most common causes of SUID include the following:

- Sudden Infant Death Syndrome (SIDS) is the sudden death of an infant less than 1 year old that cannot be explained after a thorough investigation that includes a complete autopsy, examination of the death scene and a review of the medical history. Nationally, about half of SUIDs are SIDS.
- Unknown cause is the sudden death of an infant less than 1 year old that cannot be explained. Often, a thorough investigation was not conducted, and cause of death could not be determined.
- Accidental suffocation and strangulation in bed (ASSB) includes suffocation by (1) soft bedding (for example, pillows covering an infant's nose and mouth), (2) overlays (for example, when a person rolls on top of or against an infant), (3) wedging or entrapment (for example, when an infant is wedged between two objects such as a mattress and wall, bed frame or furniture), and (4) strangulation (for example, when an infant's head and neck are caught between crib railings).

Safe Sleep

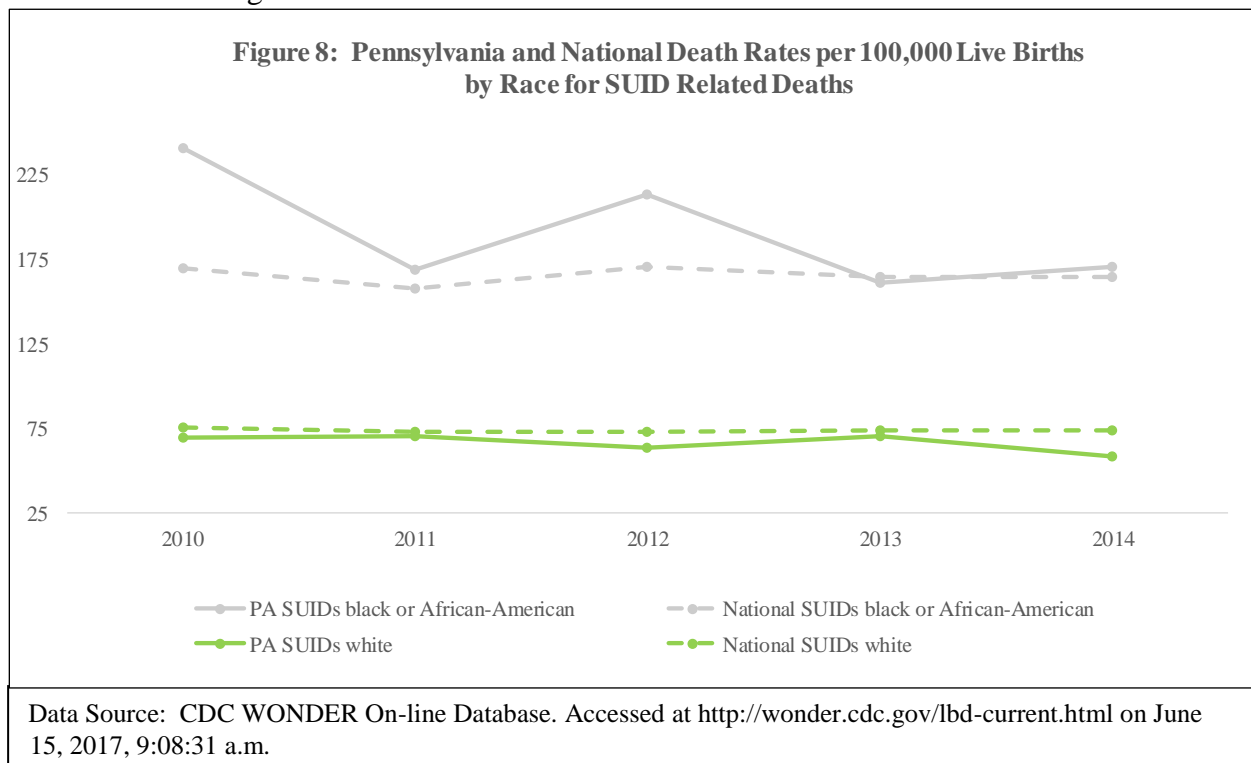
It is commonly recognized that babies placed on their stomach or sides to sleep are at greater risk for SIDS than babies who are placed on their backs to sleep. According to the American Academy of Pediatrics (AAP) approximately 3,500 infants die annually in the United States from sleep-related deaths, including sudden infant death syndrome (SIDS); ill-defined deaths; and accidental suffocation and strangulation. In 1992, the American Academy of Pediatrics recommended placing babies on their backs to sleep. As a result of growing public awareness and successful intervention strategies, the rate of SIDS deaths has declined nationwide. Despite a reduction in the incidence of SIDS since 1992, the decline plateaued in recent years. Furthermore, according to the AAP, concurrently, other causes of SUID that occur during sleep (including suffocation, asphyxia and entrapment) and ill-defined or unspecified causes of death have increased in incidence.⁷

Consequently, in 2011, the AAP expanded the recommendations from focusing only on SIDS to focusing on a safe sleep environment.

What does safe
sleep look like?



An examination of Pennsylvania’s reviewed infant deaths for 2014 revealed that 83 (13.2 percent) of the 629 infant deaths were SUID related cases. This is the second highest case of death for infants, behind only prematurity. CDC WONDERs data for Pennsylvania shows that African-American infants die of SUID nearly three times more than white infants. This is illustrated below in Figure 8: Pennsylvania and National Death Rates per 100,000 Live Births by Race for SUID Related Deaths. Although the rate has seen an overall decline over the past five years, in 2014, the rate for African-American infants rose slightly higher than the national rate. Meanwhile, the rate for white infants declined in the past year to the lowest rate in five years and was below the national average.



It is also important to note that African-American and white children were the only population available for this comparison. Rates for American Indian or Alaskan Natives and Asian or Pacific Islanders are unavailable for Pennsylvania, as they are suppressed for low totals (number is less than nine). However, national rates for American Indian or Alaska Natives are significantly higher than white and African-American populations. Asian or Pacific Islander populations have the lowest rate of SUID-related deaths nationally.

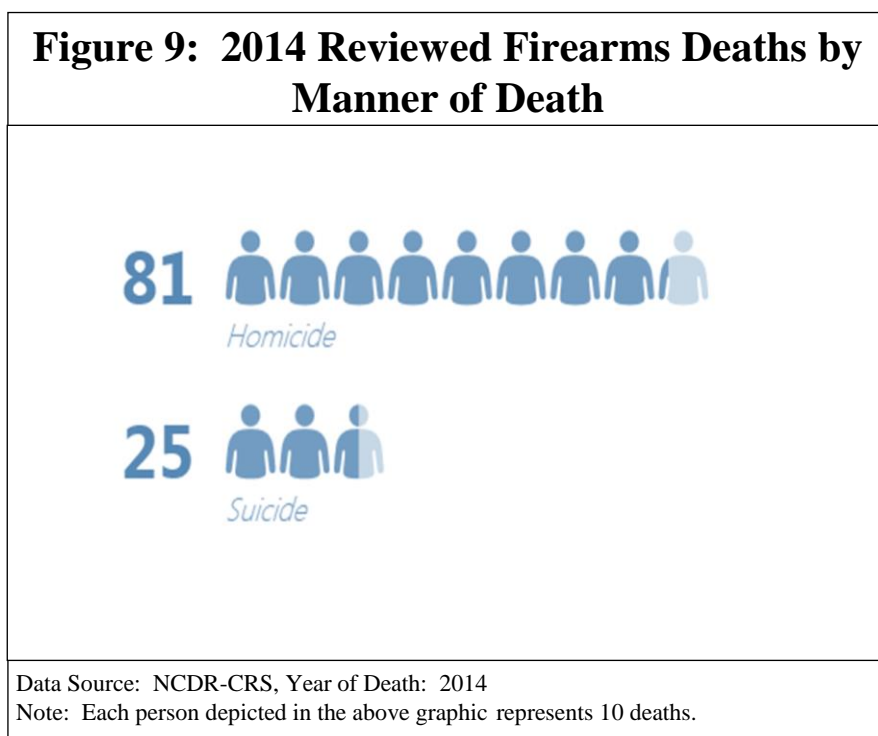
Of the 83 SUID-related deaths reviewed, the Case Reporting System revealed that the sleep location for these infants varied. In 21.7 percent of these cases, the child was found in an adult bed, while 12 percent were found on a couch. Only 10 percent of the SUID cases occurred in the child’s crib. Additionally, in 28.9 percent of the cases, the child’s usual sleep place was somewhere other than a crib, while only 15 percent reported the usual sleep place as the child’s crib.

Slightly over one-quarter (25.3 percent) of the cases involved the child sleeping on their stomach or side, whereas 16.9 percent were reported as sleeping on their back.

During the child death review process, details pertaining to the circumstances surrounding the cases are discovered. Deaths associated with weapon use are examined to illuminate potential patterns and/or correlations on which subsequent prevention strategies can be developed.

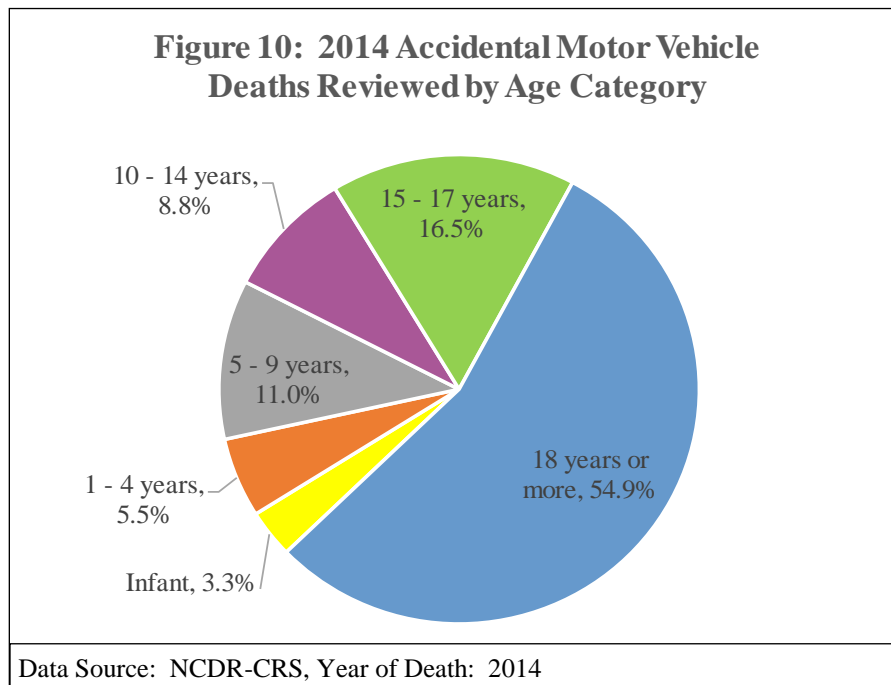
There were 120 cases reviewed in which a weapon was identified and reported. Weapons-related deaths account for the largest number of external injury deaths and cross over multiple manner of death categories to include homicides, suicides and accidents. The majority of the deaths involving a weapon, 104 cases (86.7 percent), occurred among children between 15 and 21 years of age. Deaths in males accounted for 102 (85.0 percent) of the cases, and deaths involving weapons among children identified as black or African-American accounted for 85 cases (70.8 percent).

An examination of the deaths involving weapons by manner of death and type of weapon revealed that homicides accounted for most, 92 cases (76.7 percent), and firearms accounted for 109 cases (90.8 percent). Of the firearms-related deaths, 81 (74.3 percent) were determined to be homicide, while 25 (22.9 percent) were determined to be suicide. Additionally, two deaths were ruled accidental and one was unknown. This is illustrated below in Figure 9: 2014 Reviewed Firearms Deaths by Manner of Death.

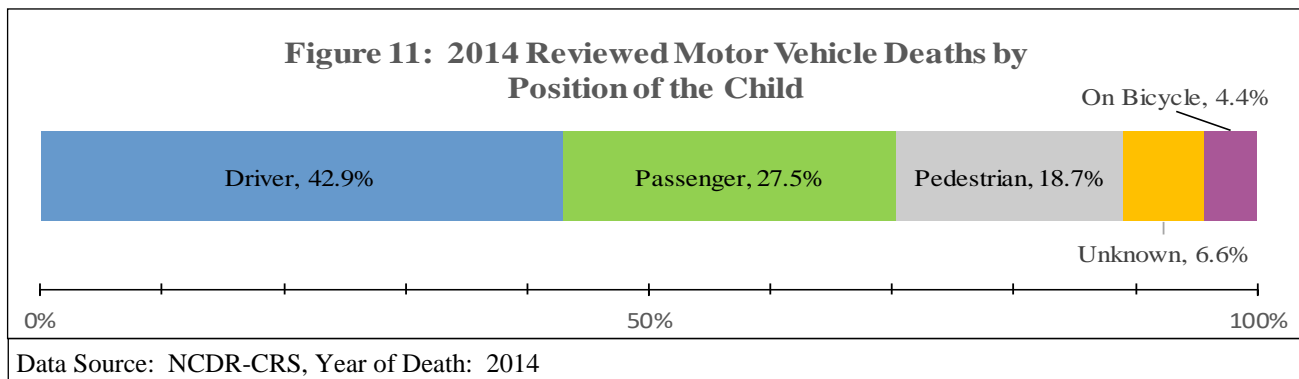


Of the 109 reviewed deaths involving a firearm, most were handguns. Handguns accounted for 52 cases (47.7 percent), whereas in 32 cases (29.4 percent) the type of firearm was reported as unknown. The other weapon types identified were shotguns, hunting rifles or other, which represented the remaining 22.9 percent of cases.

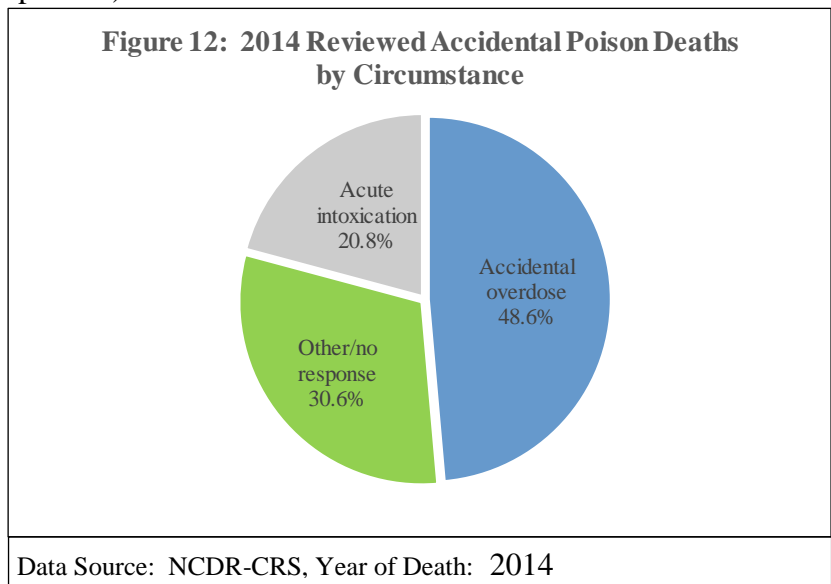
Of the total deaths in children reviewed, 96 cases (7.6 percent) were ones in which the death involved a motor vehicle or other means of transportation. Of those, 91 cases were determined to be accidental. Motor vehicle deaths were the highest number of accidental deaths, representing 40.3 percent of all the accidental deaths reviewed in 2014. Based on the 91 accidental motor vehicle deaths reviewed, 34 (37.4 percent) involved multiple vehicles. The most common location for motor vehicle accidents was on a rural roadway. The review data revealed that, in 71.4 percent of motor vehicle accident deaths, the children were between the ages of 15 and 21 years. This breakdown is further shown below in Figure 10: 2014 Accidental Motor Vehicle Deaths Reviewed by Age Category.



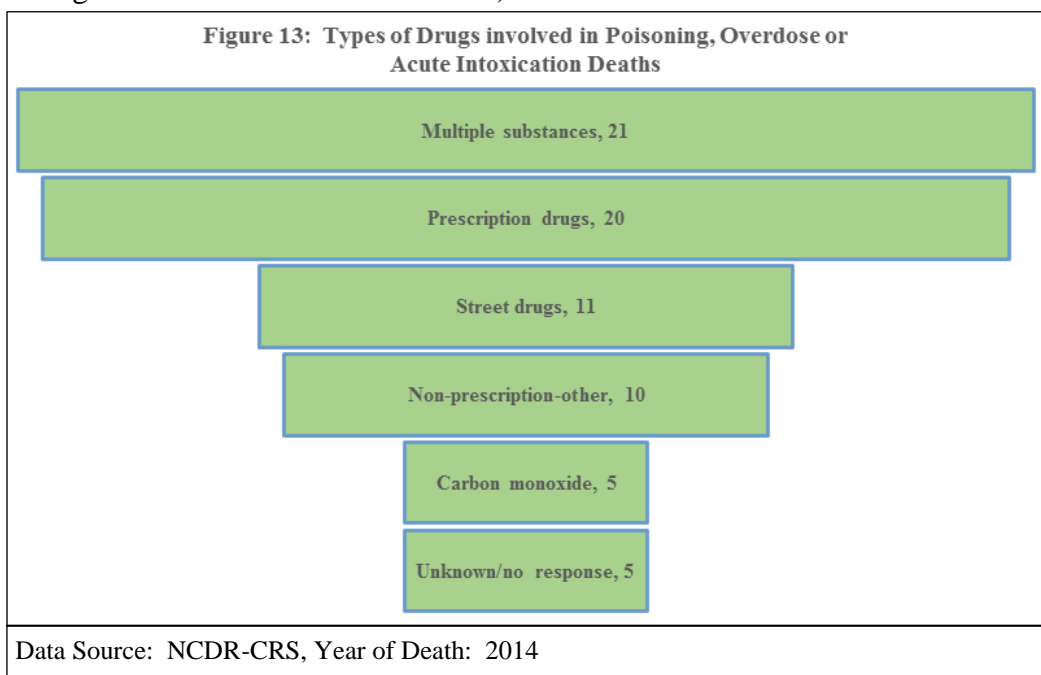
Based on the 91 accidental motor vehicle deaths reviewed, 64 cases (70.3 percent) involved the child as the driver or passenger of the vehicle as shown below in Figure 11: 2014 Reviewed Motor Vehicle Deaths by Position of the Child.



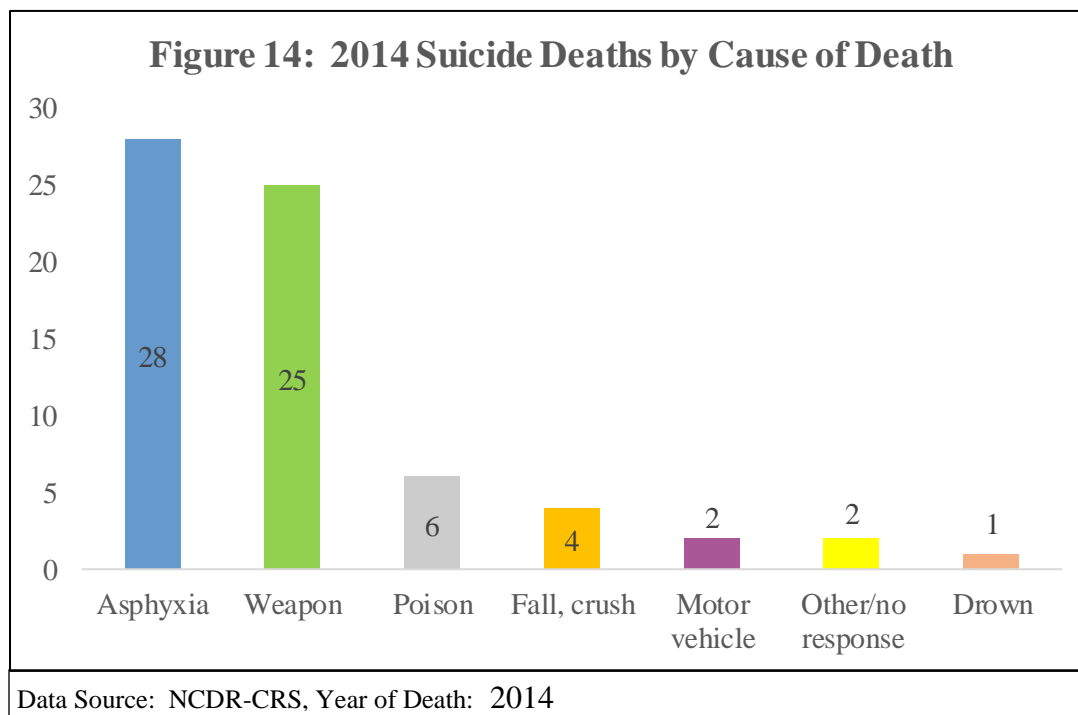
An examination of the reviewed 2014 deaths revealed that, in 85 cases, children’s deaths involved a reported poisoning, overdose or acute intoxication. See a breakdown below in Figure 12: 2014 Reviewed Accidental Poison Deaths by Circumstance. In 72 (96 percent) of those cases, the manner of death was determined to be accidental. Of these accidental poisonings, 62 (86.1 percent) of the children were 18 years old or older. Of the 72 cases, 59 cases (82.0 percent) involved white children.



Of the 72 accidental deaths related to poisoning, 69.4 percent were due to overdose or acute intoxication. Of those 72 cases, 21 cases (29.2 percent) involved multiple substances; 20 cases (27.8 percent) involved prescription drugs; 11 cases (15.3 percent) involved street drugs; and 10 cases (13.9 percent) involved nonprescription-other. A further illustration is shown below in Figure 13: Types of Drugs involved in Poisoning, Overdose or Acute Intoxication Deaths. (Note: categories are not mutually exclusive. More than one type of poisoning could be involved in each case.)



There were 68 cases reviewed in which suicide was the identified manner of death. In 28 of those cases (41.2 percent), asphyxia was the most prominent cause of death. This was followed closely by weapons, which were used in 25 (36.8 percent) of suicide cases. A complete breakdown of these deaths is shown below in Figure 14: 2014 Suicide Deaths by Cause of Death.



In 23 (33.8 percent) of the 68 suicide cases reviewed, the child had talked about committing suicide. In 19 (27.9 percent) cases, the child made prior suicide threats. Lastly, in 20 cases (29.4 percent), it was not unexpected that the child committed suicide. While these questions have a significant portion of information listed as unknown or no response in the Case Reporting System, it is still important to note that in more than 25 percent of the cases reviewed by teams, the child’s suicidal ideation was known prior to the act.

It is important to note that CDR data is captured based on what is available to the teams at the time of the review. Additionally, approximately 60 percent of responses regarding past suicidal ideation were unknown or not responded to. As a result, this information would likely be much higher if all information was available.

Based on the review data contained within the NCDR-CRS, 293 cases (23.3 percent) were determined to have been preventable by the local CDR teams in 2014. Of these preventable deaths, 161 cases (54.9 percent) were accidental. It is important to note that the determination of preventability is a subjective measure determined by local teams based on the information available at the time of the review. This analysis is based on the data available in the NCDR-CRS at the time of this report.

Top Five Causes of Death by Preventability	
Cause of Death	Number of Cases
Motor vehicle	72
Poison	56
Weapon	47
Asphyxia	31
Drown	18
Data Source: NCDR-CRS, Year of Death: 2014	

Additional analysis determined that 525 cases (41.7 percent) of the 1,258 deaths reviewed resulted in a recommendation associated with a prevention strategy or initiative.

Of these, 38 cases (7.2 percent) of the reviews led to a recommendation to increase or improve education. Of these, the primary recommendations were education via media campaigns, education on community safety campaigns and parent education.

Aside from CDR meetings and data entry, there are a variety of activities throughout the year related to promoting child safety. These activities are led by the CDR teams or through collaborations with other local entities, including, but not limited to, coroners, local health departments, law enforcement or schools. There are numerous efforts underway to promote child safety at both the state and local levels. This section is not an exhaustive list of activities, but is meant to highlight some of the work being done.

Local CDR Activities:

Safe sleep projects have been underway for many years in Pennsylvania as a response to sleep-related deaths. Education for safe sleep occurs at a number of levels. Hospitals are required to provide safe sleep information at discharge after childbirth. Additionally, community programs provide safe sleep education and materials to the community. These programs operate out of a variety of settings including coroner's offices, county/municipal health departments and first responders. The success stories section highlights an example of this occurring through a multi-agency partnership in the city of Pittsburgh.

Another ongoing issue that has been addressed and continues to be addressed is motor vehicle traffic safety. This is the most frequent cause of accidental deaths affecting teens and is also widely considered to be the most preventable type of accidental deaths. Many counties have partnered with PennDOT to collaborate on public awareness messages or provide training on traffic safety to local communities. Many counties use local law enforcement for traffic safety training, distracted driving simulators or mock crash simulations. Lastly, since these deaths are heavily related to teens, counties have reached out to teen partners such as Students Against Drunk Driving (SADD), Clean Teens or junior advisor's clubs to have teens educate teens.

Some other activities occurring in more specific communities include initiatives such as: cardiopulmonary resuscitation (CPR)/choking class for parents of newborns, Yellow Ribbon Suicide Prevention Program and Cribs for Kids.

Statewide CDR Activities:

Pennsylvania applied for and was accepted into the SUID Case Registry Grant, which provides monitoring and surveillance of SUID cases. This is a grant funded program with the CDC to track SUID cases in detail and develop prevention strategies to reduce these deaths.

In 2016, the department awarded a three-year grant to the trustees of the University of Pennsylvania to develop and implement an evidence-informed infant safe sleep initiative in the southeastern area of the state. During this period, the trustees of the University of Pennsylvania will develop and implement a model safe sleep program for well newborns in the hospital setting. The focus of this approach is to move safe sleep education from discharge to arrival in the postpartum unit to allow for reinforcement of risk reduction methods for the duration of the hospital stay. In conjunction with the hospital-based programming, a social marketing plan will be developed and implemented to increase population awareness of infant accidental suffocation and strangulation and risk reduction methods in the community at large.

Lastly, the department has begun to collaborate with PennDOT in a shared effort to promote motor vehicle safety education. Information will continue to be shared locally to help connect CDR teams with PennDOT's safety press officers for information on traffic deaths and provide public awareness messaging. The department will also work with PennDOT's Community Traffic Safety Projects (CTSP) to help provide training on traffic safety to local communities.

Team Data Collection and Quality Assurance

Data quality is another aspect of the CDR program that is addressed on an ongoing basis. Data found in the NCDR-CRS is the only data of its kind, providing details regarding the circumstances of a child's death. To be effective, the quality and timeliness of this data needs to be addressed, and NCDR-CRS fields with missing/unknown entries need to be drastically reduced or eliminated. The 2014 fire-related and drowning deaths are a prime example of this. According to the NCDR-CRS, there were approximately 40 deaths related to fire or drowning, and most of these deaths were considered preventable. Due to lack of complete data in the NCDR -CRS, these numbers are not reportable. There is simply not enough data about fires and drowning deaths entered to make any conclusions regarding possible prevention efforts.

In an attempt to improve data in the NCDR-CRS, Pennsylvania began to participate in the National Center for Fatality Review and Prevention (NCFRP) Data Quality Initiative in 2016. The goal of the Data Quality Initiative is to improve the quality and consistency of the data entered into the NCDR-CRS to improve usefulness of the data at the county, state and national level. As part of this initiative, Pennsylvania will provide quality assurance by monitoring priority variables and its subset of CORE variables as identified by NCFRP and the Department. By focusing on these variables, the department hopes to improve its data completeness and timeliness for future analysis and prevention strategies.

In 2016, the department initiated a quality improvement process with SUID cases as a part of the CDC's SUID Case Registry. Over the next year, the department plans to expand this process to all types of cases reviewed to make the state's NCDR-CRS data as complete and as useful as possible. This will ensure access to a great wealth of information in the NCDR-CRS, which can only be reached through the CDR process.

For more information on the Data Quality Initiative please access the NCFRP website at <https://www.ncfrp.org/resources/data-quality-initiative/>.

Pittsburgh Emergency Medical Services Safe Infant Sleeping Screening⁸

This project, in partnership with the City of Pittsburgh Emergency Medical Services (EMS), Cribs for Kids and the Allegheny County Health Department, provides a 30-second Safe Infant Sleeping Screening and informational handouts for EMS personnel to provide to families with infants in cases of non-acute calls. The goal of this program is to reduce local infant mortality by promoting safe infant sleeping best practices.



All partners involved in this project participate on the local CDRT. As a result of reviewing several SUID-related deaths, the group was able to develop the safe sleep screening as one solution to what was known to be a growing problem in the community.

All responders will receive infant safe sleep education and training to assess infant sleeping locations in the field. When responders are unable to identify a safe sleep environment, they will offer/deliver a Pack ‘n Play and safe sleep materials provided by Cribs for Kids.

Most 911 calls to which EMS responds for infants in residences are typically non-acute in nature. In these cases, unless there is a scene safety or other issue, EMS crews will utilize the 30-Second Safe Infant Screening to assess the infant’s sleeping environment. To implement the screen, EMS asks to see where the infant sleeps and makes the following observations/inquiries:

Observation/Question	Relevance
Is there a crib present?	A crib is the safest place for an infant to sleep – we can provide a crib if one is needed.
Is there a firm surface in the crib?	A firm mattress reduces the risk of entrapment/suffocation.
Any soft objects in the crib?	Blankets, toys, pillows, etc. increase the risk of entrapment/suffocation.
Any loose bedding/blankets in the crib?	These increase the risk of entrapment/suffocation.
Is there a crib in the parent’s room?	This can reduce risk of SIDS by 50%.
ASK: Does anyone smoke in the home?	Smoking increases the risk of SIDS.
ASK: Does the baby sleep anywhere besides the crib (couch, bed, car seat, swing, etc.)?	Sleeping in locations/devices other than a crib increases risk of suffocation/SIDS.

*****Also emphasize that infants should always sleep alone, on their back, in a crib*****

In 2014, Pennsylvania reached the lowest number of deaths among children under 22 years of age in the past five years. This year also represented the third consecutive year of decline in these deaths. There was a 9.7 percent decrease in child deaths from 2013. Of those deaths occurring in 2014, 1,258 (72.2 percent) were reviewed by Pennsylvania's CDR teams. This represents one of the highest percentages of reviews to total child deaths over the past five years.

Pennsylvania should continue its efforts to review child deaths as per Act 87. Local teams should continue to strive to review all cases of child death and reach out to the department for training/technical assistance needs regarding all aspects of child death reviews.

A renewed focus on data collection and CRS usage should be made by local teams with support from the Department. Many fields in NCDR-CRS have missing or unknown data about the circumstances surrounding deaths. This information is unique and, when completed, can provide insights into the factors surrounding a child's death. This information is imperative in discovering trends in data that can be used to support prevention activities and other recommendations. Complete data can be used to support local initiatives or to encourage collaboration from other partners. Summaries of CDR data are easily accessible in the NCDR-CRS or with help from the Department.

As a state, Pennsylvania will continue to participate in the SUID Case Registry. In 2015, Pennsylvania applied for and received grant funding from the CDC for participation in the SUID Case Registry. These deaths represent 13 percent of all infant deaths and are widely considered some of the most preventable deaths of infants. Detailed data collection allows us to better understand the underlying causes of these deaths and formulate prevention strategies to reduce these cases. An additional benefit of the SUID Case Registry is the focus on completeness and timeliness of data. CDC has focused on data quality as a priority, and efforts to improve data collection and reporting will only improve Pennsylvania data for all child deaths. Timely and complete data collection of SUID cases and the lessons learned in this project can then be applied to all CDR data.

Counties should continue their focus on collaborations and partnerships at the local level. One of the benefits of Pennsylvania's CDR Program is the local team's ability to connect with community efforts to prevent child deaths, which is not possible at a statewide level. CDR teams are not expected to create prevention strategies and develop recommendations all on their own. Many counties, community-based organizations and local governments have prevention programs targeting the causes of child death. Local CDR teams and the data collected should be used for support of these efforts. Quality data can help support teams' prevention strategies, as local leadership would be more willing to develop prevention strategies using data driven and supported recommendations.

A good example of how CDR data can be used to support local initiatives is Allegheny County's Pittsburgh Emergency Medical Services (EMS) Safe Infant Sleeping Screening. This is an example of how a local team has impacted change. This project was coordinated through several community agencies in response to information collected and recommendations made by the local CDR team. Using the expertise available on the CDR team and coordinating efforts already underway in the community, the Pittsburgh EMS Safe Infant Sleeping Screening was developed. While this program is relatively new and results may not be seen for several months, this initiative represents a new way to bring safe sleep education to an at-risk community.

<p>Adams County Child Death Review Team Melody Jansen Pa. Department of Health</p>	<p>Cambria County Child Death Review Team Jeffrey Lees/Stacie Holsinger Cambria County Coroner’s Office</p>
<p>Allegheny County Child Death Review Team Robert Cicco MD, FAPP/Jennifer Fiddner West Penn Hospital (Dr. Cicco) and Allegheny County Health Department (Ms. Fiddner)</p>	<p>Cameron County Child Death Review Team – See Elk and Cameron County Child Death Review Team</p>
<p>Armstrong County Child Death Review Team Paula McClure Armstrong County CYF (Ms. McClure)</p>	<p>Carbon County Child Death Review Team Robert Miller/Meri Jones/Gerald Jones Carbon County Coroner’s Office (Ms. Jones)</p>
<p>Beaver County Child Death Review Team Timmie Patrick Beaver County Detective Bureau</p>	<p>Centre County Child Death Review Team Judy Pleskonko/Lannette Johnson Centre County Coroner’s Office (Ms. Pleskonko) and Home Nursing Agency (Ms. Johnson)</p>
<p>Bedford County Child Death Review Team Bonnie Bisbing/Jesse Gutshall Bedford County Children and Youth Services (Ms. Bisbing) and UPMC Bedford Memorial (Ms. Gutshall)</p>	<p>Chester County Child Death Review Team Ashley Orr/ Teresa Olsen Chester County Health Department (Ms. Orr) and PA AAP/SCAN (Ms. Olsen)</p>
<p>Berks County Child Death Review Team Brandy Neider/Mark Reuben/Lisa Heins Children and Youth Services County of Berks (Ms. Neider and Ms. Heins) and Reading Pediatrics Inc. (Mr. Reuben)</p>	<p>Clarion County Child Death Review Team Kay Rupert Clarion County Children and Youth Services</p>
<p>Blair County Child Death Review Team Patricia Ross Blair County Coroner’s Office</p>	<p>Clearfield and Jefferson County Child Death Review Team Kristina Fenton/Mary Brown UCBH/The Meadows (Ms. Fenton) and Community Connections of Clearfield (Ms. Brown)</p>
<p>Bradford County Child Death Review Team Thomas Carman/Sherry McHenry Bradford County Coroner’s Office</p>	<p>Clinton County Child Death Review Team Autumn Bower/Robin Jones Clinton County Children and Youth Services</p>
<p>Bucks County Child Death Review Team Leslie Slingsby and Donna R. Graham Bucks County Children and Youth Social Services Agency</p>	<p>Columbia County Child Death Review Team Jeremy Reese Columbia County Coroner’s office</p>
<p>Butler County Child Death Review Team Leslie Johnson Butler County MH/MR Program</p>	<p>Crawford County Child Death Review Team Jill Staaf/Christin Riehl Meadville Fire Department (Ms. Staaf) and Meadville Medical Center (Ms. Riehl)</p>

<p>Cumberland County Child Death Review Team Christina Roland/Lorraine Bock Cumberland County Children and Youth Services (Ms. Roland) and Bock Family Health Care (Ms. Bock)</p>	<p>Huntingdon County Child Death Review Team Paul Sharum Huntingdon Coroner’s Office</p>
<p>Dauphin County Child Death Review Team Lisa A. Potteiger, BS, AAFS / Liz Leen Dauphin County Coroner’s Office (Ms. Potteiger) and Alder Health Services (Ms. Leen)</p>	<p>Indiana County Child Death Review Team Sarah Ross/Kim Dixon Indiana County Children and Youth Services</p>
<p>Delaware County Child Death Review Team Angelique Heirs/Jeanne Ewing Children Care Information Services Delaware County/CCIS (Ms. Heirs) and Delaware County Office of Behavior Health (Ms. Ewing)</p>	<p>Jefferson and Clearfield Counties Child Death Review Team See Clearfield and Jefferson County Child Death Review Team</p>
<p>Elk and Cameron County Child Death Review Team To be determined</p>	<p>Juniata County Child Death Review Team Penni Abram Juniata County Children, Youth and Families</p>
<p>Erie County Child Death Review Team April Bush</p>	<p>Lackawanna County Child Death Review Team Jeanne Rosencrance Lackawanna County District Attorney's Office</p>
<p>Fayette County Child Death Review Team Gina D'auria/John Fritts Fayette County Children and Youth Services</p>	<p>Lancaster County Child Death Review Team Carroll Rottmund/Barb Harvey Pennsylvania Shaken Baby Syndrome Prevention, Awareness and Education Program (Ms. Rottmund) Lancaster County RN (Ms. Harvey)</p>
<p>Forest and Warren County Child Death Review Team Jan Burek Forest and Warren County Department of Human Services</p>	<p>Lawrence County Child Death Review Team Jeannette Rice Children's Advocacy Center</p>
<p>Franklin and Fulton County Child Death Review Team Paul (Ted) Reed Franklin County Coroner's Office</p>	<p>Lebanon County Child Death Review Team Janet Bradley/Marie Reed First Aid and Safety Panel (Ms. Bradley) and Penn State Hershey Medical Center (Ms. Reed)</p>
<p>Fulton County Child Death Review Team – See Franklin and Fulton County Child Death Review Team</p>	<p>Lehigh County Child Death Review Team Belle Marks/Scott Grim Allentown Health Bureau (Ms. Marks) and Lehigh County Coroner’s Office (Mr. Grim)</p>
<p>Greene County Child Death Review Team To be determined</p>	<p>Luzerne County Child Death Review Team Mary Claire Mullen/Carol Crane/Donna Vrhel Victims Resource Center (Ms. Mullen), and Domestic Violence Service Center (Ms. Crane), and Luzerne County Children and Youth Services (Ms. Vrhel)</p>

<p>Lycoming County Child Death Review Team Charles Kiessling Lycoming County Coroner's Office</p>	<p>Perry County Child Death Review Team Shelley Dreyer-Aurila Perry County Family Center, Inc.-Safe Kids</p>
<p>McKean County Child Death Review Team Debra Olson Pennsylvania Department of Health</p>	<p>Philadelphia County Child Death Review Team David Bissell/Roy Hoffman Philadelphia Department of Public Health</p>
<p>Mercer County Child Death Review Team Bonnie Studor/Ronald Sarson Mercer County Children and Youth Services</p>	<p>Pike County Child Death Review Team Christopher Brighton/Jill Gamboni Pike County Coroner's Office (Mr. Brighton), and State Representative Michael Peifer's Office (Ms. Gamboni)</p>
<p>Mifflin County Child Death Review Team Nicole M Patkalitsky/Dana Aurand/Hillary Benny Mifflin County Children and Youth Services</p>	<p>Potter County Child Death Review Team Joy E Glassmire/Colleen Wilber Potter County Human Services</p>
<p>Monroe County Child Death Review Team To be determined</p>	<p>Schuylkill County Child Death Review Team Kathy Quick/Heidi Eckert Schuylkill County Mental Health and Developmental Services (Ms. Quick) and Schuylkill County Children and Youth Services (Ms. Eckert)</p>
<p>Montgomery County Child Death Review Team Leah Posivak/Roz Ditmar/Alexander Balacki Montgomery County Health Department (Ms. Posivak), and Montgomery County Juvenile Probation (Ms. Ditmar), and Montgomery County Coroner's Office (Mr. Balacki)</p>	<p>Snyder County Child Death Review Team Heather Keister County of Snyder District Attorney's Office</p>
<p>Montour County Child Death Review Team Scott Lynn Montour County Coroner's Office</p>	<p>Susquehanna and Wyoming County Child Death Review Team Cheryl McGovern/Jane Osborn Pa. Department of Health, Wyoming County State Health Center (Ms. McGovern)</p>
<p>Northampton County Child Death Review Team Sue Madeja Bethlehem Health Bureau</p>	<p>Somerset County Child Death Review Team Doug Walters/Sara Buterbaugh Somerset County Children and Youth Services</p>
<p>Northumberland County Child Death Review Team Melissa DeBaro Geisinger Child Advocacy Center</p>	<p>Sullivan County Child Death Review Team Wendy Hastings Sullivan County Coroner's Office</p>

<p>Tioga County Child Death Review Team To be determined</p>	<p>Wayne County Child Death Review Team Laura Swingle/Edward Howell Wayne County Coroner’s Office</p>
<p>Union County Child Death Review Team Matt Ernest Union County Children and Youth Services</p>	<p>Westmoreland County Child Death Review Team Michele Wentzel Westmoreland County Juvenile Probation</p>
<p>Venango County Child Death Review Team Christina Rugh/Amie Wood-Wessell/Brenda Carll/Diana Erwin Venango County Coroner’s Office (Ms. Rugh), and Venango County Children, Youth and Family Services (Ms. Wood-Wessell), and Pa. Department of Health Venango County (Ms. Carll and Ms. Erwin)</p>	<p>Wyoming County Child Death Review Team – See Susquehanna and Wyoming County Child Death Review Team</p>
<p>Warren County Child Death Review Team – See Forest and Warren County Child Death Review Team</p>	<p>York County Child Death Review Team David Turkewitz York Hospital</p>
<p>Washington County Child Death Review Team Marc Yester, MD/Jane Zupancic Washington County Children and Youth Services (Ms. Zupancic)</p>	

PUBLIC HEALTH CHILD DEATH REVIEW ACT - ENACTMENT

Act of Oct. 8, 2008, P.L. 1073, No. 87 Cl. 35

AN ACT

Providing for child death review.

The General Assembly of the Commonwealth of Pennsylvania hereby enacts as follows:

Section 1. Short title.

This act shall be known and may be cited as the Public Health Child Death Review Act.

Section 2. Definitions.

The following words and phrases when used in this act shall have the meanings given to them in this section unless the context clearly indicates otherwise:

"Child." An individual 21 years of age and under.

"Child death review data collection system." A data collection system approved by the National MCH Center for Child Death Review or a similar national organization.

"Department." The Department of Health of the Commonwealth.

"Local public health child death review team." A team representing a county or two or more counties comprised of professionals from organizations and local agencies who review cases of child deaths in accordance with protocols established by the State public health child death review team.

"Person in interest." A person authorized to permit the release of the medical records of a deceased child.

"Program." The Public Health Child Death Review Program established in section 3.

"State public health child death review team." A State multidisciplinary team comprised of local professionals and representatives of State agencies who review data submitted by local public health child death review teams, develop protocols for child death reviews and develop child death prevention strategies.

Section 3. Public Health Child Death Review Program.

(a) Establishment.--The department shall establish the Public Health Child Death Review Program which shall facilitate State and local multiagency, multidisciplinary teams to examine the circumstances surrounding deaths in this Commonwealth for the purpose of promoting safety and reducing child fatalities.

(b) Powers and duties.--The department, in cooperation with the State public health child death review team, shall have the following powers and duties in relation to the program:

(1) Assist in the establishment and coordination of local public health child death review teams.

(2) Coordinate the collection of child death data, including the development and distribution of a form to be used by local public health child death review teams to report information and procedures for sharing the data with State and local agencies as appropriate.

Develop protocols to be used in the review of child deaths. These protocols shall not conflict with requirements set forth in 23 Pa.C.S. Ch. 63 (relating to child protective services), including, but not limited to, provisions relating to the review of child fatalities and near fatalities.

4) Provide training and technical assistance to local public health child death review teams, local agencies and individuals relating to child deaths.

5) Review reports from local public health child death review teams.

6) Identify best prevention strategies and activities, including an assessment of the following:

(i) Effectiveness.

(ii) Ease of implementation.

(iii) Cost.

(iv) Sustainability.

(v) Potential community support.

(vi) Unintended consequences.

- 7) Adopt programs, policies, recommendations and strategies based on collected data to prevent child deaths.
- 8) Review statutes and regulations relating to confidentiality and access to information relating to children from agencies responsible for the health and safety of children and propose recommended changes to appropriate Commonwealth agencies and the General Assembly.
- 9) Provide public information and education regarding the incidence and causes of child injury and death and the reduction of risks to children to agencies, health care professionals, child care professionals and the public.
- 10) Submit an annual report to the Governor and the General Assembly by September of each year relating to the activities of the State child death review team, a summary of reports received from local child death review teams and recommendations relating to the reduction of risk of child injury or death.

Section 4. State public health child death review team.

(a) Composition.--A State public health child death review team shall be established by the department. The team shall consist of:

- (1) The following individuals or their designees:
 - (i) The Secretary of Health, who shall serve as chairman.
 - (ii) The Secretary of Public Welfare.
 - (iii) The Director of the Office of Children, Youth and Families within the Department of Public Welfare.
 - (iv) The Commissioner of the Pennsylvania State Police.
 - (v) The Attorney General.
 - (vi) The Pennsylvania State Fire Commissioner.
 - (vii) The Director of the Bureau of Emergency Medical Services of the Department of Health.
- (2) The following individuals who shall be appointed by the Secretary of Health:
 - (i) A physician who specializes in pediatric medicine.
 - (ii) A physician who specializes in family medicine.
 - (iii) A representative of local law enforcement.
 - (iv) A medical examiner.
 - (v) A district attorney. (vi) A coroner.
- (3) Representatives from local public health child death review teams.
- (4) Any other individual deemed appropriate by the Secretary of Health.

(b) Powers and duties of the State public health child death review team.--The State public health child death review team shall:

- (1) Review data submitted by local public health child death review teams.
- (2) Develop protocols for child death reviews.
- (3) Develop child death prevention strategies.
- (4) Assist the department in implementing the program.

(c) Initial meeting.--The initial meeting of the State public health child death review team shall be held within 90 days of the effective date of this section.

(d) Additional meetings.--The department, in conjunction with the team, shall arrange for additional meetings to fulfill the duties of the team and goals of the program.

Section 5. Local public health child death review teams.

(a) Establishment.--Each county in this Commonwealth shall establish a local public health child death review team. Two or more counties may establish a local public health child death review team to operate on a regional basis to satisfy the requirements of this section.

(b) Local public health child death review team.—Local teams shall be comprised of the following:

- (1) The director of the county children and youth agency or a designee.
- (2) The district attorney or a designee.
- (3) A representative of local law enforcement appointed by the county commissioners.
- (4) A representative of the court of common pleas appointed by the president judge.
- (5) A physician who specializes in pediatric or family medicine appointed by the county commissioners.
- (6) The county coroner or medical examiner.
- (7) A representative of emergency medical services selected jointly by the

supervisors of all emergency medical organizations in the county.

(8) The director of a local public health agency or a designee.

(9) Any other person deemed appropriate by a majority of the local public health child death review team.

(c) Chairman.--The members of the local public health child death review team shall elect a chairman annually.

Section 6. Powers and duties of local public health child death review teams.

(a) Review.--A local public health child death review team shall review all deaths of children and may review the following information:

- (1) Coroner's reports or postmortem examination records.
- (2) Death certificates and birth certificates.
- (3) Law enforcement records and interviews with law enforcement officials as long as the release

of such records

will not jeopardize an ongoing criminal investigation or proceeding.

(4) Medical records from hospitals and other health care providers.

(5) Information and reports made available by the county children and youth agency in accordance with 23 Pa.C.S. Ch. 63 (relating to child protective services).

(6) Information made available by firefighters or emergency services personnel.

(7) Reports and records made available by the court to the extent permitted by law or court rule.

(8) Reports to animal control.

(9) EMS records.

(10) Traffic fatality reports.

(11) Any other records necessary to conduct the review.

(b) Data collection.--The local public health child death review team shall utilize the child death review data collection system to report its findings in accordance with protocols established by the State public health child death review team. The name and home address of the deceased child shall not be reported to the child death review data collection system.

(c) Reports.--A local public health child death review team shall submit annual reports on deaths reviewed to the State public health child death review team. The report shall include the following:

(1) Identification of factors which cause a risk for injury and death, including modifiable risk factors.

(2) Recommendations regarding the following:

(i) The improvement of health and safety policies in this Commonwealth.

(ii) The coordination of services and investigations by child welfare agencies, medical officials, law enforcement and other agencies.

(3) Any other information required by the department.

(d) Recommendations.--A local public health child death review team shall make recommendations to local agencies relating to the procedures and other actions to reduce injury and death of children.

Section 7. Access to records.

(a) Juvenile records.--When deemed necessary for its review, a State or local public health child death review team may review and inspect all files and records of the court relating to a child pursuant to a proceeding under 42 Pa.C.S. Ch. 63 (relating to juvenile matters) in accordance with 42 Pa.C.S. § 6307 (relating to inspection of court files and records). However, this subsection shall not apply to files and records of the court subject to a child fatality or near fatality review pursuant to 23 Pa.C.S. Ch. 63 (relating to child protective services).

(b) Medical records.--Notwithstanding any other provision of law and consistent with the Health Insurance Portability and Accountability Act of 1996 (Public Law 104-191, 110 Stat. 1936), health care facilities and health care providers shall provide medical records of a child under review without the authorization of a person in interest to the State public health child death review team and to a local public health child death review team for purposes of review under this act.

(c) Other records.--Other records pertaining to the child under review for the purposes of this act shall be open to inspection as permitted by law.

Section 8. Confidentiality.

(a) Maintenance.--State and local public health child death review teams shall maintain the confidentiality of any identifying information obtained relating to the death of a child, including the name of the child, guardians, family members, caretakers or alleged or suspected perpetrators of abuse, neglect or a criminal act.

(b) Agreement.--Each member of the State and local public health child death review team and any person appearing before the team shall sign a confidentiality agreement applicable to all proceedings and reviews conducted by the State or local public health child death review team.

(c) Liability.--An individual or agency that in good faith provides information or records to a State or local public health child death review team shall not be subject to civil or criminal liability as a result of providing the information or record.

(d) Discovery.--The proceedings, deliberations and records of a State or local public health child death review team are privileged and confidential and shall not be subject to discovery, subpoena or introduction into evidence in any civil or criminal action.

(e) Meetings.--Meetings of the State or local public health child death review team at which a specific child death is discussed shall be closed to the public and shall not be subject to the provisions of 65 Pa.C.S. Ch. 7 (relating to open meetings).

(f) Attendance.--Nothing in this act shall prevent a State or local public health child death review team from allowing the attendance of a person, including a parent, with information relevant to a review, at a child death review meeting.

(g) Penalty.--A person who violates the provisions of this section commits a misdemeanor of the third degree.

Section 20. Regulations.

The department shall promulgate regulations as necessary to carry out the purposes of this act.

Section 21. Effective date.

This act shall take effect in 90 days.

Act 87 of 2008: Pennsylvania's Public Health Child Death Review Act of Oct. 8, 2008 (see Appendix C).

Child: According to the Pennsylvania Public Health Child Death Review Act, a child is defined as an individual 21 years of age and under. Reviews are conducted on deaths occurring in this age group.

Child death rate: Number of child deaths per 100,000 population in specified group.

Sudden Unexpected Infant Death (SUID): SUID is the death of an infant less than 1 year of age that occurs suddenly and unexpectedly, and whose cause of death is not immediately obvious before investigation. Most SUIDs are reported as one of three types: Sudden Infant Death Syndrome (SIDS); unknown cause; or accidental suffocation and strangulation in bed.

SUID death rate: Number of SUID-related deaths per 100,00 live births.

Child death review (CDR): A multi-agency, multi-disciplinary process that routinely and systematically examines the circumstances surrounding child deaths in a given geographical area and a given age group.

Pennsylvania Child Death Review Program: The Pennsylvania CDR Program is designed to promote the safety and well-being of children and reduce preventable child fatalities through timely reviews of child deaths.

Pennsylvania State Child Death Review Team: The Pennsylvania CDR Team is comprised of representatives from agencies and organizations that focus on children in Pennsylvania. Aggregated information is shared with legislators and state policy makers in order to concentrate funding and program priorities on appropriate prevention strategies.

Pennsylvania's Child Death Review local teams: Local teams are comprised of community participants representing organizations and agencies that serve and protect children within their respective counties. CDR team members review child deaths and analyze data in order to develop prevention strategies. There are currently 63 local review teams covering all 67 counties statewide.

Definitions of Terminology and Rates

The following are definitions of terminology and rates that appear in this report:

Terminology:

Infant death – Death of an infant under 1 year of age

Neonatal death – An infant death occurring within the first 27 days of life

Post neonatal death – An infant death occurring at 1 month (28 days) to 364 days of age

Rates:

Infant mortality rate - Deaths among infants under 1 year of age per 1,000 live births. (Total deaths among infants under 1 year of age/total live births) x 1000

Infant and cause-specific mortality rate – Deaths among infants under 1 year of age due to a specific cause per 1,000 live births.
(Total deaths among infants under 1 year of age due to a specified cause /total live births) x 1000

Neonatal mortality rate – Deaths among infants under 28 days of age per 1,000 live births. (Total deaths among infants <28 days of age/total live births) x 1000

Post-neonatal mortality rate – Deaths among infants aged 1 month (28 days) to 364 days per 1,000 live births.
(Total deaths among infants 28–364 days of age/total live births) x 1000

Cause of Death International Classification of Diseases (ICD) Codes:

The International Classification of Diseases codes for the selected causes of death shown in this report are as follows:

Cause of Death	ICD-10 Code
Accidental Poisoning and Exposure to Noxious Substances	X40-X49
Aircraft Accident	V95-V97
All Terrain and Off-Road Vehicle Rider	V86
Assault (Homicide)	U01-U02, X85-Y09, Y87.1
Assault (Homicide) by Firearm	U01.4, X93-X95
Assault (Homicide) by Other Means	U01.0-U01.3, U01.5-U02.9, X85-X92, X96-Y09, Y87.1

Cause of Death	ICD-10 Code
Driver of Vehicle (car, truck, van)	V40.5, V41.5, V42.5, V43.5, V44.5, V45.5, V46.5, V47.5, V48.5, V49.5, V50.5, V51.5, V52.5, V53.5, V54.5, V55.5, V56.5, V57.5, V58.5, V59.5
Drowning and Submersion	W65-W74
Falls	W00-W19
Intentional Self-harm (Suicide)	X60-X84, Y87.0, U03
Intentional Self-harm (Suicide) by Firearm	X72-X74
Intentional Self-harm (Suicide) by Other Means	X60-X71, X75-X84, Y87.0, U03
Legal Intervention	Y35, Y89.0
Motorcyclist	V20-V29
Motor Vehicle Accidents	V02-V04, V09.0, V09.2, V12-V14, V19.0-V19.2, V19.4-V19.6, V20-V79, V80.3-V80.5, V81.0-V81.1, V82.0-V82.1, V83-V86, V87.0-V87.8, V88.0-V88.8, V89.0, V89.2
Other Non-Transport Accidents	W20-W64, W75-W99, X10-X39, X50-X59, Y86
Passenger of Vehicle (car, truck, van)	V40.6, V41.6, V42.6, V43.6, V44.6, V45.6, V46.6, V47.6, V48.6, V49.6, V50.6, V51.6, V52.6, V53.6, V54.6, V55.6, V56.6, V57.6, V58.6, V59.6
Pedal Cyclist	V10-V19
Pedestrian (collision with car, truck, van)	V03
Pedestrian (collision with train)	V05
Smoke, Fire and Flames	X00-X09
Sudden Infant Death Syndrome (SIDS)	R95
Sudden Unexplained Infant Deaths (SUID)	R95, R99, W75
Undetermined Intent	Y10-Y34, Y87.2, Y89.9
Unspecified Transport Accident	V98-V99
Watercraft Accident	V90-V94

¹ CDC WONDER online database, <https://wonder.cdc.gov/>, accessed June 8, 2017

² Underlying Cause of Death: The underlying cause of death is either the disease or injury that initiated the train of morbid events leading directly to death or the circumstances of the accident or violence that produced the fatal injury. The underlying cause of death is the one to be adopted as the cause for tabulation or mortality statistics. Source: Handbook of Vital Statistics Systems and Methods, Volume 1: Legal Organizational and Technical Aspects, United Nations Studies in Methods, Glossary, Series F, No. 35, United Nations, New York 1991

³ A Program Manual for Child Death Review. Ed. Theresa Covington, Valodi Foster, Sara Rich. The National Center for Child Death Review, 2005.

⁴ A Program Manual for Child Death Review. Ed. Theresa Covington, Valodi Foster, Sara Rich. The National Center for Child Death Review, 2005

⁵ HealthLine: Toxicology Screen, Dale Kiefer and Kristeen Cheney. Medically Reviewed by Deborah Weatherspoon, Ph.D, MSN, RN, CRNA on January 20, 2016. <http://www.healthline.com/health/toxicology-screen#Overview1>. June 20, 2016

⁶ CDC - Sudden Infant Death Syndrome (SIDS). <http://www.cdc.gov/features/sidsawarenessmonth/>. June 20, 2016. Content Source: National Center for Chronic Disease Prevention and Health Promotion, Division of Reproductive Health

⁷ American Academy of Pediatrics Announces New Safe Sleep Recommendations to Protect Against SIDS, Sleep-Related Infant Deaths. From American Academy of Pediatrics website: <https://www.aap.org/en-us/about-the-aap/aap-press-room/pages/american-academy-of-pediatrics-announces-new-safe-sleep-recommendations-to-protect-against-sids.aspx> . September 3, 2017

⁸ Pittsburgh Emergency Medical Services Safe Infant Sleeping Screening information provided by Mark Pinchalk, Patient Care Coordinator, City of Pittsburgh EMS Office, 700 Filbert Street, Pittsburgh, PA 15232-2404 Chief's Office: (412) 622-6932. <http://pittsburghpa.gov/ems/>.



pennsylvania
DEPARTMENT OF HEALTH

Rachel Levine, MD
Acting Secretary of Health

The department's mission is to promote healthy lifestyles, prevent injury and disease, and to assure the safe delivery of quality health care for all commonwealth residents.