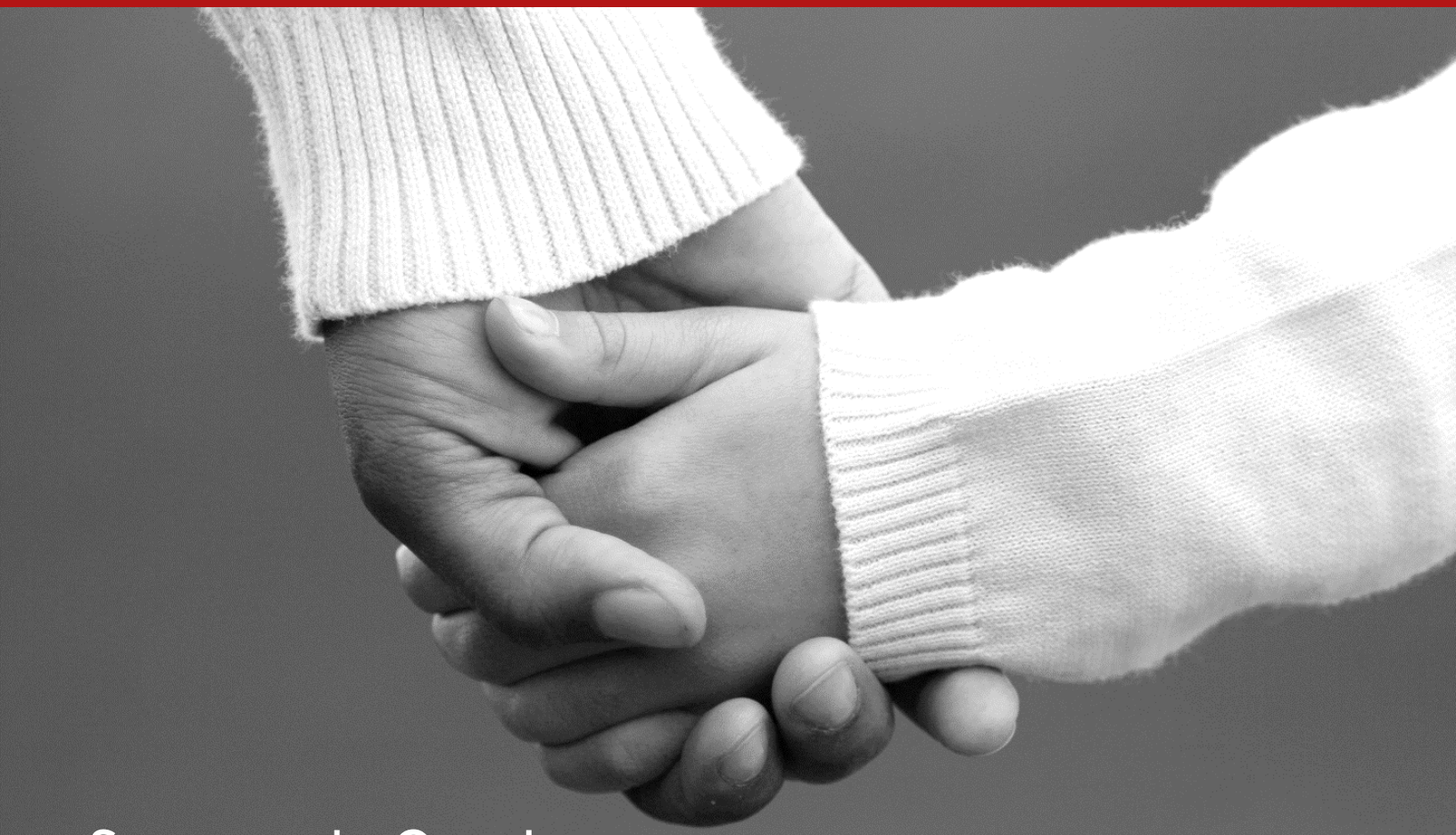

Sacramento County

Child Death Review Team & Fetal Infant Mortality Review

Annual Report | 2016

THE CHILD ABUSE PREVENTION CENTER

Brief Contents

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Acknowledgements

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

Dear Reader,

It is not an easy task to spend the afternoon delving into the details of the child deaths in our county. Members of the Child Death Review Team come together every month to spend the afternoon doing just that. Members do so with the understanding that they bring important information to better understand the circumstances of every child's death. Painful questions and dilemmas often surface during the discussions, and we work together to answer those questions and to understand the dilemmas in order to save the lives of other children, honoring the memories of our youngest victims.

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. We continue to take a closer look into the Child Abuse and Neglect (CAN) Homicides with the goal of gaining better understanding of the risk factors for these deaths in our communities and to look for opportunities for prevention. Many of the CAN Homicides demonstrate the intergenerational cycles of trauma that call for integrated prevention and early intervention efforts throughout Sacramento County. Too many of them also highlight missed opportunities for building relationships and resilience in support of children, families and communities. Preventing these fatalities requires a public health approach that involves all agencies and providers serving families.

The success of the CDRT and its ability to collect valuable 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 the CDRT's set of findings and recommendations, which examine family risk factors and possible points of intervention to identify opportunities for improvements in family and community services to prevent future deaths. The CDRT believes these recommendations may help to improve the systems and agencies in Sacramento County who have the responsibility of working collaboratively and efficiently to keep children healthy, safe and protected, with a focus on those children who live in more vulnerable circumstances.

On behalf of the CDRT, I extend my sympathy to the families and friends of those children whose deaths are reviewed. We always hope that the monthly review of deaths, robust analysis and the report itself will, in some way, acknowledge and honor their short lives. We will continue to learn and pave the way towards building a stronger, healthier, safer and more resilient community for Sacramento County children.

Sincerely,

Michèle Evans, MD MHS
Regional Medical Director, Kaiser Permanente, NCAL
Child Abuse Services & Prevention (CASP) Program
Sacramento County CDRT Chair, 2017-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 due to cancer, many innocent children's lives are lost every year that could have been saved. Many of these unnatural and avoidable deaths are the direct result of child abuse and preventable injuries.

The Child Death Review Team (CDRT) is a multidisciplinary team of professionals from different aspects 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 the CDRT is to identify how and why children die, to better facilitate the creation and implementation of strategies to prevent future child deaths.

2016 marks the twenty-seventh year the Sacramento County CDRT has convened to investigate, analyze, and document the circumstances that led to each child death in Sacramento County. This Executive Summary includes an overview of child deaths in Sacramento County in 2016 as well as findings and recommendations developed by the team. In the first three chapters, you will find an overview of the CDRT, a deeper look at child maltreatment deaths, and the rates of child death by cause, including Infant Sleep-Related Deaths.

Beginning with Chapter Four, deaths are presented as Thematic Reviews according to additional classifications. Chapter Four focuses on the continued efforts to address the disproportionality of African American child deaths in Sacramento County. Chapter Five is a deeper look at the identified risk factors for all child deaths. The final Thematic Review presents the Fetal Infant Mortality Review (FIMR) data. This team reviews fetal deaths and deaths of infants born prior to 23 weeks' gestation in Sacramento County, collecting information on maternal health and social risk factors to prevent future deaths.

Summary of 2016 Child Deaths

In 2016, 137 children, birth through 17 years of age, died in Sacramento County. This number includes 131 Sacramento County child residents and six child residents of other counties who sustained injuries and died in Sacramento County. The average child death rate increased from 34.7[1] per 100,000 children in 2015 to 36.5[2] per 100,000 children in 2016.

CDRT reviewed 118 deaths that occurred in 2016, all child deaths born at 23 weeks' gestation or later, of which 112 were Sacramento County residents and six were out of county residents whose injuries and deaths occurred in Sacramento County. The Fetal Infant Mortality Review (FIMR) team reviewed 19 live birth deaths of infants born prior to 23 weeks' gestation (22 weeks' gestation or earlier), and a selection

[1] 2015 death rates are for Sacramento County resident child deaths only.
[2] 2016 death rates are for Sacramento County resident child deaths only.

from the 76 Certificates of Fetal Death, all of which were Sacramento County residents that occurred in 2016.

The table below shows the 131 deaths of Sacramento County resident children only. Showing the 2016 death rate, and the change in the death rate from 2015.

Sacramento County Resident Child Deaths (does not include non-resident deaths)	2016 Total Deaths	2016 Mortality Rate	2015-2016 Change
All Child Deaths	131	36.5	▲ 1.8
Injury-Related Manner	24	6.7	▼ 1.7
Natural Manner	102	28.4	▲ 3.8
Undetermined Manner	5	1.4	▼ .3
Child Maltreatment Deaths	7	2	▼ .8
Child Abuse and Neglect Homicides	3	0.8	- .0
Fetal Infant Mortality Review: Fetal Deaths Only*	76	387.9	▼ 54.7

*FIMR reviews both fetal deaths and live births (born prior to 23 weeks of gestation), however, this rate does not include the 19 infant deaths that are counted in the "All Child Deaths" category (to prevent a duplicate count).

Below are the findings and recommendations developed by the Prevention Advisory Committee (PAC) and approved by the CDRT. The PAC is an advisory committee to the CDRT consisting of public and private agency service providers that meet to review aggregate CDRT and FIMR data and draft major findings and recommendations pertaining to the annual CDRT/FIMR report.

Key Findings

Findings below highlight major trends in child deaths for 2016. The CDRT report gives an overview of Injury-Related Deaths, Natural Deaths, Undetermined Deaths, Child Maltreatment Deaths, and African American Disproportionality. 2016 is the second year that findings for the Fetal Infant Mortality Review (FIMR) are included. Findings below are presented in greater detail throughout the report.

Trends Over Time

- Child death rate increased from 34.7 in 2015 to 36.5 in 2016.
- The total number of Perinatal Conditions Deaths increased from 35 in 2015 to 44 in 2016.
- There were 11 Infant Sleep-Related (ISR) Deaths in 2016, compared to 14 ISR Deaths each year for the three previous years (2013, 2014, and 2015).
- There were three African American ISR Deaths in 2016, the same as 2015, zero of which occurred in zip codes currently being targeted by the *Safe Sleep Baby Education Campaign*.
- The percentage of African American child deaths has decreased in all four disproportionate causes of death. In 2016, African Americans represented:
  - **27%** of Infant Sleep-Related Deaths, compared to an average of 37% from 2012-2015, with a high of 50% in 2013.
  - **0%** of Sacramento County resident Child Abuse & Neglect Homicides, compared to an average of 47% from 2012-2015, with a high of 67% in 2015.

- **14%** of Perinatal Conditions Deaths, compared to an average of 25% from 2012-2015, with a high of 34% in 2015.
- **17%** of Sacramento County resident Third-Party Homicides, compared to an average of 20% from 2012-2015, with a high of 33% in 2012.

Injury-Related Notable Trend

Homicides	There were 13 homicides in 2016 (compared to nine in 2015). Nine of the 13 were Sacramento County residents and four were out of county residents whose injuries and deaths occurred in Sacramento County. Six were Child Abuse & Neglect Homicides and seven were Third-Party Homicides, compared to three Child Abuse & Neglect Homicides and six Third-Party Homicides in 2015.
Child Abuse & Neglect (CAN) Homicides	There were six CAN Homicides in 2016, compared to three in 2015. Three of the six were Sacramento County residents, three were out of county residents whose injuries and deaths occurred in Sacramento County. • 100% of CAN Homicide Decedents had CPS history, – Sacramento County CPS history | 50% – CPS history in other California counties | 50%
Third-Party Homicides	There were seven Third-Party Homicides in 2016, compared to six in 2015. Six of the seven were Sacramento County residents ages 15-17, and one was an out of county resident, age 15-17, whose injuries and death occurred in Sacramento County. Additional trends included: • Known family risk factor(s) | 100% (CPS history, Government Aid, and Substance Abuse were the most common risks) • Involved firearms | 43% • Motor Vehicle Collisions with alcohol and/or drugs use | 43% From 2012 through 2016, there were a total of 34 Third-Party Homicides, including 33 Sacramento County residents and one death of an out of county resident who sustained injuries and died in Sacramento County. • Involved a firearm | 62% • African American decedents | 21%, all between the ages of 1-4 and 15-17 – African American decedents where a firearm was involved | 71% (5 of 7)

Natural Manner Notable Trends

Infant Sleep-Related (ISR) Deaths	There were 11 ISR Deaths in 2016, a decrease from 14 in 2015. • African American | 27% (3 of 11), the same number of African American ISR Deaths (3) as 2015 • Infants younger than 3 months | 18% • Infants younger than 6 months | 64% • Sleeping conditions known by the American Academy of Pediatrics to be unsafe | 100% • Reside in neighborhoods **not** currently targeted by the *Safe Sleep Baby Education Campaign* | 64%, an increase from 36% in 2015
Deaths due to Perinatal Conditions	There were 44 deaths due to Perinatal Conditions in 2016, an increase from 35 in 2015 and the same (44) as in 2014. There was a notable overlap of findings with the 76 fetal deaths and the 44 Perinatal Conditions Deaths in 2016. • Born prior to 37 weeks' gestation (premature) | 95% – Fetal deaths that occurred prior to 37 weeks' gestation (premature) |79% • At least one risk factor |84%, Government Aid most common (61%) – Fetal deaths with at least one risk factor |81%, Government Aid most common (64%) • Known prenatal drug exposure|11%

African American Disproportionality

African American children represent 10 percent of the Sacramento County child population and comprise 15 percent of all child deaths in 2016 among Sacramento County residents. This is a decrease from 24 percent in 2015. African American children died at a rate of 54.9 per 100,000 children in 2016 while the rate for all Sacramento County children was 36.5. These rates show a difference from 2015, when they were 81.7 and 34.37, respectively.

In 2016, the four causes of death in which African American children have historically been overrepresented, Sacramento County child resident African Americans comprised:

- CAN Homicides | 0% (0 of 3)
- Perinatal Conditions | 14% (6 of 44)
- Infant Sleep-Related Deaths | 27% (3 of 11)
- Third-Party Homicides | 17% (1 of 6)

Risk Factors

Eighty-four percent of the 2016 child decedents had at least one known family risk factor (Child Protective Services, Crime, Gangs, Substance Abuse, Medical (including Mental Health), Foster Care, and Poverty). Sixty-one percent had more than one family risk factor. The most common risk factor was Government Aid, occurring in 61% of all deaths, 63% of Natural Deaths, and 50% of Injury-Related Deaths. Sixty percent

of all deaths had CPS History as a risk factor. Often, parents have CPS history as a victim; 33 percent of families in 2016 had a parent with a CPS case or referral as a child themselves.

Fetal Infant Mortality

In 2016, there were 19 deaths of infants who were born prior to 23 weeks' gestation and 76 fetal deaths with fetal death certificates, for a total of 95 Fetal Infant Mortality Review (FIMR) cases among Sacramento County residents, a decrease from 99 in 2015. Sacramento County's goal is to review at least 25% of FIMR cases. In 2016, 58% (55 of 95) of cases were reviewed.

Health and Prenatal Care	• Mothers were overweight/obese (BMI 25 or greater) | 67% • Prior fetal loss | 22% • FIMR deaths – Associated with poor prenatal care | 21%, 16 began care late (fifth month or later) and 2 had no reported prenatal care. – Hospitals reported fetal exposure to drugs or alcohol |20% of reviewed cases – Gestational Diabetes|13% – Placental Abruption |13% – Pregnancy Related Infection |12%
Family Risk Factors	• At least one family risk factor | 81% of reviewed cases • Family received government aid | 64% • Family history of a Child Protective Services case or referral | 42%
Race[3]	• White | 34% of deaths; 40% of births • Hispanic | 27% of deaths; 26% of births • Asian/Pacific Islander | 18% of deaths; 18% of births • African American | 12% of deaths; 9% of births • Multiracial | 9% of deaths; 6% of births
Neighborhoods	Nearly half (49%) of all mothers for FIMR cases resided in one of the following three areas (comprised of the noted zip codes): • Valley Hi (95823, 95828) | 19% (18 of 94) • Meadowview/Pocket/Freeport (95822, 95832, 95831, 95824) | 15% (14 of 94) • South Natomas/Northgate/North Sacramento/Del Paso Heights (95833, 95834, 95815, 95838) |15% (14 of 94)

[3] For fetal deaths, mother's race identified on the Fetal Death Certificate is used. Infant deaths use the race identified for the infant on the death certificate. This is a change from the 2015 CDRT Report.

Recommendations

Child Abuse and Neglect Homicide

CDRT should continue to conduct its thirteen-year multi-disciplinary review of Child Abuse and Neglect (CAN) fatalities. In response to the 2015 Report Thematic Review and the 2016 CDRT Report of deaths related to child abuse and neglect, 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 is convening a diverse multi-disciplinary committee to complete a retrospective review of aggregate CDRT data from 75 Sacramento County child abuse and neglect fatalities from 2004-2016. The committee is comprised of members of the CDRT, policy leaders, county agency directors from the Department of Child, Family and Adult 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, the Steering Committee on Reduction of African American Deaths, and the Child Protective Systems Oversight Committee (CPS 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 has a limited timeframe of 15 – 20 months to conduct its work and develop its recommendations. The Child Abuse Prevention Center will continue to coordinate this effort.

Third-Party Homicide

Expand and enhance neighborhood-based programs focused on reducing Third-Party Homicide through violence prevention, interruption, and intervention. Sacramento County should build on and expand the neighborhood infrastructure that has been created through the Black Child Legacy Campaign (BCLC). BCLC is part of a comprehensive strategy implemented by the Steering Committee on Reduction of African American Child Death. BCLC provides a model for a county-wide prevention, interruption, and intervention program in the neighborhoods and with children of the race/ethnicities that experience the highest rates of Third-Party Homicide. The County should increase support for the BCLC Healing the Hood Community Intervention Workers and case management interventions, so that more of the vulnerable children and youth in the neighborhoods that experience the highest rates of Third-Party Homicide receive culturally-appropriate services, including mental health, trauma-informed care and substance abuse treatment. In addition, the County departments should adopt the crisis response protocol and expand coordination with local law enforcement agencies to ensure shared and consistent procedures in response to Third-Party Homicides and their aftermath. This recommendation is supported by the BCLC stakeholders, including community representatives and members of the Steering Committee on the Reduction of African American Child Death.

Infant Sleep-Related Deaths

Continue and expand training and education efforts 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 Education Campaign* to educate parents, other caregivers, and parent-serving service providers, including Sacramento County Child Protective Services, on the importance of safely sleeping babies "Alone, on their Back and in a Crib". In 2016, seven of the eleven (64%) Infant Sleep-Related Deaths occurred in areas of Sacramento County that are not currently being targeted by the *Safe Sleep Baby Education Campaign*. The CDRT recommends that the *Safe Sleep Baby Education Campaign* continue its current efforts, as well as expand training and education to neighborhoods not currently being served in Sacramento County. The *Safe Sleep Baby Education Campaign* continues to partner with Sacramento County Child Protective Services to improve education and outreach. CDRT recommends an additional partnership with Public Health Nursing.

Perinatal Conditions Deaths/Fetal Infant Deaths

Provide more follow-up services for infants that are discharged from the Neonatal Intensive Care Unit (NICU). Families should be provided a clinical path upon a child's departure from the NICU, similar to the "Home Health Follow-up" for High Risk Infants. This would include financial support to Sacramento County Public Health Nursing to provide the "High Risk Infant Program" to clients without private insurance and expand the "High Risk Infant Program" currently offered by California Children's Services (CCS). It is recommended that the "High Risk Infant Program" of Public Health Nursing and CCS be made available to infants born with positive toxicology and Neonatal Abstinence Syndrome. This would allow for the implementation of public health surveillance and reporting of Neonatal Abstinence Syndrome to better detect patterns and trends in infants at-risk for poor outcomes due to in-utero exposure to opioids and other substances. Positive toxicology at birth can better be determined with the promoted use of umbilical cord testing for the presence of drug exposure.

Develop education about the availability of Medi-Cal and prenatal care to women in Sacramento County. The Department of Child, Family and Adult Services and the Department of Human Assistance should jointly work with including, but not limited to, Community Incubator Leads, Birth & Beyond Family Resource Centers, First 5 Sacramento, and health providers to educate women on resources available prior to and during pregnancy. These resources should be expanded to target pre-conception and hypertension management.

African American Child Death

Continue efforts 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 efforts of the Reduction of African American Child Deaths Steering Committee to reduce child death disparities between African American children and other children in Sacramento County. CDRT recommends continuing and increasing programs and funding for community engagement and education focused on best practices identified to prevent Child Abuse and Neglect Homicides, Third-Party Homicides, Infant Sleep-Related Deaths, and deaths due to Perinatal Conditions, including, but not limited to, Black Child Legacy Campaign, First 5 Sacramento, Public Health Nursing programs such as Black Infant Health, Nurse Family Partnership, African American Perinatal Health, Sacramento City and County financial supports and additional community efforts.

Risk Factors

A second year recommendation to develop a county-wide protocol for public and private agencies who engage with families that have one or more of the top three risk factor categories for child death (Poverty, CPS History, Criminal History), to ensure those families with risk factors are referred to appropriate supportive services. Utilize a multidisciplinary working group with the task of proposing a comprehensive set of recommendations for a systemic, multidisciplinary, county-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 and 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.
- Increase outreach and support for known resources prior to Child Protective Services (CPS) involvement and streamline the system of providing services to families once a CPS case closes, focusing on families with children two years of age and under.
- Support current CPS efforts to engage families in Child and Family Team Meetings as prevention and aftercare supportive services. 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.
- To enhance engagement efforts, develop tools to assist with the coordination of services and referrals, including co-serving and referring agencies and develop a system to provide appropriate follow-up to the referring agencies.
- Continue to support agencies and programs that provide supportive services to the surviving siblings of decedents.

Expand services provided by government assistance programs to include parent education that promotes child safety. Promote and support home visitation programs available to families participating in government assistance programs and promote risk and/or safety assessment for existing home visitation programs. Conduct a risk and/or safety assessment for parents who are receiving Government Aid. Make child safety and parenting classes, appropriate for the child(rens') age(s), available and accessible (i.e. Drowning Prevention, *Safe Sleep Baby Education Campaign*, etc.), possibly allowing for participation in such classes to count towards Welfare to Work hours.

Continue to promote, support and fund the Family Resource Centers, as they are a vehicle to provide supportive services for parents. The Family Resource Centers provide direct services, as well as supporting partnerships and collaborations among programs serving at-risk parents and children.

Fetal Infant Mortality

Continue to provide education about the availability of Medi-Cal and prenatal care to women in Sacramento County, and expand resources to include and target pre-conception, as well as hypertension management. Twenty-one percent of FIMR cases had late or no prenatal care, 11 percent of whom did not present for care until the fetal death. The Departments of Health Services and Human Assistance should continue to jointly work with including, but not limited to, Community Incubator Leads, Birth & Beyond Family Resource Centers, First 5 Sacramento, and health providers in Sacramento County to educate women on resources available prior to and during pregnancy. Eight percent of mothers reported pre-existing hypertension, and 67 percent of mothers were overweight or obese.

Emerging Issue in CDRT and FIMR

CDRT has noted an emerging trend in the cases being reviewed. As supporting data was not formally being collected in the cases reviewed in 2016, no finding will be noted. The CDRT has noticed a possible trend in Injury-Related Deaths where the family has recently arrived in the United States. The CDRT recommends the following in response:

- Assess education services to refugees and immigrants who have been in the United States for less than 1 year. Provide outreach and education in refugee resettlement agencies for pre-conception.
    - Consider the medical assessment as a possible point of contact.

Currently, CDRT does not track how many years the parents/family have lived in the United States. The Child Death Review Team (CDRT) and the Fetal Infant Mortality Review (FIMR) should begin identifying strategies to track this information in order to track emerging trends in preventable and non-preventable deaths occurring within new refugee and immigrant families.

Chapter 1

Introduction to the 2016 CDRT Report

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Introduction to the 2016 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 birth through 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 records of death used in this report. The Vital Statistics Branch of the Sacramento County Department of Health Services provides Certificates of Death for all children under 18 years of age who have died in Sacramento County. Beginning in 2016, Sacramento County's Epidemiology program began to provide CDRT with death certificate information for Sacramento County resident children who die in other counties in California.

The second records are Fetal Death Certificates, which are obtained in the same way from Vital Statistics, are used for the Fetal Infant Mortality Review (FIMR). 2016 is the second year in which FIMR data has been included in the CDRT Annual Report.

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 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 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.

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 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 each year that they participate, which strictly 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 is 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 that are aligned with the classification of morbidity and mortality information for statistical purposes[4]. 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 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 | Death due to complication(s) of disease process, or due immediately to natural cause(s). Examples of natural deaths include perinatal conditions, congenital anomalies, cancers, Sudden Infant

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

Death Syndrome (SIDS), Sudden Unexpected Infant 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 to 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 (poisoning/overdose) will differ from strategies designed to reduce intentional drug overdose deaths (suicide).

Risk Factors

In addition to tracking the manners and causes of deaths, each case is also reviewed to identify risk factors. County specific risk factor information is limited to Sacramento County residents only. The risk factors that are a part of every review include:

History of Child 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 for the parent or decedent, inadequate prenatal or other medical care, concealment or pregnancy, or refusal of vaccinations. This information is typically provided by the hospital, coroner, or county mental health agency.

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, that 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 (DUI) and prostitution.

Poverty | Because CDRT does not have access to income information, public assistance is used as a proxy for poverty. CPS representatives provide information regarding a decedent's family's enrollment in Medi-

Cal, CalWORKs, CalFresh, and other services such as Social Security Income. Additional information is received or confirmed by other representatives including, but not limited to, California Children's Services (CCS) and Vital Records via Fetal and Child Death Certificates.

Special Case Details

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

- Deaths Involving a Weapon
- Drownings
- Fetal Death or Infant Death of children born prior to 23 weeks' gestation (regarding the FIMR data set)
- Infant-Sleep Related Deaths
- Motor Vehicle Collisions
- Suicides
- Youth (10-17 years) Injury-Related Deaths and Perpetrators

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 child abuse and neglect deaths.

As a result of this multi-agency investigation, the cause of death identified by the team, particularly in cases of Child Abuse and Neglect (CAN) 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 child abuse and neglect 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 deaths. The criteria for selecting cases to review and the definitions used for child abuse and neglect 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 deaths reported in Vital Statistics Death Records.

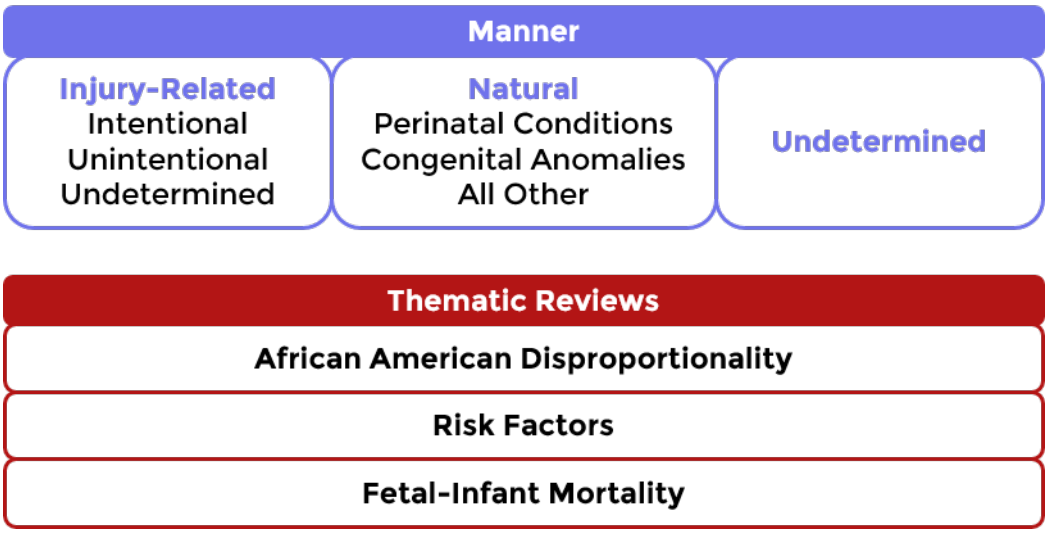
The development of the CDRT's Annual Report has been an evolving process. In 1996, the CDRT began following childhood fatality trends on an annual basis, which led to more comprehensive record keeping of all child deaths. For this reason, aggregate data is available for the period beginning in 1996 through 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 an 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 were 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 CDRT and FIMR are presented separately in this report. Both FIMR and CDRT reviews consider the contexts and contributing factors and allow for a more nuanced determination regarding the causes of death. Specifically, 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 & 2016 Thematic Reviews



Chapter 2

Deaths Related to Child Abuse & Neglect

Chapter 2
Deaths Related to Child Abuse & Neglect

Twenty-two-month-old Kash had a rough start to his life. He was born medically fragile, needing a feeding tube and testing positive for THC in the delivery room. Kash's mother had a history of neglect, including failing to meet his medical and feeding needs. In 2016, police and CPS were called out to Kash's home where he was found not breathing, bleeding from the mouth, severe bruising on his face, signs of strangulation and burn marks on his feet. After attempts to revive Kash, he was brought to a hospital where he was pronounced dead. Kash's mother and her boyfriend were arrested and are being charged with murder and child endangerment.

One of the principal functions of the Sacramento County CDRT is to ensure that all child abuse and neglect, and child abuse-related and neglect-related deaths are identified. Recognizing the risks inherent to children living with a neglectful, violent or illegal drug using 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. 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 child 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 investigations (e.g., homicide).

Abuse-Related | Death secondary to documented abuse (e.g., suicide of a previously abused child).

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

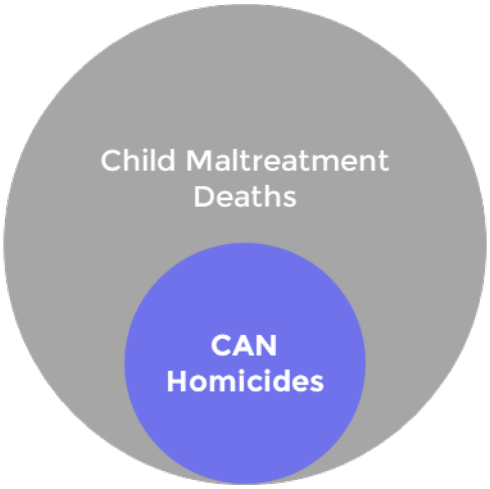
Neglect-Related | Death secondary to documented neglect, or any case of poor caretaker skills or judgment (e.g., an unattended infant who drowns in a bathtub; an unrestrained infant who is killed in a motor vehicle collision).

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

Prenatal Substance Abuse-Related | Death secondary to known or probable prenatal substance abuse as supported by coroner reports (e.g., SIDS/SUIDS with known perinatal exposure to drugs).

Questionable Abuse/Neglect/Prenatal Substance Abuse | 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.

Figure 2 | CAN Homicides – A Subset of Child Maltreatment Deaths



Child Maltreatment Deaths

In 2016, child maltreatment was involved in the deaths of 10 children, of which seven were Sacramento County residents, and three were out of county residents whose injuries and deaths occurred in Sacramento County. Three decedents were infants, under one-year-old, four were between 1-4, one was between 5-9, and two were between 15-17 years of age.

Seventy percent (7 of 10) of Child Maltreatment Deaths were children under five years of age. This is consistent with the trends from 2004-2015, in which 79 percent (128 of 163) of Child Maltreatment Deaths occurred among children under five years of age.

Of the 10 Child Maltreatment Deaths in 2016: six died due to a Child Abuse and Neglect (CAN) Homicide; one died of inconclusive injuries that, after thorough review, elements of abuse could not be ruled out; one died as a result of Perinatal Conditions with an element of prenatal substance abuse; one died of Cancer with elements of neglect; and one died in a drowning where neglect was an element.

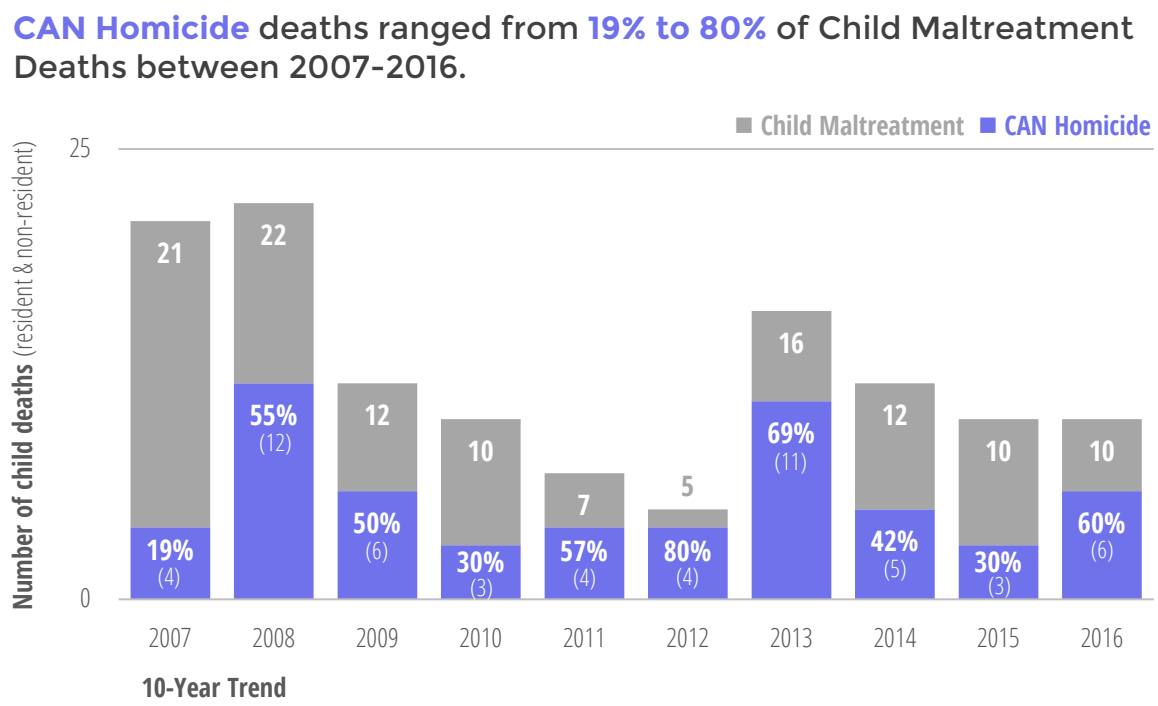
Table 1 shows the category of death and Child Abuse and Neglect classification for all Child Maltreatment Deaths in 2016.

Table 1 | Child Maltreatment Deaths by Abuse and Neglect Classification, 2016

	Child Abuse & Neglect Classification									
Child Maltreatment	Abuse		Neglect-Related		Questionable Abuse		Prenatal AOD Abuse		Total	
CAN Homicide	4	67%	2	33%	-		-		6	60%
Sacramento County Resident	*2*	*50%*	*1*	*50%*	-		-		*3*	*50%*
Non-Resident	*2*	*50%*	*1*	*50%*	-		-		*3*	*50%*
Cancer	-		1	100%	-		-		1	10%
Drowning	-		1	100%	-		-		1	10%
Perinatal Conditions	-		-		-		1	100%	1	10%
Undetermined Manner	-		-		1	100%	-		1	10%
Total	4	40%	4	40%	1	10%	1	10%	10	100%

Figure 3 shows all Child Maltreatment Deaths between 2007-2016, as well as the percentage of those Child Maltreatment Deaths comprised of CAN Homicides.

Figure 3 | Child Maltreatment Deaths, 2007-2016



Risk Factors Related to Child Maltreatment Deaths

Family risk factors are prevalent among Child Maltreatment Deaths, where all cases have at least one risk factor in 2016. Most common risk factors include CPS Involvement, Criminal History, and Poverty.

Table 2 shows Child Maltreatment Deaths by family risk factors.

Table 2 | Child Maltreatment Deaths by Risk Factors Present, 2016

	Child Maltreatment Deaths					
Type of Risk Factor	CAN Homicides		Other		Total	
None	-		-		-	
CPS Involvement	6	100%	3	75%	9	90%
Decedent victim	*4*	*67%*	-		*4*	*40%*
Sibling victim	*6*	*100%*	*2*	*50%*	*8*	*80%*
Parent victim	*4*	*67%*	*3*	*75%*	*7*	*70%*
Alcohol or drug abuse	4	67%	1	25%	5	50%
Crime and violence	3	50%	2	50%	5	50%
Violent and/or non-violent crime	*3*	*50%*	*2*	*50%*	*5*	*50%*
Domestic violence	*1*	*17%*	-		*1*	*10%*
Gang affiliation	-		*1*	*25%*	*1*	*10%*
Poverty (government programs)	3	50%	3	75%	6	60%
Medical risks	1	17%	2	50%	3	30%
Mental health	-		-		-	
Other | Mother <21 years old*	-		-		-	
Total Deaths	6	60%	4	40%	10	100%

*Mother's date of birth available for 2 CAN cases and 3 Other cases.

Child Abuse & Neglect Homicides, 2016

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.

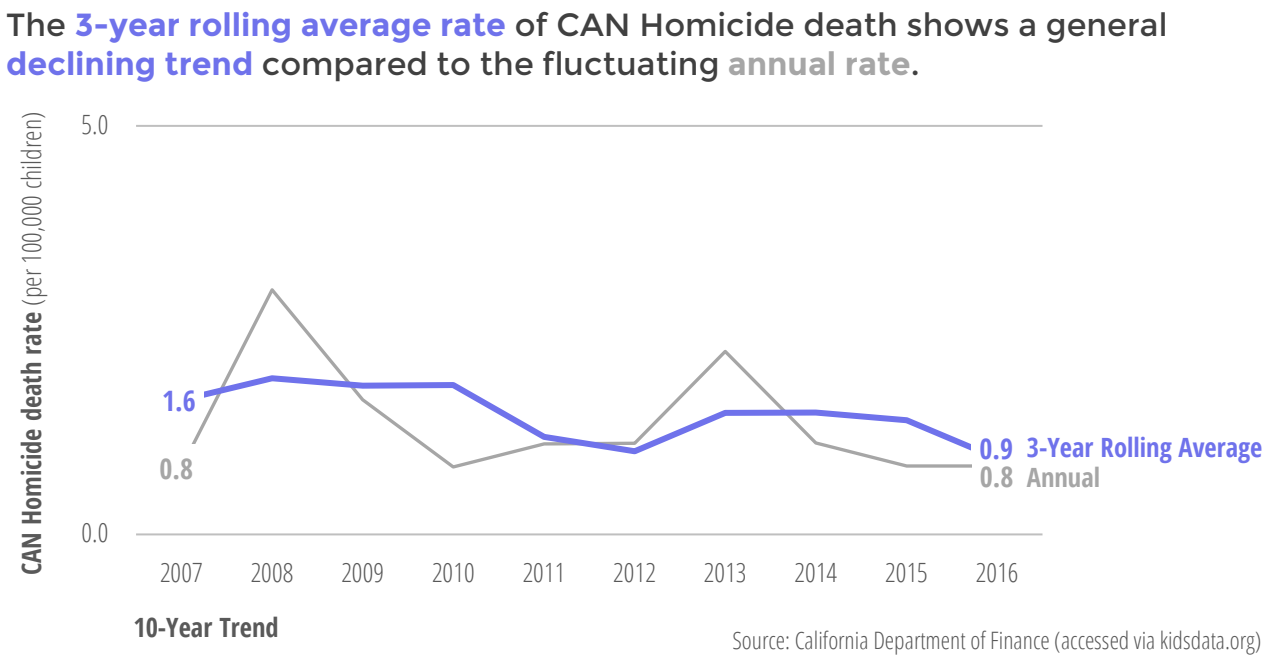
In 2016, there were six Child Abuse and Neglect Homicides, three of which were Sacramento County residents, and three were out of county residents whose injures, leading to death, occurred in Sacramento County. Four of the six (67%) CAN Homicides were in the Child Maltreatment category of Abuse, and two of the six (33%) were in the Neglect category.

Characteristics of Child Abuse and Neglect Homicides

Demographics	• Age: Under 5 (67%), Infants (17%) • Race: White (50%), Black (17%), Hispanic (17%), Other (17%)
Family Risk Factors	• Sacramento County Child Protective Services Involvement (50%): Prior case or referral for decedent (33%), sibling (50%) or parent as a child (17%) • Criminal History: Parents have a record (50%); non-violent crime most common (50%) • Alcohol and Drug Abuse History: Parent(s) have a history of substance abuse (67%); drug abuse being most common (67%)
Neighborhood	• Sacramento County Residents (50%): – North Highlands, Foothill Farms, Antelope (33%) – Sacramento, Elk Grove, Florin (33%) – Orangevale (33%)
Mechanism	• Motor Vehicle Collisions (33%)
Perpetrator	• Biological Parent(s) represent 56 percent of the perpetrators • Males perpetrated 56 percent of all 2016 CAN Homicides

Figure 4 shows the rate of CAN Homicides among Sacramento County residents during the period between 2007-2016. The three-year rolling average has fluctuated during this period between a high of 1.9 per 100,000 children in 2008 and a low of 1.0 in 2012. In the three-year period between 2014-2016, there were 0.9 CAN Homicides per 100,000 children.

Figure 4 | CAN Homicide Child Death Rate – Sacramento County Residents, 2007-2016



Source: California Department of Finance (accessed via kidsdata.org)

Victims

Table 3 shows the CAN Homicides for both the Sacramento County residents and the out of county residents where the injuries occurred in Sacramento County. Displayed are the percentages of decedents of each race and age in 2016.

Table 3 | CAN Homicides by Race & Age Group, 2016

Category		Sacramento County Child Population	CAN Homicides	
Race	White	35%	*3	50%
	Hispanic	31%	*1	17%
	Asian/Pacific Islander	15%	-	
	Black/African American	10%	*1	17%
	Multiracial/Other	9%	1	17%
	Total	100%	6	100%
Age Group	<1 year	5%	*1	17%
	1-4 years	22%	**3	50%
	5-9 years	28%	1	17%
	10-14 years	28%	-	
	15-17 years	17%	1	17%
	Total	100%	6	100%

Source: California Department of Finance Population Projections 2016

*1 Out-of-county Resident who sustained injuries and death in Sacramento County

**2 Out-of-county Resident who sustained injuries and death in Sacramento County

Perpetrators

There were nine perpetrators of six CAN Homicides in Sacramento County in 2016, including both Sacramento County residents and residents of other counties[5]. Table 4 shows the perpetrator's relationship to the decedent, sex, and age (when known) for all nine 2016 perpetrators, as well as for the 84 perpetrators between 2004 and 2015:

- 56% (5 of 9) of perpetrators were Biological Parents
- 56% (5 of 9) of perpetrators were Male

Table 4 | CAN Homicides by Perpetrator Characteristics, 2016

Category	Description	2004-15 Comparison	2016 CAN Homicides
Relationship	Biological Parent(s)	59	5
	Father	*18*	-
	Mother	*25*	*3*
	Both Parents	*8*	*1*
	Stepfather	2	-
	Boyfriend of parent/guardian	12	2
	Adoptive/Foster parent	3	-
	Grandparent	1	-
	Other family member	4	2
	Babysitter	1	-
	Relationship | Other	1	-
	Relationship | Undetermined	1	-
Gender	Male	45	5
	Female	38	4
	Unknown	1	-
Age Group	<18 years	2	-
	18-23 years	13	1
	24-30 years	19	1
	31-39 years	19	2
	40+ years	9	-
	Unknown	22	5
Total CAN Homicide Perpetrators		84	9
Total CAN Homicide Events		69	6

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

Mechanism of Death

The mechanism of death for the six CAN Homicides in 2016 were as follows:

- 2 of 6 (33%) Motor Vehicle Collisions where the driver was under the influence of alcohol, drugs, or both (one was an out of county resident)
- 1 of 6 (17%) Shaken Baby Syndrome (out of county resident)
- 1 of 6 (17%) Abusive Head Trauma (out of county resident)
- 1 of 6 (17%) Strangulation, in addition to blunt force trauma
- 1 of 6 (17%) Drowning

Risk Factors

Risk factors were known to be present in 100 percent (6 of 6) of CAN Homicides in 2016. **Table 5** below shows risk factors present in the 2016 CAN Homicides, with a comparison to the 12-year (2004-2015) trend percentages published in the 2015 CDRT Report.

Table 5 | CAN Homicides by Risk Factors Present, 2016

Type of Risk Factor	2004-15 Comparison		CAN Homicides	
CPS Involvement	47	68%	6	100%
Child abuse and neglect	35	51%	6	100%
Alcohol or drug abuse	39	57%	4	67%
Crime and violence	45	65%	3	50%
Poverty (government programs)	33	48%	3	50%
Total CAN Homicides	69	100%	6	100%

Of the six CAN Homicides in 2016, 100 percent had a CPS case or referral for the family prior to the death. See Table 6 for the specific nature of CPS Involvement, including person involved, outcome, and timing of involvement.

Table 6 | CAN Homicides by CPS Involvement with Family, 2016

CPS Involvement	2004-15* Comparison		CAN Homicides	
None	12	17%	-	
Any CPS Involvement	47	68%	6	100%
Out of County only	8	12%	3	50%
Decedent Involvement	31	45%	4	67%
Referral only	*21*	*30%*	*1*	*17%*
Open at time of death	*12*	*17%*	-	
Open within 6 months	*8*	*12%*	-	
Substantiations	*1*	*1%*	*3*	*50%*
Sibling Involvement	25	36%	6	100%
Referral only	*15*	*22%*	*2*	*33%*
Open at time of death	*5*	*7%*	-	
Substantiations	*3*	*4%*	*6*	*100%*
Parent Involvement	17	25%	4	67%
CPS Post Involvement	19	28%	4	67%
Unknown Involvement	0	0%	-	
Total CAN Homicides	69	100%	6	100%

*Based on data available; CPS data not collected in 2004 and 2005.

Chapter 3

All Child Deaths in Sacramento County
Rates & Causes

Chapter 3
All Child Deaths in Sacramento County | Rates & Causes

Chapter Three provides an overview of child deaths in 2016, 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 2016, there were 131 deaths of children, birth through 17 years of age, who were Sacramento County residents, and six deaths of out of county residents whose injuries and death occurred in Sacramento county. For the purpose of comparison to Sacramento County child population, data and comparisons are limited to the 131 Sacramento County resident deaths.

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 increased from 34.7 deaths per 100,000 Sacramento County children in 2015 to 36.5 deaths per 100,000 Sacramento County children in 2016.

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 death.

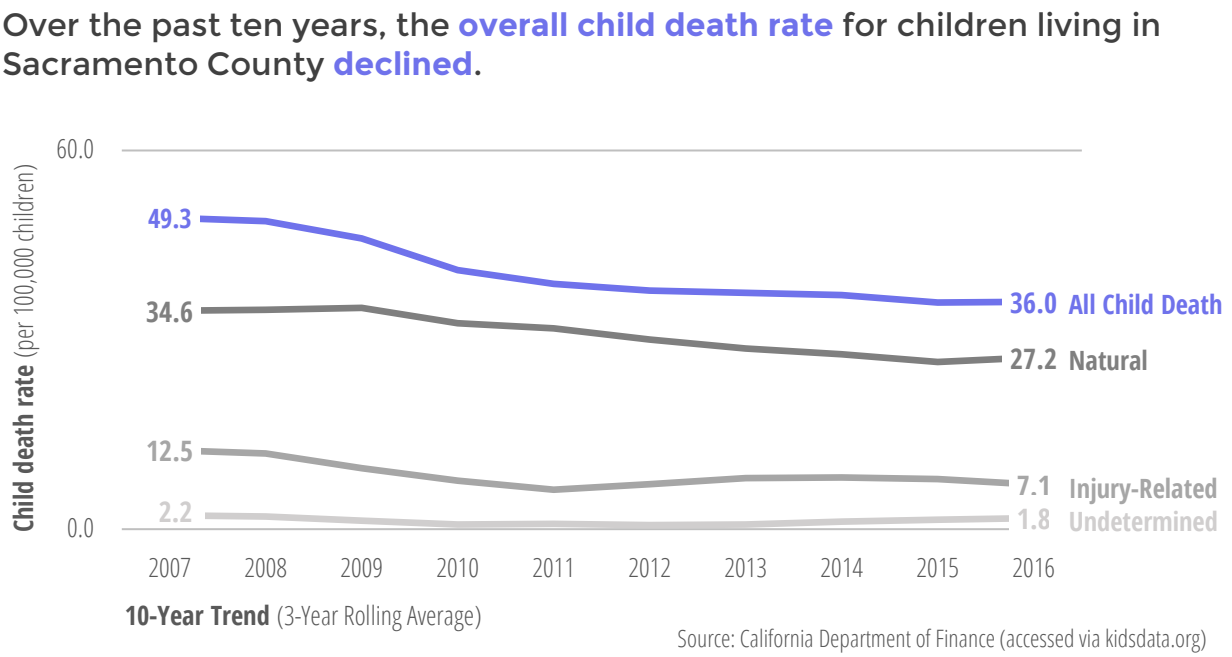
Table 7 shows the child mortality rate for Sacramento County residents. Overall, the number of deaths and the death rate have steadily declined over the 10-year period.

Table 7 | Child Mortality Rate, Sacramento County Residents (per 100,000 children), 2007-2016

	10-Year Trend										
Child Mortality Rate	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	All Years
Sacramento County Resident	50.6	44.4	41.5	37.2	37.9	38.3	36.1	37.0	34.7	36.5	39.4

Figure 5 illustrates the rolling three-year average child death rate from 2007-2016 in Sacramento County. The child death rate has decreased over this time period for Injury-Related Deaths.

Figure 5 | Child Death Rate – Sacramento County Residents, 2007-2016



CDRT reviews both Sacramento County resident deaths and deaths of out of county residents who were injured and died in Sacramento County. Table 8 shows the number of deaths between 2007 and 2016 by residency.

Table 8 | Child Deaths by County Residency, 2007-2016

	10-Year Trend										
County Residency	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	All Years
Sacramento County Resident	192	163	151	135	137	137	129	132	124	131	1,431
Non-Resident	5	3	3	3	1	0	3	1	2	6	27
Total Child Deaths	197	166	154	138	138	137	132	133	126	137	1,458

In 2016, 74 percent (102 of 137) of all child deaths were classified as Natural. Injury-Related Deaths accounted for 22 percent (30 of 137) of all 2016 child deaths during this period. Deaths classified as Undetermined accounted for four percent (5 of 137) of all child deaths during this period. Figure 6 shows a breakdown of all child deaths by category for each year from 2007 through 2016.

During the period between 2007 and 2016, 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 (see Figure 6).

Figure 6 | Number of Child Deaths by Manner, 2007-2016

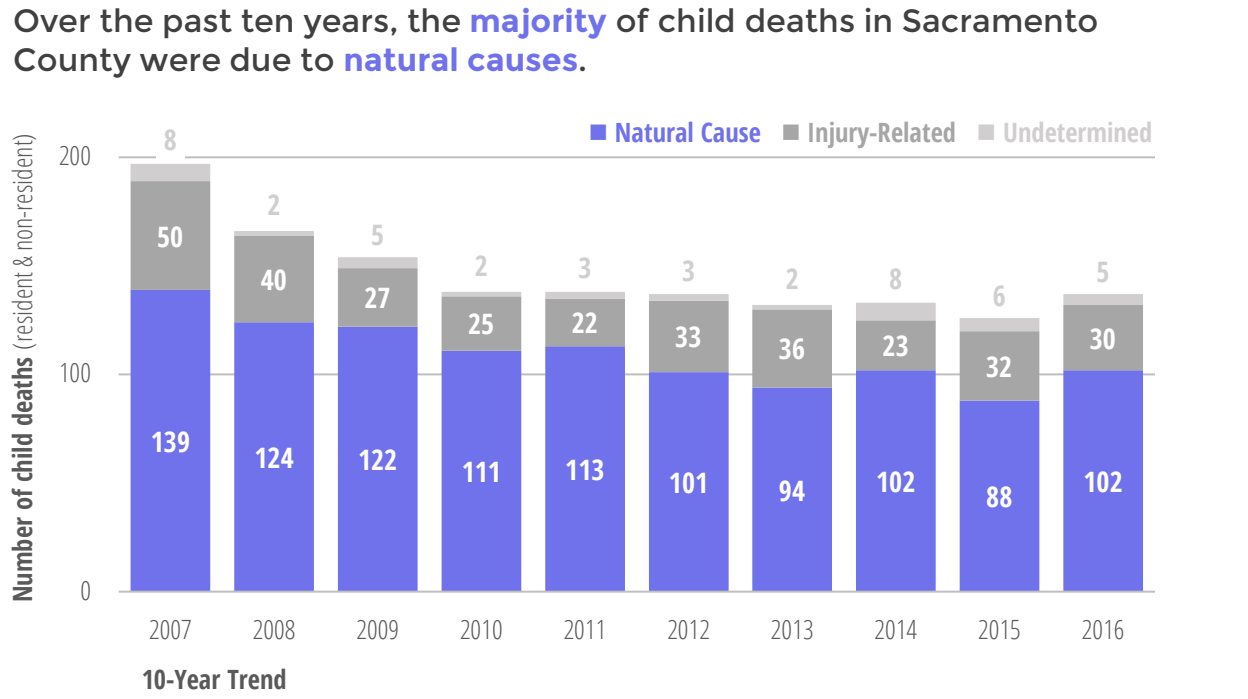


Table 9 shows all 2016 child deaths by manner and cause, between 2007 and 2016. The overall number of deaths increased from 126 in 2015 to 137 in 2016. This increase is largely driven by the increase in Natural Deaths from 88 in 2015 to 102 in 2016, including an increase of nine Perinatal Conditions Deaths and nine additional Cancer Deaths. The 30 Injury-Related Deaths is consistent with recent years but has reduced from the beginning of the 10-year period when there were 50 such deaths in 2007.

Table 9 | All Child Deaths by Manner & Cause, 2007-2016

		10-Year Trend										
Manner	Cause	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	All Years
Injury-Related	Homicide	12	17	9	11	8	13	18	10	9	13	120
	CAN Homicide	*3*	*12*	*6*	*3*	*4*	*4*	*11*	*5*	*3*	*6*	*57*
	3rd Party Homicide	*9*	*5*	*3*	*8*	*4*	*9*	*7*	*5*	*6*	*7*	*63*
	Motor Vehicle Collision	18	6	7	3	4	3	5	2	7	3	58
	Occupant/Driver	*12*	*4*	*2*	*1*	*-*	*-*	*3*	*-*	*5*	*-*	*27*
	Pedestrian	*6*	*2*	*3*	*2*	*3*	*1*	*2*	*2*	*2*	*3*	*26*
	Bike	*-*	*-*	*2*	*-*	*1*	*2*	*-*	*-*	*-*	*-*	*5*
	Drowning	7	4	7	4	4	8	2	5	5	4	50
	Suicide	4	6	2	4	3	3	6	5	4	5	42
	Suffocation	1	1	-	1	-	4	-	1	-	1	9
	Poisoning/Overdose	2	1	2	1	-	-	-	-	2	1	9
	Burn/Fire	5	1	-	-	-	-	-	-	2	-	8
	Legal Intervention	-	-	-	-	1	1	-	-	-	2	4
	Injury | Other	1	4	-	1	1	1	5	-	1	1	15
	Injury | Undetermined	-	-	-	-	1	-	-	-	2	-	3
	Total Injury-Related	**50**	**40**	**27**	**25**	**22**	**33**	**36**	**23**	**32**	**30**	**318**
Natural	Perinatal Conditions	63	50	53	39	54	42	33	44	35	44	457
	Congenital Anomalies	38	30	27	37	35	25	30	31	28	28	309
	SIDS	9	6	5	3	3	9	-	2	2	-	39
	SUIDS	5	15	8	13	8	12	13	8	8	8	98
	Cancer	15	8	13	11	9	8	7	9	4	13	97
	Infections	3	5	9	-	1	1	7	3	2	3	34
	Respiratory	-	3	2	2	1	-	2	1	1	2	14
	Natural | Other	6	6	4	6	1	2	2	3	5	4	39
	Natural | Undetermined	-	1	1	-	1	2	-	1	3	-	9
	Total Natural	**139**	**124**	**122**	**111**	**113**	**101**	**94**	**102**	**88**	**102**	**1,096**
Undetermined	**Total Undetermined**	**8**	**2**	**5**	**2**	**3**	**3**	**2**	**8**	**6**	**5**	**44**
Total Child Deaths		197	166	154	138	138	137	132	133	126	137	1,458

The map in Figure 7 depicts the kernel density distribution of the place of residence of all Sacramento County resident children (birth through 17 years of age) who died in 2016, with darker regions indicating a higher concentration of child deaths. The largest concentration of deaths is in the Meadowview and Valley Hi area. However, Figure 8, the same as the inset map on Figure 7, shows the Sacramento County child population in 2016 and indicates that this concentration may be, in part, a reflection of the population density of the area.

Figure 7 | Density of All Child Deaths by Location – Sacramento County Residents, 2016

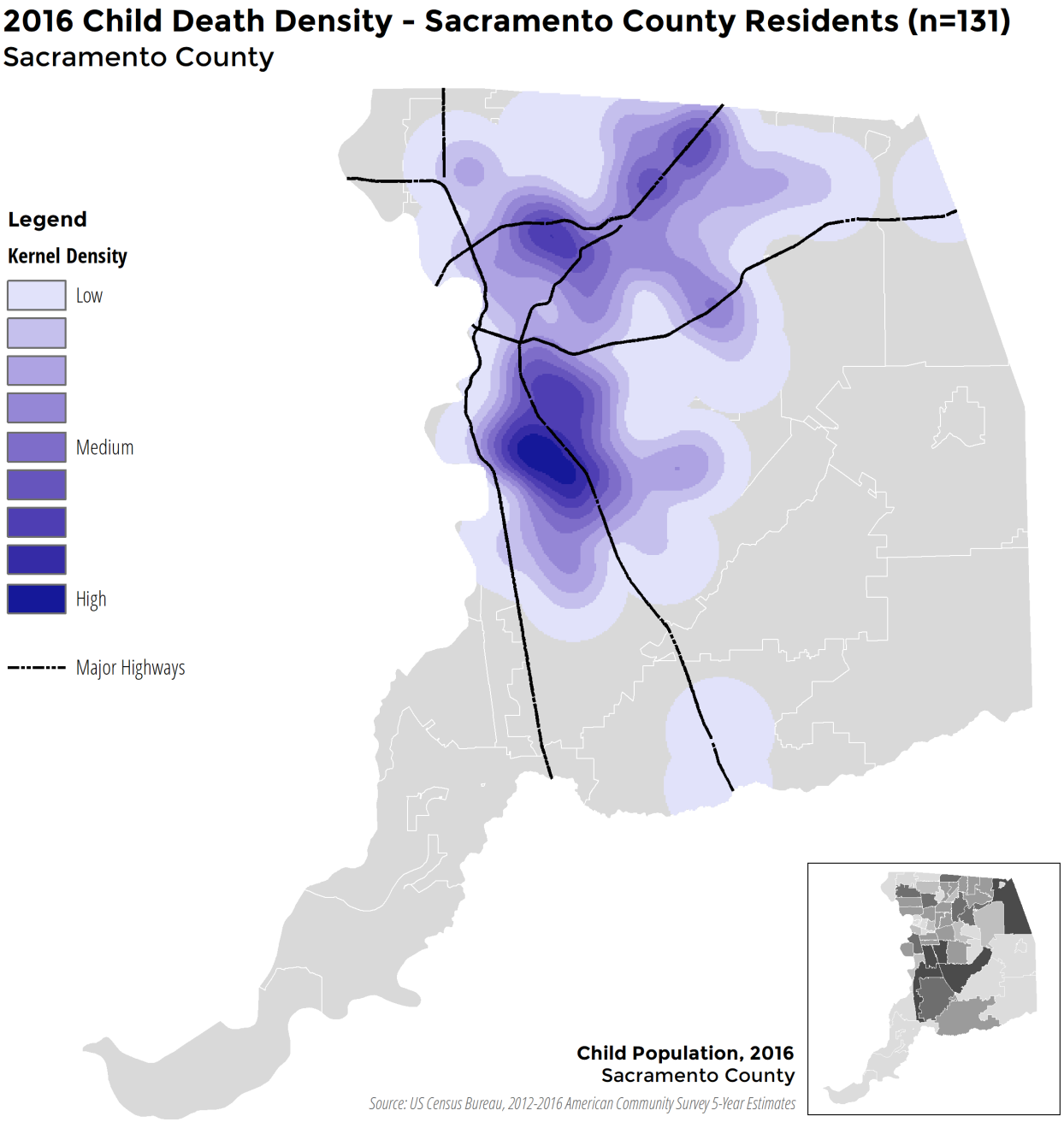
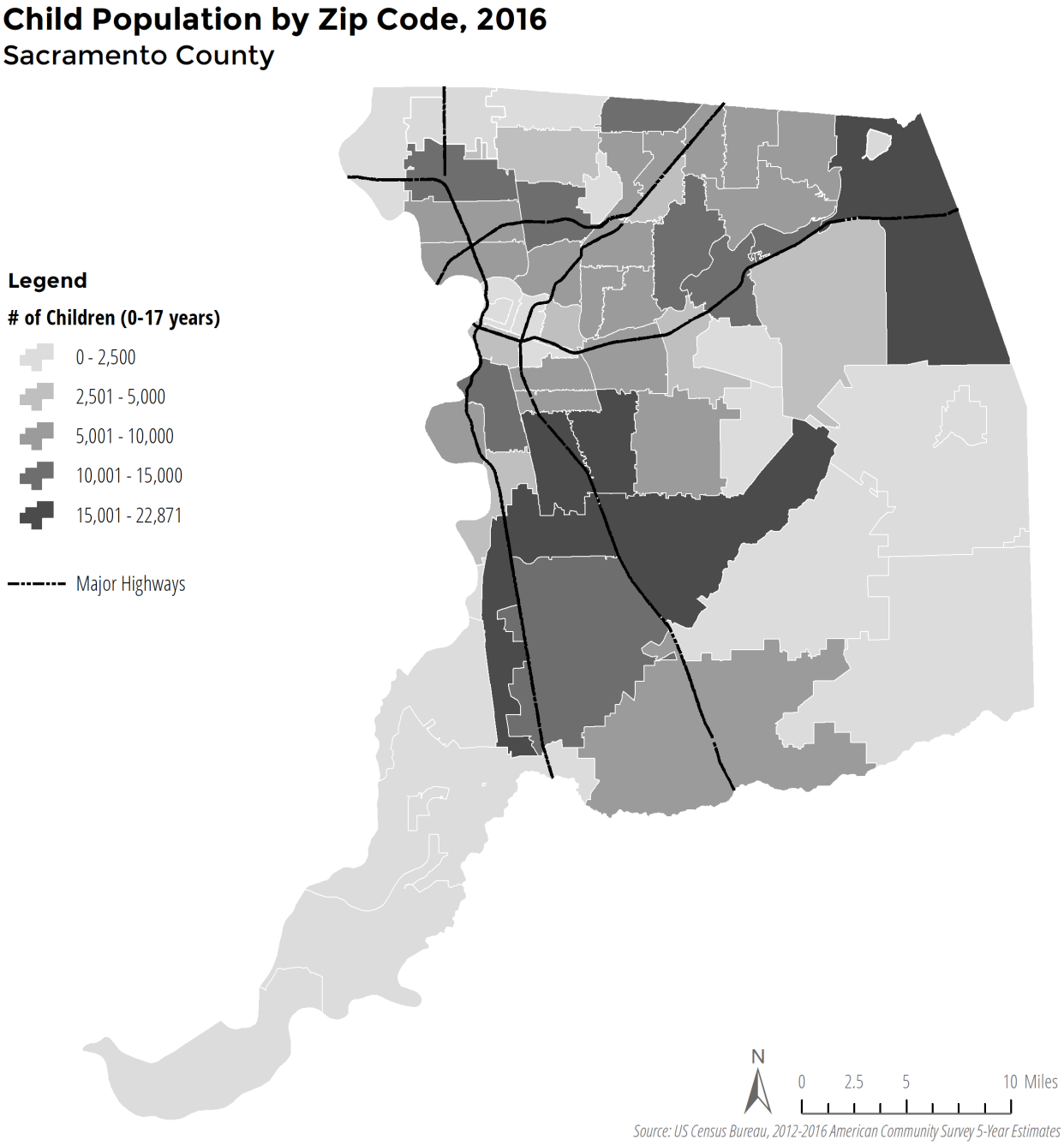


Figure 8 | Child Population in Sacramento County by Zip Code, 2016



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, burn/fires and drownings. Unintentional injuries are those where the forces causing the injuries are accidentally applied or set in motion.

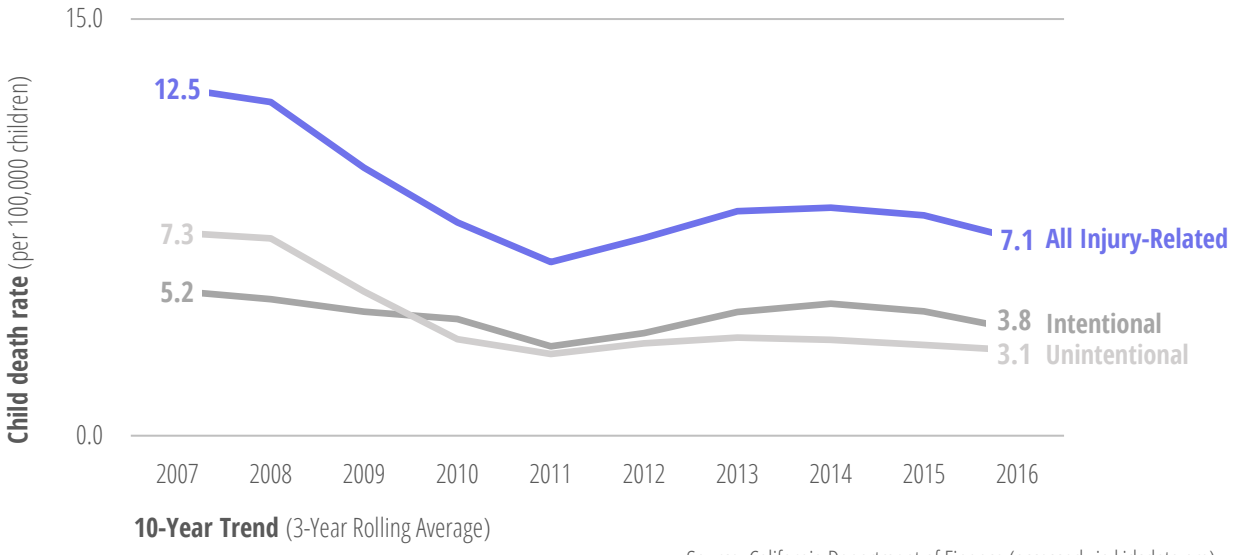
Undetermined Injury-Related Death | The undetermined category includes all Injury-Related Deaths in which there was insufficient evidence to determine whether the fatal injuries were inflicted or accidental. An injury for which the intentionality is unclear. For example, a case in which the coroner could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

There has been a decrease in Injury-Related Deaths from 32 in 2015 to 30 in 2016 but remains within the range of previous years. Overall, there is a downward trend in Injury-Related Deaths since 2007.

Much of the decrease in Injury-Related Deaths has occurred among *Unintentional* Injury-Related Deaths, which decreased from 7.3 deaths per 100,000 child residents between 2005-2007, to 3.1 per 100,000 child residents between 2014-2016. Figure 9 shows the three-year rolling average of Injury-Related Deaths in Sacramento County from 2007-2016.

Figure 9 | Injury-Related Child Mortality Rate – Sacramento County Residents, 2007-2016

The **overall injury-related child death rate** for children living in Sacramento County declined sharply in 2008 but has remained **relatively constant since 2011**.



Source: California Department of Finance (accessed via kidsdata.org)

Table 10 below shows Injury-Related Deaths by sex and cause of death. Sixty percent of all Injury-Related Deaths were among male decedents, including 67 percent of Intentional Injury-Related Deaths. In 2016, 83 percent of the CAN Homicides were among males.

Table 10 | Injury-Related Deaths by Sex, 2016

		Sex					
Injury-Related Manner	Cause	Male		Female		Total	
Intentional	Homicide	9	69%	4	31%	13	72%
	CAN Homicide	*5*	*83%*	*1*	*17%*	*6*	*46%*
	3rd Party Homicide	*4*	*57%*	*3*	*43%*	*7*	*54%*
	Suicide	3	60%	2	40%	5	28%
	Total Intentional	**12**	**67%**	**6**	**33%**	**18**	**100%**
Unintentional	Motor Vehicle Collision	1	33%	2	67%	3	25%
	Pedestrian	*1*	*33%*	*2*	*67%*	*3*	*100%*
	Drowning	2	50%	2	50%	4	33%
	Suffocation	-		1	100%	1	8%
	Poisoning/Overdose	-		1	100%	1	8%
	Legal Intervention	2	100%	-		2	17%
	Injury | Other	1	100%	-		1	8%
	Total Unintentional	**6**	**50%**	**6**	**50%**	**12**	**100%**
Total Injury-Related Child Deaths		18	60%	12	40%	30	100%

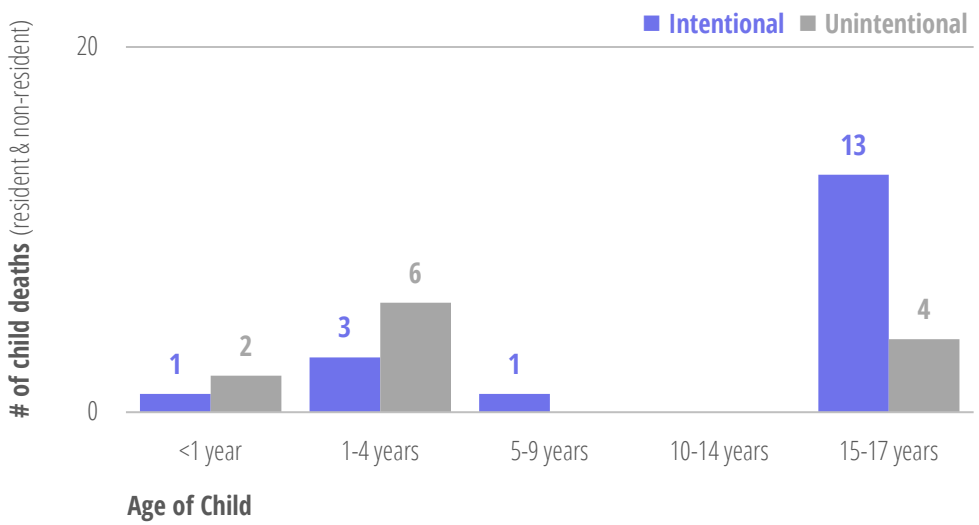
Table 11 below shows Injury-Related Deaths in 2016 by age. The most common age category for an Injury-Related Death was 15-17 years of age; 57 percent of Injury-Related Deaths were in this group. Youth between 15-17 years were also the most common for Intentional Injuries, representing 72 percent of such deaths. All Third-Party Homicides and all Suicides were youth between 15 and 17 years of age. In 2016, 1-4 year-olds were the most likely to die of Unintentional Injuries at 50 percent. No Injury-Related Deaths of 10-14 year-olds occurred in 2016.

Table 11 | Injury-Related Deaths by Age Group, 2016 (Sacramento County residents and non-residents)

		Years Old											
Injury-Related Manner	Cause	<1		1-4		5-9		10-14		15-17		Total	
Intentional	Homicide	1	8%	3	23%	1	8%	-		8	62%	13	72%
	CAN Homicide	*1*	*17%*	*3*	*50%*	*1*	*17%*	-		*1*	*17%*	*6*	*46%*
	3rd Party Homicide	-		-		-		-		*7*	*100%*	*7*	*54%*
	Suicide	-		-		-		-		5	100%	5	28%
	Total Intentional	**1**	**6%**	**3**	**17%**	**1**	**6%**	**-**		**13**	**72%**	**18**	**100%**
Unintentional	Motor Vehicle Collision	-		2	67%	-		-		1	33%	3	25%
	Pedestrian	-		*2*	*67%*	-		-		*1*	*33%*	*3*	*100%*
	Drowning	1	25%	3	75%	-		-		-		4	33%
	Suffocation	1	100%	-		-		-		-		1	8%
	Poisoning/Overdose	-		-		-		-		1	100%	1	8%
	Legal Intervention	-		-		-		-		2	100%	2	17%
	Injury | Other	-		1	100%	-		-		-		1	8%
	Total Unintentional	**2**	**17%**	**6**	**50%**	**-**		**-**		**4**	**33%**	**12**	**100%**
Total Injury-Related Child Deaths		3	10%	9	30%	1	3%	-		17	57%	30	100%

Figure 10 below shows the number of Intentional and Unintentional Injury-Related Deaths by age group. Youth ages 15-17 make up 72 percent of Intentional Injury-Related Deaths. The age group with the most Unintentional Injury-Related Deaths is youth ages 1-4, making up 50 percent (6 of 12) of these deaths.

Figure 10 | Number of Injury-Related Deaths by Intentionality & Age Group, 2016



Injury-Related Deaths are displayed by race in Table 12, below. Both Intentional and Unintentional Injury-Related Deaths are most common in Whites, representing 40 percent of all Injury-Related Deaths. African Americans represented 23 percent of all Injury-Related Deaths in 2016.

Table 12 | Injury-Related Deaths by Race, 2016

		Race													
		Black/ African Am		Asian/ Pac Islander		White		Hispanic		Multiracial		Other		Total	
Injury-Related Manner	Cause														
Intentional	Homicide	2	15%	2	15%	4	31%	4	31%	-		1	8%	13	72%
	CAN Homicide	*1*	*17%*	-		*3*	*50%*	*1*	*17%*	-		*1*	*17%*	*6*	*46%*
	3rd Party Homicide	*1*	*14%*	*2*	*29%*	*1*	*14%*	*3*	*43%*	-		-		*7*	*54%*
	Suicide	1	20%	2	40%	2	40%	-		-		-		5	28%
	Total Intentional	**3**	**17%**	**4**	**22%**	**6**	**33%**	**4**	**22%**	-		**1**	**6%**	**18**	**100%**
Unintentional	Motor Vehicle Collision	2	67%	-		-		1	33%	-		-		3	25%
	Pedestrian	*2*	*67%*	-		-		*1*	*33%*	-		-		*3*	*100%*
	Drowning	2	50%	-		2	50%	-		-		-		4	33%
	Suffocation	-		-		1	100%	-		-		-		1	8%
	Poisoning/Overdose	-		-		1	100%	-		-		-		1	8%
	Legal Intervention	-		-		2	100%	-		-		-		2	17%
	Injury | Other	-		-		-		-		1	100%	-		1	8%
	Total Unintentional	**4**	**33%**	**-**		**6**	**50%**	**1**	**8%**	**1**	**8%**	**-**		**12**	**100%**
Total Injury-Related Child Deaths		7	23%	4	13%	12	40%	5	17%	1	3%	1	3%	30	100%

Intentional Injury-Related Deaths

In 2016, Intentional Injury-Related Deaths (Homicides and Suicides) comprised 60 percent (18 of 30) 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 previous tables. The section below includes information on the circumstances of these deaths.

Homicides

Homicides are comprised of two categories: Child Abuse and 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 2016, Homicides represented 72 percent (13 of 18) of all Intentional Injury-Related Deaths. Nine of these Homicides occurred among Sacramento County resident children, and four were out of county residents whose injuries and deaths occurred in Sacramento County. Six of the 13 Homicides were CAN Homicides, while seven were Third-Party Homicides.

CAN Homicides | In 2016, six of the 13 child homicides were CAN Homicides. One was perpetrated by both parents, two by the mother, and two by the mother and mother's boyfriend, one by an uncle, and one by the child's adult brother. Mechanisms included strangulation, motor vehicle collisions with substance abuse, drowning, and abusive head trauma/shaken baby syndrome. More information on CAN Homicides can be found in Chapter Two.

Third-Party Homicides | In 2016, seven of the 13 Child Homicides were classified as Third-Party Homicides, six among Sacramento County resident children and one was an out of county resident whose injuries and death occurred in Sacramento County. Firearms were used in three of the seven cases. Motor vehicle collisions where drugs, alcohol, or both were involved in three of the seven cases, and one case was a stabbing.

A retrospective look at Third-Party Homicides revealed a trend of firearm use. From 2012 through 2016, there were a total of 34 Third-Party Homicides, including 33 Sacramento County residents and one death of an out of county resident who sustained injuries and died in Sacramento County. Sixty-two percent (21 of 34) involved a firearm (firearms include but are not limited to handguns, hunting rifles, and shotguns). African American decedents represented 21 percent of Third-Party Homicides from 2012 through 2016, of which 71 percent involved the use of a firearm.

Suicides

In 2016, there were five Suicide deaths, all among Sacramento County residents.

Manner of Suicide | Three of the decedents died by hanging and two died from gunshot wounds.

Warning Signs | Four of the five decedents displayed known warning signs prior to the suicide.

Unintentional Injuries

In 2016, there were 12 deaths resulting from Unintentional Injuries, 10 of whom were Sacramento County residents, and two were out of county residents whose injuries and death occurred in Sacramento County. The cause that had the highest number of deaths was Drowning.

Drownings

In 2016, Drownings accounted for 33 percent (4 of 12) of Unintentional Injury-Related Deaths.

Location | Two of the deaths occurred in open water (one in a river, one in a pond), one was in a bathtub and one was in an in-ground pool.

Activity Prior| Two decedents were playing near water, one was bathing, 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 100 percent (4) of drowning deaths; these unsafe conditions include being in or playing near water with insufficient supervision, no perimeter fence or fence not used appropriately, and drug use.

Motor Vehicle Collisions (MVC)

In 2016, MVC Deaths accounted for 25 percent (3 of 12) of Unintentional Injury-Related Deaths.

Location of Decedent | Of the three MVC Deaths, all three were pedestrians. None of the MVC decedents were passengers, drivers, or cyclists.

Location of Incident | One decedent was on a city street, one in a driveway, and one in a parking area.

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 three MVC Deaths occurred under unsafe conditions. One of the pedestrian deaths involved unsafe road crossing and two decedents did not have appropriate supervision.

Natural Deaths

In 2016, 74 percent (102 of 137) 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, in 2016, were Perinatal Conditions and Congenital Anomalies (birth defects) accounting for 70 percent of the Natural Deaths.

Table 13 shows Natural Deaths by sex. Males made up 60 percent of all Natural Deaths and 64 percent of Perinatal Conditions, the most common of these causes.

Table 13 | Natural Manner Deaths by Sex – Sacramento County Residents, 2016

	Sex					
Natural Manner	Male		Female		Total	
Perinatal Conditions	28	64%	16	36%	44	43%
Congenital Anomalies*	17	61%	11	39%	28	27%
SIDS/SUIDS	4	50%	4	50%	8	8%
Cancer	8	62%	5	38%	13	13%
Infections	1	33%	2	67%	3	3%
Respiratory	1	50%	1	50%	2	2%
Natural | Other	2	50%	2	50%	4	4%
Total Natural Child Deaths	61	60%	41	40%	102	100%

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

Table 14 below shows Natural Deaths by age. Infants made up 69 percent of Natural Deaths and 93 percent of Perinatal Conditions Deaths.

Table 14 | Natural Manner Deaths by Age Group – Sacramento County Residents, 2016

	Years Old											
Natural Manner	<1		1-4		5-9		10-14		15-17		Total	
Perinatal Conditions	41	93%	1	2%	-		2	5%	-		44	43%
Congenital Anomalies	18	64%	4	14%	1	4%	4	14%	1	4%	28	27%
SIDS/SUIDS	8	100%	-		-		-		-		8	8%
Cancer	-		5	38%	1	8%	5	38%	2	15%	13	13%
Infections	3	100%	-		-		-		-		3	3%
Respiratory	-		1	50%	-		1	50%	-		2	2%
Natural | Other	-		2	50%	-		1	25%	1	25%	4	4%
Total Natural Child Deaths	70	69%	13	13%	2	2%	13	13%	4	4%	102	100%

Table 15 below displays deaths from Natural Causes by race. Whites represented the most Natural Deaths at 33 percent and the most deaths from Congenital Anomalies, Perinatal Conditions Deaths, and Cancer Deaths, which are the three most common causes of Natural Deaths.

Table 15 | Natural Manner Deaths by Race – Sacramento County Residents, 2016

	Race													
Natural Manner	Black/ African Am		Asian/ Pac Islander		White		Hispanic		Multiracial		Other		Total	
Perinatal Conditions	6	14%	7	16%	13	30%	11	25%	6	14%	1	2%	44	43%
Congenital Anomalies	2	7%	4	14%	11	40%	7	25%	2	7%	2	7%	28	27%
SIDS/SUIDS	3	37%	-		2	25%	1	13%	1	13%	1	13%	8	8%
Cancer	-		4	31%	5	38%	2	15%	1	8%	1	8%	13	13%
Infections	-		-		-		1	33%	1	33%	1	33%	3	3%
Respiratory	1	50%	-		1	50%	-		-		-		2	2%
Natural | Other	2	50%	-		2	50%	-		-		-		4	4%
Total Natural Child Deaths	14	14%	15	15%	34	33%	22	22%	11	11%	6	6%	102	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 2016, 43 percent (44 of 102) of all Natural Deaths in Sacramento County were due to Perinatal Conditions. Gestational age was known for 93 percent (41 of 44) of deaths due to Perinatal Conditions. Of those, prematurity (birth prior to 37 weeks' gestation) was a known contributing factor in 95 percent (39 of 41) of deaths due to Perinatal Conditions. The median gestational age of babies who died from prematurity and other Perinatal Conditions in 2016 was 23 weeks, the same as 2015. The median weight

of babies who died from prematurity and other Perinatal Conditions was 525 grams (approximately 1.16 pounds).

Figure 11 shows the maternal age for Perinatal Condition Deaths. Maternal age was known for 40 of 44 deaths due to Perinatal Conditions. The most common age group was 18-34 years; 75 percent (30 of 40) of mothers were in this range.

Figure 11 | Perinatal Condition Deaths by Age of Mother – Sacramento County Residents, 2016

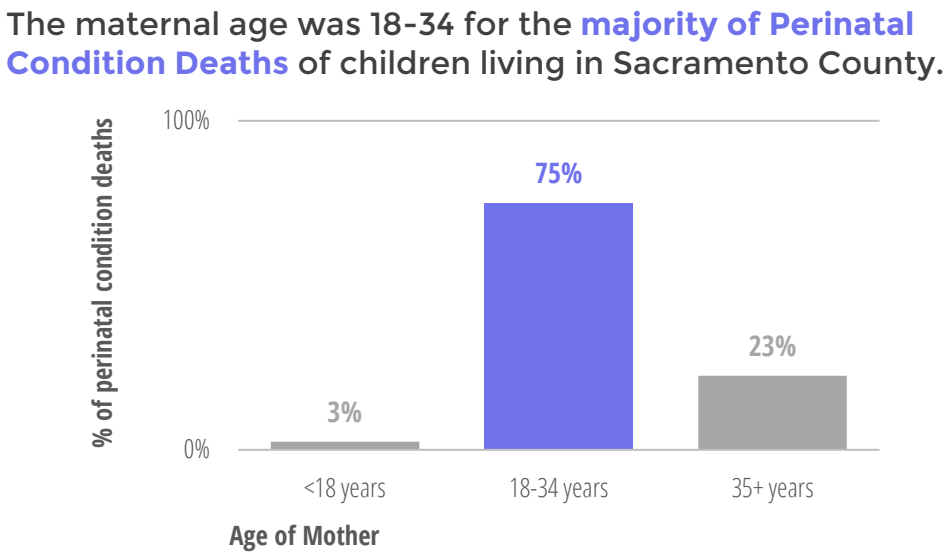
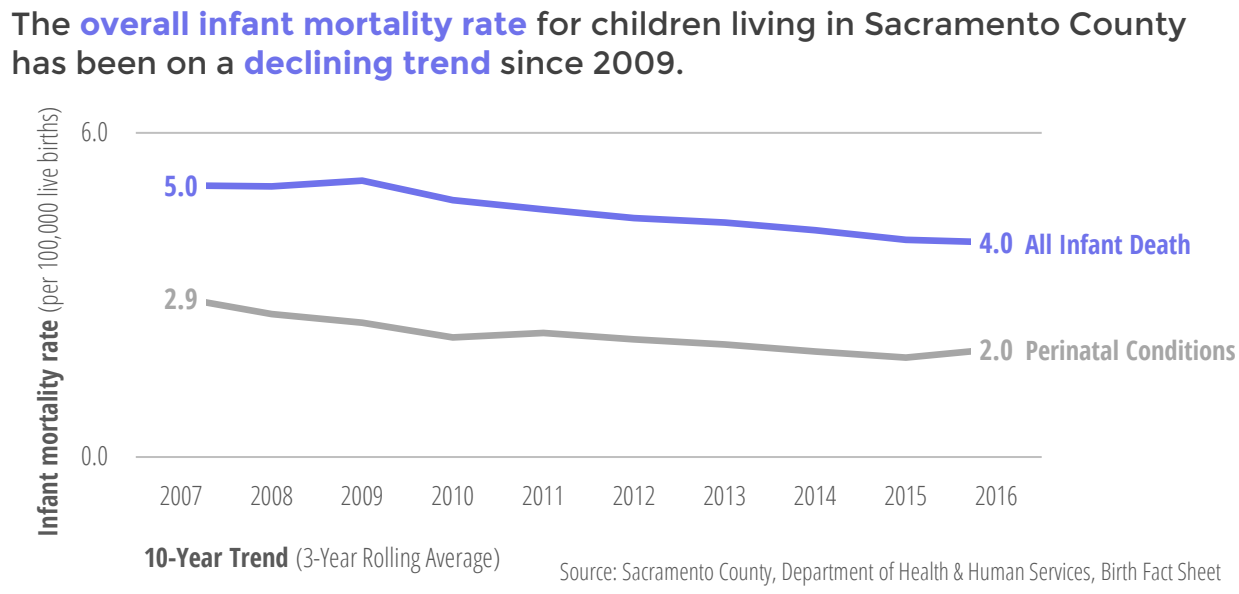


Figure 12 shows the Infant Mortality Rates (IMR) in Sacramento County as well as the three-year rolling average rate of infant deaths from Perinatal Conditions between 2007 and 2016. Deaths from Perinatal Conditions have decreased from 2.9 per 1,000 live births in 2007 to 2.0 per 1,000 live births in 2016, driving the decrease in overall infant mortality in Sacramento County from 5.0 per 1,000 live births to 4.0 per 1,000 live births over the same period.

Figure 12 | Infant Mortality Rate – Sacramento County Residents, 2007-2016



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 2016, 27 percent (28 of 102) 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 2016, 13 percent (13 of 102) 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 2016, three percent (3 of 102) 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 2016, two percent (2 of 102) of Natural Deaths in Sacramento County were due to Respiratory Conditions.

Other Natural Causes | Deaths due to a natural cause not previously mentioned. In 2016, four percent (4 of 102) of Natural Deaths in Sacramento County were due to Other Natural Causes.

In 2016, Cancer, Infections, Respiratory, and Other Natural Causes accounted for 22 percent (22 of 102) 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.

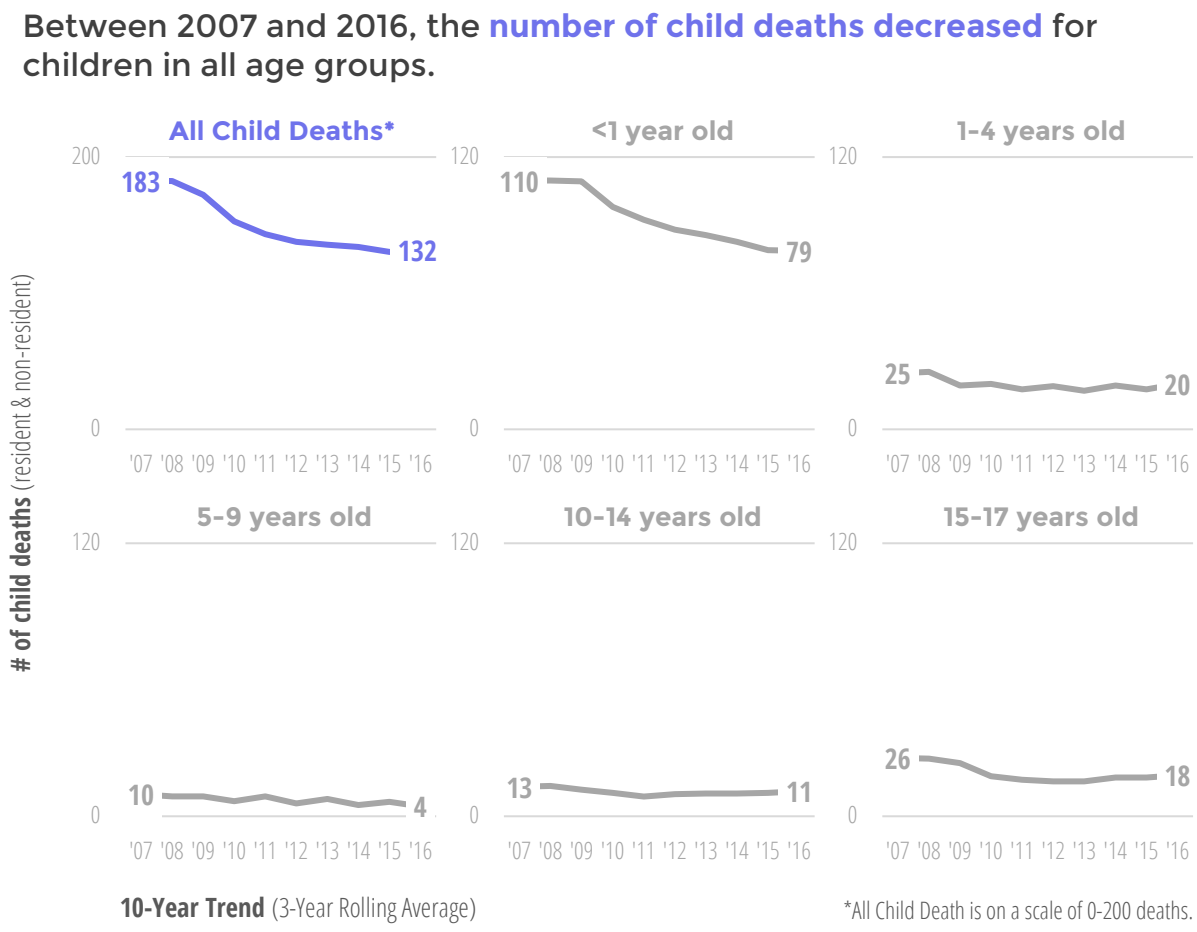
In 2016, there were five deaths of an Undetermined Manner, two of which were Infant Sleep-Related. Of the other three Undetermined Manner Deaths: one was a Questionable Abuse Death, one was a ventricular arrest with unknown etiology, and one death occurred with concerns of trauma with an undetermined cause.

Demographics Trends

Age

In 2016, most Sacramento County resident child deaths occurred in infants under one year of age, accounting for 56 percent (77 of 137) of all deaths. Figure 13 shows the three-year rolling average number of child deaths by age category between 2007 and 2016. The number of deaths decreased in all age groups over this period. The overall number of deaths decreased from an average of 183 per year in 2005-2007 to 132 in 2014-2016. The number of infant (<1 year-old) deaths decreased the most during this period, from an average of 110 to 79 during the same time period.

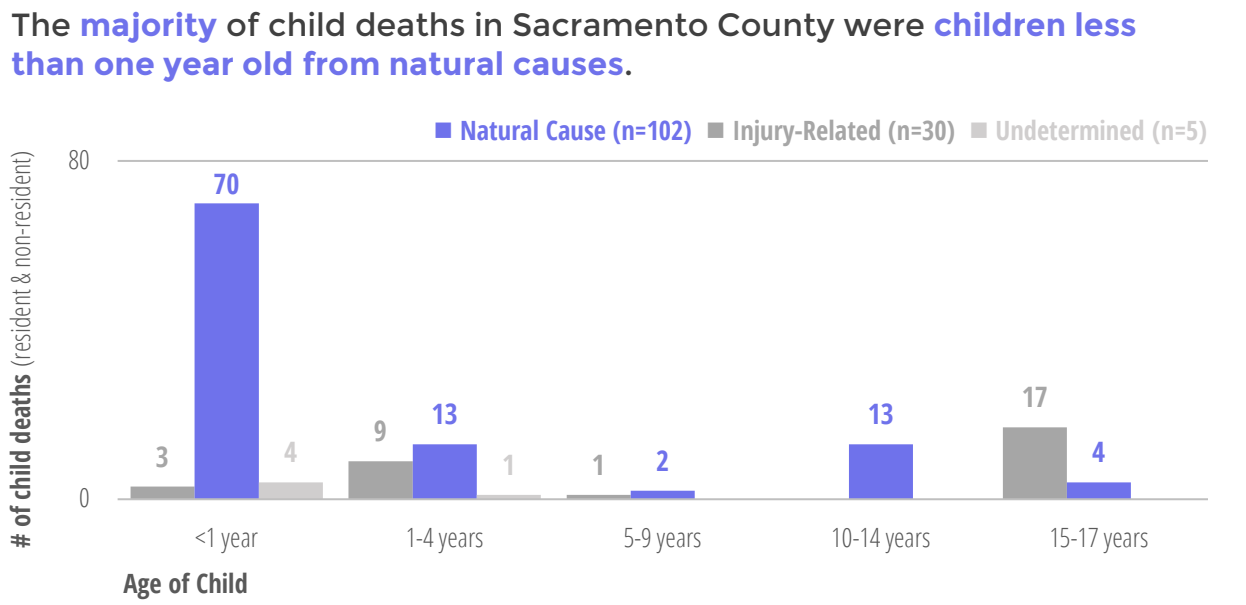
Figure 13 | Number of Child Deaths by Age Group, 2007-2016



In 2016, there were a total of 30 Injury-Related Deaths in Sacramento County, including Sacramento County residents and residents of other counties who sustained injuries and died in Sacramento County. The age group in which the largest number of Injury-Related Deaths occurred was children between 15-17 years of age, with 57 percent (17 of 30) of all Injury-Related Deaths. A total of 102 deaths resulted from Natural Causes, including those deaths due to SIDS/SUIDS. Infants accounted for 69 percent (70 of 102) of all deaths due to Natural Causes. There were a total of five child deaths of an Undetermined Manner in Sacramento County. Infants were, again, the most common age group. Of these Undetermined Manner

Deaths, 80 percent (4 of 5) were among infants. Figure 14 shows the number of child deaths by manner and age group.

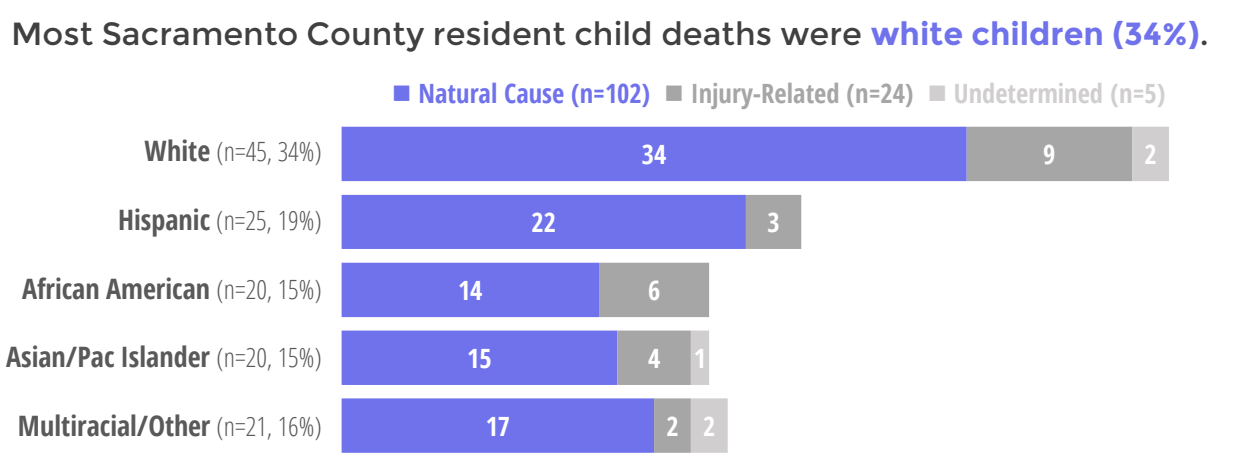
Figure 14 | Number of Child Deaths by Manner and Age Group, 2016



Race[6]

Of the 131 deaths among Sacramento County resident children age birth through 17 in 2016, the largest number occurred among White children, who comprised 34 percent (45 of 131) of all child deaths. Nineteen percent (25 of 131) were Hispanic, 16 percent (21 of 131) were Multiracial or Other, 15 percent (20 of 131) were Asian/Pacific Islander, and 15 percent (20 of 131) were African American. Figure 15 shows the number of child deaths in 2016 by manner of death and race.

Figure 15 | Number of Child Deaths by Manner & Race/Ethnicity – Sacramento County Residents, 2016



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

Figure 16 shows the three-year rolling averages of death rates for each race from 2007-2016. Death rates declined across all racial categories.

Between 2010 and 2013, rates increased for African Americans (from 74.3 to 88.5 per 100,000 children) and the Multiracial/Other group between 2010 and 2014 (from 79.6 to 98.2 per 100,000). However, in 2016, rates dropped to 70.8 and 71.1 for African Americans and Multi-racial/Other respectively.

Figure 16 | Child Death Rate by Race/Ethnicity, 2007-2016

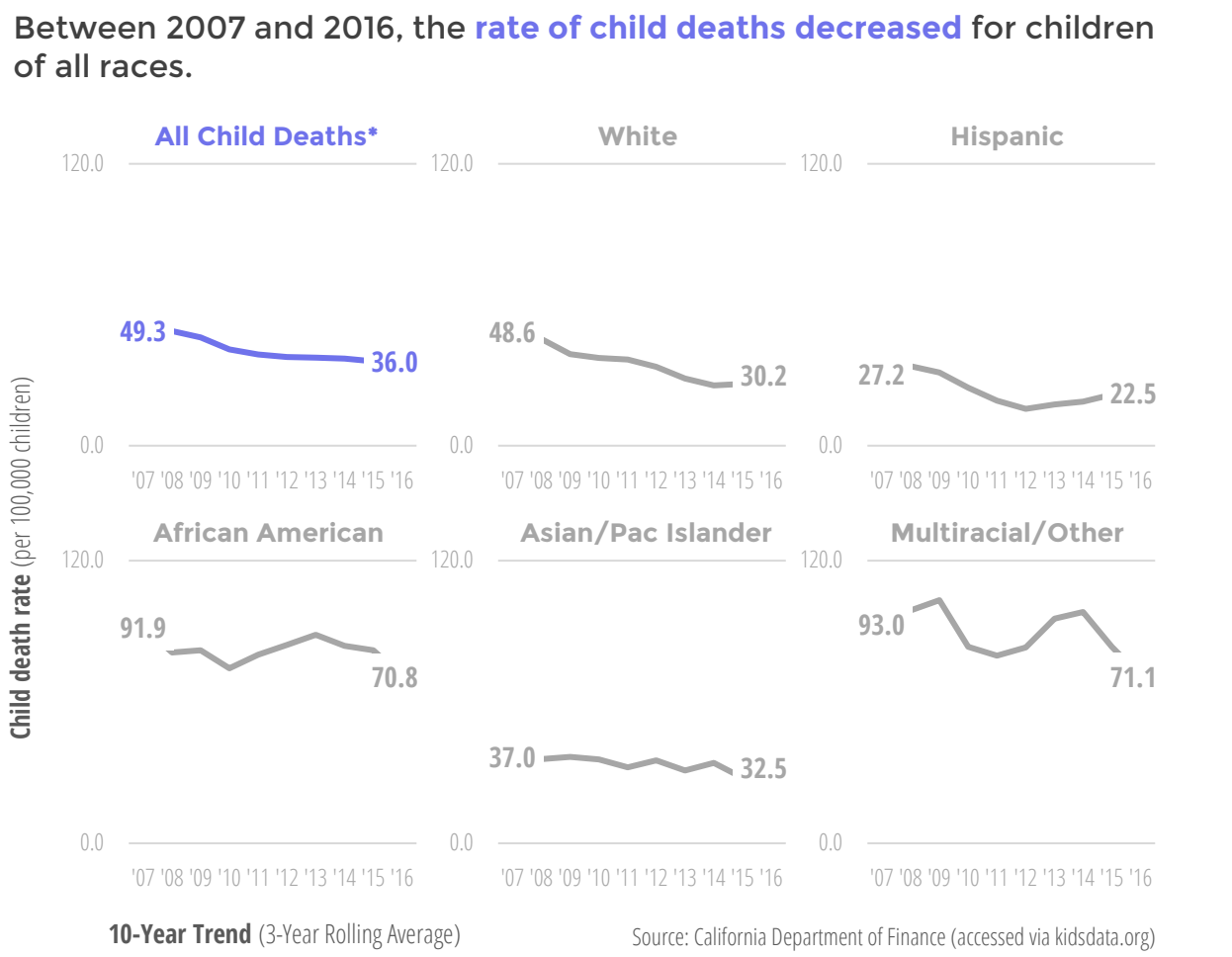


Table 16 shows the death rates by race and age of Sacramento County child residents in 2016 and illustrates the disproportionality that exists between racial categories. The greatest discrepancy in 2016 occurs among Multi-racial/Other race children who died at a rate of 65.5 per 100,000 in 2016, compared to the average across all races of 36.5 per 100,000. African American children also died at a disproportionate rate of 54.9 per 100,000, showing a decrease from 81.7 per 100,000 in 2015.

Table 16 | Child Mortality Rate by Race & Age Group – Sacramento County Residents, 2016

Race	Child Population	Years Old <1		1-4		5-9		10-14		15-17		Total		
White	35%	23	3.4	8	28.9	1	2.9	5	14.5	8	37.3	45	36.2	34%
Black/African American	10%	10	5.3	5	65.3	-		2	19.1	3	43.4	20	54.9	15%
Hispanic	31%	17	3.0	3	13.0	1	3	1	3.2	3	16.9	25	22.5	19%
Asian/Pacific Islander	15%	11	3.6	2	16.6	1	6.6	2	15.0	4	44.9	20	36.5	15%
Multiracial/Other	9%	14	6.8	3	38.4	-		3	39.0	1	22.6	21	65.5	16%
Total	100%	75	3.9	21	26.8	3	2.9	13	13.4	19	32	131	36.5	100%

*Death rates are per 1,000 for infants <1 year-old and per 100,000 children in each age group.
Source: California Department of Finance Population Projections 2016

Infant Sleep-Related Deaths

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

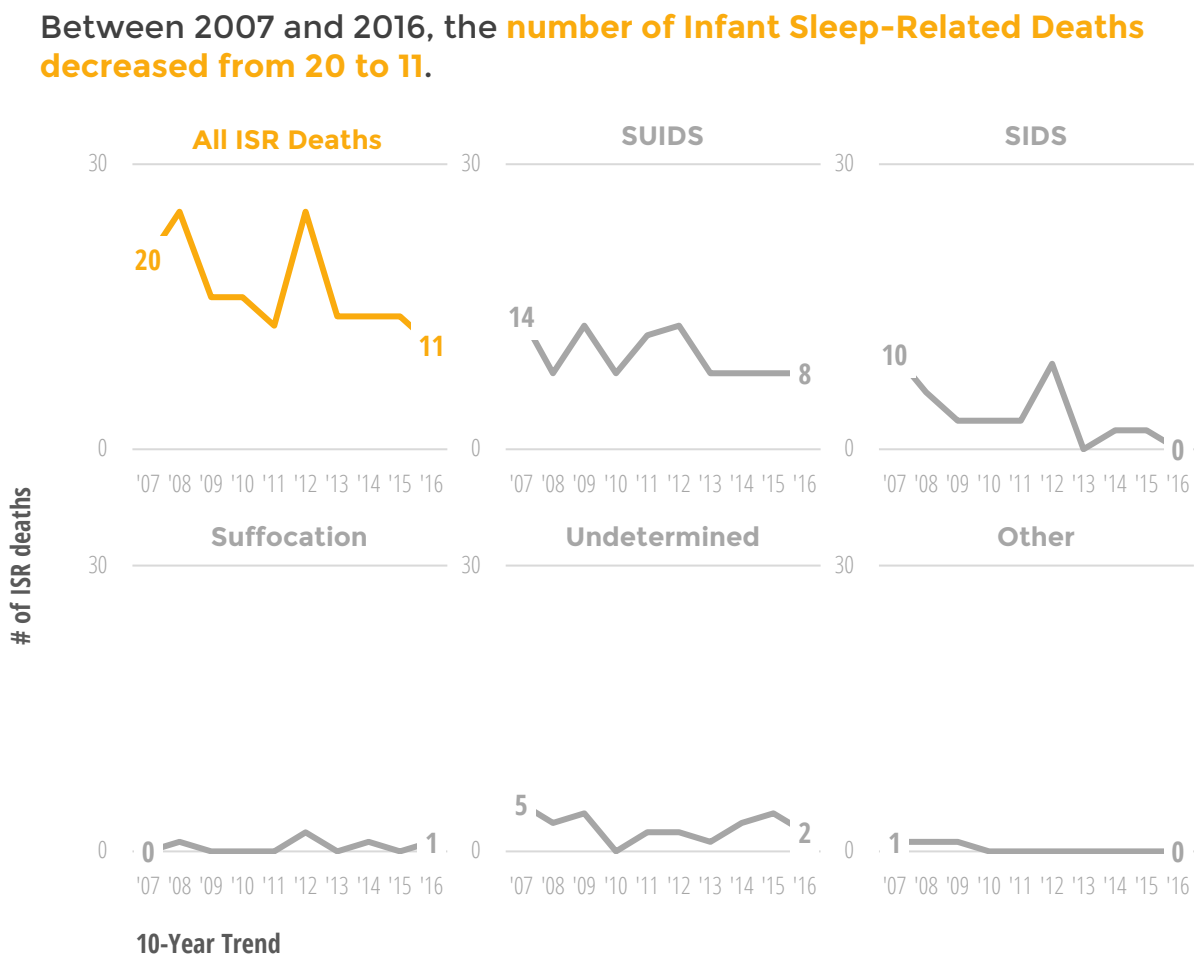
Undetermined Manner/Undetermined Natural Death | Undetermined Manner applies when the manner or how a death occurred is unknown and the cause of death may or may not be medically identifiable. An Undetermined Natural Death is one in which the cause of death may not be medically identifiable. These deaths occur when a child under the age of one dies during sleep and 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 and 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 2016, there were 11 ISR Deaths, compared to 14 in 2015, and representing eight percent of all child deaths in Sacramento County. Of these, eight died of SUIDS, two died in an Undetermined Manner, and one died of Suffocation. Elements of trauma were found in 100% (2 of 2) of the Undetermined Manner Infant Sleep-Related Deaths.

After declining for three consecutive years between 2009-2011, then rising to 25 in 2012, the number of ISR Deaths fell again to 14 in each of 2013-2015, and finally down to 11 in 2016 (see Figure 17 below).

Figure 17 | Number of ISR Deaths by Cause – Sacramento County Residents, 2007-2016



Unsafe Sleeping Locations and Conditions

Of the 11 ISR Deaths in 2016, 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 (11 of 11) of these deaths. These unsafe conditions are shown in Figure 18 and Table 17.

Figure 18 | Percent of ISR Deaths with Unsafe Sleep Conditions – Sacramento County Residents, 2016

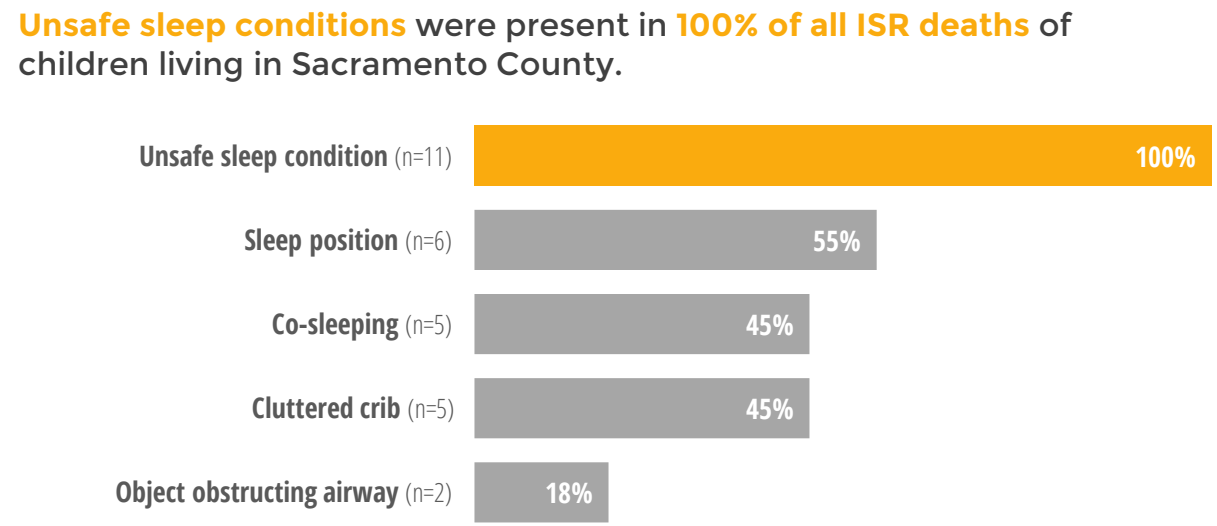


Table 17 | ISR Deaths by Unsafe Sleep Conditions – Sacramento County Residents, 2016

Unsafe Sleep Conditions	ISR Deaths	
Co-sleeping	5	45%
With adult(s)	*4*	*36%*
With other child(ren)	*1*	*9%*
Sleep position	4	36%
Object obstructing airway	2	18%
AOD use by caregiver	-	
Put to sleep while feeding	3	27%
Cluttered crib	5	45%
Dirty/cluttered home	-	
Secondhand smoke exposure	-	
Total ISR Deaths	11	100%

[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.

Table 18 shows the prevalence of unsafe sleeping conditions by sleeping location. Seventy-three percent (8 of 11) 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, 63 percent (5 of 8 for whom this information was known) had a crib in the home. It is unknown if three of the other decedents had a crib in the home.

Table 18 | ISR Deaths by Sleep Location – Sacramento County Residents, 2016

Sleep Location	ISR Deaths	
Crib	3	27%
A crib was present in the home	*8*	*73%*
Unknown if a crib was present in the home	*3*	*27%*
Adult bed	7	64%
Other	1	9%
Total ISR Deaths	11	100%

Risk Factors

Risk factors were known to be present in 91 percent of ISR Deaths (10 of 11). See Table 19 for more information:

- 73% of families received government aid
- 64% of families had a history of Sacramento County CPS involvement
- 64% of families have a parent with a criminal history

Table 19 | ISR Deaths by Risk Factors Present – Sacramento County Residents, 2016

Type of Risk Factor	ISR Deaths	
None	1	9%
CPS Involvement	7	64%
Decedent victim	*1*	*9%*
Sibling victim	*2*	*18%*
Parent victim	*5*	*45%*
Alcohol or drug abuse	3	27%
Crime and violence	7	64%
Violent and/or non-violent crime	*7*	*64%*
Domestic violence	*2*	*18%*
Gang affiliation	-	
Poverty (government programs)	8	73%
Medical risks	4	36%
Mental health	*3*	27%
Other | Mother <21 years old*	1	9%
Total ISR Deaths	11	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 11 ISR Deaths in 2016. Feeding information is known for 100 percent (11 of 11) of decedents. Of those, 27 percent (3 of 11) were breastfed.

Table 20 below shows all ISR Deaths in 2016 by age in months:

- 82% (9 of 11) of decedents were six months of age or younger at the time of death.

Table 20 | ISR Deaths by Age – Sacramento County Residents, 2016

Age	2016 ISR Deaths	
1 month	1	9%
2 months	1	9%
3 months	2	18%
4 months	-	
5 months	3	27%
6 months	2	18%
7 months	1	9%
8 months	1	9%
Total ISR Deaths	11	100%

Table 21 shows the number of ISR Deaths by race for 2016. This table also compares the races of decedents to the overall child population. African Americans are disproportionately represented; they represent 10 percent of the child population in Sacramento County and 27 percent of ISR Deaths.

Table 21 | ISR Deaths by Race – Sacramento County Residents, 2016

Race	Child Population	2016 ISR Deaths	
White	35%	3	27%
Black/African American	10%	3	27%
Hispanic	31%	1	9%
Asian/Pacific Islander	15%	-	
Multiracial/Other	9%	4	36%
Total ISR Deaths	100%	11	100%

Source: California Department of Finance Population Projections 2016

In 2016, 64 percent of all ISR deaths in Sacramento County occurred in neighborhoods **not** currently being targeted by the *Safe Sleep Baby Education Campaign* (see Table 22 below).

Table 22 | ISR Deaths by Targeted Neighborhood – Sacramento County Residents, 2016

Sacramento County	Neighborhood (Zip Code)	2016 ISR Deaths	
Target Neighborhood	Arden-Arcade (95821, 95825, 95864)	1	9%
	Fruitridge/Stockton Blvd (95822, 95824, 95826*)	-	
	Meadowview/Valley Hi (95823, 95828, 95832)	2	18%
	North Highlands/Foothill Farms (95660, 95841, 95842)	1	9%
	North Sacramento/Del Paso Heights (95811, 95815, 95838)	-	
	Oak Park (95817, 95820, 95826*)	-	
	Total Target Neighborhoods	**4**	**36%**
All Other Neighborhoods	Carmichael (95608)	2	18%
	Citrus Heights (95621)	2	18%
	Elk Grove (95829)	2	18%
	Rancho Cordova (95670)	1	9%
	Total All Other Neighborhoods	**7**	**64%**
Total ISR Deaths		11	100%

*Two neighborhoods share this zip code (Fruitridge/Stockton Blvd. and Oak Park)

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 2016, a total of 19,425 infants were referred to Sacramento County CPS, representing an average of 9.7 percent of all infants each year during that period. During those ten years, 173 Sacramento County resident infants died of sleep-related causes. Of these infant decedents, 22 percent (38 of 173) had been referred to CPS prior to their deaths.

[8]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)

CDRT found a statistically significant correlation between a history of CPS referral and ISR death at a 99.9% confidence level[9]. Overall, an infant with a history of CPS referrals is 2.6 times more likely to suffer an ISR death than an infant who has not had a CPS referral[10].

The correlation between a history of CPS referrals and ISR Death was also explored while controlling for race. A Cochran-Mantel-Haenszel test was used to test this relationship[11]. There is no statistically significant correlation between history of CPS referrals and ISR Deaths while controlling for race.

Based on the data, there is a statistically significant correlation between a history of CPS referral and ISR Deaths overall. 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.

[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).

[10] Rate is per 100,000

[11] Cochran-Mantel-Haenszel Test is an extension of a chi-squared test of independence which allows to control for a third variable of interest.

Chapter 4

Thematic Review

African American Disproportionality

Chapter 4
African American Disproportionality

Reducing African American Child Deaths

The Child Death Review Team (CDRT) has been reporting on the epidemiology of child deaths in Sacramento County annually since 1990. These reports have provided the basis for tracking trends over time, patterns in causes of death, demographic characteristics of child decedents, and the geographic concentration of deaths throughout Sacramento County. The CDRT data has informed programming for prevention and intervention with an emphasis on reducing risks and increasing access to supports and services.

Based on an examination of cumulative child death trends over 20 years (1990-2009) the CDRT elevated awareness of the recurring disproportionality of deaths of African American children when compared to all other racial and ethnic populations. This report[12] became the clarion call for action, under the leadership of Supervisor, Phil Serna. In response, the Sacramento County Board of Supervisors appointed the Blue Ribbon Commission on African American Child Deaths in 2011.

> *The Sacramento Board of Supervisors directed the Blue Ribbon Commission to formulate a plan of action to reduce the rate of African American child deaths. The Blue Ribbon Commission developed a set of recommendations that will reduce African American child deaths by 10% to 20% over the next five years through targeting the most disproportionate causes of death for these children: third-party homicides, infant sleep related deaths, child abuse and neglect homicides, and perinatal conditions.*[13]

The Blue Ribbon Commission devoted 18 months to the comprehensive study of African American child deaths to better understand risk factors and causes of death, identify opportunities for advancing prevention strategies, and to make recommendations to reach the families and children most at risk. This included both a deeper examination of the existing data on African American child deaths and promoting meaningful engagement with the African American community and service providers to determine where to focus resources and identify strategies that would make the most impact on reversing this trend. The Commission focused its recommendations on the four most disproportionate causes of African American child death: (1) Perinatal Conditions; (2) Infant Sleep-Related; (3) Child Abuse and Neglect Homicides; and (4) Third- Party Homicides.

The 2016 CDRT Report Thematic Review of the status of African American child deaths presents historical data and more current trends after multi-pronged initiatives and comprehensive strategies to reduce African American child deaths had been implemented. This summary provides the background data that precipitated this community wide initiative (through 2012), comprehensive long-term trends over an

[12] Sacramento County Child Death Review Team. *A Twenty-Year Analysis of Child Death Data, 1990-2009.*

[13] Sacramento County Blue Ribbon Commission. *Report on Disproportionate African American Child Deaths*, 2013. Page 4.

extended period of time (1990-2016), a 10-year trend (2007-2016), and the trends for the most recent period (2013-2016). These different timeframes correspond to key reports and community context.

Historical Data Trends: Child Death Review Team (CDRT) Report, 1990-2009

The CDRT Twenty Year Analysis of Child Death Data, 1990-2009 Report examined the rates and causes of child death in a 20-year retrospective review. Because the numbers each year are relatively small for some analyses, the multi-year aggregate trends presented direction of change rather than annual fluctuations. Cumulative data brought forward sufficiently large numbers of records to identify trends and assess needs for prevention and early intervention.

This historical review brought disparities by race and ethnicity into perspective and highlighted the need for a targeted approach to reducing the incidents and disparities of African American child deaths. The following summary provides some of the key findings that informed the focus on reducing African American child deaths.

1990-2009: Table 23 provides a closer look at the number, percent and rate per 100,000 of child deaths by race/ethnicity from 1990-2009.[14] This data also shows a comparison between the *percentages of child deaths* by race/ethnicity and the *percentages of each population* among the children in Sacramento County. African American child deaths accounted for 22 percent of all child deaths in the county, compared to 12 percent representation among all children during that 20-year period.

Table 23 | Child Deaths by Race/Ethnicity between 1990-2009 (n=3,633)

		Sacramento County Resident Child Deaths		
Race	Child Population	#	%	Rate*
Black/African American	12%	816	22%	102.0
Asian/Pacific Islander	13%	402	11%	44.5
White	48%	1,592	44%	48.5
Hispanic	22%	575	16%	38.3
Multiracial	4%	130	4%	48.0
Other/Unknown	1%	118	3%	--
Total	100%	3,633	100%	53.2

*per 100,000 children
--unavailable

[14] 1990-2009 data is from the Sacramento County Blue Ribbon Commission Report on Disproportionate African American Child Deaths.

Between 1990 to 2009, one of the key findings from the cumulative CDRT data was the disproportionate rate of deaths for African American children. Though the downward trend for all child deaths between 1990 and 2009 showed a 53 percent reduction, African American children remained overrepresented at a rate nearly twice that of their representation in the total population during the same 20-year period, details of which are highlighted below:

- The rate of African American child deaths was nearly twice the rate of the population of African American children in Sacramento County (102/100,000 compared to 53/100,000).
- The African American child death rate decreased 53 percent from 166.1 per 100,000 children in 1990 to 77.71 per 100,000 in 2009, though the average death rate for all other races combined was 37.39 per 100,000 (in 2009).

From 1990-2009[15], African American children represented 12 percent of Sacramento County children, however their deaths were overrepresented in four disproportionate causes of death: Infant Sleep-Related and Third-Party Homicides, (both at 32%); CAN Homicides, (at 30%); and Perinatal Conditions, (at 25%).

Highlights of Findings from CDRT Reports: Multi-Year Trends, 1990-2016

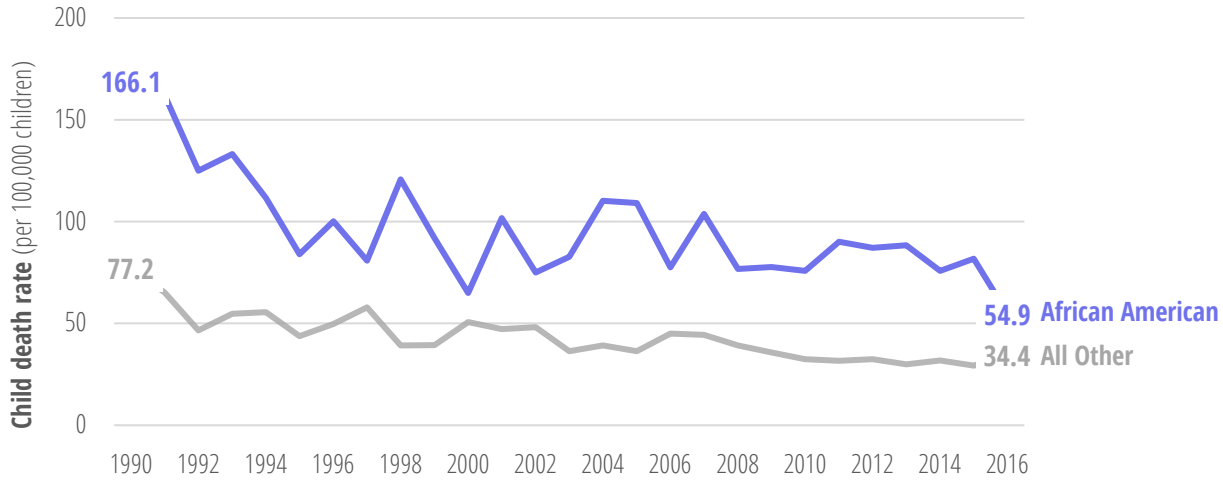
Two reports have provided extensive data on trends over time related to child deaths. These included the CDRT Report for 1990-2009, and the Blue Ribbon Commission Report that continued to examine trends related to African American child deaths in greater detail. In addition, the CDRT continues to collect, analyze, and report annual data on child deaths to sustain the continuity of data and to inform decisions in policy, funding, and practice. This section provides a summary of findings related to African American child deaths for 27 years (1990-2016).

1990-2016: Child deaths in Sacramento County have been declining since the CDRT's initial report in 1990. Figure 19 shows the trends from 77.2 per 100,000 children in 1990, to 34.4 per 100,000 in 2016, decreasing the overall rate by half (55%). Though this trend has shown change, African American child deaths started (in 1990) at a rate of 166.1 per 100,000. The rate of African American child deaths has fluctuated more than for children of all other races. Beginning in 2008, the rate for African American child deaths began to stabilize at 76.8 per 100,000; and between 2013 and 2016, that rate declined to a low of 54.9 per 100,000.

[15] Ibid, Figure 2, page 7.

Figure 19 | Child Death Rates - Sacramento County Residents, 1990-2016

The rate of African American child death fluctuated since 1990 but began to stablize in 2008 and reached an all-time low of 54.9 in 2016.



Trend (1990-2016)

Note: Data prior to 2009 - Source: Sacramento County Child Death Review Team. *A Twenty-Year Analysis of Child Death Data, 1990-2009*

The long-term trend for all child deaths, and for the subset of African American child deaths, continues to show progress towards reducing the disparities reported by the Blue Ribbon Commission in 2013.

Primary Prevention of African American Child Deaths

The 2016 CDRT Report Thematic Review provides a brief status report on the trends for African American child deaths since the Blue Ribbon Commission's *2013 Report on Disproportionate African American Child Deaths*. By 2016, the disparity has declined with the consistent advance of strategies that are reaching the neighborhoods and families most at risk for African American child deaths. Between 2013 and 2016, the number of all child deaths declined; 48 percent (248 of 516) of all child deaths were due to the following disproportionate causes of death: (1) Perinatal Conditions; (2) Infant Sleep-Related; (3) Child Abuse and Neglect Homicides; and (4) Third-Party Homicides. African American child deaths accounted for 26 percent of those four disproportionate causes of death (65 of 248).

Current Trends Toward the Reduction in Child Deaths: 10-Year Trend, 2007-2016

With 27 years of CDRT data, it is now possible to examine trends over time. The following section is a compilation of CDRT data between 2007 and 2016 to reflect the most recent decade of data available. While data from 2007-2009 was included previously in this thematic review, a baseline of 10 years is effective for showing trends over time.

From 2007 through 2016, the number of child deaths for all Sacramento County resident children has declined annually; from a high of 188 in 2007 to a low of 124 in 2015. Though there was a slight increase to 131 in 2016, the general trend has been a steady decline, for a 10-year average rate of 39.4 per 100,00 per year for all child deaths. For African American children, the 10-year average rate was 81.2 per 100,000 children, and the decline has been from 103.8 to 54.9 per 100,000 for the same 10-year period. Table 24 provides the data for the most recent 10-year period.

Table 24 | Child Mortality Rate – Sacramento County Residents (per 100,000 children), 2007-2016

	10-Year Trend										
Child Mortality Rate	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	All Years
Sacramento County Resident	50.6	44.4	41.5	37.2	37.9	38.3	36.1	37.0	34.7	36.5	39.4
African American Resident	103.8	76.8	77.7	75.8	90.1	87.1	88.4	75.8	81.7	54.9	81.2

The figures below illustrate how trends have shifted for African American child deaths, particularly by 2016. Figure 20 presents the rates of all child deaths by race. By 2016, the rate of African American child deaths had declined, in contrast to the rates for all other populations. Similarly, Figure 21 provides the distribution of the number of child deaths by race.

Figure 20 | Child Death Rate by Race/Ethnicity - Sacramento County Residents, 2007-2016

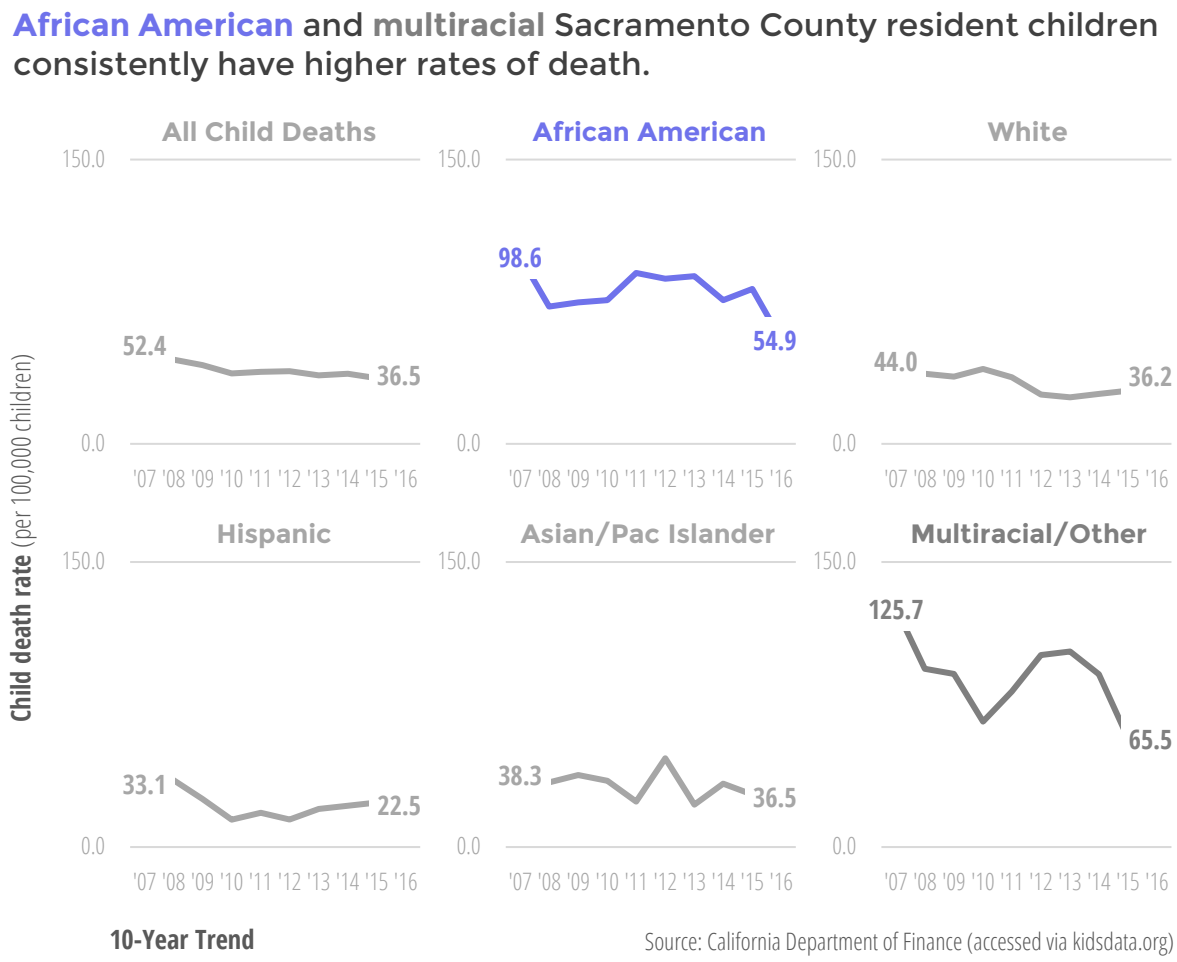
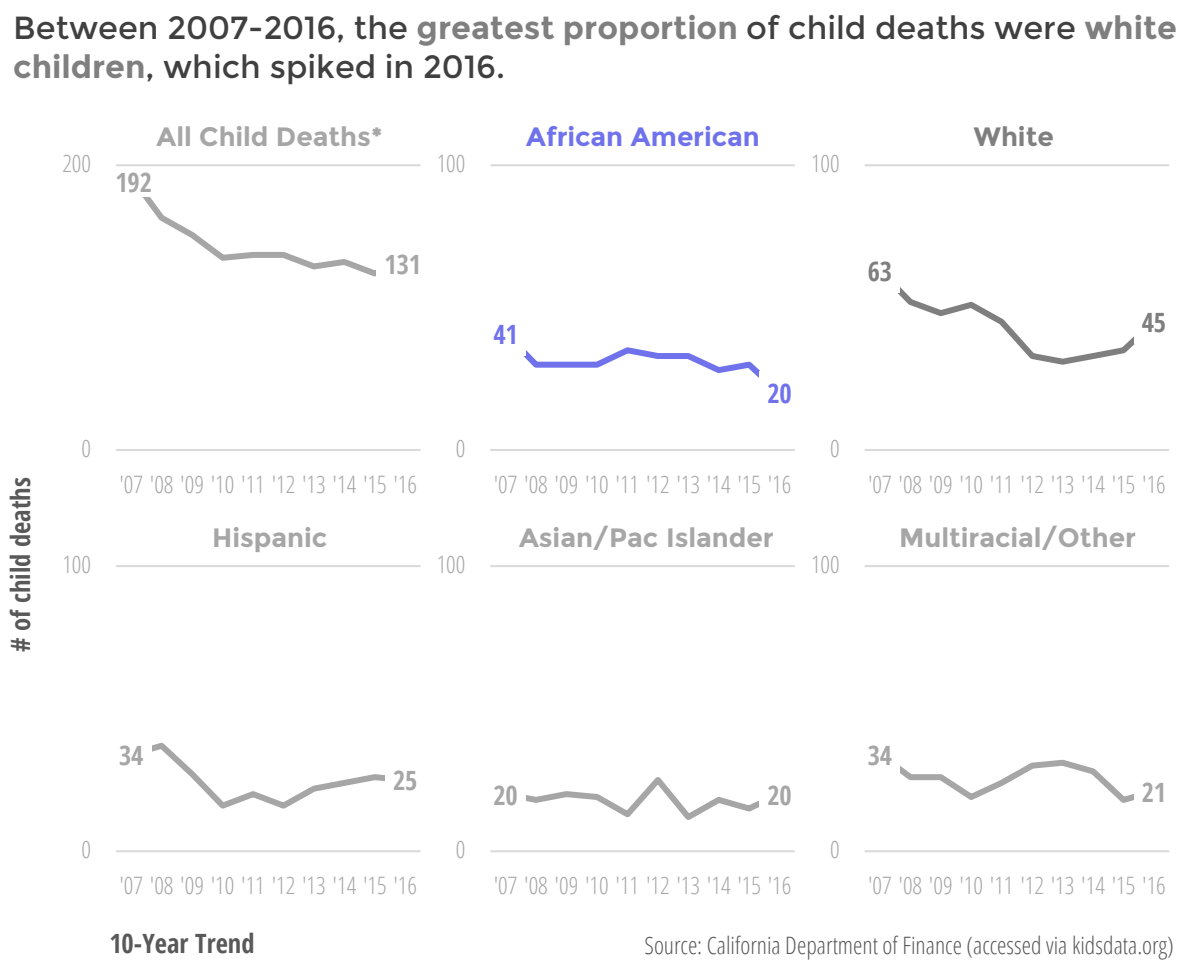


Figure 21 | Number of Child Deaths by Race/Ethnicity - Sacramento County Residents, 2007-2016



In 2016 alone, there were 131 child deaths of Sacramento County residents, 20 of whom (15%) were African American. Among these deaths for African American children in 2016:

- Fifteen were under the age of five
- Seven were Injury-Related
- Fourteen were Natural Deaths; the leading cause was Perinatal Conditions (6 out of 14 cases)
- There was a five percent difference between the proportion of African American child deaths (15%) to the African American child population in Sacramento County (10%)
- The African American child death rate decreased from 103.8 per 100,000 births in 2007 to 54.9 per 100,000 in 2016
- While the death rate has dropped to 54.9 per 100,000, it is still about 20 child deaths more than the average death rate for all other races combined (34.4 per 100,000).
- Though still overrepresented for the Sacramento County population of African American children (10%), there has been a decline of 32 percent of African American child deaths from an average of 22 percent for 1990-2009, to 15 percent representation in 2016 alone.

During the case review of 2016 child deaths, a greater proportion of multiple number risk factors were found to be present among African American child deaths, compared to all other races specifically in 2016:

- Eighty-one percent of all African American child deaths had one or more risk factors present.
- Eighty percent of African American child deaths had Sacramento County CPS involvement.
- Sixty-two percent of African American child deaths received government aid.
- African American children had the highest proportions of alcohol and/or drug abuse present (48%), tied for the highest crime and violence proportions with multi-racial/other child deaths (48%), and for domestic violence (38%).

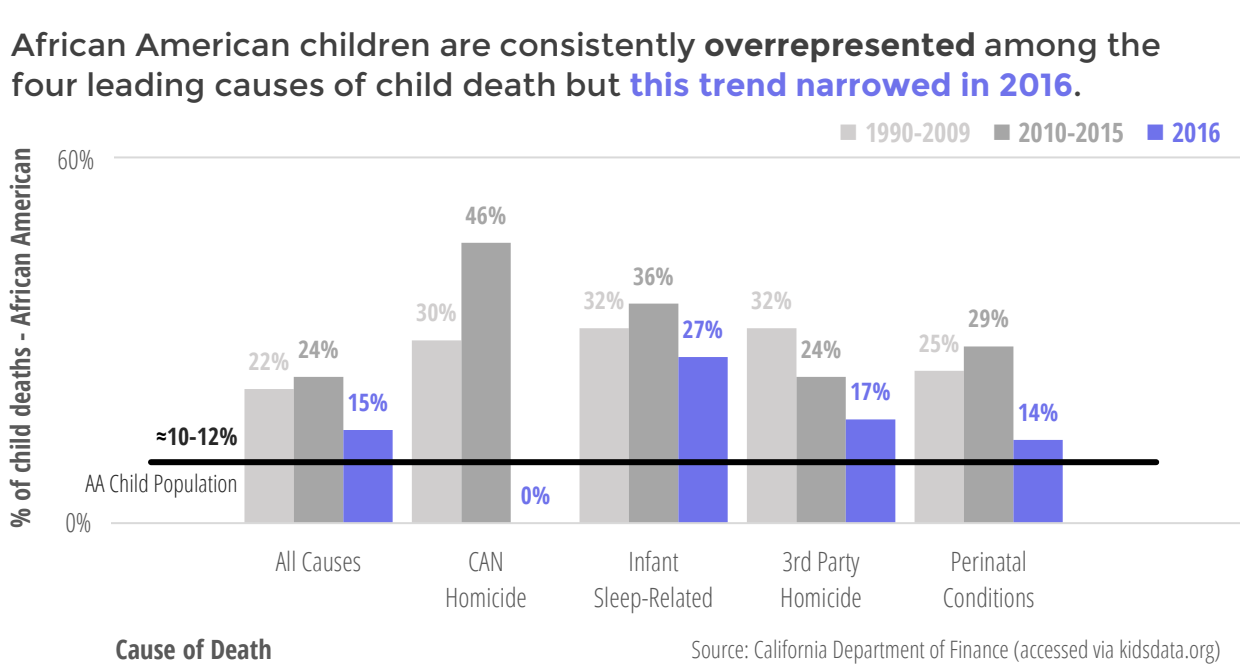
Reducing African American Disproportionality Among Sacramento County Child Deaths

The trends over the last 10 years suggest that:

1. The African American child death rate is declining in the same direction and at about the same pace as it has for death rates of children of all other races; and
2. The disparity between the child death rates for African American children, compared to the death rates of all children of other races, is narrowing.

For some causes of death, African American children are still overrepresented, but not to the same degree as shown in long-term trends. Figure 22 below provides the percentage of African American child deaths in proportion to all child deaths for the four disproportionate causes of death, previously identified on page 49. Using data from various time periods and reports (from 1990 to 2016), the data trends illustrate the overepresentation of African American children across all four causes of death. Figure 22 presents a view of a 20-year rate, side by side with a six-year rate, and a one-year rate (2016), illustrating how the trend has narrowed the disparity for African American child deaths up to and including 2016.

Figure 22 | Leading Causes of African American Child Death – Sacramento County Residents, Multi-Year Comparison (1990-2009, 2010-2015, 2016)



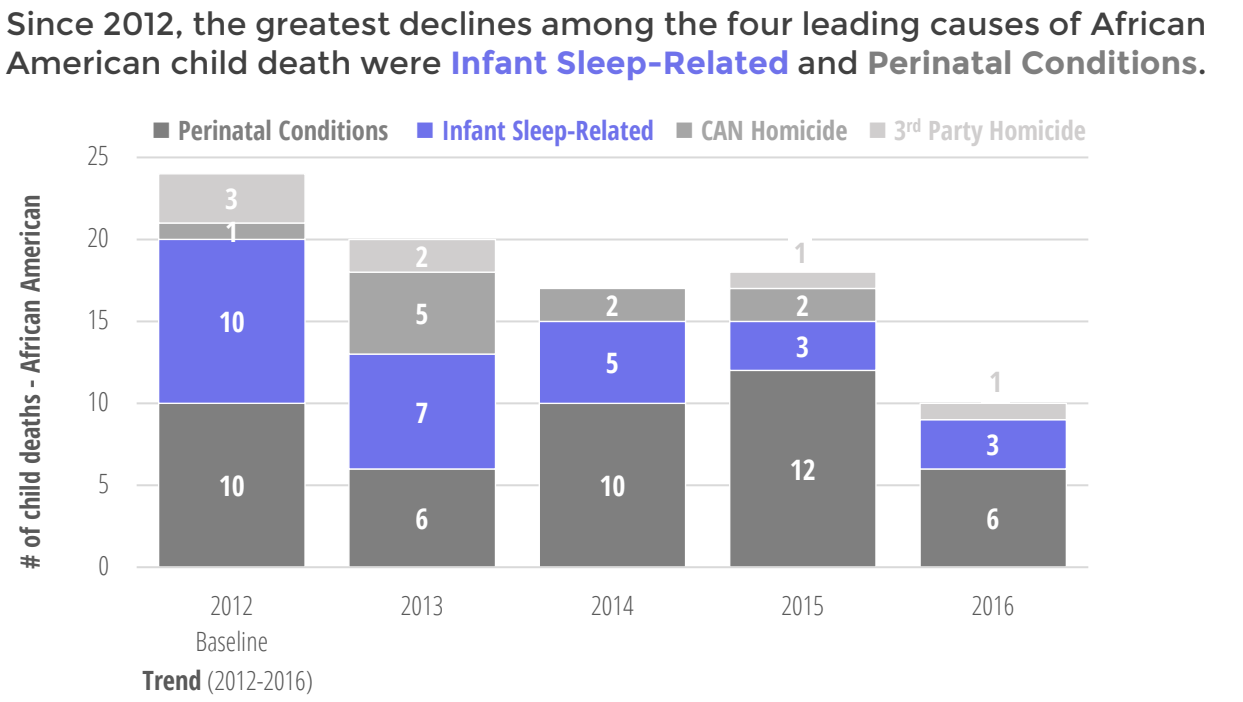
Source: California Department of Finance (accessed via kidsdata.org)

For 2010-2015, the percent of African American children represented in each of these four disproportionate causes of death ranged between 24 to 46 percent. By 2016, percentages for these same causes of African American child deaths range from 14 to 27 percent. This indicates a decline in rates and disparity for African American child deaths.

Figure 23 presents the numbers of child deaths for the four disproportionate causes of death of African American children through 2016, using 2012 as a baseline prior to the Blue Ribbon Commission Report in 2013. The total African American child deaths for these four disproportionate causes declined from 24, to 20, to 17 from 2012-2014 respectively. There was an increase to 18 African American child deaths in 2015, then a decline to 10 in 2016.

- The greatest shifts were in Perinatal Conditions Deaths and Infant Sleep-Related Deaths, both of which have been addressed through prevention strategies, funded by First 5 Sacramento, and developed since the 2013 Blue Ribbon Commission Report.
  - Infant Sleep-Related Deaths reduced 70 percent from 10 in 2012 to 3 in 2015 and 2016, after the *Safe Sleep Baby Education Campaign* was fully implemented in 2015[16].
  - Perinatal Conditions Deaths reduced 40 percent from 10 in 2012, to 6 in 2016, after the *Cultural Broker Programs* were fully implemented in July 2015[17].

Figure 23 | African American Child Deaths by Leading Causes – Sacramento County Residents, 2012-2016



[16] The *Safe Sleep Baby Education Campaign* fully implemented in July of 2015, per the First 5 Sacramento Reduction of African American Perinatal & Infant Deaths, Final Evaluation Report (July 1, 2015-june 30, 2018) findings presented on December 3, 2018.

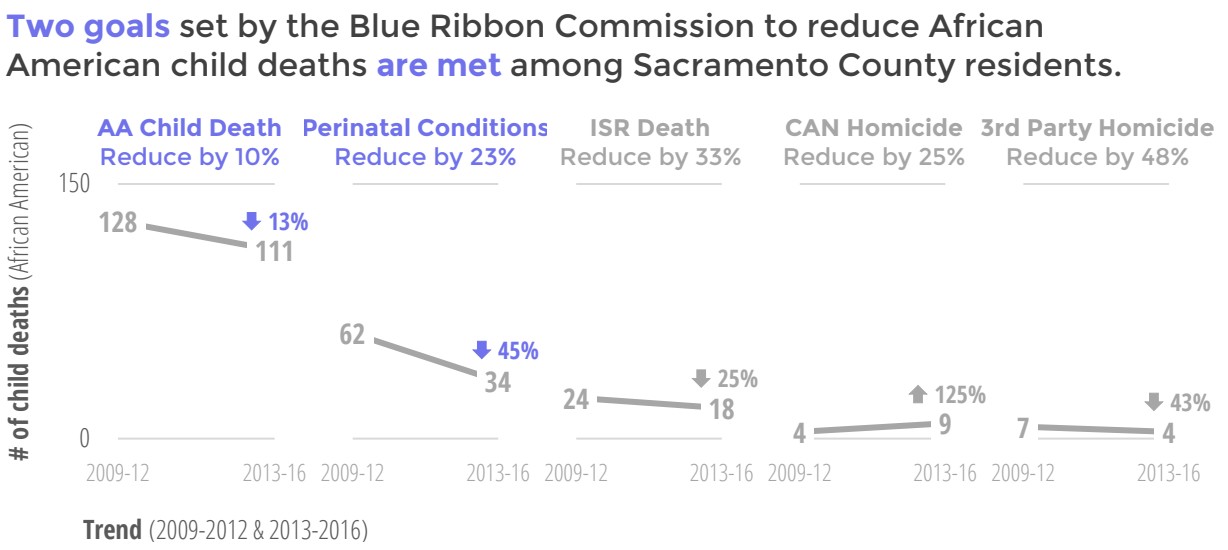
[17] The *First 5 Perinatal Initiative* was fully implemented in July of 2015, per the First 5 Sacramento Reduction of African American Perinatal & Infant Deaths, Final Evaluation Report (July 1, 2015-june 30, 2018) findings presented on December 3, 2018.

Progress Toward Blue Ribbon Commission Goals

African American child deaths remain disproportionally higher than their presence in the population, though rates have declined since the Blue Ribbon Commission presented its findings and recommendations in 2013. Specifically, the following reflect the progress toward goals set by the Blue Ribbon Commission (in 2013) to be accomplished by 2020, as shown in key points and Figure 24 below:

- All African American child deaths declined by 13 percent, meeting the 2020 target of between a 10 and 20 percent reduction;
- African American Perinatal Conditions Deaths decreased by 45 percent, exceeding the Blue Ribbon Commission's target of a 23 percent reduction;
- CAN Homicide Deaths for African American children increased by 125 percent, as opposed to decreasing toward the target of a 25 percent reduction;
- Third-Party Homicide Deaths for African American children decreased by 43 percent, making progress towards the target of a 48 percent reduction; and
- Infant Sleep-Related Deaths for African American infants decreased by 25 percent, progressing towards the 2020 target for a 33 percent reduction.

Figure 24 | Status of Blue Ribbon Commission Goals to Reduce African American Child Deaths – Sacramento County Residents, 2009-2012 & 2013-2016



By 2016, the incidents and rates of all child deaths have declined since 1990. The decline has been less volatile year to year since 2009 for all child deaths, specifically for African American child deaths (e.g., less subject to sharp annual spikes). Both the direction and magnitude of change in the rate of African American child deaths have been toward reducing disparity and disproportionality. This collaborative effort is funded by the County of Sacramento, City of Sacramento, and First 5 Sacramento and is managed by The Center at the Sierra Health Foundation.

Chapter 5

Thematic Review

CDRT Identified Risk Factors for All Child Death

Chapter 5
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 25 shows presence of known family risk factors by category of death. Eighty-four percent of all child deaths in 2016 have at least one risk factor. Risk factors are more common in Injury-Related Deaths at 93 percent. All Homicides, Suicides, Motor Vehicle Collisions, Suffocations, Poisoning/Overdoses, Legal Interventions, Other Injury Deaths, Infections, Undetermined and Respiratory Deaths had at least one family risk factor.

Table 25 | Child Deaths by Number of Risk Factors Present, 2016

		Risk Factors					
		1 or more		None		Total	
Manner	Cause						
Injury-Related	Homicide	13	100%	-		13	43%
	CAN Homicide	*6*	*100%*	-		*6*	*46%*
	3rd Party Homicide	*7*	*100%*	-		*7*	*54%*
	Motor Vehicle Collision	3	100%	-		3	10%
	Pedestrian	*3*	*100%*	-		*3*	*100%*
	Drowning	2	50%	2	50%	4	13%
	Suicide	5	100%	-		5	17%
	Suffocation	1	100%	-		1	3%
	Poisoning/Overdose	1	100%	-		1	3%
	Legal Intervention	2	100%	-		2	7%
	Injury | Other	1	100%	-		1	3%
	Total Injury-Related	**28**	**93%**	**2**	**7%**	**30**	**100%**
Natural	Perinatal Conditions	36	82%	8	18%	44	43%
	Congenital Anomalies	24	86%	4	14%	28	27%
	SIDS/SUIDS	7	88%	1	12%	8	8%
	Cancer	7	54%	6	46%	13	13%
	Infections	3	100%	-		3	3%
	Respiratory	2	100%	-		2	2%
	Natural | Other	3	75%	1	25%	4	4%
	Total Natural	**82**	**80%**	**20**	**20%**	**102**	**100%**
Undetermined	**Total Undetermined**	**5**	**100%**	**-**		**5**	**100%**
Total Child Deaths		115	84%	22	16%	137	100%

Table 26 below shows type of risk factors present by category of death. Poverty is the most common risk factor; 61 percent of all child decedents receive some form of government aid, as do 79 percent of families with deaths due to Congenital Anomalies. The most common risk factors among Injury-Related Deaths are poverty and alcohol and/or drug use, at 50 percent in 2016. Sixty-two percent of Homicides have alcohol and/or substance abuse as a risk factor.

Table 26 | Child Deaths by Type of Risk Factors Present, 2016

			Type of Risk Factor									
Manner	Cause	Total Deaths	Poverty		Crime		AOD Abuse		Domestic Violence		Gang History	
Injury-Related	Homicide	13	7	54%	6	46%	8	62%	4	31%	1	8%
	CAN Homicide	*6*	*3*	*50%*	*3*	*50%*	*4*	*67%*	*1*	*17%*	-	
	3rd Party Homicide	*7*	*4*	*57%*	*3*	*43%*	*4*	*57%*	*3*	*43%*	*1*	*14%*
	Motor Vehicle Collision	3	2	67%	1	67%	1	33%	2	67%	-	
	Pedestrian	*3*	*2*	*67%*	*1*	*33%*	*1*	*33%*	*2*	*67%*	-	
	Drowning	4	1	25%	2	50%	1	25%	-		-	
	Suicide	5	2	40%	1	20%	2	40%	1	20%	1	20%
	Suffocation	1	1	100%	1	100%	-		-		-	
	Poisoning/Overdose	1	1	100%	1	100%	1	100%	-		-	
	Legal Intervention	2	-		1	50%	2	100%	-		-	
	Injury | Other	1	1	100%	1	100%	-		-		-	
	Total Injury-Related	**30**	**15**	**50%**	**14**	**47%**	**15**	**50%**	**7**	**23%**	**2**	**7%**
Natural	Perinatal Conditions	44	25	57%	16	36%	17	39%	7	16%	5	11%
	Congenital Anomalies	28	22	79%	10	36%	5	18%	4	14%	-	
	SIDS/SUIDS	8	5	63%	4	50%	2	25%	1	13%	-	
	Cancer	13	6	46%	2	15%	-		2	15%	-	
	Infections	3	2	67%	-		-		-		-	
	Respiratory	2	1	50%	-		-		-		-	
	Natural | Other	4	2	50%	1	25%	1	25%	-		1	25%
	Total Natural	**102**	**63**	**62%**	**33**	**32%**	**25**	**25%**	**14**	**14%**	**6**	**6%**
Undetermined	**Total Undetermined**	**5**	**5**	**100%**	**4**	**80%**	**3**	**60%**	**1**	**20%**	**-**	
Total Child Deaths		137	83	61%	51	37%	43	31%	22	16%	8	6%

Abuse & Neglect | Examining Child Protective Services Records

One of the goals of the CDRT is to identify service delivery gaps that protect children, through data collected 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 27 shows CPS involvement by category of death; 58 percent of all child deaths in 2016 have a history of a case or referral in the family. CPS history is most common in Undetermined Deaths at 100 percent, followed by Injury-Related Deaths at 70 percent. Seventy-seven percent of Homicides and 100 percent of Motor Vehicle Collisions have this risk factor. Fifty-three percent of Natural Deaths have a CPS history; 100 percent of Respiratory cases and 75 percent of Other Natural Deaths have this history.

In 2016, 58 percent (80 of 137) of all child decedents had past or present family involvement with a CPS agency, of which 83 percent (66 of 80) were involved with Sacramento County CPS, and 17 percent (14 of 80) were involved with an out of county child welfare agency only.

Table 27 | Child Deaths by CPS Involvement, 2016

			CPS Involvement			
		Total	Any History		None	
Manner	Cause	Deaths				
Injury-Related	Homicide	13	10	77%	3	23%
	CAN Homicide	*6*	*6*	*100%*	-	
	3rd Party Homicide	*7*	*4*	*57%*	*3*	*43%*
	Motor Vehicle Collision	3	3	100%	-	
	Pedestrian	*3*	*3*	*100%*	-	
	Drowning	4	2	50%	2	50%
	Suicide	5	2	40%	3	60%
	Suffocation	1	1	100%	-	
	Poisoning/Overdose	1	1	100%	-	
	Legal Intervention	2	1	50%	1	50%
	Injury | Other	1	1	100%	-	
	Total Injury-Related	**30**	**21**	**70%**	**9**	**30%**
Natural	Perinatal Conditions	44	25	57%	19	43%
	Congenital Anomalies	28	14	50%	14	50%
	SIDS/SUIDS	8	5	63%	3	37%
	Cancer	13	4	31%	9	69%
	Infections	3	1	33%	2	67%
	Respiratory	2	2	100%	-	
	Natural | Other	4	3	75%	1	25%
	Total Natural	**102**	**54**	**53%**	**48**	**47%**
Undetermined	**Total Undetermined**	**5**	**5**	**100%**	**-**	
Total Child Deaths		137	80	58%	57	42%

Figure 25 shows the number of families with each form of history with Sacramento County CPS only. Forty-eight percent of families have a past Sacramento County CPS case or referral; the most common form of history is for a parent as a victim when still a child.

Figure 25 | Percent of Child Deaths with Family History of Sacramento County CPS Involvement, 2016

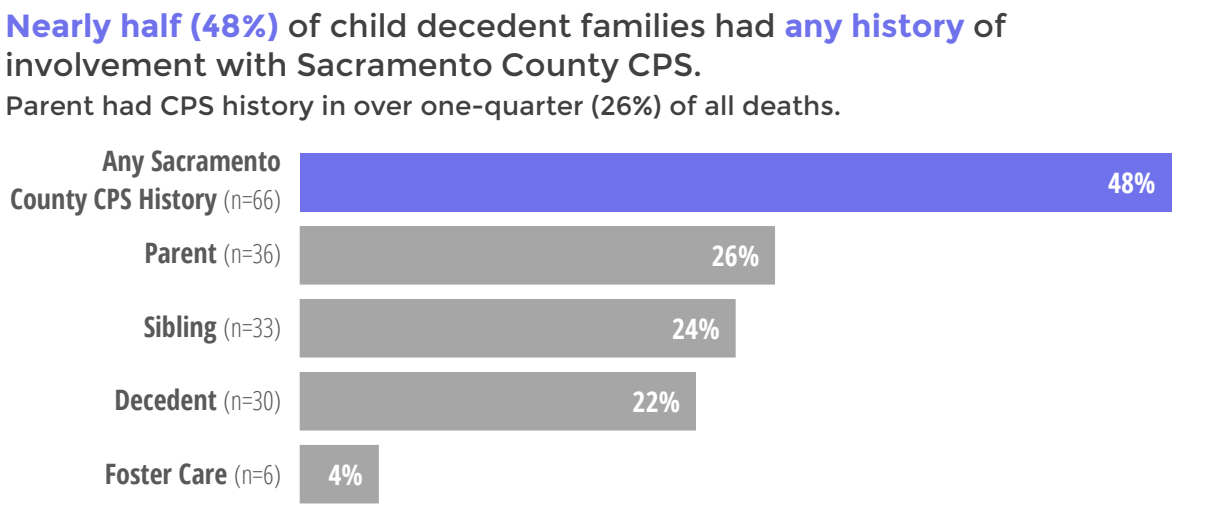
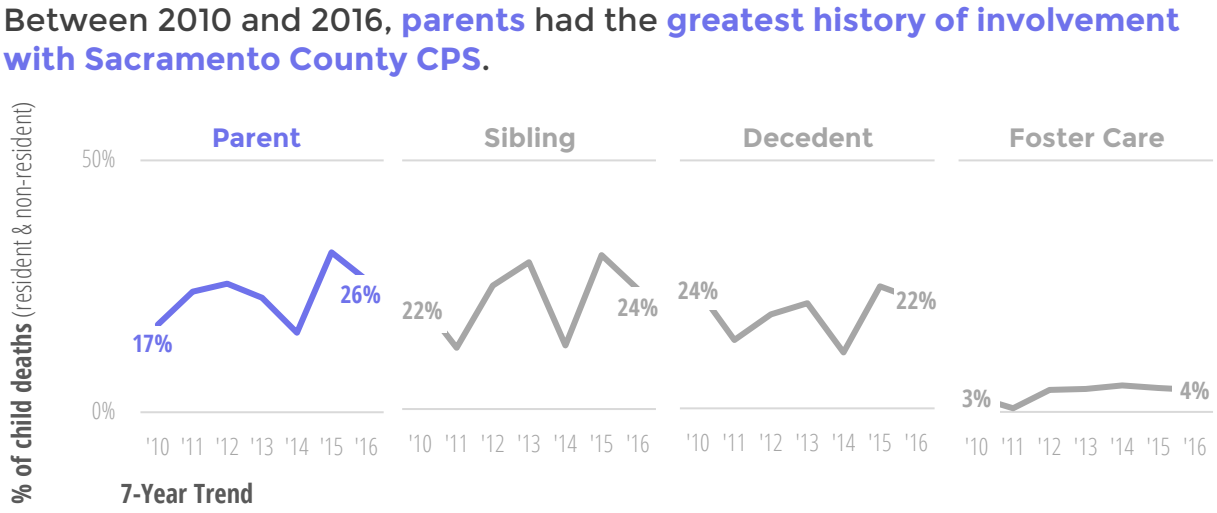


Figure 26 below shows the trend in the percent of child decedent families with a history of Sacramento County CPS involvement between 2010 and 2016 by family member.

Figure 26 | Percent of Child Deaths with Family History of Sacramento County CPS Involvement, 2010-2016



Decedent History | Of those decedents' families who had past or present involvement with Sacramento County CPS, 45 percent (30 of 66) of decedents were involved with Sacramento County CPS themselves. Of the child decedents involved with a CPS agency themselves, 90 percent (27 of 30) had a case or referral open and closed more than six months prior to the time of death, 7 percent (2 of 30) had a CPS case or

referral open at the time of death, and 3 percent (1 of 30) had a CPS case or referral open and closed within six months prior to the time of death.

Sibling History | In 2016, 32 percent (44 of 137) of child decedents had siblings with a prior case or referral with CPS involvement, of which 75 percent (33 of 44) were with Sacramento County CPS, and 25 percent (11 of 44) were with an out of county child welfare agency. Of the siblings with Sacramento County CPS involvement, zero of 44 had a CPS case or referral open at the decedent's time of death.

Parental History | In 2016, 33 percent (45 of 137) of child decedents had a parent (mother and/or father) with CPS involvement as a child. Of those with previous CPS history, 80 percent (36 of 45) were with Sacramento County CPS, and 20 percent (9 of 45) were with an out of county CPS agency.

Foster Care History | In 2016, one percent (2 of 137) of child decedents had a history of involvement with the foster care system. Of these, 100 percent (2 of 2) were in foster care at the time of death. Three percent (4 of 137) of decedents had parents with a history of foster care involvement as children.

Table 28 shows the type of CPS involvement by category of death. Decedent and sibling history is most common in Injury-Related Deaths at 37 percent and 33 percent respectively, while parent history is more likely in Natural Deaths, the same as 2015. Twenty-eight percent of Natural Deaths had a parent history as a child, and these rates were high in Other Natural, SIDS/SUIDS and Perinatal Conditions Deaths. Foster care was most concentrated in Undetermined Deaths at 20 percent.

Table 28 | Child Deaths by Family History of Sacramento County CPS Involvement, 2016

			CPS Involvement							
Manner	Cause	Total Deaths	Decedent		Sibling		Parent		Foster Care	
Injury-Related	Homicide	13	6	46%	5	38%	1	8%	-	
	CAN Homicide	*6*	3	50%	*3*	*50%*	*1*	*17%*	-	
	3rd Party Homicide	*7*	*3*	*43%*	*2*	*29%*	-		-	
	Motor Vehicle Collision	3	*1*	*33%*	2	67%	1	33%	-	
	Pedestrian	*3*	*1*	*33%*	*2*	*67%*	*1*	*33%*	-	
	Drowning	4	-		1		-		-	
	Suicide	5	2	40%	2	40%	-		-	
	Suffocation	1	-		-		1	100%	-	
	Poisoning/Overdose	1	1	100%	-		-		-	
	Legal Intervention	2	-		-		-		-	
	Injury | Other	1	1	100%	-		1	100%	-	
	Total Injury-Related	**30**	**11**	**37%**	**10**	**33%**	**4**	**13%**	**-**	
Natural	Perinatal Conditions	44	5	11%	8	18%	15	34%	2	5%
	Congenital Anomalies	28	6	21%	7	25%	6	21%	2	7%
	SIDS/SUIDS	8	-		1	13%	3	38%	-	
	Cancer	13	3	23%	2	15%	2	15%	-	
	Infections	3	-		-		1	33%	-	
	Respiratory	2	2	100%	1	50%	-		-	
	Natural | Other	4	1	25%	2	50%	2	50%	1	25%
	Total Natural	**102**	**17**	**17%**	**21**	**21%**	**29**	**28%**	**5**	**5%**
Undetermined	**Total Undetermined**	**5**	**2**	**40%**	**2**	**40%**	**3**	**60%**	**1**	**20%**
Total Child Deaths		137	30	22%	33	24%	36	26%	6	4%

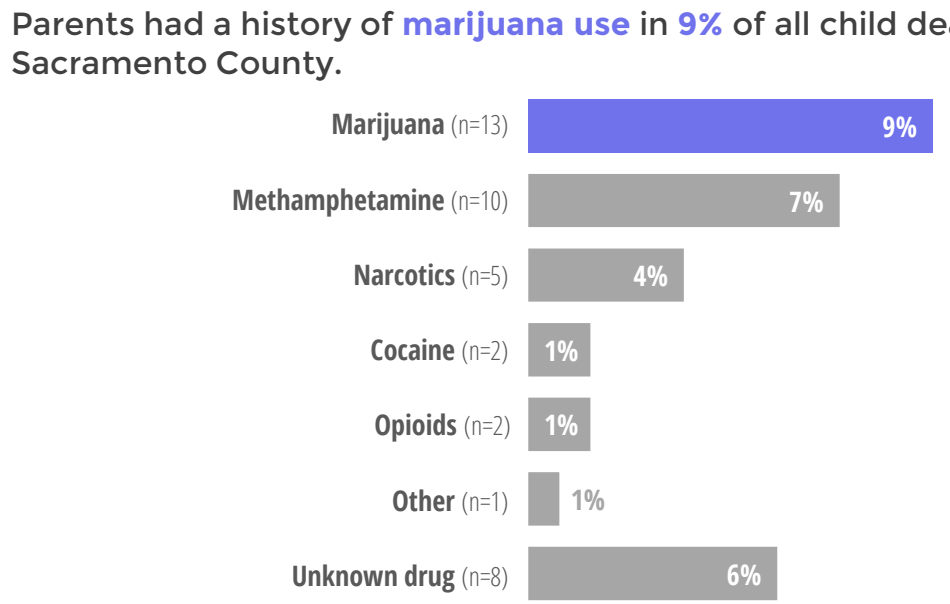
Substance Abuse | Alcohol & Other Drugs

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

In 2016, 31 percent (42 of 137) of all child deaths had a known history of illegal drug use and/or alcohol abuse in the child's family. Fourteen percent (19 of 137) of deaths involved illegal drugs and/or alcohol at the time of death.

Among Sacramento County child decedents in 2016, 28 percent (38 of 137) had a family history of illegal drug use. Figure 27 below presents the number of child deaths where a parent(s') history of illegal drug use was present, by type of drug.

Figure 27 | Percent of Child Deaths with Parental History of Drug Use, 2016



Nineteen child deaths involved drug use at the time of death. Multiple drugs were used in seven cases, Marijuana was used in four cases, Cocaine in two cases, and in one case each methamphetamine, opiates, and ecstasy. Other drugs were used in three cases. These cases included six Perinatal Conditions, four Third-Party Homicides, three CAN Homicides, two Suicides, and one each of Congenital Anomalies, Drowning, Legal Intervention, and a Poisoning/Overdose Death. Nine of the decedents in these cases were 15-17 years old, three were 1-4 years old, and seven were infants. Twelve of the 19 (63%) were males.

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 reports and CPS records, when available.

Forty-four percent of all child deaths have a criminal history in the family, with non-violent crime as the most common form of history at 34 percent. Injury-Related Deaths are more likely to have a family history of a criminal record at 57 percent, although 80 percent (4 of 5) of Undetermined Deaths had a family history of a criminal record. Among deaths from Natural Causes, SIDS/SUIDS and Perinatal Conditions have the highest rates of a family history of a criminal record. See Table 29 for type of criminal history by category of death.

Table 29 | Child Deaths by Type of Crime Risk Factors Present, 2016

			Type of Crime Risk Factor									
Manner	Cause	Total Deaths	Criminal Record		Domestic Violence		Non-violent Crime		Violent Crime		Gang History	
Injury-Related	Homicide	13	8	62%	4	31%	6	46%	3	23%	1	8%
	CAN Homicide	*6*	*3*	*50%*	*1*	*17%*	*3*	*50%*	*1*	*17%*	-	
	3rd Party Homicide	*7*	*5*	*71%*	*3*	*43%*	*3*	*43%*	*2*	*29%*	*1*	*14%*
	Motor Vehicle Collision	3	2	67%	2	67%	1	33%	1	33%	-	
	Pedestrian	*3*	*2*	*67%*	*2*	*67%*	*1*	*33%*	*1*	*33%*	-	
	Drowning	4	2	50%	-		2	50%	1	25%	-	
	Suicide	5	1	20%	1	20%	1	20%	1	20%	1	20%
	Suffocation	1	1	100%	-		1	100%	-		-	
	Poisoning/ Overdose	1	1	100%	-		1	100%	1	100%	-	
	Legal Intervention	2	1	50%	-		1	50%	-		-	
	Injury | Other	1	1	100%	-		1	100%	-		-	
	Total Injury-Related	**30**	**17**	**57%**	**7**	**23%**	**14**	**47%**	**7**	**23%**	**2**	**7%**
Natural	Perinatal Conditions	44	20	45%	7	16%	15	34%	9	20%	5	11%
	Congenital Anomalies	28	11	39%	4	14%	9	32%	4	14%	-	
	SIDS/SUIDS	8	4	50%	1	13%	3	38%	1	13%	-	
	Cancer	13	3	23%	2	15%	1	8%	1	8%	-	
	Infections	3	-		-		-		-		-	
	Respiratory	2	-		-		-		-		-	
	Natural | Other	4	1	25%	-		1	25%	1	25%	1	25%
	Total Natural	**102**	**39**	**38%**	**14**	**14%**	**29**	**28%**	**16**	**16%**	**6**	**6%**
Undetermined	**Total Undetermined**	**5**	**4**	**80%**	**1**	**20%**	**4**	**80%**	**2**	**40%**	**-**	
Total Child Deaths		137	60	44%	22	16%	47	34%	25	18%	8	6%

Note: Domestic violence and gang affiliation are collected from various sources and may not be reflected in a criminal record.

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 30 for the person in the family with the criminal history by cause of death.

Table 30 | Child Deaths by Family Crime History, 2016

			Crime History			
		Total	Parent		Decedent	
Manner	Cause	Deaths				
Injury-Related	Homicide	13	6	46%	2	15%
	CAN Homicide	*6*	*3*	*50%*	-	
	3rd Party Homicide	*7*	*3*	*43%*	*2*	*29%*
	Motor Vehicle Collision	3	1	33%	-	
	Pedestrian	*3*	*1*	*33%*	-	
	Drowning	4	1	25%	1	25%
	Suicide	5	-		1	20%
	Suffocation	1	1	100%	-	
	Poisoning/Overdose	1	1	100%	1	100%
	Legal Intervention	2	1	50%	-	
	Injury | Other	1	1	100%	-	
	Total Injury-Related	**30**	**12**	**40%**	**5**	**17%**
Natural	Perinatal Conditions	44	16	36%	-	
	Congenital Anomalies	28	9	32%	1	4%
	SIDS/SUIDS	8	4	50%	-	
	Cancer	13	2	15%	-	
	Infections	3	-		-	
	Respiratory	2	-		-	
	Natural | Other	4	1	25%	-	
	Total Natural	**102**	**32**	**31%**	**1**	**1%**
Undetermined	**Total Undetermined**	**5**	**4**	**80%**	**-**	
Total Child Deaths		137	48	35%	6	4%

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 31 for the person in the family with gang affiliation.

Table 31 | Child Deaths by Family History of Gang Involvement, 2015

			Gang Involvement			
Manner	Cause	Total Deaths	Parent		Decedent	
Injury-Related	Homicide	13	1	8%	1	8%
	CAN Homicide	*6*	-		-	
	3rd Party Homicide	*7*	*1*	*14%*	*1*	*14%*
	Motor Vehicle Collision	3	-		-	
	Pedestrian	*3*	-		-	
	Drowning	4	-		-	
	Suicide	5	-		1	20%
	Suffocation	1	-		-	
	Poisoning/Overdose	1	-		-	
	Legal Intervention	2	-		-	
	Injury | Other	1	-		-	
	Total Injury-Related	**30**	**1**	**3%**	**2**	**7%**
Natural	Perinatal Conditions	44	5	11%	-	
	Congenital Anomalies	28	-		-	
	SIDS/SUIDS	8	-		-	
	Cancer	13	-		-	
	Infections	3	-		-	
	Respiratory	2	-		-	
	Natural | Other	4	1	25%	-	
	Total Natural	**102**	**6**	**6%**	**-**	
Undetermined	**Total Undetermined**	**5**	**-**		**-**	
Total Child Deaths		137	7	5%	2	1%

Domestic Violence | Domestic violence is reported by law enforcement agencies, Sacramento County Coroner's Office, or Child Protective Services. In 2016, 16 percent (22 of 137) of all child deaths had a known history of domestic violence in the child's family.

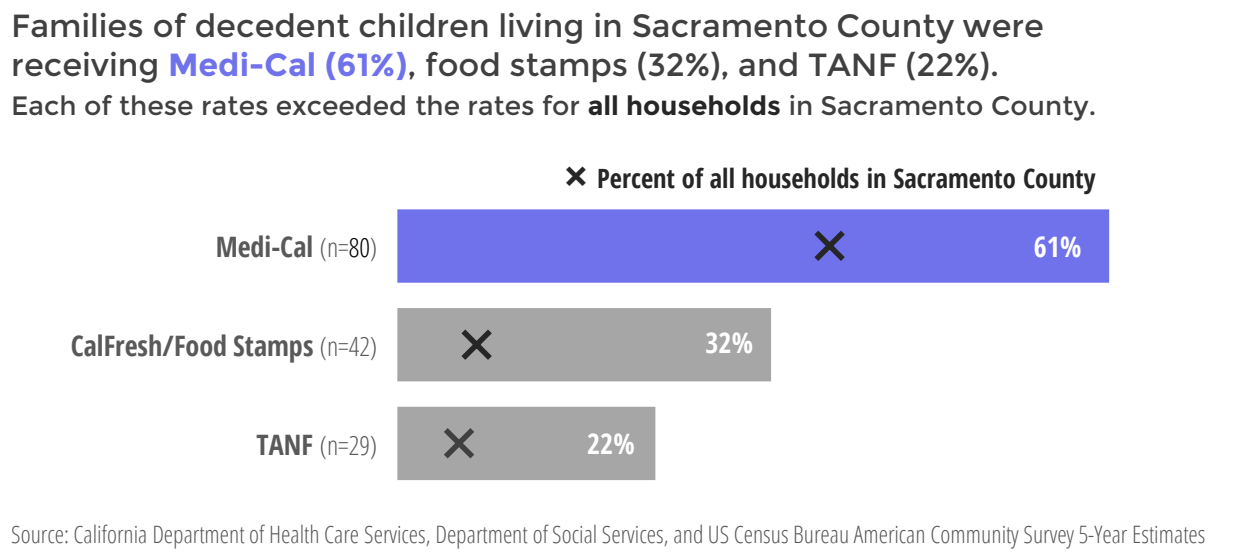
Poverty | Participation in Government Aid Programs

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 to the CDRT any government assistance received. 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 CalFresh.

In 2016, 63 percent (83 of 131) of all Sacramento County resident child decedents and their families were receiving some form of government aid at the time of death. Medi-Cal was the most common program; 61 percent (80 of 131) of decedents' families were receiving this form of aid at the time of death.

Figure 28 shows the percentage of Sacramento County child decedent families receiving government aid at the time of death in 2016 compared to the percentage of all Sacramento County families receiving government aid[18].

Figure 28 | Percent of Child Deaths with Family Receiving Government Assistance – Sacramento County Residents, 2016



Source: California Department of Health Care Services, Department of Social Services, and US Census Bureau American Community Survey 5-Year Estimates

The families of child decedents were more likely to be receiving Temporary Assistance for Needy Families (TANF) benefits at the time of death, with 22 percent of child decedent families receiving benefits compared to five percent of all Sacramento County families. Thirty-two percent of decedent families received CalFresh, compared to seven percent of the county average. Sixty-one percent of decedents' families were enrolled in Medi-Cal, compared to 37 percent of Sacramento households.

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

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 29 shows the mean number of risk factors present among child decedents in 2016. Of the 137 child decedents in 2016, 85 percent (116) had at least one risk factor present, including 39 percent (54) had three or more risk factors present. Among decedents of Natural Causes, 81 percent (83 of 102) had at least one risk factor present, including 32 percent (33 of 102) of decedents had three or more risk factors present.

Among all child decedents in 2016, the mean number of risk factors present was 2.8. Among child decedents of Natural Causes, the mean number of risk factors present was 2.6. Decedents of Unintentional Injury-Related Deaths had a higher mean number of risk factors present, at 3.4, while decedents of Intentional Injury-Related Deaths had the highest mean number of risk factors, at 3.33.

Figure 29 | Mean Number of Risk Factors Present in Child Deaths by Manner, 2007-2016

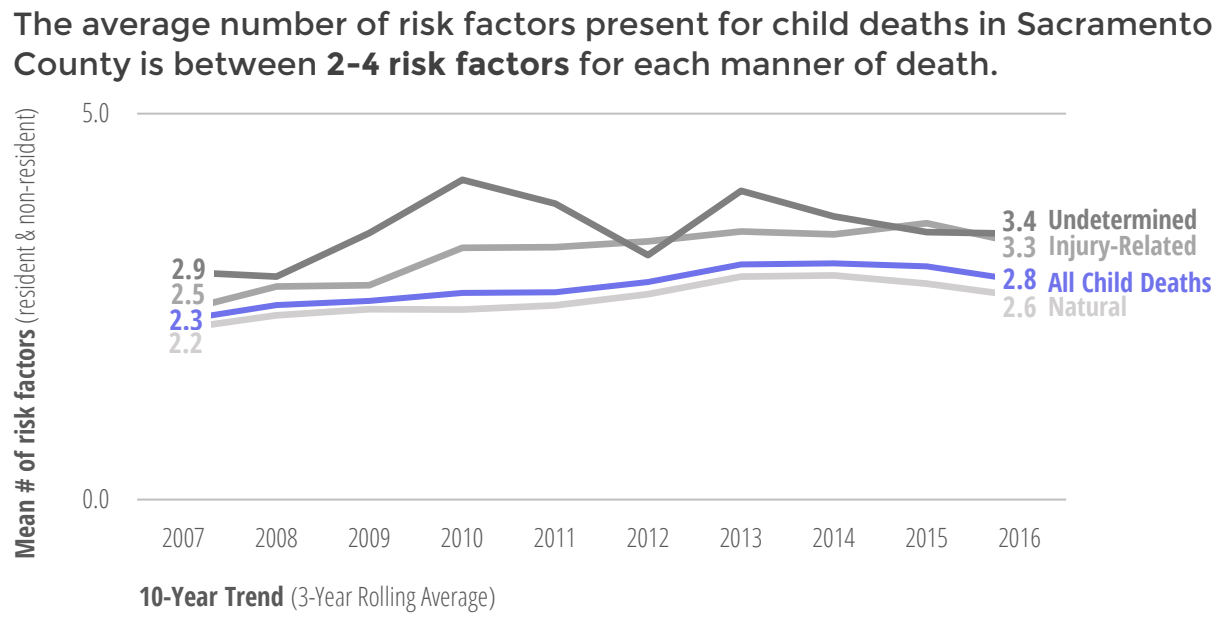
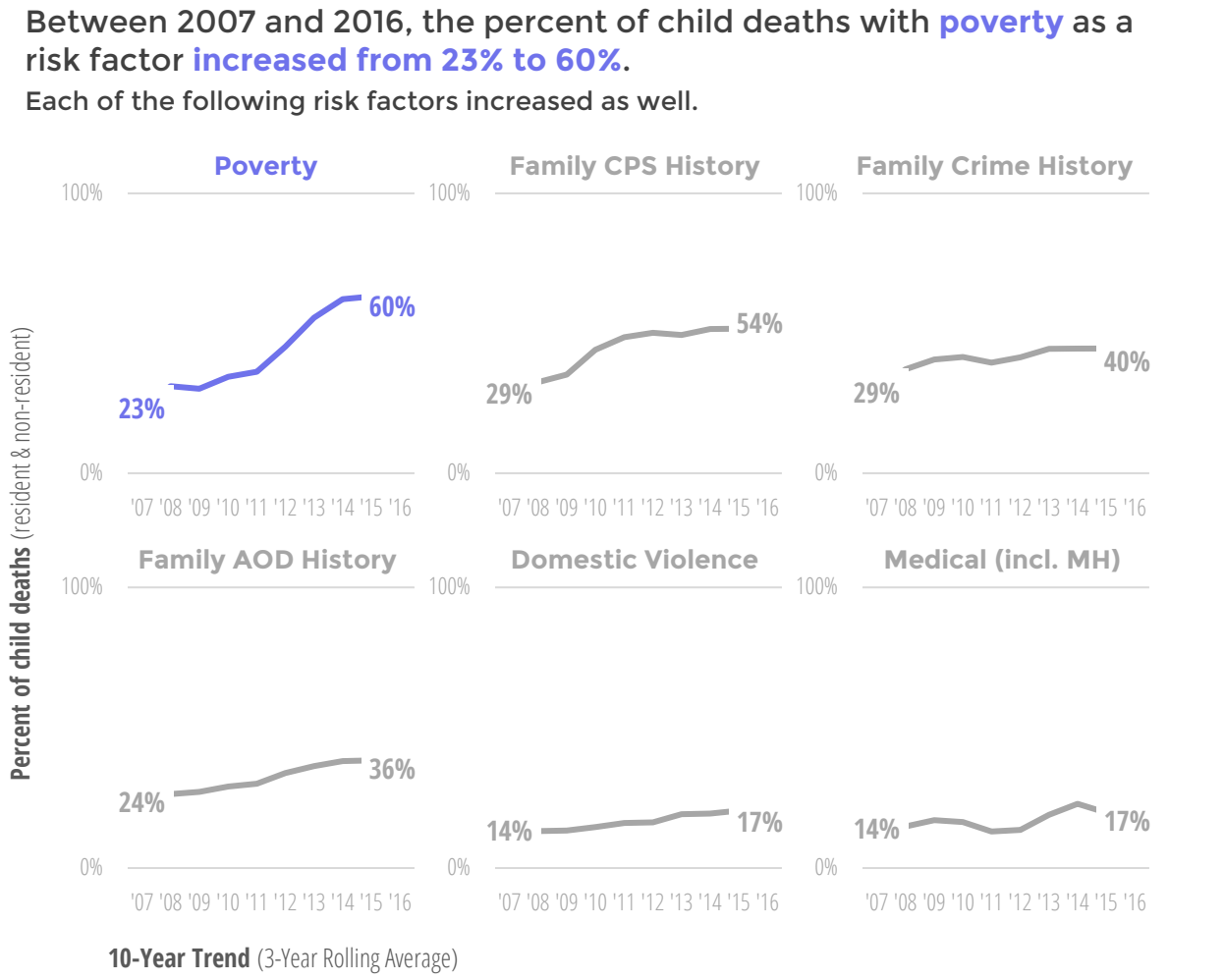


Figure 30 shows the percentage of decedents with specific risk factors over the ten year period. Poverty has risen most dramatically over this period from 23 percent to 60 percent of decedents' households.

Figure 30 | Percent of Child Deaths by Risk Factor (3-year rolling average), 2007-2016



Alcohol and/or illegal drug use, Crime and Violence, Domestic Violence, Gang History and Medical Risks are also concentrated in youth between 15-17. See Table 32 for the prevalence of risk factors by age and race.

Table 32 | Child Deaths by Risk Factor Present and Age Group and Race/Ethnicity, 2016

				Type of Risk Factor															
Category		None		Any		Alcohol & Drug Abuse		Crime & Violence		Domestic Violence		Gang History		Poverty (gov't programs)		Medical (incl. MH)		Mental Health	
Age Group	<1 year	15	19%	62	51%	25	32%	31	40%	12	16%	5	6%	49	64%	20	26%	8	10%
	1-4 years	8	35%	15	65%	5	22%	7	30%	3	13%	1	4%	12	52%	3	13%	1	4%
	5-9 years	1	33%	2	67%	1	33%	-		-		-		2	67%	-		-	
	10-14 years	7	54%	6	46%	1	8%	3	23%	1	8%	-		5	38%	-		-	
	15-17 years	1	5%	20	95%	10	48%	9	43%	6	29%	2	10%	13	62%	7	33%	6	29%
Race	White	14	29%	34	71%	14	29%	16	33%	4	8%	-		25	52%	12	25%	4	8%
	Black/African Am	4	19%	17	81%	10	48%	10	48%	8	38%	3	14%	13	62%	4	19%	3	14%
	Hispanic	3	11%	24	89%	6	22%	8	30%	3	11%	3	11%	22	81%	5	19%	-	
	Asian/Pac Islander	5	25%	15	75%	5	25%	6	30%	4	20%	1	5%	10	50%	2	10%	2	10%
	Multiracial/Other	6	29%	15	71%	7	33%	10	48%	3	14%	1	5%	11	52%	7	33%	6	29%
Total		32	23%	105	77%	42	31%	50	36%	22	16%	8	6%	81	59%	30	22%	15	11%

Chapter 6

Thematic Review

Fetal Infant Mortality Review

Fetal Infant Mortality Review

The loss of a pregnancy or the death of an infant is an event that indicates the health of a community. These events not only bring emotional trauma to the parents and families involved, but also mark lost opportunities for intervention at the individual and community level. Factors that increase the risk of these losses are multiple and often complex, requiring systems changes and involvement of multi-agency collaborations.

Sacramento County has dedicated a significant investment of resources to address some of the risk factors and bring about systems changes. Although there are some early indications that we have made some headway, there are still too many babies dying at unacceptable rates, especially in the African American Communities that bear a disproportionate burden of fetal and infant deaths, and so we cannot afford to slow down the collaborative efforts or the community investments.

The Fetal Infant Mortality Review (FIMR) project reviews the circumstances of the losses and characteristics of the individuals. The review team looks at the medical and social factors and develops recommendations outlined in this report. Our goal is to provide the community with data and actionable recommendations that will help guide the continued efforts and focus valuable resources.

It is important for us to realize that beyond health care and individual behaviors, there are social and economic factors that profoundly affect the chances of a mother having a healthy pregnancy, delivery, and a healthy baby. As we continue to strive to improve access to quality health care, we must also improve the social, economic and built environment that help to make "the healthy choice, the easy choice" and affect birth outcomes. This means making strides around poverty, housing, employment, transportation, education and social support, among others. These are root causes that can only be addressed by engaging the entire community at all levels, including at the policy level.

We commend the FIMR team and advisory committee and the countless individuals and agencies that have made reduction in fetal and infant deaths a priority. We need more of you. No single agency can do this alone and we invite you to get involved. We need to work together to align our efforts and leverage resources to build a greater collective impact. Many tiny lives are depending on us!

Olivia Kasirye, M.D., M.S.
County Health Officer
Maternal Child Adolescent Health Medical Director

Chapter 6
Fetal Infant Mortality Review

Mom had struggled with controlling her diabetes and quitting smoking for a long while. She faced significant challenges in accessing services when she became pregnant, leaving her without routine prenatal care and diabetes treatment for most of her pregnancy. Mom had abdominal pain and went to the emergency room late in her pregnancy. She was given an ultrasound and doctors found a placental infarction, or loss of blood supply to part of the placenta. Mom had a cesarean delivery for her stillborn baby at 38 weeks of gestation.

2016 marks the second 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 information on 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 of 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, generally, are not as it is not required by California law.

Sacramento County has agreed with the State of California to review at least 25 percent of cases. In 2016, the team reviewed 58 percent (55 of 95) of cases. Selection criteria for review is as follows: random sampling is used to select 25 percent of the collected death certificates (both live birth and fetal death certificates) for review. Additionally, all children born alive and all fetal deaths with at least one African American parent (not previously selected) are reviewed, in addition to the random sampling selection. 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.

Fetal Infant Mortality Review (FIMR) 2016

In 2016, there were 95 FIMR cases among Sacramento County residents, 55 of which were reviewed. Eligible cases include 19 children who were born alive prior to 23 weeks' gestation and 76 fetal deaths that received fetal death certificates. The 19 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 19 deaths of children born alive, FIMR reviewed 47 percent (36 of 76) of fetal deaths.

The data provided in this chapter comes from both fetal/live birth death certificates and case review. Although not all fetal deaths were reviewed by the team, information from all fetal death certificates was used in some of 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 (# or %) for which the indicator is true.

When information comes from both reviewed cases and non-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 traits for each category. Additional data is available below.

Demographics for FIMR Cases	• Mother's Age: 18-34 years (71%) • Mother's Education: High School Diploma or Equivalency (50%) • Mother Born Abroad (40%) • 20-22 Weeks' Gestation (34%) • Child's[19] Race: White (34%), Hispanic (27%), Asian (18%) or Black (12%)
Family Risk Factors for Reviewed Cases	• Government Aid (62%) • Sacramento County Child Protective Services (42%) – Prior case or referral for parent as a child (29%), or sibling (20%)
Pregnancy Characteristics for FIMR Cases	• Pre-Pregnancy Weight Overweight/Obese (67%)[20] • Prior Fetal Loss (22%) • No/Late Prenatal Care (21%) • Fetal Exposure to Alcohol and/or other Drugs (AOD) (20%) • Placental Abruption (13%) • Gestational Diabetes (13%) • Pregnancy Related Infection (12%) • Premature Rupture of Membranes (11%)
Neighborhood	• Valley Hi | (19%): 95823, 95828 • Meadowview/Pocket/Freeport | (15%): 95822, 95832, 95831, 95824 • South Natomas/Northgate/North Sacramento/Del Paso Heights |(15%): 95833, 95834, 95815, 95838

[19] Race for fetal deaths is defined by Mother's race recorded on the Fetal Death Certificate, Race for live birth deaths come from the child's race indicated in the Certificate of Death.

[20] Known for Mothers with fetal death only.

Knowledge of the geographic distribution of FIMR cases can help service providers better target interventions. See Figure 31 for a kernel density map of FIMR deaths; darker spots represent areas with a higher concentration of FIMR cases. These dark spots appear in Arden-Arcade, North Highlands, North Sacramento, Meadowview and Valley Hi.

Figure 31 | Density of FIMR Deaths by Location – Sacramento County Residents, 2016

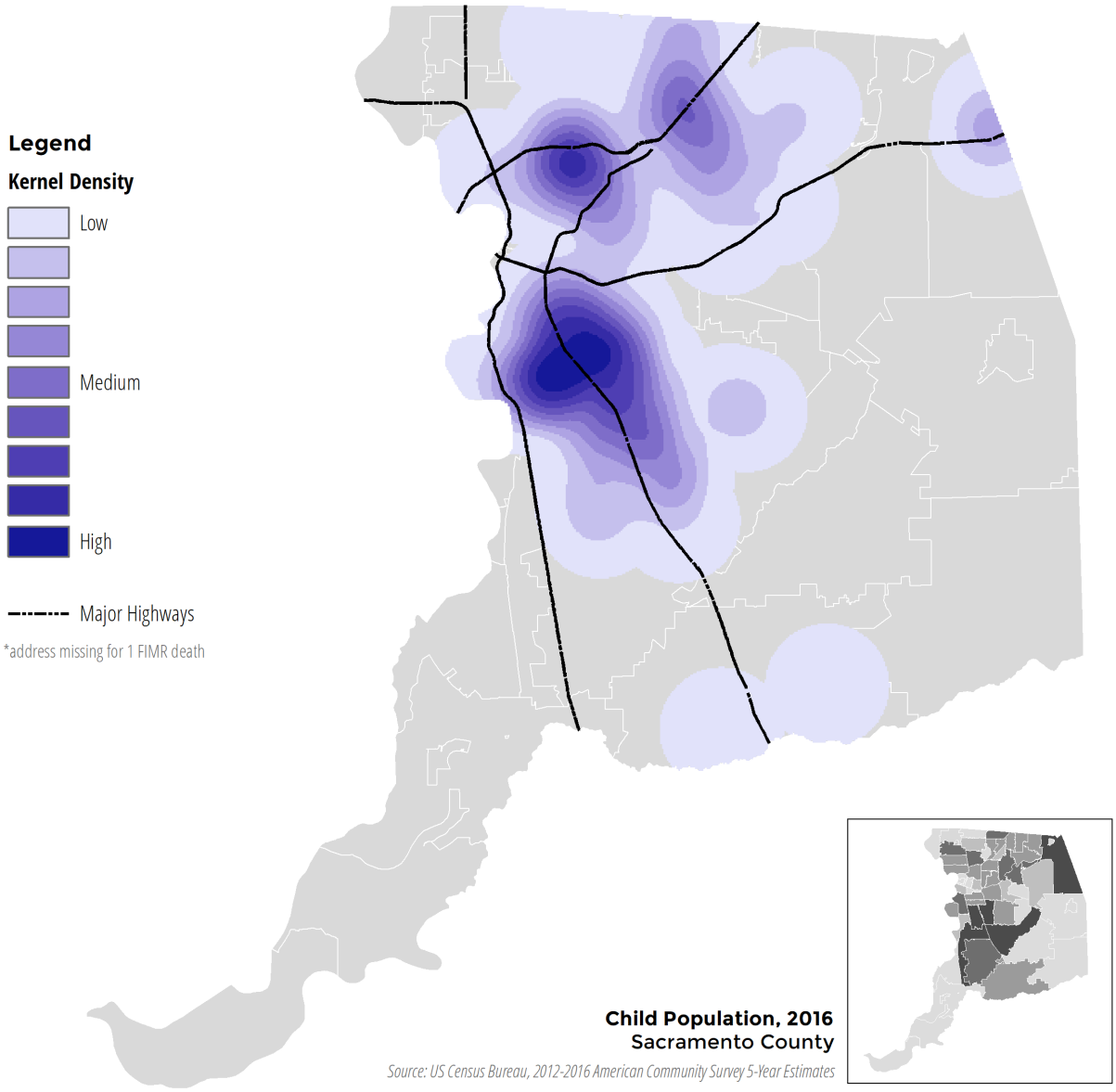


Table 33 shows FIMR cases and Reviewed cases in 2016.

Table 33 | FIMR Deaths by Infant/Fetal – Sacramento County Residents, 2016

FIMR Cases	FIMR Deaths	
Fetal Deaths (not included in CDRT data)	76	80%
Infant Deaths (included in CDRT data)	19	20%
Total FIMR Deaths	95	100%
Reviewed Cases	**55**	**58%**

Table 34 shows the demographic information for all FIMR Cases, where the information is known.

Table 34 | FIMR Deaths by Sex & Race – Sacramento County Residents, 2016

Category		Sacramento County Live Birth Population	FIMR Deaths	
Sex	Male	51%	51	54%
	Female	49%	42	44%
	Unknown/Ambiguous	<1%	2	2%
	Total	100%	95	100%
Race*	White	40%	31	34%
	Hispanic	26%	25	27%
	Asian/Pacific Islander	18%	17	18%
	Black/African American	9%	11	12%
	Multiracial/Other	6%	8	9%
	Total	100%	92	100%

*Race unavailable for three fetal-infant deaths in 2016; race for fetal deaths is Mother's race identified on the death certificates, and the race of infant deaths were obtained from death certificates.

Source: Birth Fact Sheet 2016 for Sacramento County, Department of Health Services, Division of Public Health. Birth Fact Sheet 2016 sites Sacramento County Birth Statistical Master Files, 2006-2016; Department of Finance Population Projections.

Mother's Health

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

While low, we continue to see that women with fetal and infant deaths have pre-pregnancy diabetes or hypertension at a higher percentage than that of new mothers in Sacramento County with the same pre-pregnancy conditions. See Table 35 for rates of diabetes, hypertension, and sexually transmitted infections in FIMR cases.

Table 35 | FIMR Deaths by Mother's Pre-Pregnancy Health Status – Sacramento County Residents, 2016

		FIMR Deaths				
Pre-Pregnancy Health Status	Sacramento County*	Yes		No		Source (n)
Pre-Pregnancy Diabetes	2.2%	9	10%	83	90%	92
Pre-existing Hypertension	4.2%	7	8%	85	92%	92
Sexually Transmitted Infection		3	3%	89	97%	92

*Percent of Sacramento County mothers with the conditions listed below.
Source: Maternal and Infant Health Assessment (MIHA) Survey Data Snapshots, 2013-2015. California Department of Public Health, 2018.

Table 36 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.[21]

- Sixty-seven percent of mothers who experienced a fetal death were overweight/obese prior to pregnancy, compared with 59 percent of Sacramento County mothers.

Table 36 | FIMR Deaths by Mother's Pre-Pregnancy BMI – Sacramento County Residents, 2016

BMI Classification	Sacramento County*	2015 Comparison	FIMR Deaths	
Underweight (<18.5)	3%	1%	2	4%
Healthy weight (18.5-24.9)	38%	40%	16	29%
Overweight/Obese (25.0+)	59%	59%	37	67%
Total FIMR Deaths	100%	100%	55	100%

*Percentages of Sacramento County female population excludes 609 mothers missing pre-pregnancy height and/or weight.
Source: Sacramento County Birth Statistical Master Files, 2016

[21] "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.

Past pregnancy outcomes can indicate a risk of future pregnancy complications. See Table 37 for information on prior pregnancies for FIMR cases in 2016.

- 22 percent had a prior fetal loss, similar to 23 percent in 2015
- 22 percent had a prior cesarean delivery, compared to 9 percent in 2015

Table 37 | FIMR Deaths by Mother's Prior Pregnancy/Birth History – Sacramento County Residents, 2016

Mother's Pregnancy/Birth History	FIMR Deaths		Source (n)
Prior fetal loss	19	22%	85
Prior cesarean delivery	11	22%	51
Prior therapeutic or spontaneous abortion	5	9%	55
Prior preterm delivery	6	7%	92
First pregnancy <18 years old	4	7%	55
More than four births	4	5%	85
Pregnancies <1 year apart	2	4%	55

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 38 shows that 31 percent of reviewed cases had at least one 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 38 | FIMR Deaths by Major Life Stressors During Pregnancy – Sacramento County Residents, 2016

	2015	2016		
During Pregnancy	Comparison	FIMR Deaths		Source (n)
Major life stressor	35%	17	31%	55

Note: Major life stressors include: lack of supportive friends/family; frequent moves/homelessness; job loss/unemployment; major illness; substandard housing/overcrowding; and cultural barriers to accessing care.

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.[22] Table 39 describes the prenatal care received in FIMR cases as well as specific problems associated with prenatal care.

- 69% of FIMR cases received prenatal care in the first trimester
  - 83% of Sacramento County mothers initiate care in the first trimester[23]

Table 39 | FIMR Deaths by Prenatal Care Status During Pregnancy – Sacramento County Residents, 2016

Prenatal Care Status During Pregnancy	2015 Comparison	2016 FIMR Deaths		2016 Source (n)
First trimester prenatal care	66%	58	69%	84
No, late, or inadequate prenatal care	34%	18	21%	84
Late prenatal care (5th month or later)	*22%*	*16*	*19%*	*84*
No prenatal care prior to fetal death	*13%*	*2*	*2%*	*84*
Missed prenatal care appointments	12%	2	4%	55
Multiple prenatal care providers	4%	-		55

Pregnancies can encounter a variety of complications that lead to fetal and infant death. Placental abruption, gestational diabetes, and pregnancy related infection are the most common complications in FIMR cases for 2016. See Table 40 for pregnancy complications in 2016.

Table 40 | FIMR Deaths by Pregnancy Complications – Sacramento County Residents, 2016

Pregnancy Complications	2015 Comparison	2016 FIMR Deaths		2016 Source (n)
Placental Abruption	16%	12	13%	91
Gestational Diabetes	14%	12	13%	92
Pregnancy Related Infection	27%	11	12%	92
Premature Rupture of Membranes	20%	10	11%	91
Incompetent Cervix	16%	6	11%	55
Umbilical Cord Problem	21%	8	9%	91
Congenital Anomalies	15%	2	4%	55
Intrauterine Growth Retardation	2%	3	3%	92
Placental Insufficiency	3%	-		51

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

Twins were more common among FIMR cases than Sacramento County births.[24] See Table 41 for more information on pregnancy and birth outcomes of FIMR cases.

Table 41 | FIMR Deaths by Plurality – Sacramento County Residents, 2016

Plurality	Child Population	2015 Comparison	2016 FIMR Deaths	
Singleton	97%	87%	85	89%
Twin	3%	13%	10	11%
Triplets	<1%	-	-	
Total FIMR Deaths	100%	100%	95	100%

Source: Sacramento County Public Health Birth Statistical Master Files, 2016

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.[25] Table 42 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 have been born abroad
- More likely to be younger than 18 or older than 35 years of age
- More likely to be employed

Table 42 | FIMR Deaths by Mother's Demographics – Sacramento County Residents, 2016

Mother's Demographics		Sacramento County*	2016 FIMR Deaths	
Country of origin	United States	68%	49	60%
	Abroad	32%	33	40%
	Total	100%	82	100%
Age at birth	<18 years	<1%	3	3%
	18-34 years	81%	62	71%
	35+ years	19%	22	25%
	Total	100%	87	100%
Employment	Employed	58%	39	67%
	Homemaker	42%	19	33%
	Total	100%	58	100%

*Percent of Sacramento County mothers who gave birth in the last 12 months.
Note: Data presented when available. Parent demographics are collected from death certificates, which are not always complete.
Source: Birth Fact Sheet 2016 for Sacramento County, Department of Health Services, Division of Public Health, Epidemiology Unit, Sacramento County Public Health Birth Statistical Master Files, 2016

[24] Births: Final Data for 2015; US DHS, National Vital Statistics Reports, Vol 55, No 1, January 5, 2017
[25] "Women's Health Care Physicians." Having a Baby After Age 35 - ACOG. American Congress of Obstetricians and Gynecologists, Sept. 2015.

Studies have shown that higher educational attainment was associated with lower rates of fetal death.[26] Table 43 and Table 44 show the educational attainment for instances of fetal death in 2016.

- Mothers are less likely to have any college education than are Sacramento County Mothers
- Fathers are less likely to have a college degree or higher than are Sacramento County Men

Table 43 | FIMR Deaths by Mother's Educational Attainment – Sacramento County Residents, 2016

Educational Attainment	Sacramento County*	2015 Comparison	2016 FIMR Deaths	
Less than high school	16%	15%	11	18%
High school diploma/equivalency	20%	41%	30	50%
Some college	23%	29%	10	17%
College degree or higher	40%	15%	9	15%
Total FIMR Deaths	100%	100%	60	100%

*Percent of Sacramento County Women.

Source: US Census Bureau, American Community Survey 2017

Table 44 | FIMR Deaths by Father's Educational Attainment – Sacramento County Residents, 2016

Educational Attainment	Sacramento County*	2015 Comparison	2016 FIMR Deaths	
Less than high school	16%	10%	10	17%
High school diploma/equivalency	22%	54%	28	47%
Some college	23%	24%	13	22%
College degree or higher	39%	12%	8	14%
Total FIMR Deaths	100%	100%	59	100%

*Percent of Sacramento County Men.

Source: US Census Bureau, American Community Survey 2017

[26] 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.

Family Risk Factors

In addition to 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 19 infant deaths prior to 23 weeks' gestation and 47 percent (36 of 76) of fetal cases, for a total of 55 reviewed cases.

Figure 32 below shows the percent of reviewed cases with family risk factors and Table 45 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.

- Government aid and Sacramento County CPS history are most common risk factors; the same as 2015.

Figure 32 | Reviewed FIMR Cases with Risk Factors Present – Sacramento County Residents, 2016

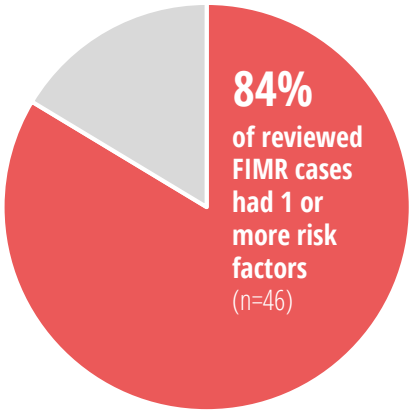


Table 45 | Reviewed FIMR Cases by Type of Risk Factors Present – Sacramento County Residents, 2016

Type of Risk Factor	2015 Comparison	Reviewed FIMR Cases	
Poverty	52%	34	62%
CPS Involvement	52%	23	42%
AOD use history	38%	15	27%
Crime	38%	11	20%
Mental health history	15%	4	7%
Gang involvement	4%	3	5%
Domestic violence	4%	2	4%
Total Reviewed FIMR Cases	*100%	55	100%

*(n=52)

Forty-two percent of cases have a CPS history in the family. Because the majority of FIMR deaths occur either before or shortly after birth, CPS cases and referrals refer to siblings or parents. See Table 46 for details on CPS history:

- 29% of FIMR cases have a parent with a CPS case or referral as a child.

Table 46 | Reviewed FIMR Cases by Risk Factor: CPS History **– Sacramento County Residents, 2016**

CPS Involvement	2015 Comparison	Reviewed FIMR Cases	
Any CPS History	52%	23	42%
Decedent History		*1*	*2%*
Sibling History	*25%*	*11*	*20%*
Parent History	*35%*	*16*	*29%*
Total Reviewed FIMR Cases	*100%	55	100%

*(n=52)

Table 47 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 20 percent is a conservative estimate for the number of reviewed FIMR cases with prenatal exposure. It is also important to note that fetal alcohol and drug exposure can be co-occurring.

Table 47 | Reviewed FIMR Cases by Risk Factor: Fetal AOD Exposure **– Sacramento County Residents, 2016**

Fetal AOD Exposure	2015 Comparison	Reviewed FIMR Cases	
Any Fetal AOD Exposure	19%	11	20%
Marijuana	*13%*	*6*	*11%*
Methamphetamines	*4%*	*4*	*7%*
Alcohol	*2%*	*2*	*4%*
Opioids	*2%*	*2*	*4%*
Ecstasy	-	*1*	*2%*
IV Drug Use	*4%*	*1*	*2%*
Total Reviewed FIMR Cases	*100%	55	100%

*(n=52)

In addition to the government aid information that was provided during case review, Table 48 shows Women Infant and Children (WIC) assistance during pregnancy and type of payment for delivery as indicated on the fetal death certificate.

Table 48 | FIMR Deaths by Risk Factor: Poverty **– Sacramento County Residents, 2016**

Government Program		2015 Comparison	FIMR Deaths	
Women, Infants, & Children (WIC)*	None during pregnancy	57%	31	60%
	Assistance during pregnancy	43%	21	40%
Total		100%	52	100%
Medi-Cal	Medi-Cal paid delivery	59%	35	64%
	Private insurance paid delivery	41%	20	36%
Total		100%	55	100%

*WIC data is only collected for fetal deaths.

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 birth defects.[27]. Table 49 shows the mothers' smoking history among fetal deaths.

- 3% of mothers for FIMR cases used tobacco during pregnancy, the same as Sacramento County mothers with live births (3%)[28].

Table 49 | FIMR Deaths by Risk Factor: Mother's Smoking History – Sacramento County Residents, 2016

Mother's Smoking History	2015 Comparison	2016 FIMR Deaths		2016 Source (n)
Before pregnancy	15%	3	5%	61
During pregnancy	10%	2	3%	61

[27] "Women's Health Care Physicians." Obesity and Pregnancy - ACOG. N.p., 2017. https://www.cdc.gov/reproductivehealth/maternalinfanthealth/tobaccousepregnancy/index.htm

[28] Birth Fact Sheet 2016 for Sacramento County, Epidemiology Unit, Division of Public Health, Department of Health Services.

Appendix A
Glossary

Abuse: 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.

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).*

> *Abuse | Death clearly due to abuse, supported by Coroner's reports or police or criminal investigations (e.g., homicide).*
>
> *Abuse-Related | Death secondary to documented abuse (e.g., suicide of a previously abused child).*
>
> *Neglect | Death clearly due to neglect, supported by the Coroner's reports or police or criminal investigations (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).*

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

Prenatal Substance Abuse-Related | Death secondary to known or probable prenatal substance abuse as supported by coroner reports (e.g., SIDS/SUIDS with known perinatal exposure to drugs).

Questionable Abuse/Neglect/Prenatal Substance Abuse | 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.

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 Child, Family and Adult Services. CPS investigates child abuse and neglect and provides services to keep children safe while strengthening families. CPS also trains foster parents, acts as an adoption agency, and licenses family daycare homes.

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

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

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

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

Domestic Abuse: Also called domestic violence, domestic abuse is violence against a spouse, cohabitant, fiancee, or other person with whom the abuser has a dating relationship, or someone formerly in any of these relationships. Types of violence includes: sexual assault; placing a person in reasonable

apprehension of being seriously injuried (threats); intentionally or recklessly causing or attempting physical injury.

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

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

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

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

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

Failure to Thrive: The abnormal retardation of growth and development of an infant resulting from conditions that interfere with nomal metabolism, appetite, and activity. Causes include illness, 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 their duty.

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.

Post Neonatal 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.

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 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.*

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
2016 Sacramento County Committee Members

Child Death Review Team

California Highway Patrol
Jenna Berry
Chad Hertzell

Citrus Heights Police Department
Vince Young
Deborah Bayer-Evans
Justin Stevenson
Michelle Drake

Elk Grove Police Department
Mark Bearer
Ryan Elmore, Sergeant

Kaiser Permanente
Melissa Arca, M.D.
Michele Evans, M.D., CDRT Vice Chair
Rebekah Pearson
Yaser Namvargolian, M.D.
Mitra Choudri, M.D.

Mercy San Juan Hospital/Dignity Health
Patti Gale
Diane Galati

Sacramento City Fire Department
Brian Pedro
Derek Parker
Trent Waechter

Sacramento County Behavioral Health
Melissa Jacobs, MSW

Sacramento County Coroner's Office
Jason Tovar, M.D.
Brian Nagao, M.D.
Joe Pestaner, M.D.
Kelly Kobylanski, M.D.

Sacramento County Department of Child, Family and Adult Services
Child Protective Services
Marian Kubiak, MSW, CDRT Chair
Susan Anderson, MSW
Lisa Boulger, MSW
Melanie Perez
Maysua Chervunkong, MSW

Sacramento County Department of Health Services
California Children's Services
Mary Jess Wilson, M.D., MPH, Medical Director
Hannah Awai, M.D.

Disease Control and Epidemiology
Jamie White, MPH

Maternal Child Adolescent Health
Quinn Wells
Kris Meier
Jackie Washington-Ansley, PHN
Leesa Hooks
Tsion Kidanie

Sacramento County District Attorney's Office
Chris Ore, JD
Maria Wilson, JD
Monica Robinson, JD

Sacramento County Metropolitan Fire Department
Clayton Elledge, Captain

Sacramento County Probation Department
Pamala Gilyard
Kelly Casteel

Sacramento County Sheriff's Department
Tony Saika
Aaron Marino
Garrett Lee
Stacy Waggoner
Matt Silva
Jeff Reinl
Jim Waters
Joe Clampoy
Heidi Hampton
Jeremy Workman
Ryan Johnson
Andrew Croley

Sacramento Police Department
Rudy Chan
Brad Werner

Sutter Health Sutter Medical Foundation
Angela Vickers M.D., CDRT Chair
Rebecca Stephens
Karen Kiyomura
Annie Lamy

University of California, Davis Medical Center
Mike Saxton, M.D.
Julia Magana, M.D.
Katie Long
Jennifer Chu-Smith
James Saxton
Nick Genaras
Rachael Heidt

Fetal Infant Mortality Review

California Highway Patrol
Chad Hertzel

Camellia Women's Health
Marvin Kamras, M.D.

Kaiser Permanente
Tia Will, M.D.
Matthew Garbedian, M.D.

Mercy San Juan Hospital/Dignity Health
Christy McMurray
Patti Gale

Planned Parenthood
Veronica Kaneyuki

Peach Tree Health
Aalia Al Barwani, M.D.
Shannon Read
Sarbjit Gill

River City Medical Group
Effie Ruggles

Sacramento County Coroner's Office
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Marian Kubiak, MSW
Lisa Boulger, MSW
Susan Anderson, MSW

Sacramento County Department of Health Services
California Children's Services
Mary Jess Wilson, M.D., MPH, Medical Director, FIMR Chair

Epidemiology and Disease Control
Jamie White, MPH

Maternal Child Adolescent Health
Olivia Kasirye, M.D., M.S., Medical Director
Jackie Washington-Ansley, PHN
Quinn Wells
Kris Meier, PHN

Sacramento County Probation Department
Kelly Casteel
Pamala Gilyard

Sutter Health Sutter Medical Foundation
Karen Kiyomura
Annie Lamy
Kristi Stranberg

University of California, Davis Medical Center
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Mike Saxton, M.D., FIMR Chair

WellSpace Health
Jo Taylor, M.D.
John Lovejoy, M.D.
Melissa Hill

Youth Death Review Subcommittee

California Highway Patrol
Jenna Berry
Chad Hertzell

Elk Grove Unified School District
Annette Stringer

Folsom Cordova Unified School District
Kerri Kaye

Twin Rivers Unified School District
Jane Claar

Galt Joint Union High School District
Kim Little

Kaiser Permanente
Michele Evans, MD, YDRS Chair

Natomas Unified School District
Lynn Carr
Amreek Singh

Robla Unified School District
Laurie Butler

Sacramento City Police Department
Brad Werner, Sergeant

Sacramento City Unified School District
Aliya Holmes

Sacramento County Behavioral Health
Matt Quinley
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Sacramento County Coroner's Office
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Susan Anderson, MSW

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Gladys Deloney, Deputy Director

Sacramento County District Attorney's Office
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Sacramento County Metropolitan Fire Department
Clayton Elledge, Captain

Sacramento County Probation Department
Pamala Gilyard
Kelly Casteel

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

San Juan Unified School District
Barry Turner
Kara McGuire
Lauri Hodge

Sutter Health Sutter Medical Foundation
Angela Vickers, M.D.

Twin Rivers Unified School District
Jane Claar
Tiffany Hunt
Ana Olazava Broadbent

University of California, Davis Medical Center
Julia Magana, M.D.
Mike Saxton, M.D.

Prevention Advisory Committee

Child Abuse Prevention Center
Sheila Boxley, CEO, Co-Chair

Kaiser Permanente
Michele Evans, M.D.

Safe Kids Sacramento
Jennifer Rubin

Sacramento County Behavioral Health
Melissa Jacobs, MSW

Sacramento County Coroner's Office
Jason Tovar, M.D.

Sacramento County Department of Child, Family and Adult Services
Child Protective Services
Stephanie Sellars, M.S.
Yvette Moore

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 Child, Family and Adult 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 Child, Family and Adult Services

- Child Protective Services

Sacramento County Department of Health Services

- California Children's 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 Child, Family and Adult Services**
  - a. Child Protective Services
- **III. Department of Health Services**
  - a. Epidemiology and Disease Control/ Maternal, Child and Adolescent Health
  - b. California Children's Services
  - c. Public Health Nursing
- **IV. District Attorney's Office**
- **V. 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
- **VI. 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 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: _____

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The production of this report was made possible through the Sacramento County Children's Trust Fund, administered by the Sacramento County Children's Coalition, and awarded to the Child Abuse Prevention Council of Sacramento.

Based upon the direction from the CDRT, FIMR, YDRS, and PAC, Jasmine Brosnan, Evaluation Project Manager, and Derek Slama, Collaboration Program Support, were responsible for data analysis, demographic descriptions, and the production of the document as it is presented here. LPC Consulting Associates, Inc. provided data visualization and technical assistance. Stephanie Biegler and Tali Palmrose of the Child Abuse Prevention Council of Sacramento provided overall staff supervision and report oversight.

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