KERN COUNTY 2017 Child Death Review Team and Fetal and Infant Mortality Review

Annual Report

About this report

This report highlights the trends in fetal, infant, and child deaths that occurred in Kern County during 2017 calendar year. Specifically, it:

- Presents an overview of the purpose and mission of the Kern County Child Death Review Team (CDRT) and the Fetal and Infant Mortality Review (FIMR)
- Reports the results of child death cases reviewed by CDRT and FIMR
- Tracks trends of child deaths using a five-year retrospective
- Outlines recommendations made by CDRT and FIMR for addressing the data trends

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Special Thanks

The members of the Child Death Review Team wish to thank the Kern County Board of Supervisors for their commitment to protecting our children and addressing Unsafe Infant Sleep practices in Kern County.

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A special thank you for the commitment and continued support from Kern County Public Health Services Department:

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Acknowledgements

The Kern County Child Death Review Team (CDRT) is made possible by the commitment of its members and their agencies, which pursue the answers to questions about preventable child deaths. Sincere appreciation and gratitude goes to the members and guests who participated in the 2017 reviews.

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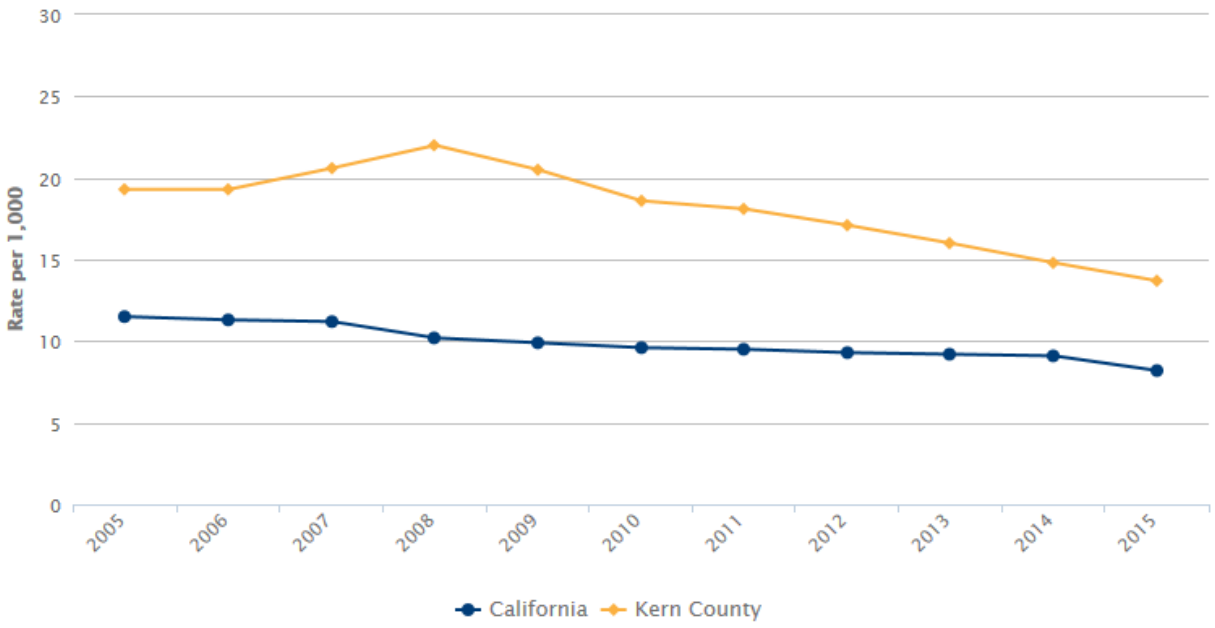
Mission

The mission of the Kern County Child Death Review Team (CDRT) is to reduce child deaths associated with child abuse and neglect. Its secondary mission is to reduce other preventable child deaths.

Competent multi-disciplinary case review at the local level serves the primary purpose of assisting in the investigation and management of individual child deaths. Identifying the causes and circumstances of these deaths helps to design strategies aimed at preventing child abuse and neglect. Development of these strategies raise knowledge and awareness, and produce systematic changes, thereby preventing further child deaths.

Rates of substantiated child abuse and neglect in Kern County are trending downward, but as of 2015, **county rates were nearly double that of California state rates**.

Substantiated Cases of Child Abuse and Neglect: 2005 to 2015



Definition: Number of substantiated cases of abuse and neglect per 1,000 children under age 18 (e.g., in 2015, there were 8.2 substantiated cases of abuse and neglect per 1,000 California children).

Data Source: As cited on kidsdata.org, Webster, D., et al. Child Welfare Services Reports for California, U.C. Berkeley Center for Social Services Research (Jun. 2016); Annie E. Casey Foundation, KIDS COUNT (Jul. 2016).

History

In 1988, the California legislature authorized each county to establish county Child Death Review Teams to assist in identifying and reviewing suspicious child deaths and facilitate communication among agencies involved in the prevention of, and intervention in, fatal child abuse and neglect. Since 1988, Kern County has conducted regular monthly meetings. The Kern County CDRT reviews and evaluates the deaths of children, from birth through 17 years of age, reported via the Kern County Sheriff-Coroner's Division. The team is composed of designated representatives from many county and community agencies.

Case Review Process

The CDRT receives and reviews Sheriff-Coroner's reports on child deaths in Kern County. Sending a list of cases to team members, in advance, allows time to search case files for additional information on the child and his or her family. Discussions at the meetings determine if the death was preventable, and what services, education, or action could have affected the outcome. The team closes or keeps open cases for further review and/or referral to other services, if needed.

At times, the CDRT will review cases where a child who dies in another county but is a resident of Kern County; however, Kern County may not have jurisdiction. For the following data in this report, only deaths that Kern County received jurisdiction for are analyzed.

In 2017, 50 cases out of 123 child deaths (under 18 years of age), that occurred in Kern County, were referred to the CDRT and have been included in this report, which covers deaths, deemed preventable by the county coroner's office, that occurred from January 2017 through December 2017. Data reflected in this report comes from both the Sheriff and the Coroner's reports and the supplemental information provided by team members. To protect the confidentiality of children and families, the CDRT presents only aggregate data.

Fatal Child Abuse and Neglect Surveillance Program (FCANS)

The Kern County CDRT is involved with FCANS through the Safe and Active Communities Branch at the California Department of Public Health. The FCANS program started in 1997 and was designed as an active surveillance system for child maltreatment deaths based on completion and submission of standard data collection by local CDRTs. The teams are paid a set amount for each eligible case submitted. The Kern County CDRT uses these monies to fund community projects such as, the Safe Sleep Project through Kern County Public Health Services Department.

KERN COUNTY 2017 Risk Factors and Existing Programs

Preventable Childhood Death—Risk Factors

Common Risk Factors of Fatal Child Abuse or Neglect[1]

- Child—Vulnerability
  - Less than 4 years old, male, prematurity/birth weight, illness/disability, colic, challenging behaviors, other siblings under 3 years of age
- Parental—Parental Capacity
  - Younger age, severe control problems, dependency conflicts, history of abuse/domestic violence, mental illness, jealousy or rejection by child, lack of parenting skills, inability to bond
- Household—Multifaceted Problems
  - Stressful major life event in past year (death, birth, job loss, move, etc.), less education, history of violence, lack of job skills, criminality, mobile/frequently move, current or prior contact with CPS, change in household composition, non-family members present
- Environmental—Confounding Issues
  - Living in poverty, high unemployment, increased crime rates, geographical locality, lack of support systems, multiple service providers involved over time, seen by physician following onset of abuse

Risk factors for Drownings[2]

- 1-2 year olds outside without adequate supervision.
- 1-2 year olds inside but with lapses in supervision, and breaches in barriers.
- 3-4 year olds often in or near the pool, perceived to be safer around water.

Risk factors for Motor Vehicle Accident Deaths[3]

- More 8-12 year olds found not buckled up.
- Driver of vehicle is intoxicated and the child found not buckled up.
- Restraint use among young children often depends on the driver's seat belt use.
- Child restraint systems misused or used incorrectly.

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[1] Hughes, K. & Pence-Wilson, D., 2012. Child Maltreatment Fatalities—Risk Factors and Lessons Learned. doi:10.1.1.688.6439

[2] Agran, P., Winn, D., McDonald, J., 2011. Patterns of Drowning Among Young Children: Implications for Prevention. California Chapter 4, American Academy of Pediatrics. Presentation at the 2011 National Conference & Exhibition, Boston Massachusetts. Retrieved, August 20, 2018 from https://www.aap-oc.org/wp-content/uploads/2015/03/NCE-2011-Drowning-Poster-Presentation.pdf

[3] Centers for Disease Control and Prevention, 2018. Child Passenger Safety: Get the Facts, Risk Factors. Retrieved, August 20, 2018 from https://www.cdc.gov/motorvehiclesafety/child_passenger_safety/cps-factsheet.html

Risk factors for Sudden Unexpected Infant Death[4]

- Maternal age: the infants of 15-19 year old mothers are at highest risk, while the infants of mothers 35 years and older are at the lowest risk for unexpected death
- Marital status of the mother: Infants of unmarried mothers are at highest risk
- Sex of the Child: Males are at an increased risk versus females
- Race/Ethnicity of the Mother: Infants of American Indian/Alaska Native and Black/African American mothers are at higher risk
- Country of Birth Mother: Infants of mothers born in the United States of American are at a higher risk than mothers born elsewhere

Risk factors for Teenage Suicide[5]

- Depression or other psychological illness
- Drug and alcohol use
- Parental Separation or Divorce
- Economic status
- Race
- Suicidal ideation
- Poor self-esteem
- Distress
- Poor coping mechanisms (particularly in regards to recent relationship issues)
- Sexual orientation
- Victimization
- Lack of social connection and support
- Bullying

[4] Healthy People 2020, 2018. Maternal, Infant, and Child Health, MICH-1.9 Reduce the rate of infant deaths from sudden unexpected infant deaths (includes SIDS, Unknown Cause, Accidental Suffocation, and Strangulation in Bed). Retrieved, August 20, 2018 from https://www.healthypeople.gov/2020/data-search/Search-the-Data#objid=4831

[5] Murphy, K., 2006. What can you do to prevent teen suicide? *Nursing. 35*. 43-5. Doi:10.1097/001521

Current Successful Kern County Programs Aimed at Reducing Preventable Childhood Deaths

Black Infant Health—A free, voluntary, evidence-based program aims to improve health among African American mothers and babies and to reduce the Black: White disparities by empowering pregnant and mothering African American women to make healthy choices for themselves, their families, and their communities. The program includes prenatal and postpartum educational intervention group sessions, culturally sensitive case management, support of early and continuous prenatal care, linkages to related community resources and services, and advocacy of timely immunizations and well-baby check-up exams being up-to-date.

Nurse-Family Partnership—A voluntary, evidence-based program to help new mothers (with low to moderate income and eligible for Medi-Cal or Emergency Medi-Cal) develop skills to take better care of themselves and their babies. Participants have their own specially trained Public Health Nurse who makes home visits during pregnancy and throughout the first two years of the child's life.

Safe Kids—Kern County participates in the Safe Kids Worldwide campaign. Safe Kids hosts car seat inspection events across the country where certified technicians can help parents and caregivers learn to install a car seat properly.

Safe Sleep Coalition—A newly formed coalition of organizations from around Kern County, working together to create a universal safe sleep message and provide education and opportunities to prevent the number one preventable killer of infants in Kern County. In December of 2017, the Safe Sleep Coalition donated educational books to hospitals and other groups that serve parents of newborns. Many organizations involved in the coalition work to provide safe sleep spaces (i.e. pack-n-plays and sleepy baby boxes) to families in need.

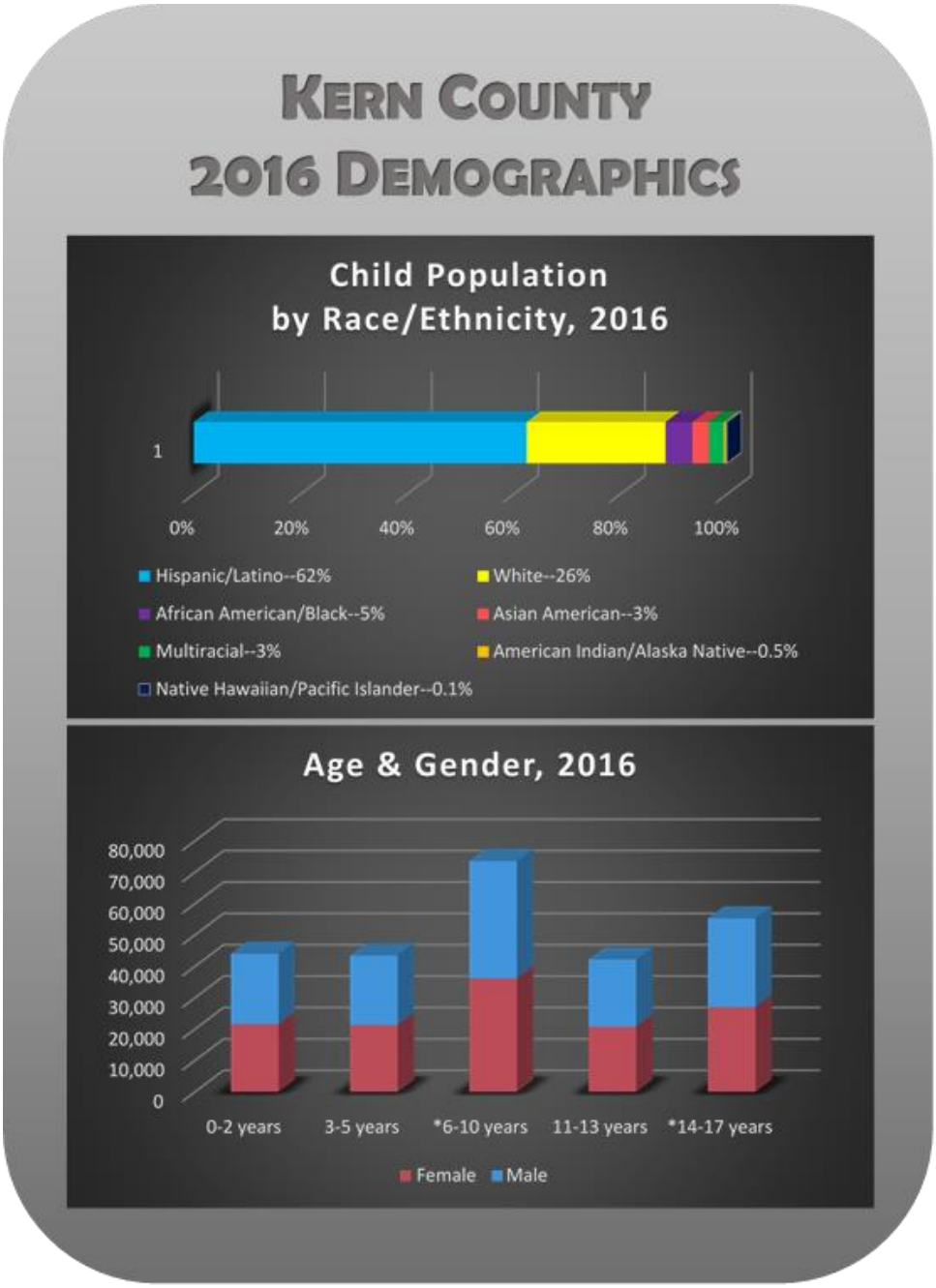
Safer Sleep Education Project—This project program provides parents and caregivers one-on-one education on SIDS/SUID prevention practices and a safe sleep environment. Public Health Nurses (PHNs) and Public Health Aides (PHAs) provide the safer sleep education and SIDS risk reduction. The staff evaluates the child's current sleep environment and administers a pre-test before educating caregivers, and a post-test to measure understanding of the education program. The staff will make an unannounced follow-up home visit to evaluate appropriate use of the pack-and-play and maintenance of safer sleeping practices. Criteria are followed to determine who is eligible to receive pack-and-plays or gift cards. The program served 111 clients in 2017.

Water Watchers—A Water Watcher is a responsible adult who agrees to watch the kids in the water without distractions and wear a Water Watcher card. After a certain amount of time (i.e. 15 minutes), the Water Watcher card is passed to another adult, who is responsible for the active supervision. Cards are available at the Public Health Department or users can print them from home.

KERN COUNTY 2017 Child Death Review Team Data

Demographics

Figure 1. Child Demographics in Kern County



Kern County is a large and diverse geographic region of California, comprised largely of agricultural-based communities and a number of regions under urban development. In addition, there are several rural and frontier communities. According to the U.S. Census Bureau, roughly 45% of Kern County households have child residents.[6] As of 2016, there are an estimated 258,383 children of ages 0-17 residing in Kern County.[7] The vast majority of the child population in Kern County identifies as Hispanic/Latino (62.5%) and Caucasian/White (26%).[8] Compared to California as a whole, the Hispanic/Latino child population is 10% greater in Kern County. The largest child age group across both genders is the 6-10 year old age group (28.5%), most likely due to the broader age category. The male-to-female ratio among children is approximately equal. Refer to the infographic above for further demographic information.

[6] U.S. Census Bureau, American Community Survey (July 2017).
[7] California Dept. of Finance, Race/Ethnic Population with Age and Sex Detail, 1990-1999, 2000-2010, 2010-2060 (May 2016).
[8] Lucile Packard Foundation for Children's Health, Child Population Data by Demographic (2016).

Manner of Death

Manner of death is a set of categories by which we classify deaths as intentional, unintentional, natural, or undetermined. California law requires that all suspicious, violent, and unexpected (decedent was not seen by a physician 20 days prior to death) deaths be reported to the Coroner's Office. The Coroner is then responsible for determining the circumstances, manner, and cause of these deaths.

Accidental/Unintentional – These deaths are the result of unintentional injury. Examining these cases allows CDRT to identify prevention strategies to deter future injuries.

Natural – Natural deaths are from disease or other medical conditions other than injury. CDRT surveillance of deaths from natural causes helps inform support programs that focus on maternal and prenatal health, well-child exams, immunizations, and health screenings.

Homicide – Homicide, by Coroner's definition, is death at the hands of another.

Suicide – Death caused by self-directed injurious behavior with intent of self-harm.

Undetermined – Undetermined deaths reflect situations in which the Coroner is unable to determine a conclusive manner of death. This can result from insufficient or conflicting information. In particular, Kern CDRT reviews many deaths that occur in an unsafe sleep environment; often, the manner in these deaths is undetermined.

Pending – Pending cases are still under investigation, and awaiting critical information to proceed. These cases are included in the total count, but excluded from data and figures represented in this report.

Manner of Death 2017 Data

Figure 2.1. Manner of Preventable Deaths, 2017

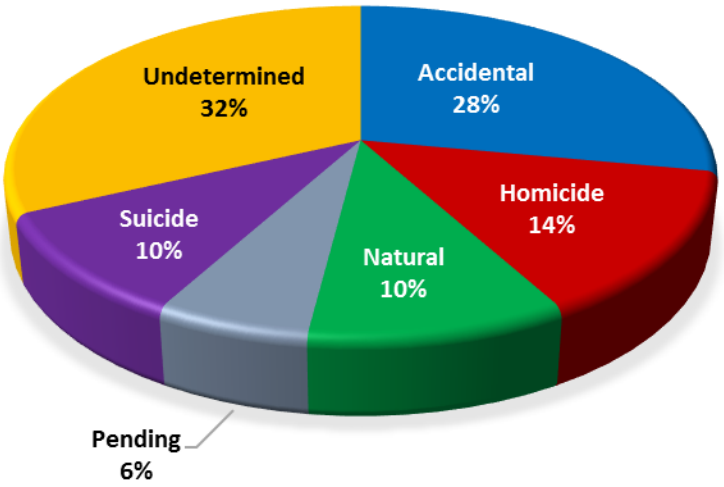


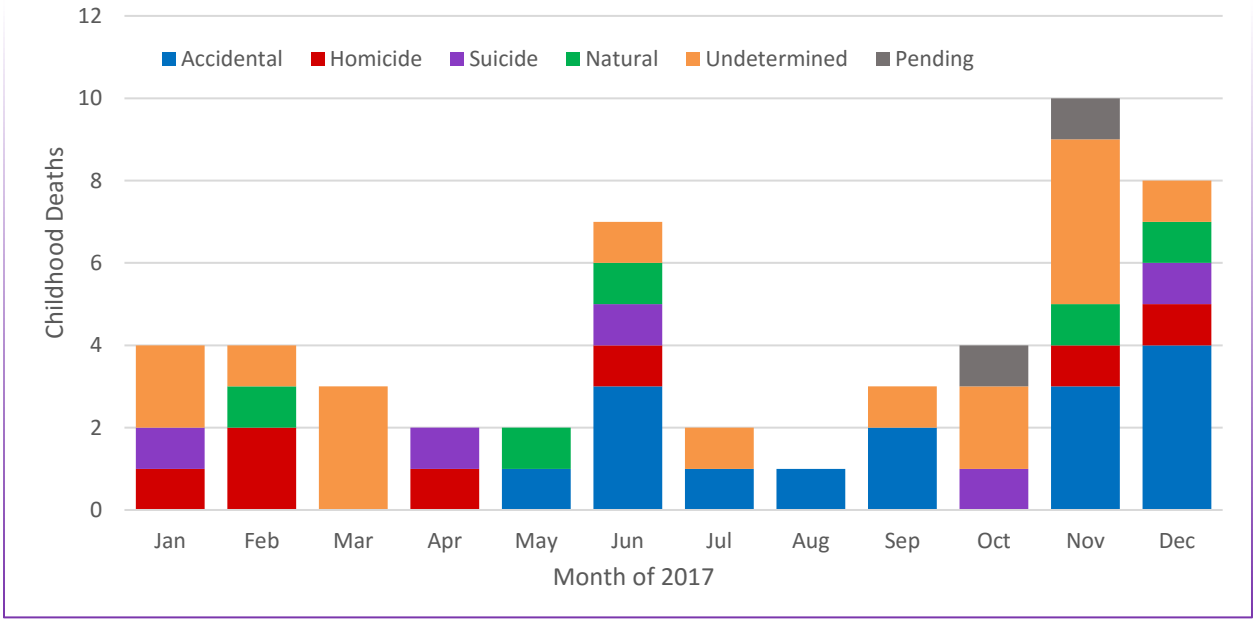
Table 1. Manner of Preventable Deaths, 2017

2017 Manner of Death	Number of Deaths
Accidental	14
Homicide	7
Natural	5
Suicide	5
Undetermined	16
Pending (Unavailable at time of report)	3
Total	**50**

Key Takeaways

Undetermined and accidental deaths constituted more than half of all childhood deaths reviewed by the CDRT in Kern County in 2017. There were three months in 2017 in which half of all the preventable deaths occurred: June, November and December. There were eight accidental deaths from May through September, and seven in November and December alone. March and November were the leading months in 2017 for undetermined deaths.

Figure 2.2. Manner of Preventable Deaths by Month, 2017



Cause of Death

The cause of death is the actual mechanism producing the child's death; it must be distinguished from the manner of death as these terms are often confused. For instance, if homicide is the manner of death, then possible causes of death under homicide may include head trauma, gunshot wound, suffocation, poisoning, etc. Each cause of death for cases reviewed in 2017 by CDRT are addressed in Table 2 below.

Table 2. Cause of Preventable Deaths, 2017

Manner of Death	**Cause of Death**	**Number of Deaths**
Accidental		***14***
	Blunt force trauma	7
	Drowning	7
Homicide		***7***
	Multiple Injuries	1
	Blunt force Head Trauma	1
	Shotgun wound to the chest	1
	Gunshot wound to the back	1
	Multiple gunshot wounds	1
	Manual Strangulation	1
	Acute Neck Compression	1
Natural		***5***
	Various[1]	5
Suicide		***5***
	Hanging	2
	Blunt Force Head and Chest Trauma	1
	Acute Hydrocodone Intoxication	1
	Multiple Blunt Force Trauma	1
Undetermined		***16***
	Undetermined	1
	Sudden Unexpected Infant Death (SUID)	10
	SUID Contributing: Unsafe Sleep Environment (USE)	2
	SUID Contributing: Prematurity	1
	SUID Contributing: Hypocaloric Malnutrition	1
	Sudden Unexpected Toddler Death (SUTD) Contributing: Acute Viral Laryngitis	1
Pending[2]		***3***
Total		***50***

[1] Includes: Small intestine obstruction, cardiopulmonary arrest, stillborn term infant, pulmonary hemorrhage, and complications of hemolymphangioma of mouth and throat.

[2] Cause and Manner of death for three cases were not available at the time of this report.

2017 Accidental/Unintentional Injuries

Figure 3.1. Accidental Deaths: MVAs, 2017

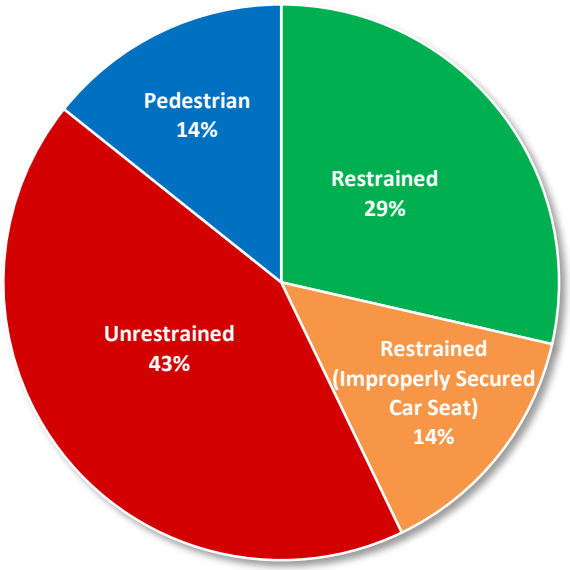


Figure 3.2. Accidental Deaths: Drownings, 2017

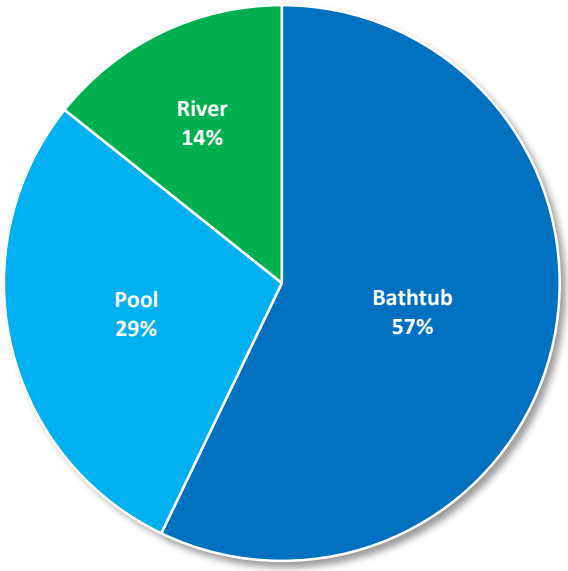


Table 3. Accidental Deaths, 2017

Type of Unintentional Injury	Number of Deaths
Blunt Force Trauma	7
Drowning	7
Pending	1
Total	**15**

Key Takeaways

Blunt force trauma and drowning were the main causes of accidental death in children ages 0-17 within Kern County in 2017; this has remained consistent within the county since 2014. The blunt force trauma occurred via motor vehicle accidents (MVAs); three of the children were restrained (one with the car seat improperly secured), three were unrestrained and one was a pedestrian. Four drownings occurred in the bathtub, two in a pool, and one in the river. The cause of one accidental death was still pending at the time of this report.

Reviewed 2017 Child Deaths by Age Group

Figure 4.1. Preventable Deaths by Age, 2017

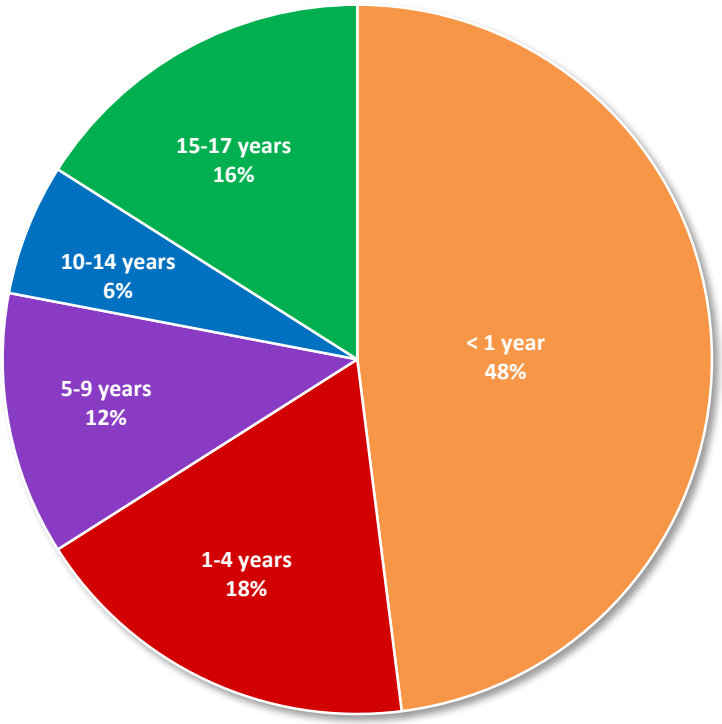


Figure 4.2. Age of Preventable Deaths by Month, 2017

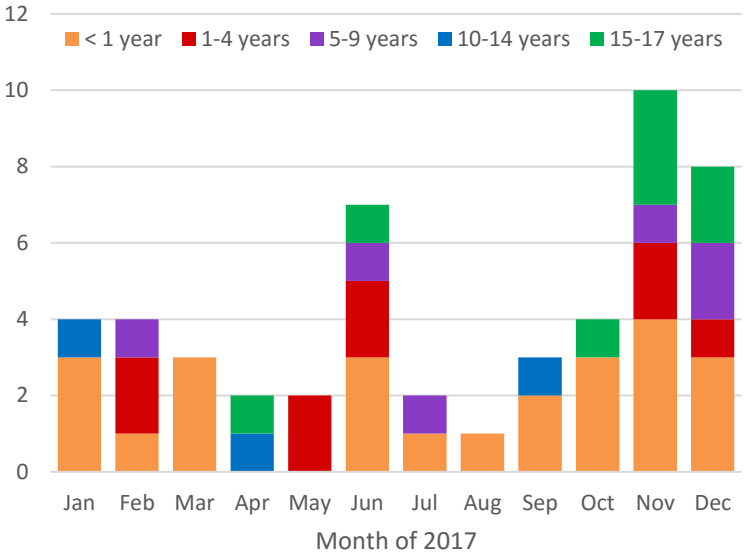


Table 4. Preventable Deaths by Age

2017: Age	Number of Deaths
< 1 year	24
1-4 years	9
5-9 years	6
10-14 years	3
15-17 years	8
Total	**50**

2016: Age	Number of Deaths
< 1 year	14
1-4 years	6
5-9 years	4
10-14 years	8
15-17 years	10
Total	**42**

Key Takeaways

In 2017, the CDRT reviewed 50 cases of preventable childhood deaths, which was an increase of almost 20%. The team found that preventable deaths of children under 1 year of age, 1-4 year olds, and 5-9 year olds, each increased by at least 50%, compared to 2016. Preventable deaths in the 10-14 year old age group were a third of what they were the previous year, and deaths in the 15-17 year old age group went down by a fifth. Half of all the deaths, reviewed by the CDRT occurred in June, November, and December of 2017.

Child Deaths Reviewed by Age and Cause

Children Less Than 1 Year of Age

Figure 5. Preventable Deaths: Less than 1 Year of Age, 2017

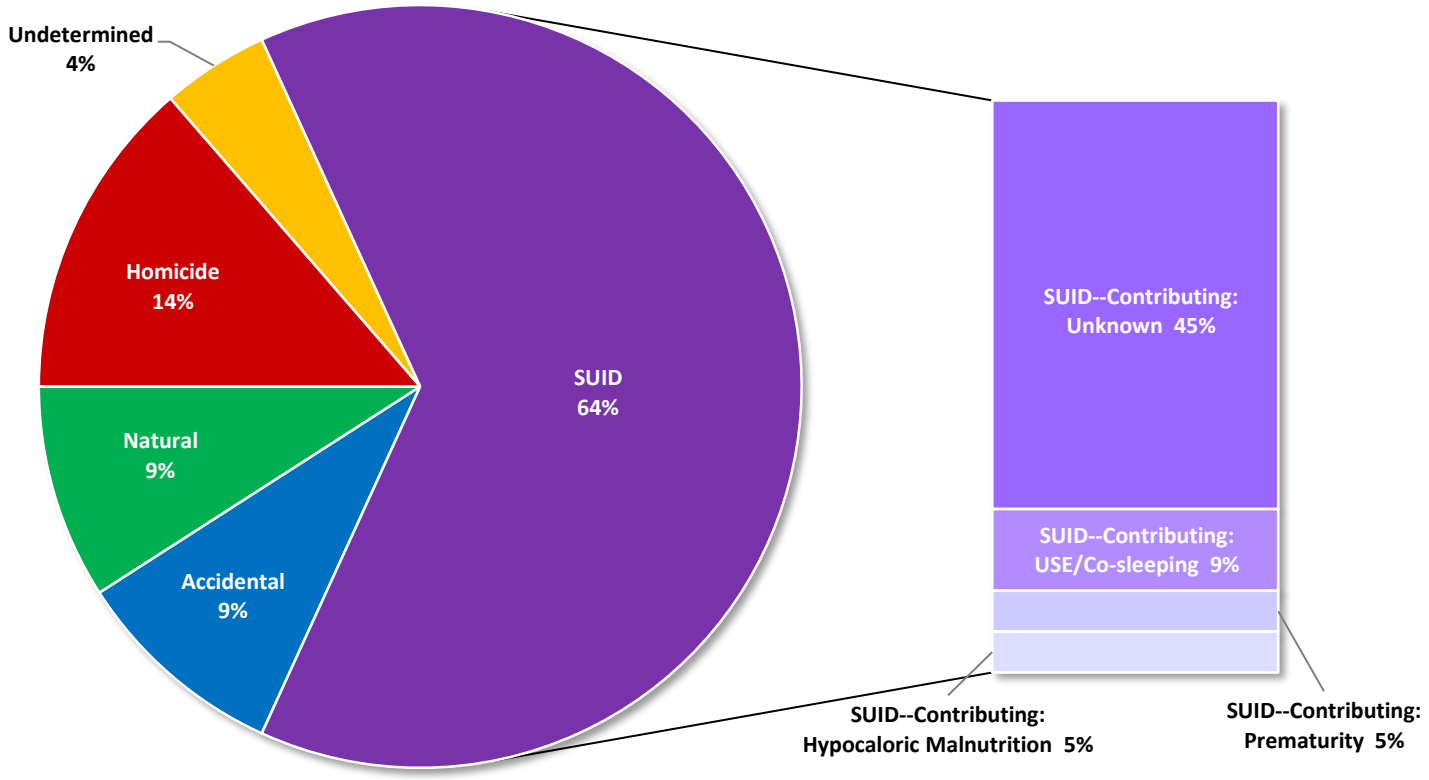


Table 5. Preventable Deaths: Less than 1 Year of Age, 2017

Manner of Death	Cause of Death	Number
Accidental		**3**
	Drowning	2
	Pending	1
Natural		**2**
	Stillborn Term Infant	1
	Pulmonary Hemorrhage	1
Homicide		**3**
	Various*	3
Undetermined		**15**
	Undetermined	1
SUID	Contributing: Unknown	10
	Contributing: USE/Co-sleeping	2
	Contributing: Prematurity	1
	Contributing: Hypocaloric Malnutrition	1
Pending		**1**
Total		**24**

Key Takeaways

This age group bore close to half of the preventable child death cases in 2017. The most common manner of death for children under the age of one, in Kern County, was Sudden Unexpected Infant Death, the bulk of which bore no contributing factors. Homicides in this age group saw an unexpected rise in comparison to the last four years: In 2016, there were no homicides, in 2015 and 2014 there was one homicide each year, and in 2013, there were two homicides; an average of one homicide per year over the previous four years.

Child Deaths Reviewed by Age and Cause

Children 1-4 Years of Age

Figure 6. Preventable Deaths: 1-4 Years, 2017

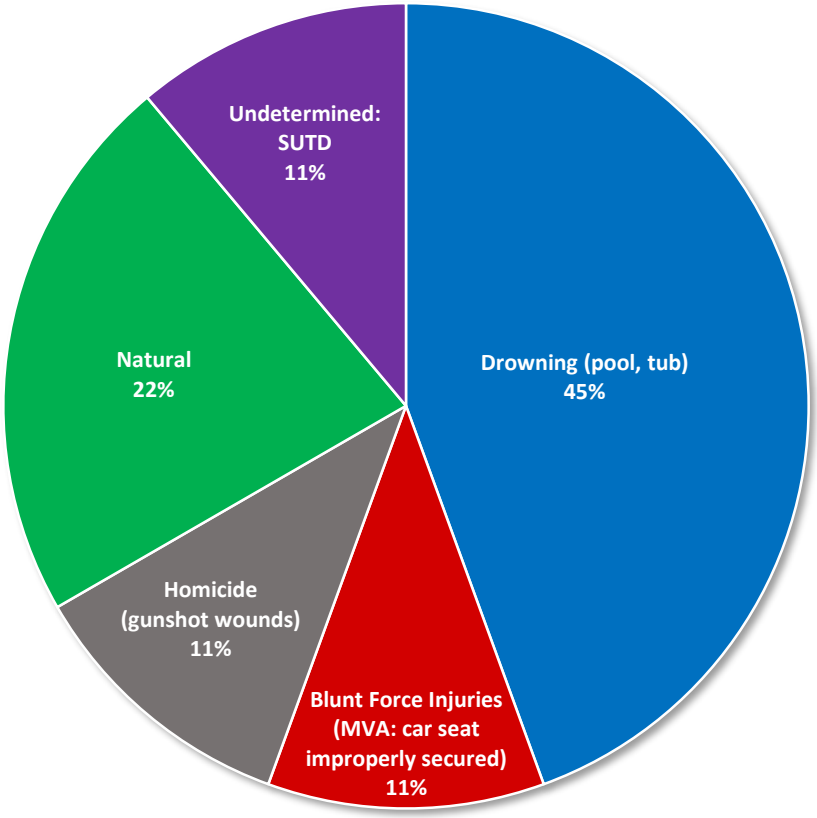


Table 6. Preventable Deaths: 1-4 Years, 2017

Manner of Death	Cause of Death	Number of Deaths
Accidental		**5**
	Drowning	4
	Blunt Force Injuries (MVA: Improperly Secured Car Seat)	1
Homicide		**1**
	Gunshot Wounds	1
Natural		**2**
	Various	2
Undetermined		**1**
SUTD	Contributing: Acute Viral Laryngitis	1
Total		**9**

Key Takeaways

In 2017, water caused almost half of the preventable deaths of children, ages 1-4, in Kern County. Two of those deaths occurred in bathtubs and two in pools.

Child Deaths Reviewed by Age and Cause

Children 5-9 Years of Age

Figure 7. Preventable Deaths: 5-9 Years, 2017

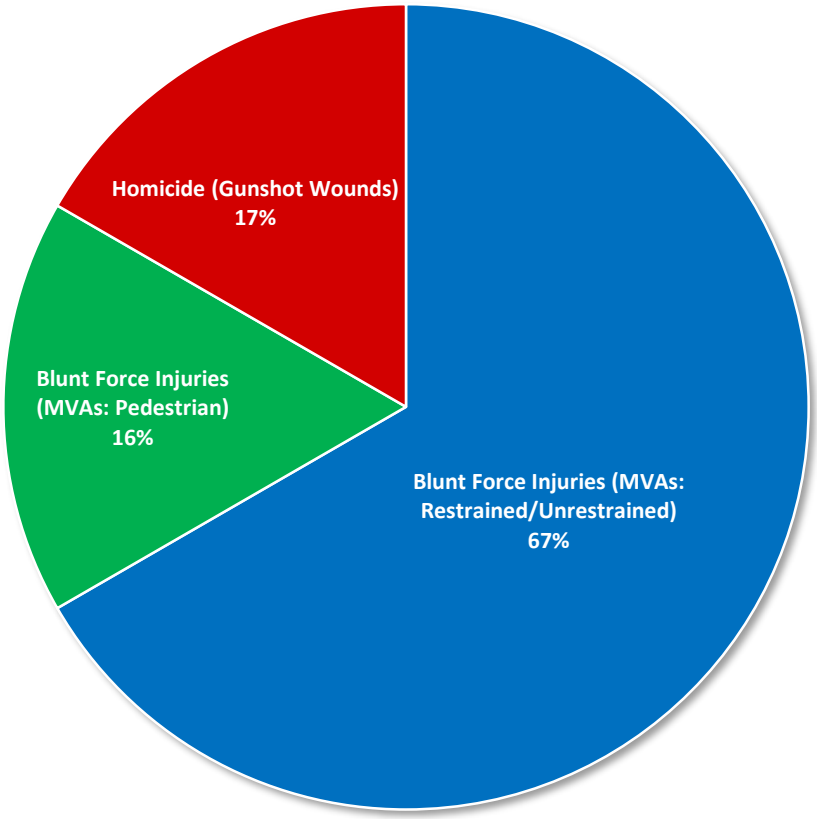


Table 7. Preventable Deaths: 5-9 Years, 2017

Manner of Death	Cause of Death	Number of Deaths
Accidental		**5**
	Blunt Injuries (MVA: Pedestrian)	1
	Blunt Injuries (MVA: Unrestrained)	2
	Blunt Injuries (MVA: Restrained)	2
Homicide		**1**
	Gunshot Wounds	1
Total		**6**

Key Takeaways

The majority of childhood deaths in the 5-9 year old age group in 2017 occurred due to vehicular accidents. Restrained and unrestrained childhood deaths were equally represented. One child was a pedestrian.

Child Deaths Reviewed by Age and Cause

Children 10-14 Years of Age

Figure 8. Preventable Deaths: 10-14 Years, 2017

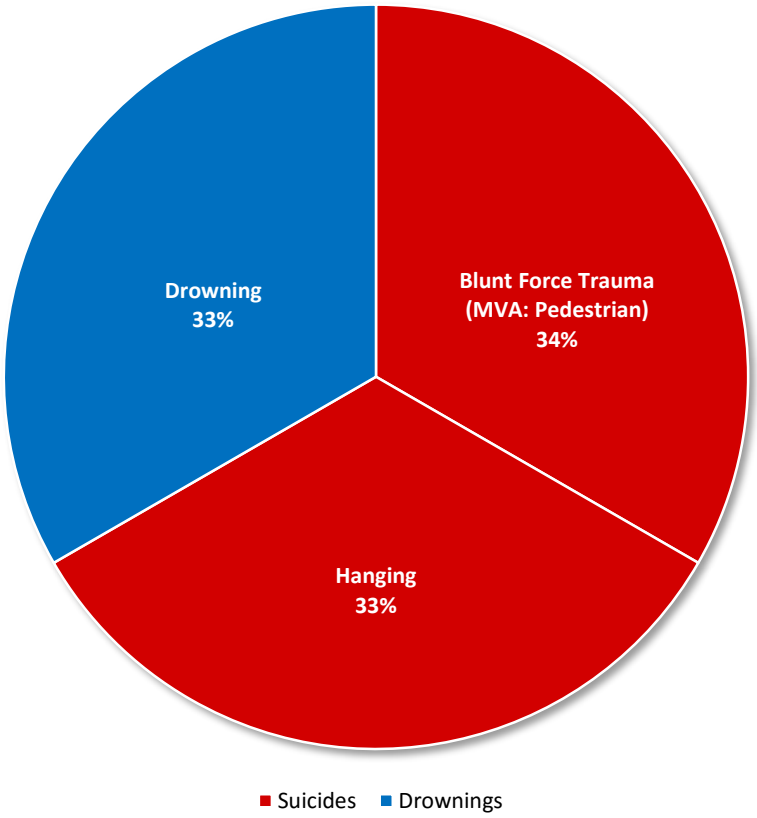


Table 8. Preventable Deaths: 10-14 Years, 2017

Manner of Death	Cause of Death	Number of Deaths
Accidental		**1**
	Drowning (River)	1
Suicide		**2**
	Hanging	1
	Multiple Blunt Force Trauma (MVA: Pedestrian)	1
Total		**3**

Key Takeaways

Suicide rates have risen to be the leading manner of preventable death in 10-14 year olds, in Kern County, when compared to the previous four years.

Child Deaths Reviewed by Age and Cause

Children 15-17 Years of Age

Figure 9. Preventable Deaths: 15-17 Years, 2017

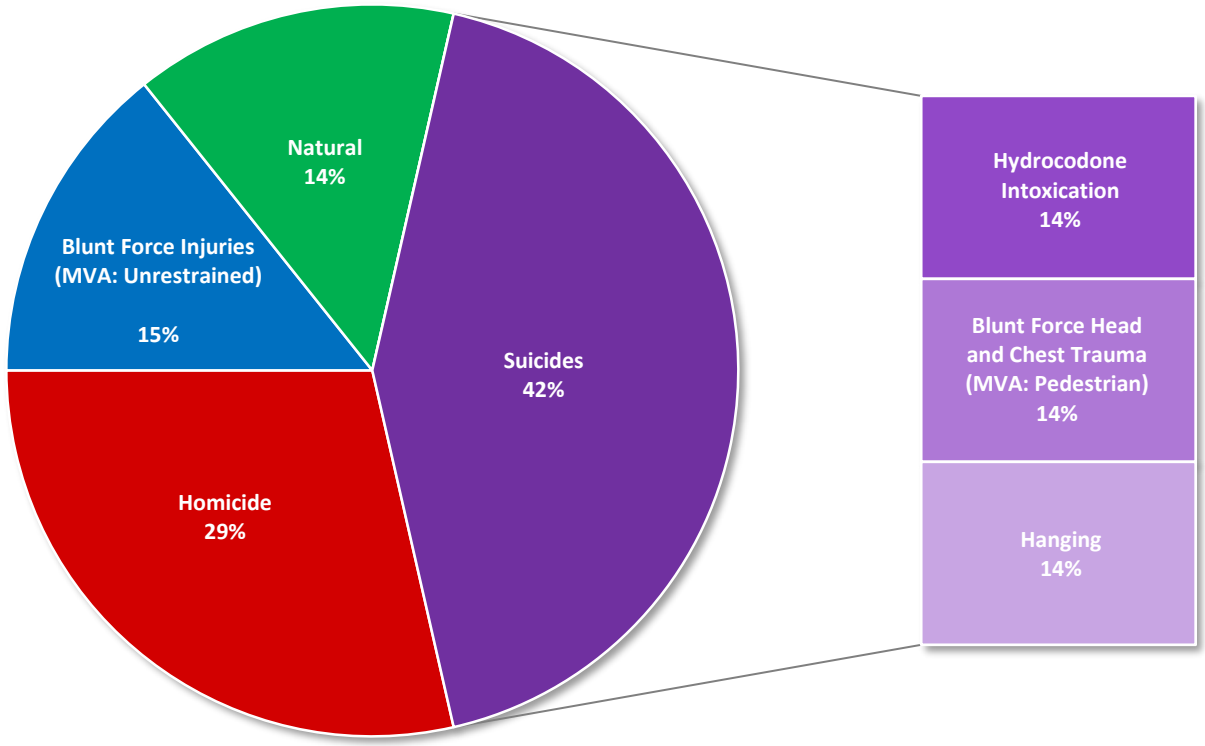


Table 9. Preventable Deaths: 15-17 Years, 2017

Manner of Death	Cause of Death	Number of Deaths
Accidental		**1**
	Blunt Force Injuries (MVA: Unrestrained)	1
Natural		**1**
	Hemolyphangioma of Mouth and Throat	1
Homicide		**2**
	Manual Strangulation	1
	Shotgun Wound to Chest	1
Suicide		**3**
	Hanging	1
	Blunt Force Head and Chest Trauma (MVA: Pedestrian)	1
	Acute Hydrocodone Intoxication	1
Pending		**1**
Total		**8**

Key Takeaways

In the 15-17 year old age group, accidental deaths have dropped since 2015 and 2016, yet suicides and homicides have remained consistent. These two categories represent nearly three quarters of all preventable childhood deaths in the 15-17 years of age group, with suicides being the most significant manner of preventable death in this age group.

KERN COUNTY

2017 Fetal Infant Mortality Review Annual Report

Fetal Infant Mortality Review

Acknowledgements

The Kern County Fetal Infant Mortality Review is made possible by the commitment of its members and their agencies, which pursue the answers to questions about preventable fetal and infant deaths. Sincere appreciation and gratitude goes to the members and guests who participated in the 2017 reviews.

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- Valdez, Elida

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Kern Medical Center
- Hoburn, Monette

FIMR Panel Mission

Fetal Infant Mortality Review (FIMR) is an evidence-based process to examine fetal and infant deaths. It is community based and action oriented with the aim of improving services to women, infants and families and reducing infant mortality. The purpose of FIMR is to look at the losses in the community and examine social, health, economic, and safety issues that affect families and how community resources and local service systems respond to their needs. There are some factors that contribute to fetal and infant deaths cannot be changed with what is currently available; there are still many issues that can be addressed during the reviews. With a comprehensive review of these deaths, we can come to understand how and why our children die and utilize the findings to take action. This will improve the delivery of our health care system, improving the health and safety of our families.

Fetal Infant Mortality Review and Child Death Review are similar in many ways. Both use multidisciplinary review teams to review childhood deaths with the aim of preventing future deaths. Both teams identify gaps in services and look for better ways to deliver those services to women, children and families in our community. The professionals and paraprofessionals that make up the panel represent various agencies and programs from the community that are involved in the delivery of services to our families. There are members on the panel representing Clinica Sierra Vista, Public Health, obstetricians in private practice, HealthNet, and Kern Health Systems.

FIMR Background

The California Fetal Infant Mortality Review (FIMR) program was created in 1991 using a Federal Title V block grant. Kern County became one of 11 counties to contract with the California Department of Health Services, Maternal Child Adolescent Health Branch to establish and facilitate a local FIMR program. There are now 16 FIMR programs and 56 Child Death Review Teams (CDRT) in California. In Kern County, the CDRT Chair sits on the FIMR panel and the FIMR Coordinator and Perinatal Investigator sit on the CDRT panel.

Types of Deaths Reviewed

A **fetal demise** occurs after 20 weeks of pregnancy, the weight is over 500 grams and the child did not draw a breath. Sometimes these types of death are referred to as stillbirths. According to the March of Dimes, “stillbirth affects about 1 in 100 pregnancies each year in the United States” (March of Dimes, 2018. *Stillbirth, What is stillbirth?* https://www.marchofdimes.org/complications/stillbirth.aspx). In most cases, there are no known causes, leaving the families without answers for these deaths.

A **neonatal death** is a child who was born and lived until the 27th day of life. They can live for a few minutes or up through the entire 27 days of life.

FIMR Process

The Perinatal Investigator receives death certificates on a regular basis from Vital Statistics. These death certificates are for fetal demises (over 500 grams, over 20 weeks gestational age, and never took a breath), neonatal deaths (birth through 27 days), and post neonatal deaths (28 days up to 1 year of age). The Investigator then decides which cases to present to the panel. The priority cases are Black/African American, teenage parents and Sudden Infant Death Syndrome (SIDS) cases, and includes syphilis cases.

Record reviews come from a variety of sources; these are typically medical records, prenatal records, pediatric records, Vital Statistics, Public Health Nursing, social services agencies and the Coroner's office.

The maternal interview is another key to the FIMR process. Observing how the mother/family viewed her care during and after the pregnancy and giving the family a voice in the process can be invaluable.

The Perinatal Investigator prepares a de-identified case for the panel using the information from the record review and maternal interview. When the cases are prepared, the cases are then presented to the panel and problems are identified, recommendations are made, and panel members are assigned interventions that address the problems that were identified.

Issues/Findings of past FIMR years

- Cause of death (wording on death certificates)
- Sudden Unexpected Infant Death (unsafe sleep environments)
- Lack of grief support
- Lack of postpartum depression treatment
- Late or no prenatal care
- Tobacco use
- Perinatal substance abuse
- Mental Health issues: depression, suicide attempts, schizophrenia, bi polar, etc.
- Domestic violence
- Homelessness
- 5 or more pregnancies
- Language issues

FIMR 2017 Annual Report Findings

FIMR Findings

The FIMR panel reviewed 17 fetal demises and 13 neonatal deaths during the 2017 calendar year, for 30 total cases. FIMR reports to the state of California on a fiscal year basis (July 1, 2016 through June 30, 2017); 25 cases were reviewed and reported for fiscal year 2017. The CDRT primarily reviews the SIDS/SUID cases, and keeps the FIMR panel updated on the issues that are found with those cases. FIMR may conduct interventions as they see fit.

Figure 10. FIMR Maternal Care Payment Sources

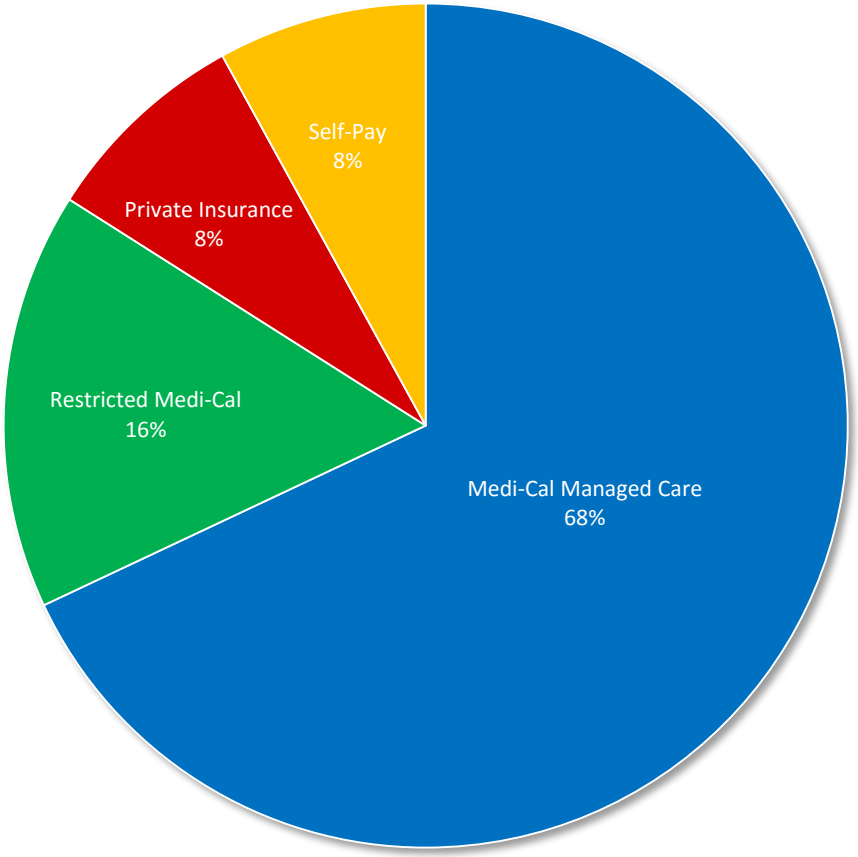


Table 10. FIMR Payment Sources

Payment Source	Number of Cases
Medi-Cal Managed Care	22
Restricted Medi-Cal	4
Private Insurance	2
Self-Pay	2
Total	**30**

Key Takeaways

The majority of deaths reviewed in 2017 used Medi-Cal Managed Care (22 cases); in 2016 there were 20. FIMR continues to collaborate with the Managed Care programs in an effort to affect and improve on the delivery of services currently being received by the women and children in the community.

FIMR 2017 Annual Report Findings

Cases Involving Substance Use and Abuse

Figure 11. FIMR Substance Abuse Cases

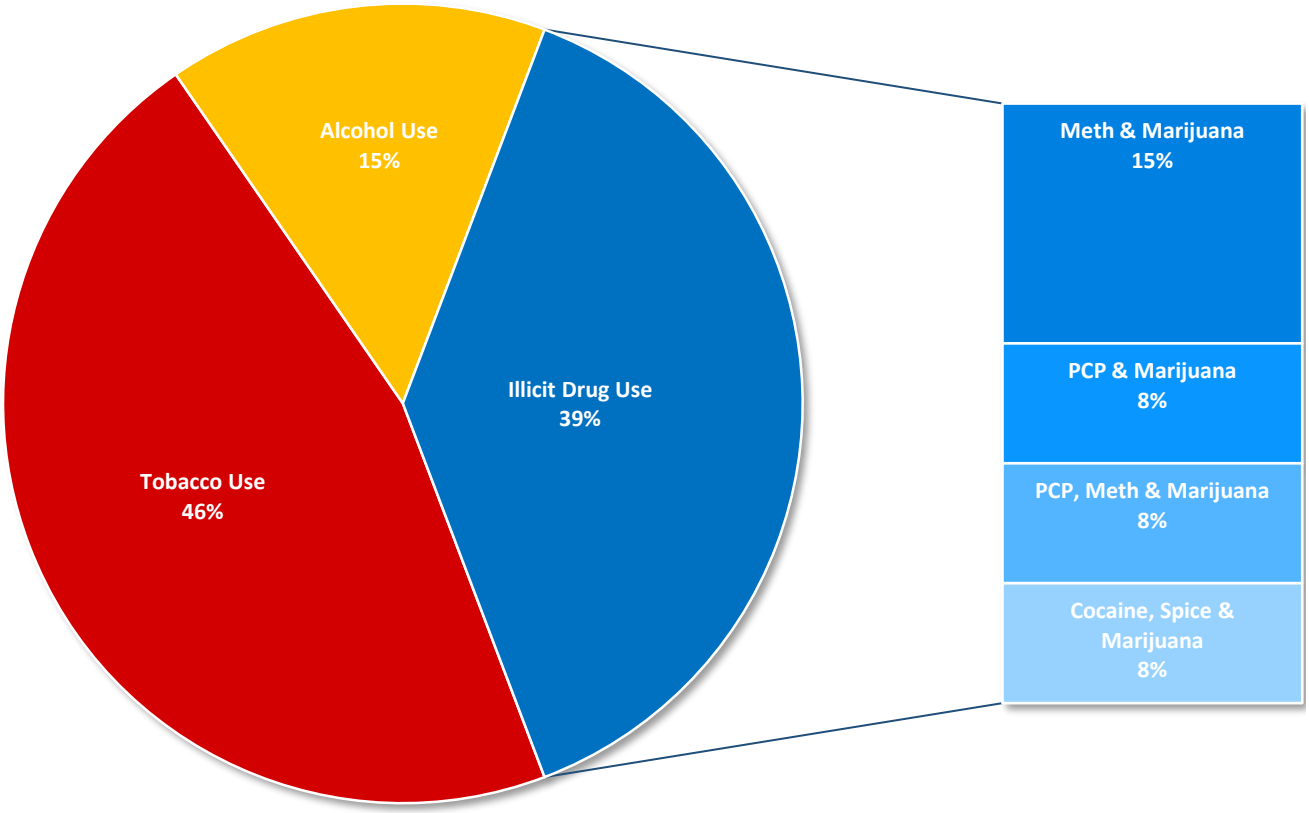


Table 11. FIMR Substance Abuse Cases

Substance Abuse	Number of Cases
Tobacco Use	6
Alcohol Use	2
Illicit Drug Use (Poly)	5
Meth & Marijuana	2
PCP & Marijuana	1
PCP, Marijuana & Meth	1
Marijuana, Spice & Cocaine	1
(Positive Drug Test)	4
Total	**13**

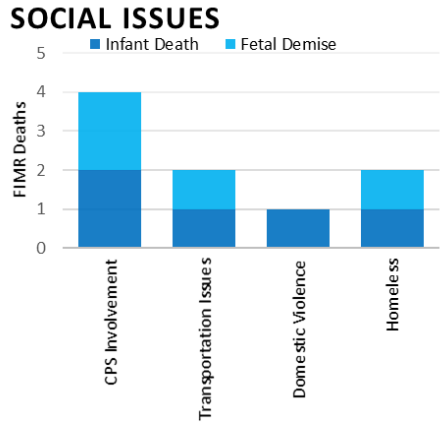
Key Takeaways

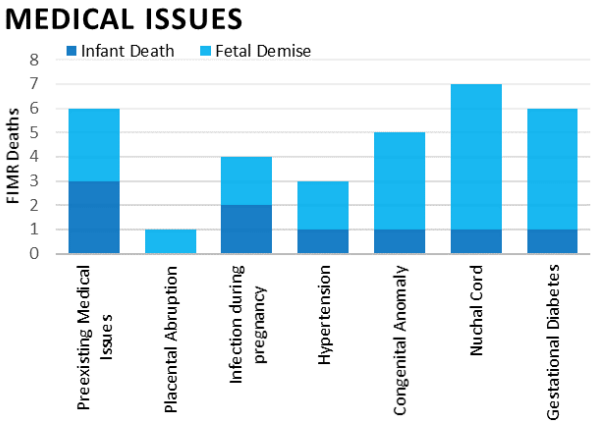
Thirteen cases reviewed had substance abuse identified as issues. There were five cases that involved poly-drug use, two cases with alcohol use, and six cases that involved smoking tobacco use.

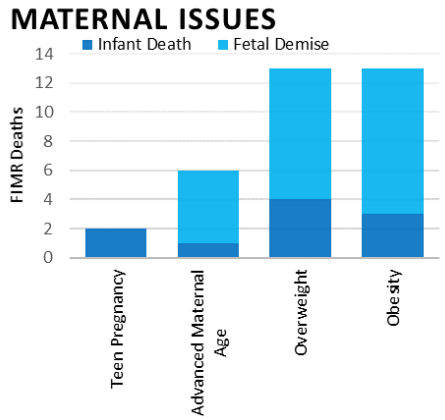
The health department is currently teaming with Aegis Treatment Centers to provide comprehensive case management services to the pregnant women in treatment. FIMR also provides information to other panels that deal with substance abuse issues (Perinatal Substance Abuse Prevention Program, and Stop Meth).

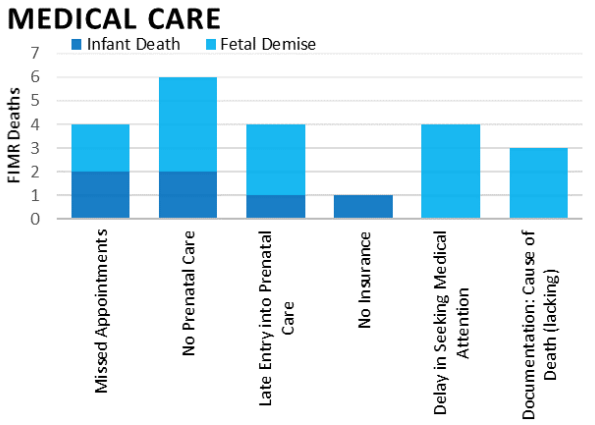
FIMR 2017 Annual Report Findings

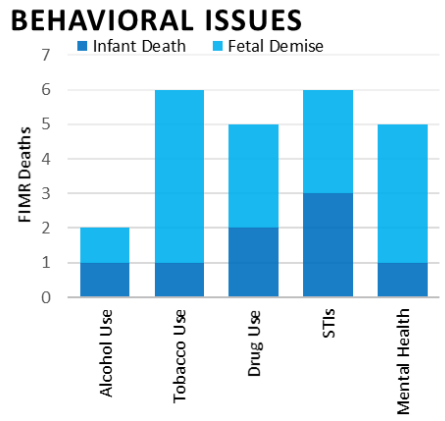
Figures 12.1-12.6. FIMR 2017 Annual Report Findings

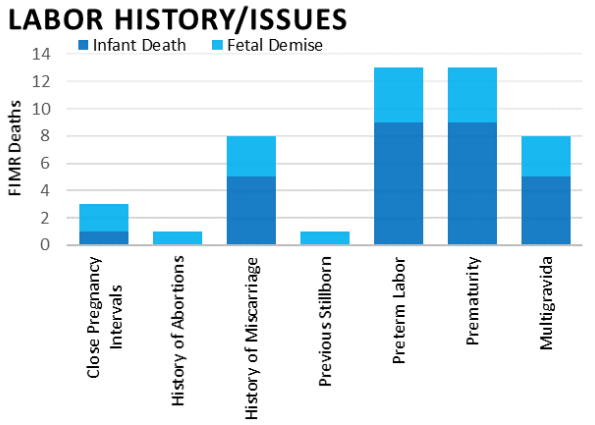












Key Takeaways

FIMR continues to see multiple issues that can affect the outcome of these pregnancies. In the 2017 calendar year, the FIMR panel reviewed 30 cases. There were 13 cases with obesity identified. Thirteen cases had issues with pre-term labor. There were six cases identified as having no prenatal care. Sexually transmitted infections were noted in six cases, three of which involved multiple STIs. The FIMR panel is working with Disease Control in reviewing syphilis cases in Kern County. Some children have died in these cases and those numbers have been included in the FIMR report.

FIMR 2017 Recommendations

Thirty cases were reviewed from January 2017 to December 2017. The panel recommendations relate to the cases before, during and after the birth of the child. Some of the recommendations relate to discussions about the SIDS/SUIDS cases that CDRT reviewed.

Problem: Some of the cases that were reviewed identified that women were not using their primary care physicians for their base of care, but instead were using the Emergency Room, that included two of the syphilis cases.

> **Recommendation:** Create a program for high-risk women who have already delivered, but are still in need of social support services. This program would follow the mother and infant for a period; helping with transportation, doctor visits and substance abuse intervention with referral to available places.
> Action Taken: Still in the discussion phase.

Problem: Unsafe sleep environments continue to be a problem, as seen by the reviews of the CDRT. It has been noted that there was not a consistent message being put out in the community in regards to safe sleep.

> **Intervention:** Two of the local hospitals are in the process of becoming safe sleep certified. The Perinatal Investigator from FIMR has trained their nursing staffs. They are providing safe sleep information, education and will soon be giving sleep sacks to the families. One hospital is also giving out pack-n-plays. Daycare centers have also shown interest in becoming safe sleep certified. The Perinatal Investigator has already provided safe sleep training to the Head Start program. Community Connection has also provided trainings for some of the home daycares.

Problem: Death certificates continue to reflect a lack of information regarding how the baby died.

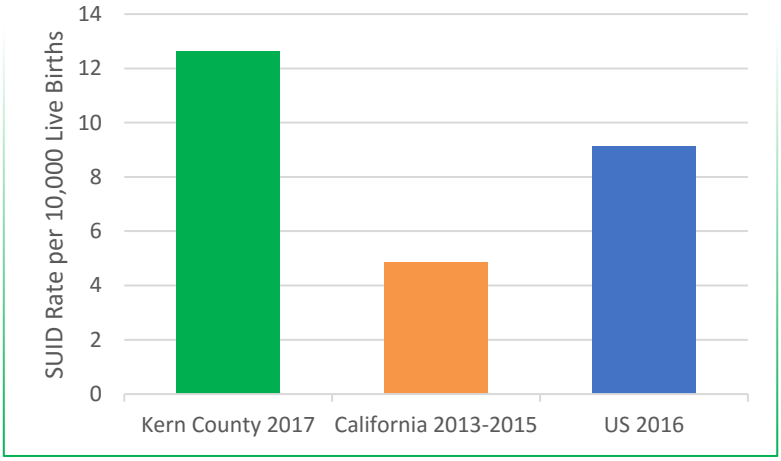
> **Recommendation:** Provide trainings to providers on the correct way to fill out death certificates and the importance of having complete and correct data on the death certificates. Epidemiology will look into what it takes and costs to provide in-services to doctors on that issue.

Sudden Unexpected Infant Death (SUID) and Sudden Infant Death Syndrome (SIDS)

"Sudden unexpected infant death (SUID) is a term used to describe the sudden and unexpected death of a baby less than one year old in which the cause was not obvious before investigation. These deaths often happen during sleep or in the baby's sleep area… Sudden unexpected deaths include sudden infant death syndrome (SIDS), accidental suffocation in a sleeping environment, and other deaths from unknown causes" (CDC, 2018).

The Kern County SUID rate for 2017 was 126.4 deaths per 100,000 live births. (Note that there were only 12,656 live births in Kern County for the year 2017, which is 12.64 SUID deaths per 10,000.) Kern County's 2017 SUID rate is more than twice that of California's 2013-2015[9] SUID rate and higher than the US 2016[10] rate by a fourth.

Figure 10. SUID Rates per 10,000 Live Births*



*A complete comparison cannot be made. The most recent data available from each category represents different years, and data may be underreported.

[9] National and State Trends in Sudden Unexpected Infant Death: 1990–2015. Alexa B. Erck Lambert, Sharyn E. Parks, Carrie K. Shapiro-Mendoza. Pediatrics, Feb 2018, e20173519; DOI: 10.1542/peds.2017-3519. August 17, 2018.

[10] Centers for Disease Control and Prevention. Sudden Unexpected Infant Death and Sudden Infant Death Syndrome, Data and Statistics. https://www.cdc.gov/sids/data.htm. August 17, 2018.

Centers for Disease Control and Prevention, National Data

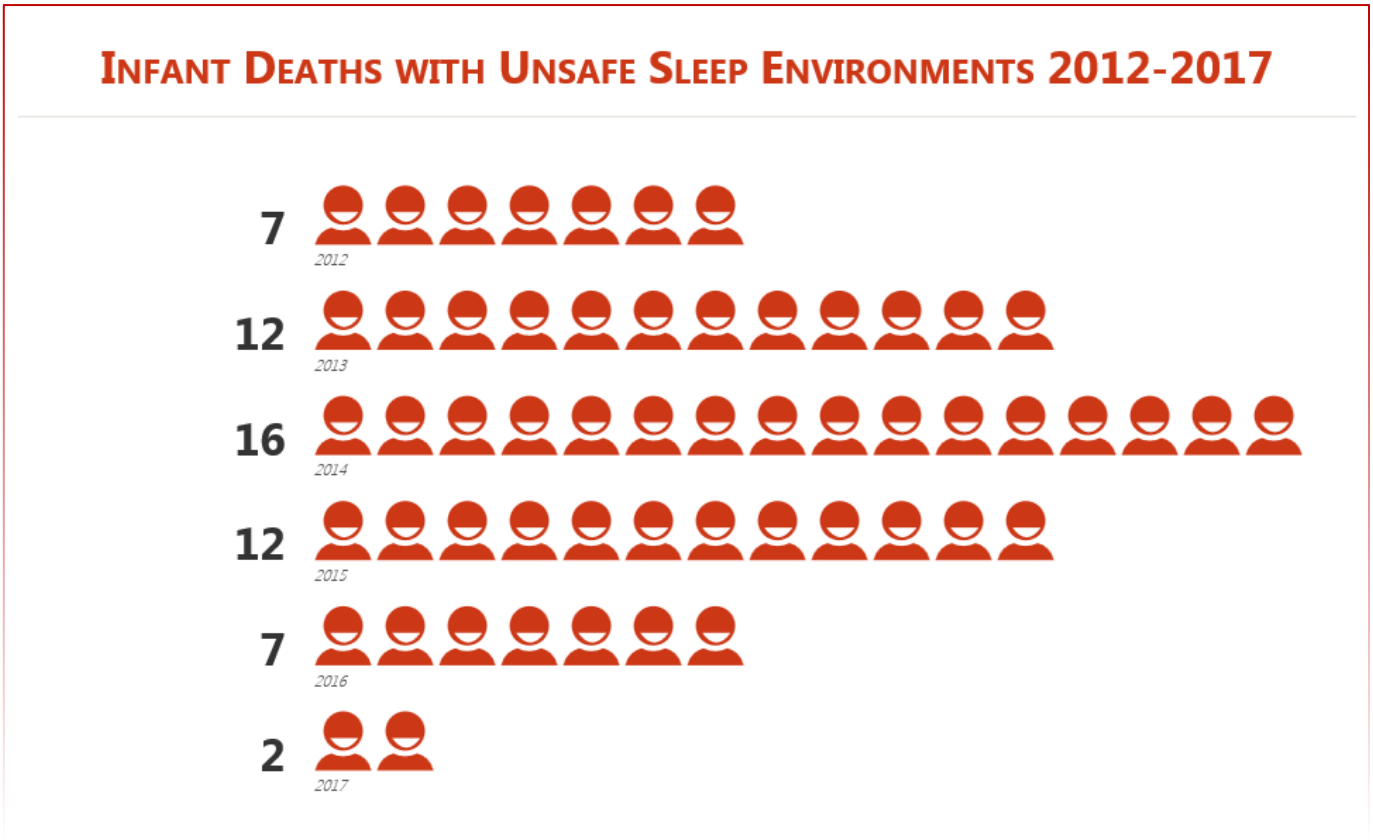
- In 1990, the SUID rate, which includes sudden infant death syndrome, unknown cause, and accidental suffocation and strangulation in bed, was 154.6 deaths per 100,000 live births. The SUID rate declined considerably following the release of the American Academy of Pediatrics safe sleep recommendations in 1992, the initiation of the Back to Sleep campaign in 1994, and the release of the Sudden Unexplained Infant Death Investigation Reporting Form in 1996. Since 1999, declines have slowed. In 2016, the SUID rate was 91.4 deaths per 100,000 live births.

- Sudden infant death syndrome (SIDS) rates declined considerably from 130.3 deaths per 100,000 live births in 1990 to 38.0 deaths per 100,000 live births in 2016.

- Unknown cause infant mortality rates remained unchanged from 1990 until 1998, when rates began to increase. In 2016, the unknown cause mortality rate in infants was 31.6 deaths per 100,000 live births.

- Accidental suffocation and strangulation in bed (ASSB) mortality rates remained unchanged until the late 1990s. Rates started to increase beginning in 1997 and reached the highest rate at 23.1 deaths per 100,000 live births in 2015. In 2016, the rate was 21.8 deaths per 100,000 live births.

Figure 13. Infant Deaths with Unsafe Sleep Environments 2012-2017



*Includes all infant deaths identified by the coroner as having an unsafe sleep environment as a contributing factor to cause of death.

Key Takeaways

While the coroner's office identified only two cases of infant death where an unsafe sleep environment contributed to the death of the child, **there were an additional 12 cases of child death where an unsafe sleep environment was present**, but not found, by the coroner, to be contributory to the death of the child. Unsafe sleep environments continue to be a problem in Kern County.

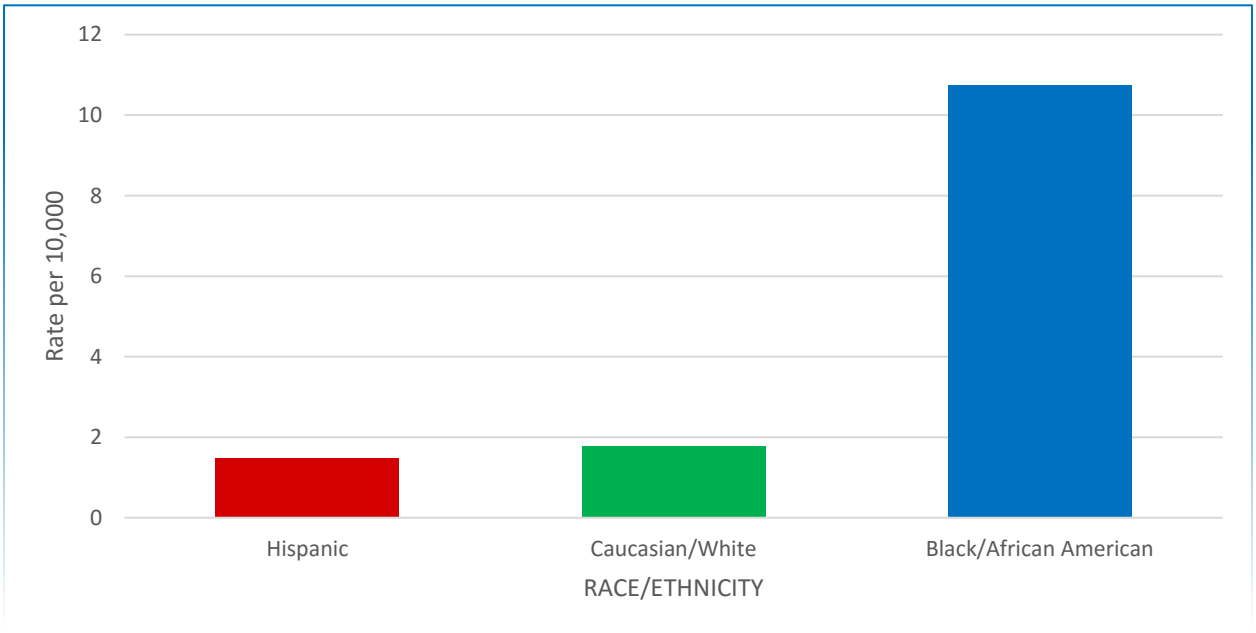
KERN COUNTY

2017 CDRT Special Topic: Health Disparities

Kern County Childhood Health Disparities

According to Healthy People 2020, a *health disparity* is defined as "a particular type of health difference that is closely linked with social, economic, and/or environmental disadvantage[11]." Health disparities can be organized by various topics, typically, sex, race/ethnicity, education level, and household income. "Measuring disparities in health status requires three basic components: (1) an indicator of health status, (2) an indicator of social grouping associated with different levels of social advantage or disadvantage, and (3) a method for comparing the health indicator across social groups[12]."

Figure 14. Health Disparities: Kern County Preventable Childhood Death Rates by Race, 2017



Key Takeaways

When comparing the race, of the CDRT reviewed deaths of Kern County children, with the child population of each race, we found that the Black/African American children have a preventable death rate more than 10 times the rate of each of the Hispanic and Caucasian/White rates. Half of those preventable deaths, in Black/African American children, were undetermined (SUID) and occurred before the age of one year.

[11] Healthy People 2020, 2018. Disparities*, Foundation Health Measures*. Retrieved Sept. 7, 2018 from https://www.healthypeople.gov/2020/about/foundation-health-measures/Disparities

[12] The Secretary's Advisory Committee on National Health Promotion and Disease Prevention Objectives for 2020, 2008. Measuring Health Disparities and Health Equity, *Phase I Report, Recommendations for the Framework and Format of Healthy People 2020*. p.77. https://www.healthypeople.gov/sites/default/files/PhaseI_0.pdf

Figure 15.1. Preventable Deaths by Race, 2017

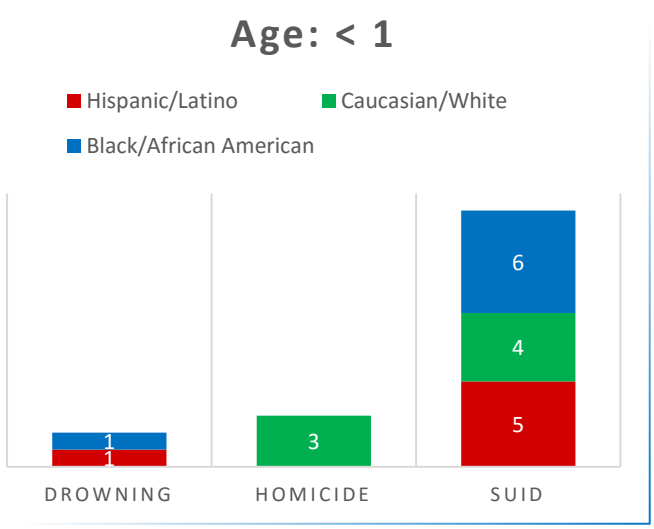


Figure 15.2. Preventable Deaths by Race, 2017

Key Takeaways

Statistical inferences cannot be made from the following notations due to the small numbers available.

- No Hispanic/Latino children of any age were victims of homicide.
- No Black/African America children of any age committed suicide.
- No Caucasian/White children of any age were drowning victims.

Figure 15.3. Preventable Deaths by Race, 2017

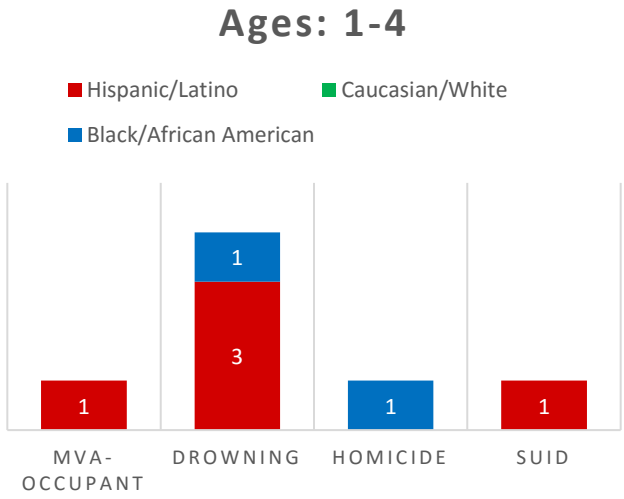


Figure 15.4. Preventable Deaths by Race, 2017

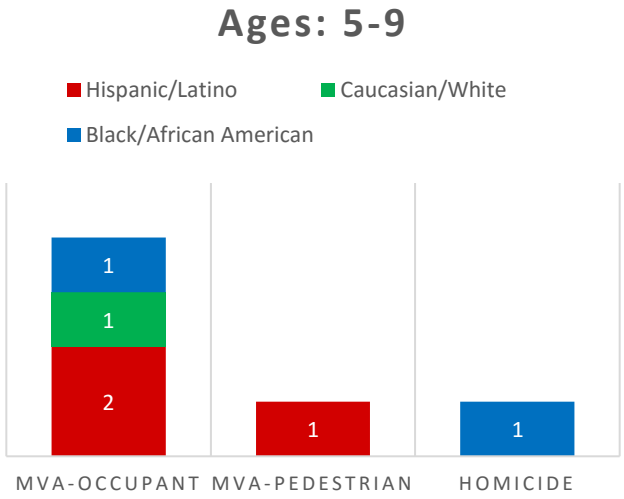
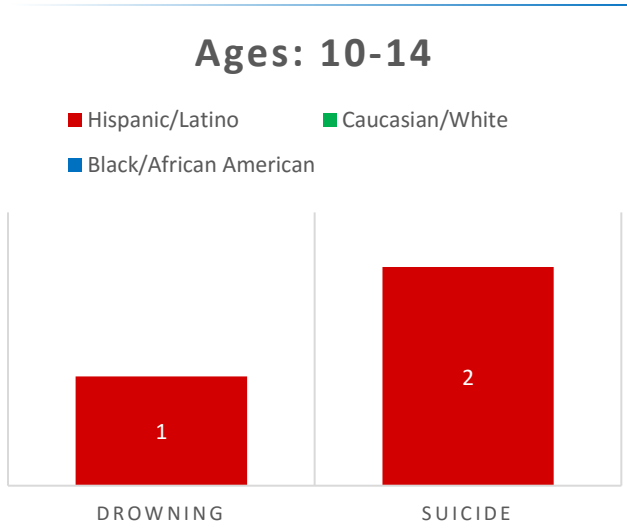
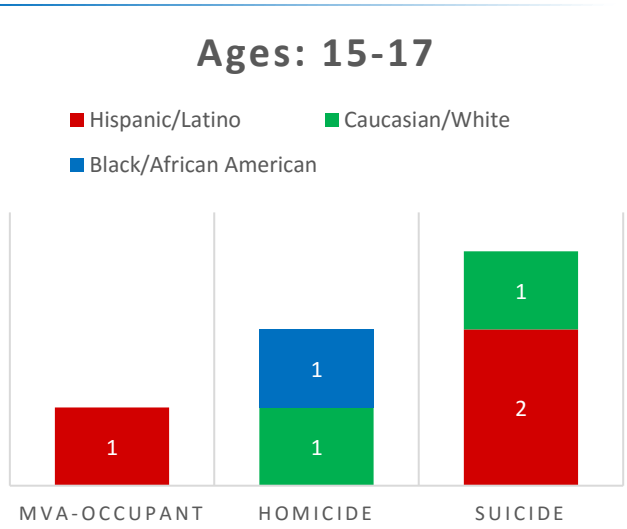


Figure 15.5. Preventable Deaths by Race, 2017





KERN COUNTY

2013-2017 Child Death Review Team Five-Year Comparison Report

Five-Year Review of Childhood Deaths in Kern County

Figure 16. Preventable Deaths by Manner of Death, 2013-2017

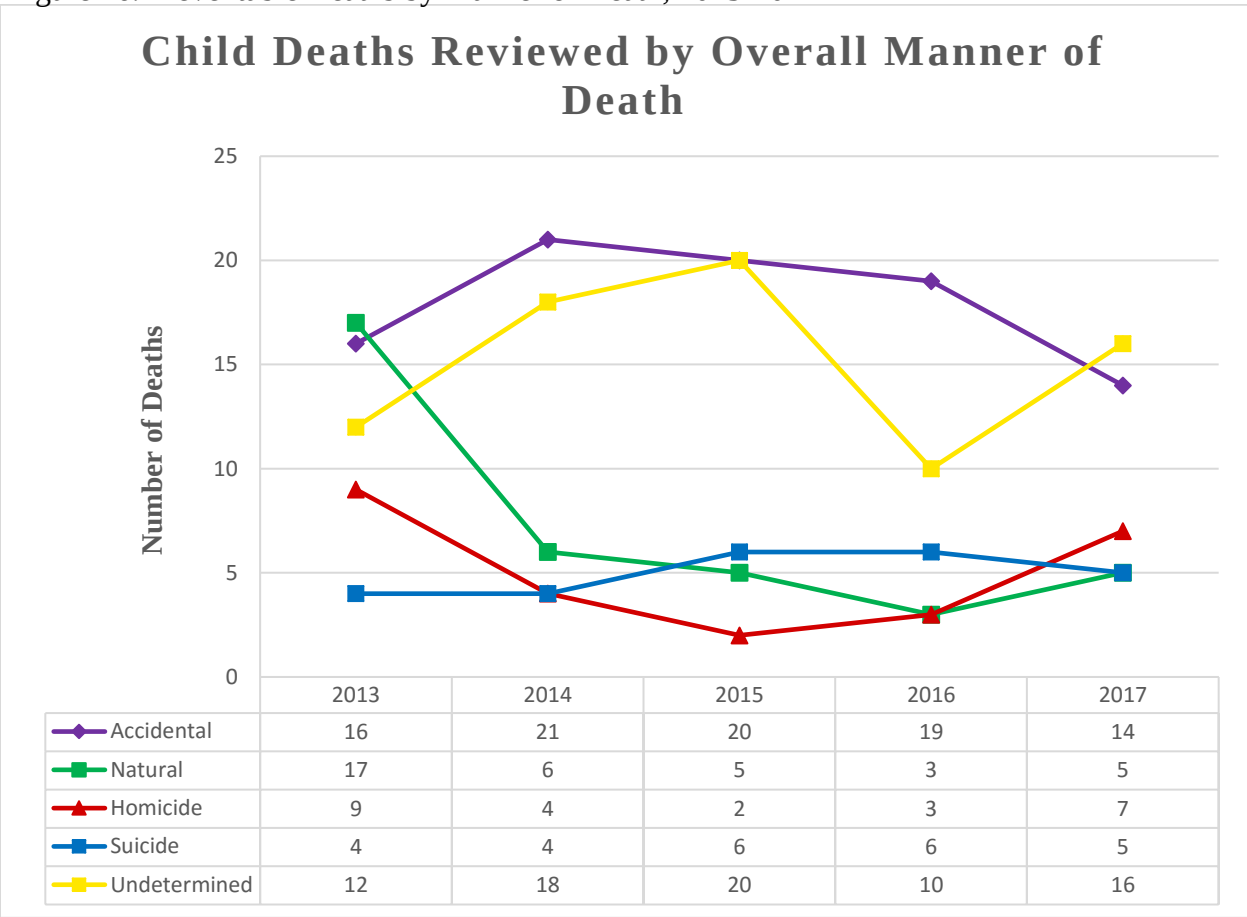


Table 12. Percentage of Preventable Childhood Deaths by Manner of Death,, 2013-2017

Manner of Death	2013	2014	2015	2016	2017	Total
Accidental/Unintentional	28%	40%	38%	46%	30%	37%
Natural	29%	11%	9%	7%	11%	14%
Homicide	16%	8%	4%	7%	15%	8%
Suicide	7%	8%	11%	15%	11%	10%
Undetermined	21%	34%	38%	24%	34%	31%
Total (rounded)	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

Figure 17. Preventable Deaths by Race, 2013-2017

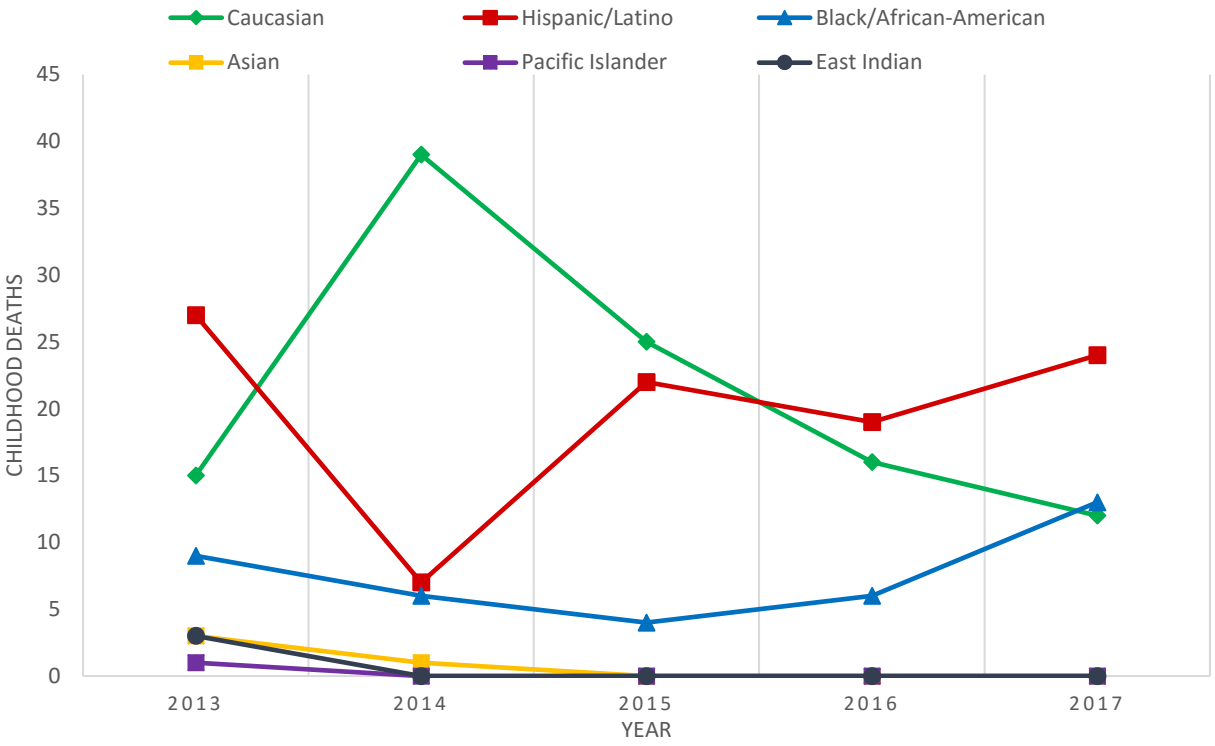
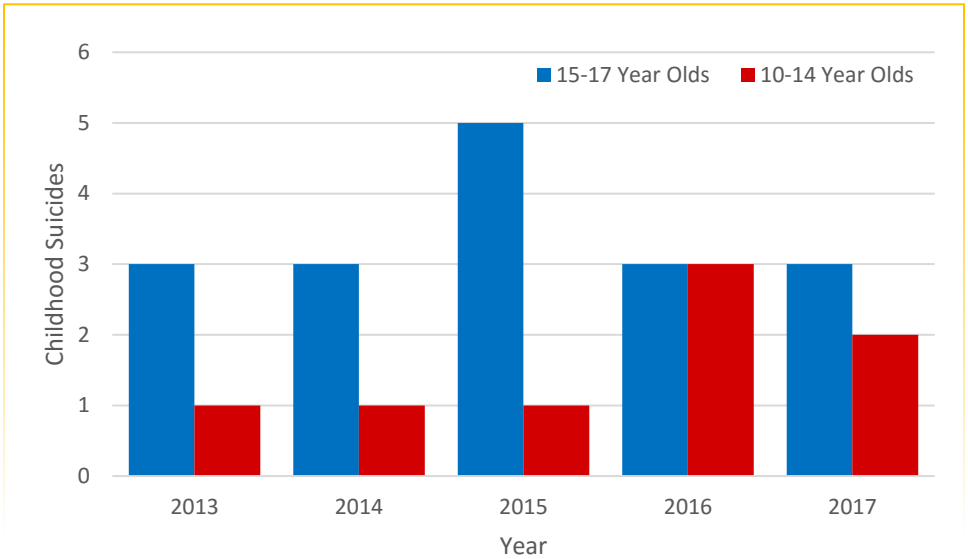


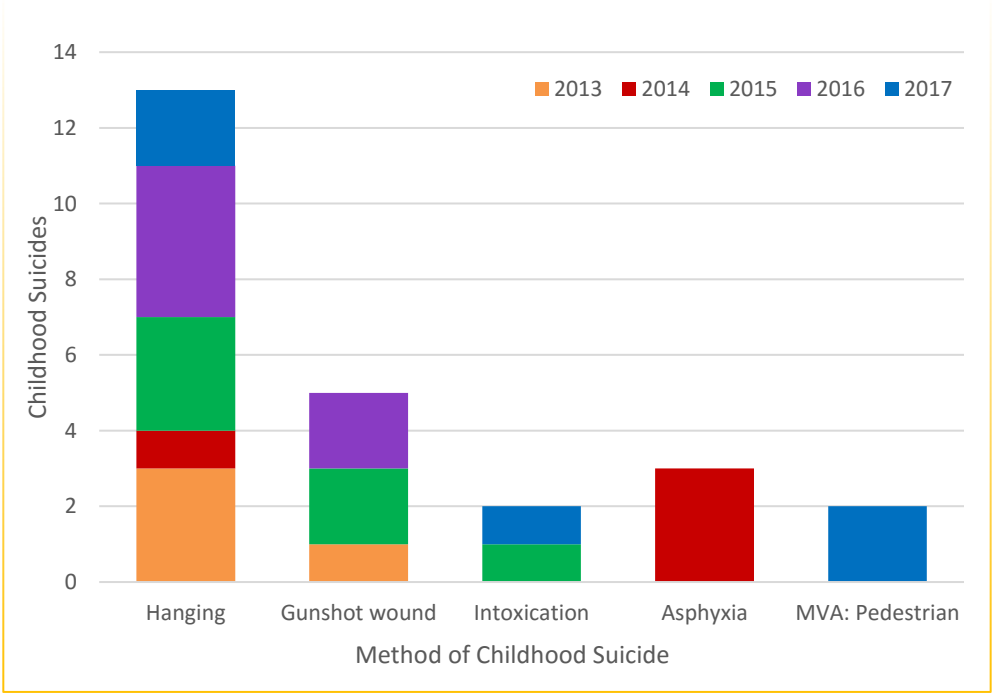
Figure 18.1. Five-Year Childhood Suicide Review by Age in Kern County



Key Takeaways

The average number of suicides over the last five years is five, but the age composition of those suicides is shifting from a majority of 15-17 year olds, to an equal measure of 10-14 year olds and 15-17 year olds. Hanging is the number one method of suicide for adolescents in Kern County over the last five years.

Figure 18.2. Five-Year Childhood Suicide Review by Method in Kern County



KERN COUNTY 2017 CDRT Recommendations

Recommendations

1. **Significantly increase community awareness, education, and resources regarding the association between unsafe sleep environment and SIDS/SUID deaths with the goal of having every infant born in Kern County having a safe place to sleep upon discharge home from the hospital.**
   a. CDRT advocates that Safe Sleeping concepts, as recommended by the American Academy of Pediatrics, have a continuing need to be reinforced to parents throughout the perinatal period and into infancy. Perinatal care providers and hospital environments need continuous training and education on safe sleep, as well as patient education tools that can be administered easily and effectively, without burdening the healthcare providers.
   b. All delivering Kern County hospitals will develop an infant safe sleep policy statement that incorporates the American Academy of Pediatrics recommendations. The policy should include regular training of staff, and education for parents, on safe sleep practices, modeling of safe sleep practices, community and media outreach, and periodic audits of infant sleep practices in the facility. Ideally, the policy should also include a mechanism for providing safe sleep environments (pack-n-plays, baby boxes) to every mother/family that is in need of a safe place for their baby to sleep.
   c. CDRT identifies the use of health communication measures as an effective route to reaching community residents including collaborating with local news stations who are interested in spreading awareness on health issues that plague the community.
   d. Kern County Network for Children continues to sponsor a robust Safe Sleeping Awareness Month campaign, held annually in October. The campaign includes press releases, social media marketing, training for community outreach workers, and additional creative media presentations.
   e. The Safer Sleeping Education Project is an ongoing program within Public Health Services Department in which high-risk families, as well as home child care providers, receive SIDS prevention education, a voucher for a safe-sleep crib, and are additionally followed up to assess compliance. CDRT has directly supported this effort by using FCANS stipends to purchase portable crib vouchers for the program.
   f. Provide support to the Kern County Safe Sleep Coalition whose mission is to present universal messaging and education on providing a safe sleep environment for infants.

g. Kern County CDRT began facilitating a Safe Sleep Conference for healthcare and daycare providers in Kern County in 2016. The CDRT recommends that this conference be continued and supported each year, with a 10% increase in capacity, to further needed education regarding safe infant sleep practices.
h. Promotion of safe infant sleep practices in all Pediatricians' offices. Promotion can include direct parent/caregiver education, educational materials availability, and referral to resources to obtain a safe sleeping environment such as a portable crib.
i. Increase outreach efforts that focus on parents of Black/African American children and their communities. Increase Black Infant Health enrollment by 10%, and create programs to gain the trust of this population in order to help them reduce the child death rate found in their population.

2. Decrease the incidence of child suicide by 20%, within 5 years, through supporting efforts that address suicide among children to raise community awareness, convey strategies for identifying signs of self-harm, and develop resources for those at risk of suicide.

a. Schools and mental health services will increase their collaboration to raise awareness of the issue, provide stress-reduction strategies for children and adolescents, and to connect to needed resources relating to mental health issues.
b. Kern Behavioral Health and Recovery Services to outreach to parents of adolescents and young children to decrease stigma associated with mental illness.
c. Faith-based organizations offering adolescent support services will incorporate education on coping and suicide prevention.
c. Increase healthcare provider awareness and knowledge base of strategies to identify early signs of suicidal ideations and early interventions through trainings utilizing depression screenings and education about mental health issues and self-harm.
d. Increase support for Bakersfield Police Department and Kern County Sheriff's Department programs addressing social media and bullying, by promoting and participating in their efforts and activities.
e. Support community efforts that promote and provide training on mental health first aid.

3. Reduce childhood drowning deaths by increasing community awareness of water safety and the potential drowning dangers of pools, bodies of water, and the Kern River.

a. Community outreach and promotion of the "Water Watchers" campaign through the Kern County Public Health Services Department.
b. Every local pediatrician office will promote "Water Watchers" along with water safety education for parents of young children.
c. All children possess basic swimming skills necessary to recover from falling into a body of water.
d. All parents and caregivers of children receive CPR training.
e. Reinforce the need of caregivers to watch small children in and around all sources of water, including bathtubs and buckets.

4. **All Kern County community agencies increase awareness of signs of child abuse and neglect and promote resources that are available when abuse and/or neglect is suspected.**
   a. Support agencies/organizations that provide safety net care to suspected neglected and abused children, as well as those agencies/organizations that provide preventive and treatment services to parents and caregivers at risk for abuse.
   b. Increase outreach efforts that focus on parents of preschool age children— not just those children already in preschool, but those who are at home with caregivers— where parents/caregivers and their children are isolated and "invisible." These parents and children may have little knowledge of community support and parenting tools that are available to them.

Appendix A—Online Resources

Biking Safety

- kernpublichealth.com/road (facts, tips, and safety)
- nhtsa.gov/bicycles (National Highway Traffic Safety Administration)

Child Abuse

- dontshake.org (National Center on Shaken Baby Syndrome, support and education)
- child-abuse.com (Child Abuse Prevention Network for professionals in the field of child abuse and neglect)

Domestic Violence

- kernalliance.org (Alliance Against Family Violence & Sexual Assault)
- kernsheriff.org/crime_prevention.aspx (KCSO brochures-domestic violence)
- mandatedreporterca.com (California Child Abuse Mandated Reporter Training)
- thehotline.org (National Domestic Violence Hotline)
- whengeorgiasmiled.org (Curriculum designed to educate on DV issues)
- Aspire News app (allows victims of abuse to call for help at the touch of a button)

Fire Safety

- smokeybear.com (resources for educators, activities for kids)
- firefacts.org (resources for parents and educators, activities for kids)

Car Safety

- kernpublichealth.com/road (facts, tips, and safety)
- chp.ca.gov/Programs-Services/Services-Information/Bike-and-Ped-Safety (Share the Road)
- nhtsa.gov/road-safety/pedestrian-safety (parent, caregiver, and child safety tips and resources)
- kidsandcars.org (How kids get hurt in and around cars, resources)
- safekids.org (videos and activities for in and around the car)

Safe Infant Sleeping Resources

- safesleepforbaby.com (LA safe sleep website)
- nichd.nih.gov.sts (Safe to Sleep Pub Ed Campaign led by NIH)
- firstcandle.org (First Candle organization, education for caregivers and families)

Suicide-Youth

- suicideispreventable.org (Know the Signs, statewide suicide prevention campaign)
- suicideinfo.ca/youthatrisk (Centre for Suicide Prevention, Youth at Risk Guide)
- kernbhrs.org (Kern County Crisis/Suicide Prevention Hotline)
- thetrevorproject.org (crisis intervention/suicide prevention for LGBTQ youth)

Teen Drivers

- ntsa.gov/teen-driving (help to teach kids to be safe, capable drivers)
- kernpublichealth.com/car (facts, tips, and dangerous driving behaviors)

Water Safety

- poolsafely.gov (national public education campaign to reduce child drownings)
- abcpoolsafety.org (swimming safety information for kids 5 and under)
- waterwatcher.org (drowning prevention website, water play supervision)