Sacramento County

Child Death Review Team & Fetal Infant Mortality Review

Annual Report | 2015

THE CHILD ABUSE PREVENTION CENTER

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Acknowledgements

A Special **Thank You** to the People of Sacramento County

Dear Reader,

We do not expect children to die. When they do, we lose memories, dreams, innocence, and some of the potential of our collective future. Their deaths often present painful questions and dilemmas. When we work together to answer the questions and understand the dilemmas in order to save the lives of other children, we are honoring the memories of our youngest victims.

Evan was a five-year-old boy who loved playing with Legos, going to the park, and listening to his mom read. Evan's step-father, Jeremey, had been out of work for the last several months; Evan's mom, Katie, had the day off from her retail job. Jeremey worked sometimes, but together they didn't earn enough to make ends meet and relied on government aid to put food on the table and visit the doctor.

One evening, Jeremey came home very drunk. Jeremey began to berate Katie and started pushing her around the kitchen. This wasn't uncommon in their home, but today Evan could tell that it was worse than usual when Jeremey pulled out a gun. Evan rushed to his mom to try to pull her away, but Jeremey shot and killed Evan and Katie. Police had responded to the house several times before when neighbors heard fighting, but Katie always refused to press charges. Evan's Kindergarten teacher had noticed he was withdrawn, and Katie's doctor had seen a weird bruise on her arm, but they didn't know much else about their lives and didn't intervene.

At Jeremey's trial, the jury learned that as a child he lived with his alcoholic dad; his mom was often in jail or rehab. His dad worked when he could, but often took his frustrations out on Jeremey by throwing him around and hitting him with a belt. The two rarely had enough to eat. Jeremey's teachers called Child Protective Services a few times because they had some suspicions, but Jeremey remained with his dad for most of his childhood. Eventually, Jeremey dropped out of high school, turned to alcohol, and picked up construction jobs when he could.

Evan's story demonstrates the intergenerational cycles of violence that call for integrated prevention and early intervention efforts throughout Sacramento County. There were many public and private agencies that touched both Evan and Jeremey throughout their lives. Because we have information about known risk factors associated with families like Evan's, we have the responsibility to develop effective transdisciplinary approaches to make an impact in the lives of these children and their families.

Through funding support from the Sacramento County Children's Coalition, the Child Death Review Team (CDRT) has reviewed every child death in Sacramento County since 1990. The goal of CDRT is to conduct investigations in a respectful manner that encourages open dialogue, thorough review of cases, and thoughtful consideration in the determination of cause and manner of death. The information uncovered in these meetings can help save lives like Evan's. I am honored to serve as Vice Chair for this dedicated group, which is made possible through generous contributions of time by member agencies and dedicated representatives. The success of CDRT and its ability to collect

important information about the lives and deaths of these children is only made possible by the dedication of member agencies and the respectful camaraderie of representatives who share a mission, come prepared to meetings, and conduct thoughtful deliberation of cases.

The following report is CDRT's set of findings and recommendations, which examine family risk factors and possible points of intervention to identify opportunities for improvements in family services and prevent future deaths. The Team believes these recommendations may help to improve the systems and agencies in Sacramento County who have the responsibility of keeping children healthy, safe and protected, with a particular focus on those children who live in more vulnerable circumstances. We must work together as a community to promote safe, stable and nurturing relationships within families that allow parents and children to flourish.

This report provides a comprehensive examination of issues arising from a review of all child deaths in Sacramento County. For the 2015 report, CDRT also presents a thematic review of Child Abuse and Neglect (CAN) Homicides from 2004-2015; these are deaths, like that of Evan's of children caused by their caregiver. The 69 child deaths contained in this section are tragic, in part because each one was 100% preventable. We hope lessons learned from their deaths will provide Sacramento County with the opportunity to lay the groundwork for a county-wide prevention movement to ensure no further children suffer these deaths. We also strive to prevent non-fatal child abuse and neglect by strengthening families as we can within each of our agencies.

Although prevention of child abuse and neglect fatalities may conjure up reforms to the child welfare system, these fatalities are not a child welfare problem alone but a responsibility facing our entire community. In fact, many children and families in cases reviewed had never come to the attention of the child welfare system. Preventing these fatalities requires a public health approach that involves all agencies and providers serving families, including hospitals, schools, law enforcement, domestic violence prevention groups, and County agencies like CPS, Public Health, Behavioral Health, and the Department of Human Assistance. This approach simultaneously works on multiple fronts to change policy, to improve services, and to mobilize communities.

On behalf of the CDRT, I extend my sympathy to the families and friends of those children whose deaths are considered. I hope that the report will, in some way, acknowledge and honor their short lives. We will continue to learn and pave the way towards building a stronger, healthier and safer community for Sacramento County children. We were once again touched by the stories of the children. As a community, we have a responsibility to examine how we can and will make a difference for Sacramento County's children.

Sincerely,

Michèle Evans, MD MHS
Regional Medical Director, Kaiser Permanente, NCAL

Child Abuse Services & Prevention (CASP) Program
Sacramento County CDRT Vice Chair, 2016-Present

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 because 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.

Child Death Review Team (CDRT) is a multidisciplinary team of professionals from every aspect of a child's and his/her family's life, from medical to academic to law enforcement to child protection. CDRT members share the information and history they have on each case, and come to a mutual consensus on the manner and cause of each death. The goal of CDRT is to identify how and why children die to better facilitate the creation and implementation of strategies to prevent future child deaths.

2015 marks the twenty-sixth year the Sacramento County CDRT has convened to investigate, analyze, and document the circumstances that led to each child death in Sacramento County. For 2015, CDRT has carried out a redesign of the Annual Report. This effort includes a reorganization of the chapters, an emphasis on clear charts and tables to present data, and the use of text to highlight key data points. This Executive Summary includes an overview of child deaths in Sacramento County in 2015 as well as findings and recommendations developed by the team. In the first three chapters, you will find an overview of CDRT, the rates of causes of child death, and the prevalence of identified risk factors for child death. These chapters present data using the 24 categories CDRT uses to classify deaths.

Beginning with Chapter 4, deaths are presented according to additional classifications. Chapter 4 focuses on deaths with an element of child maltreatment. For the 2015 report, this chapter also includes a 12-year review of Child Abuse and Neglect Homicides. In future years, other chapters or "Thematic Reviews" will explore other child deaths in depth. Chapter 5 provides an overview of Infant Sleep-Related deaths, which are categorized in several ways in earlier chapters.

The final Thematic Review in 2015 represents a new committee. The Child Abuse Prevention Council of Sacramento contracted with Sacramento County Department of Health and Human Services to coordinate the Fetal and Infant Mortality Review team beginning in 2015. This team reviews fetal deaths and deaths of infants born prior to 23 weeks gestation, collecting information on maternal health and social risk factors.

Summary of 2015 Child Deaths

In 2015, 126 children, birth through 17 years of age, died in Sacramento County. This number includes 124 Sacramento County child residents and 2 child residents of other counties who sustained injuries and died in Sacramento County. The average child death rate decreased to 34.7 per 100,000 children in 2015 from 37.0 per 100,000 children in 2014.

The Table below shows the number of deaths of Sacramento County Resident children in 2015, the 2015 death rate, and the change in the death rate from 2014.

Sacramento County Child Resident Deaths (does not include out-of-county residents)	2015 Total Deaths	2015 Mortality Rate	Change from 2014
All Child Deaths	124	34.7	▼ 2.3
Injury-Related Manner	30	8.4	▲ 2.2
Natural Manner	88	24.6	▼ 4.0
Undetermined Manner	6	1.7	▼ 0.6
Child Maltreatment Deaths	10	2.8	▼ 0.3
Child Abuse and Neglect Homicides	3	0.8	▼ 0.3
Infant-Sleep Related Deaths[1]	14	71.1	▼ 0.1
Fetal & Infant Mortality	99	503.1	*

*Note: FIMR deaths were not reviewed prior to 2015; 2014 rate is unavailable.

Below are the Findings and Recommendations as determined by the 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/FIMR report.

Key Findings

Findings below highlight major trends in child deaths in 2015. Each year, CDRT gives an overview of Injury- Related deaths, Natural deaths, and African American disproportionality. New in 2015 are findings for Fetal and Infant Mortality Review (FIMR). Findings below are presented in greater detail throughout the report.

Trends Over Time

- Child death rate decreased during 2004-2015 for both Injury-Related and deaths from Natural causes.
- There was a statistically significant decrease in the number of Injury-Related deaths between the 2006-2010 period and the 2011-2015 period from 10.1 to 8.2 deaths per 100,000 children, at the 97% confidence level.
- Unintentional Injury-Related deaths decreased from 7.02 deaths per 100,000 child residents between 2005-2007 to 3.3 per 100,000 child residents between 2013-2015.
- Deaths due to Perinatal Conditions decreased from 3.03 per 1,000 live births to 1.86 per 1,000 live births between 2006 and 2015, driving the decrease in overall infant mortality in Sacramento County from 5.12 per 1000 live births to 4.06 per 1,000 live births over the same period.
- Deaths decreased in all age groups from 2006 and 2015, except for 10-14 years of age.

[1] Infant-Sleep Related Death Rate and Fetal & Infant Mortality Rate are calculated using infants in Sacramento County; all other child death rates calculated using child population. Population data from California Department of Finance.

Injury-Related Notable Trend

Homicides

There were nine homicides in 2015, all among Sacramento County residents; 10 homicides in 2014, nine Sacramento County residents and one out of county resident.

- At least one known family risk factor | 88%
- Family history of crime | 77%

2015 Child Abuse & Neglect Deaths and 2004-2015 Trends

This report included a focused analysis of Child Abuse and Neglect Homicides over the time period 2004-2015. There were three Child Abuse and Neglect (CAN) Homicides in 2015, all Sacramento County residents; five CAN Homicides in 2014, including four Sacramento County residents and one out of county resident.

Between 2004 and 2015 there were 69 CAN Homicides which included the following trends.

- Disproportionately African American | 41%
- The majority were small children, five years of age and younger | 81%
- Almost all had a known risk factor | 97%, including a family history of
    - Child Protective Services (CPS) | 80% (47 of 59 for whom history is known)
    - Criminal history | 65%
- Living in Valley Hi or Fruitridge/Stockton neighborhoods| 33%
- Parents identified as the Perpetrators | 70%
    - Males | 53%
    - Beating and Abusive Head Trauma (shaking or other head trauma) | 74%
    - All other mechanisms | 34%

2015 Third-Party Homicides

There were six Third-Party Homicides, all among Sacramento County residents ages 15-17.

- Involved firearms | 100%, an increase from 66% between 2004-2014
- Involved gang activity | 67%, half of these decedents were personally associated with gangs.
- Known family risk factor | 83%, criminal history and substance abuse were most common risks.

Natural Manner Notable Trends

2015 Infant Sleep-Related (ISR) Deaths

There were 14 Infant Sleep-Related deaths in 2015, the same total number of deaths as in 2013 and 2014.

- African American | 21% (3 of 14), down from 50% in 2013-2014
- Infants younger than 3 months | 50%
- Infants younger than 6 months | 86%
- Sleeping conditions known by the American Academy of Pediatrics to be unsafe | 100%
- Reside in neighborhoods not targeted by the Safe Sleep Baby campaign | 36%

There is a positive correlation between Infant Sleep-Related deaths and Child Protective Services; infants with a past CPS referral are 174% more likely to experience an ISR death than are those without prior referrals. In neighborhoods with very high economic risk, infants with a prior CPS referral are 14 times more likely to suffer an ISR death.[2]

Deaths due to Perinatal Conditions
There were 35 deaths due to Perinatal Conditions in 2015, a decrease from 44 in 2014.

- At least one risk factor |86%, Government Aid was most common (63%)
- No or late prenatal care (beginning in the fifth month or later) |17%
- Known prenatal drug exposure|14%

African American Disproportionality

African American children are 10 percent of the Sacramento County child population but made up 24 percent of all child deaths in 2015 among Sacramento County residents. This is the same disproportionality as in 2013-2014. African American children died at a rate of 81.7 per 100,000 children while the rate for all Sacramento County children was 34.7 in 2015. These rates are similar to 2013-2014, when they were 82.2 and 36.4, respectively.

In 2015, among the four causes of death in which African American children are historically overrepresented, African Americans comprised:

- CAN Homicides | 67% (2 of 3)
- Perinatal Conditions | 34% (12 of 35)
- Infant Sleep-Related deaths | 21% (3 of 14)
- Third-Party Homicides | 17% (1 of 6)

Reduction of African American Child Death (RAACD) Steering Committee Outcomes

- In 2015, 13 of 14 infants died from ISR death without their caregivers receiving the prescribed dosage Safe Sleep Baby Education.

Risk Factors

Most decedents (83%) had at least one known family risk factor (CPS, Crime, Gangs, Substance Abuse, Mental Health, Foster Care, Poverty). Most common risk factors were Government Aid (60%) and CPS History (49%). Family risk factors are especially concentrated in CAN Homicides and other Child Maltreatment deaths (100% of families), and Infant Sleep-Related deaths (100%). Parents often have a CPS history as a victim: 27 percent of families in 2015 had a parent with a CPS case or referral as a child themselves, a slight increase over prior years.

Fetal & Infant Mortality

In 2015, there were 13 deaths of infants who were born prior to 23 weeks' gestation and 86 fetal deaths with fetal death certificates, for a total of 99 Fetal Infant Mortality Review (FIMR) cases among

[2] This relationship is statistically significant (p<.001).

Sacramento County Residents. Because of the limited time and resources for FIMR review, 52 of these cases were reviewed by the team. Additional information is reported from death certificates for infants who were born alive.

Health and Prenatal Care

- Mothers were overweight (BMI 25 or greater) | 59%
- Prior fetal loss | 23%
- Prior pre-term delivery |20%
- FIMR deaths
    - Associated with a pregnancy-related infection |27%
    - Problem with the umbilical cord |21%
    - Premature rupture of membranes |20%
    - Hospitals reported fetal exposure to drugs or alcohol |19% of reviewed cases
    - Associated with poor prenatal care | 35%, 11 began care late (fifth month or later) and 19 had no prenatal care.

Family Risk Factors

- At least one family risk factor | 69% of reviewed cases
- Family history of a Child Protective Services case or referral | 52%
- Family received government aid | 52%

Race

- African American | 21% of deaths; 10% of births
- Caucasian | 26% of deaths; 39% of births
- Hispanic | 13% of deaths; 27% of births
- Asian/Pacific Islander | 14% of deaths; 18% of births
- Multiracial | 26% of deaths; 6% of births
    - 7 had one African American parent

Neighborhoods

Nearly half of all mothers for FIMR cases resided in one of the following three areas (comprised of the noted zip codes):

- Valley Hi | 17% (17 of 99), 95823, 95828
- Arden Arcade | 16% (16 of 99), 95821, 95825, 95864, 95608
- Citrus Heights/Fair Oaks/Orangevale/Rancho Cordova |16% (16 of 99), 95610, 95621, 95628, 95630, 95763, 95662, 95670, 95742, 95827, 95826

Recommendations

Child Abuse and Neglect Homicide

CDRT should conduct a twelve-year multi-disciplinary review of Child Abuse and Neglect (CAN) fatalities.

In response to the 2015 CDRT Report Thematic Review of deaths related to child abuse and neglect, and the Federal Commission to Eliminate Child Abuse and Neglect Fatalities created by Congress in 2013 with a Final Report in 2016, and recognizing that child abuse and neglect deaths are a preventable community concern, the CDRT should convene a diverse multi-disciplinary committee to examine in detail CDRT data from 69 Sacramento County child abuse and neglect fatalities from 2004-2015. The committee should be comprised of members of the CDRT, policy leaders, county agency directors from the Department of Health and Human Services, Child Protective Services, Department of Human Assistance, Public Health, Behavioral Health, District Attorney, Probation, law enforcement, Coroner, City of Sacramento and other cities as identified, hospital systems' child abuse and neglect physicians, non-profit agency stakeholders such as domestic violence and home visitation providers, First 5 Sacramento, Steering Committee on Reduction of African American Child Deaths, and the Child Protective Systems Oversight Committee. The purpose of the committee's work is to identify trends, risk factors, patterns across the cases, and categorize opportunities to identify and intervene in intergenerational cycles of violence. The committee will develop a set of evidence-based recommendations that lay the foundation for a comprehensive countywide strategy to improve policy, systems, and services to end child maltreatment fatalities in our county. The committee will have a limited timeframe of 15 – 20 months to conduct its work and develop its recommendations. The Child Abuse Prevention Center will coordinate this effort.

Expand Shaken Baby Syndrome Prevention education to include dangers of all Abusive Head Trauma and beating, and expand education of and engagement with male caregivers.

Between 2004-2015, 48 percent of CAN Homicides were due to beating or abusive head trauma, and men are perpetrators in 74 percent of these cases. Shaken Baby Syndrome Prevention (SBS) education has historically been targeted to women. SBS education needs to be updated to emphasize to women that they need to educate males who care for infants about the dangers of shaking a baby. SBS education also needs to engage young men. The Child Abuse Prevention Council of Sacramento should work with hospitals, Community Incubator Leads, Birth & Beyond Family Resource Centers, First 5 Sacramento, Child Protective Services, Head Start, and local schools to target men who are or may become caregivers to infants and children five years of age and younger. These efforts can mirror current violence prevention efforts, like the Sacramento Minority Youth Violence Prevention Initiative.

Risk Factors

Develop a county-wide protocol for public and private agencies to refer families to support services when they identify, in the family, recognized risk factors for child death.

Convene a multidisciplinary working group with the task of proposing a comprehensive set of recommendations for a systemic, multidisciplinary, country-wide protocol to recognize and respond to risk factors, and make appropriate referrals for services. The workgroup recommendations should be presented to the Board of Supervisors.

Involve and encourage public and private agencies who have contact with children to refer families to support services, specifically emphasizing follow-through with referrals, including but not limited to school personnel, healthcare providers, criminal justice workers, and government aid points of contact.

Strengthen the system of providing families services once a CPS case is closed, especially focusing on families with children two years of age and under. Ensure families are educated about the services available. The protocol should provide strategies to address language and distance barriers that prevent families from accessing these services.

Ensure co-serving agencies coordinate to support children with known risk factors, including those identified in the Adverse Childhood Experiences Study. For example, increase public education efforts in waiting rooms for government aid and other resources (Women, Infants & Children, Department of Human Assistance, etc.), incorporate child abuse and child fatality prevention in drug and alcohol case management programs, and enhance education provided by law enforcement and probation in routine contacts with families.

Third-Party Homicide

Collect more data on Third-Party Homicides to more effectively target intervention efforts, especially for deaths involving firearms and gang activity.
The Youth Death Review Subcommittee should collect additional risk factor information for victims of Third-Party Homicides. These include but are not limited to probation history, time of day, location of incident, school engagement, and family structure.

African American Child Death

Continue the effort to reduce the death rate of African American children in Sacramento County, which is disproportionate to the death rate of other children.
Sacramento County should continue the work of the Reduction of African American Child Deaths Steering Committee to reduce the child death disparity between African American children and other children in Sacramento County. Increase programs and funding for community engagement and education focused on best practices identified to prevent child abuse and neglect homicides, Infant Sleep-Related deaths, and deaths due to Perinatal Conditions.

Infant Sleep-Related Deaths

Expand training and education efforts to parents and caregivers of infants with Child Protective Services (CPS) referrals to reduce the prevalence of Infant Sleep-Related deaths.
The Safe Sleep Baby Collaborative, funded by First 5 Sacramento, should continue the work of the *Safe Sleep Baby* campaign to educate parents and parent-serving service providers, including CPS, on the importance of safely sleeping babies Alone, on their Back and in a Crib. 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 that the *Safe Sleep Baby* campaign should be expanded to include specific strategies for targeted awareness, education, and training for parents involved with and referred to CPS.

Fetal & Infant Mortality

Develop education about the availability of Medi-Cal and pre-natal care to women in Sacramento County.

Altogether 34 percent of FIMR cases had late or no prenatal care, including 22 percent who did not present for care until the fetal death. The Departments of Health and Human Services and Human Assistance should jointly work with Community Incubator Leads, Birth & Beyond Family Resource Centers, First 5 Sacramento, and Health Providers in Sacramento County to educate women on resources available during pregnancy.

Chapter 1

Introduction to the 2015 CDRT Report

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Introduction to the 2015 CDRT Report

CDRT 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.

A fundamental mission of the Child Death Review Team (CDRT) is to develop an aggregate description of all child deaths ages 0 – 17 as an overall indicator of the well-being of Sacramento County children. This includes, but is not limited to, the type of death, information on the decedent, child demographics, identified risk factors associated with the decedent and/or the decedent's family, and conditions and circumstances around the death such as public/private agency involvement. In cases of child homicide, demographics and risk factors associated with the perpetrator are also collected.

Data Sources

There are two primary sources of death records used in this report. The primary source of death records used in this report is from the Vital Statistics Branch of the Sacramento County Department of Health and Human Services for all children under 18 years of age who have died in Sacramento County. Vital Statistics also provides to CDRT deaths certificates, as available, for children who are Sacramento County residents and who die in another county.

The second source of data used to review all child deaths is fetal death certificates, which are obtained in the same way from Vital Statistics. This is the first year that the efforts of the Fetal Infant Mortality Review Team (FIMR) have been included in the CDRT Report. FIMR reviews all infant mortality deaths for children born prior to 23 weeks gestation and a selection of fetal deaths.

Review Process

The CDRT meets monthly to review deaths of all children from birth through 17 years of age who die in Sacramento County, as well as Sacramento County residents who die in another county in California. 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. All deaths included in the review have a death certificate issued or acquired

by Sacramento County. This includes deaths of residents who died within the County's jurisdiction as well as non-residents who died while in the County.

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, in 2015 the team did not usually review cases of children who are Sacramento County residents but died in another county. Sacramento County did 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. Beginning in 2016, Sacramento County's Epidemiology program provides CDRT with death certificate information for Sacramento County resident children who die in other counties in California. These cases will be included in future Annual Reports.

Team representatives compile pertinent information their agency may have regarding each case. This information is brought to the monthly meetings so the CDRT can discuss all relevant case data. The team identifies trends in child abuse and neglect issues and other types of child deaths in order to address needs in prevention efforts. The information is stored in a secure centralized database maintained by the Child Abuse Prevention Council of Sacramento (CAPC) 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 CDRT 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. Upon request of the CDRT, non-member agencies may be contacted to provide information related to the CDRT's investigation. All cases remain under review until the team agrees that the underlying cause of death has been determined as accurately as possible.

Categories of Death

Deaths are categorized by *cause* and by *manner*.

Causes of Death, listed on the death certificate, are medical findings coded according to the International Classification of Diseases, tenth edition (ICD-10). While an infant or child death may be the result of multiple causes, the primary underlying cause of death is reported here. Each death classified as one of 24 categories that have been identified as meaningful for prevention purposes.

Manner of Death, is a second finding listed on the death certificate and describes the mode or manner, which is an investigative finding of the death. Deaths are classified in three broad categories the are aligned with the classification of morbidity and mortality information for statistical purposes[3].

[3] "International Classification of Diseases." World Health Organization. 29 Nov. 2016. http://www.who.int/classifications/icd/en/.

These fall broadly into one of three categories in this report: Injury Related; Natural; and Undetermined. Injury-Related deaths generally fall into one of the following three categories: "Accident," "Suicide," or "Homicide." In those cases where the cause of death is due to a natural disease process, the manner is listed, usually, as "Natural."

Injury-Related | A death that is a direct result of an injury-related incident. Examples include Homicides, Motor Vehicle Collisions, Suicides, Drownings, Burn/fires, and Suffocations.

Natural 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.

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

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 uncertainty 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.

Risk Factors

In addition to tracking the types and causes of deaths, each case is also reviewed to identify risk factors. The risk factors that are a part of every review include:

History of Abuse & Neglect | Records from Child Protective Services (CPS) are reviewed to determine the nature and extent of contact with CPS, including the history of the decedent, siblings, and the parents.

Medical Risk | Medical Risks may include a history of mental illness in the parent or decedent, inadequate prenatal or other medical care, concealment of pregnancy, or refusal of vaccinations. This information is typically provided by the hospital, coroner, or county mental health.

Alcohol and Drug Use | A history of drug or alcohol use by the parent or decedent, drugs or alcohol involved in the deaths, smoking during pregnancy or secondhand smoke exposure, or a baby born with positive toxicology. This information can come from law enforcement, hospitals, or the coroner.

Crime | Information on parents' or decedents' criminal record for violent or non-violent crime, as well as any domestic violence or gang history, typically comes from local law enforcement or probation. Examples of violent crime include, but are not limited to, robbery, assault, and homicide. Non-violent crime does not use physical force and cause physical pain. Examples include, but are not limited to, drug sales/trafficking, theft, Driving Under the Influence, and prostitution.

Poverty | Because CDRT does not have access to income information, public assistance is used as a proxy for Poverty. CPS representatives give information regarding a decedent family's enrollment in Medi-Cal, CalWORKs, CalFresh, and other services such as Supplemental Security Income.

Special Case Details

Certain case criteria trigger the collection of specific case details. Additional case details are collected for those deaths that involve:

- Fetal or Infant Death (regarding the FIMR data set)
- Infant-Sleep Related Deaths
- Motor Vehicle Collisions
- Drownings
- Deaths Involving a Weapon
- Suicides
- Youth Injury-Related Deaths

Report Strengths & Limitations

Better identification of child abuse and neglect deaths is the primary mission of the 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 CDRT Annual Report than the information provided by the death certificates filed with the State.

The Sacramento County CDRT 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 or national levels in reporting, investigating, and validating cases of child abuse and neglect fatalities. The criteria for selecting cases to review and the definitions used for abuse and neglect-related deaths are established by each county's team, and very few teams review all child deaths. In addition, there is a significant undercount of child abuse and neglect-related deaths reported in Vital Statistics Death Records.

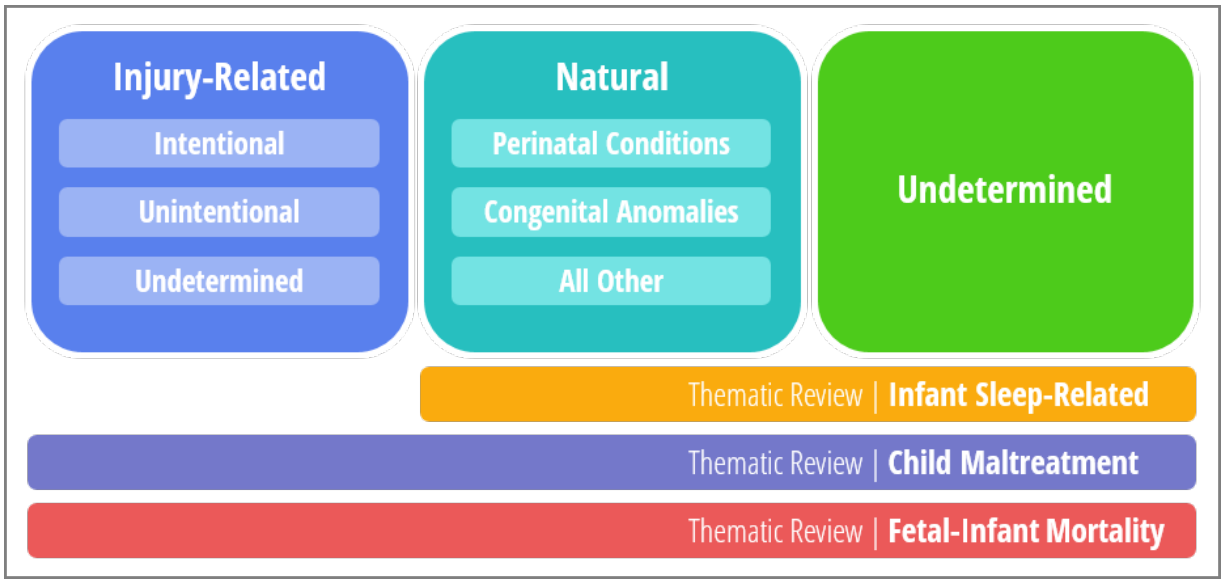
The development of the CDRT's Annual Report has been an evolving process. In 1996, the CDRT began following childhood fatality trends on an annual basis, which led to more comprehensive record keeping of all child deaths. For this reason, aggregate data is available for the period beginning in 1996 through 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.

In the effort to respond to data requests from community stakeholders and the extensive information reported by representatives, CDRT has worked to continually improve data collection throughout this time period. The data collection forms and database CDRT uses to collect data was overhauled in 2004, and further improvements were made in 2007 to the collection and organization of various risk factor indicators. The differences found in the availability and consistency of information is due to the different time periods used to present prior years' data.

Report Organization

Findings from the CDRT and the FIMR are presented separately in this report. Both the FIMR and the CDRT reviews consider the contexts and contributing factors and allow for a more nuanced determination regarding the causes of death. Specifically, the CDRT can identify causes of death related to Child Maltreatment and Infant Sleep-Related deaths which encompass more than one cause of death. These analyses are presented in subsequent chapters as they consider multiple causes and may not fall into one cause of death as reflected in the official record of death.

Figure 1 | Categories Used in Child Death Review & 2015 Thematic Reviews by Child Death Category



Chapter 2

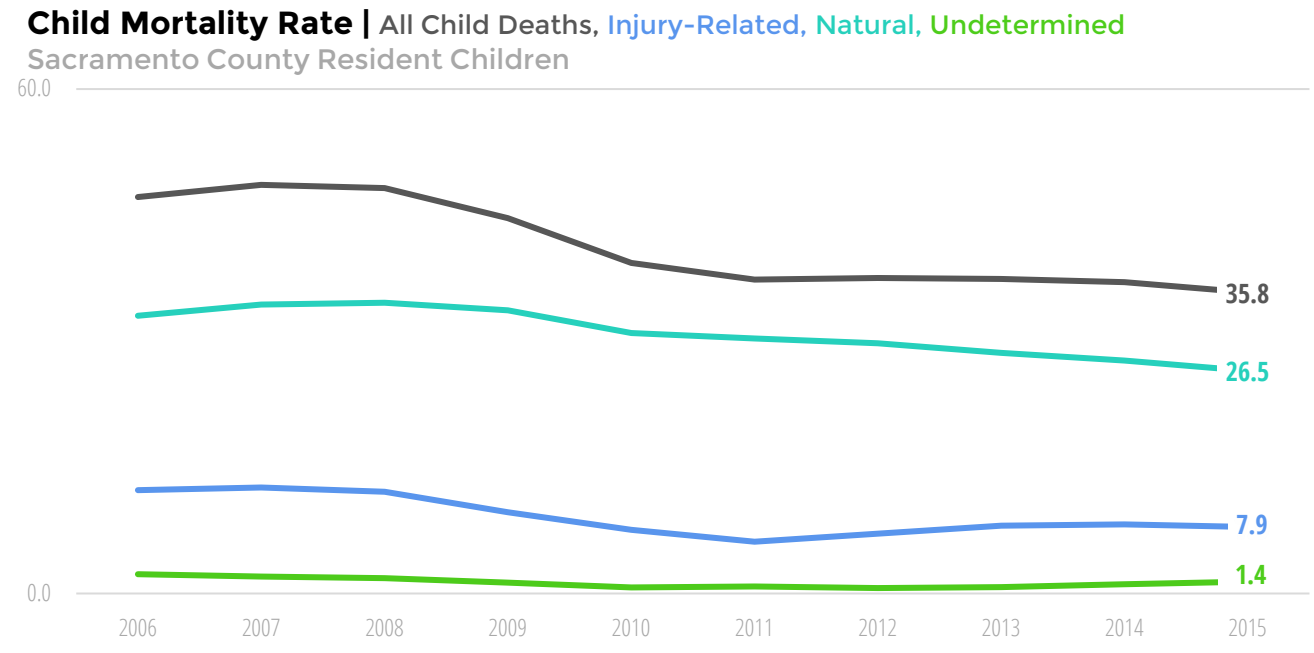
Child Deaths in Sacramento County
Rates & Causes

Chapter 2
Child Deaths in Sacramento County | Rates & Causes

Chapter 2 provides an overview of child deaths in 2015, by detailing causes and manners for deaths and comparing these trends to previous years. Next, the locations of child deaths are mapped in relationship to the child population in Sacramento County. This chapter also includes demographic information, listing sex, age, and race of decedents for each category of death, as well as demographic trends over time by manner of death. Finally, circumstantial factors are included for Injury-Related deaths.

In 2015, there were 124 deaths of children, birth through 17 years of age, who were Sacramento County residents. Given the large number of children living in Sacramento County, and to account for the overall child population change, it is useful to look at the child death rate 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 in 2015 was 34.7 deaths per 100,000 children. This is a decrease from the death rate for Sacramento County children in 2014 of 37.0 deaths per 100,000 children. Figure 2 illustrates the rolling three-year average child death rate from 2006-2015 in Sacramento County. The child death rate has decreased over this time period for both Injury-Related and Natural deaths.

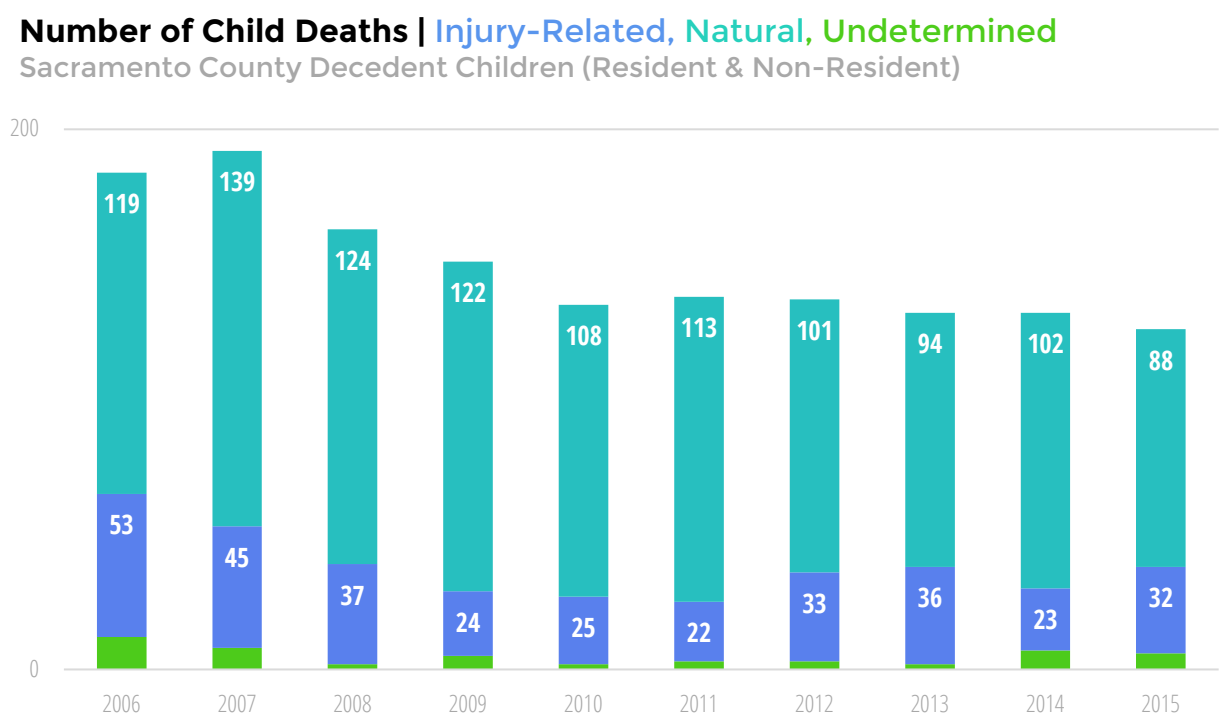
Figure 2 | Child Mortality Rate 3-Year Rolling Average, Sacramento County Resident Children, 2006-2015
(per 100,000 children)



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.

In 2015, 71 percent (88 of 124) of all Sacramento County resident child deaths were due to Natural Causes. Injury-Related deaths accounted for 24 percent (30 of 124) of all Sacramento County resident child deaths during this period, and deaths of an Undetermined manner accounted for five percent (6 of 124) of all Sacramento County child deaths during this period. Figure 3 shows a breakdown of Sacramento County resident child deaths by category for each year from 2006 through 2015. Deaths in the two main categories, Injury-Related and Natural Causes, are broken out into subcategories per 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).

Figure 3 | Number of All Child Deaths by Manner, 2006-2015



During the period between 2006 and 2015, the overall number of child deaths per year has decreased. This trend appears both in Natural and Injury-Related deaths, although Injury-Related deaths were at their lowest in 2011.

Table 1 | Child Deaths by County Residency, 2006-2015

County Residency	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	All Years
Sacramento County Resident	184	188	160	147	135	137	137	129	132	124	1,473
Non-Resident	-	4	3	4	3	1	-	3	1	2	21
Total Child Deaths	184	192	163	151	138	138	137	132	133	126	1,494

CDRT reviews both Sacramento County resident deaths and deaths of out of county residents who are injured and died in Sacramento County. Table 1 shows the number of deaths between 2006 and 2015 by residency, and Table 2 shows the child mortality rate for Sacramento County residents. The number of deaths and the death rate have steadily declined over the 10-year period.

Table 2 | Child Mortality Rate, Sacramento County Residents, 2006-2015
(per 100,000 children)

Child Mortality Rate	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	All Years
Sacramento County Resident	50.5	51.3	43.5	40.4	37.2	37.9	38.3	36.1	37.0	34.7	40.7

Table 3 shows Sacramento County Child Deaths by manner and cause of death between 2006 and 2015. The overall number of deaths are down compared with prior years at 126. This decrease is largely driven by the decrease in Natural deaths to 88 in 2015. At 32, the number of Injury-Related deaths is consistent with recent years, but is down from the beginning of the ten-year period when there were 53 such deaths in 2006.

Table 3 | All Child Deaths by Manner & Cause, 2006-2015
(Sacramento County Decedent Children, Resident & Non-Resident)

Manner	Cause	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	All Years
Injury-Related	Total	53	45	37	24	25	22	33	36	23	32	330
	Homicide	16	12	16	9	11	8	13	18	10	9	122
	CAN Homicide	*7*	*3*	*11*	*6*	*3*	*4*	*4*	*11*	*5*	*3*	*57*
	3rd Party Homicide	*9*	*9*	*5*	*3*	*8*	*4*	*9*	*7*	*5*	*6*	*65*
	Motor Vehicle Collision	11	13	6	5	3	4	3	5	2	7	59
	Occupant/Driver	*6*	*7*	*4*	*1*	*1*	-	-	*3*	-	*5*	*27*
	Pedestrian	*3*	*6*	*2*	*2*	*2*	*3*	*1*	*2*	*2*	*2*	*25*
	Bike	*2*	-	-	*2*	-	*1*	*2*	-	-	-	*7*
	Drowning	12	7	4	6	4	4	8	2	5	5	57
	Suicide	1	4	6	2	4	3	3	6	5	4	38
	Suffocation	3	1	1	-	1	-	4	-	1	-	11
	Poisoning/Overdose	2	2	1	2	1	-	-	-	-	2	10
	Burn/Fire	2	5	-	-	-	-	-	-	-	2	9
	Legal Intervention	-	-	-	-	-	1	1	-	-	-	2
	Injury | Other	6	1	3	-	1	1	1	5	-	1	19
	Injury | Undetermined	-	-	-	-	-	1	-	-	-	2	3
Natural	Total	119	139	124	122	111	113	101	94	102	88	1,113
	Perinatal Conditions	65	63	50	53	39	54	42	33	44	35	477
	Congenital Anomalies	29	38	30	27	37	35	25	30	31	28	308
	SIDS	3	9	6	5	3	3	9	-	2	2	42
	SUIDS	--	5	15	8	13	8	12	13	8	8	90
	Cancer	9	15	8	13	11	9	8	7	9	4	93
	Infections	8	3	5	9	-	1	1	7	3	2	39
	Respiratory	2	-	3	2	2	1	-	2	1	1	14
	Natural | Other	3	6	6	4	6	1	2	2	3	5	38
	Natural | Undetermined	-	-	1	1	-	1	2	-	1	3	9
Undetermined	Total	12	8	2	5	2	3	3	2	8	6	51
All Manner	Total	184	192	163	151	138	138	137	132	133	126	1,494

-- category did not exist until 2007

The map shown in Figure 4, 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 2015, with darker regions indicating a higher concentration of child deaths. The largest concentration of deaths is in the Valley Hi area. However, the inset map (Figure 5) showing child population indicates that this concentration may be, in part, a reflection of the population density of the area.

Figure 4 | Density of All Child Deaths by Location, 2015

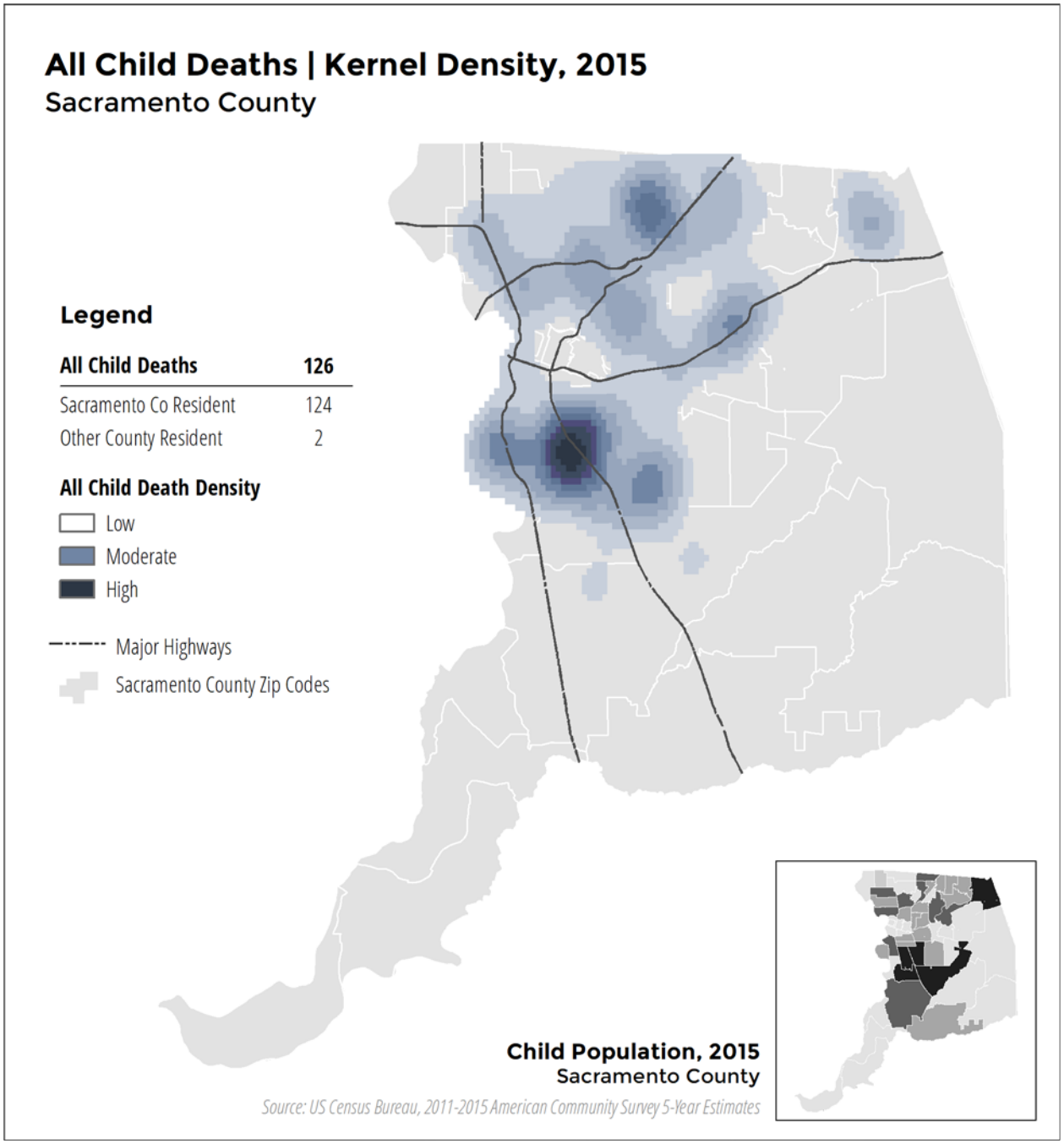
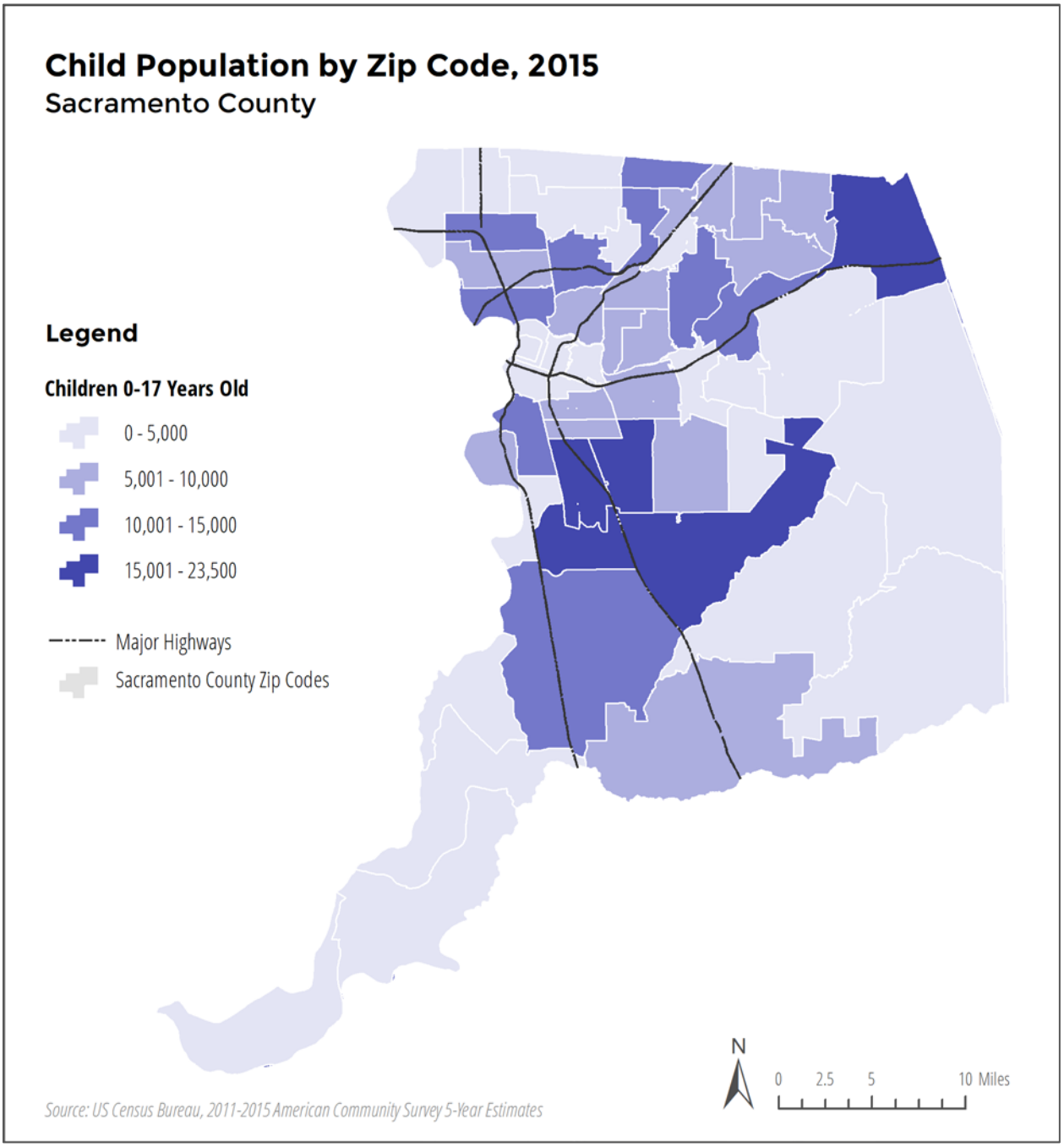


Figure 5 | Child Population in Sacramento County by Zip Code, 2015



Injury-Related Deaths

Injury-Related Deaths can be analyzed in terms of three broad categories: Intentional, Unintentional, and Undetermined.

Intentional Injury-Related Death | An injury that is purposely inflicted, by either oneself or another person. Intentional injuries include Homicides and Suicides.

Unintentional Injury-Related Death | An injury that was unplanned and unintended, such as Motor Vehicle Collisions, Fires, and Drownings. Unintentional injuries are those where the forces causing the injuries are accidentally applied or set in motion.

Undetermined Injury-Related Death | The undetermined category includes all Injury-Related Deaths in which there was insufficient evidence to determine whether the fatal injuries were inflicted or accidental. An injury for which the intentionality is unclear, for example a case in which the coroner could not distinguish between an accident and suicide.

In 2015, there were a total of 32 Injury-Related Deaths. This is an increase from 23 in 2014, but is within the range of past years. Overall, there is a downward trend in Injury-Related Deaths since 2006; much of this decline is in Unintentional Injuries. Over the entire ten-year period from 2005-2014, this represents a statistically significant decrease in the number of Injury-Related Deaths between the 2005-2009 period and the 2010-2014 period at the 99 percent confidence level.

Much of the decrease in Injury-Related Deaths has occurred among *Unintentional* Injury-Related Deaths, which decreased from 7.02 deaths per 100,000 child residents between 2005-2007, to 3.3 per 100,000 child residents between 2013-2015. Figure 6 shows the three-year rolling average of Injury-Related Deaths in Sacramento County from 2006-2015.

Figure 6 | Injury-Related Child Mortality Rate 3-Year Rolling Average, 2006-2015
(per 100,000 children)

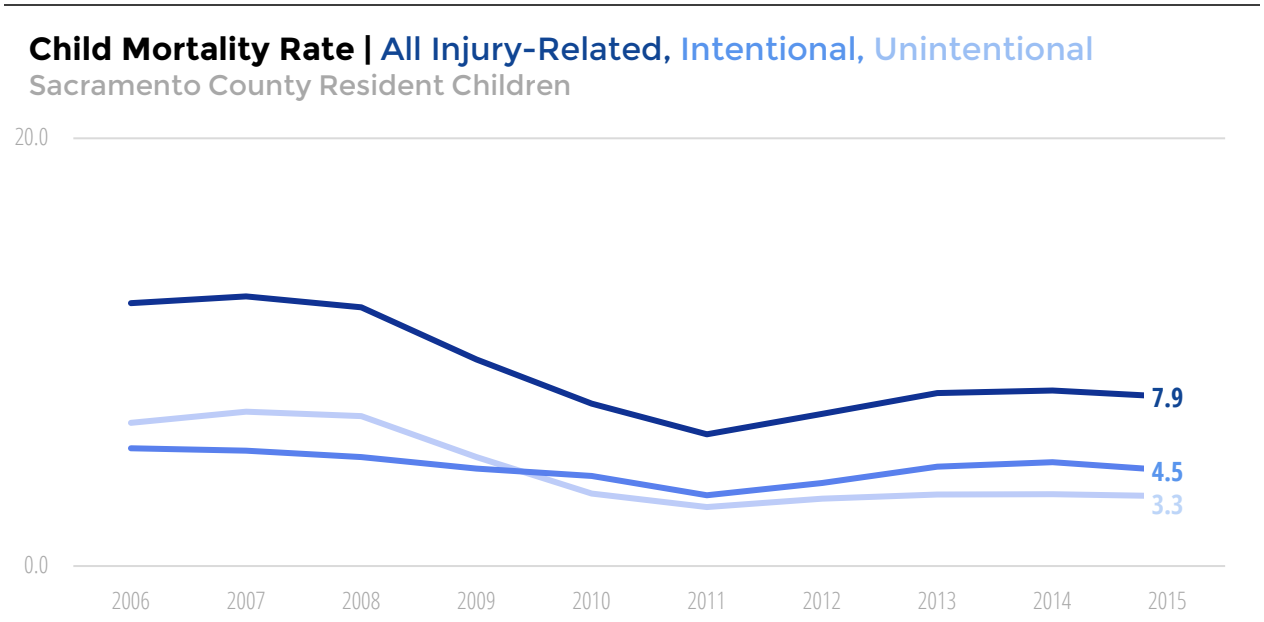


Table 4 below shows Injury-Related Deaths by sex and cause of death. Seventy-two percent of all Injury-Related Deaths were among male decedents, including 85 percent of Intentional Injury-Related Deaths. In 2015, all six of the Third-Party Homicides were among males.

Table 4 | Injury-Related Deaths by Sex,2015
(Sacramento County Decedent Children, Resident & Non-Resident)

Injury-Related	Cause	Male		Female		Total	
Intentional	Total	11	85%	2	15%	13	100%
	Homicide	8	89%	1	11%	9	69%
	CAN Homicide	*2*	*67%*	*1*	*33%*	*3*	*33%*
	3rd Party Homicide	*6*	*100%*	-		*6*	*67%*
	Suicide	3	75%	1	25%	4	31%
Unintentional	Total	10	59%	7	41%	17	100%
	Motor Vehicle Collision	3	43%	4	57%	7	41%
	Occupant/Driver	*2*	*40%*	*3*	*60%*	*5*	*71%*
	Pedestrian	*1*	*50%*	*1*	*50%*	*2*	*29%*
	Bike	-		-		-	
	Drowning	4	80%	1	20%	5	29%
	Suffocation	-		-		-	
	Poisoning/Overdose	1	50%	1	50%	2	12%
	Burn/Fire	1	50%	1	50%	2	12%
	Legal Intervention	-		-		-	
	Unintentional | Other	1	100%	-		1	6%
Undetermined	Total	2	100%	-		2	100%
Injury-Related	Total	23	72%	9	28%	32	100%

Table 5 | Injury-Related Deaths by Age Group, 2015
(Sacramento County Decedent Children, Resident & Non-Resident)

		Years Old											
Injury-Related	Cause	<1		1-4		5-9		10-14		15-17		Total	
Intentional	Total	2	15%	-		1	8%	-		10	77%	13	100%
	Homicide	2	22%	-		1	11%	-		6	67%	9	69%
	CAN Homicide	*2*	*67%*	-		*1*	*33%*	-		-		*3*	*33%*
	3rd Party Homicide	-		-		-		-		*6*	*100%*	*6*	*67%*
	Suicide	-		-		-		-		4	100%	4	31%
Unintentional	Total	1	6%	5	29%	1	6%	6	35%	4	24%	17	100%
	Motor Vehicle Collision	-		1	14%	-		4	57%	2	29%	7	41%
	Occupant/Driver	-		-		-		*3*	*60%*	*2*	*40%*	*5*	*71%*
	Pedestrian	-		*1*	*50%*	-		*1*	*50%*	-		*2*	*29%*
	Bike	-		-		-		-		-		-	
	Drowning	-		2	40%	-		1	20%	2	40%	5	29%
	Suffocation	-		-		-		-		-		-	
	Poisoning/Overdose	1	50%	1	50%	-		-		-		2	12%
	Burn/Fire	-		-		1	50%	1	50%	-		2	12%
	Legal Intervention	-		-		-		-		-		-	
	Unintentional | Other	-		1	100%	-		-		-		1	6%
Undetermined	Total	2	100%	-		-		-		-		2	100%
Injury-Related	Total	5	16%	5	16%	2	6%	6	19%	14	44%	32	100%

Table 5 above shows Injury-Related Deaths in 2015 by age. The most common age category for an Injury-Related Death was 15-17 years of age; 44 percent of Injury-Related Deaths were in this group.

Youth between 15 and 17 years were also the most common for Intentional Injuries, representing more than three quarters of such deaths. All six Third-Party Homicides and four Suicides were in youth between 15 and 17 years. In 2015, younger youth between 10 and 14 years were the most likely to die of Unintentional Injuries at 35 percent.

Injury-Related Deaths are displayed by race in Table 6 below. Both Intentional and Unintentional Injury-Related deaths are most common in African Americans, while Hispanics were involved in the majority of Motor Vehicle Collision deaths.

Table 6 | Injury-Related Deaths by Race, 2015
(Sacramento County Decedent Children, Resident & Non-Resident)

		Race											
Injury-Related	Cause	Black/ African Am		Asian/ Pac Islander		White		Hispanic		Multiracial		Other		Total	
Intentional	Total	4	31%	2	15%	3	23%	3	23%	1	8%	-		13	100%
	Homicide	3	33%	1	11%	2	22%	2	22%	1	11%	-		9	69%
	CAN Homicide	2	67%	1	33%	-		-		-		-		3	33%
	3rd Party Homicide	1	17%	-		2	33%	2	33%	1	17%	-		6	67%
	Suicide	1	25%	1	25%	1	25%	1	25%	-		-		4	31%
Unintentional	Total	6	35%	2	12%	4	24%	4	24%	1	6%	-		17	100%
	Motor Vehicle Collision	-		-		2	29%	4	57%	1	14%	-		7	41%
	Occupant/Driver	-		-		2	40%	3	60%	-		-		5	71%
	Pedestrian	-		-		-		1	50%	1	50%	-		2	29%
	Bike	-		-		-		-		-		-		-	
	Drowning	1	20%	2	40%	2	40%	-		-		-		5	29%
	Suffocation	-		-		-		-		-		-		-	
	Poisoning/Overdose	2	100%	-		-		-		-		-		2	12%
	Burn/Fire	2	100%	-		-		-		-		-		2	12%
	Legal Intervention	-		-		-		-		-		-		-	
	Unintentional | Other	1	100%	-		-		-		-		-		1	6%
Undetermined	Total	1	50%	-		-		-		-		1	50%	2	100%
Injury-Related	Total	11	34%	4	13%	7	22%	7	22%	2	6%	1	3%	32	100%

Intentional Injury-Related Deaths

In 2015, Intentional Injury-Related Deaths (Homicides and Suicides) comprised 41percent (13 of 32) of all Injury-Related Deaths; the most common Intentional Injury-Related Death is Third-Party Homicide. Demographic information for these deaths is listed in the tables above; the section below includes information on the circumstances of these 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.

In 2015, Homicides represented 69% (9 of 13) of all Intentional Injury-Related child deaths. All of these Homicides occurred among Sacramento County resident children. Three of the nine Homicides were CAN Homicides, while six were Third-Party Homicides.

CAN Homicides | In 2015, three of the nine child homicides were CAN Homicides. One was perpetrated by both parents, one by the mother, and one by the mother's boyfriend. Mechanisms included blunt force injury, drowning, and smothering. More information on CAN Homicides can be found in Chapter 4.

Third-Party Homicides | In 2015, six of the nine child homicides were classified as Third-Party Homicides, all among Sacramento County resident children. Firearms were used in all six cases. In four of the six, perpetrators were known gang members, although only two of these decedents had a gang affiliation.

Suicides

In 2015, there were four Suicide deaths, all among Sacramento County residents.

Manner of Suicide | Three of the decedents died by hanging and one died from a gunshot wound.

Warning Signs | Three of the four decedents displayed known warning signs prior to the suicide.

Unintentional Injuries

In 2015, there were 17 deaths resulting from Unintentional Injuries, 15 of whom were Sacramento County residents. The cause that had the most deaths was Motor Vehicle Collisions (MVC).

Drownings

In 2015, drownings accounted for 29 percent (5 of 17) of Unintentional Injury-Related Deaths.

Location | Three of the deaths occurred in open water (two in a river, one in a pond) and two were in in-ground pools.

Activity | Three decedents were playing near water, one was swimming, and one was in a motor vehicle that went into the water.

Conditions | CDRT records instances of unsafe conditions present in child drowning deaths. Such unsafe conditions were present in 60 percent (3) of drowning deaths; these unsafe conditions include playing in or near water with insufficient supervision, playing in the river with no life jacket, and drug use.

Motor Vehicle Collisions

In 2015, MVC deaths accounted for 41 percent (7 of 17) of Unintentional Injury-Related Deaths.

Location of Decedent | Of these seven MVC deaths, five were passengers in vehicles, and two were pedestrians. None of the MVC decedents were cyclists.

Location of Incident | Two decedents were on city streets, two were on highways, and one each was in a parking area, an intersection, and a rural road.

Contributing Factors | CDRT records instances of unsafe conditions present in MVC deaths. Such conditions include car passengers who were not properly using seatbelts and cyclists who were not wearing helmets. All the MVC deaths occurred under unsafe conditions (7). Of the five driver/occupant deaths, four involved reckless driving on the part of a driver in either the decedent's car or another

car, and one involved a child who was not wearing a seatbelt. Both pedestrian deaths involved unsafe road crossing (2 of 2).

Natural Deaths

In 2015, 70 percent (88 of 126) 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).

Table 7 | Natural Manner Deaths by Sex, 2015
(Sacramento County Resident Children)

Natural Manner	Male		Female		Total	
Perinatal Conditions	21	60%	14	40%	35	40%
Congenital Anomalies*	11	41%	16	59%	28	31%
SIDS	2	100%	-		2	2%
SUIDS	7	88%	1	13%	8	9%
Cancer	4	100%	-		4	5%
Infections	1	50%	1	50%	2	2%
Respiratory	1	100%	-		1	1%
Natural | Other	2	40%	3	60%	5	6%
Natural | Undetermined	2	67%	1	33%	3	3%
Total	51	59%	36	41%	88	100%

*Sex was unknown/ambiguous for one decedent in this category.

Table 7 shows Natural deaths by sex. Males made up 59 percent of all Natural deaths and 60 percent of Perinatal Conditions, the most common of these causes. Table 8 below shows Natural deaths by age. Infants made up 76 percent of Natural deaths and 97 percent of Perinatal Conditions deaths.

Table 8 | Natural Manner Deaths by Age, 2015
(Sacramento County Resident Children)

	Years Old											
Natural Manner	<1		1-4		5-9		10-14		15-17		Total	
Perinatal Conditions	34	97%	-		-		1	3%	-		35	40%
Congenital Anomalies	20	71%	5	18%	2	7%	1	4%	-		28	32%
SIDS	2	100%	-		-		-		-		2	2%
SUIDS	8	100%	-		-		-		-		8	9%
Cancer	1	25%	-		1	25%	2	50%	-		4	5%
Infections	1	50%	1	50%	-		-		-		2	2%
Respiratory	-		-		1	100%	-		-		1	1%
Natural | Other	-		2	40%	1	20%	2	40%	-		5	6%
Natural | Undetermined	1	33%	2	67%	-		-		-		3	3%
Total	67	76%	10	11%	5	6%	6	7%	-		88	100%

Table 9 below displays deaths from Natural causes by race. Whites represented the most Natural deaths at 30 percent and the most deaths from Congenital Anomalies, the second most common Natural cause, at 36 percent. African Americans were the group most likely to die of Perinatal Conditions and represented 34 percent of these deaths.

Table 9 | Natural Manner Deaths by Race, 2015
(Sacramento County Resident Children)

	Race													
Natural Manner	Black/ African Am		Asian/ Pac Islander		White		Hispanic		Multiracial		Other		Total	
Perinatal Conditions	12	34%	4	11%	6	17%	9	26%	4	11%	-		35	40%
Congenital Anomalies	2	7%	4	14%	10	36%	8	29%	4	14%	-		28	32%
SIDS	-		-		1	50%	1	50%	-		-		2	2%
SUIDS	3	38%	-		3	38%	-		1	13%	1	13%	8	9%
Cancer	1	25%	1	25%	1	25%	-		1	25%	-		4	5%
Infections	-		-		1	50%	1	50%	-		-		2	2%
Respiratory	1	100%	-		-		-		-		-		1	1%
Natural | Other	1	20%	1	20%	2	40%	-		1	20%	-		5	6%
Natural | Undetermined	-		-		2	67%	1	33%	-		-		3	3%
Total	20	23%	10	11%	26	30%	20	23%	11	13%	1	1%	88	100%

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 from the second trimester of pregnancy through one month after birth. In some cases, a Perinatal Condition is developed during this period but the child dies from that condition later in life. While this death would be categorized differently in other data sources, CDRT classifies it as a Perinatal Condition to better identify the underlying cause of death and infer needed prevention measures.

In 2015, 40 percent (35 of 88) of all Natural deaths in Sacramento County were due to Perinatal Conditions. Gestational age was known for 94 percent (33 of 35) of deaths due to Perinatal Conditions. Of those, prematurity (birth prior to 37 weeks' gestation) was a known contributing factor in 91 percent (30 of 33) of deaths due to Perinatal Conditions. 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 522 grams (approximately 1.15 pounds).

Figure 7 shows the maternal age in death Perinatal Conditions. Maternal age was known for 31 of 35 deaths due to Perinatal Conditions. The most common age group was 20-29 years; 39 percent (12 of 31) of mothers were in this range.

Figure 7 | Percent of Perinatal Condition Deaths by Age of Mother, 2015

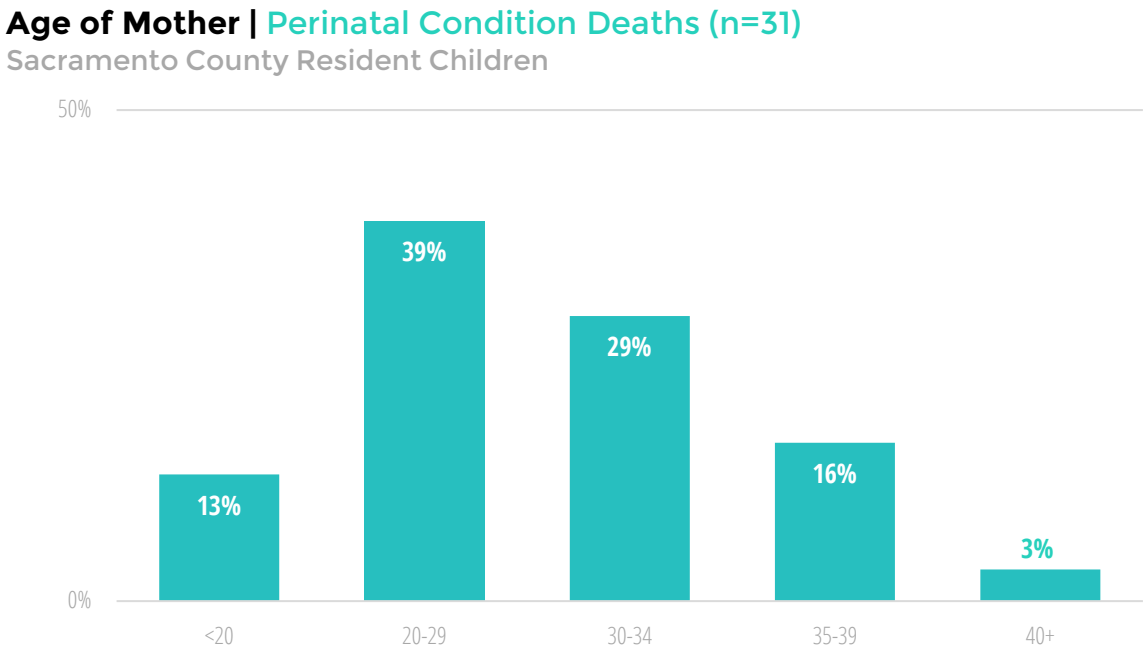
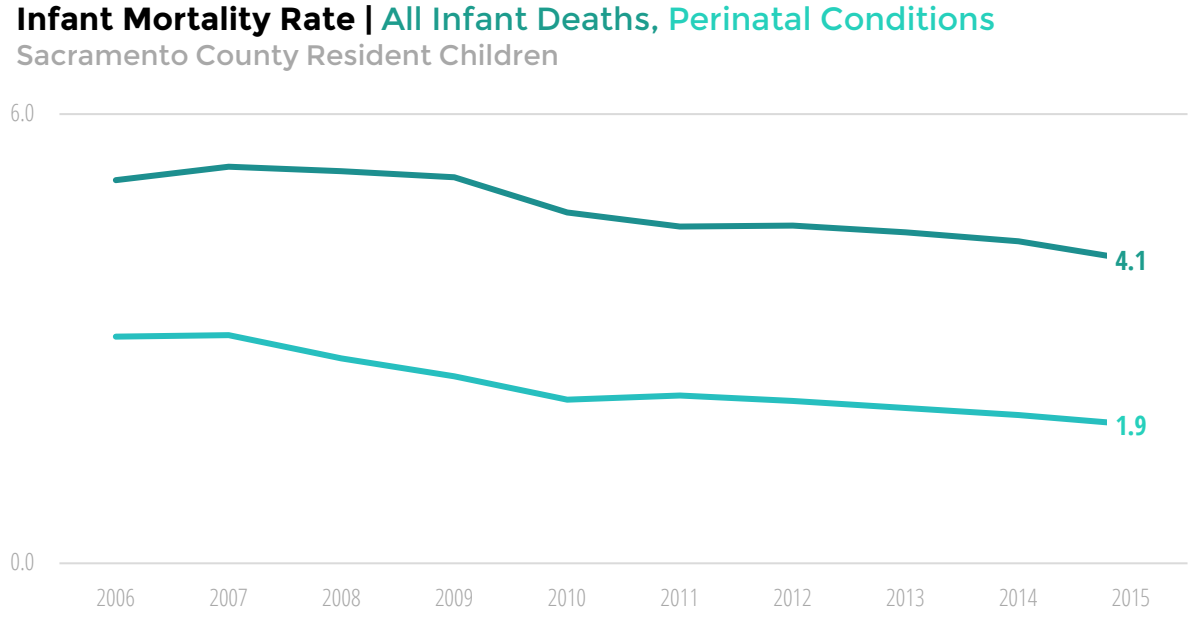


Figure 8 shows the Infant Mortality Rates (IMR) in Sacramento County as well as the three-year rolling average rate of infant deaths from Perinatal Conditions between 2006 and 2015. Deaths from Perinatal Conditions have decreased from 3.03 per 1000 live births to 1.86 per 1000 live births between 2006 and 2015, driving the decrease in overall infant mortality in Sacramento County from 5.12 per 1000 live births to 4.06 per 1000 live births over the same period.

Figure 8 | Infant Mortality Rate 3-Year Rolling Average (per 1000 live births)**, 2006-2015**



Congenital Anomalies

Congenital is defined as a condition that exists at birth and usually before birth, regardless of its causation.

Anomalies are marked deviations from the normal standard, especially because 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 Trisomy 13 (Patau Syndrome). The underlying causes of death in this category are generally attributed to heredity and/or genetics.

In 2015, 32 percent (28 of 88) of all Natural deaths in Sacramento County were due to Congenital Anomalies.

Cancer, Infections, Respiratory, & Other Natural Causes

Below are the definitions used in the determination of death from Natural causes:

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. In 2015, five percent (4 of 88) of Natural deaths in Sacramento County were due to Cancer.

Infection | Death caused by the invasion and multiplication of microorganisms in body tissues. Examples are meningitis and sepsis. In 2015, 2 percent (2 of 88) of Natural deaths in Sacramento County were due to Infection.

Respiratory | Death that involves a disease or infection of the lungs or airway passages. Such diagnoses include pneumonia, Respiratory syncytial virus (RSV), asthma, tuberculosis, etc. In 2015, 1 percent (1 of 88) of Natural deaths in Sacramento County were due to Respiratory conditions.

Other Natural Causes | Deaths due to a natural cause not previously mentioned. In 2015, six percent (5 of 88) of Natural deaths in Sacramento County were due to Other Natural Causes.

In 2015, Cancer, Infections, Respiratory, and Other Natural Causes accounted for 14 percent (12 of 88) of Natural deaths in Sacramento County.

Undetermined Manner Deaths

Undetermined manner deaths are defined as deaths 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 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.

In 2015, there were six deaths of an Undetermined manner, three of which were Infant Sleep-Related. Of the other three Undetermined manner deaths: two abuse-related or questionable abuse deaths occurred with inconclusive injuries, and one suffocation occurred with an undetermined cause.

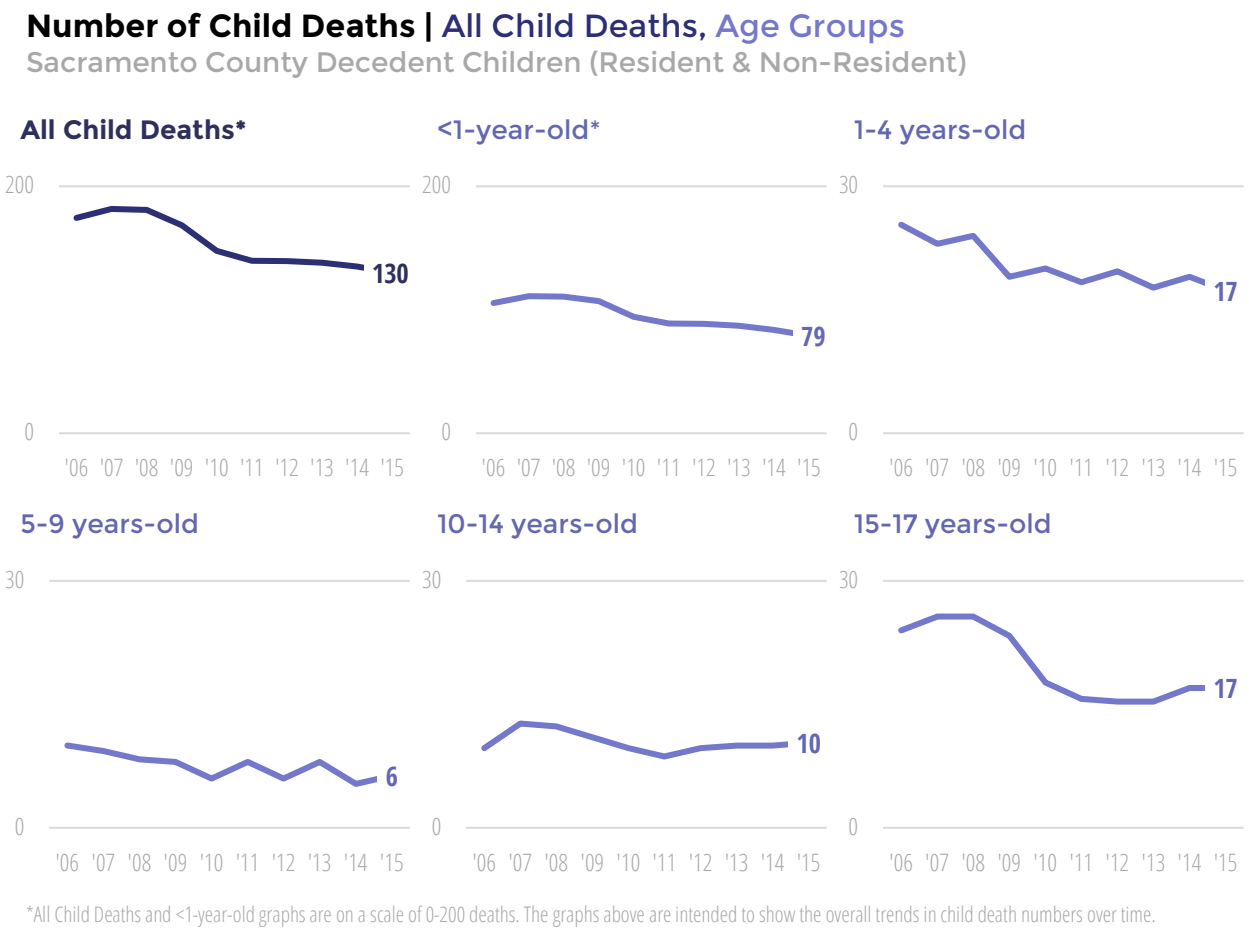
Demographics Trends

Age

In 2015, most Sacramento County resident child deaths occurred in infants under one year of age, accounting for 61 percent (76 of 124) of all deaths.

Figure 9 shows the number of child deaths by age category between 2006 and 2015. The number of deaths decreased in all age groups except for 10-14 years of age over this period. The overall number of deaths decreased from an average of 174 per year in 2004-2006 to 130 in 2013-2015. The number of infant deaths decreased the most during this period, from an average of 105 to 79 during the same time period.

Figure 9 | Number of Child Deaths by Age of Child, 2006-2015
(3-Year Rolling Average)



In 2015, there were a total of 32 Injury-Related child deaths in Sacramento County, including Sacramento County residents and residents of other counties who sustained injures and died in Sacramento County. Figure 10 shows the number of Injury-Related deaths by age group. The age group in which the largest number of Injury-Related deaths occurred was children between 15 and 17 years of age, with 44 percent (14 of 32) of all Injury-Related deaths.

Figure 10 | Percent of Injury-Related Deaths by Age of Child, 2015

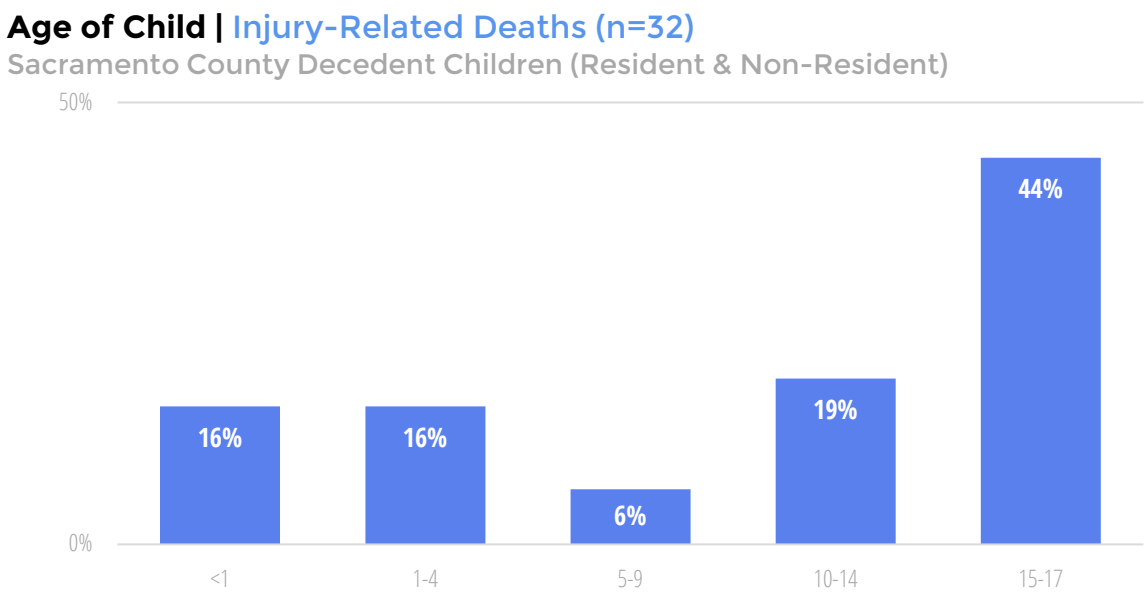
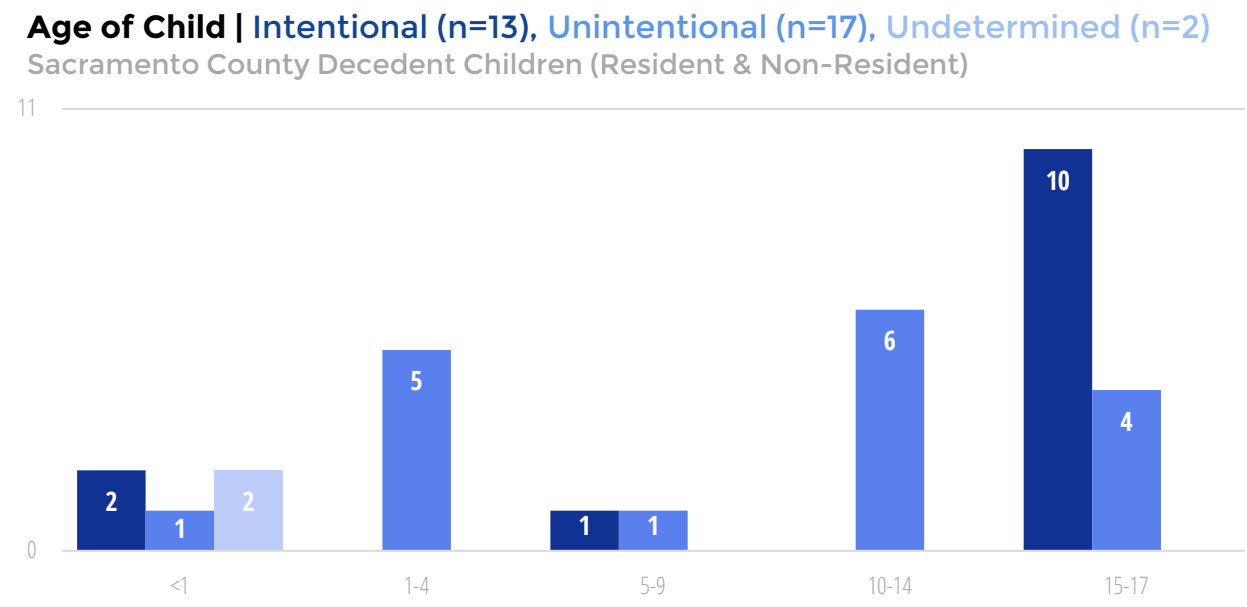


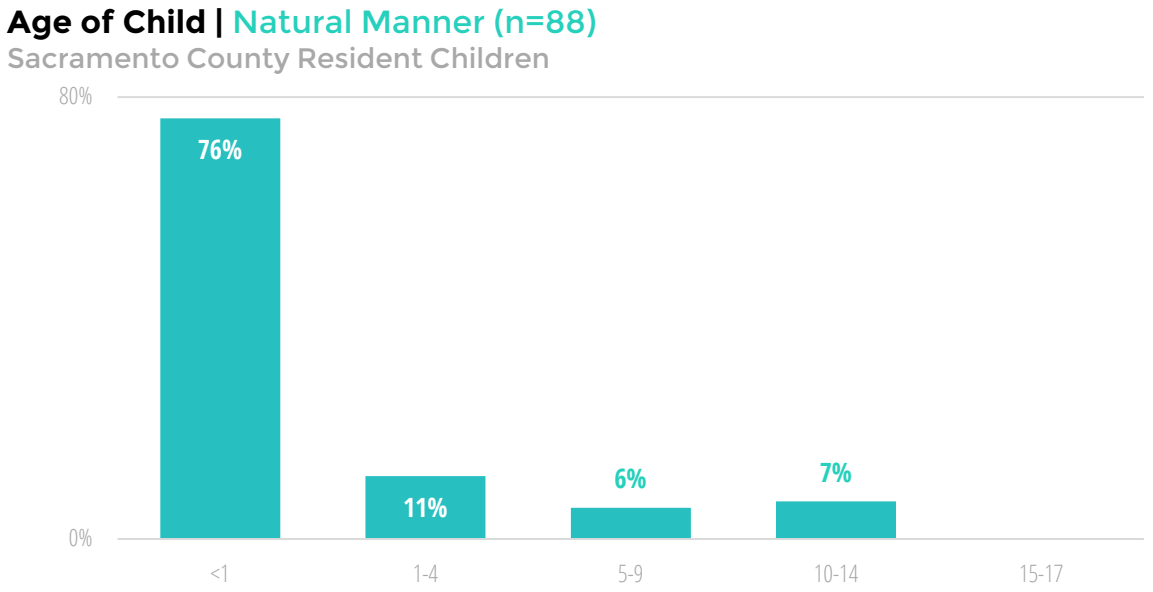
Figure 11 below shows the number of Intentional and Unintentional Injury child deaths by age group. Youth ages 15-17 make up 77 percent of Intentional Injury-Related deaths. The age group with the most Unintentional Injury-Related deaths is youth ages 10-14, making up 35 percent (6 of 17) of these deaths.

Figure 11 | Number of Injury-Related Deaths by Intentionality & Age of Child, 2015



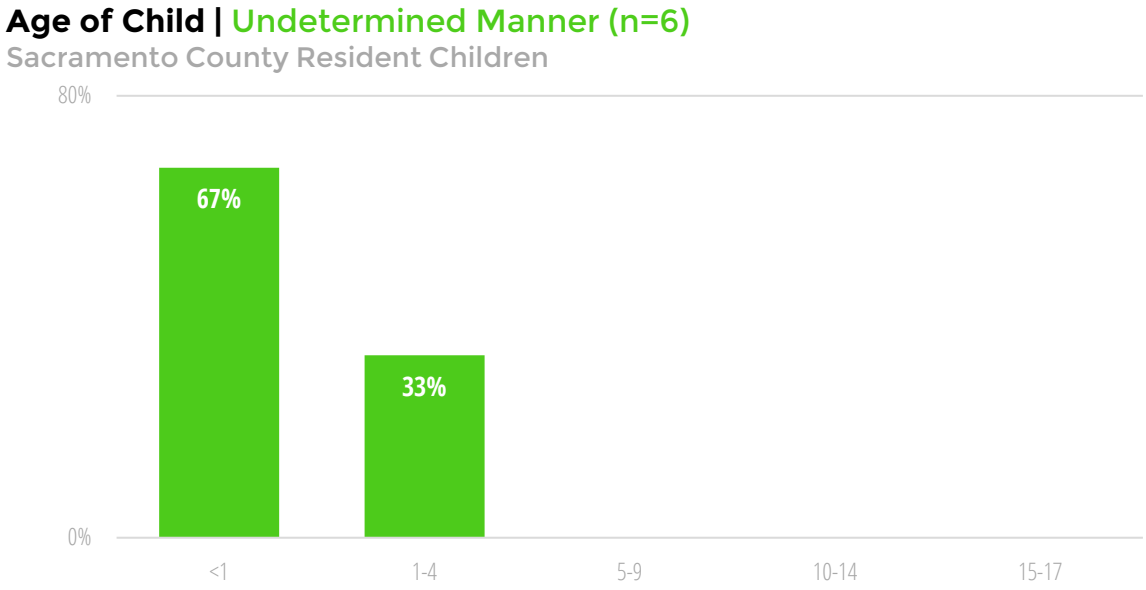
In 2015, a total of 88 deaths resulted from Natural causes, including those deaths due to SIDS and SUIDS. Infants accounted for 76 percent (67 of 88) of all deaths due to Natural causes. Figure 12 shows the number of Natural deaths by age group.

Figure 12 | Percent of Natural Manner Deaths by Age of Child, 2015



In 2015, there were a total of 6 child deaths of an Undetermined manner in Sacramento County. Infants were again the most common age group; of these Undetermined Manner deaths, 67 percent (4 of 6) were among infants. Figure 13 shows deaths of Undetermined Manner by age group.

Figure 13 | Percent of Undetermined Manner Deaths by Age of Child, 2015



Race[4]

Of the 124 deaths among Sacramento County resident children age 0-17 in 2015, the largest number of deaths occurred among white children, who comprised 28 percent (35 of 124) of all child deaths. Twenty-four percent (30 of 124) were African American, 21 percent (26 of 124) were Hispanic, 13 percent (16 of 124) were Multiracial or another race, 12 percent (15 of 124) were Asian/Pacific Islander, and two percent (2 of 124) were another race. Race was unknown for one decedent. Figure 14 shows the number of child deaths in 2015 by manner of death and race.

Figure 14 | Number of Child Deaths by Manner & Race, 2015

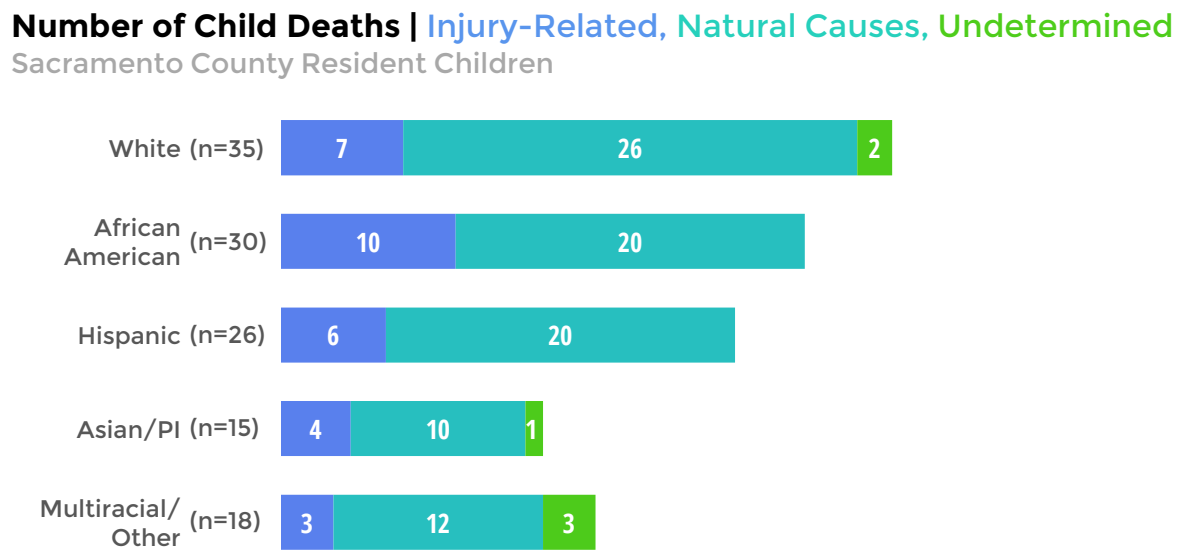


Figure 15 shows the comparison of death rates for each race from 2006-2015. Death rates declined across almost all racial categories between 2006 and 2011, although they rose for Hispanics during this time frame. Between 2011 and 2015, however, rates increased for African Americans (from 79.2 to 82.0 per 100,000 children) and the Multiracial/Other group (from 78.5 to 82.3 per 100,000).

[4] The race of decedents is determined by the race as reported on the decedent's death certificate.

Figure 15 | Child Mortality Rate by Race 3-Year Rolling Average, 2006-2015
(per 100,000 children)

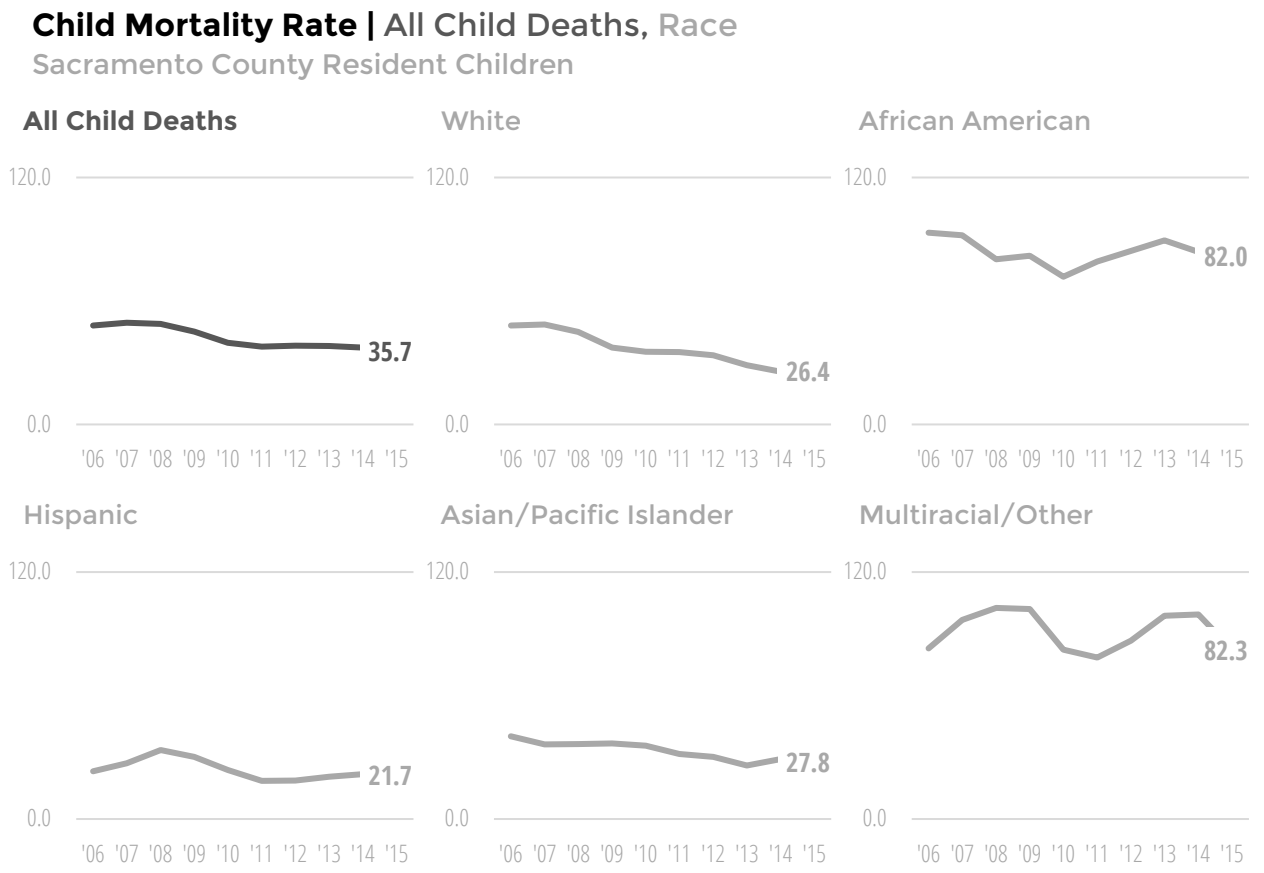


Table 10 shows the death rates by race and age of Sacramento County child residents in 2015, and illustrates the disproportionality that exists between racial categories. The greatest discrepancy occurs among African American children, who died at a rate of 81.7 per 100,000 in 2015, compared to the average across all races of 34.7 per 100,000. Multiracial/Other children also died at a disproportionate rate of 57.3 per 100,000.

Table 10 | Child Mortality Rate* by Race & Age Group, 2015
(Sacramento County Resident Children)

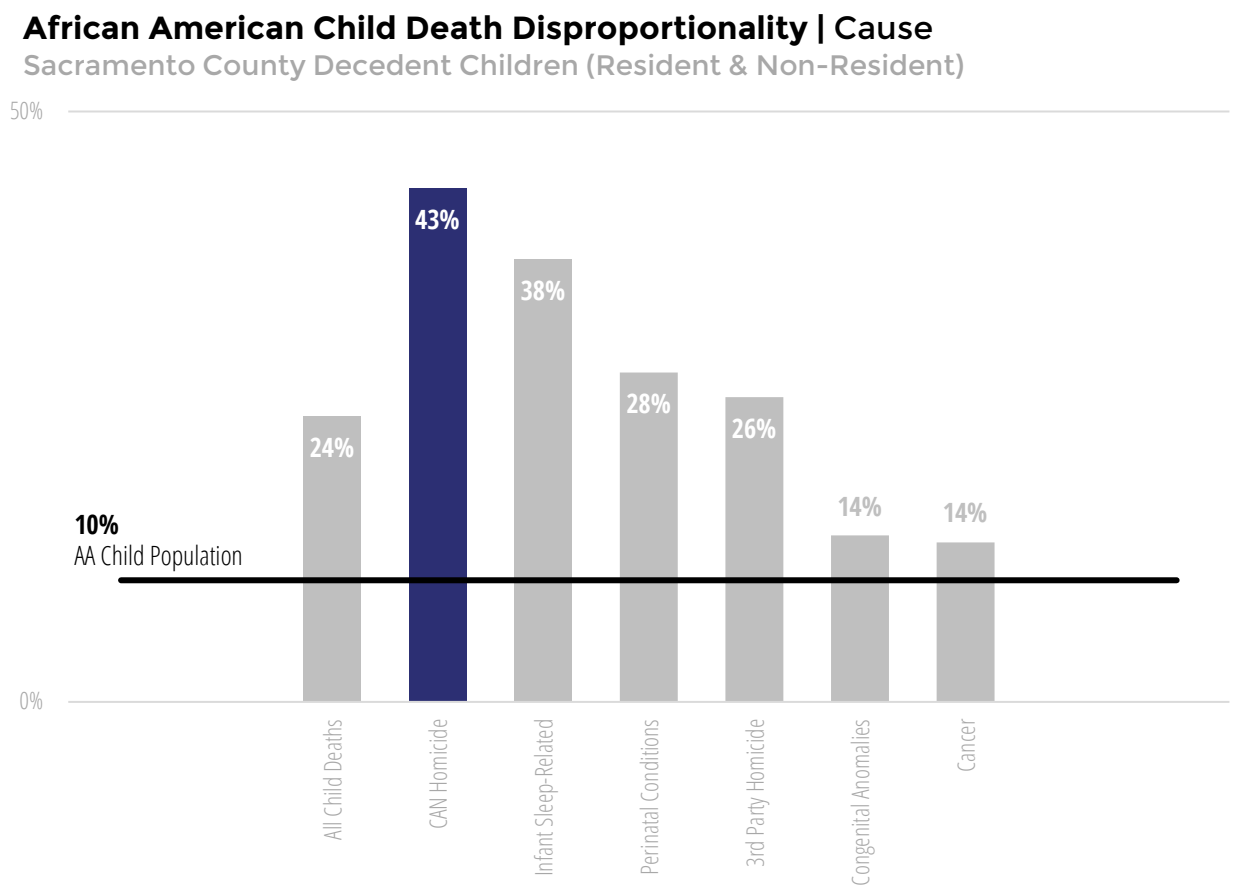
Race	Child Population	Years Old <1		1-4		5-9		10-14		15-17		Total		
White	35%	18	2.7	8	28.9	2	5.8	2	5.8	5	23.3	35	28.1	28%
Black/African American	10%	18	9.5	4	52.3	4	39.3	2	19.1	2	29.0	30	81.7	24%
Hispanic	31%	19	3.3	1	4.3	-		2	6.5	4	22.5	26	23.5	21%
Asian/Pacific Islander	15%	9	3.0	2	16.6	1	6.6	2	15.0	1	11.2	15	27.6	12%
Multiracial/Other	9%	12	5.8	1	12.8	-		4	52.0	1	22.6	18	57.3	15%
Total	100%	76	3.9	16	20.5	7	6.8	12	12.4	13	21.9	124	34.7	100%

*Death rates are per 1,000 for infants <1-year-old, and per 100,000 children in each age group.
Note: The race for one child aged 1-4 years-old is unknown.
Source: California Department of Finance Population Projections 2015

Disproportionality of Child Deaths Among African American Children

As African American children have historically experienced 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 16 shows, for each cause of death, the percentage of decedents who were African American children, and compares these rates to the overall African American Child Population in Sacramento County. In 2011-2015, the percentage of child decedents who were African American is greatest in CAN Homicides, Infant Sleep-Related deaths, Perinatal Conditions, and Third-Party Homicides.

Figure 16 | Percent of Child Deaths that were African American Children by Cause Compared to African American Child Population, 2011-2015



Note: Includes only those categories with more than a total of 5 African American deaths 2011-2015. African American child data based on 2015 data. Source: California Department of Finance Population Projections 2015

Chapter 3

CDRT Identified Risk Factors for All Child Deaths

Chapter 3
CDRT Identified Risk Factors for All Child Deaths

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. 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. Risk factors identified in this report represent only those factors known to an agency represented on the CDRT and reported to the CDRT. These risk factors include, but are not limited to, substance abuse, prior child abuse and neglect, family or other violence, poverty, and mental illness.

Table 11 | All Child Deaths with Risk Factors Present, 2015
(Sacramento County Decedent Children, Resident & Non-Resident)

		Risk Factors					
		1 or more		None		Total	
Manner	Cause						
Injury-Related	Total	29	91%	3	9%	32	100%
	Homicide	8	89%	1	11%	9	28%
	CAN Homicide	*3*	*100%*	-		*3*	*33%*
	3rd Party Homicide	*5*	*83%*	*1*	*17%*	*6*	*67%*
	Motor Vehicle Collision	7	100%	-		7	22%
	Occupant/Driver	*5*	*100%*	-		*5*	*71%*
	Pedestrian	*2*	*100%*	-		*2*	*29%*
	Bike	-		-		-	
	Drowning	3	60%	2	40%	5	16%
	Suicide	4	100%	-		4	13%
	Suffocation	-		-		-	
	Poisoning/Overdose	2	100%	-		2	6%
	Burn/Fire	2	100%	-		2	6%
	Legal Intervention	-		-		-	
	Injury | Other	1	100%	-		1	3%
	Injury | Undetermined	2	100%	-		2	6%
Natural	Total	70	80%	18	20%	88	100%
	Perinatal Conditions	30	86%	5	14%	35	40%
	Congenital Anomalies	20	71%	8	29%	28	32%
	SIDS	2	100%	-		2	2%
	SUIDS	8	100%	-		8	9%
	Cancer	4	100%	-		4	5%
	Infections	1	50%	1	50%	2	2%
	Respiratory	1	100%	-		1	1%
	Natural | Other	3	60%	2	40%	5	6%
	Natural | Undetermined	1	33%	2	67%	3	3%
Undetermined	Total	6	100%	-		6	100%
All Manner	Total	105	83%	21	17%	126	100%

Table 11 shows presence of known family risk factors by category of death. Eighty-three percent of all child deaths in 2015 have at least one risk factor; risk factors are more common in Injury-Related deaths at 91 percent. All CAN Homicides, Suicides, Motor Vehicle Collisions, and SIDS/SUIDS deaths have family risk factors.

Table 12 | All Child Deaths by Category of Risk Factor, 2015
(Sacramento County Decedent Children, Resident & Non-Resident)

		Category of Risk Factor													
		Alcohol/Drug Abuse		Crime		Poverty		Domestic Violence		Medical (incl. MH)		Mental Health		Gang History	
Manner	Cause														
Injury-Related	Total	18	56%	20	63%	18	56%	10	31%	10	31%	7	22%	7	22%
	Homicide	7	78%	7	78%	5	56%	3	33%	5	56%	4	44%	2	22%
	CAN Homicide	*2*	*67%*	*2*	*67%*	*3*	*100%*	*1*	*33%*	*3*	*100%*	*2*	*67%*	-	-
	3rd Party Homicide	*5*	*83%*	*5*	*83%*	*2*	*33%*	*2*	*33%*	*2*	*33%*	*2*	*33%*	*2*	*33%*
	Motor Vehicle Collision	2	29%	3	43%	5	71%	2	29%	-	-	-	-	-	-
	Occupant/Driver	*1*	*20%*	*2*	*40%*	*4*	*80%*	*1*	*20%*	-	-	-	-	-	-
	Pedestrian	*1*	*50%*	*1*	*50%*	*1*	*50%*	*1*	*50%*	-	-	-	-	-	-
	Bike	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Drowning	1	20%	2	40%	2	40%	1	20%	-	-	-	-	1	20%
	Suicide	4	100%	2	50%	-	-	-	-	2	50%	2	50%	-	-
	Suffocation	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Poisoning/Overdose	1	50%	2	100%	1	50%	1	50%	1	50%	1	50%	1	50%
	Burn/Fire	2	100%	2	100%	2	100%	2	100%	-	-	-	-	2	100%
	Legal Intervention	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Injury | Other	-	-	1	100%	1	100%	1	100%	1	100%	-	-	-	-
	Injury | Undetermined	1	50%	1	50%	2	100%	-	-	1	50%	-	-	1	50%
Natural	Total	28	32%	31	35%	53	60%	12	14%	17	19%	6	7%	5	6%
	Perinatal Conditions	14	40%	16	46%	22	63%	6	17%	9	26%	4	11%	3	9%
	Congenital Anomalies	4	14%	6	21%	15	54%	1	4%	3	11%	1	4%	-	-
	SIDS	1	50%	1	50%	-	-	-	-	-	-	-	-	-	-
	SUIDS	4	50%	6	75%	8	100%	1	13%	3	38%	1	13%	2	25%
	Cancer	2	50%	1	25%	3	75%	1	25%	-	-	-	-	-	-
	Infections	-	-	-	-	1	50%	-	-	-	-	-	-	-	-
	Respiratory	-	-	-	-	1	100%	1	100%	-	-	-	-	-	-
	Natural | Other	2	40%	1	20%	2	40%	1	20%	1	20%	-	-	-	-
	Natural | Undetermined	1	33%	-	-	1	33%	1	33%	1	33%	-	-	-	-
Undetermined	Total	2	33%	3	50%	5	83%	-	-	2	33%	-	-	2	33%
All Manner	Total	48	38%	54	43%	76	60%	22	17%	29	23%	13	10%	14	11%

Table 12 above shows type of risk factors present by category of death. Poverty is the most common risk factor; 60 percent of all child decedents receive some form of government aid, as do 63 percent of families with deaths due to Perinatal Conditions. The most common risk factor among Injury-Related deaths is a family history of crime. Seventy-eight percent of Homicides have this risk factor.

Abuse & Neglect | Examining Child Protective Services Records

One of the goals of the CDRT is to identify service delivery gaps that protect children, which are identified during the review process. For that purpose, the CDRT records Child Protective Services (CPS) agency involvement with decedents and their families

Risk factors for abuse and neglect are determined by examining the CPS records for the decedent and their family members. Representatives from Sacramento County CPS provide CPS history for each family as cases are reviewed, including whether a case was opened, whether there was a substantiation, and timing of referrals to CPS in relation to the time of death.

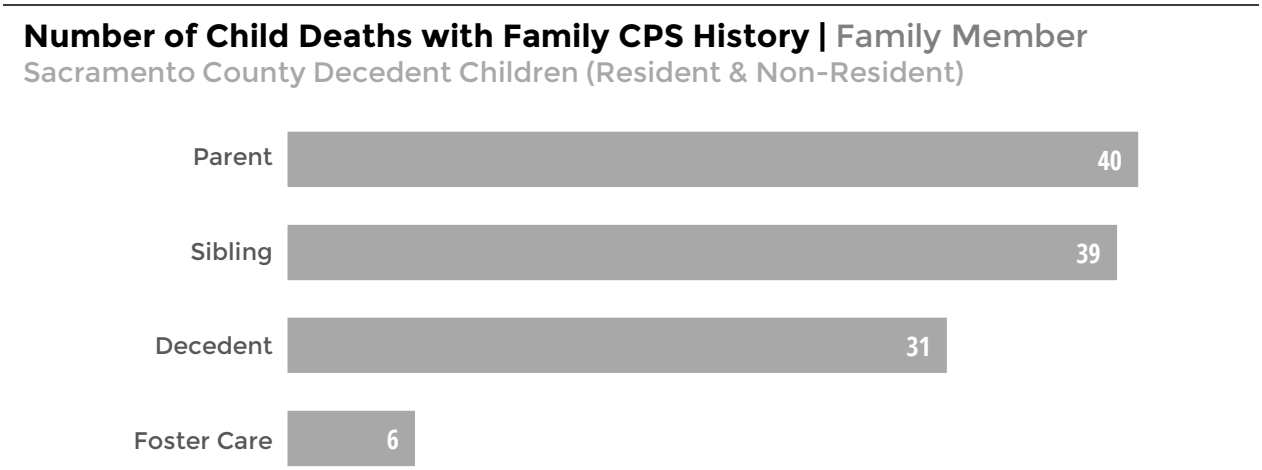
Table 13 | All Child Deaths with CPS Involvement, 2015
(Sacramento County Decedent Children, Resident & Non-Resident)

		CPS Involvement					
		Any History		None		Total	
Manner	Cause						
Injury-Related	Total	22	69%	10	31%	32	100%
	Homicide	7	78%	2	22%	9	28%
	CAN Homicide	*2*	*67%*	*1*	*33%*	*3*	*33%*
	3rd Party Homicide	*5*	*83%*	*1*	*17%*	*6*	*67%*
	Motor Vehicle Collision	5	71%	2	29%	7	22%
	Occupant/Driver	*3*	*60%*	*2*	*40%*	*5*	*71%*
	Pedestrian	*2*	*100%*	-		*2*	*29%*
	Bike	-		-		-	
	Drowning	2	40%	3	60%	5	16%
	Suicide	1	25%	3	75%	4	13%
	Suffocation	-		-		-	
	Poisoning/Overdose	2	100%	-		2	6%
	Burn/Fire	2	100%	-		2	6%
	Legal Intervention	-		-		-	
	Injury | Other	1	100%	-		1	3%
	Injury | Undetermined	2	100%	-		2	6%
Natural	Total	43	49%	45	51%	88	100%
	Perinatal Conditions	19	54%	16	46%	35	40%
	Congenital Anomalies	8	29%	20	71%	28	32%
	SIDS	1	50%	1	50%	2	2%
	SUIDS	8	100%	-		8	9%
	Cancer	3	75%	1	25%	4	5%
	Infections	1	50%	1	50%	2	2%
	Respiratory	1	100%	-		1	1%
	Natural | Other	1	20%	4	80%	5	6%
	Natural | Undetermined	1	33%	2	67%	3	3%
Undetermined	Total	4	67%	2	33%	6	100%
All Manner	Total	69	55%	57	45%	126	100%

Table 13 shows CPS involvement by category of death; 55 percent of all child deaths in 2015 have a history of a case or referral in the family. CPS history is most common in Injury-Related deaths at 69 percent. Seventy-eight percent of homicides and 71 percent of Motor Vehicle Collisions have this risk

factor. Forty-nine percent of Natural deaths, have a CPS history; 100 percent of SUIDS cases and 54 percent of deaths due to Perinatal Conditions have this history.

Figure 17 | Number of Child Deaths with Family History of Sacramento County CPS Involvement by Family Member, 2015



Fifty-five percent of families have a past CPS case or referral; the most common form of history is for a parent as a victim when still a child. Figure 17 shows the number of families with each form of history with Sacramento County CPS.

Decedent History | In 2015, 55 percent (69 of 126) of all child decedents had past or present family involvement with a CPS agency, of which 90 percent (62 of 69) were involved with Sacramento County CPS, and 10 percent (7 of 69) were involved with an out-of-county child welfare agency only. Of those decedents who had past or present family involvement with Sacramento County CPS, 50 percent (31 of 62) were involved with CPS themselves. Of the child decedents involved with a CPS agency themselves, 48 percent (15 of 31) had a case or referral open and closed more than six months prior to the time of death, 29 percent (9 of 31) had a CPS case or referral open at the time of death, and 23 percent (7 of 31) had a CPS case or referral open and closed within six months prior to the time of death.

Sibling History | In 2015, 34 percent (43 of 126) of child decedents had siblings with a prior case or referral with Sacramento County CPS involvement, of which 91 percent (39 of 43) were with Sacramento County CPS, and nine percent (4 of 43) were with an out-of-county child welfare agency. Of the siblings with Sacramento County CPS involvement, 15 percent (6 of 39) had a CPS case or referral open at the time of death.

Parental History | In 2015, 35 percent (44 of 126) of child decedents had a parent (mother or father) with CPS involvement as a child. Of those with previous CPS history, 91 percent (40 of 44) were with Sacramento County CPS, and 9 percent (4 of 44) were with an out-of-county CPS agency.

Foster Care History | In 2015, five percent (6 of 126) of child decedents had a history of involvement with the foster care system. Of these, 25 percent (1 of 4) were in foster care at the time of death. Two percent (3 of 126) of decedents had parents with a history of foster care involvement as children.

Table 14 shows the type of CPS involvement by category of death. Decedent and sibling history is most common in Injury-Related deaths at 47 percent and 50 percent respectively, while parent history is more likely in Natural deaths. Thirty-four percent of Natural deaths had a parent history as a child, and these rates were high in Perinatal Conditions and SIDS/SUIDS deaths. Foster care was most concentrated in Injury-Related deaths at 13 percent.

Table 14 | All Child Deaths by Family Member with Past Sacramento County CPS Involvement, 2015
(Sacramento County Decedent Children, Resident & Non-Resident)

		CPS Involvement							
		Decedent		Sibling		Parent		Foster Care	
Injury-Related	Total	15	47%	16	50%	7	22%	4	13%
	Homicide	5	56%	5	56%	2	22%	2	22%
	CAN Homicide	*1*	*33%*	*1*	*33%*	*2*	*67%*	*1*	*33%*
	3rd Party Homicide	*4*	*67%*	*4*	*67%*	-		*1*	*17%*
	Motor Vehicle Collision	2	29%	2	29%	1	14%	1	14%
	Occupant/Driver	*1*	*20%*	*2*	*40%*	-		-	
	Pedestrian	*1*	*50%*	-	-	*1*	*50%*	*1*	*50%*
	Bike	-		-		-		-	
	Drowning	2	40%	2	40%	-		-	
	Suicide	1	25%	-		-		-	
	Suffocation	-		-		-		-	
	Poisoning/Overdose	2	100%	2	100%	1	50%	1	50%
	Burn/Fire	2	100%	2	100%	-		-	
	Legal Intervention	-		-		-		-	
	Injury | Other	-		1	100%	1	100%	-	
	Injury | Undetermined	1	50%	2	100%	2	100%	-	
Natural	Total	13	15%	22	25%	30	34%	1	1%
	Perinatal Conditions	4	11%	8	23%	14	40%	-	
	Congenital Anomalies	3	11%	4	14%	6	21%	1	4%
	SIDS	-		-		1	50%	-	
	SUIDS	4	50%	5	63%	5	63%	-	
	Cancer	-		2	50%	2	50%	-	
	Infections	-		-		1	50%	-	
	Respiratory	1	100%	1	100%	1	100%	-	
	Natural | Other	1	20%	1	20%	-		-	
	Natural | Undetermined	-		1	33%	-		-	
Undetermined	Total	3	50%	1	17%	3	50%	1	17%
All Manner	Total	31	25%	39	31%	40	32%	6	5%

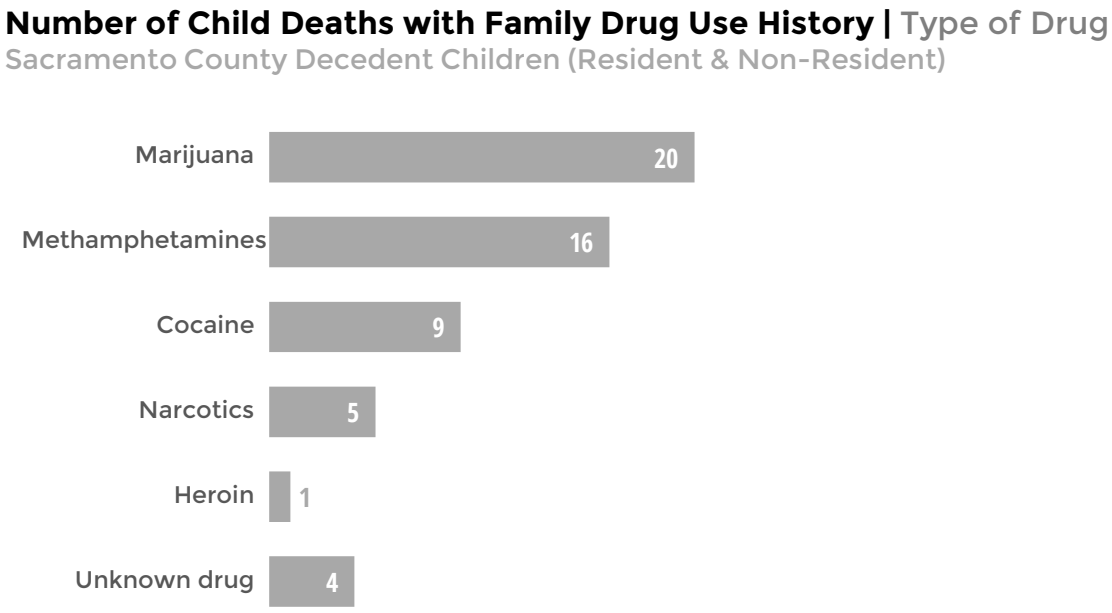
Substance Abuse | Alcohol & Other Drugs

Substance abuse history is collected from the Coroner's investigation, hospital records, criminal history, CPS investigation, or school history as appropriate.

In 2015, 38 percent (48 of 126) of all child deaths had a known history of illegal drug use or alcohol abuse in the child's family. Thirteen percent (16 of 126) of deaths involved illegal drugs or alcohol at the time of death.

Among Sacramento County child decedents in 2015, 31 percent (39 of 126) had a family history of illegal drug use. The most commonly used drug was marijuana, which was present in 51 percent (20 of 39) of families involving illegal drug use. Figure 18 below presents the number of child deaths where a family history of drug use was present by type of drug.

Figure 18 | Number of Child Deaths with Family History of Drug Use by Type of Drug, 2015



Fifteen child deaths involved drug use at the time of death. Marijuana was used in seven cases, opiates in three, other prescription drugs in two, and in one case each methamphetamine, cocaine, and multiple drugs were used. These cases included four Third-Party Homicides, three deaths due to Perinatal Conditions, two Suicides, two Poisonings, and one each of Motor Vehicle Collisions, Drownings and Undetermined Manner deaths. Six of the decedents in these cases were Infants, and 14 of 15 were male.

Crime & Violence

Criminal history is collected from law enforcement agencies (local police departments, sheriff, probation), and evidence on domestic violence and gang history is collected from the coroner's and CPS records when available.

Table 15 | All Child Deaths with Crime Risk Factors Present, 2015
(Sacramento County Decedent Children, Resident & Non-Resident)

		Crime Risk Factors									
		Criminal Record		Domestic Violence		Non-violent Crime		Violent Crime		Gang History	
Manner	Cause										
Injury-Related	Total	20	63%	10	31%	19	59%	16	50%	7	22%
	Homicide	7	78%	3	33%	7	78%	7	78%	2	22%
	CAN Homicide	*2*	*67%*	*1*	*33%*	*2*	*67%*	*2*	*67%*	-	-
	3rd Party Homicide	*5*	*83%*	*2*	*33%*	*5*	*83%*	*5*	*83%*	*2*	*33%*
	Motor Vehicle Collision	3	43%	2	29%	3	43%	3	43%	-	-
	Occupant/Driver	*2*	*40%*	*1*	*20%*	*2*	*40%*	*2*	*40%*	-	-
	Pedestrian	*1*	*50%*	*1*	*50%*	*1*	*50%*	*1*	*50%*	-	-
	Bike	-	-	-	-	-	-	-	-	-	-
	Drowning	2	40%	1	20%	1	20%	2	40%	1	20%
	Suicide	2	50%	-	-	2	50%	2	50%	-	-
	Suffocation	-	-	-	-	-	-	-	-	-	-
	Poisoning/Overdose	2	100%	1	50%	2	100%	-	-	1	50%
	Burn/Fire	2	100%	2	100%	2	100%	1	50%	2	100%
	Legal Intervention	-	-	-	-	-	-	-	-	-	-
	Injury | Other	1	100%	1	100%	1	100%	-	-	-	-
	Injury | Undetermined	1	50%	-	-	1	50%	1	50%	1	50%
Natural	Total	31	35%	12	14%	28	32%	16	18%	5	6%
	Perinatal Conditions	16	46%	6	17%	15	43%	7	20%	3	9%
	Congenital Anomalies	6	21%	1	4%	6	21%	2	7%	-	-
	SIDS	1	50%	-	-	1	50%	1	50%	-	-
	SUIDS	6	75%	1	13%	5	63%	4	50%	2	25%
	Cancer	1	25%	1	25%	1	25%	1	25%	-	-
	Infections	-	-	-	-	-	-	-	-	-	-
	Respiratory	-	-	1	100%	-	-	-	-	-	-
	Natural | Other	1	20%	1	20%	-	-	1	20%	-	-
	Natural | Undetermined	-	-	1	33%	-	-	-	-	-	-
Undetermined	Total	3	50%	-	-	3	50%	2	33%	2	33%
All Manner	Total	54	43%	22	17%	50	40%	34	27%	14	11%

Note: Domestic Violence and Gang Affiliation are collected from various sources and may not be reflected in a criminal record.

Forty-three percent of all child deaths have a criminal history in the family, with non-violent crime as the most common form of history at 40 percent. Injury-Related deaths are more likely to have a criminal history at 63 percent. Among deaths from Natural Causes, Perinatal Conditions, and SIDS/SUIDS have the highest rates of criminal history. See Table 15 for type of criminal history by category of death.

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. See Table 16 for the person in the family with the criminal history by cause of death.

Table 16 | All Child Deaths by Family Crime History, 2015
(Sacramento County Decedent Children, Resident & Non-Resident)

		Crime History			
		Parent		Decedent	
Injury-Related	Total	20	63%	1	3%
	Homicide	7	78%	1	11%
	CAN Homicide	*2*	*67%*	-	
	3rd Party Homicide	*5*	*83%*	*1*	*17%*
	Motor Vehicle Collision	3	43%	-	
	Occupant/Driver	*2*	*40%*	-	
	Pedestrian	*1*	*50%*	-	
	Bike	-		-	
	Drowning	2	40%	-	
	Suicide	2	50%	-	
	Suffocation	-		-	
	Poisoning/Overdose	2	100%	-	
	Burn/Fire	2	100%	-	
	Legal Intervention	-		-	
	Injury | Other	1	100%	-	
	Injury | Undetermined	1	50%	-	
Natural	Total	31	35%	-	
	Perinatal Conditions	16	46%	-	
	Congenital Anomalies	6	21%	-	
	SIDS	1	50%	-	
	SUIDS	6	75%	-	
	Cancer	1	25%	-	
	Infections	-		-	
	Respiratory	-		-	
	Natural | Other	1	20%	-	
	Natural | Undetermined	-		-	
Undetermined	Total	3	50%	1	17%
All Manner	Total	54	43%	2	2%

Gang Involvement | Gang involvement indicates personal affiliation with a gang. This information can come from law enforcement records, coroner investigations, or school records. See Table 17 for the person in the family with gang affiliation.

Table 17 | All Child Deaths by Family History of Gang Involvement, 2015
(Sacramento County Decedent Children, Resident & Non-Resident)

		Gang Involvement			
		Parent		Decedent	
Injury-Related	Total	6	19%	2	6%
	Homicide	1	11%	2	22%
	CAN Homicide	-		-	
	3rd Party Homicide	*1*	*17%*	*2*	*33%*
	Motor Vehicle Collision	-		-	
	Occupant/Driver	-		-	
	Pedestrian	-		-	
	Bike	-		-	
	Drowning	1	20%	-	
	Suicide	-		-	
	Suffocation	-		-	
	Poisoning/Overdose	1	50%	-	
	Burn/Fire	2	100%	-	
	Legal Intervention	-		-	
	Injury | Other	-		-	
	Injury | Undetermined	1	50%	-	
Natural	Total	5	6%	-	
	Perinatal Conditions	3	9%	-	
	Congenital Anomalies	-		-	
	SIDS	-		-	
	SUIDS	2	25%	-	
	Cancer	-		-	
	Infections	-		-	
	Respiratory	-		-	
	Natural | Other	-		-	
	Natural | Undetermined	-		-	
Undetermined	Total	2	33%	-	
All Manner	Total	13	10%	2	2%

Domestic Violence | Domestic violence is reported by law enforcement agencies, Sacramento County Coroner's Office, or Child Protective Services.

In 2015, 17 percent (22 of 126) of all child deaths had a known history of domestic violence in the child's family.

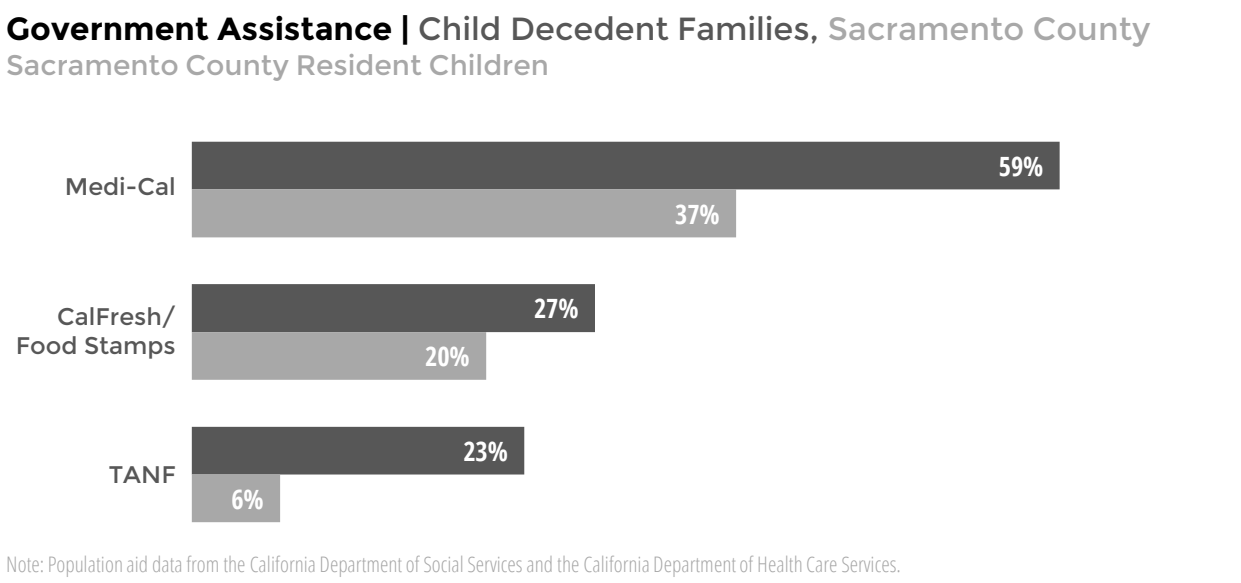
Poverty | Participation in Government Aid Programs

The CDRT 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. Child Protective Services has access to these records and reports any government assistance received to the team. In 2012, 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

In 2015, 60 percent (76 of 126) of all child decedents and their families were receiving some form of government aid at the time of death. Medi-Cal was the most common program; 59 percent (74 of 126) of decedents' families were receiving this form of aid at the time of death.

Figure 19 shows the percentage of Sacramento County child decedent families receiving government aid at the time of death in 2015, compared to the percentage of all Sacramento County families receiving government aid[5].

Figure 19 | Percent of Child Decedent Families & Sacramento County Households Receiving Government Assistance by Type of Program, 2015



Note: Population aid data from the California Department of Social Services and the California Department of Health Care Services.

The families of child decedents were 2.8 times more likely to be receiving Temporary Assistance for Needy Families (TANF) benefits at the time of death, with 23 percent of child decedent families receiving benefits compared to six percent of all Sacramento County families. Decedent families were

[5] California Department of Health Care Services, 2015 data and California Department of Social Services, 2015 data.

62 percent (59% vs 37%) more likely than the county average to be enrolled in Medi-Cal at the time of death, and 35 percent (27% vs 20%) more likely to be receiving CalFresh/food stamps.

Medical Risks & Mental Health

Medical risk factors, including mental health, are reported by the Coroner's Office, hospital systems, Child Protective Services, or Sacramento County Mental Health Services. Twenty-three percent of child deaths have a known medical risk factor in 2015. The most common risk factor is insufficient prenatal care. More than half of Homicides have a medical risk factor, these include mental health concerns, concealed pregnancy, lack of prenatal care and lack of medical care. Medical risk factors by category of death can be found in Table 18.

Table 18 | All Child Deaths with Medical Risk Factors Present, 2015
(Sacramento County Decedent Children, Resident & Non-Resident)

		Medical Risk Factors											
		Any		Parent Mental Health		Decedent Mental Health		Concealed Pregnancy		Late/No Prenatal Care		Lack of Medical Care	
Injury-Related	Total	10	26%	3	8%	4	10%	1	3%	2	5%	2	5%
	Homicide	5	56%	2	22%	2	22%	1	11%	1	11%	1	11%
	CAN Homicide	*3*	*100%*	*2*	*67%*	-		*1*	*33%*	*1*	*33%*	*1*	*33%*
	3rd Party Homicide	*2*	*33%*	-		*2*	*33%*	-		-		-	
	Motor Vehicle Collision	-		-		-		-		-		-	
	Occupant/Driver	-		-		-		-		-		-	
	Pedestrian	-		-		-		-		-		-	
	Bike	-		-		-		-		-		-	
	Drowning	-		-		-		-		-		-	
	Suicide	2	50%	-		2	50%	-		-		-	
	Suffocation	-		-		-		-		-		-	
	Poisoning/Overdose	1	50%	1	50%	-		-		-		-	
	Burn/Fire	-		-		-		-		-		-	
	Legal Intervention	-		-		-		-		-		-	
	Injury | Other	1	100%	-		-		-		-		1	100%
	Injury | Undetermined	1	50%	-		-		-		1	50%	-	
Natural	Total	17	19%	6	7%	-		-		8	9%	5	6%
	Perinatal Conditions	9	26%	4	11%	-		-		5	14%	-	
	Congenital Anomalies	3	11%	1	4%	-		-		1	4%	1	4%
	SIDS	-		-		-		-		-		-	
	SUIDS	3	38%	1	13%	-		-		1	13%	2	25%
	Cancer	-		-		-		-		-		-	
	Infections	-		-		-		-		-		-	
	Respiratory	-		-		-		-		-		-	
	Natural | Other	1	20%	-		-		-		1	20%	1	20%
	Natural | Undetermined	1	33%	-		-		-		-		1	33%
Undetermined	Total	2	33%	-		-		-		2	33%	-	
All Manner	Total	29	23%	9	7%	4	3%	1	1%	12	10%	7	6%

Prevalence of Risk Factors

While it is 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. The data in this report reflects only known risk factor data reported to CDRT; families of decedents may have other risk factors not disclosed and therefore unknown to CDRT.

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 20 shows the mean number of risk factors present among child decedents in 2015. Of the 126 child decedents in 2015, 83 percent (105) had at least one risk factor present, and 45 percent (57) had three or more risk factors present. Among decedents of Natural causes, 82 percent (161 of 196) had at least one risk factor present, while 39 percent (76 of 196) of decedents had three or more risk factors present.

Among all child decedents in 2015, the mean number of risk factors present was 2.42. Among child decedents of Natural causes, the mean number of risk factors present was 2.07. Decedents of Unintentional Injury-Related deaths had a higher mean number of risk factors present, at 2.71, while decedents of Intentional Injury-Related deaths had the highest mean number of risk factors, at 3.09.

Figure 20 | Mean Number of Risk Factors Present in Child Deaths by Manner of Death, 2006-2015
(3-Year Rolling Average)

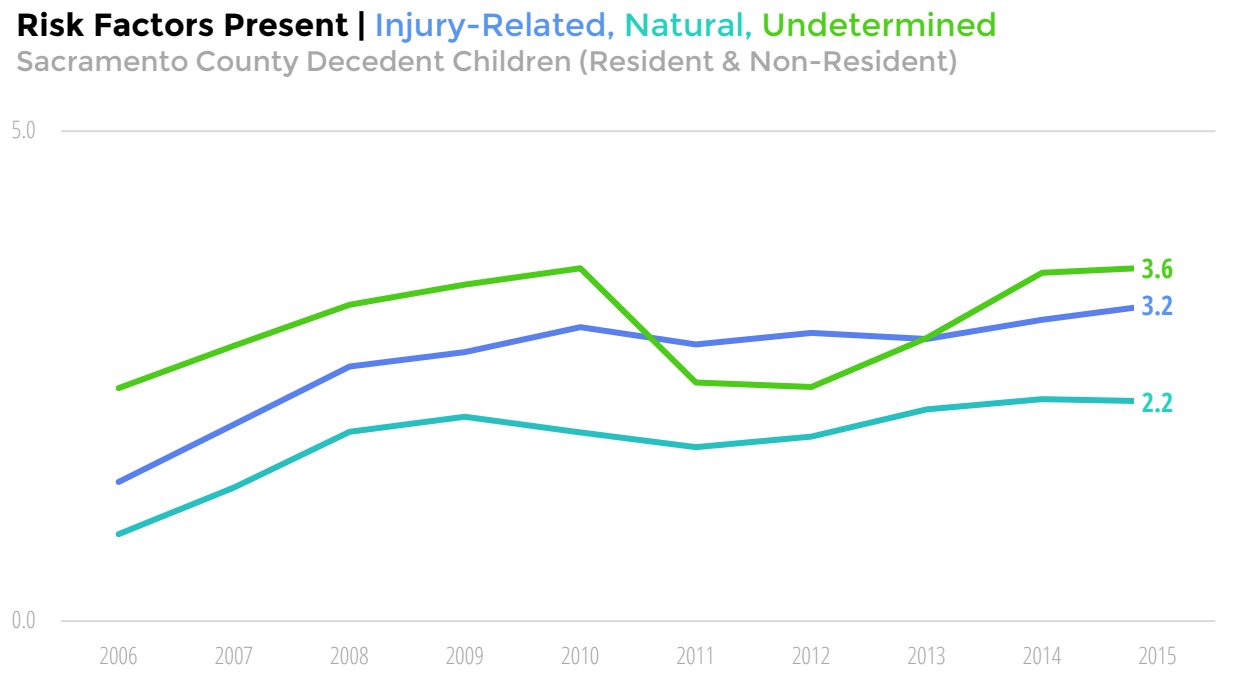
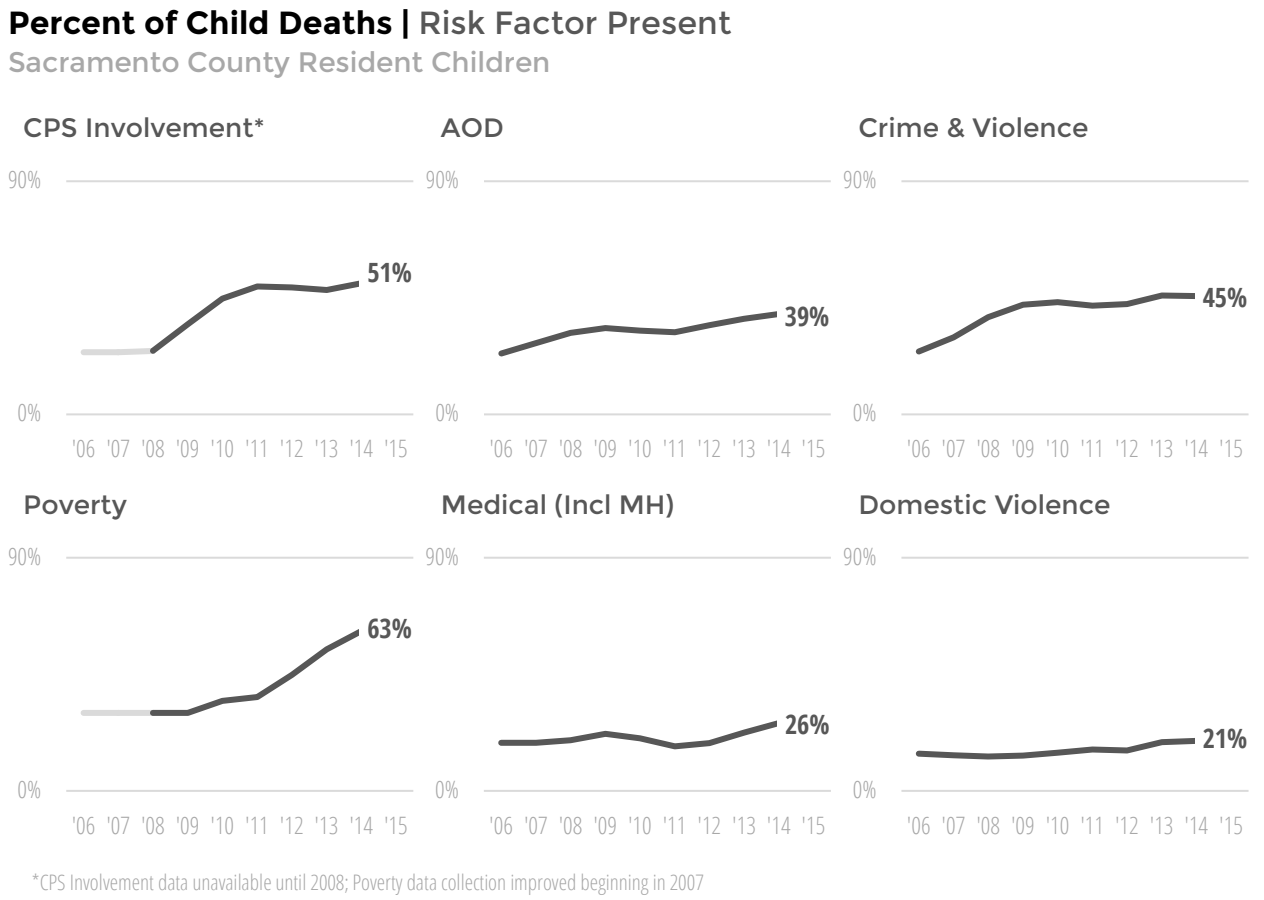


Figure 21 shows the percentage of decedents with specific risk factors over the ten year period. Poverty has risen most dramatically over this period from 37 percent to 63 percent of decedents.

Figure 21 | Percent of Child Deaths with Select Risk Factors Present, 2006-2015
(3-Year Rolling Average)



All risk factors are most prevalent among African Americans. Alcohol, Poverty, Crime, and Domestic Violence are also concentrated in youth between 10-14 or 15-17. See Table 19 for the prevalence of risk factors by age and race.

Table 19 | Prevalence of Risk Factors Present by Age Group & Race, 2015
(Sacramento County Decedent Children, Resident & Non-Resident)

			Category of Risk Factor															
Category		Child Deaths	Any Risk Factor		AOD		Crime		Poverty		Domestic Violence		Medical (incl. MH)		Mental Health		Gang History	
Age Group	Total	126	105	83%	48	38%	54	43%	76	60%	22	17%	29	23%	13	10%	14	11%
	<1 year	76	64	84%	26	34%	31	41%	51	66%	9	12%	17	22%	6	8%	9	12%
	1-4 years	17	11	65%	3	18%	5	29%	8	47%	3	18%	4	24%	1	6%	1	6%
	5-9 years	7	6	86%	3	43%	3	43%	4	57%	2	29%	2	29%	2	29%	1	14%
	10-14 years	12	12	100%	7	58%	8	67%	10	83%	5	42%	2	17%	0	0%	1	8%
	15-17 years	14	12	86%	9	64%	7	50%	3	21%	3	21%	4	29%	4	29%	2	14%
Race	Total	126	105	83%	48	38%	54	43%	76	60%	22	17%	29	23%	13	10%	14	11%
	White	35	26	74%	10	29%	10	29%	18	51%	4	11%	7	20%	3	9%	2	6%
	Black/African American	31	29	94%	19	61%	23	74%	23	74%	12	39%	11	35%	5	16%	7	23%
	Hispanic	27	24	89%	7	26%	9	33%	15	56%	1	4%	3	11%	2	7%	2	7%
	Asian/Pacific Islander	15	10	67%	1	7%	1	7%	7	47%	0	0%	4	27%	2	13%	0	0%
	Multiracial/Other	18	16	89%	11	61%	11	61%	13	72%	5	28%	4	22%	1	6%	3	17%

Chapter 4
Thematic Review

Deaths Related to Child Abuse & Neglect

Chapter 4 | Thematic Review
Deaths Related to Child Abuse & Neglect

One year old Liam hadn't been feeling well for several days and had been crying a lot. His 35-year-old dad came home from a long day at work and wanted to go to sleep, but he got frustrated when Liam woke up crying again. Liam's dad tried to comfort him, but eventually became very upset and ended up hurting him. Doctors later found bruises on Liam's belly and bleeding in his head. Liam died in the hospital. His father was convicted of first degree murder and is now serving 25 years to life in prison.

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 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.

CDRT uses the umbrella classification of Child Maltreatment deaths to refer to deaths involving some element of abuse or neglect. Child Abuse and Neglect (CAN) Homicide is the primary category of Child Maltreatment deaths. 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).

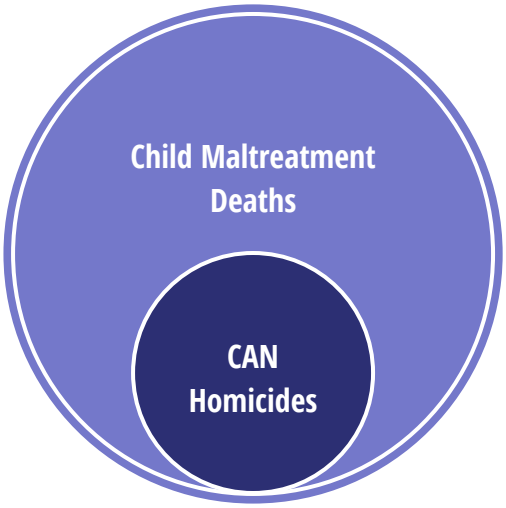
Neglect | Death clearly due to neglect; supported by Coroner's reports, or police or criminal investigation (e.g., a parent or caregiver driving recklessly with a suspended license when involved in a motor vehicle collision).

Neglect-Related | Death secondary to documented neglect, or any case of poor caretaker skills or judgment (e.g., an unattended infant who drowns in a bathtub; an unrestrained infant who is killed in a motor vehicle collision).

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 | Death clearly due to prenatal substance abuse as supported by Coroner's reports (e.g., cocaine, intoxication, death from medical complications due to drugs).

Figure 22 | CAN Homicides are a subset of Child Maltreatment Deaths



Child Maltreatment Deaths

In 2015, child maltreatment was involved in the deaths of 10 children. Seven decedents were infants under one year, and the additional three were each between 1-4, 5-9, and 10-14 years of age.

Eighty percent (8 of 10) of Child Maltreatment Deaths were children under five years of age. This is consistent with the trends from 2004-2014, in which 78 percent (120 of 153) of Child Maltreatment Deaths occurred among children under five years of age.

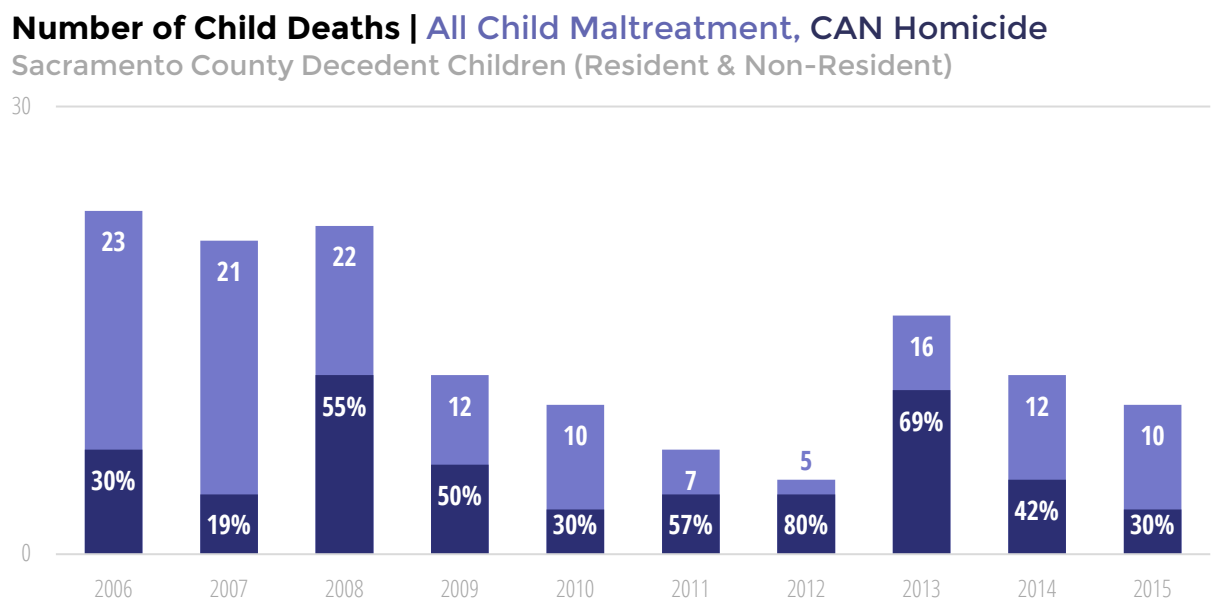
Of the 10 Child Maltreatment Deaths in 2015, three died because of a Child Abuse and Neglect (CAN) Homicide, three died of inconclusive injuries that, after thorough review, CDRT determined to have an element of abuse, two died as a result of Perinatal Conditions with an element of prenatal substance abuse, one died of Natural causes with medical neglect, and one died of Poisoning from an unknown source. Table 20 shows Category of death and Child Abuse and Neglect Classification for all Child Maltreatment Deaths in 2015.

Table 20 | Child Maltreatment Deaths by Cause & Classification of Child Abuse and Neglect, 2015
(Sacramento County Decedent Children (Resident & Non-Resident)

	Child Abuse & Neglect Classification													
Child Maltreatment	Abuse		Abuse Related		Neglect		Neglect Related		Questionable Abuse		Prenatal AOD		Total	
CAN Homicide	2	67%	-		1	33%	-		-		-		3	30%
Perinatal Conditions	-		-		1	50%	-		-		1	50%	2	20%
Poisoning/Overdose	-		-		-		1	100%	-		-		1	10%
Other | Natural Manner	-		-		1	100%	-		-		-		1	10%
Undetermined | Injury-Related	-		-		-		1	100%	-		-		1	10%
Undetermined Manner	-		1	50%	-		-		1	50%	-		2	20%
Total	2	20%	1	10%	3	30%	2	20%	1	10%	1	10%	10	100%

Figure 23 shows all Child Maltreatment Deaths between 2006-2015. Child Maltreatment Deaths among Sacramento County residents decreased from 4.85 deaths per 100,000 children in 2006, to 2.77 deaths per 100,000 children in 2015.

Figure 23 | Number of Child Maltreatment Deaths & Percent CAN Homicide Deaths, 2006-2015



Risk Factors Related to Child Maltreatment Deaths

Family risk factors are prevalent among Child Maltreatment Deaths; all cases have at least one. Most common risk factors include CPS involvement, criminal history, and poverty. Table 21 below shows Child Maltreatment Deaths by family risk factors.

Table 21 | Risk Factors Related to Child Maltreatment Deaths, 2015
(Sacramento County Decedent Children, Resident & Non-Resident)

	Child Maltreatment					
Risk Factors	CAN Homicides		Other Child Maltreatment		Total	
None	-		-		-	
CPS Involvement	2	67%	6	86%	8	80%
Decedent Victim	*1*	*33%*	*5*	*71%*	*6*	*60%*
Sibling Victim	*1*	*33%*	*5*	*71%*	*6*	*60%*
Parent Victim	*2*	*67%*	*4*	*57%*	*6*	*60%*
Alcohol or Drug Abuse	2	67%	7	100%	9	90%
Crime & Violence						
Violent and/or non-violent crime	*2*	*67%*	*6*	*86%*	*8*	*80%*
Domestic Violence	*1*	*33%*	*2*	*29%*	*3*	*30%*
Gang Affiliation	*0*	*0%*	*3*	*43%*	*3*	*30%*
Poverty (Government Programs)	3	100%	5	71%	8	80%
Medical Risks	3	100%	3	43%	6	60%
Mental Health	*2*	*67%*	*1*	*14%*	*3*	*30%*
Other | Mother <21 Years of Age	-		2	29%	2	20%
Total	3	30%	7	70%	10	100%

Child Abuse & Neglect Homicides, 2004-2015

Child Abuse and Neglect (CAN) Homicides are a subset of the Child Maltreatment Deaths. 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 CAN Homicide is a death that is caused by abuse or neglect perpetrated by a caregiver, such as a parent, guardian, babysitter, or family friend.

Because year-to-year occurrences of CAN Homicides are relatively rare, pooling data across years provides a fuller picture of the demographics, risk factors, and circumstances associated with CAN Homicides. The information below represents the 12 years of data collected on 69 CAN Homicides between 2004-2015.

Most Common Characteristics of a Child Abuse and Neglect Homicide Victims

Below are the most salient features of CAN Homicides. CDRT did not analyze whether these characteristics are likely to be found in common; rather, these are the most common trait for each category.

Demographics

- Age: Under 5 (81%) 38% Infants
- Race: Black/African American (41%)

Family Risk Factors

- Child Protective Services Involvement (80%): Prior case or referral for decedent (53%), sibling (42%) or parent as a child (29%)
- Criminal History: Parents have a record (65%); non-violent crime most common (54%)
- Alcohol and Drug Abuse History: Parents have a history of substance abuse (58%); record of alcohol abuse most common (49%)

Neighborhood

- Valley Hi (20%, 13 of 64 Sacramento County Residents)
- Citrus Heights/Fair Oaks/Orangevale/Rancho Cordova (20%, 13 of 64 Sacramento County Residents)
- Fruitridge/Stockton (13%, 8 of 64 Sacramento County Residents)

Mechanism

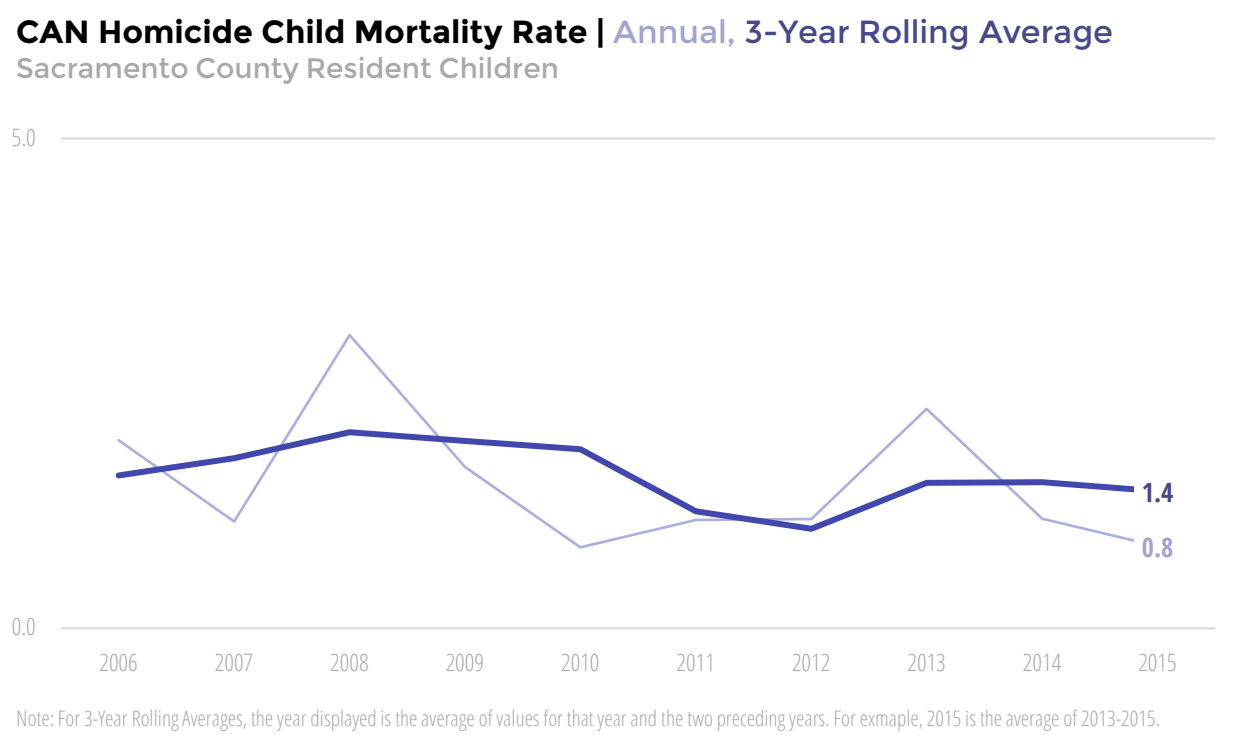
- Beating (25%) or Abusive Head Trauma (23%)

Perpetrator

- Biological Parent(s) (66%)
- Male (54%)
- 31-39 years (26%) or 24-30 years (23%)
- Males perpetrated 54% of all CAN Homicides. They are more likely to commit homicide via Beating, and Abusive Head Trauma (caused by either blunt force injury to the head or shaking). 74% (29 of 39) of these types of CAN Homicide were perpetrated by males, whereas 34% (15 of 44) of all other mechanisms were committed by men.

Figure 24 shows the rate of CAN Homicides among Sacramento County residents during the period between 2006-2015. The three-year rolling average has fluctuated during this period between a high of 2.0 per 100,000 children in 2008 and a low of 1.0 in 2011. In the three-year period between 2013-2015, there were 1.4 CAN Homicides per 100,000 children.

Figure 24 | CAN Homicide Child Mortality Annual & 3-Year Rolling Average Rates, 2006-2015
(per 100,000 children)



Victims

Table 22 shows Sacramento County resident CAN Homicides compared to the Sacramento County child population. Displayed are the percentages of decedents at each age and race compared to Sacramento County residents in the 12-year period between 2004-2015. During this period, the most overrepresented groups were:

- African Americans, who made up 10% of the population and 41% of CAN Homicides
- Infants, who made up 5% of the population and 38% of CAN Homicides
- Children 1-4 years of age, who made up 22% of the child population and 41 of CAN Homicides

Table 22 | CAN Homicides by Race & Age Group, 2004-2015
(Sacramento County Decedent Children, Resident & Non-Resident)

Category		Child Population	CAN Homicides	
Race	Total	100%	69	100%
	White	37%	16	23%
	Black/African American	10%	28	41%
	Hispanic	30%	8	12%
	Asian/Pacific Islander	15%	10	14%
	Multiracial/Other	7%	7	10%
Age Group	Total	100%	69	100%
	<1 year	5%	26	38%
	1-4 years	22%	28	41%
	5-9 years	28%	10	14%
	10-14 years	28%	3	4%
	15-17 years	17%	2	3%

*Child population is an average of 2004-2015.
Source: California Department of Finance Population Projections 2004-2015.

Perpetrators

There were 84 perpetrators of 69 CAN Homicides in Sacramento County between 2004-2015, including both Sacramento County residents and residents of other counties[6]. Table 23 shows the relationship to the decedent, sex, and age of all 84 perpetrators during this time period:

- 70% (59 of 84) of perpetrators were parents
- 54% (45 of 83 for whom sex is known) were male
- 26% (22 of 83 for whom age is known) were between the ages of 31-39

[6] In some cases, there were two perpetrators of one incident.

Table 23 | Description of CAN Homicide Perpetrators, 2004-2015
(Sacramento County Decedent Children, Resident & Non-Resident)

Category	Description	2004-05	2006-07	2008-09	2010-11	2012-13	2014-15	All Years
Relationship	Parent(s)	10	9	17	5	10	8	59
	Father	*4*	*1*	*5*	*3*	*4*	*1*	*18*
	Mother	*4*	*6*	*6*	*2*	*6*	*1*	*25*
	Both Parents	*1*	*1*	*3*	-	-	*3*	*8*
	Stepfather	-	-	-	2	-	-	2
	Boyfriend of Parent/Guardian	1	2	5	-	2	2	12
	Adoptive/Foster Parent	-	1	1	-	-	1	3
	Grandparent	-	-	-	-	1	-	1
	Other Family Member	1	1	-	-	2	-	4
	Babysitter	-	-	-	-	1	-	1
	Relationship | Other	-	-	1	-	-	-	1
	Relationship | Undetermined	-	-	-	1	-	-	1
Gender	Male	7	5	14	3	10	6	45
	Female	5	8	10	4	6	5	38
	Unknown	-	-	-	1	-	-	1
Age Group	<18 years	-	1	-	1	-	-	2
	18-23 years	2	3	3	2	1	2	12
	24-30 years	1	1	5	1	7	4	19
	31-39 years	1	4	7	-	5	2	22
	40+ years	-	-	3	2	1	3	7
	Unknown Age	8	4	6	2	2	-	21

Note: There were 84 perpetrators of 69 CAN Homicide cases. In 22% of cases (15 of 69, 22%), there were two perpetrators.

Mechanism of Death

Table 24 below shows the mechanism of death for each of the 69 CAN Homicides between 2004 and 2015. The most common mechanisms are:

- Beating: 25% (17 of 69)
- Abusive Head Trauma, which includes shaking and other trauma to the head: 23% (16 of 69)
- Neglect: 12% (8 of 69)

Table 24 | CAN Homicides by Mechanism of Death, 2004-2015
(Sacramento County Decedent Children, Resident & Non-Resident)

Mechanism of Death	2004-05		2006-07		2008-09		2010-11		2012-13		2014-15		All Years	
Abusive Head Trauma	1	10%	1	9%	5	28%	1	14%	7	47%	1	13%	16	23%
Beating	3	30%	2	18%	4	22%	2	29%	3	20%	3	38%	17	25%
Drowning	-		-		1	6%	1	14%	1	7%	-		3	4%
Drug Intoxication	-		-		1	6%	-		1	7%	-		2	3%
Fire/Burn	-		-		-		2	29%	-		-		2	3%
Firearm	-		-		2	11%	1	14%	-		-		3	4%
Motor Vehicle Collision	1	10%	2	18%	-		-		1	7%	1	13%	5	7%
Neglect	1	10%	4	36%	3	17%	-		-		-		8	12%
Neglect of a Newborn	-		-		1	6%	-		1	7%	1	13%	3	4%
Sharp Instrument	-		-		-		-		1	7%	-		1	1%
Smothering/Strangulation	-		2	18%	1	6%	-		-		2	25%	5	7%
Unknown Mechanism	4	40%	-		-		-		-		-		4	6%
Total	10	100%	11	100%	18	100%	7	100%	15	100%	8	100%	69	100%

Risk Factors

Risk factors were known to be present in 97 percent (67 of 69) of CAN homicides between 2004-2015. The below tables dive deeper into risk factors related to CAN Homicides. Table 25 provides an overview of risk factors:

- All are prevalent among CAN Homicide cases
- CPS History is most common, with 80% of families having a prior case or referral

Table 25 | CAN Homicides by History of Risk Factors, 2004-2015
(Sacramento County Decedent Children, Resident & Non-Resident)

Risk Factor	History	2004-05		2006-07		2008-09		2010-11		2012-13		2014-15		All Years	
CPS Involvement	Any	-		8	73%	17	94%	4	57%	12	80%	6	75%	47	80%
	None	-		3	27%	1	6%	3	43%	3	20%	2	25%	12	20%
Child Abuse & Neglect	Any	6	60%	6	55%	9	50%	2	29%	7	47%	5	63%	35	51%
	None	4	40%	5	45%	9	50%	5	71%	8	53%	3	38%	34	49%
Alcohol/Drug Abuse	Any	7	70%	4	36%	10	56%	2	29%	11	73%	5	63%	39	57%
	None	3	30%	7	64%	8	44%	5	71%	4	27%	3	38%	30	43%
Crime	Any	3	30%	7	64%	14	78%	4	57%	12	80%	5	63%	45	65%
	None	7	70%	4	36%	4	22%	3	43%	3	20%	3	38%	24	35%
Poverty	Any	3	30%	4	36%	7	39%	4	57%	10	67%	5	63%	33	48%
	None	7	70%	7	64%	11	61%	3	43%	5	33%	3	38%	36	52%
CAN Homicides	Total	10	100%	11	100%	18	100%	7	100%	15	100%	8	100%	69	100%

Of the 69 CAN homicides between 2004-2015, 80 percent had a CPS case or referral for the family prior to the death. See Table 26 for the specific nature of CPS involvement, including person involved, outcome, and timing of involvement:

- 80% of families have some form of CPS history
- 53% of decedents have CPS history themselves; 20% of decedents had a case or referral open at the time of death, 14% had a case or referral within six months of death

Table 26 | CAN Homicides by CPS Involvement with Family, 2004-2015
(Sacramento County Decedent Children, Resident & Non-Resident)

CPS Involvement	2004-05*		2006-07		2008-09		2010-11		2012-13		2014-15		All Years**	
None	-		3	27%	1	6%	3	43%	3	20%	2	25%	12	20%
Any CPS Involvement	-		8	73%	17	94%	4	57%	12	80%	6	75%	47	80%
Out of County Only	-		-		3	17%	-		2	13%	3	38%	8	14%
Decedent Involvement	-		6	55%	12	67%	2	29%	6	40%	5	63%	31	53%
Referral Only	-		*4*	*36%*	*8*	*44%*	*2*	*29%*	*5*	*33%*	*2*	*25%*	*21*	*36%*
Open at Time of Death	-		*2*	*18%*	*5*	*28%*	-		*5*	*33%*	-		*12*	*20%*
Open w/in 6 months	-		*2*	*18%*	*2*	*11%*	-		*1*	*7%*	*3*	*38%*	*8*	*14%*
Substantiations	-		-		-		-		-		*1*	*13%*	*1*	*13%*
Sibling Involvement	-		4	36%	10	56%	-		8	53%	3	38%	25	42%
Referral Only	-		*2*	*18%*	*5*	*28%*	-		*6*	*40%*	*2*	*25%*	*15*	*25%*
Open at Time of Death	-		-		*1*	*6%*	-		*4*	*27%*	-		*5*	*8%*
Substantiations	-		-		-		-		-		*3*	*38%*	*3*	*38%*
Parent Involvement	-		-		3	17%	3	43%	7	47%	4	50%	17	29%
CPS Post Involvement	-		3	27%	6	33%	1	14%	6	40%	3	38%	19	32%
Unknown Involvement	-		-		-		-		-		-		-	
Total	10	100%	11	100%	18	100%	7	100%	15	100%	8	100%	69	100%

*CPS Involvement data not collected during this time. **Based on available data.

CPS records indicate past contact with a child or family, but do not necessarily indicate known child abuse or neglect. Table 27 indicates known occurrences of child abuse and neglect by family member. Note that this information may come from autopsies or medical examinations after the incident and may not have always been known during the life of the child:

- 51% of families have a documented history of abuse or neglect
- 33% of decedents were victims themselves

Table 27 | CAN Homicides by Risk Factors: History of Child Abuse & Neglect, 2004-2015
(Sacramento County Decedent Children, Resident & Non-Resident)

CAN History	2004-05		2006-07		2008-09		2010-11		2012-13		2014-15		All Years	
None	4	40%	5	45%	9	50%	5	71%	8	53%	3	38%	34	49%
Any CAN History	6	60%	6	55%	9	50%	2	29%	7	47%	5	63%	35	51%
Decedent History	*5*	*50%*	*6*	*55%*	*5*	*28%*	*2*	*29%*	*3*	*20%*	*2*	*25%*	*23*	*33%*
Abuse	*3*	*30%*	*5*	*45%*	*4*	*22%*	*2*	*29%*	*3*	*20%*	*2*	*25%*	*19*	*28%*
Neglect	*5*	*50%*	*4*	*36%*	*2*	*11%*	*1*	*14%*	-		*1*	*13%*	*13*	*19%*
Sibling History	-		*4*	*36%*	*6*	*33%*	-		*6*	*40%*	*2*	*25%*	*18*	*31%*
Abuse	-		*3*	*27%*	*4*	*22%*	-		*4*	*27%*	*2*	*25%*	*13*	*22%*
Neglect	-		*3*	*27%*	*5*	*28%*	-		*3*	*20%*	*1*	*13%*	*12*	*20%*
Parent History	*2*	*20%*	-		-		-		*1*	*7%*	*2*	*25%*	*5*	*7%*
Abuse	*2*	*20%*	-		-		-		-		*1*	*13%*	*3*	*4%*
Neglect	*2*	*20%*	-		-		-		*1*	*7%*	*1*	*13%*	*4*	*6%*
Unknown History	-		-		-		-		-		-		-	
Total	10	100%	11	100%	18	100%	7	100%	15	100%	8	100%	69	100%

Between 2004-2015, 58 percent of families in CAN Homicides had a known history of alcohol and drug abuse as reported by law enforcement, medical providers or CPS. Table 28 shows past substance

abuse, involvement of drugs or alcohol during the incident causing death, smoking history, and any known prenatal substance exposure.

- 22% of cases involve drug use during the incident causing death

Table 28 | CAN Homicides by Risk Factors: History of Alcohol & Other Drugs, 2004-2015
(Sacramento County Decedent Children, Resident & Non-Resident)

AOD History	2004-05		2006-07		2008-09		2010-11		2012-13		2014-15		All Years	
None	3	30%	7	64%	8	44%	5	71%	4	27%	3	38%	30	43%
Any AOD History	7	70%	4	36%	10	56%	2	29%	11	73%	5	63%	39	57%
Decedent History	-		-		-		-		-		-		-	
Alcohol	-		-		-		-		-		-		-	
Drug	-		-		-		-		-		-		-	
Parent History	*8*	*80%*	*4*	*36%*	*10*	*56%*	*2*	*29%*	*10*	*67%*	*5*	*63%*	*40*	*58%*
Alcohol	*7*	*70%*	*3*	*27%*	*9*	*50%*	*2*	*29%*	*8*	*53%*	*5*	*63%*	*34*	*49%*
Drug	*3*	*30%*	*1*	*9%*	*5*	*28%*	*0*	*0%*	*6*	*40%*	*0*	*0%*	*15*	*22%*
Alcohol Involved	1	10%	-		-		1	14%	2	13%	1	13%	5	7%
Drugs Involved	4	40%	1	9%	5	28%	-		3	20%	2	25%	15	22%
Smoking during pregnancy	-		-		1	6%	-		3	20%	-		4	6%
Secondhand smoke exposure	-		-		-		-		1	7%	-		1	1%
Positive toxicology at birth	-		-		2	11%	-		3	20%	-		5	7%
Unknown History	-		-		-		-		-		-		-	
Total	10	100%	11	100%	18	100%	7	100%	15	100%	8	100%	69	100%

Drugs were involved in 22 percent of fatal incidents for CAN Homicides in 2004-2015. Drugs used were varied, with methamphetamines most prevalent in seven percent of all deaths. See Table 29 for more information on drug involvement.

Table 29 | CAN Homicides by Risk Factors: Drug Involvement, 2004-2015
(Sacramento County Decedent Children, Resident & Non-Resident)

Drug Involvement	2004-05		2006-07		2008-09		2010-11		2012-13		2014-15		All Years	
None	6	60%	10	91%	13	72%	7	100%	12	80%	6	75%	54	78%
Any Drug Involvement	4	40%	1	9%	5	28%	-		3	20%	2	25%	15	22%
Marijuana	*2*	*20%*	-		-		-		-		*1*	*13%*	*3*	*4%*
Methamphetamines	*2*	*20%*	-		*1*	*6%*	-		*1*	*7%*	*1*	*13%*	*5*	*7%*
Cocaine	-		-		*1*	*6%*	-		-		-		*1*	*1%*
Drug | Multiple	-		-		*1*	*6%*	-		*1*	*7%*	-		*2*	*3%*
Drug | Other	-		-		-		-		*1*	*7%*	-		*1*	*1%*
Drug | Unknown	-		*1*	*9%*	*2*	*11%*	-		-		-		*3*	*4%*
Unknown Involvement	-		-		-		-		-		-		-	
Total	10	100%	11	100%	18	100%	7	100%	15	100%	8	100%	69	100%

Among CAN Homicides between 2004-2015, 65 percent had a family history of crime. Table 30 provides more information on criminal history:

- 54% had a parent with a history of non-violent crime
- 42% had a history of violent crime
- 35% had a history of domestic violence

Table 30 | CAN Homicides by Risk Factors: History of Crime & Violence, 2004-2015
(Sacramento County Decedent Children, Resident & Non-Resident)

Crime History	2004-05		2006-07		2008-09		2010-11		2012-13		2014-15		All Years	
None	7	70%	4	36%	4	22%	3	43%	3	20%	3	38%	24	35%
Any Crime History	3	30%	7	64%	14	78%	4	57%	12	80%	5	63%	45	65%
Decedent History	-		-		-		-		-		-		-	
Violent	-		-		-		-		-		-		-	
Non-Violent	-		-		-		-		-		-		-	
Gang Involvement	-		-		-		-		-		-		-	
Parent History	*3*	*30%*	*7*	*64%*	*14*	*78%*	*4*	*57%*	*12*	*80%*	*5*	*63%*	*45*	*65%*
Violent	*1*	*10%*	*3*	*27%*	*11*	*61%*	*1*	*14%*	*10*	*67%*	*3*	*38%*	*29*	*42%*
Non-Violent	*3*	*30%*	*6*	*55%*	*9*	*50%*	*4*	*57%*	*10*	*67%*	*5*	*63%*	*37*	*54%*
Gang Involvement	*1*	*10%*	*1*	*9%*	-		*1*	*14%*	*1*	*7%*	-		*4*	*6%*
Domestic Violence	2	20%	3	27%	5	28%	2	29%	9	60%	3	38%	24	35%
Unknown History	-		-		-		-		-		-		-	
Total	10	100%	11	100%	18	100%	7	100%	15	100%	8	100%	69	100%

Forty-eight percent of families received government aid at the time of death, with Medi-Cal the most common form of assistance (25%). See Table 31 for more information.

Table 31 | CAN Homicides by Risk Factors: History of Poverty, 2004-2015
(Sacramento County Decedent Children, Resident & Non-Resident)

Poverty History	2004-05		2006-07		2008-09		2010-11		2012-13		2014-15		All Years	
None	7	70%	7	64%	11	61%	3	43%	5	33%	3	38%	36	52%
Any Poverty History	3	30%	4	36%	7	39%	4	57%	10	67%	5	63%	33	48%
CalFresh/Food Stamps	-		-		-		*2*	*29%*	*6*	*40%*	*3*	*38%*	*11*	*16%*
Medi-Cal	-		*2*	*18%*	-		*3*	*43%*	*7*	*47%*	*5*	*63%*	*17*	*25%*
SSI	-		-		-		-		*1*	*7%*	-		*1*	*1%*
TANF	*1*	*10%*	*1*	*9%*	*5*	*28%*	*2*	*29%*	*5*	*33%*	*1*	*13%*	*15*	*22%*
Unknown History	-		-		-		-		-		-		-	
Total	10	100%	11	100%	18	100%	7	100%	15	100%	8	100%	69	100%

Twenty-eight percent of CAN Homicides had a parent with a documented mental health history. See Table 32 below for information on mental health.

Table 32 | CAN Homicides by Risk Factors: History of Mental Health Risks, 2004-2015
(Sacramento County Decedent Children, Resident & Non-Resident)

Mental Health History	2004-05		2006-07		2008-09		2010-11		2012-13		2014-15		All Years	
None	9	90%	8	73%	12	67^	5	71^	8	53^	6	75^	48	70%
Any Mental Health History	1	10%	3	27%	6	33%	2	29%	7	47%	2	25%	21	30%
Decedent History	-		-		*1*	*6%*	-		*1*	*7%*	-		*2*	*3%*
Parent History	*1*	*10%*	*3*	*27%*	*5*	*28%*	*2*	*29%*	*6*	*40%*	*2*	*25%*	*19*	*28%*
Unknown History														
Total	10	100%	11	100%	18	100%	7	100%	15	100%	8	100%	69	100%

See Table 33 for additional risk factors. Notably:

- 29% of cases had an inconsistent story regarding the incident, complicating investigations

- 14% involved a teen mother
- 13% of decedents had a history of foster care

Table 33 | CAN Homicides by Risk Factors: Other History, 2004-2015
(Sacramento County Decedent Children, Resident & Non-Resident)

Other History	2004-05		2006-07		2008-09		2010-11		2012-13		2014-15		All Years	
Foster Care History	1	10%	2	18%	4	22%	-		-		2	25%	9	13%
Currently	-		*1*	*9%*	*2*	*11%*	-		-		-		*3*	*4%*
Decedent History	*1*	*10%*	*2*	*18%*	*4*	*22%*	-		-		*2*	*25%*	*9*	*13%*
Parent History	-		-		-		-		-		*1*	*13%*	*1*	*2%*
Other History	7	70%	8	73%	8	44%	3	43%	6	40%	5	63%	37	54%
Inadequate supervision	*2*	*20%*	*1*	*9%*	-		-		-		*1*	*13%*	*4*	*6%*
Inconsistent story	*6*	*60%*	*5*	*45%*	*5*	*28%*	*1*	*14%*	*1*	*7%*	*2*	*25%*	*20*	*29%*
Teen mother	*1*	*10%*	*3*	*27%*	-		*2*	*29%*	*2*	*13%*	*2*	*25%*	*10*	*14%*
Unexplained injuries	*3*	*30%*	-		*3*	*17%*	-		*1*	*7%*	-		*7*	*10%*
Inadequate prenatal care	-		-		-		-		*3*	*20%*	*1*	*13%*	*4*	*7%*
Lack of medical care	*1*	*10%*	*2*	*18%*	*2*	*11%*	-		-		*1*	*13%*	*6*	*9%*
Concealed pregnancy	-		-		*1*	*6%*	-		*1*	*7%*	*1*	*13%*	*3*	*5%*

Chapter 5
Thematic Review

Infant Sleep-Related Deaths

Chapter 5 | Thematic Review
Infant Sleep-Related Deaths

Mason was a four-month old baby boy who lived with his mom. One evening, after she picked him up from daycare, Mason's mom breastfed him before bed. After he finished eating, his mom put him to sleep in her double bed. She liked to have him sleep with her so she could feed him during the night. He was sleeping on his back next to the wall, and didn't have any blankets or pillows near him. Mason's mom went outside to smoke, then came in, showered and went to bed. When she woke up the next morning, she found Mason on his stomach with blood in his nose. She called 911 and paramedics took Mason to the hospital where he died.

Per 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 Infant Sleep-Related deaths. Below are the categories used in the definition of Infant Sleep-Related deaths.

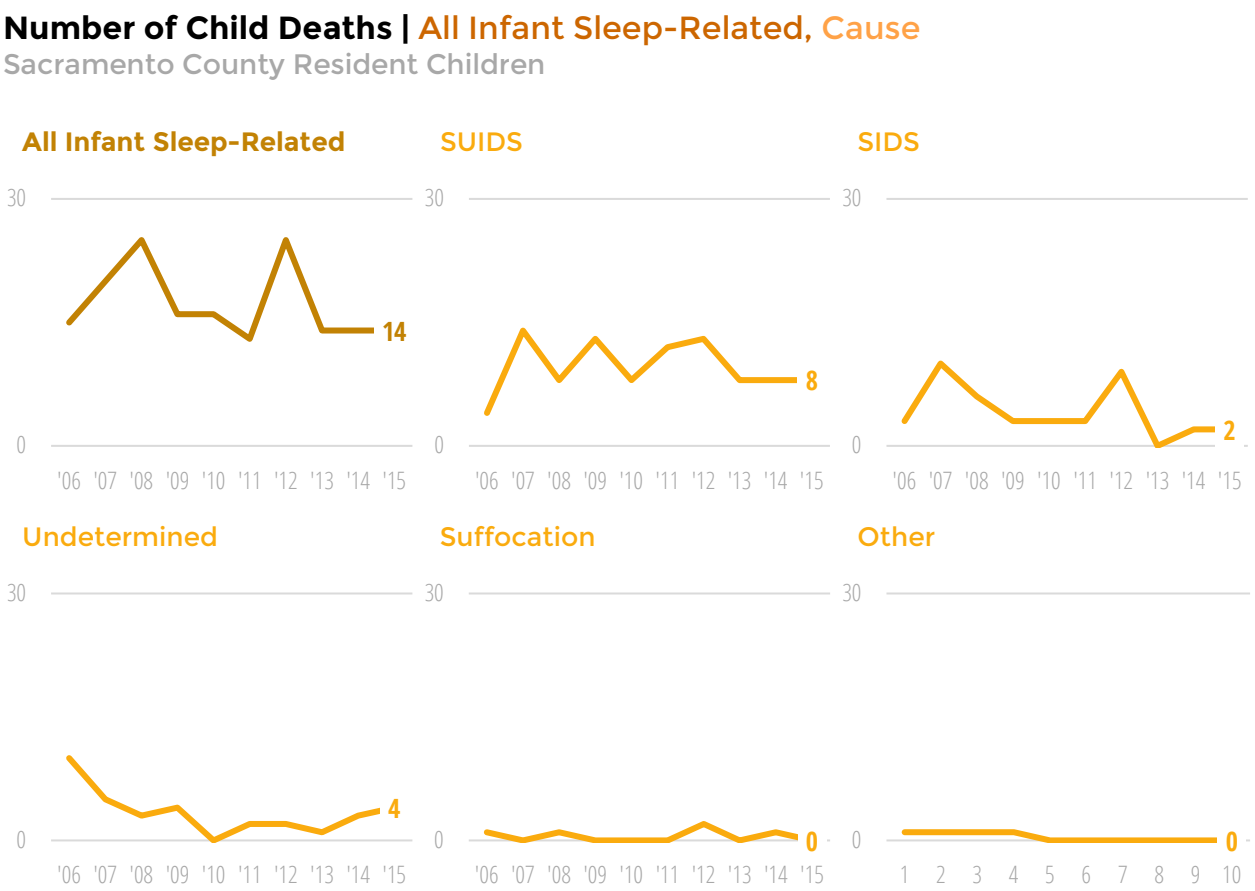
Sudden Infant Death Syndrome (SIDS) | A diagnosis of exclusion and unknown etiology, it is the leading cause of death for infants between ages two months to one year in the United States, accounting for about one-third of all such deaths. Section 27491.41 of the California Government Code defines SIDS 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."

Sudden Unexpected Infant Death Syndrome (SUIDS) | 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**.**

Undetermined Manner / Undetermined Natural Death | Undetermined manner applies when the manner or how a death occurred is unknown and the cause of death may or may not be medically identifiable. An Undetermined Natural death is one in which the cause of death may not be medically identifiable. These deaths occur when a child under the age of one dies during sleep but the death cannot be classified using another category. These deaths occur in a variety of circumstances, such as: a mother who used drugs during pregnancy laid her child to sleep with risk factors identified by the American Academy of Pediatrics, but had nothing else suspicious at the scene; or a child with chest congestion in the weeks leading up to the death who had unsafe sleeping risk factors.

In 2015, there were 14 ISR deaths, representing 11 percent of all child deaths in Sacramento County. Of these, eight died of SUIDS, two died of SIDS, two died due to Undetermined Natural causes, and two died Undetermined Manner deaths. After declining for three consecutive years between 2009-2011 and rising to 27 in 2012, the number of ISR deaths fell again in each of 2013-2015. Figure 25 shows all ISR deaths of Sacramento County resident child deaths since 2006.

Figure 25 | Number of Infant Sleep-Related Deaths by Cause, 2006-2015



Unsafe Sleeping Conditions

Of the 14 ISR deaths in 2015, unsafe sleep conditions[7], known by the American Academy of Pediatrics to be unsafe, such as co-sleeping, or the decedent being placed to sleep somewhere other than a crib or bassinette, were known to be present in 100 percent (14 of 14) of these deaths; these unsafe conditions are shown in Figure 26 below.

[7] 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.

Figure 26 | Percent of Infant Sleep-Related Deaths with Unsafe Sleep Conditions Present, 2015

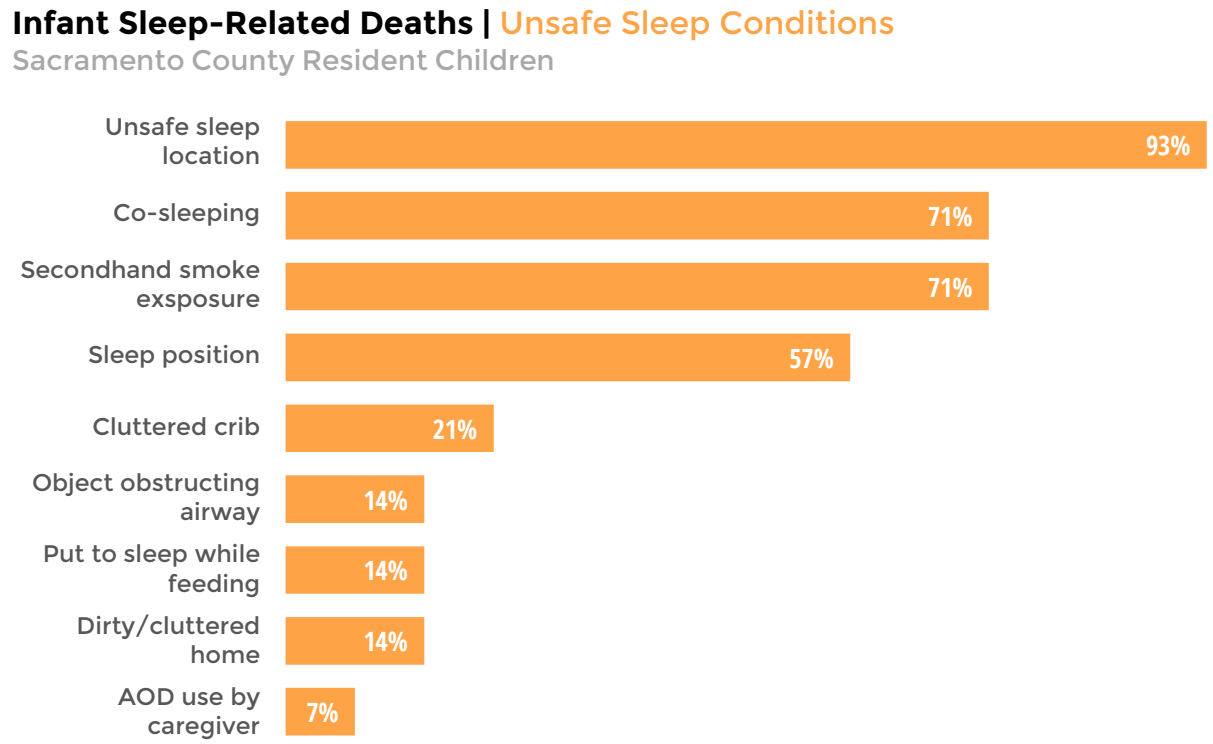


Table 34 below shows the prevalence of unsafe sleeping conditions by sleeping location. Ninety-three percent (13 of 14) of decedents were sleeping in an unsafe sleep location (any location other than a crib, playpen or bassinette). Of those not sleeping in a crib, 45 percent (5 of 11 for whom this information was known) were known to have a crib in the home. It is unknown if two of the decedents had a crib.

Table 34 | Unsafe Sleep Conditions of Infant Sleep-Related Deaths by Crib Use, 2015
(Sacramento County Resident Children)

	Infant in Crib					
Unsafe Sleep Conditions	No		Yes		Total	
Co-sleeping	10	77%	-		10	71%
With adult(s)	*8*	*62%*	-		*8*	*57%*
With other child(ren)	*3*	*23%*	-		*3*	*21%*
Sleep position	7	54%	1	100%	8	57%
Object obstructing airway	2	15%	-		2	14%
AOD use by caregiver	1	8%	-		1	7%
Put to sleep while feeding	2	15%	-		2	14%
Cluttered crib	3	23%	-		3	21%
Dirty/cluttered home	2	15%	-		2	14%
Secondhand smoke exposure	10	77%	-		10	71%
Total	13	93%	1	7%	14	100%

Risk Factors

Risk factors were known to be present in 100 percent of ISR deaths (14 of 14). See Table 35 for more information:

- 86% of families had a history of CPS involvement
- 79% of families receive government aid
- 64% of families have a parent with a criminal history

Table 35 | Risk Factors Related to ISR Deaths, 2015
(Sacramento County Resident Children)

Risk Factor	Total	
None	-	
CPS Involvement	12	86%
Decedent Victim	*6*	*43%*
Sibling Victim	*7*	*50%*
Parent Victim	*9*	*64%*
AOD	6	43%
Crime & Violence	9	64%
Violent/Non-violent crime	*8*	*57%*
Domestic Violence	*2*	*14%*
Poverty (Government Programs)	11	79%
Medical Risks	4	29%
Mental Health Issues	*1*	*7%*
Other | Mother <21 Years of Age	2	14%
Total	14	100%

Description of Infant Decedents

In addition to the unsafe sleep conditions and risk factors listed above, the following demographic information was known about the 14 ISR deaths in 2015. Feeding information is known for 86 percent (12 of 14) of decedents. Of those, 50 percent (6 of 12) were breastfed. Table 36 below shows all ISR deaths in 2015 by age in months:

- 50% (7 of 14) of decedents were 2 months of age or younger at the time of death. 86% (12 of 14) of decedents were 6 months of age or younger at the time of death.

Table 36 | Infant Sleep-Related Deaths by Age, 2015
(Sacramento County Resident Children)

Age	Total	
<1 month	1	7%
1 month	2	14%
2 months	4	29%
3 months	-	
4 months	4	29%
5 months	1	7%
6 months	-	
7 months	-	
8 months	2	14%
9 months	-	
10 months	-	
11 months	-	
Total	14	100%

Table 37 shows the number of ISR deaths by race between 2011 and 2015. This table also compares the races of decedents to the overall child population. African Americans are the most disproportionately represented racial group; they represent 10 percent of the child population in Sacramento County and 38 percent of ISR Deaths.

Table 37 | Infant Sleep-Related Deaths by Race, 2011-2015
(Sacramento County Resident Children)

Race	Child Population*	2011		2012		2013		2014		2015		All Years	
White	35%	6	46%	5	20%	3	21%	4	29%	5	36%	23	29%
Black/African American	10%	5	38%	10	40%	7	50%	5	36%	3	21%	30	38%
Hispanic	31%	1	8%	2	8%	-		1	7%	2	14%	6	8%
Asian/Pacific Islander	15%	-		1	4%	-		-		1	7%	2	3%
Multiracial/Other	9%	1	8%	7	28%	4	29%	4	29%	3	21%	19	24%
Total	100%	13	100%	25	100%	14	100%	14	100%	14	100%	80	100%

*Child population is an average of 2011-2015 data.
Source: California Department of Finance Population Projections 2004-2015

In 2015, 37 percent of all ISR deaths in Sacramento County occurred in Neighborhoods targeted by Safe Sleep Baby. Table 38 shows neighborhoods for ISR deaths in 2011-2015.

Table 38 | Infant Sleep-Related Deaths by Targeted Sacramento County Neighborhood Zip Codes 2011-2015 (Sacramento County Resident Children)

Sacramento County	Zip Codes	Child Population*	2011-2015	
Target Neighborhoods	Total	60%	48	37%
Arden-Arcade	*(95821, 95825, 95864)*	9%	7	5%
Fruitridge/Stockton Blvd	*(95820, 95824)*	6%	5	5%
North Highlands/Foothill Farms	*(95660, 95841, 95842)*	19%	15	6%
Valley Hi	*(95823, 95828)*	18%	14	11%
Other Targeted Neighborhoods	*(Oak Park, Meadowview, Del Paso Heights)*	9%	7	9%
All Other Neighborhoods		40%	32	63%
Total	Total	100%	80	100%

*Child population is based on an average of 2011-2015 data.
Source: American Community Survey, 2011-2015 5 year estimates

ISR Death & Child Protective Services History

In trying to prevent 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 ISR 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* published a study[8] 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 ISR death, and that this correlation persisted even 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 2015, a total of 17,506 infants were referred to Sacramento County CPS, representing an average of 9.8 percent of all infants each year during that period. During those eight years, 162 Sacramento County resident infants died of sleep-related causes. Of these infant decedents, 23 percent (37 of 162) had been referred to CPS prior to their deaths.

CDRT found a statistically significant correlation between a history of CPS referral and ISR death at a 99% confidence level.[9] Overall, an infant with a history of CPS referrals is 2.3 times more likely to suffer an ISR death than an infant who has not had a CPS referral.

The correlation between a history of CPS referrals and ISR death was also explored while controlling for economic risk. To do this, ISR 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,

[8] 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://jpeds.com/article/S0022-3476(13)01346-2/abstract, (Feb. 24,2014)

[9] 9 Based on a Chi-Square analysis of the rate of CPS referral among all infants in Sacramento County and among Infant Sleep-Related deaths. The Confidence Level represents the percentage chance that the result is statistically significant (i.e., not due to random chance).

or very high.[10] 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.

When controlling for economic risk, CDRT found a statistically significant correlation between a history of CPS referrals and ISR deaths in neighborhoods with very high economic risk at a 98% confidence level.

Lastly, the correlation between a history of CPS referrals and ISR death was also explored while controlling for race. Based on a chi-squared analysis of the numbers when controlled for race, there is not a statistically significant correlation.

Based on the data, there is a statistically significant correlation between a history of CPS referral and ISR deaths both overall, and in very poor neighborhoods when controlling 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.

[10]Economic Risk Index is calculated by dividing median income in a zip code by child population, then dividing by 100,000. Economic Risk Level is derived as follows: 1-2.5: Very High; 2.5-6.75: High; 6.75-13.5: Moderate; 13.5-36: Low

Chapter 6
Thematic Review

Fetal-Infant Mortality

Fetal and Infant Mortality Review

A fetal loss or death of an infant can be a devastating experience for a mother, father, caregiver, family, and community. For many, these losses signify the health and social condition of our community as a whole.

The death of a baby before his or her first birthday is called infant mortality. The feto-infant mortality rate is the number of fetal and infant deaths per 1,000 live births plus fetal deaths, typically including only fetal deaths of 24 or more weeks gestation. According to the Centers for Disease Control and Prevention, "this rate is often used as an indicator to measure the health and well-being of a community, because factors affecting the health of entire populations can also impact the mortality rate of infants." Furthermore, there are significant differences in infant mortality by race and ethnicity; for instance, the mortality rate for African American infants is more than twice that of white infants.

Fetal and Infant Mortality Review (FIMR) is an action-oriented community process that continually assesses, monitors, and works to improve service systems and community resources for women, infants, and families. Research shows FIMR is an effective perinatal systems intervention.

In 1991, California was the first state directed FIMR program established by the National Fetal and Infant Mortality Review Program. Currently there are FIMR programs in 16 of California's 61 local health jurisdictions.

The overall goal of the FIMR program is to reduce fetal and infant deaths by reviewing select cases, identifying factors associated with these deaths, and determining if these factors represent social or system problems which require change. Data collected and analyzed by the FIMR Team are presented to the FIMR Prevention Advisory Committee which develops recommendations and interventions that lead to positive changes to prevent future deaths.

With the information included in this report, we as a community can make changes to improve maternal health and reduce the fetal and infant mortality rate in Sacramento County.

Olivia Kasirye, M.D., M.S.

Health Officer
Maternal Child Adolescent Health Medical Director

Chapter 6 | Thematic Review
Fetal-Infant Mortality

Jane was a 26-year-old woman. She worked part time, had lots of friends, and lived with her boyfriend. Jane and her boyfriend weren't trying to get pregnant, but she was thrilled when she found out she was expecting. Already several months into her pregnancy when she took her pregnancy test, she signed up for Medi-Cal and made an appointment for prenatal care. At 21 weeks, Jane started leaking fluid. She went to the emergency room where they told her she had an infection. Jane delivered a stillborn baby several days later.

2015 marks the first year of Sacramento County's Fetal Infant Mortality Review (FIMR) in its current form. FIMR reviews Sacramento County Resident cases of deaths among infants born prior to 23 weeks' gestation and fetal demise cases. The FIMR case review process is similar to CDRT, and includes women's health clinics that provide maternal health data. This includes family planning, risk factors for premature birth, prenatal care, social support, life changes, and stress.

Pursuant to California Health and Safety Code 102950, each fetal death in which the fetus has advanced to or beyond the 20th week or uterogestation must be registered with the local registrar of births and deaths. Fetal deaths that are less than 20 weeks gestation may be registered but are generally not as it is not required by California law.

Sacramento County has agreed with the State of California to review at least 25% of cases. In 2015, the team reviewed 53% (52 of 99) of cases. Selection criteria for review is as follows: any deaths in children who are born alive prior to 23 weeks' gestation and any fetal death to a baby with an African American parent. The rationale for this inclusion criteria is to continue CDRT's work of reviewing the death of every child born alive and to continue the goals of the Black Child Legacy Campaign respectively. An additional 25% of remaining cases are also selected for review.

Fetal-Infant Mortality Review (FIMR) 2015

In 2015, there were 99 FIMR cases among Sacramento County residents, 52 of which were reviewed. Eligible cases include 13 children who were born alive prior to 23 weeks' gestation and 86 fetal deaths that received fetal death certificates. The 13 children born alive were all reviewed for FIMR and also appear in the CDRT data in prior chapters of this report. In addition to the 13 deaths of children born alive, FIMR reviewed 45 percent (39 of 86) of 86 fetal deaths.

The data provided in this chapter comes from both fetal/child death certificates and case review. Although not all fetal deaths were reviewed by the team, information from all fetal death certificates was used in the data below. Each indicator includes the number of cases for which the information is available (source n) along with the number and percent of cases (# %) for which the indicator is true.

When information comes from both reviewed cases and un-reviewed fetal death certificates, it will be titled "FIMR Cases." When information comes from case review only, it will be called "Reviewed Cases."

Most Common Characteristics of a FIMR Case

Below are the most salient features of FIMR Cases. FIMR did not analyze whether these characteristics are likely to be found in common; rather, these are the most common trait for each category. Additional data available below.

Demographics

- 20-22 weeks' gestation (41%)
- Mother's Age: 20-29 years (43%)
- Mother's Education: High School Diploma or Equivalency (41%)
- Child's Race: White (26%), Multiracial (23%) or Black (21%)
- Parent Born Abroad (31%)

Family Risk Factors

- Child Protective Services (52%): Prior case or referral for parent as a child (35%), or sibling (25%)
- Government Aid (52%)

Pregnancy Characteristics

- High Pre-Pregnancy Weight (BMI of 25+) (59%)
- Pregnancy Related Infection (27%)
- Prior Fetal Loss (23%)
- No or Late (5 months or later) Prenatal Care (22%)
- Umbilical Cord Problem (21%)
- Premature Rupture of Membranes (20%)
- Previous Pre-Term Delivery (20%)
- Fetal Exposure to Drugs or Alcohol (19%)

Neighborhood

- Valley Hi (17%)
- Arden Arcade (16%)
- Citrus Heights/Fair Oaks/Orangevale/Rancho Cordova (16%)

Knowledge of the geographic distribution of FIMR cases can help service providers better target interventions. See Figure 27 for a density map of FIMR deaths; darker spots represent areas with a higher concentration of FIMR cases. These hot spots appear in Arden-Arcade, Valley Hi, and North Highlands.

Figure 27 | FIMR Deaths | Density, by Location, 2015

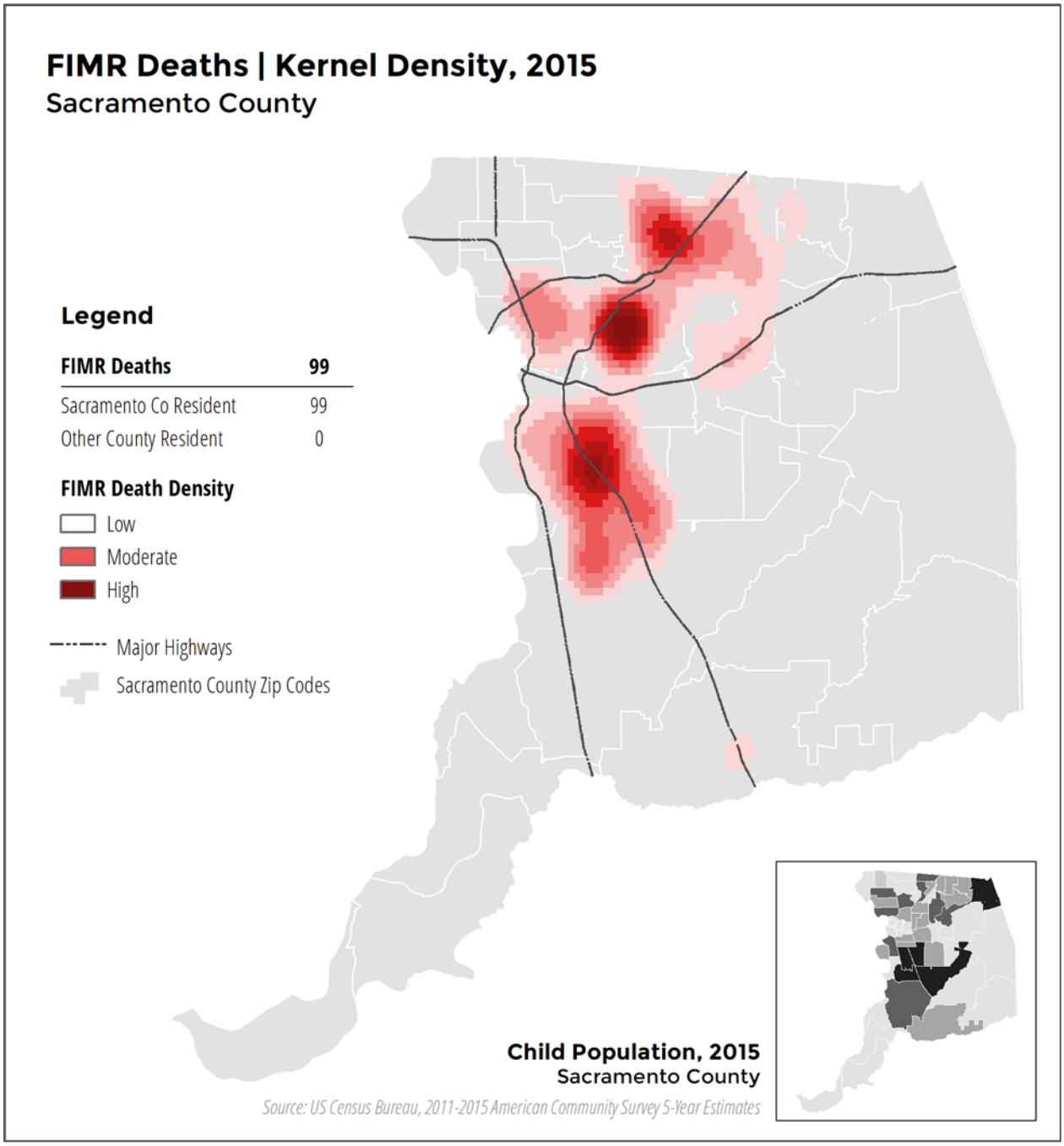


Table 39 | FIMR Deaths by Infant/Fetal, 2015
(Sacramento County Resident Children)

	Total 2015 FIMR Cases	Infant Deaths (included in CDRT data)	Fetal Deaths (not included; new cases)
Cases	99	13	86

Table 39 shows FIMR and CDRT cases in 2015. Nearly half (46%) of cases occur between 20 and 23 weeks gestation. Table 40 below shows the sex and race of all FIMR cases compared with statistics for live births. African Americans and Multiracial/Other children are overrepresented among FIMR cases when compared to live births.

Table 40 | FIMR Deaths by Sex & Race, 2015
(Sacramento County Resident Children)

Category		Live Births, Sacramento County	2015 FIMR Deaths	
Sex	Total	100%	99	100%
	Male	51%	49	50%
	Female	49%	46	46%
	Unknown/Ambiguous	<1%	4	4%
Race*	Total	100%	95	100%
	White	40%	25	26%
	Black/African American	10%	20	21%
	Hispanic	28%	12	13%
	Asian/Pacific Islander	17%	13	14%
	Multiracial/Other	6%	25	26%

*Race unavailable for four fetal-infant deaths in 2015; race obtained from death certificates.
Source: Births: Final Data for 2015; US DHHS, National Vital Statistics Reports, Vol 55, No 1, January 5, 2017; Birth Fact Sheet 2015 for Sacramento County, Epidemiology Unit, Division of Public Health, Department of Health and Human Services

Mother's Health

A mother's health prior to pregnancy, as well has her pregnancy history, is another factor that can contribute to pregnancy outcomes. This section includes source information collected from hospitals, health clinics, and fetal death certificates.

While low, the proportion of women with fetal and infant deaths who have pre-pregnancy diabetes or hypertension is higher than that of new mothers in Sacramento County. See Table 41 for rates of diabetes, hypertension, and sexually transmitted infections in FIMR cases.

Table 41 | FIMR Deaths by Mother's Health Status Prior to Pregnancy, 2015
(Sacramento County Resident Children)

		Present Prior to Pregnancy, 2015 FIMR Deaths				
Health Status	Sacramento County Mothers	Yes		No		Source (n)
Diabetes	2.3%	4	5%	81	95%	85
Pre-Existing Hypertension	4.4%	6	7%	81	93%	87
Sexually Transmitted Infection		13	15%	72	85%	85

Source: Maternal and Infant Health Assessment (MIHA) Survey Data Snapshots, 2013-2014. California Department of Public Health. 2016.

Table 42 below shows the mother's Body Mass Index (BMI), a measure of body fat based on weight and height, prior to pregnancy according to the fetal death certificate. According to the American Congress of Obstetricians and Gynecologists, obesity during pregnancy is a known risk factor for several health problems, including gestational diabetes and preeclampsia, as well as pregnancy loss and birth defects.[11]

- 40% of mothers in FIMR cases are obese prior to pregnancy, compared with 24% of Sacramento County women

Table 42 | FIMR Deaths by Mother's BMI Prior to Pregnancy, 2015
(Sacramento County Resident Children)

Mother's BMI Classification	2015		Female Pop. Sacramento County
Underweight (<18.5)	1	1%	2%
Healthy weight (18.5-24.9)	29	40%	44%
Overweight (25.0-29.9)	14	19%	30%
Obese (30+)	29	40%	24%
Total	73	100%	100%

Source: Centers for Disease Control and Prevention: Behavioral Risk Factor Surveillance System: Table of Overweight and Obesity (BMI)

Past pregnancy outcomes can indicate a risk of future pregnancy complications. See Table 43 for information on prior pregnancies for FIMR cases in 2015.

- 23% had a prior fetal loss
- One in five had a prior pre-term delivery

[11] "Women's Health Care Physicians." Obesity and Pregnancy - ACOG. N.p., 2017. "Women's Health Care Physicians." Obesity and Pregnancy - ACOG. N.p., 2017. Web. 14 July 2017.

Table 43 | FIMR Deaths by Mother's Prior Pregnancy & Birth History, 2015
(Sacramento County Resident Children)

Pregnancy & Birth History	2015 FIMR Deaths		Source (n)
Prior fetal loss	21	23%	91
Prior pre-term delivery	19	20%	96
Prior therapeutic or spontaneous abortion	12	19%	64
Prior C-section	6	9%	65
First pregnancy <18 years old	5	8%	64
Pregnancies < 1 year apart	4	6%	66
More than 4 births	5	5%	92
Prior low birthweight delivery	2	3%	64

Pregnancy/Birth

A mother's experiences during pregnancy can have a large impact on birth outcomes. The information below includes life stress, prenatal care, pregnancy complications, and pregnancy characteristics. This data is collected through a variety of sources, such as death certificates, hospitals, and health clinics.

Table 44 below shows that 35 percent of reviewed cases with an identified major life stressor during pregnancy. Major life stressors include: lack of supportive friends or family, frequent moves or homelessness, job loss or unemployment, major illness, substandard housing or overcrowding, and cultural barriers to accessing care.

Table 44 | FIMR Deaths by Major Life Stressors During Pregnancy, 2015
(Sacramento County Resident Children)

During Pregnancy	2015 FIMR Deaths		Source (n)	Sacramento County Mothers
Major Life Stressor	18	35%	52	27%

Source: Maternal and Infant Health Assessment (MIHA) Survey Data Snapshots, 2013-2014. California Department of Public Health. 2016.

In order to screen for and manage risk factors for poor pregnancy outcomes, it is recommended that expectant mothers schedule a prenatal care appointment as soon as possible within the first 12 weeks of pregnancy.[12] Table 45 describes the prenatal care received in FIMR cases as well as specific problems associated with prenatal care.

- 66% of FIMR cases received prenatal care in the first trimester
    - 78% of Sacramento County mothers initiate care in the first trimester[13]

[12] U.S. Department of Health and Human Services, Health Resources and Services Administration, Maternal and Child Health Bureau. Child Health USA 2014.
[13] Birth Fact Sheet 2015 for Sacramento County, Epidemiology Unit, Division of Public Health, Department of Health and Human Services.

Table 45 | FIMR Deaths by Prenatal Care Status, 2015
(Sacramento County Resident Children)

Prenatal Care During Pregnancy	2015		Source (n)
First Trimester Prenatal Care	58	66%	88
No, late, or inadequate prenatal care	30	34%	88
No prenatal care prior to date of fetal death	*19*	*22%*	*88*
Late prenatal care (5th month or later)	*11*	*13%*	*88*
Missed prenatal care appointments	6	12%	52
Multiple prenatal care providers	2	4%	52

Pregnancies can encounter a variety of complications that lead to fetal and infant death. Pregnancy related infections, umbilical cord problems, and premature rupture of membranes are the most common complications in FIMR cases. See Table 46 for Pregnancy Complications in 2015.

Table 46 | FIMR Deaths by Pregnancy Complications, 2015
(Sacramento County Resident Children)

Pregnancy Complications	2015 FIMR Deaths		Source (n)
Pregnancy Related Infection	23	27%	85
Umbilical Cord Problem	18	21%	85
Premature Rupture of Membranes	13	20%	64
Placental Abruption	14	16%	87
Incompetent Cervix	10	16%	64
Congenital Anomalies	8	15%	54
Gestational Diabetes	12	14%	85
High Risk Pregnancy	6	8%	74
Placental Insufficiency	2	3%	65
Intrauterine Growth Retardation	2	2%	85

Twins were slightly more common among FIMR cases than Sacramento County births.[14] See Table 47 for more information on pregnancy and birth outcomes of FIMR cases.

Table 47 | FIMR Deaths by Pregnancy Characteristics, 2015
(Sacramento County Resident Children)

Pregnancy Characteristics		Child Population	2015 FIMR Deaths*	
Multiple Births	Total	100%	98	100%
	Single	94%	85	87%
	Twin	6%	13	13%

Note: Data presented when available. Pregnancy and Birth characteristics collected from death certificates, which are not always complete.
Source: Births: Final Data for 2015; US DHHS, National Vital Statistics Reports, Vol 55, No 1, January 5, 2017

[14] Births: Final Data for 2015; US DHHS, National Vital Statistics Reports, Vol 55, No 1, January 5, 2017

Mother's Demographics

According to the American Congress of Obstetricians and Gynecologists, advanced maternal age can increase the risk of complications during pregnancy, including diabetes, problems with the placenta or fetal growth, and birth defects.[15] Table 48 below shows maternal age as well as other parent demographics among FIMR cases. Compared with new mothers in Sacramento County, mothers for FIMR cases are:

- More likely to be younger than 20 or older than 35 years of age
- More likely to be employed
- More likely to have been born abroad

Table 48 | FIMR Deaths by Mother's Demographics, 2015
(Sacramento County Resident Children)

Mother's Demographics		Sacramento County Mothers	2015 FIMR Deaths*	
Mother's Country of Origin	Total	100%	66	100%
	United States	69%	42	64%
	Abroad	31%	24	36%
Mother's Age at Birth	Total	100%	95	100%
	<20 years	5%	10	11%
	20-29 years	50%	41	43%
	30-34 years	29%	24	25%
	35-39 years	14%	18	19%
	40+ years	3%	2	2%
Mother's Employment	Total	100%	76	100%
	Employed	59%	51	67%
	Homemaker	41%	25	33%

Note: Data presented when available. Parent Demographics are collected from death certificates, which are not always complete.
Source: American Community Survey, 2011-2015 5 year estimates; Births: Final Data for 2015; US DHHS, National Vital Statistics Reports, Vol 55, No 1, January 5, 2017; Birth Fact Sheet 2015 for Sacramento County, Epidemiology Unit, Division of Public Health, Department of Health and Human Services.

Studies have shown that higher educational attainment was associated with lower rates of fetal death.[16] Table 49 shows the educational attainment for FIMR Cases in 2015. Among FIMR cases:

- Mothers are less likely to have a college education than are Sacramento County mothers.
- Fathers are less likely to have a college education than are Sacramento County men.

[15] "Women's Health Care Physicians." Having a Baby After Age 35 - ACOG. American Congress of Obstetricians and Gynecologists, Sept. 2015.
[16] Fetal mortality by maternal education and prenatal care, 1990. National Center for Health Statistics. Vital Health Stat 20(30). 1996.; Sabol et al, "Intrauterine Fetal Demise and Postneonatal Death Stratified by Maternal Education Level and Gestational Age," *Obstetrics and Gynecology*, May 2015.

Table 49 | FIMR Deaths by Parent's Educational Attainment, 2015
(Sacramento County Resident Children)

	Parents				Sacramento County	
Educational Attainment	Mothers 2015 FIMR Deaths		Fathers 2015 FIMR Deaths		Recent Mothers	Men (ages 18-45)
Less than high school	11	15%	7	10%	18%	14%
High school diploma/equivalency	30	41%	37	54%	22%	27%
Some college	21	29%	16	24%	36%	31%
College degree or higher	11	15%	8	12%	25%	29%
Total	73	100%	68	100%	100%	100%

Source: American Community Survey, 2011-2015 5 year estimates

Family Risk Factors

In addition to the above health and demographic information, FIMR collects the same family risk factor data as CDRT. The tables below reflect only cases reviewed at the quarterly FIMR meetings. This includes all 13 infant deaths prior to 23 weeks' gestation and 45 percent (39 of 86) of fetal cases, for a total of 52 reviewed cases.

Figure 28 | Percent of FIMR Cases Reviewed with Risk Factors Present (Sacramento County Resident Children)**, 2015**

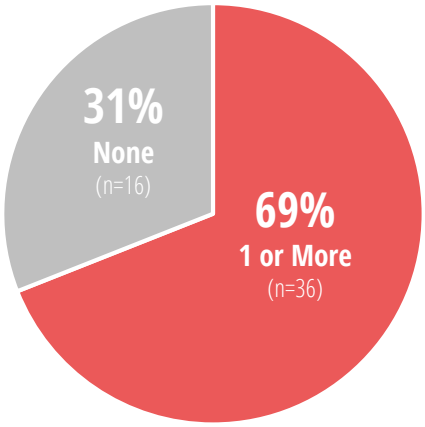


Figure 28 above shows the percent of reviewed cases with family risk factors, while Table 50 below shows the family risk factors associated with reviewed FIMR cases as provided by law enforcement, Child Protective Services (CPS), medical providers, and the Coroner's Office.

- CPS history and government aid are most common risk factors

Table 50 | FIMR Cases Reviewed by Category of Risk Factors Present, 2015
(Sacramento County Resident Children)

	Risk Factor History													
2015	CPS		AOD		Crime		DV		Gang		Poverty		MH	
FIMR Cases Reviewed (n=52)	27	52%	20	38%	20	38%	2	4%	2	4%	27	52%	8	15%

Fifty-two percent of cases have a CPS history in the family. Because the FIMR deaths occur either before or shortly after birth, CPS cases and referrals are in regard to the siblings or parents. See Table 51 for details on CPS history:

- 35% of FIMR cases have a parent with a CPS case or referral as a child.

Table 51 | FIMR Cases Reviewed by Risk Factors Present: CPS History, 2015
(Sacramento County Resident Children)

Risk Factor	FIMR Cases Reviewed	
CPS History	27	52%
Decedent History	-	-
Sibling History	*13*	*25%*
Parent History	*18*	*35%*

Table 52 shows fetal alcohol and drug exposure known either by the hospital at time of birth or by CPS. Cases of drug and alcohol exposure that don't rise to this level will not appear in the table below, so 19% is a conservative estimate for the number of reviewed FIMR cases with prenatal exposure.

Table 52 | FIMR Cases Reviewed by Risk Factors Present: Fetal AOD Exposure, 2015
(Sacramento County Resident Children)

Risk Factor	2015	
Fetal AOD Exposure	10	19%
Marijuana	7	13%
Cocaine	2	4%
IV Drug Use	2	4%
Methamphetamines	2	4%
Alcohol	1	2%
Opioids	1	2%

In addition to the government aid information above that was provided during case review, Table 53 shows Women, Infants, and Children (WIC) assistance during pregnancy and type of payment for delivery as indicated on the fetal death certificate.

Table 53 | FIMR Deaths by Risk Factors: Poverty, 2015
(Sacramento County Resident Children)

Government Programs		2015	
WIC	Total	58	100%
	None during pregnancy	33	57%
	Assistance during pregnancy	25	43%
Medi-Cal	Total	83	100%
	Medi-Cal paid delivery	49	59%
	Private Insurance paid delivery	34	41%

Pregnant women have long been advised against smoking. According to the Centers for Disease Control and Prevention, smoking increases the risk of problems with the placenta, pre-term delivery, and of birth defects.[17] Table 54 shows the mothers' smoking history among fetal deaths.

- 15% of mothers for FIMR cases used tobacco during pregnancy, higher than 4% of mothers for live births[18]

Table 54 | FIMR Deaths by Risk Factors: Mother's Smoking History, 2015
(Sacramento County Resident Children)

Mother's Smoking History	2015		Source (n)
Before Pregnancy	11	15%	77
During Pregnancy	7	10%	80

[17] "Women's Health Care Physicians." Obesity and Pregnancy - ACOG. N.p., 2017. https://www.cdc.gov/reproductivehealth/maternalinfanthealth/tobaccousepregnancy/index.htm
[18] Birth Fact Sheet 2015 for Sacramento County, Epidemiology Unit, Division of Public Health, Department of Health and Human Services.

Appendix A
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. Example: 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**:** 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.

Child Neglect | Severe: 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 normal metabolism, appetite, and activity. Causes include illness, chromosomal 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, 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-Birthweight: Birthweight 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, 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 CAN Homicide) 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 include:

- 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 & 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 include:

- An unattended infant who drowns in a bathtub.
- Unrestrained child killed in a Motor Vehicle Collision.
- Motor Vehicle Collisions 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 include:

- 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 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 secondary 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.

Risk Factor: 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.

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.

Appendix B
2015 Sacramento County Committee Members

Child Death Review Team

California Highway Patrol
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Chad Hertzell

Citrus Heights Police Department
Vince Young
Deborah Bayer

Department of Health & Human Services
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Department of Health and Human Services
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Sacramento County Sheriff's Department
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Aaron Marino
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Stacy Waggoner
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Sacramento County Probation Department
Pamala Gilyard
Kelly Casteel

Sacramento County Sheriff's Department
Tony Saika, Sergeant
Aaron Marino, Sergeant

San Juan Unified School District
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Lauri Hodge

Twin Rivers Unified School District
Jane Claar
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University of California Davis Medical Center
Julia Magana, MD
Mike Saxton, MD

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Sheila Boxley, CEO, PAC Co-Chair

Department of Health and Human Services
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Appendix C
The Sacramento County Child Death Review Team

History & 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. Specific requests preceded the Board of Supervisors' resolution 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 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 and states. The Sacramento County CDRT has 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 the Department of Health and Human Services. As part of this process, the GAO conducted a visit to Sacramento County's CDRT and other state's child fatality review teams. In 2011, the Children's Bureau Office on Child Abuse and Neglect funded a study on Child Death Review teams to examine recommendations, their implementation, and the impact on reducing child deaths. Sacramento County was visited to gain an understanding of the influence and impact of our CDRT.

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 from the following agencies:

California Highway Patrol

Child Abuse Prevention Council of Sacramento

Kaiser Permanente

Mercy San Juan Medical Center/Dignity Health

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

CDRT Memorandum of Agreement

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
      i. Investigations
      ii. 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
      i. CAARE Unit
      ii. 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 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 because 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 & 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 about 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.

Sacramento County CDRT 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 Agreement 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: _____

Child Abuse Prevention Council

of Sacramento

An Agency of:

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