Sacramento County Child Death Review Team
Three Year Report
2010-2012

The following report includes brief descriptions on some of the cases of children who died in Sacramento County in the 2010-2012 calendar years, reviewed by the Child Death Review Team. These cases were selected to illustrate the range of circumstances and situations that have placed children at risk. The names have been changed in order to protect the identities of the victim and any family members who were not responsible for the death of the child.

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Executive Summary

Executive Summary

The death of a child is a tragedy. Even more tragic is the preventable death of a child due to abuse and neglect. While some deaths are natural and unavoidable, such as a child's life lost as a result of cancer, many innocent children's lives are lost every year that could have been saved. Many of these unnatural and avoidable deaths are the direct result of child abuse and preventable injuries.

The following report provides an in-depth three-year review of child deaths in Sacramento County from 2010 through 2012. Included are descriptions of all deaths whether they were the result of child abuse and neglect, injuries, homicides or natural causes.

2012 marks the twenty-third year the Sacramento County Child Death Review Team (CDRT) has been working to investigate, analyze, and document the circumstances that have led to each child death in Sacramento County. Together, CDRT members review each case as well as any pertinent case information and/or history and come to a mutual consensus on the manner and cause of each death. The goal of the Child Death Review Team is to identify how and why children die in order to facilitate the creation and implementation of strategies to prevent child deaths.

Between 2010-2012, 409 children, birth through 17 years of age, residing in Sacramento County died. The average child death rate decreased to 37.79 per 100,000 children between 2010-2012 from 44.58 per 100,000 children between 2007-2009.

A total of 413 children died in Sacramento County between 2010-2012, including the deaths of 4 children who died of injuries that occurred in Sacramento County, but were not current Sacramento County residents. Seventy-nine percent (325 of 413) of all child deaths between 2010-2012 were natural deaths, 19% (80 of 413) were injury-related deaths, and 2% (8 of 413) were deaths of an undetermined manner.

Between 2010-2012, there were 325 child deaths resulting from natural causes such as perinatal conditions, congenital anomalies, Sudden Infant Death Syndrome (SIDS), Sudden Unexpected Infant Death Syndrome (SUIDS), cancer, infections, and respiratory problems. Deaths resulting from natural causes continue to constitute the majority of child deaths in the County, comprising 79% (325 of 413) of all child deaths in Sacramento County for this three year period.

Between 2010-2012, injuries resulted in 80 child deaths, accounting for 19% (80 of 413) of the total child deaths for this three year period, including deaths of four out-of-county residents whose injuries occurred in Sacramento County. It is consistently found that almost all injury-related deaths could have been prevented. This category includes deaths resulting from Child Abuse and Neglect (CAN) homicides, third-party homicides, Motor Vehicle Collisions, drowning, suffocation, burning, suicide and other injuries. Eleven of the 80 injury-related deaths between 2010-2012 were the result of a CAN homicide, accounting for 14% (11 of 80) of all injury-related deaths. The CAN homicide rate decreased, from 1.82 deaths per 100,000 between 2007-2009, to 1.02 deaths per 100,000 between 2010-2012.

Between 2010-2012, there were eight child deaths that resulted from an undetermined manner, accounting for 2% (8 of 413) of all deaths during that period. Three of the eight undetermined manner deaths were infant sleep-related deaths.

2012 marks the sixth year the Youth Death Review Subcommittee (YDRS) of the CDRT convened to conduct in-depth analyses of all injury-related deaths of youth ages 10 through 17 that occurred in Sacramento County. The intent of the YDRS is to understand the causes of injury-related youth deaths, identify trends and risk factors, and develop recommendations to reduce preventable youth deaths.

Between 2010-2012, the YDRS findings indicate that 50% (40 of 80) of injury-related deaths were in youth between 10 and 17 years of age. Of these 40 deaths, 48% (19 of 40) were either third-party homicides (17 of 40) or CAN homicides (2 of 40). In addition, there were 10 suicides; four deaths due to Motor Vehicle Collision; three drownings; two deaths due to legal intervention[1]; one poisoning/overdose; and one death classified as "other."

Fifty-eight percent (23 of 40) of all youth injury-related deaths were of male decedents, while 42% (17 of 40) were female. Forty-three percent (17 of 40) of injury-related deaths in youth 10-17 years of age occurred by use of firearm. Sixty-three percent (25 of 40) of injury-related youth deaths occurred in decedents 15-17 years of age, and 38% (15 of 40) occurred in youths between 10-14 years of age. The YDRS also found that 30% (12 of 40) of the youth injury-related decedents had a violent or non-violent criminal history. Examples of violent crime include assault and armed robbery, while examples of non-violent crime include drug possession and DUIs.

Child deaths tell us a great deal about the well-being of children in our community. The prevention strategies recommended herein were developed not only for the purpose of preventing child deaths, but also to protect Sacramento County's children from disease, disfigurement, disability, emotional damage and other long-ranging effects of child abuse, accidental injuries, and poor health.

The 2010-2012 Three Year CDRT Report findings and recommendations that follow were developed with a sincere awareness of the complexity of problems facing Sacramento County's children and their families. The major findings and recommendations reported highlight the core of child deaths and recommend strategies to reduce such numbers and improve the health and lives of children in Sacramento County.

[1] Legal intervention deaths are deaths due to injuries inflicted by the police or other law-enforcing agents in the course of arresting or attempting to arrest lawbreakers, suppressing disturbances, maintaining order, and other legal action.

2010-2012 Major Findings

Between 2010-2012, there were 409 child deaths among Sacramento County resident children, birth through 17 years of age, with a child death rate of 37.79 per 100,000 children. There were four additional injury-related deaths of children who resided outside of Sacramento County yet whose death occurred in Sacramento County, bringing the total number of child deaths to 413.

Major findings regarding the types of deaths that occurred in Sacramento County in 2010-2012 are as follows:

- **<u>The number of injury-related deaths remains low.</u>**

  The number of injury-related deaths dropped from 27 in 2009 to 25 in 2010, dropped again to 22 in 2011, then rose to 33 in 2012. The three-year rolling average number of injury-related deaths was 26.7 for the 2010-2012 period, down from 39.0 injury-related deaths per year during the 2007-2009 period.

  While the number of deaths per year decreased across most categories of injury-related death, the largest drop occurred among Motor Vehicle Collisions, in which the average deaths per year decreased from 10.3 between 2007-2009 to 3.3 between 2010-2012. The second largest drop occurred among Child Abuse and Neglect homicides, in which the average deaths per year decreased from 7.0 between 2007-2009 to 3.7 between 2010-2012.

- **<u>More than half of all injury-related deaths were intentional injuries.</u>**

  The three year rolling average of intentional injuries as a percentage of all injury-related deaths has increased, from 43% (50 of 117) during the 2007-2009 period, to 55% (44 of 80) during the 2010-2012 period. Of the 44 intentional injury-related deaths between 2010-2012, 32 were homicides (21 third-party and 11 Child Abuse and Neglect), 10 were suicides, and two were legal interventions.

- **<u>Nearly one-fifth of child deaths were injury-related and preventable.</u>**

  Nineteen percent (80 of 413) of all child deaths between 2010-2012 were injury-related and preventable, four of which were out-of-county residents. The 80 preventable injury-related deaths between 2010-2012 included: 21 third-party homicides; 16 drowning deaths; 11 Child Abuse and Neglect homicides; 10 suicides; 10 Motor Vehicle Collision deaths; 5 deaths due to suffocation or choking; 3 injuries classified as “other,” 2 deaths due to legal intervention, and 1 each of poisoning/overdose and undetermined injury.

- **<u>There were 11 Child Abuse and Neglect (CAN) homicides between 2010-2012.</u>**

  Between 2010-2012, there were 11 CAN homicides of 413 deaths total, all of them occurring among Sacramento County residents. All 11 CAN homicides were separate incidents. Five were infants, two were children 1-4 years of age, two were 5-9 years of age,

and one each was a child between 10-14 years of age and a child between 15-17 years of age. The mechanisms of death in these CAN homicides were: three deaths by abusive head trauma; two deaths by Shaken Baby Syndrome (SBS); and one each of poisoning/overdose; beating/battered child syndrome; an undetermined mechanism; arson; a gunshot wound; and extensive burns from a microwave oven.

There were six CAN homicides in 2009.

- **The rate of Child Abuse and Neglect (CAN) homicides decreased.**

  The rate of CAN homicides decreased during the 2010-2012 period as compared to the 2007-2009 period, from 1.82 deaths per 100,000 to 1.02 deaths per 100,000.

- **The majority of perpetrators of Child Abuse and Neglect (CAN) homicides in Sacramento County are biological parents.**

  Between 2010-2012, 67% (8 of 12[2]) of CAN homicide perpetrators were biological parents, and 17% (2 of 12) were step-parents. Four decedents died at the hands of their biological mother; three died at the hands of their biological father; two died at the hands of a relative; one died at the hands of both their biological father and stepmother; and one died at the hands of their stepmother.

- **Nearly half of Child Abuse and Neglect (CAN) homicide perpetrators have a known history of Child Protective Services (CPS) involvement as children.**

  Of the 12 perpetrators of CAN homicides between 2010-2012, 42% (5 of 12) were known to have CPS history as children. Of these five, three were biological parents and two were stepparents.

- **Nearly one half of Child Abuse and Neglect (CAN) homicide decedents had involvement with Child Protective Services (CPS) prior to their death.**

  Forty-five percent (5 of 11) of CAN homicide decedents had known involvement with Sacramento County CPS prior to their death. Of these five, two decedents had referrals that were still open at the time of death, two had referrals that had been closed more than six months prior to their death, and one had a referral that had been closed within six months of the time of death.

- **Three-fourths of child maltreatment deaths occurred in children 5 years of age or under.**

  The umbrella classification of child maltreatment deaths refers to deaths involving some element of abuse or neglect. Between 2010-2012, there were 22 child deaths that involved an element of maltreatment. Of these 22 deaths, 77% (17 of 22) were in children 0-5 years of age. Since 2004, the percentage of child deaths involving some element of maltreatment

[2] The total number of perpetrators exceeds the total number of CAN homicides, because in some cases more than one perpetrator was involved in the death of a child.

that occurred among children 0-5 years of age has remained consistent, with an average of 77% (96 of 125) throughout the period between 2004-2012.

Of the 17 child maltreatment deaths of children 0-5 years of age, 10 were infants and seven were children between 1-5 years of age. Of the 10 infant deaths with an element of maltreatment, five were Child Abuse and Neglect (CAN) homicides, three were deaths due to prenatal substance abuse, one was of undetermined manner with an element of neglect, and one was due to Sudden Unexpected Infant Death Syndrome with an element of neglect. Of the seven deaths among children 1-5 years of age, two were CAN homicides, two were drownings with an element of neglect, one was an undetermined injury with an element of neglect, one was a third-party homicide with an element of neglect, and one was of undetermined manner with an element of questionable neglect.

- **African American children died at a rate more than two times higher than that of all children in Sacramento County.**

Between 2010-2012, African American children had a disproportionate death rate of 83.44 per 100,000 children, compared to that of all Sacramento County children, who died at a rate of 37.79 per 100,000 children. African American children comprised 11% of the Sacramento County child population between 2010-2012 and accounted for 24% (98 of 409) of Sacramento County resident child deaths.

The four causes of child death with the greatest disproportionality among African Americans were as follows: 38% (8 of 21) of all third-party child homicides were African American children; 37% (20 of 54) of all infant sleep-related deaths were African American infants; 31% (40 of 130) of perinatal condition deaths were African American infants; and 27% (3 of 11) of Child Abuse and Neglect homicides were African American children.

- **There was one Motor Vehicle Collision (MVC) death among children 0-8 years of age in which the decedent was a passenger in a vehicle.**

Of the 10 MVC deaths between 2010-2012, six decedents were children 0-8 years of age. Of the six decedents 0-8 years of age, one was a passenger in a vehicle. Five decedents were MVC pedestrian deaths.

Between 2007-2009, there were three MVC deaths in which decedents 0-8 years of age were passengers in a car.

- **The number of infant sleep-related deaths has decreased.**

The three-year rolling average number of infant sleep-related deaths decreased to 18.3 during the 2010-2012 period from 22.0 during the 2007-2009 period. Of the 54 infant sleep-related deaths between 2010-2012, 33 were due to Sudden Unexpected Infant Death Syndrome (SUIDS), 15 were due to Sudden Infant Death Syndrome (SIDS), three were infant sleep-related deaths of an undetermined manner, two were deaths due to suffocation, and one was an undetermined natural death.

- **<u>Nearly all infant sleep-related deaths had unsafe infant sleep conditions associated with the infant's death.</u>**

  Unsafe infant sleep conditions are sleep conditions identified by the American Academy of Pediatrics that increase the risk of infant sleep-related deaths. Between 2010-2012, 87% (47 of 54) of infant sleep-related deaths, including Sudden Infant Death Syndrome (SIDS) and Sudden Unexpected Infant Death Syndrome (SUIDS), had known unsafe infant sleep conditions associated with the infant's death. Seventy-eight percent (42 of 54) of infant sleep-related deaths were known to occur somewhere other than a crib (31 slept in an adult bed, four slept on a couch, two slept on the floor, and one each slept on a chair, a bouncy seat, a car seat, their mother's lap, and a pillow). Of the 54 infant sleep-related deaths, 52% (28 of 54) were known to occur while co-sleeping with parents and/or siblings, and 37% (20 of 54) were known to have been put to sleep in an unsafe position.

  Younger infants continue to be at the highest risk of infant sleep-related death, with 89% (48 of 54) of all infant sleep-related deaths occurring in children 6 months of age and under.

- **<u>There is a statistically significant correlation between infant sleep-related deaths and Child Protective Services (CPS) referrals.</u>**

  The CDRT performed an analysis of the statistical correlation between infant sleep-related deaths and a past history of CPS referrals involving the decedent. CDRT found a statistically significant correlation between a history of CPS referral and infant sleep-related deaths at a 99% confidence level, with infants having a prior CPS referral being 2.4 times more likely to suffer an infant sleep-related death than infants having no prior CPS contact.

- **<u>Families of child decedents are more likely to be enrolled in government aid programs.</u>**

  The families of Sacramento County child decedents were disproportionately likely to be enrolled in government aid programs as compared to all Sacramento County families. Thirty-four percent of decedents' families were enrolled in Medi-Cal at the time of death, compared to 23% of all Sacramento County families. Twenty-eight percent of decedents' families were receiving CalFresh/Food Stamps at the time of death, compared to 18% of all Sacramento County families. Twenty-one percent of decedents' families were receiving Temporary Assistance for Needy Families benefits at the time of death, compared to 12% of all Sacramento County families.

  While enrollment in means-tested government aid programs is a useful indicator of poverty, it is an imperfect measurement, as many individuals who qualify for aid programs might not be enrolled, for a variety of reasons.

2007-2012 Youth Death Findings

This section includes findings specifically pertaining to youth deaths in Sacramento County during the six year period between 2007-2012. Youth are defined as children between the ages of 10 and 17 years of age.

- **Since 2007, the number of youth deaths due to Motor Vehicle Collisions (MVC) decreased by 85%.**

  Between 2007-2012, the number of youth deaths among all types of MVC decreased from 13 deaths in 2007 to 2 deaths in 2012. These numbers include deaths due to MVC pedestrian deaths, MVC bicycle deaths, and MVC deaths in which the decedent was an occupant or driver of the moving vehicle.

  The decline in the number of MVC youth deaths is part of a larger trend that has seen a decrease in MVC deaths state-wide, and across all age groups.

- **The number of injury-related youth deaths decreased by half.**

  The three-year rolling average of injury-related youth deaths has been decreasing consistently since 2007, from a high of 25.33 average deaths per year during 2005-2007, to a low of 13.33 average deaths per year during 2010-2012. This represents a statistically significant decrease in the three-year rolling average of injury-related youth deaths compared to the 2005-2007 period.

  During the six year period from 2007-2012, there were 107 injury-related youth deaths. Of these, 30 deaths were due to third-party homicide; 28 deaths were due to Motor Vehicle Collision; 22 deaths were due to suicide; 11 deaths were due to drowning; five deaths were due to poisoning or overdose; four deaths were due to other injury; three deaths were Child Abuse and Neglect homicides; two deaths were due to legal intervention; and one death each was due to burns/fires and suffocation.

- **Sixty percent of injury-related youth decedents had a family history of crime, domestic violence, or gang involvement.**

  The three-year rolling average percentage of injury-related youth deaths with a family history of crime, domestic violence, or gang affiliation rose from 48% during the 2007-2009 period to 60% during the 2010-2012 period. The three-year rolling average percentage of injury-related youth deaths with a family history of gang involvement increased from 13% during the 2007-2009 period to 33% during the 2010-2012 period. The three-year rolling average percentage of injury-related youth deaths with a family history of domestic violence increased from 12% during the 2007-2009 period to 28% during the 2010-2012 period. The three-year rolling average percentage of injury-related youth deaths with a family history of crime increased from 45% during the 2007-2009 period to 50% during the 2010-2012 period.

- **Three-fourths of all injury-related youth deaths occur among children 15-17 years of age.**

  Seventy-seven percent (82 of 107) of injury-related youth deaths between 2007-2012 occurred among children 15-17 years of age. The three categories in which children age 15-17 comprise the greatest proportion of injury-related youth deaths are: third-party homicides, comprising 90% (27 of 30) of all third-party youth homicides; Motor Vehicle Collisions (MVC), comprising 75% (21 of 28) of all MVC youth deaths; and suicides, comprising 64% (14 of 22) of all youth suicides.

- **Three-fourths of all injury-related youth deaths are due to third-party homicide, Motor Vehicle Collision, or suicide.**

  Seventy-five percent (80 of 107) of injury-related youth deaths between 2007-2012 were due to one of three causes of death: third-party homicide, Motor Vehicle Collision (MVC), or suicide. Third-party homicides were the most prevalent cause of injury-related youth death, comprising 28% (30 of 107) of all injury-related youth deaths between 2007-2012. Motor vehicle collisions were the second most prevalent, comprising 26% (28 of 107) of all injury-related youth deaths, and suicides were third, comprising 21% (22 of 107) of all injury-related youth deaths.

- **One-half of all third-party homicide perpetrators were known gang members.**

  Between 2007-2012, there were 30 third-party homicides among youth. Of the perpetrators who committed these homicides, 15 were known gang members. Of the remaining perpetrators, four were unknown, four were drivers who were driving recklessly and/or under the influence of alcohol, four were strangers, and three were a boyfriend or girlfriend of the decedent.

- **Firearms were used in nearly two-thirds of third-party youth homicides and youth suicides.**

  Between 2007-2012, firearms were used in 63% (33 of 52) of all youth deaths resulting from third-party homicides or suicides. This includes 77% (23 of 30) of third-party homicides and 45% (10 of 22) of suicides.

- **Half of youth suicide decedents had a family history of mental health issues.**

  Between 2007-2012, 50% (11 of 22) of youth suicide decedents had a history of mental health issues. Forty-one percent (9 of 22) of youth suicide decedents had a history of mental health issues themselves, while 18% (4 of 22) had parents with a history of mental health issues. In some cases, both the decedent and a parent had a history of mental health issues.

Recommendations

- **<u>Expand prevention and early intervention programs to target parents of children older than six years of age, aimed at reducing Child Abuse and Neglect (CAN) homicides in Sacramento County.</u>**

  There were 11 CAN homicides between 2010-2012, including four CAN homicides of children older than six years of age. Prevention efforts must continue to target parents and caregivers to reduce CAN homicides. These prevention efforts must be offered on an ongoing basis for both new parents and the parents of children older than six years of age. Sacramento County has developed an infrastructure of family resource centers and neighborhood-based prevention services that engage at-risk families by providing a comprehensive approach to prevent Child Abuse and Neglect deaths through home visitation and early intervention programs.

- **<u>Continue the work of the Sacramento County Blue Ribbon Commission to implement and monitor targeted, coordinated efforts to reduce the disproportionate African American child death rates.</u>**

  African American children die at a rate two times higher than Caucasian children in Sacramento County, with the greatest disproportionality occurring among four causes of death: perinatal condition deaths, third-party homicides, infant sleep-related deaths, and Child Abuse and Neglect homicides. CDRT recommends full support for, and implementation of, the Blue Ribbon Commission's recommendations on policies, public awareness, direct service, and evaluation in order to address this disproportionality. As of the writing of this report, several entities have contributed resources to supporting the Blue Ribbon Commission's recommendations, including First 5 Sacramento's allocation of $4 million over five years to reduce African American child deaths in the three causes affecting children 0-5 years of age.

  Additionally, because no funds have yet been identified, the CDRT recommends that Sacramento County develop an evidence-based, best-practices strategy for preventing third-party homicides among African American youth. Between 2007-2012, African American youth comprised 47% (14 of 30) of third-party youth homicides.

- **<u>Continue public education and targeted interventions aimed at modifiable adult behaviors and risk factors contributing to preventable deaths.</u>**

  Nineteen percent of all child deaths between 2010-2012 were preventable. They were the result of poor judgment and/or modifiable behaviors by adults. The CDRT recommends the continuation and expansion of public education campaigns, such as the *Shaken Baby Syndrome Prevention Campaign*, the *Infant Safe Sleep Campaign*, and the *Drowning Prevention Campaign* to reduce the number of preventable abusive head trauma, infant sleep-related and drowning deaths. These educational prevention campaigns have been

effective in Sacramento County in reducing the number of preventable child deaths by targeting specific modifiable adult behaviors.

- **Sacramento County's Child Protective Services (CPS) should consider all prior CPS history, specifically that of parents and/or caregivers, in their risk and safety assessments.**

  Nearly half of Child Abuse and Neglect homicide perpetrators have a known history of CPS involvement as children. The CDRT supports the changes being implemented within Sacramento County CPS in this area. CPS has developed a Continuous Quality Improvement (CQI) Framework for providing an overarching structure and processes to systematize, coordinate, and sustain the learning derived from critical incident reviews, quality assurance reports and outcome data. With a fully implemented CQI Framework, CPS can create a learning culture, strengthen critical thinking skills, improve case reviews, and enhance the overall quality of investigations, case work and permanency efforts, all of which will lead to improved outcomes for children.

  These efforts will closely examine how safety and risk assessments are being utilized by Social Workers and address practice issues to improve safety for children and families served by the agency. One policy area has already been updated specific to the Emergency Response (ER) referral information. CPS Social Workers are directed to staff, with their supervisor, all referrals in which there are three or more previous child abuse/neglect referrals, and those referrals that contain allegations regarding CPS's three highest risk factors: domestic violence, mental health and substance abuse. Prior to investigating a referral, Social Workers are also directed to review all prior CPS history, including that of the parents and/or other caregivers.

  This CDRT recommendation aligns with changes moving forward within the agency. CPS is working toward a system that focuses on utilizing data and case reviews, collaborative and transparent monitoring, and improved process measures.

- **Sacramento County's Child Protective Services (CPS) should continue to partner with, and funding should be dedicated to, community-based prevention programs to ensure that the safety and well-being of the child remains central, specifically after a CPS case has been closed.**

  Three-fourths of maltreatment deaths occur among children five years of age and younger. Emergency Response Intake in collaboration with the Child Abuse Prevention Center, has developed an Information and Resource Specialist (I&R) to reach out to families brought to the attention of CPS through phone calls, web inquiries/emails, and mailing of information and resources within the community. CPS also partners with Birth & Beyond, and their nine Family Resource Centers to engage families who no longer require CPS level of intervention by linking parents to community-based services upon successful completion of CPS services. CPS works collaboratively with many community agencies to conduct joint visits with families, link families to resources within their communities and share vital information related to child safety.

Further, funding of culturally appropriate grassroots organizations and agencies is needed in order to address the intergenerational aspects of domestic violence, drug abuse, crime, and poverty for the larger community. CPS is part of a larger child protection system, and as such requires increased funding and expanded partnerships with community-based programs to ensure child safety.

- **Expand training and education efforts involving infants with Child Protective Services (CPS) referrals to reduce the prevalence of infant sleep-related deaths.**

Infants with a prior CPS referral are more than two times as likely to be the victim of an infant sleep-related death. The CDRT recommends targeted awareness, training, and education regarding infant safe sleep practices. The *Infant Safe Sleep Campaign* that proved effective in reducing sleep-related infant deaths in Sacramento County should be expanded to include specific strategies that engage the parents of infants involved with CPS.

- **Sacramento County agencies who serve families enrolled in government aid programs, and their community partners, should expand resources and referrals to include child health and safety.**

The families of Sacramento County child decedents were disproportionately likely to be enrolled in government aid programs. This finding is consistent with childhood injury research. Sacramento County agencies and their community partners, who serve these families, have an opportunity to provide resources and referrals including child health and safety.

- **Encourage the continuation of comprehensive child passenger safety programs and car safety programs targeted at youth and their parents.**

There were 10 Motor Vehicle Collision (MVC) child deaths between 2010-2012, decreased from 31 deaths between 2007-2009. Of the 10 MVC decedents, one was a passenger in a vehicle between 0-8 years of age. The CDRT encourages Sacramento County's hospitals and fire departments to continue promoting the California law, effective as of January 2012, that requires all children through 8 years of age or 4'9" to remain in a booster seat while being a passenger in a moving motor vehicle.

Recent California traffic laws have been passed pertaining to minors, including graduated licensing laws, passenger restrictions, and time restrictions on driving. The CDRT encourages continued support for, and awareness of, these measures. As well, the CDRT encourages schools and youth serving organizations to continue comprehensive safety programs through a prevention education strategy targeted at youth and their parents. The availability of school-based motor vehicle collision and prevention programs through the California Highway Patrol and other local law enforcement agencies should focus on addressing reckless and distracted driving, seat belt safety, and drunk driving.

- **<u>Develop prevention strategies targeting the most at-risk youth, those with a family or individual history of crime, domestic violence, or gang involvement.</u>**

  The CDRT recognizes a family history of crime, domestic violence or gang involvement as a significant risk factor associated with youth deaths, particularly among youth 15-17 years of age. The CDRT therefore recommends coordinating with law enforcement, probation, schools, and community-based organizations to develop and implement prevention strategies designed to target those youth recognized to be at particularly high risk of an injury-related death. Such programs should begin prevention at an early age in order to reduce the number of deaths among youth, especially those 15-17 years of age.

- **<u>Ensure there is a coordinated strategy for early identification and intervention of mental health issues among youth.</u>**

  Half of all youth suicide decedents had a family history of mental health issues. The CDRT recommends Sacramento County Department of Health and Human Services ensure there is a reliable and accessible mechanism through which schools, hospitals, community-based service and substance abuse providers, law enforcement, and private mental health providers can refer youth at risk for suicide. Through coordinated prevention and early-intervention strategies, mental health issues can be identified before they result in suicide.

Chapter I

Deaths Related to Abuse and Neglect

Chapter One

Deaths Related to Abuse and Neglect

One of the principal functions of the Sacramento County CDRT is to ensure that all child abuse and neglect-related deaths are identified. Recognizing the risks inherent to children living with a neglectful, violent or substance abusing adult, the CDRT routinely collects information on drug and/or alcohol history, history of prior abuse and/or neglect, and domestic violence during their review process for all deaths, regardless of their cause. This information is derived from criminal histories, social service histories, and crime scene investigations.

The umbrella classification of Child Maltreatment deaths refers to deaths involving some element of abuse or neglect. The primary category of child maltreatment deaths is Child Abuse and Neglect (CAN) homicide, in which a child was killed, either directly or indirectly, by their caregiver or supervisor. Other deaths, however, might involve an element of maltreatment even though the classification of homicide is not supportable by the coroner's report. Deaths considered to involve child maltreatment fall into one of the following classifications:

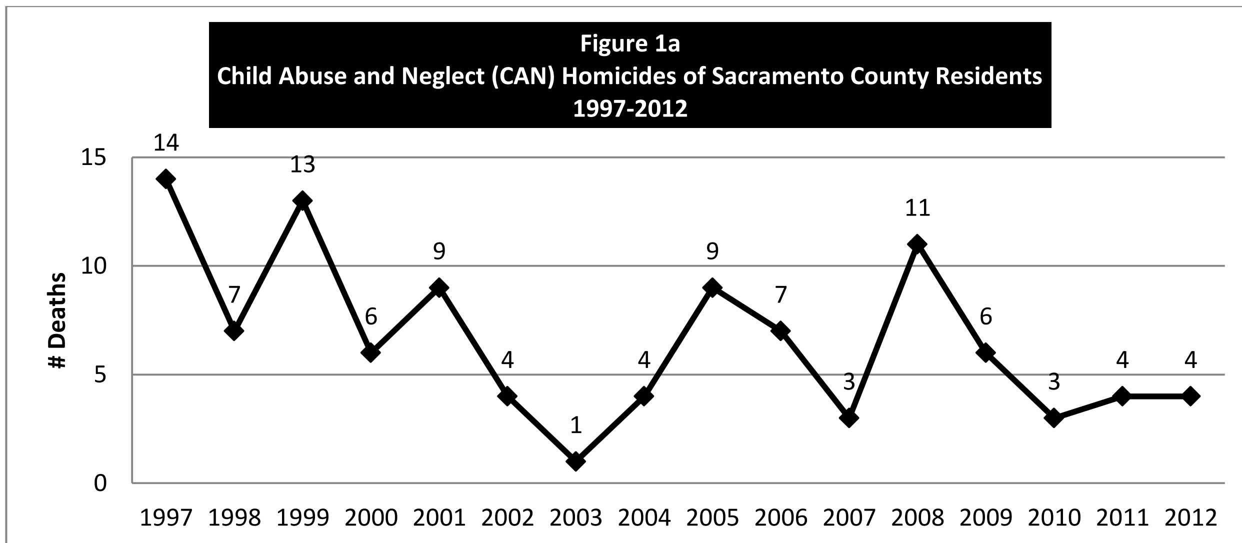
Abuse: Death clearly due to abuse; supported by Coroner's reports, or police or criminal investigation (e.g., homicide or undetermined manner).
Abuse-Related: Death secondary to documented abuse (e.g., suspicious behavior with evidence of prior abuse).
Neglect: Death clearly due to neglect; supported by Coroner's reports, or police or criminal investigation (e.g., a parent or caregiver driving recklessly with a suspended license when involved in a motor vehicle collision).
Neglect-Related: Death secondary to documented neglect, or any case of poor caretaker skills or judgment (e.g., auto accidents or house fires where caretaker was "under the influence").
Questionable Abuse/Neglect: There are no specific findings of abuse or neglect, but there are factors such as substance use or abuse where substance exposure caused the caretaker to experience mental impairment; previously unaccounted for deaths in the same family; or prior abuse/neglect of a child or protective service referral.
Prenatal Substance Abuse: Clearly due to prenatal substance abuse supported by Coroner's reports (e.g., cocaine, intoxication, death from medical complications due to drugs).

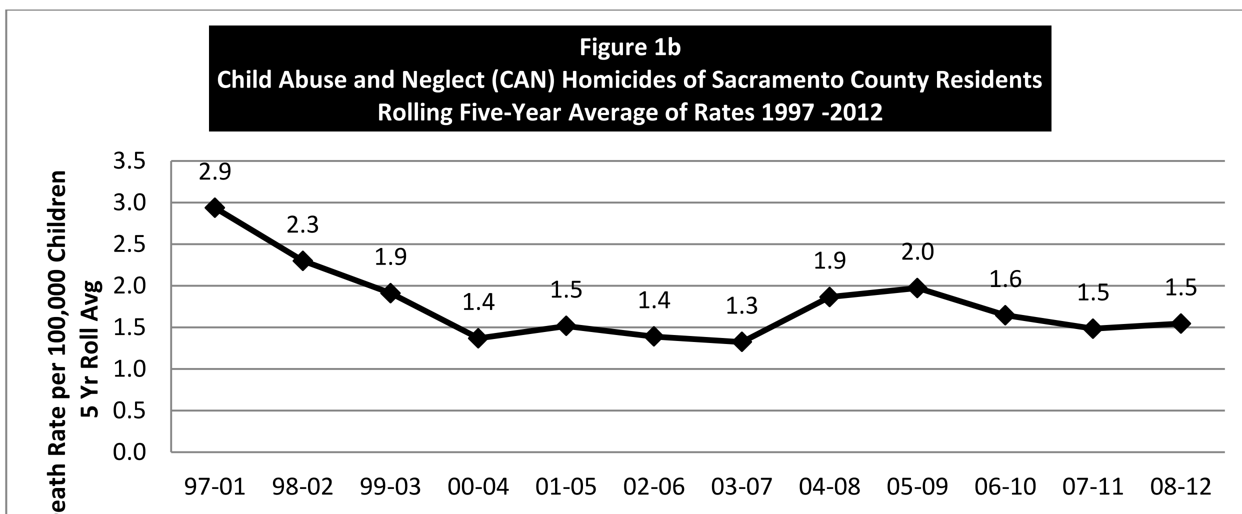
Child Abuse and Neglect Homicides

Child homicides fall into two broad categories: those resulting from caregiver abuse or neglect; and those perpetrated by a third-party, such as a friend or stranger. A Child Abuse and Neglect (CAN) homicide is a death that is caused by abuse or neglect through a caregiver, such as a parent, guardian, babysitter, or family friend. Third-party homicides, defined as those deaths perpetrated by strangers, acquaintances, or friends who were not acting as caregivers, are discussed later in this report.

Between 2010-2012, there were 11 CAN homicides, all of who were Sacramento County residents. All 11 CAN homicides were separate incidents. Of these deaths, three occurred in 2010, four occurred in 2011, and four occurred in 2012.

Figure 1a shows the number of CAN homicides from 1997–2012. Figure 1b illustrates the rate of CAN homicides as five-year rolling averages from 1997–2012. Using rolling five year averages of rates makes it easier to depict CAN Homicide trends overtime. There was a statistically significant decrease in CAN homicides from the 1997–2001 period through the 2003–2007 period.[3] In the 2003–2007 period through the 2008–2012 period there was an increase in CAN homicides.





Victims

Between 2010-2012, there were 11 total victims of CAN homicide. Seven of the CAN homicide victims were male and four were female. Five of the victims were infants, two were between 1-4 years of age, two were between 5-9 years of age, and one each was between 10-14 years of age and 15-17 years of age. Table A shows the percentage of decedents in each age category in the three year period between 2010-2012 as compared to those in the 20 year period between 1990-2009. In

[3] Based on consultation and Poisson regression analyses provided in 2009 by Dr. Neil Willits, University of California, Davis Statistical Laboratory and consultation with Drs. Cassius Lockett (then with Sacramento County Department of Health and Human Services) and Steve Wirtz (California Department of Public Health).

total, 64% (7 of 11) of CAN homicide victims were under five years of age between 2010-2012, compared with the 20 year average, during which 75% (119 of 158) of CAN homicide decedents were under five years of age.

Table A
CAN Homicides by Age
Sacramento County Resident Child Deaths

Age	# CAN Homicides 2010-2012	% CAN Homicides 2010-2012 (n=11)	% CAN Homicides 1990-2009 (n=158)
Infant	5	45.5%	25.9%
1-4	2	18.2%	49.4%
5-9	2	18.2%	15.2%
10-14	1	9.1%	5.1%
15-17	1	9.1%	4.4%

Between 2010-2012, four of the victims were White/Caucasian, three were African American, three were Asian/Pacific Islander, and one was Hispanic. Table B shows the percentage of decedents of each race in the three year period between 2010-2012 as compared to the child population.

Table B
CAN Homicides by Age
Sacramento County Resident Child Deaths

Race	# CAN Homicides 2010-2012	% CAN Homicides 2010-2012 (n=11)	% Child Population 2010-2012
White/Caucasian	4	36.3%	35%
Black/African American	3	27.3%	11%
Hispanic	1	9.1%	31%
Asian/Pacific Islander	3	27.3%	15%
Multiracial	0	0.0%	8%
Other	0	0.0%	1%

Perpetrators

There were 12[4] perpetrators of CAN homicide between 2010-2012. Of these perpetrators, 67% (8 of 12) were the biological parent of the decedent (four were the biological mother and four were the biological father); two were the stepmother; and two were another relative of the decedent. In 23 years of CDRT, a total of 60% (104 of 173) of all perpetrators of CAN homicides have been the biological parent of the decedent.

[4] The number of perpetrators is greater than the number of CAN homicide victims because one of the cases involved two perpetrators.

Mechanism of Death

Of the 11 CAN homicides between 2010-2012, two died due to abusive head trauma due to beatings; the decedents were between the ages of 8 and 12. Two decedents were infants and died from abusive head trauma due to shaking. Of the remaining decedents, two died as a result of burns or fire, one died of an overdose, one died due to beating, one died of a gunshot wound, one died in a watercraft accident, and one died of an undetermined mechanism.

Prior Child Protective Services Involvement

One of the goals of the CDRT is to identify gaps in delivery of protection services, which are identified during the review process. For that purpose, the CDRT records Child Protective Service (CPS) agency involvement with decedents and their families. Of the 11 CAN homicides between 2010-2012, seven decedents had family involvement with Sacramento County CPS as follows:

- 45% (5 of 11) of decedents had involvement with Sacramento County Child Protective Services (CPS).
  - 2 decedents had CPS involvement more than 6 months prior to the time of death.
  - 2 decedents had an open case or referral at the time of death.
  - 1 decedent had a case or referral opened and closed within 6 months of the time of death.

- 36% (4 of 11) of decedents had one or more parents or stepparents who had involvement with Sacramento County CPS as children.

One of the decedents who had family involvement with Sacramento County CPS also had prior family involvement with another California county CPS agency.

Risk Factors

Through the years that Sacramento County's CDRT has met and reviewed child deaths, certain risk factors have been identified. Evidence of these risk factors is collected by CDRT members in preparation for each review. "Risk Factor" is the broad term used to describe a variety of social, economic, and/or demographic circumstances or other elements that may be associated with a higher risk of negative health outcomes for children. Known risk factors represent only those factors known to an agency represented on the CDRT and reported to the CDRT as a circumstance related to a particular child's death. These risk factors include, but are not limited to, substance abuse, prior child abuse and neglect, family or other violence, poverty, and mental illness.

In 2012, so as to more accurately gauge the impact of poverty on child death, CDRT modified the standards for determining if a family was enrolled in government aid programs at the time of death, including Medi-Cal, Temporary Aid for Needy Families (TANF), and food stamps.

Involvement with Child Protective Services is addressed separately above and is not included in the list below.

Between 2010-2012, risk factors were known to be present in all 11 CAN homicides, and are as follows:

- 64% (7 of 11) of decedents had a parent with a history of violent or non-violent crime.
- 45% (5 of 11) of decedents had a family history of alcohol and/or other drug abuse.
- 45% (5 of 11) of decedents had a family enrolled in government aid programs at the time of death.
- 27% (3 of 11) of decedents had a family history of domestic violence.
- 18% (2 of 11) of decedents had mothers who were under 21 at the time of their birth.

Investigation and Prosecution

Because cases take time to negotiate the criminal justice system, this CDRT report attempts to report on the outcomes of both current and prior CAN homicides.

Of the 18 CAN homicides between 2009-2012, charges were filed against 14 defendants in 11 cases. Four of seven defendants had multiple charges filed against them. As of the writing of this report, the outcomes of the 14 defendants charged are as follows:

- 5 defendants were convicted and are serving time in a state prison.
- 2 defendants are awaiting judgment and sentencing.
- 1 defendant was convicted of felony child abuse and is currently on trial for murder.
- 1 defendant had their case dismissed.
- 1 defendant was committed to Napa State Hospital until such time as sanity is restored.
- 1 defendant was charged with involuntary manslaughter and is pending trial.
- 1 defendant has an active case and is scheduled to have a settlement conference.
- 1 defendant has an active case and is scheduled for a preliminary hearing.
- 1 defendant has an active case and is scheduled for a trial readiness conference.

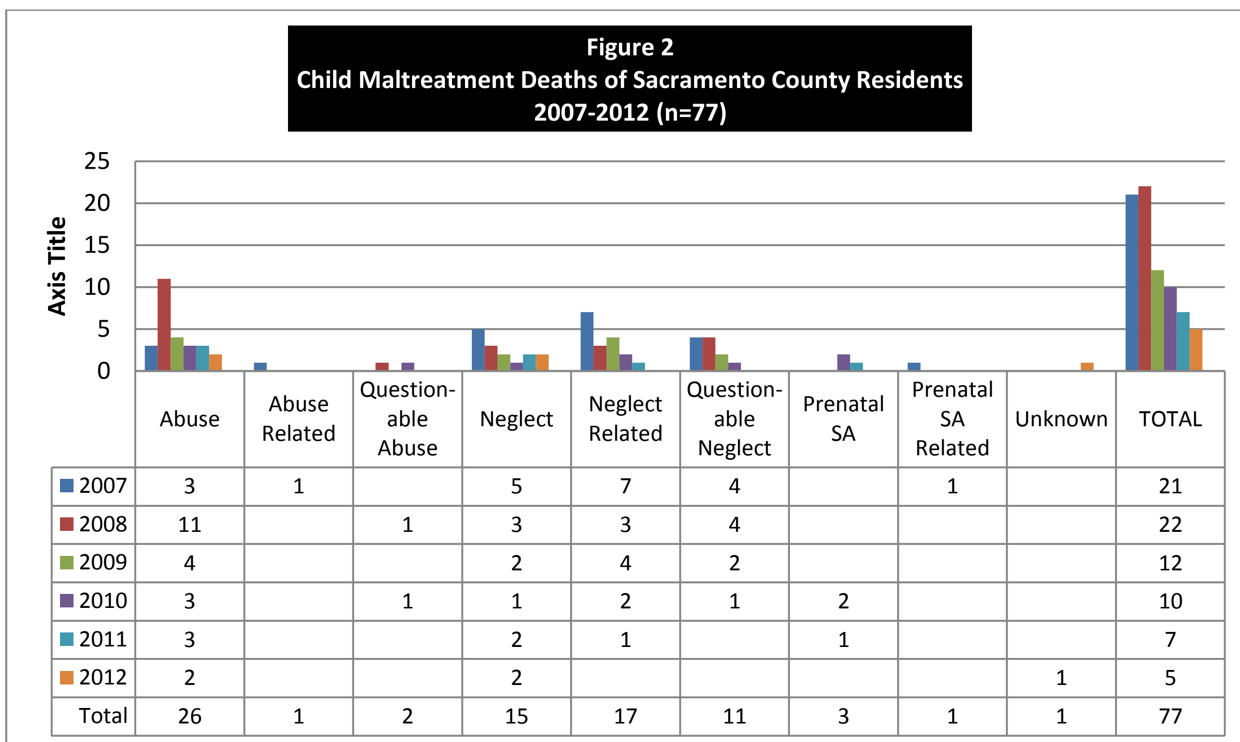
Child Maltreatment Deaths

Between 2010-2012, child maltreatment was involved in the deaths of 22 children. Of these deaths, 21 were Sacramento County residents. Ten of these decedents were infants, seven were between 1-4 years of age, three were between 5-9 years of age, one was between 10-14 years of age, and one was between 15-17 years of age.

Seventy-seven percent (17 of 22) of child maltreatment deaths between 2010-2012 were children under 5 years of age, which is consistent with the historical trend. Between 2004-2012, 76% (95 of 125) of child maltreatment deaths occurred among children under 5 years of age.

Of the 22 child maltreatment deaths between 2010-2012, 11 children died as a result of a Child Abuse and Neglect (CAN) homicide, three died of perinatal conditions with an element of prenatal substance abuse, three died of an undetermined manner, two died of drowning with an element of maltreatment, and one each died due to congenital anomalies, SUIDS, and third-party homicide.

Figure 2 shows all child maltreatment deaths between 2007-2012. Maltreatment deaths have been declining, from an average of 18.33 deaths per year between 2007-2009 to an average of 7.33 deaths per year between 2010-2012. The child maltreatment death rate has similarly declined, from 5.01 deaths per 100,000 children during the 2007-2009 period to 2.03 deaths per 100,000 children during the 2010-2012 period.



	Abuse	Abuse Related	Question-able Abuse	Neglect	Neglect Related	Question-able Neglect	Prenatal SA	Prenatal SA Related	Unknown	TOTAL
2007	3	1		5	7	4		1		21
2008	11		1	3	3	4				22
2009	4			2	4	2				12
2010	3		1	1	2	1	2			10
2011	3			2	1		1			7
2012	2			2					1	5
Total	26	1	2	15	17	11	3	1	1	77

Risk Factors

Risk factors were known to be present in all 22 deaths involving some element of abuse or neglect between 2010-2012, and are as follows:

- 73% (16 of 22) of decedents had a family history of violent and/or non-violent crime.
- 59% (13 of 22) of decedents had a family history of alcohol and/or other drug abuse.
- 41% (9 of 22) of decedents had involvement with Sacramento County Child Protective Services (CPS).
    - 3 decedents had CPS involvement more than 6 months prior to the time of death.
    - 4 decedents had an open case or referral at the time of death.
    - 2 decedents had an case or referral opened and closed within 6 months of the time of death.
- 36% (8 of 22) of decedents had parents with a history of involvement with Sacramento County Child Protective Services (CPS) as children.
- 32% (7 of 22) of decedents were enrolled in government aid programs at the time of death.
- 27% (6 of 22) of decedents had a family history of domestic violence.
- 23% (5 of 22) of decedents had a family history of mental health issues.
- 18% (4 of 22) of decedents had a sibling who had involvement with Sacramento County Child Protective Services (CPS).
    - 2 decedents had a sibling with CPS involvement more than 6 months prior to the time of death.
    - 2 decedents had a sibling with an open case or referral at the time of death.

Chapter II

All Causes of Child Death

Chapter Two

All Causes of Child Death

Another fundamental mission of the Child Death Review Team (CDRT) is to develop an aggregate description of all child deaths as an overall indicator of the well-being of children. This chapter includes information regarding the overall child death rate, natural and injury-related death rates, a categorical breakdown of the causes and manners of death, and a summary of natural deaths and those caused by injuries or undetermined manner.

Child Death Rates

Between 2010-2012, there were 409 deaths in children, birth through 17 years of age, who were Sacramento County residents. Given the large number of children living in Sacramento County, and in order to account for the overall child population change, it is useful to look at the child death rate in order to more clearly see subtle variations in the child death data. The child death rate represents the number of child deaths per 100,000 children living in Sacramento County. In Sacramento County, the child death rate between 2010-2012 was 37.79 deaths per 100,000 children. By year, the number of deaths and the corresponding death rates were as follows:

- In 2010, there were 135 Sacramento County resident child deaths, and a death rate of 37.25 deaths per 100,000 children.
- In 2011, there were 137 Sacramento County resident child deaths, and a death rate of 37.97 deaths per 100,000 children.
- In 2012, there were 137 Sacramento County resident child deaths, and a death rate of 38.15 deaths per 100,000 children.

Figure 3a, on the following page, illustrates the child death rates of Sacramento County residents from 2004-2012.

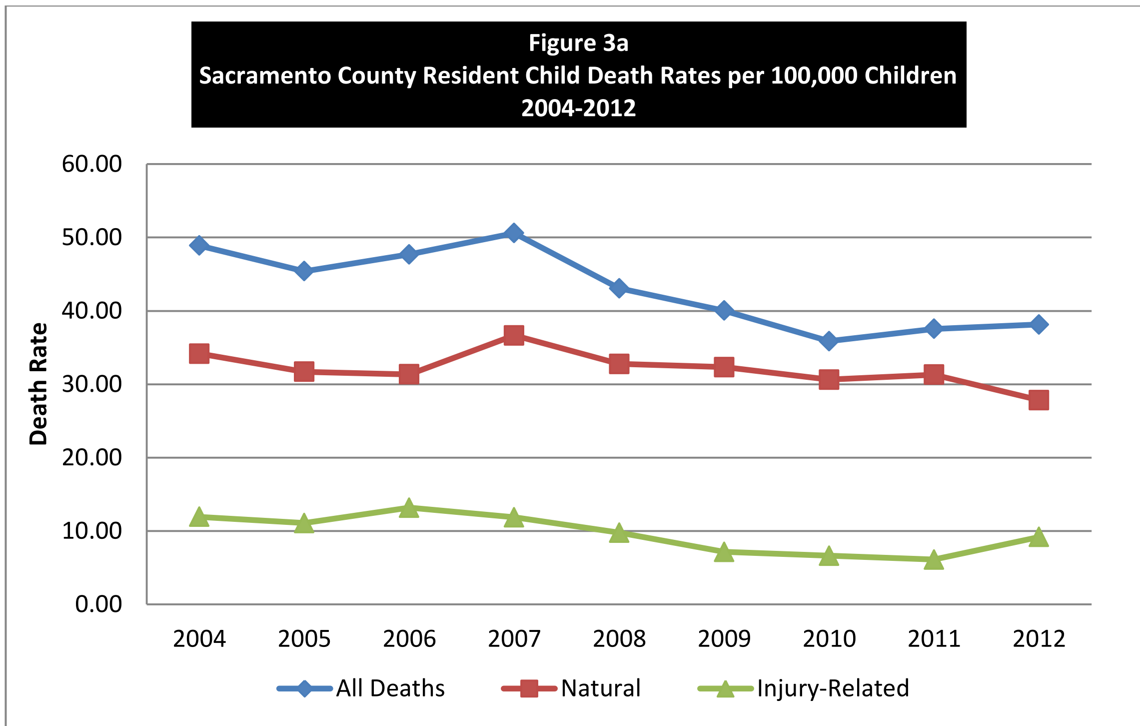
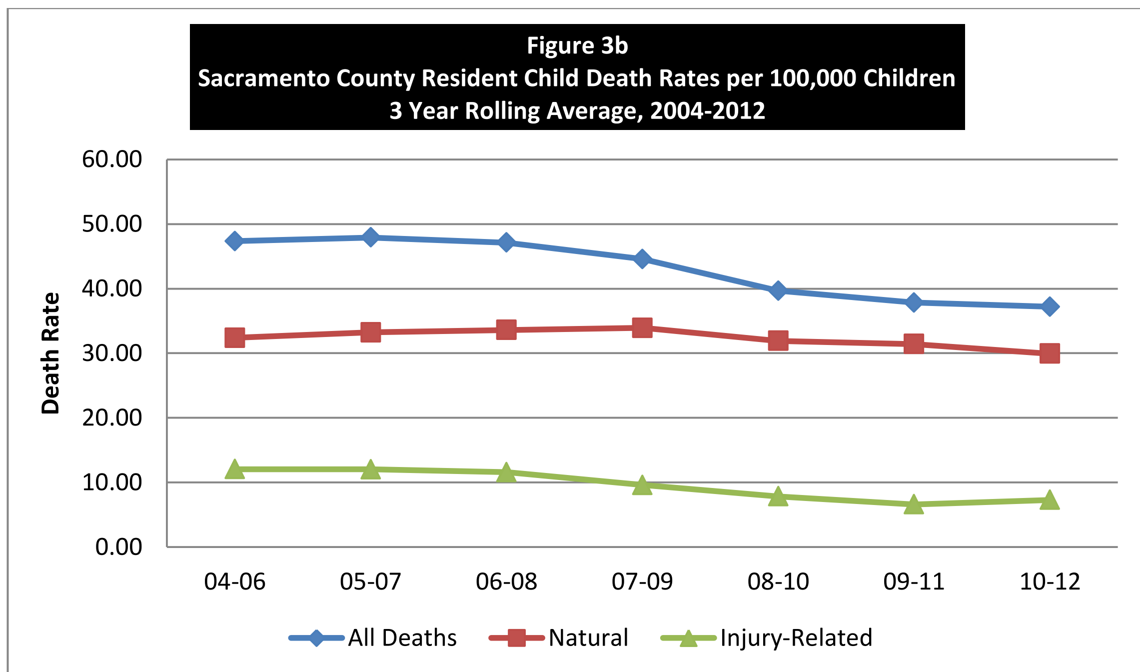


Figure 3b illustrates the rolling three year average child death rate from 2004-2012 in Sacramento County.



Deaths can be classified as natural, injury-related, or undetermined. The undetermined category is comprised of cases where the coroner determined there was insufficient evidence to identify the exact cause of the death.

Between 2010-2012, 79% (325 of 409) of all Sacramento County resident child deaths were due to natural causes. Injury-related deaths accounted for 19% (79 of 409) of all Sacramento County resident child deaths during this period, and deaths of an undetermined manner accounted for 1% (5 of 409) of all child deaths during this period.

Figure 4 shows a breakdown of Sacramento County resident child deaths by category for each year from 2004 through 2012.

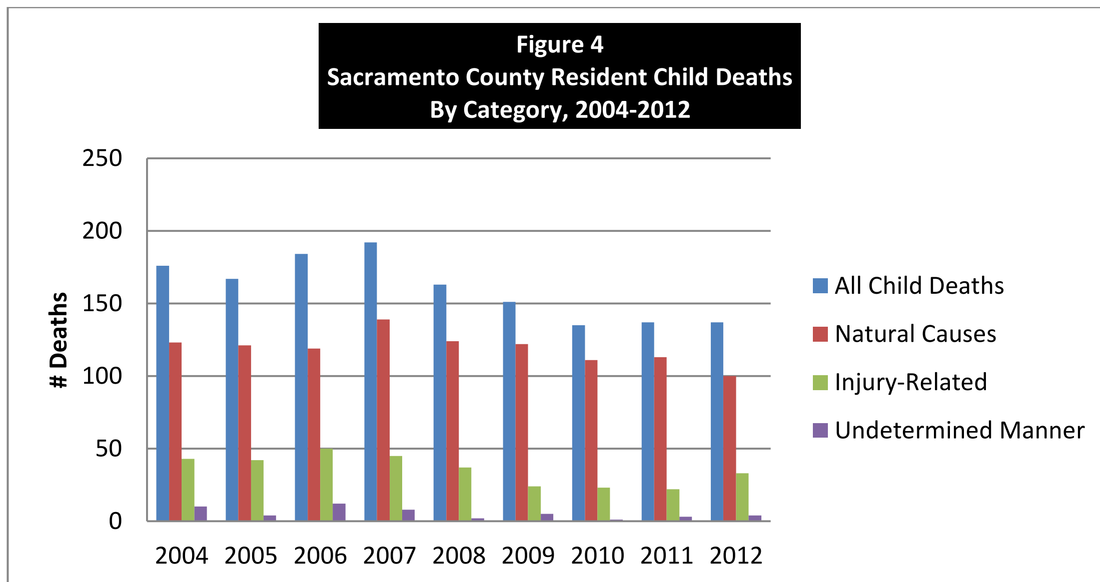


Table C, on the following page provides a summary of the cause and manner of all Sacramento County resident child deaths between 2010-2012. Deaths in the two main categories, injury-related and natural causes, are broken out into subcategories according to similar conditions. A third category, undetermined, contains cases for which the manner of death could not be identified. An example of a case in this category is an infant sleep-related death where there was not enough evidence to determine the manner and/or cause of death, and risk factors present precluded a diagnosis of Sudden Infant Death Syndrome (SIDS) or Sudden Unexpected Infant Death Syndrome (SUIDS).

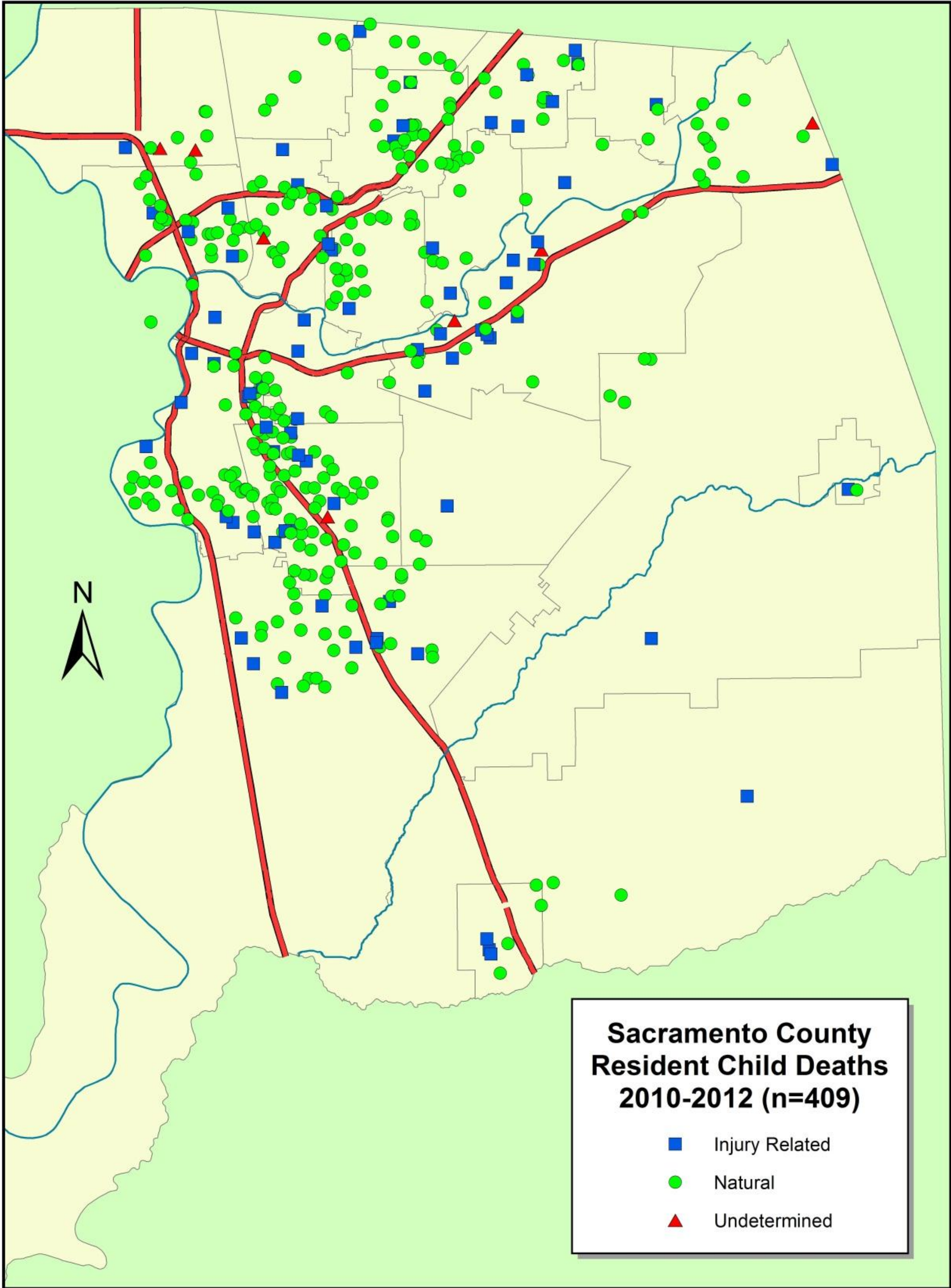
Map i, shown on page 17, illustrates the location of each Sacramento County resident child who died between 2010-2012. Map ii, shown on page 18, depicts the kernel density distribution of the place of residence of all Sacramento County resident children (birth through 17 years of age) who died between 2010-2012, with darker regions indicating a higher concentration of child deaths. Comparing this map with the corresponding kernel density distribution map for the 20 year period between 1990-2009, the geographic distribution of child deaths has not changed appreciably.

Table C
All Child Deaths by Cause and Manner*, 2010-2012

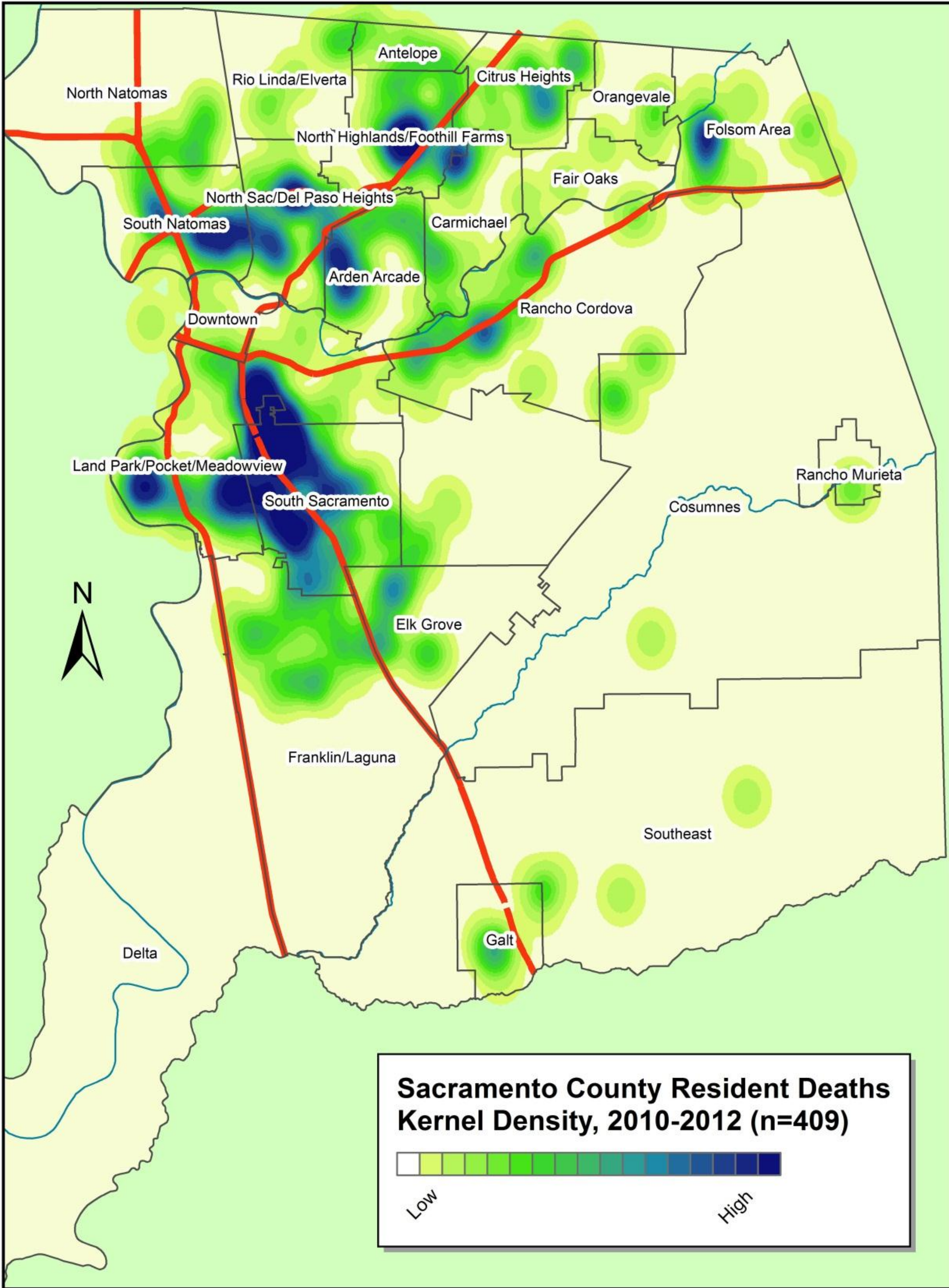
Category	2010	2011	2012	TOTAL
Natural Causes				
Perinatal Conditions	39	54	42	135
Congenital Anomalies	37	35	25	97
SIDS	3	3	9	15
SUIDS	13	8	12	33
Cancer	11	9	8	28
Infections	0	1	1	2
Respiratory	2	1	0	3
Other-Natural	6	1	2	9
Undetermined-Natural	0	1	2	3
Total Natural Causes	*111*	*113*	*101*	*325*
Percent Natural Causes	**80%**	**82%**	**74%**	**79%**
Injury-Related Causes				
CAN Homicide	3	4	4	11
Third-Party Homicide	8	4	9	21
MVC (Driver/Occupant)	1	0	0	1
MVC (Pedestrian)	2	3	1	6
MVC (Bike)	0	1	2	3
Drowning	4	4	8	16
Suicide	4	3	3	10
Suffocation/Choking	1	0	4	5
Burn/Fires	0	0	0	0
Poisoning/ Overdose	1	0	0	1
Legal Intervention	0	1	1	2
Other-Injuries	1	1	1	3
Undetermined Injury	0	1	0	1
Total Injury-Related Causes	***25***	***22***	***33***	***80***
Percent Injury-Related Causes	**18%**	**16%**	**24%**	**19%**
Undetermined Manner	**2**	**3**	**3**	**8**
Percent Undetermined Manner	**1%**	**2%**	**2%**	**19%**
TOTAL	**138**	**138**	**137**	**413**

Includes the deaths of four out-of-county residents that died in Sacramento County

Map i
All Causes of Death
Sacramento County Resident Children, 2010-2012



Map ii*
All Causes of Death, Kernel Density
Sacramento County Resident Children, 2010-2012



Map ii includes the deaths of Sacramento County residents only.

Injury-Related Deaths

Definition, Injury-Related Death: Death as a direct result of an injury-related incident. Examples of injury-related deaths include homicide, motor vehicle collisions, suicide, drowning, burns/fires, and suffocation/choking.

Definition, Intentional Injury-Related Death: An injury that is purposely inflicted, by either oneself or another person.

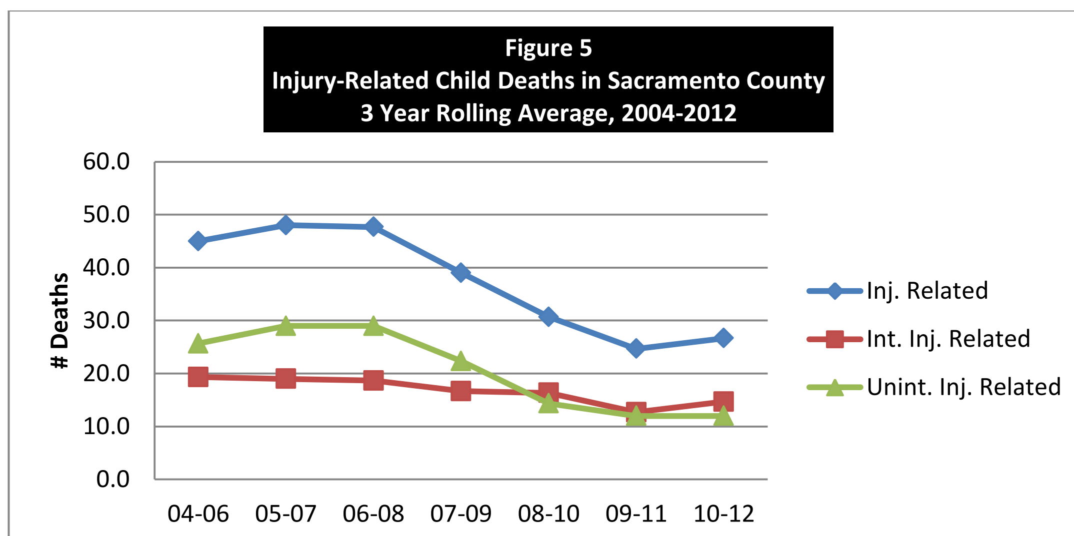
Definition, Unintnetional Injury-Related Death: An injury that was unplanned and unintended to happen, such as motor vehicle collisions, fires and drownings.

Injury-related deaths can be analyzed in terms of three broad categories: intentional, unintentional, and undetermined. The latter category includes all injury-related deaths in which there was insufficient evidence to determine whether the fatal injuries were inflicted or accidental. Unintentional injuries are those where the forces causing the injuries are accidentally applied or set in motion. Motor vehicle collisions and drownings are examples of deaths commonly caused by unintentional injuries. Intentional injuries include homicides and suicides.

The number of injury-related deaths in Sacramento County has been on a downward trend since 2007, with the three-year rolling average of injury-related deaths among children age 0-17 in Sacramento County dropping from 48.0 during the 2005-2007 period, to 27.0 during the 2010-2012 period. This represents a statistically significant decrease in the number of injury-related deaths between the 2005-2007 period and the 2010-2012 period.

The majority of this decrease has occurred among unintential injury-related deaths, which have undergone a statistically significant decrease, from 29.0 between 2005-2007 to 12.0 between 2010-2012. Intentional injuries also saw a statistically significant decrease, from 19.0 between 2005-2007 to 14.7 between 2010-2012.

Figure 5 shows the three-year rolling average of injury-related deaths in Sacramento County from 2004-2012.



Intentional Injuries

Between 2010-2012, intentional injury-related deaths comprised 55% (44 of 80) of all injury-related deaths. The number of deaths attributable to intentional injuries occurring in Sacramento County decreased from a high of 23 intentional injury-related deaths in 2008, to a low of 12 deaths in 2011, then rose to 17 deaths in 2012. While the three-year rolling average of intentional injury-related deaths has decreased from 19.0 between 2005-2007 to 14.7 between 2010-2012, intentional injuries now comprise a majority of all injury related deaths.

Homicides

Homicides are comprised of two categories: Child Abuse or Neglect (CAN) homicides, in which the perpetrator is the caregiver or supervisor of the decedent; and third-party homicides, in which the perpetrator is a third-party, such as a friend or stranger. CAN homicides were discussed in Chapter One of the report.

Between 2010-2012, homicides represented 73% (32 of 44) of all intentional injury-related child deaths. Thirty of these homicides occurred among Sacramento County resident children, while two homicides were out-of-county residents who were in Sacramento County at the time of injury. Twenty-one of the 32 homicides were third-party homicides, while 11 were CAN homicides.

Map iii shows the place of residence of each CAN homicide and third-party homicide victim that occurred in Sacramento County among Sacramento County resident children between 2010-2012.

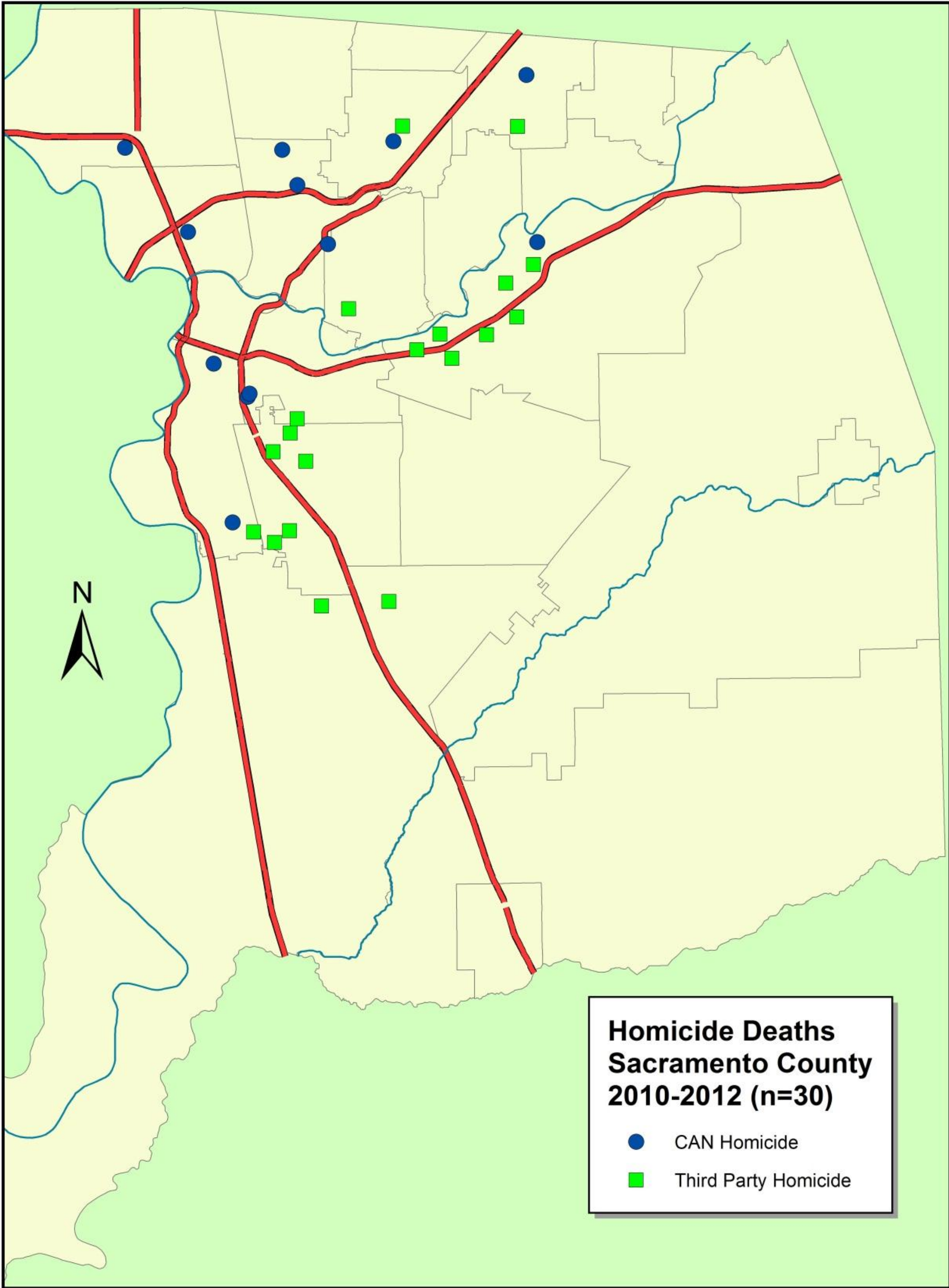
Third-Party Homicides

Between 2010-2012, 21 of the 32 child homicides were classified as third-party homicides, including two third-party homicides of non-Sacramento County resident children that occurred in Sacramento County. Fifteen of the victims were between 15-17 years of age, four victims were between 1-4 years of age, and two victims were between 10-14 years of age. Fourteen of the victims were male and seven were female. Eight of the decedents were African American, six were Caucasian, four were Hispanic, two were Asian/Pacific Islander, and one was multi-racial.

Between 2010-2012, risk factors were known to be present in 95% (20 of 21) of third-party homicides, and are as follows:

- 62% (13 of 21) of decedents had a family history of alcohol and/or other drug abuse.
- 52% (11 of 21) of decedents had a family history of violent and/or non-violent crime.
- 52% (11 of 21) of decedents had a family history of gang involvement.
- 48% (10 of 21) of decedents had families enrolled in government aid programs at the time of death.
- 43% (9 of 21) of decedents had siblings who had involvement with Sacramento County CPS.
    - 7 decedents had siblings with an open case or referral more than 6 months prior to the time of death.
    - 2 decedents had siblings with an open case or referral at the time of death.
- 38% (8 of 21) of decedents had involvement with Sacramento County CPS themselves. No decedents had involvement with CPS within 6 months of death.
- 38% (8 of 21) of decedents had a family history of domestic violence.
- 10% (2 of 21) of decedents had parents who had involvement with Sacramento County CPS as children.
- 5% (1 of 21) of decedents had illegal drugs or alcohol involved in their death.

Map iii*
All Homicides
Sacramento County Resident Deaths 2010-2012



Map iii includes the deaths of Sacramento County residents only.

Suicides

Between 2010-2012, there were 10 suicide deaths. Six of the decedents were female and four were male. Five of these decedents were between 15-17 years of age, and five were between 10-14 years of age. Seven of the decedents died by hanging, two died from a gunshot wound, and one died of asphyxiation using helium gas.

Between 2010-2012, risk factors were known to be present in 90% (9 of 10) of suicides, and are as follows:

- 60% (6 of 10) of decedents had a family history of violent and/or non-violent crime.

- 40% (4 of 10) of decedents had involvement with Sacramento County Child Protective Services (CPS).
    - 3 decedents had CPS involvement more than 6 months prior to the time of death.
    - 1 decedent had a referral open and closed within 6 months of the time of death.

- 40% (4 of 10) of decedents had a family history of mental health issues.

- 40% (4 of 10) of decedents had families who were receiving government aid at the time of death.

- 40% (4 of 10) of decedents had a family history of alcohol and/or other drug abuse.

- 30% (3 of 10) of decedents had siblings who had involvement with Sacramento County Child Protective Services (CPS). No decedents had siblings who had involvement with CPS within 6 months of death.

- 10% (1 of 10) of decedents were currently living in a foster home.

Unintentional Injuries

Between 2010-2012, there were 36 deaths resulting from unintentional injuries, 97% (35 of 36) of whom were Sacramento County residents. The causes of death for these 36 decedents were as follows:

- 16 drownings

- 10 Motor Vehicle Collisions (MVCs)

- 5 suffocation deaths

- 3 injury deaths classified as “other”

- 1 undetermined injury death.

- 1 overdose.

Risk factors were known to be present in 75% (27 of 36) of deaths resulting from unintentional injuries between 2010-2012 and are as follows:

- 53% (19 of 36) of decedents had families who were receiving government aid at the time of death.
- 44% (16 of 36) of decedents had a family history of violent and/or non-violent crime.
- 39% (14 of 36) of decedents had a family history of alcohol and/or other drug abuse.
- 36% (13 of 36) of decedents had involvement with Sacramento County Child Protective Services (CPS).
  - 9 decedents had CPS involvement more than 6 months prior to the time of death.
  - 2 decedents had a case or referral open and closed within 6 months of the time of death.
  - 2 decedents had an open case or referral at the time of death.
- 31% (11 of 36) of decedents had siblings who had involvement with Sacramento County CPS. No decedents had siblings who had involvement with CPS within 6 months of death.
- 22% (8 of 36) of decedents had a family history of mental health problems.
- 22% (8 of 36) of decedents had parents who had involvement with Sacramento County CPS as children.
- 17% (6 of 36) of decedents had a family history of domestic violence.
- 11% (4 of 36) of decedents had a family history of abuse or neglect.
- 6% (2 of 36) of decedents had illegal drugs and/or alcohol involved at the time of their death.
- 6% (2 of 36) of decedents had a family history of gang involvement.

Drownings

Between 2010-2012, drownings accounted for 44% (16 of 36) of unintentional injury-related deaths. Eleven of the deaths occurred in an in-ground pool, three occurred in open water, and one each occurred in a bathtub and a wading pool.

Twelve of the decedents were 1-4 years of age, two were 15-17 years of age, and one each were 5-9 years of age and 10-14 years of age.

CDRT records instances of unsafe conditions present in drowning deaths. Such unsafe conditions were present in 81% (13 of 16) of drowning deaths and are as follows:

- 11 decedents drowned in pools that had no/inadequate fencing, or fencing that was not properly secured.

- 2 of the drowning deaths involved an element of maltreatment:
  - 2 deaths involved parental drug and alcohol use.
  - 1 death involved lack of proper supervision.

Motor Vehicle Collisions

Between 2010-2012, Motor Vehicle Collision (MVC) deaths accounted for 28% (10 of 36) of unintentional injury-related deaths. Of these 10 MVC deaths, six were pedestrians, three were bicyclists, and one was an occupant. None of the MVC decedents were drivers.

Four of the decedents were 1-4 years of age, two were 10-14 years of age, two were 15-17 years of age, one was 5-9 years of age, and one was an infant. Eight of the decedents were male and two were female.

CDRT records instances of unsafe conditions present in MVC deaths. Such conditions include car passengers who were not properly using seatbelts, and bicyclists who were not wearing helmets. Such unsafe conditions were present in 40% (4 of 10) MVC deaths and are as follows:

- 2 of the deaths involved reckless driving.

- 2 of the deaths involved use of alcohol.

- 1 decedent was found to be in an improperly-positioned car seat.

- 1 bicyclist was not wearing a helmet.

Natural Causes

Definition: Death due to complication(s) of disease process, or due immediately to natural cause(s). Examples of deaths categorized from natural causes include perinatal conditions, congenital anomalies, cancers, Sudden Infant Death Syndrome (SIDS), Sudden Unexpected Death Syndrome (SUIDS) and deaths due to infections or respiratory conditions.

Between 2010-2012, 79% (325 of 413) of Sacramento County child deaths resulted from natural causes. This includes those deaths resulting from Sudden Infant Death Syndrome (SIDS) and Sudden Unexpected Infant Death Syndrome (SUIDS). The two leading causes of natural death were perinatal conditions and congenital anomalies (birth defects). See Table C, on page 16, for a list of all deaths by natural causes.

Perinatal Conditions

Perinatal conditions include prematurity, low birth weight, placental abruption and congenital infections. The perinatal period is defined as the time interval beginning with the completion of the 20th to 28th week of gestation and ending 28 days after birth. In other words, deaths due to perinatal conditions span the time period from the second trimester of pregnancy through one month after birth.

Between 2010-2012, 42% (135 of 325) of all natural deaths in Sacramento County were due to perinatal conditions. Prematurity was a known contributing factor in 85% (115 of 135) of perinatal condition deaths. The median gestational age of babies who died from prematurity and other perinatal conditions was 23 weeks. The median weight of babies who died from prematurity and other perinatal conditions was 539 grams (approximately 1.19 pounds).

Risk factors were known to be present in 73% (98 of 135) of deaths due to perinatal conditions between 2010-2012 and are as follows:

- 44% (60 of 135) of decedents had a family history of violent and/or non-violent crime.
- 44% (60 of 135) of decedents had families who were receiving government aid at the time of death.
- 33% (44 of 135) decedents had a family history of alcohol and/or other drug abuse.
- 30% (41 of 135) of decedents had a parent with a history of prior Sacramento County CPS involvement as a child.
- 19% (25 of 135) of decedents had a sibling with a history of prior Sacramento County CPS involvement.
- 18% (24 of 135) of mothers were under age 21 at the time of birth.
- 17% (23 of 135) of mothers used alcohol/drugs while pregnant.
- 16% (21 of 135) of decedents had a family history of domestic violence.
- 7% (10 of 135) of mothers had inadequate prenatal care.

Congenital Anomalies

Definition: Congenital - A condition that exists at birth, and usually before birth, regardless of its causation. Anomalies - Marked deviations from the normal standard, especially as a result of congenital defects. These conditions are acquired during the development of the fetus and are generally attributed to heredity/genetics.

Congenital anomalies include fatal birth defects such as: structural heart defects; neural tube defects, such as anencephaly; and chromosomal abnormalities, such as Down Syndrome. The underlying causes of death in this category are generally attributed to heredity and/or genetics.

Between 2010-2012, 30% (97 of 325) of all natural deaths in Sacramento County were due to congenital anomalies.

Risk factors were known to be present in 64% (62 of 97) of these deaths and are as follows:

- 33% (32 of 97) of decedents had families who were receiving government aid at the time of death.
- 31% (30 of 97) of decedents had a family history of violent and/or non-violent crime.
- 24% (23 of 97) of decedents had a family history of alcohol and/or other drug abuse.
- 19% (18 of 97) of decedents had involvement with Sacramento County CPS.
    - 6 decedents had a CPS case or referral open at the time of death.
    - 2 decedents had a CPS case or referral open and closed within 6 months prior to the time of death.
- 16% (16 of 97) of decedents had a sibling who had involvement with Sacramento County CPS:
    - 4 decedents had a sibling with a CPS case or referral open at the time of death.
- 15% (15 of 97) of decedents had a parent who had involvement with Sacramento County CPS as a child.
- 11% (11 of 97) of decedents had a family history of domestic violence.
- 10% (10 of 97) of mothers abused alcohol/drugs while pregnant.
- 4% (4 of 97) of mothers had inadequate prenatal care.

Cancer, Infections, Respiratory and Other Natural Causes

Definition:
Cancer - Death caused by a tumor disease, the natural course of which is fatal. Cancer cells, unlike benign tumor cells, exhibit the properties of invasion and metastasis and are highly anaplastic.
Infections - Death caused by the invasion and multiplication of microorganisms in body tissues. Examples are meningitis and sepsis.
Respiratory – Death that involves a disease or infection of the lungs or airway passages. Such diagnoses include pneumonia, RSV, asthma, tuberculosis, etc.
Other Natural Causes - Deaths due to a natural cause not previously mentioned.

Between 2010-2012, cancer, infections, respiratory, and other natural causes accounted for 13% (42 of 325) of natural deaths in Sacramento County. Risk factors were known to be present in 79% (33 of 42) of these deaths and are as follows:

- 62% (26 of 42) of decedents had families who were receiving government aid at the time of death.

- 33% (14 of 42) of decedents had a family history of violent and/or non-violent crime.

- 29% (12 of 42) of decedents had involvement with Sacramento County CPS.
    - 3 decedents had a CPS case or referral open and closed within 6 months prior to the time of death.

- 26% (11 of 42) of decedents had a family history of alcohol and/or other drug abuse.

- 17% (7 of 42) of decedents had a sibling who had involvement with Sacramento County CPS. No decedents had a sibling with a CPS case or referral open at the time of death.

- 12% (5 of 42) of decedents had a parent who had involvement with Sacramento County CPS as a child.

- 10% (4 of 42) of decedents had a family history of domestic violence.

- 2% (1 of 42) of mothers were under age 21 at the time of birth.

Infant Sleep-Related Deaths

<u>Sudden Infant Death Syndrome, Definition:</u>
A diagnosis of exclusion and unknown etiology, it is the leading cause of death for infants between ages two months to one year in the United States, accounting for about one-third of all such deaths. Section 27491.41 of the California Government Code defines SIDS as "the sudden death of any infant that is unexpected by the history of the infant and where a thorough postmortem examination fails to demonstrate an adequate cause of death."

<u>Sudden Unexpected Infant Death Syndrome, Definition:</u>
Applies to the death of an infant less than one year of age in which investigation, autopsy, medical history review and appropriate laboratory testing fails to identify a specific cause of death. SUIDS includes cases that meet the definition of SIDS. If there are external or exogenous stressors [risk factors] that a medical examiner would like to incorporate on a death certificate, such as co-sleeping or bed sharing, they may be added to the cause of death, such as in the following way: Sudden Unexplained (or Unexpected) Infant Death while bed-sharing.

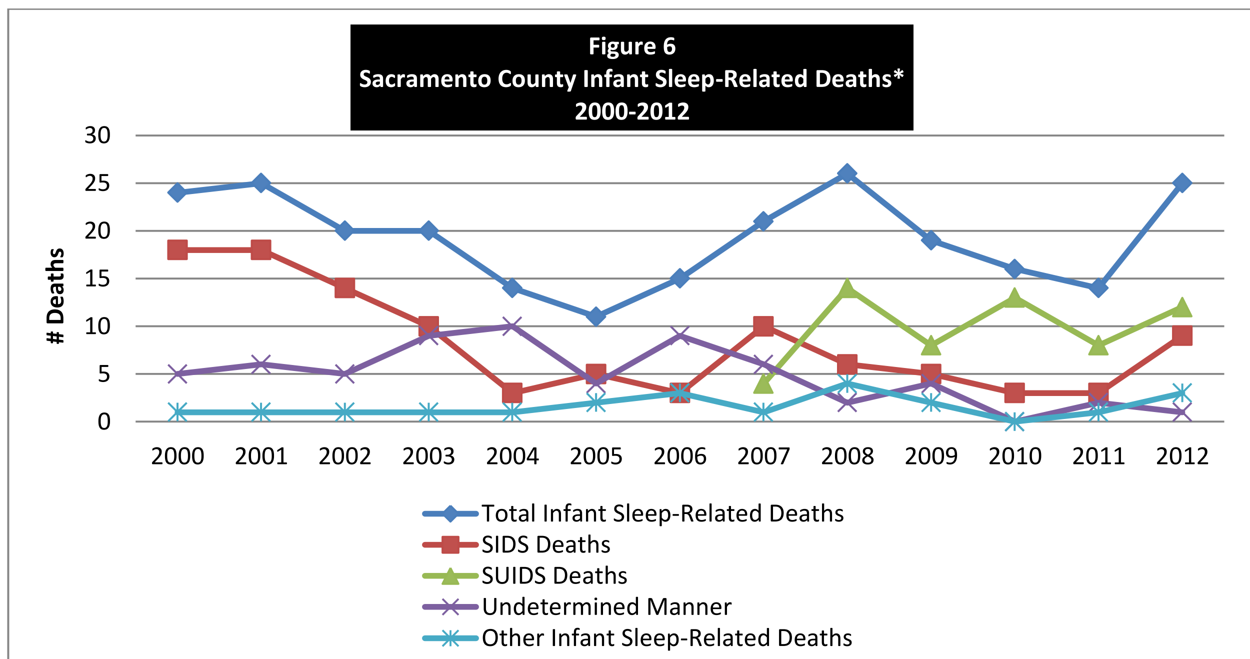
According to the American Academy of Pediatrics, Infant Sleep-Related (ISR) death is an umbrella term used to describe all infant deaths that occur in the sleep environment. Sacramento County CDRT combines all ISR deaths due to variation in the specific categorization of death by the coroner, and to better identify ISR risk factors to help prevent future deaths.

Between 2010-2012, there were 54 ISR deaths, representing 13% of all child deaths in Sacramento County. Table D shows the number and cause for all ISR deaths for this time period.

Table D
Infant Sleep Related Deaths in Sacramento County by Cause and Year
2010-2012

Cause of Death	2010	2011	2012	*TOTAL*
SUIDS	13	8	12	*33*
SIDS	3	3	9	*15*
Undetermined -Natural	0	1	1	*2*
Undetermined Manner	0	1	1	*2*
Suffocation	0	0	2	*2*
TOTAL	*16*	*13*	*25*	*54*

After declining for three consecutive years between 2009-2011, the number of infant sleep-related deaths increased to 25 in 2012, the highest point since 2008. Figure 6 shows all infant sleep-related deaths since 2000. It is important to note that 2007 marks the first year that SUIDS deaths were distinguished by the coroner as a distinct category among infant sleep-related deaths for purposes of CDRT reporting. Deaths due to SUIDS are thus only tracked from 2007 forward.



* SUIDS deaths were recorded for the first time in 2007. Previously, SUIDS deaths were incorporated into other infant sleep-related categories, such as SIDS and/or Undetermined Manner.

Of the 54 ISR deaths between 2010-2012, unsafe sleep conditions[5], such as co-sleeping, or the decedent being placed to sleep somewhere other than a crib or bassinette, were known to be present in 87% (47 of 54) of these deaths, and are as follows:

- 78% (42 of 54) of decedents were known to have slept in an unsafe sleeping location, such as an adult bed or couch:
  - Of the 42 decedents who slept in an unsafe sleeping location, 48% (20 of 42) were known to have a crib or bassinette in the home.
  - 28 decedents slept in an adult bed.
  - 6 decedents slept on another type of unsafe surface, such as a mattress on the floor.
  - 5 decedents slept on a chair or sofa.
  - 2 decedents slept on the floor.
  - 1 decedent slept in a carseat

- 52% (28 of 54) of decedents were known to be co-sleeping with a parent or sibling at the time of death.

- 37% (20 of 54) of decedents were put to sleep or found in a position recognized to increase the risk of an infant sleep-related death, such as on their stomach or on their side.

- 9% (5 of 54) of decedents had drugs or alcohol involved at the time of death.

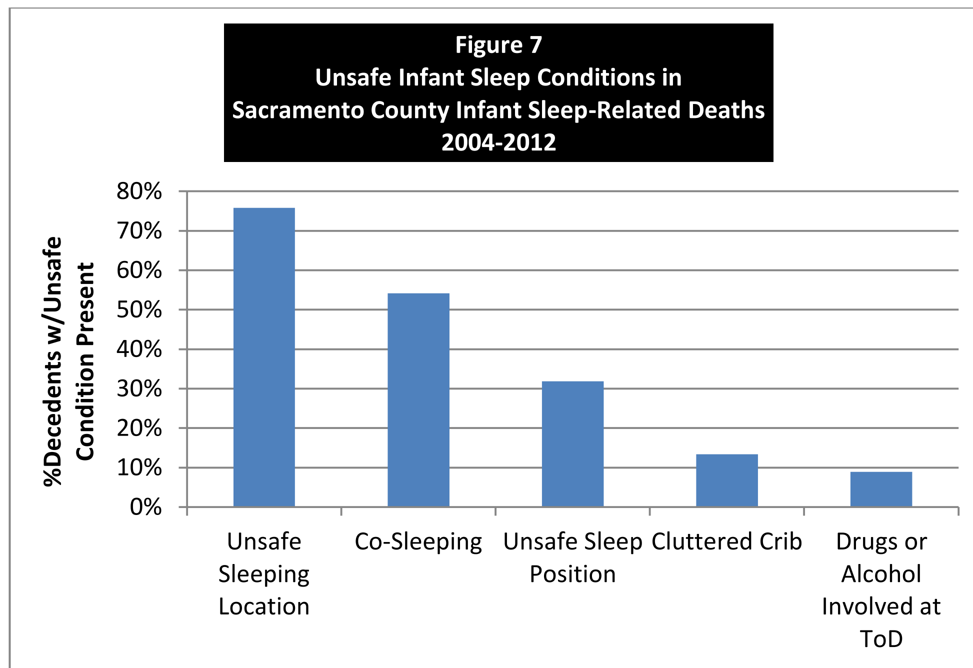
In 2004, the Sacramento County CDRT began to collect additional data on infant sleep-related deaths. This expanded infant sleep-related risk factor data to include obstruction by blankets and/or pillows, other individuals sharing a sleeping area, or excessives items in a crib. Figure 7 shows the prevalence of unsafe infant sleep conditions between 2004-2012.

In addition to the unsafe sleep conditions and risk factors listed above, the following information was known about the 54 infant sleep-related deaths between 2010-2012:

- 89% (48 of 54) of decedents were 6 months of age or younger at the time of death.

- 63% (34 of 54) of decedents were male.

[5] The American Academy of Pediatrics (AAP) lists several factors related to the sleep environment as being associated with a higher risk of SIDS/SUIDS and other infant sleep-related deaths, such as being placed to sleep in a prone position, a soft sleep surface, co-sleeping, sleeping on an adult bed or mattress, or being put to sleep with items that could cover the head or face.



Risk factors were known to be present in 85% (46 of 54) of ISR deaths and are as follows:

- 57% (31 of 54) of decedents had families who were receiving government aid at the time of death.
- 52% (28 of 54) of decedents had a family history of violent or non-violent crime.
- 46% (25 of 54) of decedents had a parent who had involvement with Sacramento County CPS as children.
- 46% (25 of 54) of decedents had a family history of drug and/or alcohol abuse.
- 35% (19 of 54) of decedents had a sibling who had involvement with Sacramento County CPS:
    - 3 decedents had siblings with an open case or referral at the time of death.
- 28% (15 of 54) of decedents had involvement with Sacramento County Child Protective Services (CPS):
    - 9 decedents had CPS involvement at the time of death.
    - 4 decedents had a case or referral open and closed within 6 months of the time of death.
- 22% (12 of 54) of decedents had a family history of domestic violence.
- 17% (9 of 54) of decedents had a family history of mental health issues.
- 6% (3 of 54) of decedents were born to mothers under 21 years of age at the time of birth.

Thirty-seven percent (20 of 54) of ISR decedents between 2010-2012 were African-American; 28% (15 of 54) were Caucasian; 22% (12 of 54) were multi-racial; 7% (4 of 54) were Hispanic; 4% (2 of 54) were Asian/Pacific Islander; and 2% (1 of 54) identified as “other”.

Fifty-six percent (30 of 54) of ISR deaths between 2010-2012 occurred in six of Sacramento County's 54 zip codes, as shown in Table E. While these six zip codes accounted for 56% of all ISR deaths, they accounted for 21% of the Sacramento County infant population.

All 54 ISR deaths between 2010-2012 occurred among Sacramento County residents, and the residences of these decedents are shown in Map iv, which also illustrates whether the death was categorized as SIDS, SUIDS, undetermined natural, suffocation, or Undetermined Manner.

Table E
Sacramento County Zip Codes with the Most Infant Sleep-Related Deaths
2010-2012

Zip Code	% Total Infant Population	Infant Sleep-Related Deaths Total 2010-2012	% Total Infant Sleep-Related Deaths
95823	7.2%	10	18.5%
95842	2.7%	6	11.1%
95821	2.4%	5	9.3%
95608	3.2%	3	5.6%
95610	3.0%	3	5.6%
95660	2.8%	3	5.6%
Top 6 Sac County Zip Codes	*21.3%*	*30*	*55.6%*
All Sacramento County	*100.0%*	*54*	*100.0%*

Correlation Between Prior Child Protective Services (CPS) Involvement and Infant Sleep-Related Death

In trying to prevent infant sleep-related (ISR) deaths, the CDRT examines points of contact occurring between the families of infants and various family services. By exploring these prior points of contact, the CDRT can determine where best to allocate additional services and interventions to further reduce the occurrence of infant sleep-related deaths. With that in mind, the CDRT elected to analyze the statistical correlation between ISR death and a prior history of CPS referrals involving the decedent.

Additionally, in 2013, *The Journal of Pediatrics* performed a study[6] of California infants to determine such a link between prior CPS involvement by the decedent and increased risk of an ISR death. The study concluded that there was a statistically significant correlation between CPS involvement and increased risk of infant sleep-related death, and that this correlation persisted even

[6] Putnam-Hornstein, E., Schneiderman, J., Cleves, M., Magruder, J., and Krous, H., A Prospective Study of Sudden Unexpected Infant Death after Reported Maltreatment, *Journal of Pediatrics, October 17, 2013,* http://www.jpeds.com/article/S0022-3476(13)01346-2/abstract, (Feb. 24,2014)

when controlled for race and poverty. The findings of the Sacramento County CDRT, detailed below, are consistent with the results of this study.

Between 2007 and 2012, a total of 11,855 infants were referred to Sacramento County CPS, representing an average of 9.7% of all infants each year during that period. During those six years, 117 Sacramento County resident infants died of sleep-related causes. Of these infant decedents, 21% (24 of 117) had been referred to CPS prior to their deaths. Based on a chi-squared analysis of these numbers, this represents a statistically significant correlation between a history of CPS referral and infant sleep-related death at a 99% confidence level[7]. Overall, an infant with a history of CPS referrals is 2.4 times more likely to suffer an infant sleep-related death than an infant who has not had a CPS referral.

The correlation between a history of CPS referrals and infant sleep-related death was also explored while controlling for economic risk. To do this, infant sleep-related deaths were divided into one of four economic risk categories based on the poverty level and median income of the decedents' zip code of residence: low, moderate, high, or very high. The percentage of decedents in each category who had been referred to CPS prior to their death was then compared to the total number of infants in those zip codes who had been referred during the period. Based on a chi-squared analysis of the numbers when controlled for economic risk, a statistically significant correlation was found between a history of CPS referral and infant sleep-related death at a 95% confidence level.

Lastly, the correlation between a history of CPS referrals and infant sleep-related death was also explored while controlling for race. Based on a chi-squared analysis of the numbers when controlled for race, the confidence level was 82%. This does not represent a statistically significant correlation.

Based on the data, there is a statistically significant correlation between a history of CPS referral and infant sleep-related deaths both overall, and when controlled for economic risk. While no statistically significant correlation could be determined when controlling for race, it is possible that a larger data set could demonstrate such a correlation.

Table F shows the risk increases resulting from a history of CPS referrals, as well as the confidence level of each result.

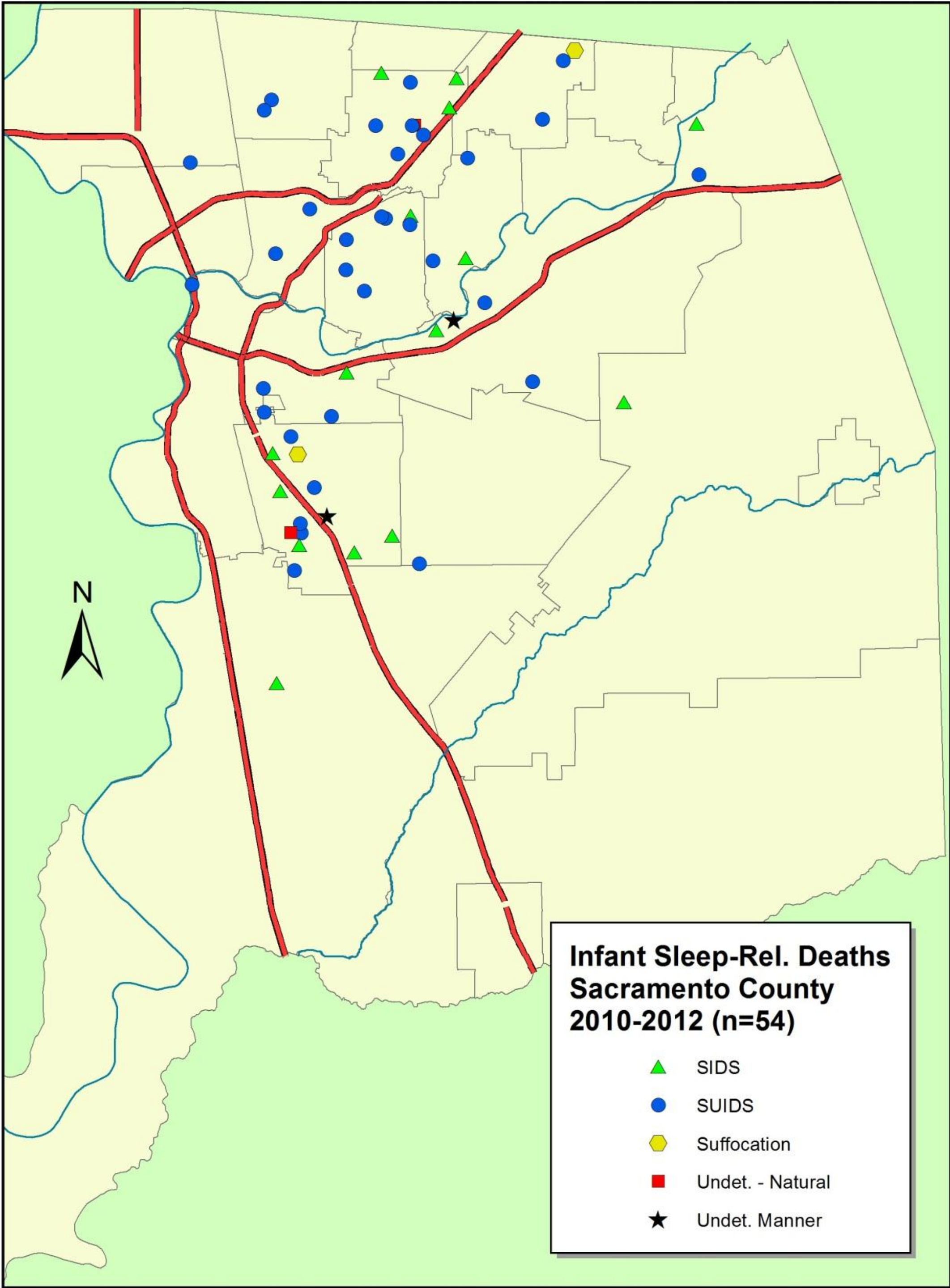
[7] The Confidence Level represents the percentage chance that the result is statistically significant (i.e., not due to random chance).

Table F
Increased Risk of Infant Sleep-Related Death Due to Prior CPS Involvement of the Decedent
2007-2012

	ISR Death Rate Overall	ISR Death Rate w/CPS Hx	ISR Death Rate w/No CPS Hx	Risk Increase Due to CPS Hx	Confidence Level
Overall	***96.19***	***202.45***	***84.71***	***139%***	***>99%***
By Economic Risk Level					
Low	*30.59*	*0.00*	*32.34*	-	N/A[8]
Moderate	76.71	207.38	65.28	218%	N/A[8]
High	119.82	203.67	108.26	88%	87%
Very High	150.67	272.17	132.47	105%	97%
Average	***96.19***	***202.45***	***84.71***	***139%***	***97%***
By Race					
White	102.44	168.87	96.45	75%	71%
Black	271.59	320.70	253.05	27%	55%
Hispanic	*16.22*	*44.62*	*14.39*	*210%*	N/A[8]
Asian/PI	*27.58*	*212.77*	*22.66*	*739%*	N/A[8]
Multiracial/Other	253.32	231.37	258.66	-11%	18%
Average	***96.19***	***202.45***	***84.71***	***139%***	***82%***

[8] Confidence level could not be calculated due to insufficient sample size.

Map iv*
All Infant Sleep-Related Deaths
Sacramento County Resident Deaths, 2010-2012



Map iv above includes the deaths of Sacramento County residents only.

Deaths Due to Legal Intervention

Definition: Death due to injuries inflicted by the police or other law-enforcing agents in the course of arresting or attempting to arrest lawbreakers, suppressing disturbances, maintaining order, and other legal action.

Between 2010-2012, there were two deaths due to legal intervention. Both of the decedents were males and were 17 years of age. One was Hispanic and one was African American. Risk factors were known to be present in both of these deaths, and are as follows:

- 2 decedents had a history of gang involvement.
- 2 decedents had a family history of crime.
- 2 decedents had a family history of drug and/or alcohol abuse.
- 1 decedent had a family who was receiving government aid at the time of death.
- 1 decedent had involvement with Sacramento County CPS themselves. The case was closed more than 6 months prior to the time of death.
- 1 decedent had a sibling who had involvement with Sacramento County CPS. The case was closed more than 6 months prior to the time of death.
- 1 decedents had alcohol involved at the time of death.

Deaths of Undetermined Manner

Definition: Death in which the manner or how the death occurred is unknown and the manner of death may or may not be medically identifiable.

In this category, the manner of death may not be determined due to uncertainty regarding whether or not the fatal condition was developed or was inflicted. For example, the coroner might not be able to determine if the death would have occurred naturally or if it was the result of an inflicted or accidental injury.

Between 2010-2012, there were eight deaths of an undetermined manner, three of which were infant sleep-related deaths. Of the remaining undetermined manner deaths: one involved criminal neglect; one involved an unidentified injury that may have been the result of abuse; one was a Motor Vehicle Collision death in which the decedent was in a carseat that was not used correctly, and culpability could not be determined; one involved a prematurely-delivered fetus; and one was a two year old who died while sleeping and for whom no cause could be found.

Risk factors were known to be present in 75% (6 of 8) of these deaths, and are as follows:

- 50% (4 of 8) of decedents had a family history of drug and/or alcohol abuse.
- 38% (3 of 8) of decedents had a family history of crime.
- 38% (3 of 8) of decedents had a family history of mental health issues.
- 38% (3 of 8) of decedents had involvement with Sacramento County CPS themselves.
  - 1 decedent had a case open at the time of death.
  - 1 decedent had a case that was open and closed within 6 months of the time of death.
- 38% (3 of 8) of decedents had a parent who had involvement with Sacramento County CPS as a child.
- 25% (2 of 8) of decedents had a family who was receiving government aid at the time of death.
- 13% (1 of 8) of decedents had a family history of domestic violence.
- 13% (1 of 8) of decedents had drugs involved at the time of death.

Chapter III

Child Death Demographics

Chapter Three

Child Death Demographics

Age

Between 2010-2012, the majority of Sacramento County resident child deaths occurred in infants under one year of age, accounting for 65% (265 of 409) of all deaths. Children between 1-4 years of age were the second largest group, accounting for 13% (55 of 409) of all deaths. Children between 15-17 years of age accounted for 11% (45 of 409) of all deaths, while children between 10-14 years of age comprised 7% (28 of 409) of child deaths and children between 5-9 years of age accounted for 4% (16 of 409) of child deaths.

Table G lists the deaths for each year between 2010-2012 by age category, as well as the average per year during the 20 year period between 1990-2009. The number of deaths per year has decreased in each age category in the three year average between 2010-2012 as compared to the 20 year average between 1990-2009. As well, the death rates per 100,000 children have decreased in each category in the three year average between 2010-2012 as compared to the 20 year average between 1990-2009.

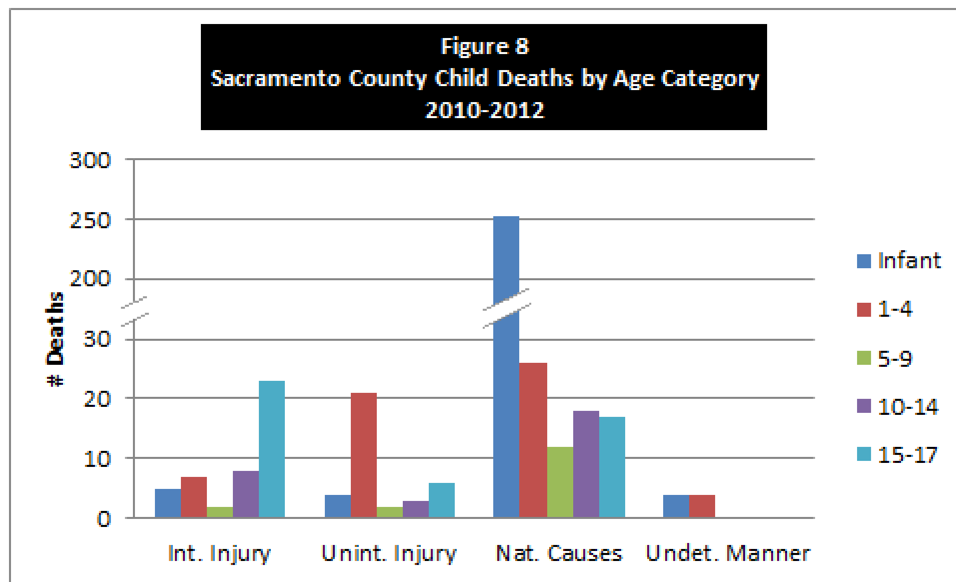
Table G
Sacramento County Resident Child Deaths by Age Category
2010-2012

# Deaths						
	Infant	1-4	5-9	10-14	15-17	**TOTAL**
2010	86	20	3	9	17	**135**
2011	92	13	10	8	14	**137**
2012	87	22	3	11	14	**137**
2010-2012 Average	*88.3*	*18.3*	*5.3*	*9.3*	*15.0*	***136.3***
20 Year Average	*100.6*	*23.8*	*12.0*	*14.6*	*21.0*	***171.8***
Deaths per 100,000 Children						
	Infant	1-4	5-9	10-14	15-17	**TOTAL**
2010	441.1	24.6	3.1	9.0	26.7	***37.3***
2011	458.6	16.2	10.1	8.1	22.4	***38.0***
2012	434.6	27.7	3.0	11.3	22.9	***38.1***
2010-2012 Average	*444.8*	*22.8*	*5.4*	*9.5*	*24.0*	***37.8***
1990-2009 Average	*523.9*	*31.3*	*12.7*	*15.6*	*39.4*	***51.2***

The Sacramento County Child Death Review Team categorizes child deaths as either natural, injury-related, or undetermined manner. Injury-related deaths are further broken down into either intentional injury-related, such as a homicide or suicide, or unintentional injury-related, such as a drowning or motor vehicle collision.

Between 2010-2012, the largest number of natural deaths among children in Sacramento County occurred among infants, who made up 78% (252 of 325) of all natural deaths. The largest number of intentional injury-related deaths occurred among children 15-17 years of age, making up 52% (23 of 44) of intentional injury-related deaths. The largest number of unintentional injury-related deaths occurred among children 1-4 years of age, making up 58% (21 of 36) of unintentional injury-related deaths.

Figure 8 shows all Sacramento County child deaths by age category that occurred between 2010-2012.

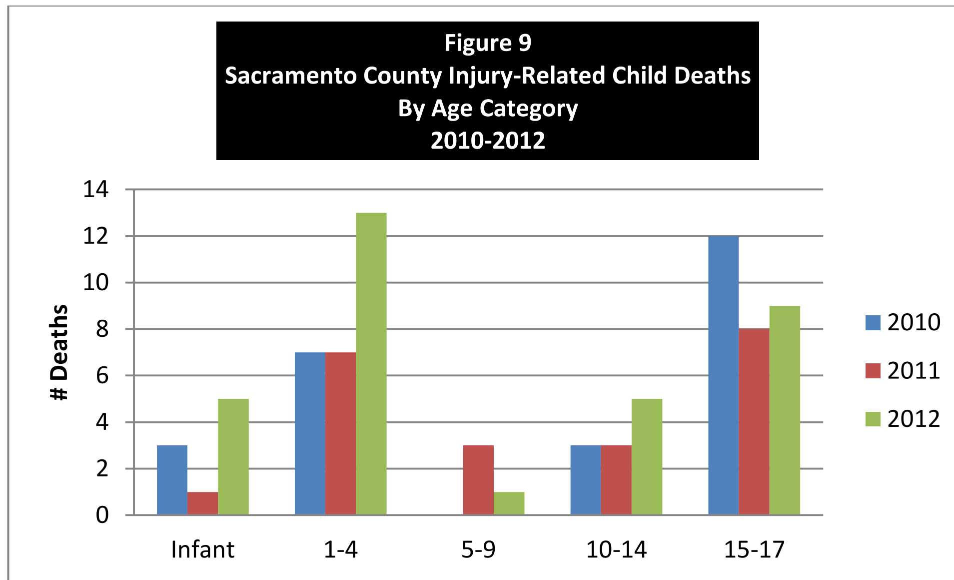


**Because of the large number of infant deaths due to natural causes, the vertical axis has been broken between 30 and 200 to more clearly show the relative magnitudes of the data bars.*

All Injury-Related Deaths

Between 2010-2012, there were a total of 80 injury-related child deaths in Sacramento County. The age group in which the largest number of injury-related deaths occurred was children between 15-17 years of age, with 36% (29 of 80) of all injury-related deaths between 2010-2012. Thirty-four percent (27 of 80) of injury-related deaths occurred among children between 1-4 years of age, 14% (11 of 80) occurred among children between 10-14 years of age, 11% (9 of 80) occurred among infants, and 5% (4 of 80) occurred among children between 5-9 years of age.

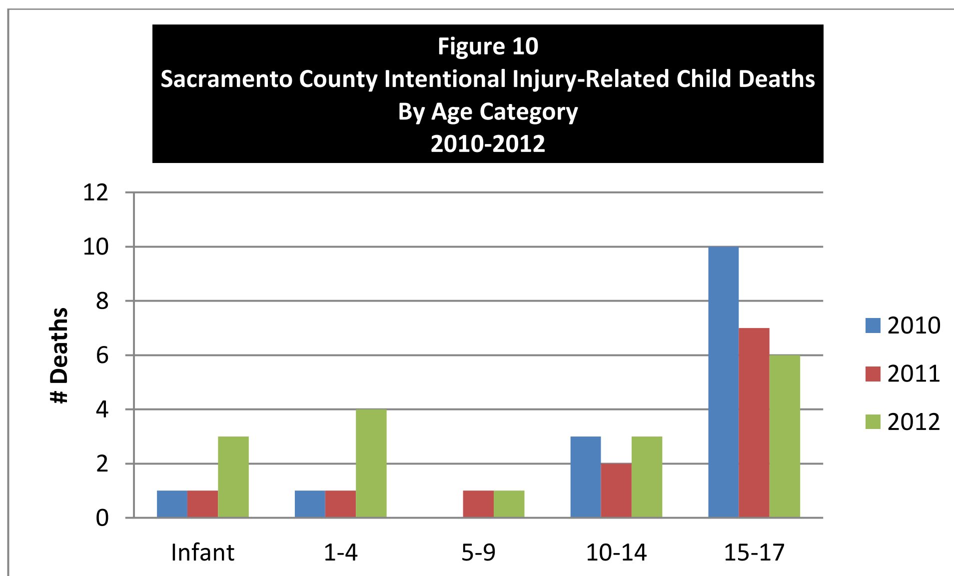
Figure 9 shows the number of injury-related deaths by age category for each year between 2010-2012.



Intentional Injuries

Between 2010-2012, there were a total of 44 child deaths resulting from intentional injuries in Sacramento County. Of these deaths, 52% (23 of 44) occurred in children between 15-17 years of age, 18% (8 of 44) occurred among children between 10-14 years of age, 14% (6 of 44) occurred among children between 1-4 years of age, 11% (5 of 44) occurred among infants, and 5% (2 of 44) occurred among children between 5-9 years of age.

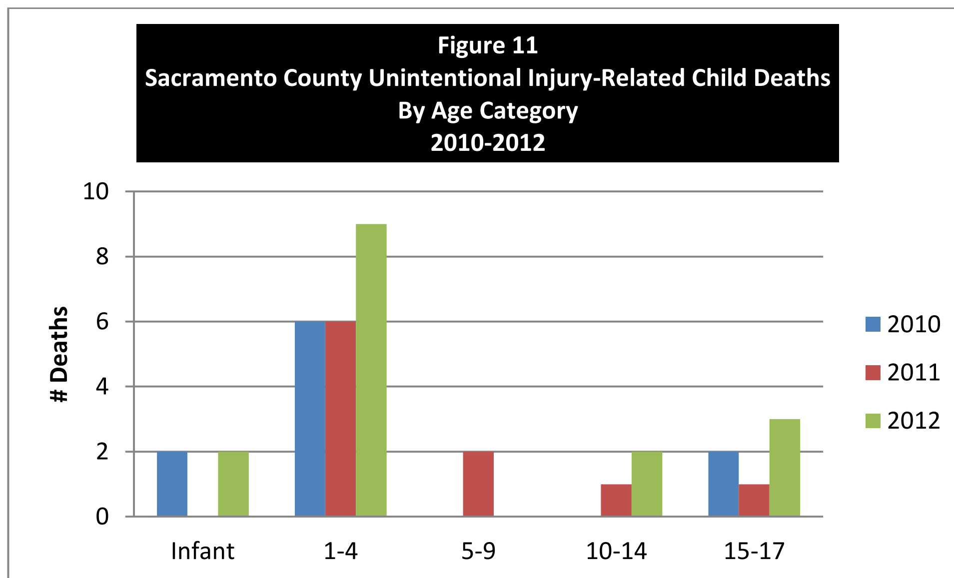
Figure 10 shows the number of intentional injury-related deaths by age category for each year between 2010-2012.



Unintentional Injuries

Between 2010-2012, there were a total of 36 child deaths resulting from unintentional injuries in Sacramento County. Of these deaths, 58% (21 of 36) occurred among children between 1-4 years of age, 17% (6 of 36) occurred in children between 15-17 years of age, 11% (4 of 36) occurred among infants, 8% (3 of 36) occurred among children between 10-14 years of age, and 6% (2 of 36) occurred among children between 5-9 years of age.

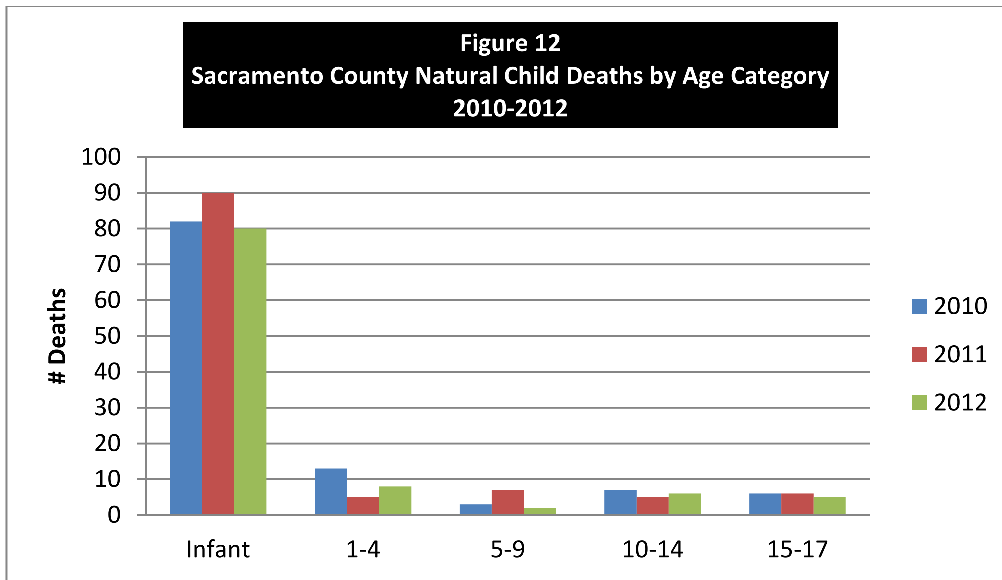
Figure 11 shows the number of unintentional injury-related deaths by age category for each year between 2010-2012.



Natural Causes

Between 2010-2012, a total of 325 deaths resulted from natural causes, including those deaths due to SIDS and SUIDS. Infants accounted for 78% (252 of 325) of all deaths due to natural causes, while children between 1-4 years of age accounted for 8% (26 of 325) of these deaths, children between 10-14 years of age accounted for 6% (18 of 325), children between 15-17 years of age accounted for 5% (17 of 325), and children between 5-9 years of age accounted for 4% (12 of 325).

Figure 12 shows the number of natural deaths by age category for each year between 2010-2012.



Undetermined Manner

Between 2010-2012, there were a total of 8 child deaths of an undetermined manner in Sacramento County. Of these undetermined manner deaths, 50% (4 of 8) were among infants, and 50% (4 of 8) were among children 1-4 years of age. There were no deaths of an undetermined manner among children 5-9, 10-14, and 15-17 years of age.

Race and Ethnicity[9]

Between 2010-2012, there were 409 deaths among Sacramento County resident children age 0-17. The largest number of child deaths occurred among White children, who comprised 31% (129 of 409) of all child deaths. Twenty-four percent (98 of 409) of the child decedents were African American, 15% (61 of 409) were Hispanic, 13% (54 of 409) were Multiracial, 12% (48 of 409) were Asian/Pacific Islander, and 5% (19 of 409) identified as another race.

Of the 54 child decedents who identified as Multiracial between 2010-2012, 83% (45 of 54) provided details regarding with which races they identified. Fifty-six percent (25 of 45) of the decedents identified as Caucasian, 56% (25 of 45) identified as Hispanic, 53% (24 of 45) identified as African American, 31% (14 of 45) identified as Asian/Pacific Islander, and 13% (6 of 45) identified as some other race. (Note that these percentages do not add up to 100%, as each multiracial decedent identified with more than one race.)

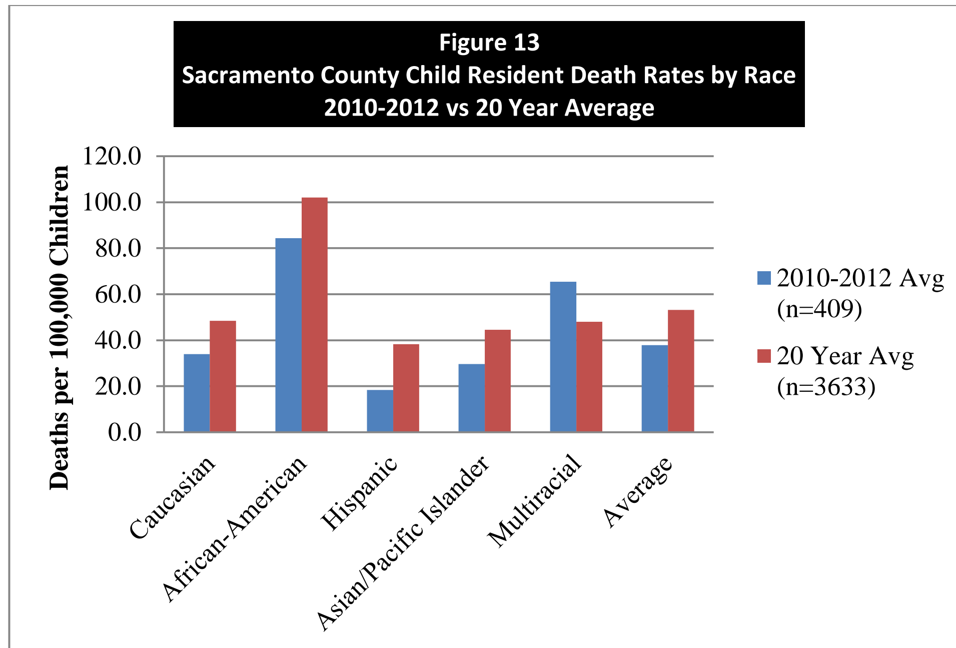
Table H shows the death rates by race of Sacramento County child residents between 2010-2012, and illustrates the disproportionality that exists between racial categories. The greatest discrepancy occurs among African American children, who died at a rate of 83.44 per 100,000 between 2010-2012, compared to the average across all races of 37.79 per 100,000. Multiracial children died at a rate of 65.45 per 100,000, Caucasian children died at a rate of 34.00 per 100,000, Asian/Pacific Islander children died at a rate of 29.63 per 100,000, and Hispanic children died at a rate of 18.45 per 100,000.

[9] The race and ethnicity of decedents is determined based on that reported on the decedent's death certificate.

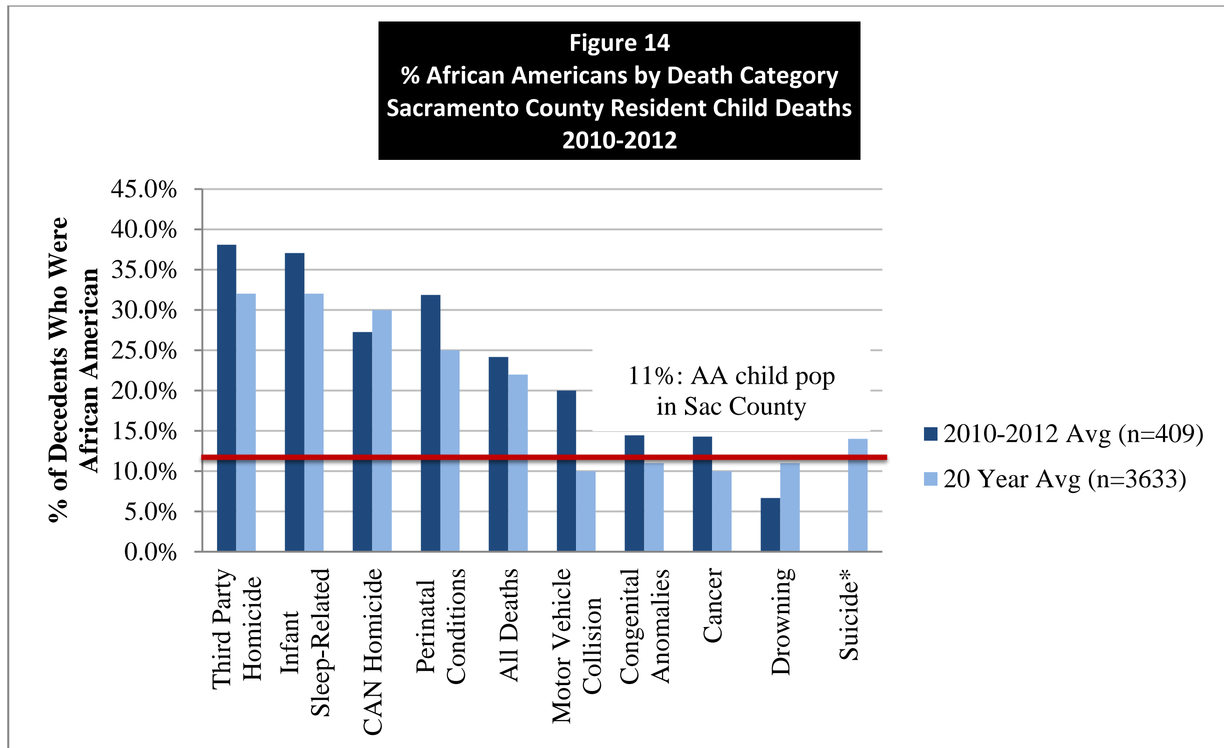
Table H
Sacramento County Resident Child Death Rates by Race
2010-2012

	2010				2011				2012				AVERAGE 2010-2012			
Race/ Ethnicity	**Child Deaths (#)**	**Child Deaths (% Total)**	**% Pop**	**Deaths per 100,000 Children**	**Child Deaths (#)**	**Child Deaths (% Total)**	**% Pop**	**Deaths per 100,000 Children**	**Child Deaths (#)**	**Child Deaths (% Total)**	**% Pop**	**Deaths per 100,000 Children**	**Child Deaths (#)**	**Child Deaths (% Total)**	**% Pop**	**Deaths per 100,000 Children**
Caucasian	51	38%	35%	40.10	45	33%	35%	35.62	33	24%	35%	26.22	129	32%	35%	34.00
African American	30	22%	11%	75.94	35	25%	11%	89.16	33	24%	11%	85.28	98	24%	11%	83.44
Hispanic	16	12%	31%	14.41	20	14%	31%	18.13	25	18%	30%	22.86	61	15%	31%	18.45
Asian/PI	19	14%	15%	35.10	13	9%	15%	24.10	16	12%	15%	29.67	48	12%	15%	29.63
Multiracial	15	11%	7%	55.46	16	12%	8%	58.02	23	17%	8%	82.48	54	13%	8%	65.45
Other	4	30%	1%	114.84	8	6%	1%	232.36	7	5%	1%	205.64	19	5%	1%	183.93
TOTAL	**135**	-	-	**37.25**	**137**	-	-	**37.97**	**137**	-	-	**38.15**	**409**	-	-	**37.79**

Figure 13 shows the comparison of death rates for each race between the 2010-2012 and 1990-2009 periods. Death rates declined across almost all racial categories between 2010-2012 compared to the 20 year period between 1990-2009, with the largest decline occurring among Hispanic children, among whom the death rate decreased from 38.3 to 18.4 between the 1990-2009 period and the 2010-2012 period. The death rate among Asian/Pacific Islander children decreased from 44.5 to 29.6, the death rate among Caucasian children decreased from 48.5 to 34.0, and the death rate among African American children decreased by from 102.0 to 83.4. The only category for whom the death rate increased was Multiracial children, with the death rate increasing from 48.0 to 65.4 between the two time periods.



As African American children experience the greatest disproportionality among death rates in Sacramento County, CDRT has determined the specific causes of death that exhibit the greatest disproportionality as compared to other races. Figure 14 shows, for each cause of death, the percentage of decedents who were African American children, and compares the 2010-2012 period with the 20 year period from 1990-2009. The percentage of child decedents who were African American has increased in almost all categories, excepting CAN homicides, drowning deaths and suicides.



*There were no African American child suicides between 2010-2012.

Risk Factors

In order to detect trends and form prevention strategies at a local level, the CDRT investigates the family environments of all children who die in Sacramento County. Risk factors is the broad term used to describe a variety of social, economic, and/or demographic circumstances or other elements that may be associated with a higher risk of negative health outcomes for children. Evidence of risk factors or family stressors such as substance abuse, prior child abuse, domestic or other violence, and mental illness are collected by CDRT members in preparation for each review.

One or more risk factors were known to be present in 75% (310 of 413) of all child deaths between 2010-2012 and are as follows:

Child Protective Services (CPS)

Decedent CPS History

Between 2010-2012, 50% (205 of 413) of child decedents had past or present family involvement with a CPS agency, of which 91% (186 of 205) had involvement with Sacramento County CPS, and 9% (19 of 205) had involvement with an out-of-county CPS agency only. Of those decedents who had past or present family involvement with a CPS agency, 40% (83 of 205) had involvement with a CPS agency themselves. Of the child decedents who had involvement with a CPS agency themselves, 57% (47 of 83) had a case open and closed more than six months prior to the time of death, 25% (21 of 83) had a CPS case open at the time of death, and 18% (15 of 83) had a CPS case open and closed within six months prior to the time of death.

Sibling CPS History

Between 2010-2012, 22% (90 of 413) of child decedents had siblings with CPS involvement, of which 90% (81 of 90) were with Sacramento County CPS, and 10% (9 of 90) were with an out-of-county CPS agency. Of the siblings with CPS involvement, 12% (11 of 90) had a CPS case open at the time of death.

Parental CPS History

Between 2010-2012, 25% (102 of 413) of child decedents had a parent (mother or father) with CPS involvement as a child, of which 91% (93 of 102) were with Sacramento County CPS, and 9% (9 of 102) were with an out-of-county CPS agency.

Foster Care History

Between 2010-2012, 1% (4 of 413) of child decedents had a history of involvement with the foster care system. Of these, 75% (3 of 4) were in foster care at the time of death. 2% (10 of 413) of decedents had parents with a history of foster care involvement as children.

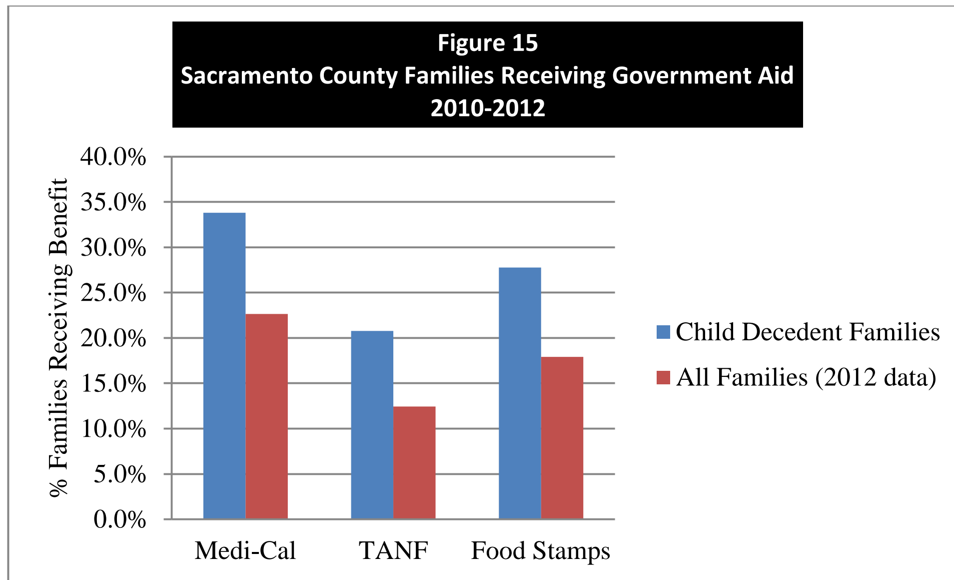
Government Aid Programs

The Child Death Review Team recognizes poverty as a factor that can increase the risk of child death. As such, CDRT tracks the number of child decedents whose families are enrolled in various need-based government aid programs. However, enrollment in government aid programs is not a perfect proxy for poverty, as some families in poverty might not be enrolled in such programs for a variety of reasons.

Between 2010-2012, 45% (187 of 413) of child decedents and their families were receiving some form of government aid at the time of death. Thirty-four percent (140 of 413) of decedent families were receiving Medi-Cal at the time of death, 28% (115 of 413) were receiving food stamps, 21% (86 of 413) were receiving Temporary Assistance for Needy Families (TANF), and 4% (18 of 413) were receiving some other form of government aid.[10]

Figure 15 shows the percentage of Sacramento County child decedent families receiving government aid at the time of death between 2010-2012, compared to the percentage of all Sacramento County families receiving government aid[11]. The families of child decedents were 68% more likely to be receiving Temporary Work for Needy Families (TANF) benefits at the time of death, with 21% of child decedent families receiving benefits compared to 12% of all Sacramento County families. Decedent families were 55% (28% vs 18%) more likely than the county average to be receiving CalFresh/food stamps at the time of death, and 49% (34% vs 23%) to be enrolled in Medi-Cal.

[10] "Other" includes any need-based government assistance other than Medi-Cal, TANF, or food stamps, and as of 2012 includes Supplemental Security Income.
[11] California Department of Health Care Services, 2012 data



Substance Abuse

Between 2010-2012, 34% (141 of 413) of child deaths had a known history of illegal drug use or alcohol abuse in the child's family. Of these deaths, 7% (10 of 141) involved illegal drugs or alcohol at the time of death.

Among Sacramento County child decedents between 2010-2012, 27% (112 of 413) had a family history of illegal drug use. The most commonly used drug was marijuana, which was present in 38% (43 of 112) of families involving illegal drug use. The next most common drug was methamphetamine, present in 36% (40 of 112) of families, followed by cocaine, present in 22% (25 of 112) of families. Figure 16 shows the prevalence of specific illegal drugs present in the family histories of Sacramento County child deaths between 2010-2012.

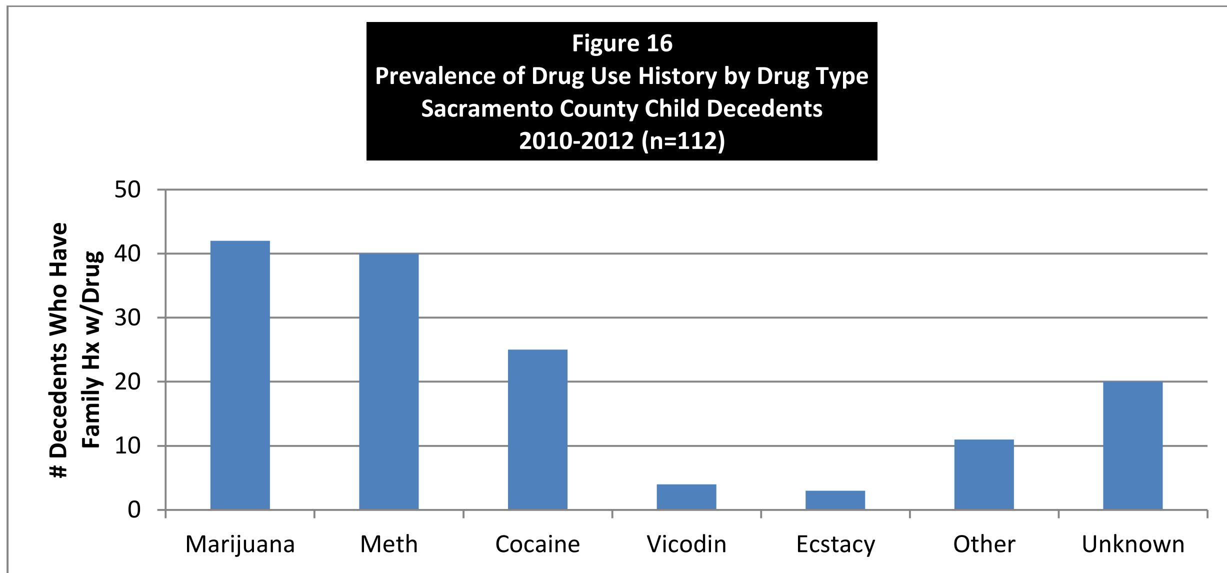
When looking at both the frequency of drug use and the types of drugs involved, there is variation across different categories of death. The highest frequency of drug use occurs among victims of third-party homicide. Of the 21 third-party homicide decedents between 2010-2012, 62% (13 of 21) had a family history of illegal drug use.[12] The most common drug used by families of third-party homicide victims was marijuana, used by 33% (7 of 21) of such families, followed by methamphetamine, used by 24% (5 of 21) of such families.

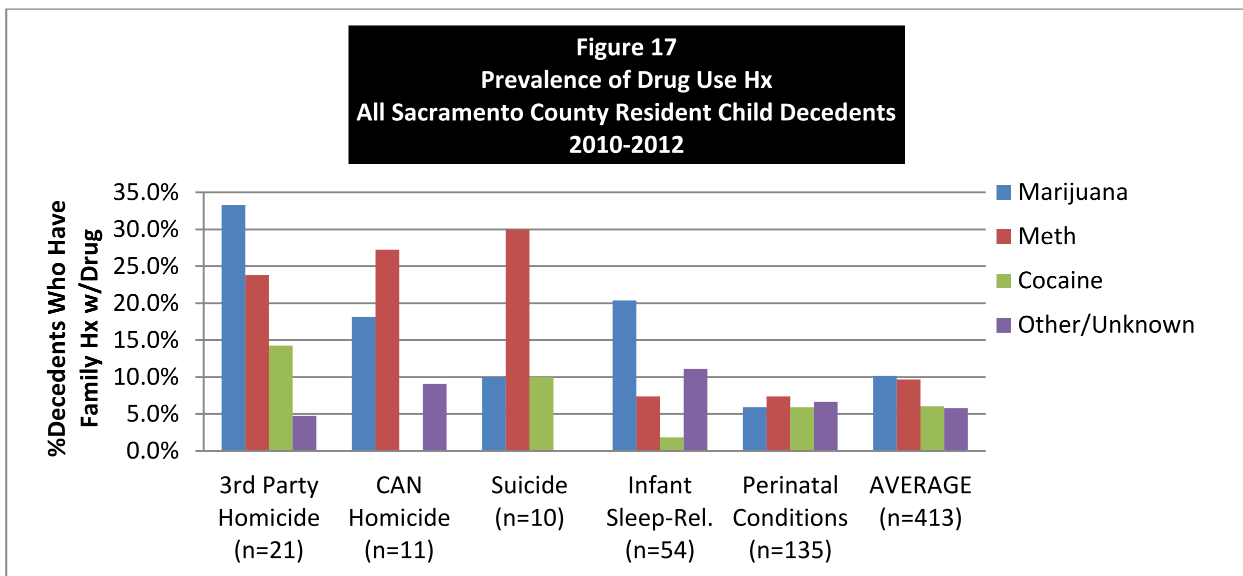
The next highest frequency of drug use occurs among CAN homicide victims. Of the 11 CAN homicide victims between 2010-2012, 45% (5 of 11) of these decedents had a family history of illegal drug use. The most common drug used by families of CAN homicide victims was methamphetamines, used by 27% (3 of 11) of such families, followed by marijuana, used by 18% (2 of 11) of such families.

The third highest frequency of drug use occurs among suicide victims, with 40% (4 of 10) of these decedents having a family history of illegal drug use. The most common drug used by families of suicide victims is methamphetamine, used by 30% (3 of 10) of such families. The next most common drugs were marijuana and cocaine, both used by 10% (1 of 10) of such families.

[12] To increase statistical relevance, only categories of death with at least 10 deaths between 2010-2012 were considered.

Figure 17 shows the drugs used by families of Sacramento County child decedents among the causes of death with the highest frequency of drug use.





Domestic Violence

Between 2010-2012, 16% (67 of 413) of child deaths had a known history of domestic violence in the child's family.

Criminal History

A crime may be categorized as either violent or non-violent. Violent crimes are those in which the offender uses or threatens to use violent force upon the victim, and can be committed with or without a weapon. Examples of violent crime include robbery, assault, and homicide. Non-violent crimes do not use physical force or cause physical pain. Examples of non-violent crime include prostitution, drug sales, driving under the influence, and burglary. Minor traffic arrests or tickets are not included as non-violent crimes.

Between 2010-2012, 42% (174 of 413) of child deaths involved families with a history of violent and/or non-violent crime. Twenty-one percent (88 of 413) of child deaths had a history of both violent and non-violent crime; 17% (69 of 413) had only a non-violent criminal history; and 4% (17 of 413) had only a violent criminal history. Fifty-eight percent (240 of 413) of decedents had no family criminal history.

Prevalence of Risk Factors

While it's relevant to note which risk factors are present in the families of child decedents, it's also useful to consider cases in which particularly high-risk families might have multiple risk factors.

For purposes of assessing the prevalence of multiple risk factors among child decedents, risk factors were combined into categories: family history of CPS involvement; family history of crime; family history of domestic violence; family history of gang involvement; family history of mental health issues; family history of drug or alcohol abuse; family history of foster care; and enrollment in government aid programs at the time of death.

Figure 18 shows the number of risk factors present among Sacramento County child decedents between 2010-2012. Of the 413 Sacramento County child decedents between 2010-2012, 75% (310 of 413) had at least one risk factor present, and 38% had three or more risk factors present. Among decedents of natural causes, 71% (231 of 325) had at least one risk factor present, while 34% (112 of 325) of decedents had three or more risk factors present. Among decedents of unintentional injury-related deaths, 72% (26 of 36) of decedents had at least one risk factor present, while 44% (16 of 36) had three or more risk factors present. Among decedents of intentional injury-related deaths, 95% (42 of 44) of decedents had at least one risk factor present, while 61% (27 of 44) had three or more risk factors present.

Among all Sacramento County child decedents between 2010-2012, the mean number of risk factors present was 2.0. Among child decedents of natural causes, the mean number of risk factors present was 1.9. Decedents of unintentional injury-related deaths had a higher mean number of risk factors present, at 2.4, while decedents of intentional injury-related deaths had the highest mean number of risk factors, at 3.0.

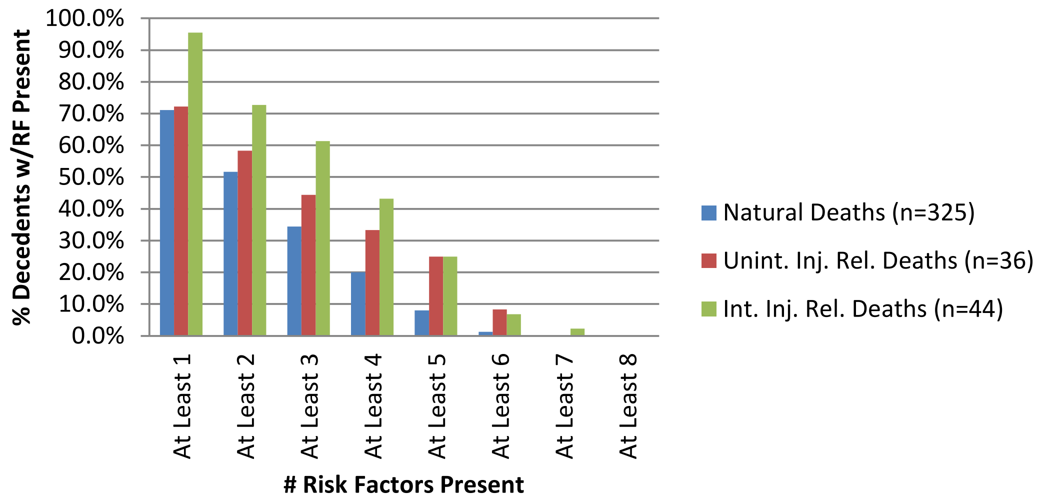


Figure 18
Number of Risk Factors Present Among Sacramento County Child Decedents 2010-2012
% Decedents w/RF Present
100.0%
90.0%
80.0%
70.0%
60.0%
50.0%
40.0%
30.0%
20.0%
10.0%
0.0%
At Least 1
At Least 2
At Least 3
At Least 4
At Least 5
At Least 6
At Least 7
At Least 8
Risk Factors Present
Natural Deaths (n=325)
Unint. Inj. Rel. Deaths (n=36)
Int. Inj. Rel. Deaths (n=44)

Chapter IV

Youth Deaths, Six Year Report
2007-2012

Chapter Four

Youth Deaths, Six Year Report

This chapter of the report summarizes the findings by the Youth Death Review Subcommittee (YDRS) of the CDRT. The YDRS explores the death of each Sacramento County resident child between 10 and 17 years of age who died of an injury-related cause. The intent of the YDRS is to understand the causes of injury-related youth deaths, identify trends and risk factors, and develop recommendations to reduce preventable youth deaths. 2012 marks the sixth year of the YDRS. This chapter covers all 180 cases reviewed by the YDRS from 2007 through 2012.

Of the total 927 child deaths in Sacramento County from 2007 through 2012, 19% (180 of 927) of child deaths occurred in youths between 10 and 17 years of age. Of these 180 deaths, 59% (107 of 180) were injury-related and 41% (73 of 180) were due to natural causes.

Figure 19 shows the trend in the total number of youth deaths from 2007 through 2012. The total number of youth deaths have been trending downward, dropping 49% from 49 deaths in 2007 to 25 deaths in 2012. In 2011, there were 22 deaths, which is the lowest number of youth deaths in 22 years of CDRT data collection. The overall decrease in the number of youth deaths is consistent among both the 10-14 and 15-17 age categories.

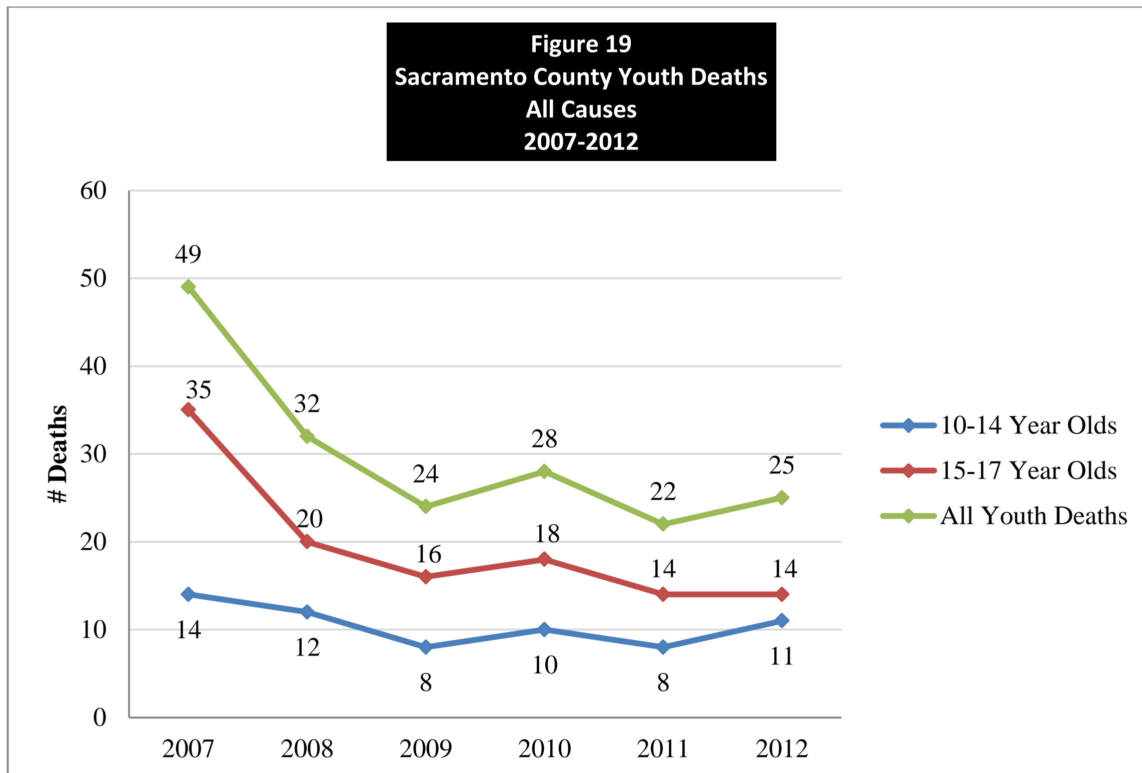
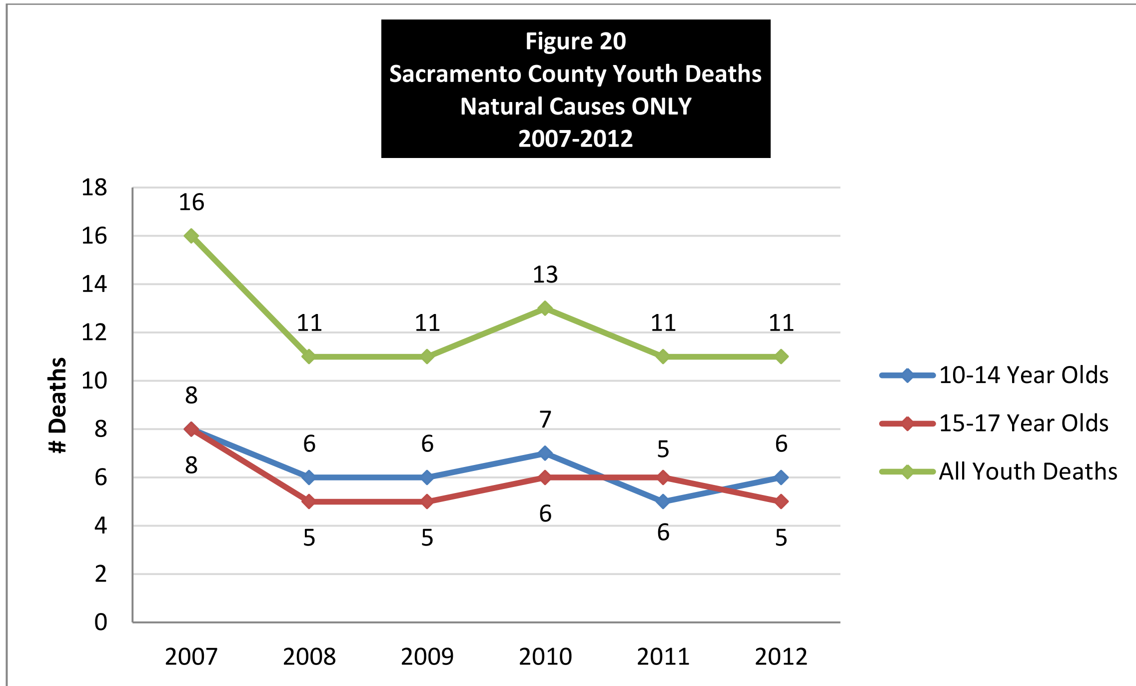
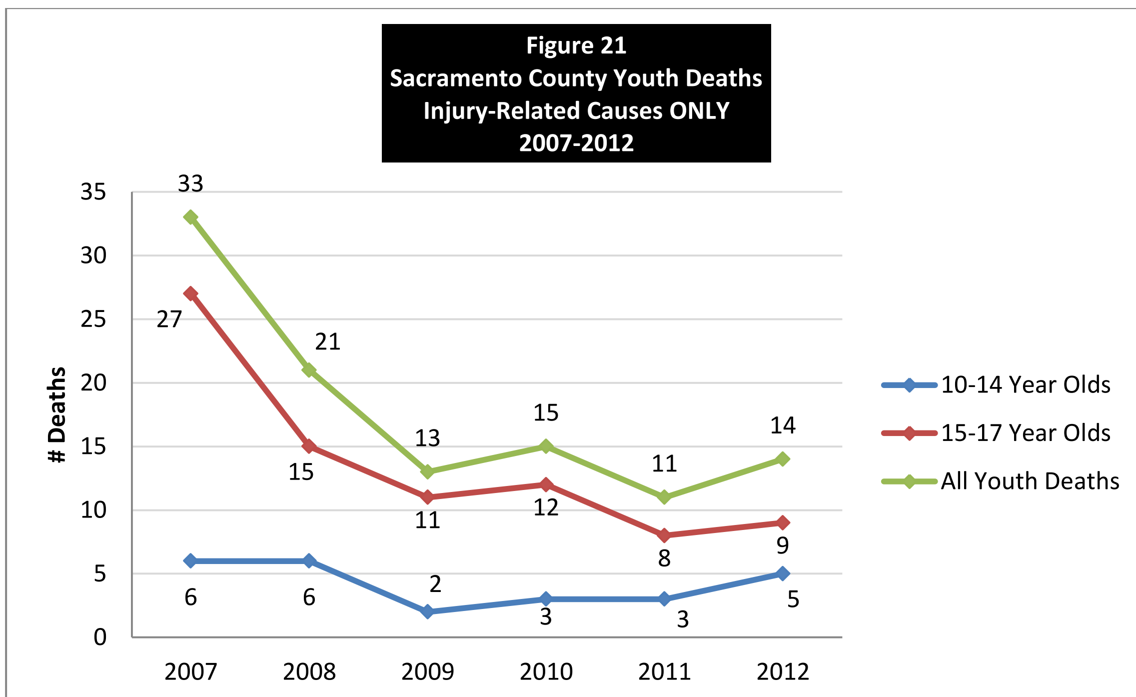
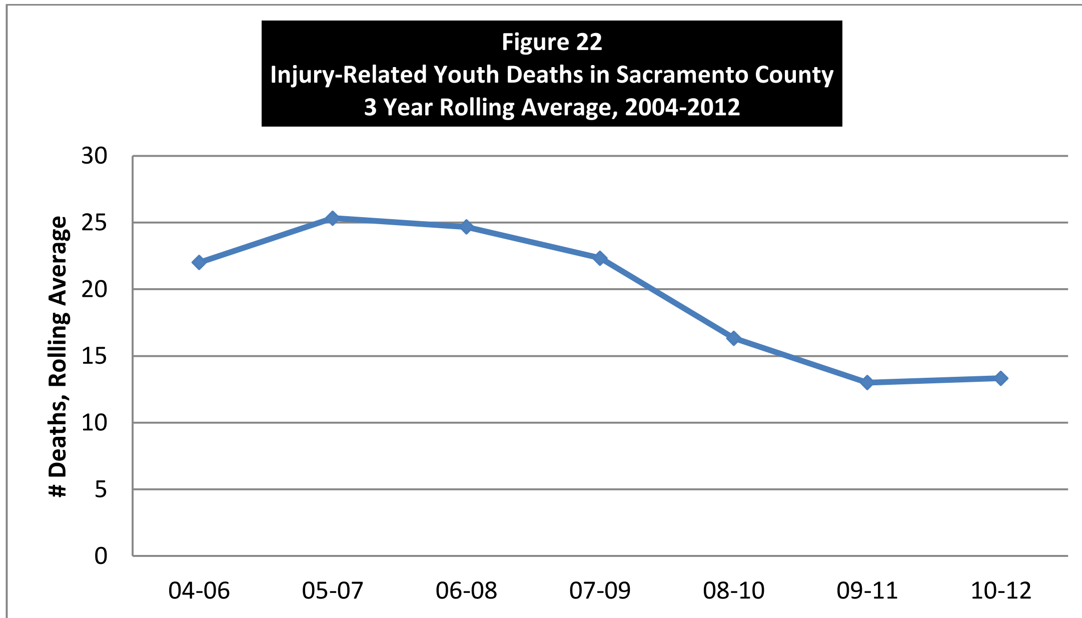


Figure 20 and Figure 21 show the trends in the number of youth deaths due to natural causes, and the number of youth deaths due to injury-related causes. While the number of deaths from 2007 through 2012 have dropped among both natural and injury-related causes, deaths due to injury-related causes have decreased more dramatically, dropping 58% from 33 in 2007 to 14 in 2012.





The three-year rolling average of injury-related youth deaths has decreased since 2007, from 25.3 average deaths per year during 2005-2007, to 13.3 average deaths per year during 2010-2012. This represents a statistically significant decrease[13] in the three-year rolling average of injury-related youth deaths as compared to the 2005-2007 period. Figure 22 shows the three-year rolling average from 2004-2012.



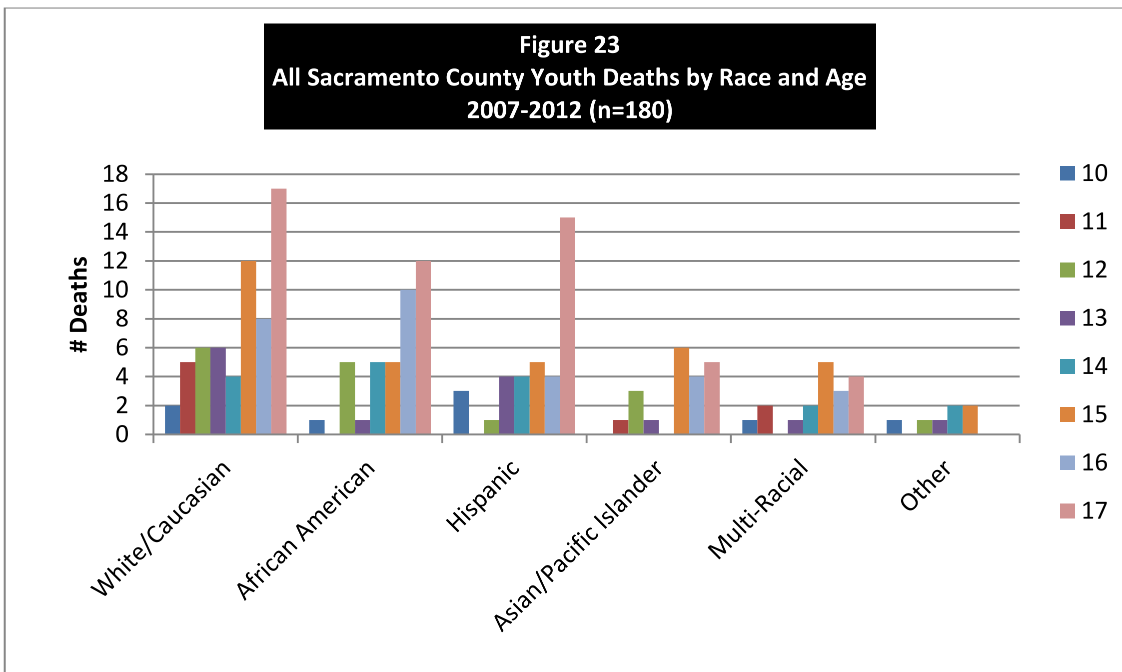
Demographics

Of the 180 youth deaths between 2007-2012, 66% (118 of 180) decedents were male and 34% (62 of 180) were female. Thirty-three percent (60 of 180) of youth decedents were Caucasian, 22% (39 of 180) were African American, 20% (36 of 180) were Hispanic, 11% (20 of 180) were Asian/Pacific Islander, 10% (18 of 180) were multiracial, and 4% (7 of 180) identified as "other."[14] Sixty-five percent (117 of 180) of youth decedents were between 15-17 years of age, while 35% (63 of 180) were between 10-14 years of age.

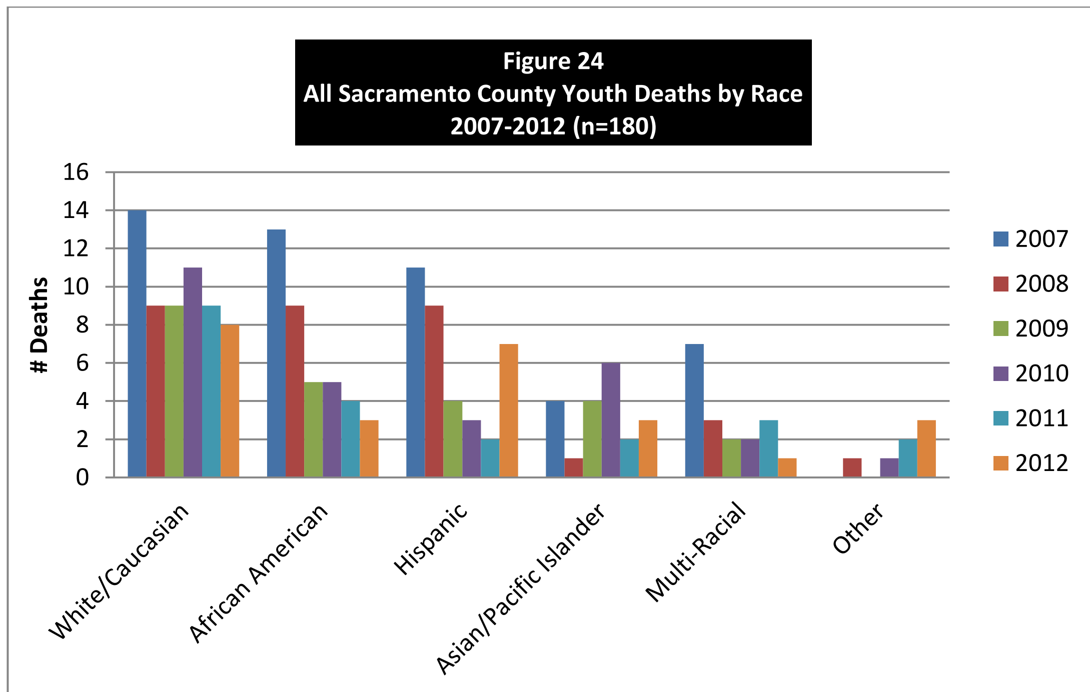
Figure 23 shows the breakdown of youth deaths based on race and age for 2007 through 2012.

[13] At 95% confidence as calculated using a chi-square test.

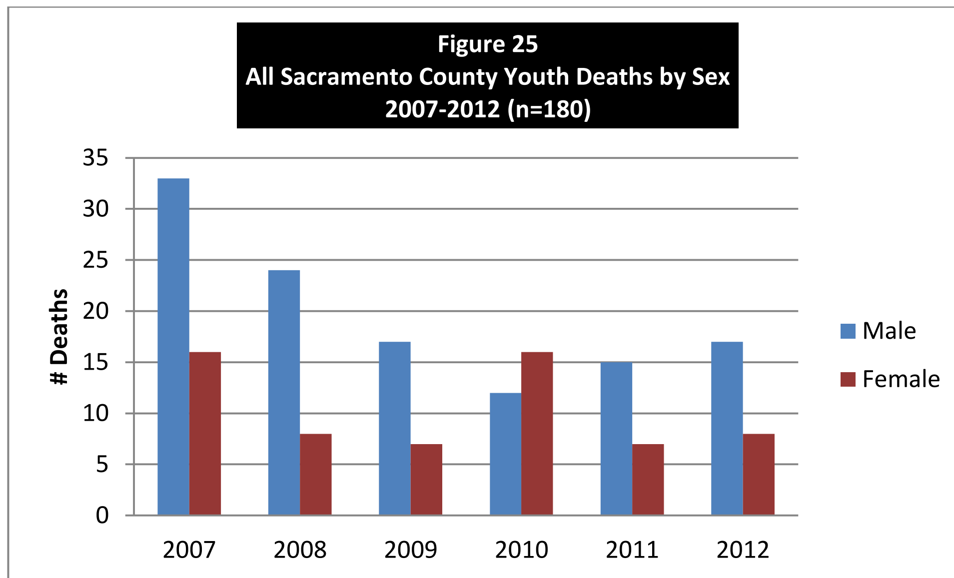
[14] The race and ethnicity of decedents is determined based on that reported on the decedent's death certificate.



The decline in the number of all youth deaths from 2007 through 2012 has been most prominent among certain races. Among Multiracial children, the number of youth deaths dropped by 86%, from 7 in 2007 to 1 in 2012; and among African American children, the number of youth deaths dropped by 77%, from 13 in 2007 to 3 in 2012. Figure 24 shows the six-year trend in youth deaths by race.



The reduction in the number of all youth deaths from 2007 through 2012 has occurred among both males and females, with male deaths dropping 48%, from 33 deaths in 2007 to 17 deaths in 2012, and with female deaths dropping 50%, from 16 deaths in 2007 to 8 deaths in 2012. While male youth deaths tend to far exceed female youth deaths, female youth deaths in 2010 exceeded male youth deaths. This was due to an abnormally high rate of female youth decedents of both third-party homicides and suicides. In 2011, these rates returned to historically normal levels. Figure 25 shows the declining numbers of youth deaths in both males and females from 2007 to 2012.



Causes of Death

The YDRS categorizes youth deaths based on cause of death. This allows the YDRS to explore trends and similarities between youth deaths, and more effectively develop recommendations for reducing the prevalence of such deaths in Sacramento County.

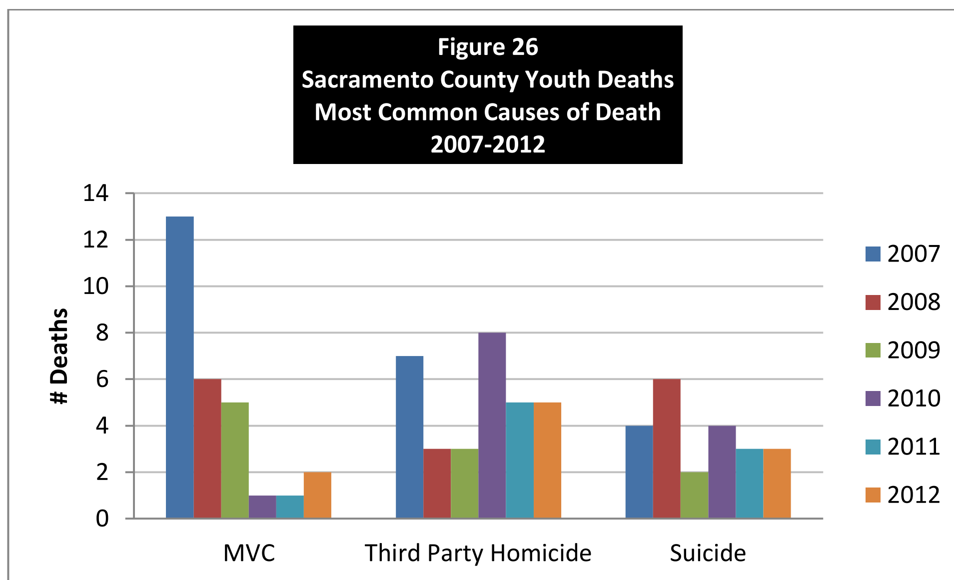
Injury-Related Youth Deaths

There were a total of 107 injury-related youth deaths from 2007 through 2012, comprising 59% of all youth deaths. The three most common causes of death were third-party homicides, comprising 28% (30 of 107) of all injury-related youth deaths, Motor Vehicle Collisions (MVCs), comprising 26% (28 of 107) of all injury-related youth deaths, and suicides, comprising 21% (22 of 107) of all injury-related youth deaths. Table I provides a summary of the cause and manner of all injury-related youth deaths from 2007 through 2012. Deaths due to an MVC are further broken down into collisions involving driver/occupants, pedestrians, and bicycles.

Table I
All Injury-Related Youth Deaths by Cause and Manner, 2007-2012

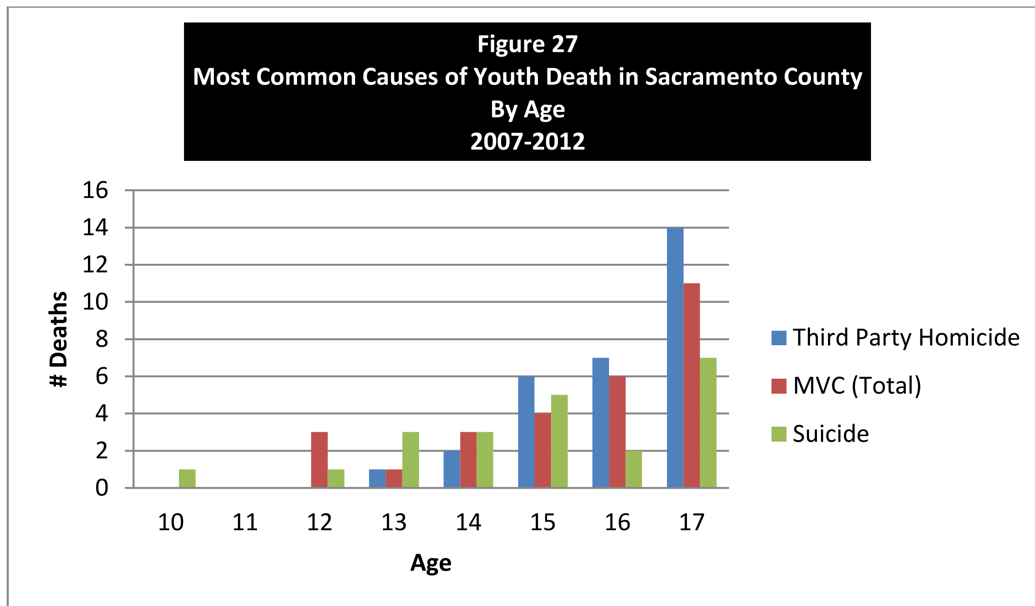
Category	2007	2008	2009	2010	2011	2012	TOTAL
Injury-Related Causes							
Third-Party Homicide	7	3	3	8	4	5	**30**
MVC (Total)	13	6	5	1	1	2	**28**
MVC (Driver/Occupant)	*8*	*4*	*2*	*0*	*0*	*0*	***14***
MVC (Pedestrian)	*5*	*2*	*1*	*1*	*0*	*0*	***9***
MVC (Bike)	*0*	*0*	*2*	*0*	*1*	*2*	***5***
Suicide	4	6	2	4	3	3	**22**
Drowning	4	2	2	0	0	3	**11**
Poisoning/ Overdose	2	1	1	1	0	0	**5**
Other-Injuries	1	2	0	0	1	0	**4**
CAN Homicide	0	1	0	1	1	0	**3**
Legal Intervention	0	0	0	0	1	1	**2**
Suffocation/Choking	1	0	0	0	0	0	**1**
Burn/Fires	1	0	0	0	0	0	**1**
Total Injury-Related Causes	***33***	***21***	***13***	***15***	***11***	***14***	***107***

Figure 26 shows the youth deaths in the three most prevalent categories of death between 2007-2012. The largest decline in youth deaths occurred in MVCs, with the number of deaths decreasing from 13 in 2007 to 2 in 2012.



Among Sacramento County youth between 2007-2012, 75% (80 of 107) of injury-related deaths were due to one of three causes: third-party homicide, Motor Vehicle Collision (MVC), or suicide. Among these three causes of deaths, 78% (62 of 80) occurred among decedents 15-17 years of age.

Fifty-eight percent (62 of 107) of all injury-related youth deaths between 2007-2012 were due to third-party homicide, MVC, or suicide, *and* occurred among decedents 15-17 years of age. Figure 27 shows all deaths due to third-party homicide, MVC, or suicide during the 2007-2012 period, broken down by age.



Of the 107 injury-related youth deaths between 2007 and 2012, 29% (31 of 107) of decedents were Caucasian, 25% (27 of 107) were African American, 21% (23 of 107) were Hispanic, 11% (12 of 107) were Multiracial, 9% (10 of 107) were Asian/Pacific-Islander, and 4% (4 of 107) identified as "other." As discussed in Chapter III, African American children make up a disproportionate number of youth deaths, comprising 21% of youth deaths but only 11% of the population.

YDRS findings indicate that 77% (82 of 107) of the injury-related youth deaths occurred in youth 15-17 years of age, and 23% (25 of 107) occurred in youth 10-14 years of age. Seventy-one percent (76 of 107) of youth injury-related deaths were male and 29% (31 of 107) of youth injury-related deaths were female.

Risk Factors / Family Environment

Through the years that Sacramento County's CDRT has reviewed child deaths, certain risk factors have been identified. "Risk Factor" is the broad term used to describe a variety of social, economic, and/or demographic circumstances or other elements that may be associated with a higher risk of negative health outcomes for children. Known risk factors represent only those factors known to an agency represented on the CDRT and provided as a circumstance related to a particular child's

death. These risk factors include, but are not limited to, substance abuse, prior child abuse and neglect, family or other violence, enrollment in government aid programs, and mental illness.

Risk factors were known to be present in 79% (85 of 107) of injury-related youth deaths between 2007 and 2012 and are as follows:

- 48% (51 of 107) of decedents had a family history of prior Sacramento County Child Protective Services (CPS) involvement. Of these:
  - 75% (38 of 51) of decedents had a history of CPS involvement themselves.
  - 47% (24 of 51) of decedents had a sibling with a history of CPS involvement.
  - 2% (1 of 51) of decedents had a parent with a history of CPS involvement as children.

- 47% (50 of 107) of decedents had a known family criminal history. Of these:
  - 82% (41 of 50) of decedents had a criminal history themselves.
    - 74% (37 of 50) of decedents had a non-violent criminal history.
    - 38% (19 of 50) of decedents had a violent criminal history.
  - 38% (19 of 50) of decedents had parents with a criminal history.
    - 36% (18 of 50) of decedents had parents with a non-violent criminal history.
    - 24% (12 of 50) of decedents had parents with a violent criminal history.

- 39% (42 of 107) of decedents had a family history of alcohol abuse or illegal drug use. Of these:
  - 81% (34 of 42) of decedents had a history of alcohol abuse or illegal drug use themselves.
  - 38% (16 of 42) of decedents had parents with a history of alcohol abuse or illegal drug use.

- 31% (33 of 107) died of a fatal wound from a firearm.

- 29% (31 of 107) of decedents had families enrolled in government aid programs at the time of death.

- 24% (26 of 107) of decedents had known disciplinary concerns at school.

- 21% (22 of 107) of decedents had a family history of gang involvement. Of these:
  - 100% (22 of 22) of decedents had a history of gang involvement themselves.
  - 18% (4 of 22) of decedents had parents with a history of gang involvement.

- 18% (19 of 107) of decedents had a family history of domestic violence.

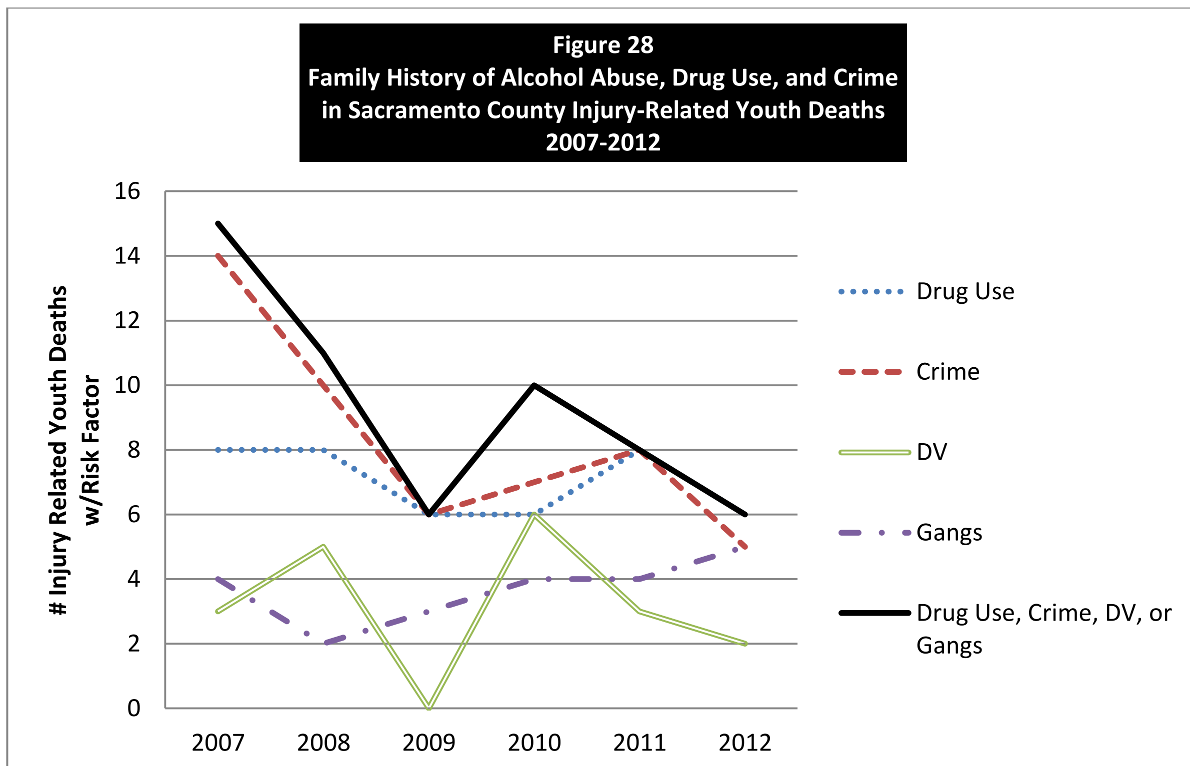
- 18% (19 of 107) of decedents had a family history of mental health issues. Of these:
  - 79% (15 of 19) of decedents had mental health issues themselves.
  - 32% (6 of 19) of decedents had parents with mental health issues.

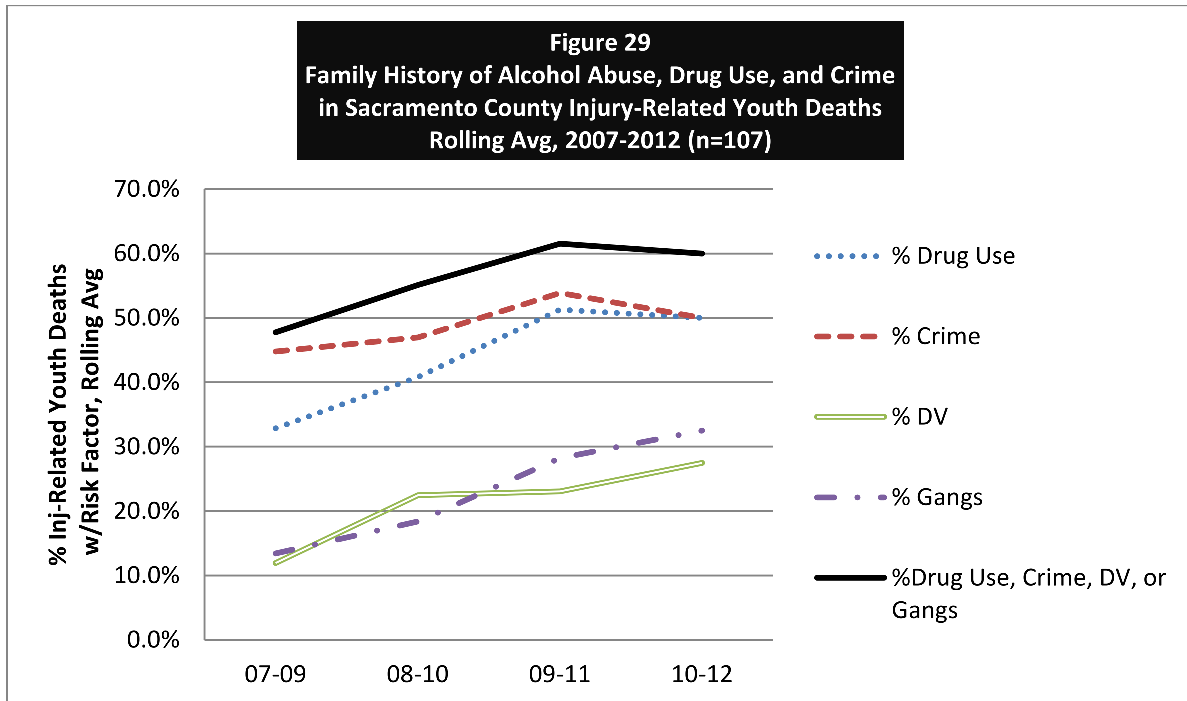
The percentage of injury-related youth deaths in which the decedent had a family history of crime, gang involvement, or domestic violence increased between 2007-2012. In the 2010-2012 period,

60% of youth decedents had one of these risk factors present, compared with 48% of youth decedents in the 2007-2009 period.

The percentage of injury-related youth deaths in which the decedent had a family history of alcohol abuse or illegal drug use also increased between 2007-2012. In the 2007-2009 period, 33% of injury-related youth decedents had a family history of alcohol abuse or illegal drug use, while in the 2010-2012 period the percentage climbed to 50%.

Figure 28 shows the number of injury-related youth deaths with family histories of drug use, crime, domestic violence, or gang involvement between 2007-2012. Figure 29 shows the decedents with these four risk factors as a percentage of all injury-related youth deaths.





Third-Party Youth Homicides

Third-party youth homicides comprised 28% (30 of 107) of injury-related youth deaths between 2007 and 2012. Of the third-party youth homicides in that period, 90% (27 of 30) occurred in youths 15-17 years of age, and 10% (3 of 30) occurred in youths 10-14 years of age. Seventy-three percent (22 of 30) were male and 27% (8 of 30) were female. Forty-seven percent (14 of 30) of third party youth homicides were African American, 20% (6 of 30) were Hispanic, 13% (4 of 30) were Multiracial, 13% (4 of 30) were Caucasian, and 7% (2 of 30) were Asian/Pacific Islander. African American children made up a disproportionate number of third-party homicide youth deaths, comprising 47% of deaths and 11% of the population.

Seventy-seven percent (23 of 30) of third-party youth homicides died by gunshot wound; 13% (4 of 30) died by vehicular homicide; 7% (2 of 30) were beaten to death; and 3% (1 of 30) were stabbed.

Risk factors were known to be present in 87% (26 of 30) of third-party youth homicides between 2007 and 2012 and are as follows:

- 60% (18 of 30) of decedents had a known family criminal history. Of these:
  - 89% (16 of 18) of decedents had a criminal history themselves.
    - 72% (13 of 18) of decedents had a non-violent criminal history.
    - 56% (10 of 18) of decedents had a violent criminal history.
  - 50% (9 of 18) of decedents had parents with a criminal history.
    - 44% (8 of 18) of decedents had parents with a non-violent criminal history.
    - 28% (5 of 18) of decedents had parents with a violent criminal history.

- 60% (18 of 30) of decedents had a family history of Sacramento County CPS involvement Of these:
  - 72% (13 of 18) of decedents had a history of CPS involvement themselves.
  - 56% (10 of 18) of decedents had siblings with a history of CPS involvement.
  - 6% (1 of 18) of decedents had a parent with a history of CPS involvement as a child.

- 53% (16 of 30) of decedents had a family history of gang involvement. Of these:
  - 100% (16 of 16) of decedents were involved in a gang themselves.
  - 19% (3 of 16) of decedents had parents who were involved in a gang.

- 50% (15 of 30) of decedents had a history of alcohol abuse or illegal drug use.

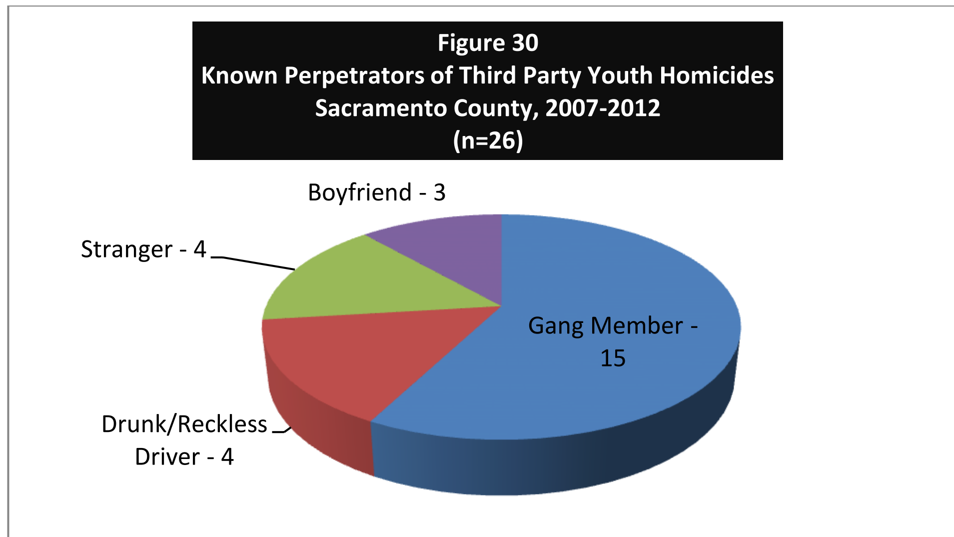
- 40% (12 of 30) had known disciplinary concerns at school. Of these:
  - 58% (7 of 12) had a history of acting out in class.
  - 50% (6 of 12) had prior suspensions.
  - 42% (5 of 12) had a history of fighting.
  - 25% (3 of 12) had prior expulsions.
  - 25% (3 of 12) had prior disciplinary transfers.
  - 17% (2 of 12) had a history of bullying as the perpetrator.

- 30% (9 of 30) of decedents had a family history of domestic violence in the home.

- 27% (8 of 30) of decedents had families enrolled in government aid programs at the time of death.

Perpetrators of Third-Party Youth Homicide

When available, data is collected by the Youth Death Review Subcommittee pertaining to the identities of the perpetrators of third-party youth homicides, in order to determine trends and associated risk factors. Of the 30 third-party youth homicides between 2007-2012, some information was available on 87% (26 of 30) of perpetrators. Figure 30 shows the identities of known perpetrators of third-party youth homicides between 2007-2012.



The age of the perpetrator was able to be determined in 53% (16 of 30) of all third-party youth homicides between 2007-2012. Of these 16 third-party youth homicides, the age categories of the perpetrators were as follows:

- 75% (12 of 16) of perpetrators were known to be adults (18 years of age and older).
- 25% (4 of 16) of perpetrators were known to be youths (17 years of age and younger).

Based on the limited age data available, no conclusions can be drawn regarding the prevalence of youth-on-youth violence.

Motor Vehicle Collision Youth Deaths

Motor vehicle collisions (MVCs) comprised 26% (28 of 107) of injury-related youth deaths between 2007 and 2012. Of the MVC deaths in that period, 75% (21 of 28) occurred in youths 15-17 years of age, and 25% (7 of 28) occurred in youths 10-14 years of age. Thirty-two percent (9 of 28) of MVC deaths were Caucasian, 25% (7 of 28) were African American, 25% (7 of 28) were Hispanic, 11% (3 of 28) were Asian/Pacific Islander, and 7% (2 of 28) were Multiracial. Seventy-one percent (20 of 28) were male and 29% (8 of 28) were female.

Risk factors were known to be present in 61% (17 of 28) of MVC deaths between 2007 and 2012 and are as follows:

- ❖ 39% (11 of 28) of decedents had a history of alcohol abuse or illegal drug use. Of these:
  - o 82% (9 of 11) of decedents had a history of alcohol abuse or illegal drug use themselves.
  - o 18% (2 of 11) of decedents had parents with a history of alcohol abuse or illegal drug use.

- 39% (11 of 28) of MVC incidents involved speeding.

- 36% (10 of 28) of decedents had a family history of crime. Of these:
  - 90% (9 of 10) of decedents had a history of crime themselves.
    - 80% (8 of 10) of decedents had a non-violent criminal history.
    - 40% (4 of 10) of decedents had a violent criminal history.
  - 10% (1 of 10) of decedents had parents with a history of crime.
    - 10% (1 of 10) of decedents had a parent with a non-violent criminal history.
    - 10% (1 of 10) of decedents had a parent with a violent criminal history.

- 32% (9 of 28) involved reckless driving.

- 32% (9 of 28) of decedents had a family history of Sacramento County CPS involvement. Of these:
  - 56% (5 of 9) of decedents had a history of CPS involvement themselves.
  - 22% (2 of 9) of decedents had a sibling with a history of CPS involvement.
  - No decedents had a parent with a history of CPS involvement as a child.

- 18% (5 of 28) of decedents had families enrolled in government aid programs at the time of death.

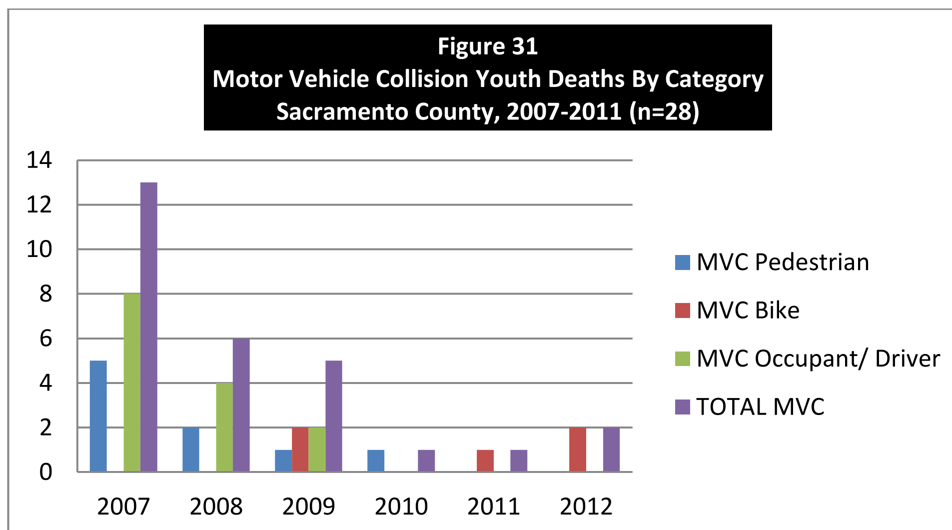
- 18% (5 of 28) of decedents had known disciplinary concerns in school.

- 14% (4 of 28) of decedents had a history of domestic violence in the home.

- 7% (2 of 28) of decedents had a history of gang involvement themselves.

- 4% (1 of 28) of decedents had a history of mental health issues themselves.

MVC deaths in Sacramento County decreased overall during the 2007-2012 period, from a total of 13 deaths in 2007 to 2 deaths in 2012. Figure 31 shows the number of MVC deaths between 2007-2012, by category.



Numerous policies and laws have been implemented in California in recent years aimed at reducing motor vehicle deaths among both youth and adults. These include the following:

- Smart Start, a driver safety education class started in 2002 that targets new drivers 15-19 years of age, as well as their parents.
- Revisions to the provisional licensing laws regarding minors. These revisions, implemented in 2006 under VC Section 12814.6, extend the duration of provisional licenses for minors from six months to one year, thus limiting the ability of youth to drive with friends in the car, or at night.
- The ban on using cell phones while driving, implemented in 2008 under VC Section 23124, which also prohibits minors from using any form of wireless telephone or hands-free device while operating a vehicle.

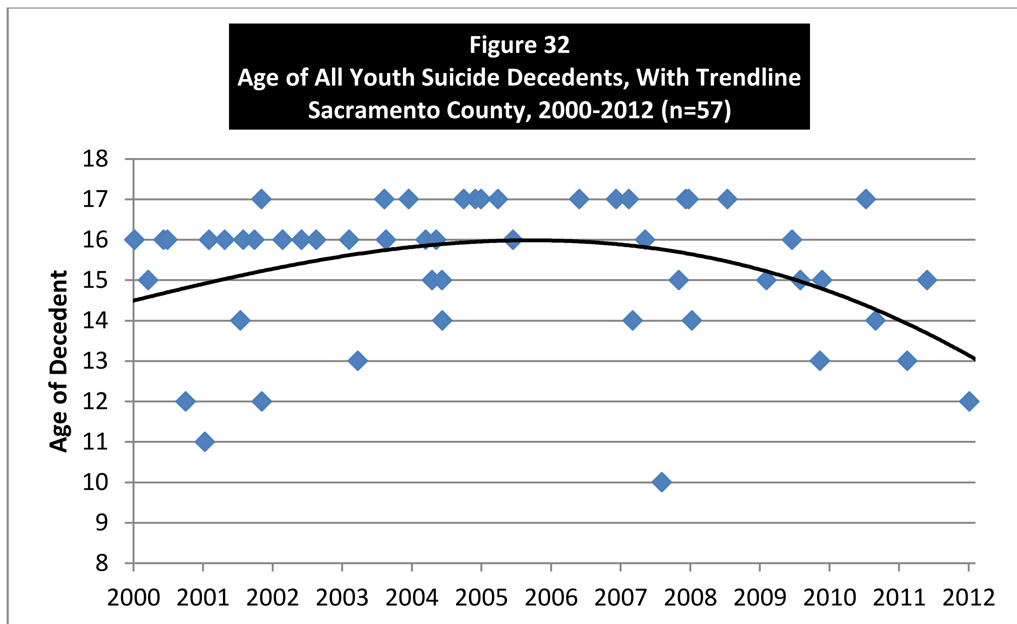
The decrease in MVC youth deaths in Sacramento County is part of a larger state-wide trend that has seen reductions in the number of MVC deaths across all age groups**.**

Suicides in Youth

Suicides comprised 21% (22 of 107) of all suicides between 2007 and 2012. Sixty-four percent (14 of 22) of the decedents were between 15 and 17 years of age, and 36% (8 of 22) of the decedents were between 10 and 14 years of age. Seventy-three percent (16 of 22) of the decedents were male, and 27% (6 of 22) of the decedents were female. Fifty percent (11 of 22) of the decedents were Caucasian, 14% (3 of 22) were Multiracial, 14% (3 of 22) were Hispanic, 9% (2 of 22) were African American, 9% (2 of 22) identified as other, and 5% (1 of 22) were Asian/Pacific Islander.

The average age of youth suicide decedents increased over the period between 2000 and 2007, but has been decreasing since then, from a high of 16 years of age in 2007 to a low of 13 years of age in 2012. Figure 32 shows the age of every youth suicide decedent from 2000 to 2012, along with a best-fit curve[15] showing the trend in average age over time.

[15] Calculated using a fourth-order polynomial regression.



Risk factors were known to be present in 82% (18 of 22) of the suicides between 2007 and 2012 and are as follows:

- 55% (12 of 22) of decedents had a family history of prior Sacramento County CPS involvement. Of these:
  - 58% (7 of 12) of decedents had a history of prior CPS involvement themselves.
  - 50% (6 of 12) of decedents had a sibling with a history of prior CPS involvement.
  - No decedents had a parent with a history of prior CPS involvement as a victim.

- 50% (11 of 22) of decedents had a family history of mental health issues. Of these:
  - 82% (9 of 11) of decedents had a history of mental health issues themselves.
  - 36% (4 of 11) of decedents had parents with a history of mental health issues.

- 50% (11 of 22) of decedents had a family history of crime. Of these:
  - 55% (6 of 11) of decedents had a history of crime themselves.
    - 55% (6 of 11) of decedents had a non-violent criminal history.
    - 27% (3 of 11) of decedents had a violent criminal history.
  - 45% (5 of 11) of decedents had parents with a history of crime.
    - 45% (5 of 11) of decedents had a parent with a non-violent criminal history.
    - 18% (2 of 11) of decedents had a parent with a violent criminal history.

- 27% (6 of 22) of decedents had a family history of illegal drug use or alcohol abuse. Of these:
  - 67% (4 of 6) of decedents had a history of illegal drug use or alcohol abuse themselves.
  - 50% (3 of 6) of decedents had parents with a history of drug use or alcohol abuse.

- 27% (6 of 22) of decedents had families enrolled in government aid programs at the time of death.

- 23% (5 of 22) of decedents had known disciplinary concerns at school.
- 13% (3 of 22) of decedents had a family history of domestic violence.
- 9% (2 of 22) of decedents had a history of involvement with foster care.
- 5% (1 of 22) of decedents had a history of gang involvement themselves.

Demographic and Risk Profile of Youth Suicide Decedents

In addition to the social, economic, and demographic risk data collected on each youth decedent, CDRT also collects data on warning signs or significant events preceding each suicide. Such warning signs include family discord, a history of past discussion of suicide or attempted suicide, the death of a loved one, etc. In order to better understand the profile of a typical suicide decedent, all suicide decedents between 2007 and 2012 were compared to one another in order to find trends or patterns in the risk factors and warning signs these decedents exhibit.[16] In order to obtain the most accurate comparisons between decedents, only risk factors and warning signs for which there was a consistent body of CDRT data across the entire 2007-2012 period were used.

Based on this analysis, the following is presented as a likely profile of a typical suicide decedent:

- For males, a mean age of 15 with a firearm as the cause of death.
- For females, a mean age of 14 with hanging as the cause of death.
- Likely to have discussed or attempted suicide in the past.
- Likely to have had recent familial discord.
- Likely to have some history of CPS involvement.
- Likely to be a good student with strong academic performance (mean GPA of 3.0).
- Unlikely to have many other socioeconomic risk factors, such as drug use, poverty, or criminal history.

Prevalence of Firearms in Injury-Related Youth Deaths

Firearms were the most common manner of death in third-party youth homicides between 2007-2012, comprising 77% (23 of 30) of all third-party youth homicides. A vehicle was the manner of death in 13% (4 of 30) of third-party youth homicides, and beating was the manner of death in 7% (2 of 30).

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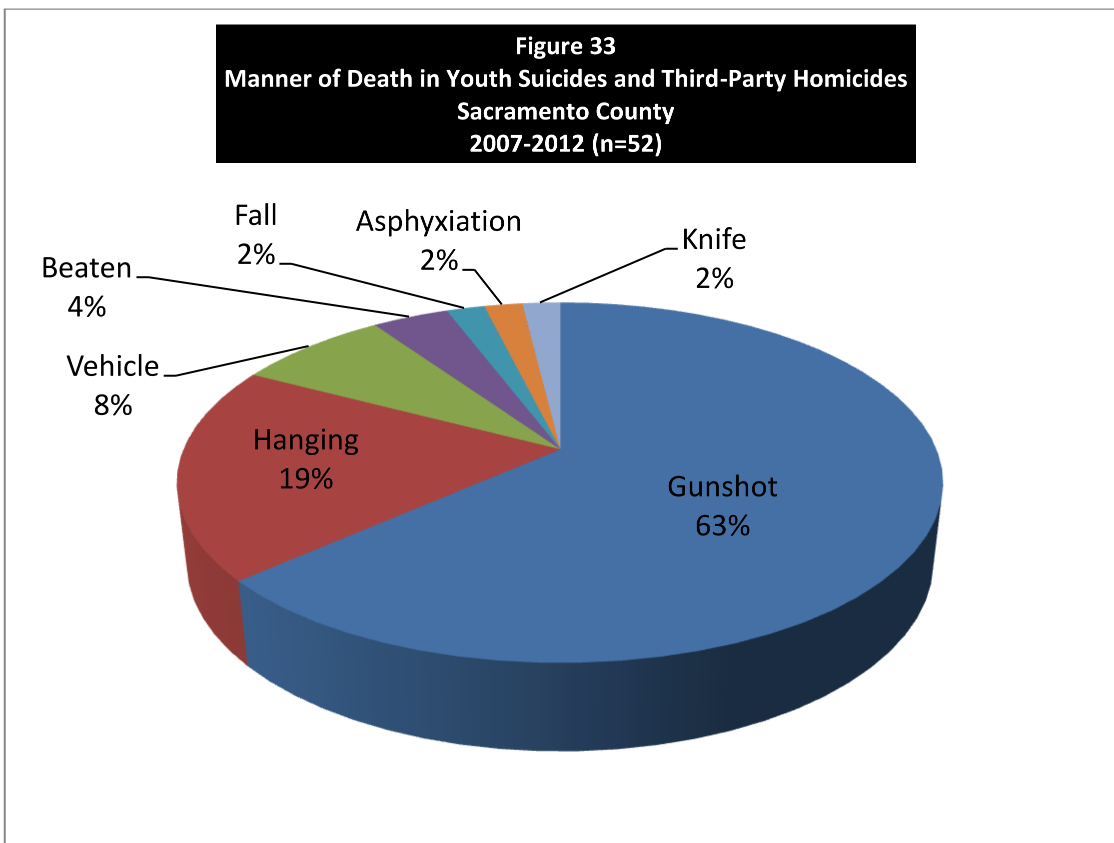
[16] Using a sociomatrix constructed according to the principles of group dynamic analysis discussed by Ronald L. Breiger in *The Duality of Persons and Groups; Social Forces, Vol. 53, No. 2, Special Issue (Dec 1974), pp 181-190.*

Firearms were tied with hangings for the most common manner of death in youth suicides between 2007-2012, each comprising 45% (10 of 22) of youth suicides. The manner of death in the remaining two suicides was one each of fall and asphyxia.

Combining both third-party youth homicides (30) and youth suicides (22), gunshot wounds accounted for 63% (33 of 52) of all deaths between 2007-2012. Figure 33 shows the manner of death in all third-party youth homicide and suicide deaths between 2007-2012.



Chapter V

The Sacramento County Child Death Review Team

Chapter Five

The Sacramento County Child Death Review Team

History and Background

In November of 1988, a Sacramento County Board of Supervisors resolution directed the Child Abuse Prevention Council of Sacramento (CAPC) to develop and coordinate an interagency team that would investigate child abuse and neglect deaths. This action reflected a growing awareness that child abuse and neglect deaths are often difficult to identify and prosecute without a coordinated multi-agency investigation. The Board of Supervisors' resolution was preceded by specific requests to CAPC from the offices of the District Attorney, the County Sheriff and the Coroner to establish such a team.

The ability to establish confidential Child Death Review Teams was provided in 1988 by revisions to the State Penal Code (Section 11166.7) and the State Welfare and Institution Codes (Sections 830 and 10850.1). These statutes afford the confidentiality necessary to review cases without bias from outside pressures and influences. Under the leadership of Dr. Michael Reinhart, then Medical Director of the Child Protection Center at the University of California Davis Medical Center, Formation Committee members worked to establish the precedents for the sharing of confidential information and the written justifications needed to appoint and staff a Sacramento County Child Death Review Team. Dr. Marcia C. Britton, then Director of the Child Health and Disability Prevention Program of Sacramento County, obtained all of the County approvals and authorizations necessary to implement the team. After a year of planning, the Sacramento County Child Death Review Team began functioning in November of 1989.

In designing Sacramento County's local team, the Formation Committee had the foresight to broadly define the team's mission, ensuring that all child deaths would be reviewed and investigated. This model differed from that used by most other teams in existence at the time. Typically, other large county teams focused exclusively on suspicious Child Abuse and Neglect homicides or reviewed the deaths of a limited number of children in a narrow range of ages. The Sacramento team remains unique in that it is one of the only large-county models that reviews the deaths of all children from birth through 17 years of age.

Now, the Sacramento County CDRT serves as a model to replicate for other California counties. The Sacramento County CDRT has also been included in national studies highlighting CDRT best practices. In 2009, the United States Government Accountability Office (GAO) conducted an analysis of national child abuse and neglect data, including the challenges states face in collecting and reporting information on child fatalities from maltreatment to HHS. As part of this process, the GAO conducted site visits to several organizations across the nation, including Sacramento County's CDRT. During this visit, CDRT was able to help provide to the GAO a more in-depth understanding of issues regarding the collection and reporting of child fatality data.

Mission Statement

The mission of the Sacramento County Child Death Review Team is to:

- Ensure that all child abuse related deaths are identified.
- Enhance the investigations of all child deaths through multi-agency review.
- Develop a statistical description of all child deaths as an overall indicator of the status of children.
- Develop recommendations for preventing and responding to child deaths based on the reviews and statistical information.

Membership

The Sacramento County Child Death Review Team had consistent representation during 2010, 2011 and 2012 from the following agencies:

California Highway Patrol

Child Abuse Prevention Council of Sacramento

Kaiser Permanente

Mercy San Juan Medical Center

Sacramento County Metropolitan Fire Department

Sacramento City Fire Department

Sacramento City Police Department

Sacramento County Coroner’s Office

Sacramento County Department of Health and Human Services:

- California Children’s Services
- Child Protective Services
- Disease Control and Epidemiology
- Public Health Nursing

Sacramento County District Attorney’s Office

Sacramento County Probation Department

Sacramento County Sheriff’s Department

Sutter Health – Sutter Medical Foundation

University of California Davis Medical Center

Lists of Sacramento County Child Death Review Team 2010-2012 members, formation members, past members, and the Confidentiality Agreement can be found in the Appendices.

Review Process

The Child Death Review Team (CDRT) meets monthly to review deaths of all children from birth through 17 years of age in Sacramento County. The deaths are identified by the Vital Records Unit of the Sacramento County Department of Health and Human Services, and the death certificates are forwarded to the CDRT Staff, who prepares them for review. Team members compile pertinent information their agency may have regarding each case. This information is brought to the monthly meetings in order to identify potential child abuse and neglect issues. The team also identifies trends in other types of child deaths in order to address needs in prevention efforts. The information is stored in a secure centralized database and data are analyzed in the aggregate to describe the information and identify any pertinent trends.

Because of the confidential nature of the information discussed, each team member is required to sign a confidentiality agreement, which prohibits dissemination of any information discussed by the team unless otherwise provided by law.

In addition to the review of new cases, the status of each ongoing investigation is reviewed monthly and additional informational needs are identified. Non-member agencies may be contacted to provide information related to the team's investigation. All cases remain under review until the team agrees that the underlying cause of death has been determined as accurately as possible.

Methods

Deaths are categorized by cause and by manner. Both are crucial to the investigation and analysis of deaths. The following text defines and compares these two often-confused terms.

Causes of death, listed on the death certificate, are medical findings coded according to the International Classification of Diseases, tenth edition (ICD-10).

A second finding listed on the death certificate describes the mode or manner of death, which is an investigative finding.

Manner of death falls into one of six categories: Natural, Accident, Suicide, Homicide, Pending Investigation, and Undetermined. In those cases where the cause of death is due to a natural disease process, the manner is listed, usually, as "Natural." Injury-related deaths generally fall into one of the following three categories: "Accident," "Suicide," or "Homicide."

To illustrate the difference between the manner and cause of death, consider a death certificate where the medical cause of death is "Gunshot wound of the head." In this case, the wound could have been inflicted in one of four manners: "Accident," "Suicide," "Homicide" or "Undetermined."

When there is confusion regarding how the fatal condition developed or was inflicted, and the manner could not be determined with a satisfactory degree of certainty, the manner is listed as "Undetermined." An example of a classification of this type could be found in a situation where a cause of death is listed as "Pulmonary embolism." A pulmonary embolism can occur as a complication of an injury or it can occur naturally. Due to possible uncertainty regarding the formation of a pulmonary embolism, the manner could be listed as "Undetermined."

The manner of death is an important consideration because prevention of child deaths, one of the central goals of the Sacramento County Child Death Review Team, relies on the ability to differentiate between intentional and unintentional deaths. For example, strategies designed to reduce the number of unintentional drug overdose deaths from accidental exposure or access to drugs will differ from strategies designed to reduce intentional drug overdose deaths, such as suicide.

Report Strengths and Limitations

Better identification of child abuse and neglect deaths is the primary mission of the Child Death Review Team (CDRT). During the review process, the team focuses on any suspicious circumstances surrounding the death of a child. Because of the involvement of multiple agencies, the team is able to generate information that helps to clarify otherwise limited evidence of abuse and neglect. Such information can be critical to the death investigation and may ultimately result in a death certificate that more accurately reflects the occurrence of an abuse- and neglect-related fatality.

As a result of this multi-agency investigation, the cause of death identified by the team, particularly in cases of Child Abuse and Neglect homicide, may be more explicit than the cause of death assigned by the local physician or coroner. Based on the team's findings, a more accurate description of the occurrence of abuse- and neglect-related deaths in Sacramento County can be provided by a Child Death Review Team report than the information provided by the death certificates filed with the State.

The Sacramento County Child Death Review Team is unique in its approach to investigating child deaths. By reviewing the circumstances surrounding each child death instead of sampling the childhood fatality population or focusing on suspicious cases only, the CDRT can capture a more detailed and accurate description of child mortality in Sacramento County. This broader understanding of child death and the ongoing identification and investigation of child abuse and neglect deaths has also provided for the development of effective prevention strategies.

Unfortunately, comparisons between Sacramento County and other jurisdictions are difficult. At the present time, there is no uniformity across the state and national levels in reporting, investigating and validating cases of child abuse and neglect and their resulting deaths. As a result, there is a significant undercount of the annual Child Abuse and Neglect-related deaths found in Vital Statistics Death Records.

The criteria for selecting cases to review are established by each county's team and very few teams review all child deaths. In addition, each team defines abuse and neglect-related deaths differently. Even though the State Child Death Review Council has published a definition of deaths related to abuse and neglect, the final decision is still made at the local level.

All of the children included in this report were Sacramento County residents at the time of their death or out-of-county residents whose injuries leading to death were sustained in Sacramento County. Other out-of-county cases are reviewed, but are not included in any analysis used to make inferences about Sacramento County children. Similarly, the team does not usually review cases of children who are Sacramento County residents but die in another county. Sacramento County does not receive these death certificates consistently, so these cases may or may not be included in this report. These factors may account for any discrepancy found when comparing the number of cases in this report to those recorded by the State Registrar for Sacramento County.

The development of the CDRT's Annual Report has been an evolving process. In 1996, the CDRT began following childhood fatality trends on an annual basis, which led to more comprehensive record keeping of all child deaths. For this reason, aggregate data is available for the time period beginning in 1996 through the current year. Other data, such as injury type and demographics, comes primarily from death certificates and is available for all cases reviewed since 1990. The differences found in the availability and consistency of information is due to the different time periods used to present prior years' data.

Tables

Table J
Number of natural child deaths according to category
1995 to 2012
Sacramento County*

Category	Year																		
	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	Total
Perinatal Conditions	21	42	52	48	40	42	48	56	43	62	71	65	63	50	53	39	54	42	**891**
Congenital Anomalies	25	19	30	27	27	33	32	39	32	31	28	29	38	30	27	37	35	25	**544**
SIDS	18	21	20	19	18	18	18	15	10	3	5	3	9	6	5	3	3	9	**203**
SUIDS	--	--	--	--	--	--	--	--	--	--	--	--	5	15	8	13	8	12	**61**
Cancer	6	9	5	10	10	15	5	10	11	10	9	9	15	8	13	11	9	8	**173**
Infections	4	7	3	4	6	8	10	6	2	10	5	8	3	5	9	0	1	1	**92**
Respiratory	7	9	8	4	1	3	0	2	0	1	1	2	0	3	2	2	1	0	**46**
Other	17	15	12	4	11	16	8	2	7	6	2	3	6	6	4	6	1	2	**128**
Undetermined (Natural)	0	4	1	1	5	3	0	0	2	0	0	0	0	1	1	0	1	2	**21**
Total Natural Causes	**98**	**126**	**131**	**117**	**118**	**138**	**121**	**130**	**107**	**123**	**121**	**119**	**139**	**124**	**122**	**111**	**113**	**101**	**2159**

** 2012 is the sixth year during which SUIDS (Sudden Unexpected Infant Death Syndrome) deaths were differentiated from SIDS (Sudden Infant Death Syndrome) deaths for the Annual CDRT Report.*

Table K
Number of injury-related child deaths according to category for 1995 to 2012 Sacramento County*

Category	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	Total
Homicides	20	16	23	11	16	10	16	11	9	15	17	16	12	17	9	11	8	13	**250**
CAN Homicide	(9)	(9)	(14)	(7)	(13)	(6)	(9)	(4)	(1)	(4)	(8)	(7)	(3)	(11)	(6)	(3)	(4)	(4)	**(122)**
Third -Party Homicide	(11)	(7)	(9)	(4)	(3)	(4)	(7)	(6)	(8)	(11)	(9)	(9)	(9)	(5)	(3)	(8)	(4)	(9)	**(126)**
Motor Vehicle Collisions (MVC)	23	19	17	11	11	14	21	13	14	10	8	11	13	6	5	3	4	3	**206**
MVC (Driver/ Occupant)	(12)	(15)	(10)	(7)	(4)	(8)	(10)	(11)	(8)	(5)	(3)	(6)	(7)	(4)	(1)	(1)	(0)	(0)	**(112)**
MVC (Pedestrian)	(8)	(2)	(7)	(1)	(5)	(5)	(8)	(1)	(5)	(4)	(4)	(3)	(6)	(2)	(2)	(2)	(3)	(1)	**(69)**
MVC (Bike)	(3)	(2)	(0)	(3)	(2)	(1)	(3)	(1)	(1)	(1)	(1)	(2)	(0)	(0)	(2)	(0)	(1)	(2)	**(25)**
Drowning	4	4	6	7	6	5	5	9	4	7	5	12	7	4	6	4	4	8	**107**
Suicide	3	4	5	8	0	6	5	7	4	4	8	1	4	6	2	4	3	3	**77**
Suffocation/ Choking	0	2	4	2	1	1	3	1	1	0	2	3	1	1	0	1	0	4	**27**
Fires	0	3	5	4	0	0	1	1	1	0	1	2	5	0	0	0	0	0	**23**
Other	3	0	5	1	1	1	8	4	2	6	1	6	1	3	0	1	1	1	**45**
Undetermined (Injury)	4	3	0	2	1	0	1	2	1	1	0	0	0	0	0	0	1	0	**16**
Poisoning/ Overdose	--	--	--	--	--	--	--	--	--	--	--	2	2	1	2	1	0	0	**8**
Legal Intervention	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	**2**
Total Injury-Related Causes	**57**	**51**	**65**	**46**	**36**	**37**	**60**	**48**	**36**	**43**	**42**	**53**	**45**	**37**	**24**	**25**	**22**	**33**	**760**
Undetermined Manner	0	4	2	2	3	4	8	6	10	10	4	12	8	2	5	2	3	3	**93**

** Table K above represents the deaths of Sacramento County residents. Not included in this Table are injury-related deaths of out-of-county residents.*

Table L
Sacramento County Resident Child Deaths Only
2010

Deaths by Category and Age for 2010

Category	Infant	1-4	5-9	10-14	15-17	Total
Perinatal Conditions	38	1	0	0	0	**39**
Congenital Anomalies	24	5	2	2	4	**37**
SIDS	3	0	0	0	0	**3**
SUIDS	13	0	0	0	0	**13**
Cancer	1	6	1	2	1	**11**
Respiratory	2	0	0	0	0	**2**
Other -Natural	1	1	0	3	1	**6**
CAN Homicide	1	1	0	1	0	**3**
Third Party Homicide	0	0	0	0	6	**6**
MVA Occupant/Driver	1	0	0	0	0	**1**
MVA Pedestrian	0	1	0	0	1	**2**
Drowning	0	4	0	0	0	**4**
Suicide	0	0	0	1	3	**4**
Suffocation	0	1	0	0	0	**1**
Poisoning/Overdose	0	0	0	0	1	**1**
Other –Injury	0	1	0	0	0	**1**
Undetermined Manner	1	0	0	0	0	**1**
TOTAL	**85**	**21**	**3**	**9**	**17**	**135**

Table M
Sacramento County Resident Child Deaths Only
2011

Deaths by Category and Age for 2011

Category	Infant	1-4	5-9	10-14	15-17	Total
Perinatal Conditions	51	1	1	1	0	**54**
Congenital Anomalies	24	4	4	1	2	**35**
SIDS	3	0	0	0	0	**3**
SUIDS	8	0	0	0	0	**8**
Cancer	1	0	2	3	3	**9**
Infections	1	0	0	0	0	**1**
Respiratory	0	0	0	0	1	**1**
Other -Natural	1	0	0	0	0	**1**
Undetermined -Natural	1	0	0	0	0	**1**
CAN Homicide	1	1	1	0	1	**4**
Third Party Homicide	0	0	0	0	4	**4**
MVA Pedestrian	0	2	1	0	0	**3**
MVA Bike	0	0	0	1	0	**1**
Drowning	0	2	1	0	0	**3**
Suicide	0	0	0	2	1	**3**
Other -Injury	0	0	0	0	1	**1**
Legal Intervention	0	0	0	0	0	**1**
Undetermined Injury	0	1	0	0	0	**1**
Undetermined Manner	1	2	0	0	0	**3**
TOTAL	**92**	**13**	**10**	**8**	**14**	**137**

Table N
Sacramento County Resident Child Deaths Only
2012

Deaths by Category and Age for 2012

Category	Infant	1-4	5-9	10-14	15-17	Total
Perinatal Conditions	41	1	0	0	0	**42**
Congenital Anomalies	17	3	1	0	4	**25**
SIDS	9	0	0	0	0	**9**
SUIDS	12	0	0	0	0	**12**
Cancer	0	1	1	6	0	**8**
Infections	0	1	0	0	0	**1**
Other -Natural	0	2	0	0	0	**2**
Undetermined -Natural	1	0	0	0	1	**2**
CAN Homicide	3	0	1	0	0	**4**
Third Party Homicide	0	4	0	1	4	**9**
MVA Pedestrian	0	1	0	0	0	**1**
MVA Bike	0	0	0	1	1	**2**
Drowning	0	5	0	1	2	**8**
Suicide	0	0	0	2	1	**3**
Suffocation	2	2	0	0	0	**4**
Other -Injury	0	1	0	0	0	**1**
Legal Intervention	0	0	0	0	1	**1**
Undetermined Manner	2	1	0	0	0	**3**
TOTAL	**87**	**22**	**3**	**11**	**14**	**137**

Table O
Child Deaths by Race/Ethnicity and Age Group, 2010
Sacramento County Resident Child Deaths Only

Race Classification	Infant	1-4	5-9	10-14	15-17	Total
Caucasian	27	11	2	3	8	**51**
African American	25	2	0	2	1	**30**
Asian/ Pacific Islander	12	1	0	2	4	**19**
Hispanic	9	3	1	1	2	**16**
Multiracial	11	2	0	0	2	**15**
Other	1	2	0	1	0	**4**
Total	**85**	**21**	**3**	**9**	**17**	**135**

Table P
Child Deaths by Race/Ethnicity and Age Group, 2011
Sacramento County Resident Child Deaths Only

Race Classification	Infant	1-4	5-9	10-14	15-17	Total
Caucasian	26	6	4	3	6	**45**
African American	27	2	2	1	3	**35**
Asian/ Pacific Islander	11	0	0	1	1	**13**
Hispanic	12	3	3	0	2	**20**
Multiracial	10	2	1	1	2	**16**
Other	6	0	0	2	0	**8**
Total	**92**	**13**	**10**	**8**	**14**	**137**

Table Q
Child Deaths by Race/Ethnicity and Age Group, 2012
Sacramento County Resident Child Deaths Only

Race Classification	Infant	1-4	5-9	10-14	15-17	Total
Caucasian	15	9	1	5	3	**33**
African American	23	6	1	1	2	**33**
Asian/ Pacific Islander	14	3	1	3	4	**25**
Hispanic	12	1	0	0	3	**16**
Multiracial	20	2	0	0	1	**23**
Other	3	1	0	2	1	**7**
Total	**87**	**22**	**3**	**11**	**14**	**137**

Table R
Child Abuse and Neglect Homicide victims by age 1990 to 2012
Sacramento County Resident Child Deaths Only

Period Covered	Infant	1-4	5-9	10-14	15-17	Total
1990-2000	23	51	19	6	6	**105**
2001	4	5	0	0	0	**9**
2002	1	1	1	1	0	**4**
2003	1	0	0	0	0	**1**
2004	2	1	1	0	0	**4**
2005	5	3	0	0	0	**8**
2006	0	5	1	1	0	**7**
2007	1	1	1	0	0	**3**
2008	3	7	0	0	1	**11**
2009	1	4	1	0	0	**6**
2010	1	1	0	1	0	**3**
2011	1	1	1	0	1	**4**
2012	3	0	1	0	0	**4**
Total	**46**	**80**	**26**	**9**	**8**	**169**

Table S
Child Abuse and Neglect Homicide victims by race/ethnicity 1990 to 2009
Sacramento County Resident Child Deaths Only

Period Covered	Caucasian	Hispanic	African American	Asian	Other*	Total
1990-2000	46	18	28	10	3	**105**
2001	5	0	4	0	0	**9**
2002	2	0	1	0	1	**4**
2003	0	0	0	1	0	**1**
2004	0	0	1	0	3	**4**
2005	3	1	3	1	0	**8**
2006	2	2	2	0	1	**7**
2007	0	0	3	0	0	**3**
2008	1	2	5	3	0	**11**
2009	2	1	1	0	2	**6**
2010	0	0	2	1	0	**3**
2011	2	1	0	1	0	**4**
2012	2	0	1	1	0	**4**
Total	**65**	**25**	**51**	**18**	**10**	**169**

** Including children of mixed/multi-racial categories.*

Table T
Perpetrators of Child Abuse and Neglect (CAN) Homicides 1990 to 2012
Sacramento County*

Perpetrator	1990-2009	2010	2011	2012	Total # of Perpetrators**
Biological Father	44	1	2	1	48
Biological Mother	44	1	2	1	48
Both Parents	9	0	0		9
Boyfriend of Mother or Guardian	20	0	0	1	21
Undetermined	15	0	0	0	15
Babysitter	5	0	0	0	5
Stepfather	4	0	0	0	4
Other Family Member	9	2	0	1	12
Adoptive/Foster Parent	5	0	0	0	5
Girlfriend of Father or Guardian	2	0	0	0	2
Family Friend	4	0	0	0	4
Total	**161**	**4**	**4**	**4**	**173**

** Table T above represents the perpetrators of Sacramento County CAN Homicides of Sacramento County residents. Out-of-county residents are not included in this table.*

*** The total number of perpetrators exceeds the total number of CAN homicides, because in some cases more than one perpetrator was involved in the death of a child.*

Table U
Child deaths caused by intentional injuries, by mechanism, 1990 to 2012
Sacramento County Child Residents Only*

	Third Party Homicide	CAN Homicide	Suicide	Total
Firearm	115	26	43	**181**
Battering/Beating	7	48	0	**52**
Hanging	0	0	51	**51**
Shaking/Abusive Head Trauma	0	23	0	**22**
Suffocation/Strangulation	1	16	1	**18**
Poisoning/Overdose	0	9	3	**12**
Stabbing	14	6	0	**20**
Fire	3	5	0	**8**
Fall/Jump	0	0	1	**1**
Undetermined	1	1	0	**2**
Vehicular	13	3	1	**17**
Drowning	1	7	0	**7**
Chronic Neglect	0	14	0	**13**
Other	1	5	0	**6**
Undetermined Mechanism	0	1	0	**1**
Unknown	1	5	0	**6**
Total	**157**	**169**	**100**	**426**

** Table U above represents the Sacramento County deaths of Sacramento County residents. Out-of-county residents are not included in this table.*

Table V
Number of child deaths by Sacramento County zip code*
2000-2012

Zip	Neighborhood	Deaths 2000-2009	Deaths 2010	Deaths 2011	Deaths 2012	Total
95608	Carmichael	44	3	4	3	**54**
95610	Citrus Heights	40	8	1	3	**52**
95615	Courtland	1	0	0	0	**1**
95621	Citrus Heights	41	1	3	0	**45**
95624	Elk Grove	48	4	5	4	**61**
95626	Elverta	9	0	2	1	**12**
95628	Fair Oaks	28	2	1	0	**31**
95630	Folsom/Clarksville/El Dorado Hills	48	1	8	7	**64**
95632	Twin Cities/Galt/Herald	21	5	0	3	**29**
95638	Herald	5	1	1	0	**7**
95641	Isleton	1	0	0	0	**1**
95655	Mather	2	0	1	0	**3**
95660	North Highlands	56	4	2	5	**67**
95662	Orangevale	22	2	1	0	**25**
95670	Rancho Cordova	63	4	4	2	**73**
95673	Rio Linda/Robla	27	1	2	0	**30**
95683	Rancho Murrieta	4	1	1	0	**6**
95690	Walnut Grove	3	0	0	0	**3**
95693	Wilton	3	0	1	0	**4**
95742	Rancho Cordova	3	3	2	1	**9**
95757	Elk Grove	25	4	2	3	**34**
95758	Bruceville	65	7	6	4	**82**
95763	Folsom	1	0	0	0	**1**
95808	Sacramento	0	0	0	0	**0**
95811	Mather	1	0	0	0	**1**
95814	Downtown Sacramento	13	0	0	1	**14**
95815	North Sacramento	55	4	0	5	**64**
95816	Midtown Sacramento	8	0	1	0	**9**
95817	Sacramento/Oak Park	24	3	2	0	**29**
95818	Sacramento/South Land Park	15	1	3	1	**20**
95819	Sacramento/ East Sacramento	16	1	0	1	**18**
95820	Fruitridge	91	6	6	5	**108**
95821	Town and Country Village	48	2	4	6	**60**

95822	Sacramento/Meadowview	74	5	5	4	**88**
95823	Sacramento/Valley Hi	145	11	12	16	**184**
95824	Fruitridge	65	7	6	4	**82**
95825	Arden/Arcade	45	2	3	3	**53**
95826	Perkins/Rosemont	36	1	1	5	**43**
95827	Mills/Walsh Station	29	1	2	7	**39**
95828	Florin	69	10	7	1	**87**
95829	Coffing/Sheldon	29	0	3	1	**33**
95830	Sacramento (Florin & Sunrise)	1	0	0	0	**1**
95831	Greenhaven	28	4	8	4	**44**
95832	Sacramento/Freeport	18	1	0	4	**23**
95833	Arden/ Garden	49	8	5	3	**65**
95834	Sacramento/South Natomas	15	1	3	8	**27**
95835	Sacramento/North Natomas	17	3	2	4	**26**
95837	Sacramento International Airport	2	0	0	0	**2**
95838	Del Paso Heights/Hagginwood	73	3	11	4	**91**
95841	Foothill Farms	19	2	3	2	**26**
95842	Sacramento/Foothill Farms/North Highlands	55	2	3	7	**67**
95843	Sacramento/Antelope	44	5	0	2	**51**
95864	Arden/Arcade	11	1	0	2	**14**
	Unknown**	1	0	0	1	**2**
Total		**1656**	**135**	**137**	**137**	**2065**

** Table V above represents the Sacramento County deaths of Sacramento County residents. Out-of-county residents are not included in this table.*

****** *Death Certificate was not available or CDRT was otherwise not able to determine address of decedent.*

Table W
Cause of Child Death by Race and Age, Sacramento County Resident Child Deaths 2010-2012

	Infant						*1-4*						*5-9*					
	White	Black	Hisp.	Asian	Multi	Other	White	Black	Hisp.	Asian	Multi	Other	White	Black	Hisp.	Asian	Multi	Other
Peri. Cond.	24	40	22	17	22	5	1	2					1					
Cong. Anom.	22	12	8	14	6	3	5	2	2			3	5		2			
SIDS	6	5	2		1	1												
SUIDS	7	14	1	1	10													
Cancer	1		1				4	1		1	1			1	2		1	
Infections		1					1											
Respiratory	1	1																
Other -Nat.	1					1			3									
Undet. -Nat.		1	1															
CAN Hom.	2	1		2			1	1						1	1			
Third-Party Hom.							2	1	1									
MVA Occ/Driver					1													
MVA Ped.							2	1			1			1				
MVA Bike																		
Drowning							5	1	1	1	3		1					
Suicide																		
Suffocation	1				1		1	1	1									
Other –Inj.							2											
Undet. Inj.									1									
Pois/OD																		
Legal Intervention																		
Undet. Manner	3			1			2				1							
TOTAL	***68***	***75***	***35***	***35***	***41***	***10***	***26***	***10***	***9***	***2***	***6***	***3***	***7***	***3***	***5***	***0***	***1***	***0***

Table W (cont.)
Cause of Child Death by Race and Age, Sacramento County Resident Child Deaths 2010-2012

	10-14						*15-17*						*All Children 0-17*					
	White	**Black**	**Hisp.**	**Asian**	**Multi**	**Other**	**White**	**Black**	**Hisp.**	**Asian**	**Multi**	**Other**	**White**	**Black**	**Hisp.**	**Asian**	**Multi**	**Other**
Peri. Cond.		1											*26*	*43*	*22*	*17*	*22*	*5*
Cong. Anom.	1		1		1		5		2	3			*38*	*14*	*15*	*17*	*7*	*6*
SIDS													*6*	*5*	*2*	*0*	*1*	*1*
SUIDS													*7*	*14*	*1*	*1*	*10*	*0*
Cancer	5	2	2	1		1	2		1	1			*12*	*4*	*6*	*3*	*2*	*1*
Infections													*1*	*1*	*0*	*0*	*0*	*0*
Respiratory											1		*1*	*1*	*0*	*0*	*1*	*0*
Other -Nat.		1		1		1				1			*1*	*1*	*3*	*2*	*0*	*2*
Undet. - Nat.							1						*1*	*1*	*1*	*0*	*0*	*0*
CAN Hom.				1			1						*4*	*3*	*1*	*3*	*0*	*0*
Third Party Hom.	1						3	6	3	2	1		*6*	*7*	*4*	*2*	*1*	*0*
MVA Occ/Driver													*0*	*0*	*0*	*0*	*1*	*0*
MVA Ped.							1						*3*	*2*	*0*	*0*	*1*	*0*
MVA Bike	2										1		*2*	*0*	*0*	*0*	*1*	*0*
Drowning						1				1		1	*6*	*1*	*1*	*2*	*3*	*2*
Suicide	2		1			2	2		1		2		*4*	*0*	*2*	*0*	*2*	*2*
Suffocation													*2*	*1*	*1*	*0*	*1*	*0*
Other - Injury							1						*3*	*0*	*0*	*0*	*0*	*0*
Undet. Injury													*0*	*0*	*1*	*0*	*0*	*0*
Pois/OD							1						*1*	*0*	*0*	*0*	*0*	*0*
Legal Intervention									1				*0*	*0*	*1*	*0*	*0*	*0*
Undet. Manner													*5*	*0*	*0*	*1*	*1*	*0*
TOTAL	***11***	***4***	***4***	***3***	***1***	***5***	***17***	***6***	***1***	***8***	***5***	***1***	***129***	***98***	***61***	***48***	***54***	***19***

Appendices

APPENDIX A

Memorandum of Agreement for the Sacramento County Multidisciplinary Child Death Review Team

PURPOSE

The purpose of the Multidisciplinary Child Death Review Team is to:

1. Ensure that all child abuse-related deaths are identified;
2. Enhance the investigations of all child deaths through multi-agency review;
3. Develop a statistical description of all child deaths as an overall indicator of the status of children; and
4. Develop recommendations for preventing and responding to child deaths based on said reviews and statistical information.

MEMBERSHIP

The team will be comprised of representatives from the following agencies:

I Sacramento County

- **A.** Sacramento County Coroner
  1. Investigations
  2. Forensic Pathology
- **B.** Sacramento County Sheriff's Department
- **C.** Sacramento City Police Department
- **D.** Sacramento City Fire Department
- **E.** Sacramento County Probation Department
- **F.** Law Enforcement Chaplaincy of Sacramento
- **G.** California Highway Patrol

II Department of Health and Human Services

- **A.** Child Protective Services
- **B.** Epidemiology and Disease Control/ Maternal, Child and Adolescent Health
- **C.** California Children's Services
- **D.** Public Health Nursing

III District Attorney's Office

IV Local Hospitals

A. Kaiser Permanente
B. Mercy Sacramento/San Juan Dignity Health
C. Sutter Health – Sutter Medical Foundation
D. University of California, Davis Medical Center
1. CAARE Unit
2. Pathology

V Other Community Service Agencies

A. Child Abuse Prevention Council of Sacramento

Said agencies will provide routine representation on an on-going basis. No agency shall withdraw from the Team or suspend their participation without the expressed approval of the appropriate regulatory body. Individual representatives will be expected to consistently attend all meetings for a period of no less than one year.

Each participating agency in the Child Death Review Team shall appoint a lead representative (A) and a single alternate (B) to participate in the death investigation review meetings. The lead person (A) shall provide case-specific information on child deaths under review. The agency shall designate a single back-up representative (B) to provide case-specific information in the event that person (A) cannot be present. No additional staff person from the agency may replace person A or B. If neither person A nor person B can attend a meeting, the agency will not have a representative at that meeting. The Chair may approve a representative other than A or B to provide case-specific information for an upcoming meeting. The request shall be made by the agency in advance to the Chair, if there are extenuating circumstances requiring a person other than A or B to present information from that agency.

New Team representatives will receive an orientation organized by the Child Abuse Prevention Council in conjunction with other experienced Team representatives. This orientation will include information regarding the Team purpose, established protocols and procedures, the role of each Team representative and their agency, current membership, meeting schedule, and data collection requirements.

In addition to the standing representatives, other agencies and individuals may be invited to attend meetings when, after initial review, the Team feels that they may have direct information about a case or that they may have particular subject expertise to contribute to the overall review.

All parties who participate in the child death review process will be required to sign and adhere to a confidentially agreement.

STATUTORY AUTHORIZATION

In 1987, Sections 830 and 10850.1 were added to the State Welfare and Institutions Code and provided specific authorization allowing multidisciplinary child abuse teams to receive information related to incidents of child abuse and information that could be relevant to the prevention, identification or treatment of child abuse. In 1988, Section 18961 of the Welfare and Institutions code was amended to allow qualified persons not serving as standing members of

such teams to be deemed a part of the team as necessary, and to receive and disclose information relevant to particular cases as needed.

Also in 1988, Sections 11166.7 and 11166.8 of the State Penal Code authorized the Attorney General and the California Consortium of Child Abuse Providers to develop the protocols necessary for the development and implementation of interagency child death teams for review of suspicious child deaths. Amendments to this legislation in 1992 required that each county establish an interagency child death team and added Section 11166.9, which established the California Child Advisory Board to coordinate and integrate state and local efforts to address fatal abuse and neglect.

In 1999, SB 252 recast several of the provisions of Section 11166.7, including the requirement that local CDRT's participate in the statewide child abuse and neglect monitoring system by meeting minimum standard protocols and submitting information on child abuse and neglect deaths. It also provided training and technical assistance to CDRT's and professionals involved in case reviews. In 2004, Section 11166.7 was amended and renumbered as Section 11174.32.

TARGET POPULATION

The target population for case review is all children up through 17 years of age that die in Sacramento County. The Team will consider cases for children who are not residents of the county if they die within county limits. The Team will also consider cases for children who die in another county but are residents of Sacramento County.

MEETINGS

Regular meetings of the Team will be held monthly on a set date to be determined annually by the Team representatives. The meetings will occur approximately mid-month and will include all cases from the previous month as well as any cases held over for further review or analysis.

GROUND RULES

Members of the CDRT agree to:
Practice timely and regular attendance.
Share all relevant information.
Stay focused and keep all comments on topic.
Listen actively – respect others when they are talking.
Be willing to explore others' basis for conclusions if you do not agree with them. However, question members in a respectful manner and refrain from personal attacks.
Be prepared for case discussion.
Discuss all cases objectively with respect for the deceased, their families, and all agencies involved.
Respect all confidentiality requests the group has agreed to honor.

OFFICERS

The officers of the CDRT shall be a Chair and a Vice Chair. Officers will be nominated by CDRT members and approved by consensus of the CDRT.

The duties of the Chair shall be to:

1. Lead the discussion, ensuring all critical case information is shared.
2. Facilitate the meeting, keeping the group in compliance with the established ground rules.
3. Present the annual report to the Board of Supervisors with the President/CEO of the Child Abuse Prevention Council, or appoint an alternate presenter.
4. Represent the CDRT at certain functions and events.
5. Approve visitors and emergency alternates on a case-by-case basis.

The duties of the Vice Chair shall be to:

1. Serve as co-facilitator, and reinforce the ground rules as necessary.
2. Provide support to the Chair as necessary.

Nominations will be made by team members at the meeting preceding the ballot. The ballot will be private. The Chair will serve a three-year term. At the conclusion of the three-year term, a person from another discipline shall be elected Chair. A person may serve more than one three-year term but not consecutively. A non-consecutive term will help ensure that the responsibilities of the Chair are rotated among the team's representative disciplines. A Vice-Chair will be appointed at the same time as the Chair. This individual will be eligible, but will not be assured the role of Chair at the end of the three-year term.

PROCEDURES

The representative(s) from the Sacramento County Department of Health and Human Services will acquire death certificates from the Vital Statistics Branch for all children under 18 who have died in the county during the preceding month. These will be collected by the Child Abuse Prevention Council within the first week of the month. Death certificates for children who are Sacramento County residents but who die in other counties will be obtained by the Child Abuse Prevention Council from the child death review teams functioning in the counties where such deaths occur.

The Child Abuse Prevention Council will label the death certificates with the appropriate agency jurisdiction, whether it is within the county or city limits based upon where in the county the fatal incident has occurred. The certificates will then be copied and mailed, along with a copy of the agency-specific data collection forms, to each Team representative in a sealed envelope marked Confidential no later than 2 weeks prior to the next Team meeting. Also included in this mailing will be the agenda for the coming meeting, minutes reflecting general Team process, information for the previous meeting, and any educational or informational items pertinent to the Team.

Each Team representative is then responsible for reviewing his/her internal agency records to determine what information is available on each child and/or family. Relevant information is documented on the data collection forms for those cases where agency information is available. The forms will be completed and brought by the representative to the next meeting. If the standing Lead representative is not available to attend a meeting, the designated Alternate will bring the data forms to the meeting. In the event that both the Lead and Alternate representatives are not available, the data forms will be provided at the next meeting attended by either representative. In addition to data forms, a representative may elect to bring their agency files to

the next meeting for reference, but agency files and records are not to be reproduced for central files or distributed to other representatives.

The Team may openly discuss all relevant case data during meetings. No confidential and/or case specific information will be recorded in the minutes. Follow-up cases will be recorded on future agendas by name, date of death, case history, and the CDRT agency responsible for follow-up. Team representatives will destroy all agendas, death certificates and other confidential materials related to case reviews following each meeting. The Child Abuse Prevention Council will complete a Case Summary form for each case reviewed. The Case Summary form will include case information agreed upon by the CDRT. No additional case specific information will be recorded. Case Summary forms will be kept in a locked file by the Child Abuse Prevention Council. Case Summary information will be entered into a secure database from which aggregate data can be generated.

In the event that a case has yet to progress sufficiently to provide a conclusion at any given meeting, it will be placed on successive agendas until resolved. Meeting agendas will reflect the order in which cases are to be reviewed, with the review of new cases preceding the review of follow-up cases. At any time, a Team representative may request that a particular case be given priority in the order of the reviews. Team representatives may bring up additional cases that have occurred but are not on the agenda and may request that a case be reconsidered at any time.

CHILD ABUSE PREVENTION COUNCIL RESPONSIBILITIES

As sponsor of the Sacramento County Child Death Review Team, the Child Abuse Prevention Council of Sacramento, Inc. (CAPC) is responsible for:

1. The identification and maintenance of resources and staff as needed for the continued implementation of the CDRT, including but not limited to:
    a. Coordination and staffing for all CDRT meetings.
    b. Administrative and technical support necessary for multi-agency death review: timely collection and distribution of death certificates and agency specific data collection forms; distribution of the agenda, prior meeting minutes reflecting general Team process information, and any educational or informational items pertinent to the Team.
    c. Collection and maintenance of agency specific data collection forms.
    d. Management of all confidential CDRT data and case files.
2. Participation in and implementation of the Fatal Child Abuse and Neglect Surveillance (FCANS) Program.
3. Provision of technical and administrative support necessary for the development and distribution of the CDRT Annual Report.

EVALUATION

An annual report will be published each year and presented to the Sacramento County Board of Supervisors. The report will serve as one indicator of the status of children in Sacramento County and will be one base of information for a response to identified problems. The report

will include data describing the causes of death to provide the information necessary for the development of a full range of prevention efforts.

Data described in the annual report will be based upon those elements collected in the Team's data collection forms. In addition to demographics, the report will include available socioeconomic data.

The annual report will also include recommendations made by the Team based on the data collected. In keeping with the goals of the Team, there may be additional reports or systems recommendations that emerge as a result of case reviews and data analysis. The Team reserves the option to issue separate reports and policy recommendations in addition to the annual report.

INDEMNIFICATION AND INSURANCE

Each party shall defend, indemnify and hold harmless the other, its officers, agents, employees and volunteers from and against all demands, claims, actions, liabilities, losses, damages, and costs, without limitation including payment of reasonable attorneys' fees, expert witness or consultant fees and expenses related to the response to, settlement of, or defense of any claims or liability arising out of, or in any way connected with the respective responsibilities and duties hereby undertaken, except that each party shall bear the proportionate cost of any damage attributable to the fault of that party, its officers, agents, employees and volunteers. It is the intention of the parties that, where fault is determined to have been contributory, principles of comparative fault will be followed.

Each party, at its sole cost and expense, shall carry insurance -or self-insure - its activities in connection with this Agreement, and obtain, keep in force and maintain, insurance or equivalent programs of self-insurance, for general liability, professional liability, workers compensation, and business automobile liability adequate to cover its potential liabilities hereunder.

APPENDIX B

Sacramento County Child Death Review Team

Confidentiality Agreement

As a member of the Sacramento County Child Death Review Team (CDRT), I understand all cases discussed, information received, and all documents reviewed pertaining to cases presented to the CDRT, are strictly confidential. As an individual and/or a representative of my agency on the CDRT, I further understand and agree to abide by the current Memorandum of Understanding establishing and maintaining the CDRT.

I agree that I will not discuss, disseminate in any manner, nor otherwise cause dissemination of such information, to any non-member unless otherwise provided by law. I further understand, and agree, that my duty to preserve and protect the confidentiality of all information received as a team member, is a continuing and permanent duty, and is not contingent upon my status as a team member, and is not terminated upon conclusion of my membership.

NAME: ______________________________

SIGNATURE: ____________________________________

AGENCY/PROFESSIONAL DISCIPLINE REPRESENTED:

____

DATE: _________________

APPENDIX C

Sacramento County Child Death Review Team Formation Members

California State Attorney General's Office
Michael Jett
Senior Field Deputy, Crime Prevention Center

Child Abuse Prevention Council of Sacramento, Inc.
Marie Marsh
Executive Director

Sheila Boxley
Child Death Review Team Coordinator

Juvenile Justice Commission
Alison Kishaba
Commission Chairperson

Sacramento City Police Department
Detective Ernie Barsotti

Sacramento County Coroner's Office
Robert Bowers
Chief Deputy Coroner

Sacramento County Department of Health and Human Services
Marcia Britton, M.D.
Director, Child Health and Disability Prevention

Sacramento County Department of Social Services
Sarah Jenkins

Sacramento County District Attorney's Office
Janice Hayes
Deputy District Attorney

Sacramento County Executive's Office
Margaret Tomczak
Children's Commission

Sacramento County Sheriff's Department
Sergeant Harry Machen

University of California Davis Medical Center
Michael Reinhart, M.D., CDRT Founding Chair
Medical Director, Child Protection Center

APPENDIX D

Sacramento County Child Death Review Team 2010-2012 Members

Child Abuse Prevention Council of Sacramento
Stephanie Biegler
Director

Gina Roberson, M.S.
Associate Director

Nazia Ali-Prasad, CDRT Project Manager

Jeff Hemenway, CDRT Project Manager

Department of Health & Human Services
California Children's Services
Mary Jess Wilson, M.D., M.P.H.
Medical Director

Sacramento County Coroner's Office
Kim Burson, Assistant Coroner/ Investigation
Kim Gin, Supervising Deputy Coroner
Stephany Fiore, MD, Coroner
Greg Wyatt, Coroner

Sutter Health – Sutter Medical Foundation
Angela Rosas, M.D., CDRT Chair
Pediatrician

Department of Health and Human Services
Child Protective Services
Marian Kubiak, M.S.W., CDRT Vice-Chair
Julie Zawodny

California Highway Patrol
Elizabeth Dutton

Citrus Heights Police Department
Ron Pfleger, Detective

Department of Health and Human Services
Epidemiology and Disease Control
Cassius Lockett, PhD, Epidemiologist

District Attorney's Office
Anne Marie Schubert., J.D.
Supervising Deputy District Attorney
Special Assault and Child Abuse Unit

Elk Grove Police Department
Joe Blair, Sergeant

Kaiser Permanente
Carole Jones, R.N., C.C.R.N.
Rebekah Pearson, R.N.

Law Enforcement Chaplaincy - Sacramento
Frank Russell
Supervising Senior Chaplain

Mercy San Juan Hospital/Dignity Health
Wendy Edwards, R.N.
Judi Marschel, BSN, RNC-NIC

Sacramento City Fire Department
Keith Gault, Capt.
Trent Waechter

Sacramento City Police Department
Paul Martinson, Sergeant
Rudy Chan, Sergeant

Sacramento County Metropolitan Fire Department
Clayton Elledge, Captain

Sacramento County Probation Department
Keith Bays

Sacramento County Sheriff's Department
Jeff Reinl, Sergeant
Brian Shortz, Detective
Janae Galovich, Detective

University of California Davis Medical Center
Kevin Coulter, M.D.

APPENDIX E

Sacramento County Child Death Review Team
Past Members

Amelia Baker, P.H.N.
Public Health and Promotion/Del Paso Center
Department of Health and Human Services

Sandra Baker
Executive Director
Child and Family Institute

Walt Baer
Detective, Child Abuse Bureau
Sacramento County Sheriff's Department

Michael Balash
Captain
Sacramento Fire Department

Will Bayles
Sacramento County Sheriff's Department

Ken Bernard
Sacramento City Police Department

Chinayera Black
CDRT Coordinator
Child Abuse Prevention Council of Sacramento, Inc.

Bill Brown
Coroner
Sacramento County Coroner's Office

Sue Boucher
CDRT Coordinator
Child Abuse Prevention Council of Sacramento, Inc.

Cathy Boyle R.N., P.N.P.
Pediatric Nurse Practitioner
Child Protection Center

Sarah Campbell, M.D.
Northern California Forensic Pathologists
Sacramento County Coroner's Office

Blessilda Canlas
Child Abuse Prevention Council of Sacramento, Inc.
CDRT Project Manager

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Child Protective Services

Kim Clark
Detective, Sacramento City Police Department

Rod Chong
Division Chief, Sacramento City Fire Department

Judy Cooperider, M.S.W.
Department of Health and Human Services
Child Protective Services

Linda Copeland, M.D.
Foundation Health Medical Group, Inc.

Sherri Cornell, R.N.
California Children's Services

Laura Coulthard
Bureau Chief, Emergency Response
Department of Health and Human Services

Jacque Cramer, P.H.N.
Director of Field Nursing
Department of Health and Human Services

Margaret Crockett, R.N., CNS
Neonatal Nurse Specialist
Sutter Memorial Hospital

Mark Curry
Deputy District Attorney, Homicide
District Attorney's Office

Velma Davidson
Director Patient Support Services
University of California, Davis Medical Center

Nolana Daoust, M.P.H.
Epidemiologist
Department of Health and Human Services

Joe Dean
Sergeant, Homicide Unit
Sacramento County Sheriff's Department

Lynell Diggs
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Department of Health and Human Services

Bob Dimand, M.D.
Chief Pediatrician
Mercy Healthcare/UC Davis Medical Center

Paul Durenberger
Deputy District Attorney, District Attorney's Office

Phil Ehlert
Sacramento County Coroner's Office

Wendy Ellinger, R.N., P.H.N.
Department of Health and Human Services

Norma Ellis, P.H.N.
Field Services Nurse
Department of Health and Human Services

Fernando Enriquez
Sergeant
Sacramento City Police Department

Earl Evans
Sacramento County Sheriff's Department

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Stephanie Fiore, M.D.
Forensic Pathologist
Sacramento County Coroner's Office

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Sergeant, SACA Unit
Sacramento City Police Department

Mary Ann Harrison
Department of Social Services

Rich Gardella
Sergeant, Homicide Unit
Sacramento City Police Department

Guy Gates, Detective
Citrus Heights Police Department

Keith Gault
ACLS Coordinator
Sacramento City Fire Department

Jason Gay
Detective
Sacramento County Sheriff's Department

Lori Greene, J.D., Deputy District Attorney
District Attorney's Office

Kevin Givens, Detective
Sacramento County Sheriff's Department

James Jay Glass
Paramedic Captain
Sacramento City Fire Department

Mario Guzman
Sergeant
Elk Grove Police Department

Ethel Hawthorn
Supervisor, Child Protection/Family Preservation
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Max Hartley
California Highway Patrol

Donald Henrickson, M.D.
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Richard Ikeda, M.D., M.P.A.
Executive and Medical Director
Health For All

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Chaplain
Law Enforcement Chaplaincy

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John McGinness
Homicide Unit
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Sacramento City Fire Department

Alan Merritt, M.D.
Neonatologist
University of California Davis Medical Center

Bud Meyers
Child Protective Services
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Richard Miles
Sacramento County Coroner's Office

John Miller
Sacramento City Fire Department

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Carol Mims, Detective
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Bobby Mitchell
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Howard Sihner
District Attorney's Office – Juvenile Division

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Bev Sprenger
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Dr. John Stockman
Stockman and Associates

Grant Stomsvick
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Mark Super, M.D., CDRT Vice-Chair,
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School Attendance Review Board
San Juan Unified School District

Victoria Witham
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Debbie Yip
CWLA Supervisor
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APPENDIX F

GLOSSARY

Abuse Homicide: (A subset of the CAN homicides) Child abuse was the direct cause, or was in the direct chain of causes of the child's death. All deaths caused intentionally or unintentionally by abuse where the perpetrator was a parent or a caregiver fall under this category. Examples:
A baby who dies from shaken baby syndrome
A murder/suicide, where a parent kills his/her child and then him or herself

Abuse-Related Death: Child abuse was present and contributed in a concrete way to the child's death. Child death secondary to documented abuse (e.g., suspicious behavior with evidence of prior abuse).

Burn/Fire: Death caused by fire through a rapid combustion or consumption in such a way as to cause detrimental harm to one's health.

Cancers: A tumor disease, the natural course of which is fatal. Cancer cells, unlike benign tumor cells, exhibit the properties of invasion and metastasis and are highly anaplastic.

Cause of Death: Causes of death are coded according to the Tenth Revision of the International Classification of Diseases (ICD - 10). Natural cause and injury (E-Codes) classifications are used.

Child Abuse: Any act of omission or commission that endangers a child's physical or emotional health and development. (PC 11164-11174.3)

Child Abuse and Neglect (CAN) Homicide: A death in which a child is killed, either directly, or indirectly, by their caregiver.

Child Death: A death occurring in a child birth through 17 years of age.

Child Death Review Team (CDRT): An interagency team that investigates child abuse and neglect deaths of children birth through 17 years of age. The ability to establish confidential Child Death Review Teams was provided in 1988 by revisions to the State Penal Code (Section 11166.7) and the State Welfare and Institution Codes (Sections 830 and 10850.1).

Child Maltreatment: Child Maltreatment deaths are deaths with some element of abuse or neglect involved *(abuse, abuse-related, neglect, neglect-related, questionable abuse/neglect, prenatal substance abuse).*

Child Neglect:

General Neglect: The unwillingness of the parent or caregiver to provide for adequate basic needs, where there is no physical injury or injury is not likely to occur. The failure of a person responsible for a child to supply necessary food, clothing, shelter, or medical, dental or psychiatric care when that person is able to do so or failure to protect the child from imminent and serious danger to his or her physical or mental health. Examples:

- Children not being fed or lacking adequate shelter. Examples include hazardous conditions (exposed wiring, broken glass), unsanitary conditions (garbage, spoiled food, excrement), food unavailable or intentionally withheld.

Severe neglect: The unwillingness of the parent or caregiver to provide for adequate basic needs where there is physical injury or injury is likely to occur, such as: malnutrition, chronic neglect, abandonment, willful endangerment, refusal to seek medical care.

Child Protective Services (CPS): An agency within the Sacramento County's Department of Health and Human Services. CPS investigates child abuse and neglect and provides services to keep children safe while strengthening families. CPS also trains foster parents, acts as an adoption agency, and licenses family daycare homes.

Congenital Anomalies: Abnormal intrauterine development of an organ or structure; commonly referred to as "birth defects". Congenital - A condition that exists at birth, and usually before birth, regardless of its causation. Anomalies - Marked deviations from the normal standard, especially as a result of congenital defects. These conditions are acquired during the development of the fetus and are generally attributed to heredity/genetics.

Death Certificate: Certifies the occurrence of a death and provides the basis for the identification of cases to be reviewed by the CDRT.

Death Rate: The number of deaths within a population divided by the total number of members in that population. Death rates are used to make comparisons between groups of varying size and composition. In this document, since we are working with small numbers, the death rates were multiplied by 100,000 so that subtle deviations could be more easily detected.

Drowning: A death resulting under water or other liquid of suffocation.

Domestic Abuse: Also called domestic violence, domestic abuse is violence against a spouse, cohabitant, fiancee, or other person with whom the abuser has a dating relationship, or someone formerly in any of these relationships. Types of violence includes: sexual assault; placing a person in reasonable apprehension of being seriously injuried (threats); intentionally or recklessly causing or attempting physical injury.

Epidemiology: The study of distribution and determinants of disease, disability, injury, and death.

Emotional Abuse: When a person causes or permits a child to suffer unjustifiable or significant mental suffering.

Family Criminal History: The violent or non-violent criminal history for the decedent and/or parent(s)/guardian(s). *See violent or non-violent criminal history for definitions*.

Fetal Alcohol Syndrome (FAS): A group of birth defects seen among babies whose mothers consumed alcohol during pregnancy, which includes mental retardation, developmental disabilities, and physical deformities.

Fetal Death: A death occurring in a fetus over 20 weeks gestational age; not a live birth.

Failure To Thrive: The abnormal retardation of growth and development of an infant resulting from conditions that interfere with nomal metabolism, appetite, and activity. Causes include illness, chomosomal abnormalities, major organ system defects, and malnutrition.

Infant Death: A death occurring during the first year (12 months) of life; includes both neonates and post neonates.

Infant Mortality Rate: The number of infants who die within the first year of birth per 1,000 live births.

Infection: The invasion and multiplication of microorganisms in body tissues. Examples are meningitis and sepsis.

Injury-Related Death: A death that is a direct result of an injury-related incident. Examples include homicides, Motor Vehicle Collisions (MVC), suicides, drownings, burn/fires and suffocations.

Intentional Injury: An injury that is purposely inflicted, by either oneself or another person.

International Classification of Diseases: A guide for the classification of morbidity and mortality information for statistical purposes published by the World Health Organization.

Legal Intervention Death: Death due to injuries inflicted by the police or other law-enforcing agents in the course of arresting or attempting to arrest lawbreakers, suppressing disturbances, maintaining order, and other legal action.

Low Birth Weight: Birth weight below 2500 grams.

Manner of Death: Cause of death as indicated on the death certificate, which includes the following five categories: Natural; Accident; Suicide; Homicide; and Undetermined.

Mandated Reporter: A person, who **(1)** in their professional capacity or within the scope of their employment, has a special relationship or contact with children and **(2)** is legally required to report known or has “Reasonable Suspicion” (see definition) of child abuse and neglect, obtained in the scope of their employment.

Mechanism of Death: The means by which the death of a child occurred or is accomplished.

Methamphetamine: A synthetic drug, which affects the central nervous system. Street methamphetamine is sometimes called "speed," "meth," "crank," "chalk," and "zip".

Medically Fragile: A term used to describe children at risk for abnormal growth and development and/or serious medical problems.

Motor Vehicle Collision (MVC): A traffic collision (motor vehicle collision, motor vehicle accident, car accident, or car crash) is when a road vehicle collides with another vehicle, pedestrian, animal, road debris, or other geographical or architectural obstacle.

Natural Deaths (Causes): Death due to complication(s) of disease process, or due immediately to natural cause(s). Examples of natural causes include perinatal conditions, congenital anomalies, cancers, Sudden Infant Death Syndrome (SIDS), Sudden Unexpected Death Syndrome (SUIDS) and deaths due to infections or respiratory conditions.

Neglect Homicide: (A subset of the CAN homicides) Neglect was the direct cause, or was in the direct chain of causes, of the child’s death. Deaths caused by the negligent failure of a parent/guardian or caregiver to provide adequate food, clothing, shelter, or medical care. Deaths clearly due to neglect, supported by a Coroner’s reports or police or criminal investigation. Examples:

- An abandoned newborn that dies of exposure.
- A child who dies from an untreated life threatening infection.
- A parent or caregiver driving recklessly with a suspended license when involved in a motor vehicle collision.

Neglect-Related Deaths:

Supervision and Situational Neglect: Deaths that involve critical moments in which the child, left without adequate supervision, food, shelter, or medical care is killed by a suddenly arising danger. Deaths where poor caregiver skills and/or judgment endangered the life of a child are also included in this category. Death secondary to documented neglect or any case of poor caretaker skills or judgment. Examples:

- An unattended infant who drowns in a bathtub.
- Unrestrained child killed in a motor vehicle accident.
- Motor Vehicle Collisions (MVCs) or house fires where caretaker was "under the influence.

Prenatal Substance Abuse: Prenatal substance abuse where there is a clear medical link to infant death or death is secondary or known to probable prenatal substance abuse. Examples:
Maternal methamphetamine use that causes a premature birth and subsequent death.

- An infant exposed prenatal to cocaine and alcohol that dies from multiple birth defects.

Neonatal Death: A death occurring during the first 27 days of life.

Non-violent Criminal History: Non-violent crime does not use physical force and cause physical pain. Non-violent crime includes, but is not limited to, prostitution, drug sales/trafficking, DUI, burglary, theft, etc. It does not include minor traffic arrests/tickets.

Pathology: The study of disease, its essential nature, cause, and development; and the structural and functional changes it produces.

Perinatal: The period shortly before through shortly after birth, variously defined as beginning with the completion of the twentieth to twenty-eighth week of gestation and ending 7 to 28 days after birth.

Perinatal conditions: Conditions that include prematurity, low birth weight, placental abruption and congenital infections. Deaths due to perinatal conditions span the time period from the second trimester of pregnancy through one month after birth.

Poisoning/Overdose: Death caused by a substance with an inherent property that tends to destroy life or impair health with the possibility of death.

Physical Abuse: (California Law – PC 11165.6) Any physical injury inflicted on a child by other than accidental means. Any physical injury that is unexplainable by the child's medical history. Physical abuse also includes discipline or control by any means not authorized by law to manage persons who are mentally challenged or impaired.

Physical Neglect: (PC 11165.2) – Negligent or maltreatment of a child by a caregiver – including both acts and omission of care.

Postneonatal Death: A death occurring between age 28 days up to, but not including, age one year.

Postmortem: An examination of the body after death, usually with such dissection as will expose the vital organs for determining the cause of death or the character and extent of changes produced by disease; an autopsy.

Prevention Advisory Committee (PAC): An advisory committee to the CDRT consisting of public and private agency service providers that meet to review aggregate data and draft major findings and recommendations for CDRT consideration, pertaining to the annual CDRT report.

Prenatal: The period beginning with conception and ending at birth.

Prenatal Substance Abuse Deaths: Clearly due to prenatal substance abuse supported by Coroner's reports (e.g., cocaine, intoxication, death from medical complications due to drugs).

Prenatal Substance Abuse-Related Deaths: Deaths secondarty to known or probable substance abuse (e.g., SIDS/SUIDS with known perinatal exposure to drugs).

Prematurity: Birth prior to 37 weeks gestation.

Preterm Labor: Onset of labor before 37 weeks gestation.

Positive Toxicology Profile: For the purpose of this report, a positive toxicology profile refers to a child born with drugs in his or her system at birth.

Public Health Nursing (PHN): A part of the County Department of Health and Human Services. PHN provides a broad array of services to families with small children, from working with pregnant women to helping families with high-risk infants, to providing grief counseling.

Respiratory: Pertaining to or serving for respiration: *respiratory disease.*

Questionable Abuse/Neglect Deaths: There are no specific findings of abuse or neglect, but there are factors such as substance abuse use or abuse where substance exposure caused caretaker to experience mental impairment; previously unaccounted for deaths in the same family; or prior abuse/neglect of a child or protective service referral.

Reasonable Suspicion: (PC 11166[a]) When it is objectively reasonable for a person to entertain such a suspicion, when based upon the facts that could cause a reasonable person in a like position, drawing when appropriate on his or her training and experience, to suspect child abuse.

Sexual Abuse and Exploitation: (PC 11165.1) Sexual assault on or sexual exploitation of a minor. Specifically, sexual abuse includes: rape, gang rape (or rape in concert), incest, sodomy, oral copulation, and lewd and lascivious acts.

Sudden Infant Death Syndrome (SIDS): The sudden death of an infant under one year of age, which remains unexplained following an investigation of the case, including the performance of a complete autopsy and review of the clinical history.Section 27491.41 of the California Government Code defines SIDS as "the sudden death of any infant that is unexpected by the history of the infant and where a thorough postmortem examination fails to demonstrate an adequate cause of death."

Sudden Unexpected Infant Death Syndrome (SUIDS): The sudden unexpected/unexplained infant death (SUID) applies to the death of an infant less than one year of age, in which investigation, autopsy, medical history review, and appropriate laboratory testing fails to idenify a specific cause of death.

SUIDS includes cases that meet the definition of Sudden Infant Death Syndrome (SID). If there are external or exogenous stressors [risk factors] that a medical examiner would like to incorporate on a death certificate, such as co-sleeping or bed sharing, they may be added to the cause of death, such as in the following way: *Sudden unexplained (or unexpected) infant death while bed-sharing.*

Suicide: The intentional taking of one's own life.

Suffocation/Choking: A death caused by the prevention of access of air to the blood through the lungs or analogous organs; to impede respiration.

Syndrome: A set of signs or symptoms that occur together often enough to constitute a specific condition or entity.

Third-Party Homicide: A homicide where the perpetrator was not the primary caregiver. Commonly referred to as "third-degree murder," third-party homicide is a killing that resulted from indifference or negligence. Usually there must be a legal duty (parent - child), but can also include crimes like driving drunk and causing a fatal accident.

Toxicology Screening: For the purpose of this report, toxicology screening refers to blood analysis used to detect prenatal drug exposure.

Undetermined Manner: The manner or how a death occurred is unknown and the cause of death may or may not be medically identifiable.

Undetermined Natural: Natural death in which the cause of death may not be medically identifiable

Unintentional Injury: An injury that was unplanned, and unintended to happen, such as motor vehicle crashes, fires and drownings.

Violent Criminal History: Violent crime is a crime in which the offender uses or threatens to use violent force upon the victim. This entails both crimes in which the violent act is the objective, such as a murder, as well as crimes which violence is the means to an end. Violent crimes include crimes committed with and without weapons. Violent crime includes, but is not limited to, robbery, assault, and homicide.

Youth Death Review Subcommittee (YDRS): A subcommittee of the CDRT that investigates Sacramento County resident youth deaths from 10 through 17 years of age.