SAN BERNARDINO COUNTY

SAN BERNARDINO COUNTY | Public Health

SAN BERNARDINO COUNTY

CHILD DEATH REVIEW TEAM

2016 Annual Report

San Bernardino County Board of Supervisors

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Mission Statement

The mission of the San Bernardino County (SBC) Child Death Review Team (CDRT) is to review, investigate and analyze the circumstance surrounding deaths of SBC resident children under the age of 18. The CDRT completes this review through a process of interagency collaboration and discussion. The object of the CDRT is to identify ways to improve children's lives by preventing serious childhood injury and deaths in the future. The CDRT's review is not intended to assess fault by any particular agency or childcare professional.

Team Membership

The San Bernardino County Child Death Review Team is a dedicated multidisciplinary team that meets monthly to discuss the cases of child deaths within San Bernardino County. Their desire to make a difference through discussion of these cases is invaluable to the health and safety of our children. Their commitment and time is greatly appreciated.

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Executive Summary

As a society, we raise our kids to grow and mature into adulthood to become important individuals in our community. However, the death of a child is extremely heartbreaking and leaves a void in our families and in the community. Although many child deaths are due to natural causes, others are due to unnatural and avoidable causes. The SBC CDRT diligently reviews qualifying child deaths reported by the Medical Examiner/Coroner's Office to understand the circumstance and factors of why children die. This is the second year that the CDRT report is examining all child deaths that occurred amongst SBC resident children.

In 2016, there were 306 child deaths (<18 years of age) amongst SBC child residents. The total crude child mortality rate in SBC was 54.4 deaths per 100,000 children. Each child death fell under one of the five different manner of death classifications: natural, accidental, homicide, suicide and undetermined. The percentage of child deaths by natural, accidental, homicide, suicide and undetermined were 74%, 10%, 2%, 3% and 11%, respectively. Natural deaths continue to account for the majority of all child deaths. Of the 306 child deaths, the CDRT reviewed 53 cases in 2016.

When examining by racial and ethnic groups, Hispanics accounted for the majority (55%) of all child deaths. However, what is alarming is the fact that Non-Hispanic Blacks accounted for roughly 17% of child deaths, but their mortality rate was the highest at 108.6 deaths per 100,000.

This in depth analysis of all child deaths that occurred in 2016 provides insight into what is impacting our children. The goal of this report is to be able to assess what is occurring countywide and hopefully to implement appropriate interventions to prevent future child deaths, particularly those that are due to unnatural and avoidable causes. We hope the value of this report will welcome further research and policy development to better the lives of our children and community.

I. Introduction

Background

In 1988, California enacted legislation to establish interagency Child Death Review Teams. These teams are intended to assist local agencies in identifying and reviewing child deaths and facilitating communication during the investigation of such cases. In response, the SBC CDRT, composed of a collaborative body of professionals, was established to provide professional review of deaths of individuals under the age of 18 who died in SBC.

The SBC CDRT reviews qualifying child deaths reported by the Medical Examiner/Coroner's Office to evaluate trends and causes to identify the needs of our children to prevent future injuries and death. In addition, data from the State Department of Social Services has been maintained to identify high risk family situations and aid in future identification of children at risk for preventative measures. Due to the sensitivity of the material, each member signs a confidentiality agreement to ensure confidentiality is maintained pursuant to California Penal Code 11167.5.

State law mandates that no less than annually, each CDRT will provide the public with findings, conclusions and recommendations based on aggregated statistical data from the incidences and causes of child deaths (SB 1668 (e) (1). Thus, this report will provide a comprehensive view of all SBC resident child deaths (ages <18 years of age) that occurred in 2016.

Case Selection

All cases reported through SBC Coroner's Case Management System for children under the age of 18 by the Medical Examiner/Coroner's Office were reviewed. Child deaths of SBC children that occurred outside of the county were not reviewed. If the medical examiner/coroner has accepted the cause and manner of death proposed from the source there is no further investigation. For the remaining cases, the medical examiner/coroner assigns one of five manner of death classifications to a case which CDRT reviews. The manner of death refers to how the child died, including the consideration of intention, circumstance and/or actions that led to the death. The five manners of death reviewed are natural, accidental, homicide, suicide and undetermined. Additionally, CDRT members compile information from their agency pertaining to each case reviewed. Each case is thoroughly discussed and reviewed with conclusions drawn. SBC CDRT does not review natural deaths of those cases that were due to disease, congenital conditions and/or perinatal causes. Additionally, CDRT does not review fetal or stillborn deaths unless there is a reasonable cause to investigate. For the purposes of this report, all other natural deaths that occurred in 2016 will be reviewed and analyzed. Child deaths will be categorized based on manner of death classifications throughout this report based on the following definitions:

Manner of Death refers to how the person died and includes consideration of intention, circumstance, or action that led to the cause of death. There are five classifications for manner of death:

- **Natural***: Death due to complication(s) of disease, infection, congenital condition and/or perinatal cause.
- **Accidental:** Deaths that are not intentional, expected or foreseeable (excludes natural and traffic deaths).
- **Homicide:** Death caused by an individual's intent to end the life of another individual.

- **Suicide**: Death caused by self-harm with an intent to die as a result.
- **Undetermined**: No significant finding during the autopsy to conclusively give a cause or manner of death.

The goal of reviewing such cases is to plan and coordinate a comprehensive and multidisciplinary review of each child's death, to better understand the risk factors, causes and potential motives of each event. Furthermore, to provide recommendations to child serving agencies in the county regarding County policy and procedural changes. In addition, the CDRT will analyze these data to better understand and develop appropriate interventions. The interventions implemented are to prevent child deaths through identification of new patterns, improvement of safety problems and increase public awareness of health and safety programs that are available.

Data Sources

Data outlined in this report was obtained from the California Department of Public Health (CDPH), Center for Health Statistics and Informatics, and Birth and Death Statistical Master Files (2016). Population estimates throughout this report were obtained from the State of California Department of Finance (2016) and ESRI Web Application Builder Population Estimates (2018). Specifically, the birth statistics produced in this report pertain to SBC resident mothers (while deliveries may have occurred outside the county). Death statistics produced in this report pertain to decedents with a residence address located in SBC (while deaths may have occurred outside the county). Additionally, infant mortality statistics produced throughout this report may contain redacted values following San Bernardino County Department of Public Health (SBCDPH) medical director case review procedures reclassifying infant deaths as fetal deaths.

It is important to note that the National Center for Health Statistics does not publish or release mortality rates based on fewer than 20 cases or deaths. This is because these data do not meet their requirement for the level of accuracy needed. Thus, mortality rates based on fewer than 20 cases are often marked as unreliable and any conclusions drawn should be made with caution.

II. Demographic Information

As of 2016, San Bernardino County was the fifth largest County in California with an estimated population of 2,137,101 people. It consists of 562,842 children (<18 years of age), representing 26.3% of the total SBC population. [1] Table 1 provides a breakdown of the age group and population, where children are represented by 26.3%.

Table 1. Total San Bernardino County Population in 2016

Age Group	SBC Population	% of Total Population	% of Population <18
<5	154,659	7.2	27.5
5-9	156,350	7.3	27.8
10-14	155,181	7.3	27.6
15-17	96,652	4.5	17.2
<18	562,842	26.3	100

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[1] State of California, Department of Finance, Report P-3: State and County Population Projections by Race/Ethnicity, Detailed Age, and Gender, 2010-2060. Sacramento, California, Dec 2014. Last access 27-Aug-2016 at:
http://www.dof.ca.gov/research/demographic/reports/projections/P-3/P-3_CAProj_database.zip

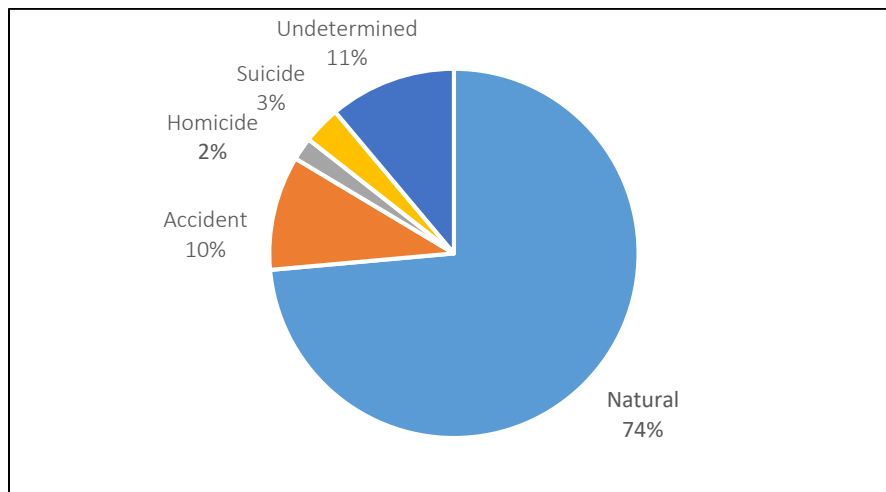|			
>18	1,574,259	73.7	n/a
Total	2,137,101	100	n/a

In 2016 there were a total of 306 child deaths, where the total crude child mortality rate was 54.4 deaths per 100,000 children.[2] Table 2 lists the crude child mortality rate for each manner of death; section III below (pg. 17) outlines manner of death for children in greater detail.

Table 2. Total Child Deaths by Manner of Death, 2016

Manner of Death	(n)	%	Mortality Rate*
Accident	31	10.1	5.5
Homicide	6	2.0	1.1*
Natural	225	73.5	40.0
Suicide	10	3.3	1.8*
Undetermined	34	11.1	6.0
Total	306	100	54.4

Mortality rates calculated based on less than 20 cases are considered unreliable.

Figure 1. Total Child Deaths by Manner of Death, 2016

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[2] California Department of Public Health (CDPH), Center for Health Statistics and Informatics. Death Statistical Master File, 2016

Gender

A greater percentage of child deaths occurred amongst males compared to females during 2016, accounting for roughly 61% and 39%, respectively. Moreover, males show a higher mortality rate as well.

Table 3. Total Child Deaths by Sex, 2016

Gender	(n)	%	Mortality Rate
Female	119	38.9	41.3
Male	187	61.1	68.0
Total	306	100	54.4

Race/Ethnicity

Of the 306 child deaths, most occurred amongst Hispanic children, which accounted for more than 55% of child deaths. Although Hispanics accounted for the majority of child deaths, their crude mortality rate of 48.6 child deaths per 100,000 children was below the total crude mortality rate for 2016. Additionally, Non-Hispanic Black child deaths accounted for about 17% of child deaths and their crude mortality rate was the highest at 108.6 child deaths per 100,000 children in 2016. Table 4 outlines the number of child deaths by racial/ethnic category.
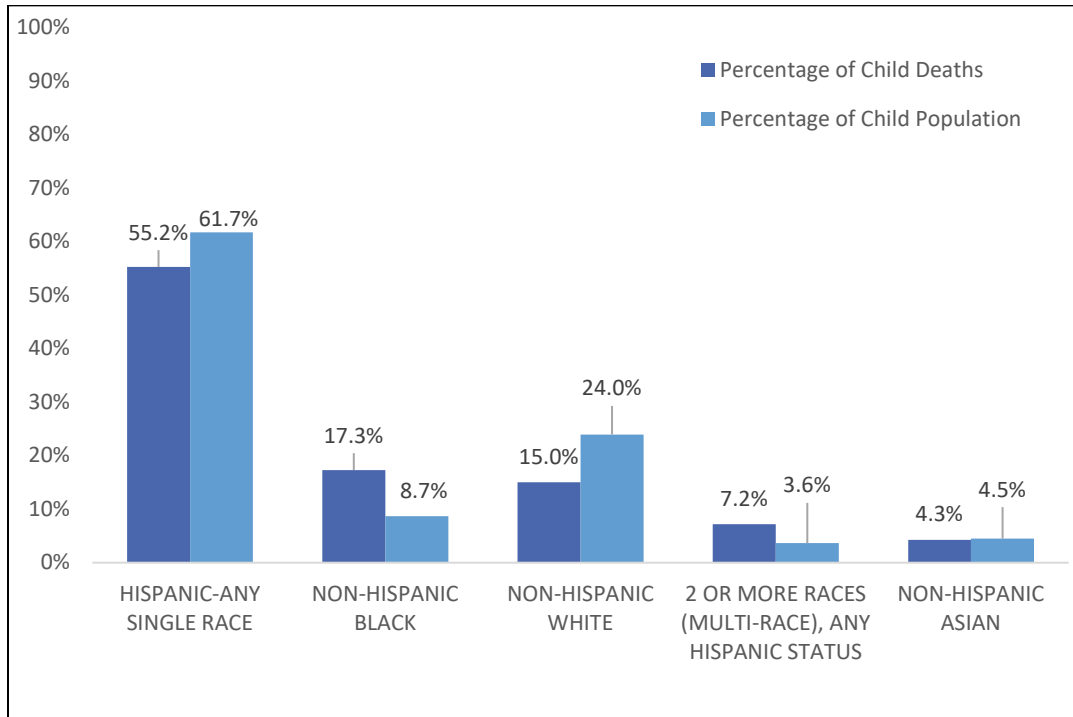
Figure two compares the percent of child deaths and total children by racial/ethnic category for 2016. Based on the mortality rate, a disproportionate amount of Non-Hispanic Blacks are affected compared to the other race/ethnic categories. The percentage of child mortality in the Hispanic child population, Non-Hispanic White population and Non-Hispanic Asian population were all lower in proportion when compared to their total population in 2016.

Table 4. Total Child Deaths (<18 years of age) by Race/Ethnicity, 2016

Race	(n)	%	Mortality Rate*
Hispanic	169	55.2	48.6
Non-Hispanic Black	53	17.3	108.6
Non-Hispanic White	46	15.0	24.0
Two or More Races (Multi-Race), Any Hispanic Status	22	7.2	104.9
Non-Hispanic Asian	13	4.3	51.6*
Non-Hispanic Other	2	0.7	N/A
Non-Hispanic Hawaiian/Pacific Islander	1	0.3	N/A
Total	306	100	54.4

Mortality rates calculated based on less than 20 cases are considered unreliable.

Figure 2. Percentage of SBC Child Deaths and Child Population by Race/Ethnicity, 2016
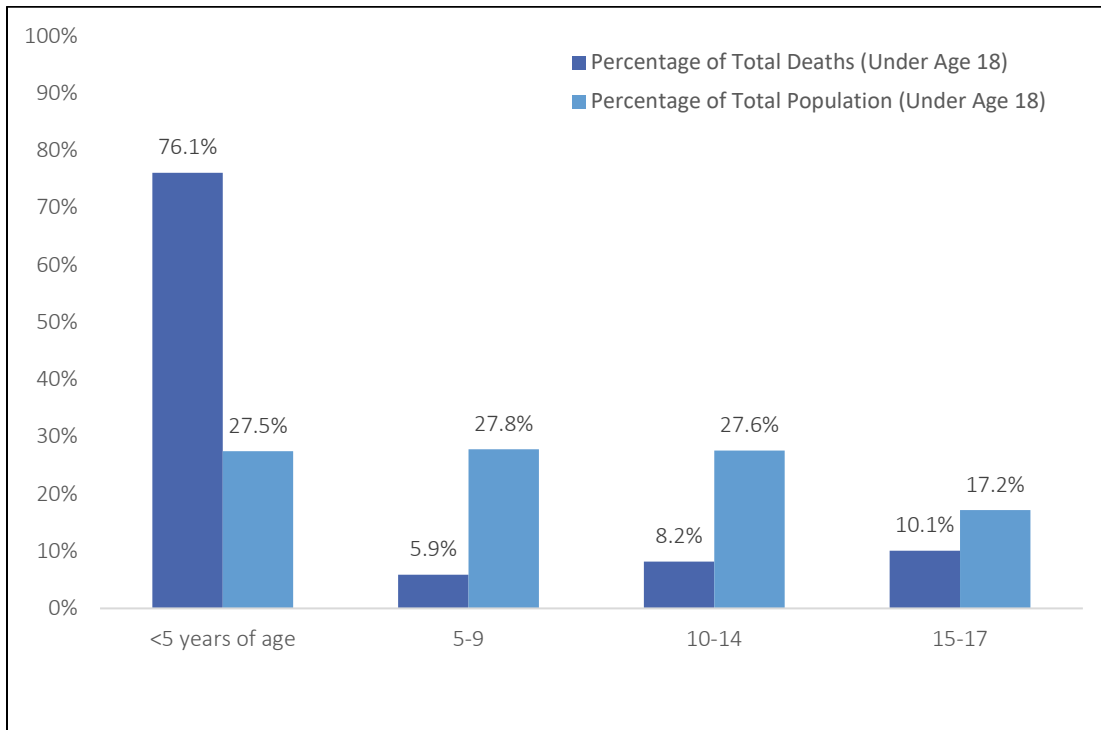

Age

In 2016, the majority of child deaths occurred in infants under 12 months of age. Infants accounted for 65% of all child deaths, while toddler/preschooler deaths (1-4 years of age) accounted for 10.8%. Table five outlines the number of child deaths, percentage of child deaths and age-standardized mortality by age group. Figure three displays the percentage of living children compared to the percentage of child deaths by age group for 2016. Note, the infant mortality rate definition is slightly different than the child mortality rate. *Infant mortality rate* is defined by the number of infant deaths (<1 year of age) per every 1,000 live births as opposed to 100,000 used for children. The infant mortality rate for all racial/ethnic groups was 6.4 infant deaths per 1,000 live births in 2016.

Table 5. Total Child Deaths by Age Groups, 2016

Age Groups	(n)	%	Age-Standardized Mortality Rate
<1 Year (Infants)	199	65	6.4 per 1,000 Live Births
1-4 (Toddlers/Preschoolers)	33	10.8	26.7 per 100,000 Children
5-9 (Middle Childhood)	18	5.9	11.5 per 100,000 Children*
10-14 (Young Teenager)	25	8.2	16.1 per 100,000 Children
15-17 (Teenager)	31	10	32.1 per 100,000 Children
Total	306	100	54.4 per 100,000 Children

Mortality rates calculated based on less than 20 cases are considered unreliable.

Figure 3. Percentage of Child Deaths and Total Child Population by Age Groups, 2016

Spotlight | 0-4 Child Deaths

Out of the 306 total child deaths, 232 occurred amongst children less than 5 years of age. This segment of children are an important focus for CDRT as 76% of all deaths under age 18 occur within this age range.

Table 6. Child Deaths by Manner of Death for Children (<5 years of age per 100,000), 2016

Manner of Death	(n)	%	Mortality Rate
Accident	14	6.0	9.1*
Homicide	1	0.4	0.6*
Natural	184	79.3	119.0
Suicide	0	0	---
Undetermined	33	14.2	21.3
Total	232	100	150.0

Mortality rates calculated based on less than 20 cases are considered unreliable.

Table 7. Child Deaths by Race/Ethnicity for Children (<5 years of age per 100,000, 2016

Race	(n)	%	Mortality Rate
Non-Hispanic White	37	16.0	9.1
Non-Hispanic Black	44	19.0	28.4
Non-Hispanic Asian/Pacific Islander	9	3.9	5.8*
Hispanic	126	54.3	81.5
Other	16	7.0	10.3*
Total	232	100	150.0

Mortality rates calculated based on less than 20 cases are considered unreliable.

Mortality Rates by Supervisorial District

The Death Statistical Master file (2016) and ESRI Web Application Builder Population Estimates (2018) were utilized to develop the child death rate by SBC supervisorial district maps outlined below.

(Note: The mortality rate by supervisorial district should be considered an estimate due to limited availability of 2016 population data)

Table 7. Child Mortality Rate (<18 years of age per 100,000 children) by Supervisorial District, 2016

District	Mortality Rate
1	56.4
2	27.6
3	69.8
4	39.1
5	71.0
SBC	53.4

Figure 4. Child Mortality Rate (<18 years of age per 100,000 children) by Supervisorial District, 2016
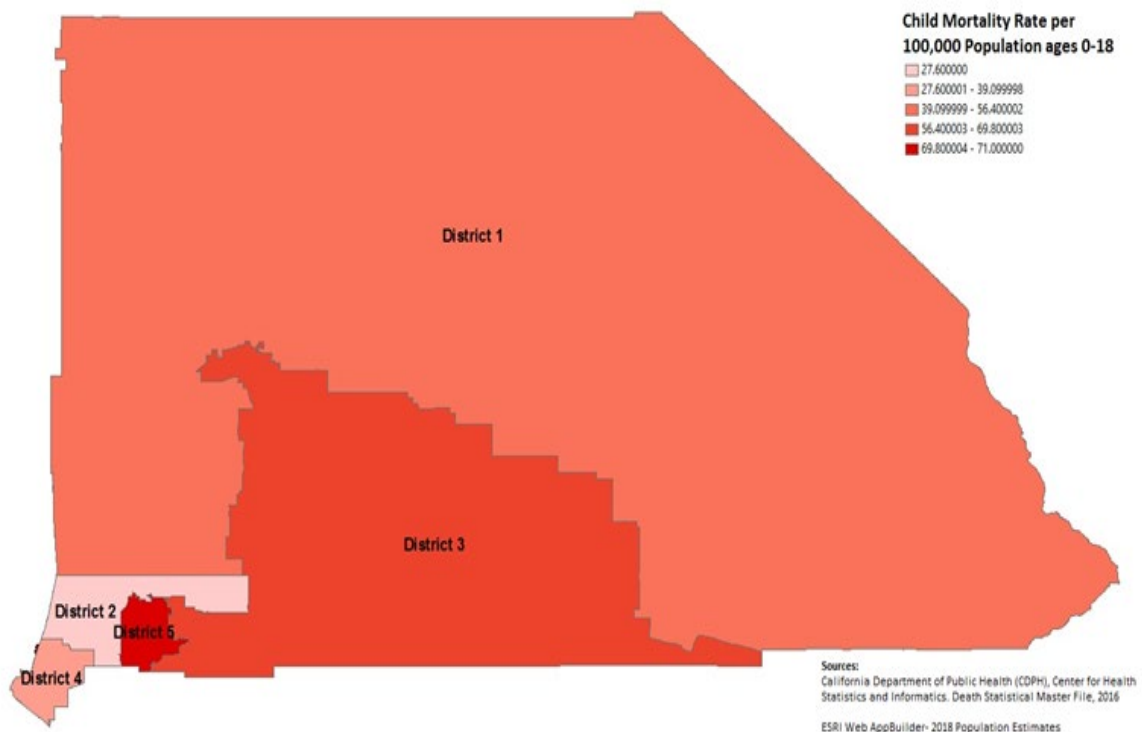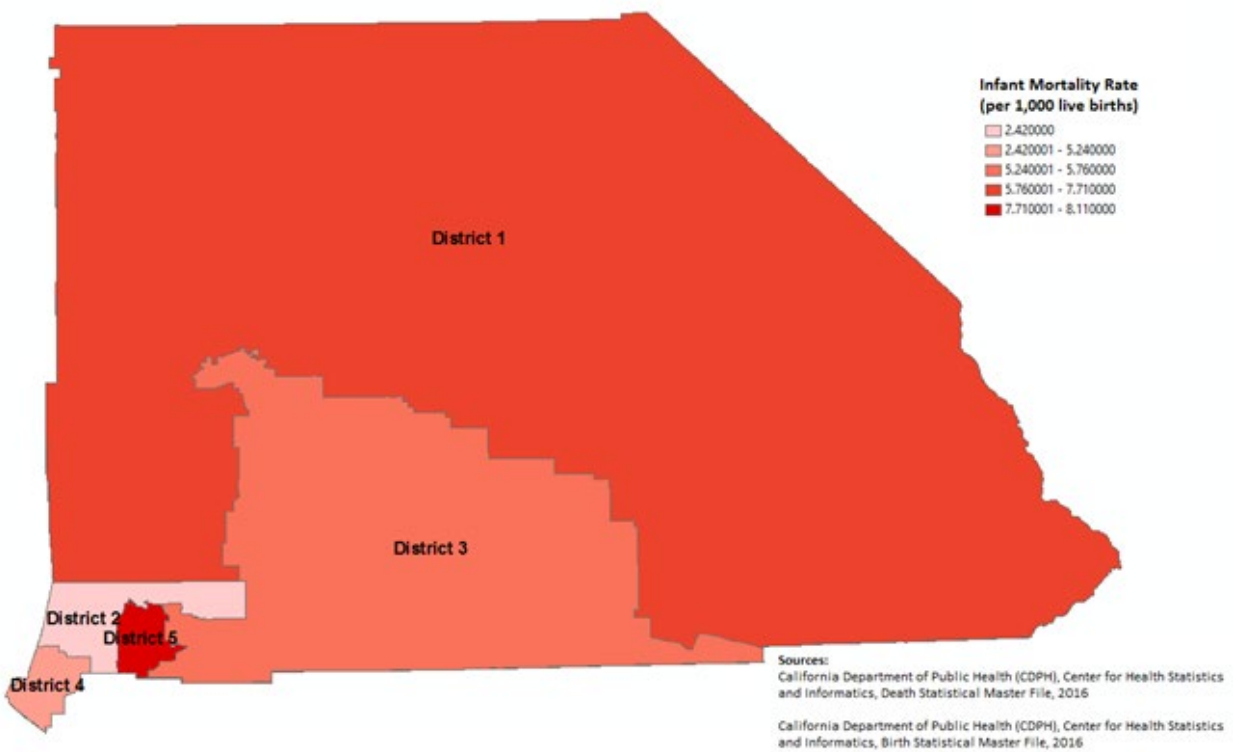
Table 8. Infant Mortality Rate (<1 of age per 1,000 infants) by Supervisorial District, 2016

District	Deaths*	Births*	Infant Mortality Rate
1	45	5,837	7.71
2	14	5,785	2.42
3	32	5,552	5.76
4	30	5,720	5.24
5	56	6,909	8.11
Unknown	5	1,311	n/a

Unable to match 3% of child deaths and 4% of live births. Additionally, fetal deaths identified by the Medical Director were removed for analysis.

Figure 5. Infant Mortality Rate (<1 year of age per 1,000) by Supervisorial District, 2016

III. Five Manners of Death

This section provides a detailed descriptive analysis of child deaths (<18 years of age) that occurred in 2016. The manner of death refers to how the person died and includes consideration of intention, circumstance, or action that led to the cause of death that has been determined by the Medical Examiner/Coroner's Office. There are five classifications for manner of death: natural, accidental, homicide, suicide and undetermined.

In 2016, natural deaths accounted for 74% of all child deaths. Undetermined, homicide, accident and suicide accounted for 11%, 2%, 10% and 3% of all child deaths, respectively. Table 8 outlines the mortality rate for each manner of death amongst children.

Table 8. Child Deaths (<18 years of age per 100,000 children) by Manner of Death, 2016

Manner of Death	(n)	%	Mortality Rate
Accident	31	10.1	5.5
Homicide	6	2.0	1.0*
Natural	225	73.5	39.9
Suicide	10	3.3	1.8*
Undetermined	34	11.1	6
Total	306	100	54.3

Mortality rates calculated based on less than 20 cases are considered unreliable.

Accident Child Deaths

Out of the 306 child deaths that occurred in 2016, 31 (10.1%) deaths were classified as an accidental death. The crude mortality rate was 5.5 accidental deaths per 100,000 children.

There were 10 female and 21 male cases. However, the majority of accident deaths occurred in children under the age of five. Approximately 68% of all accidental deaths that occurred amongst children were Hispanic, 16% Non-Hispanic White and 9.7% of Non-Hispanic Black. In 2016, the two leading causes of accidental deaths were motor vehicle and drowning related. During that year, 36.2% of deaths amongst children was due to motor vehicle accidents (classified as unintentional injury), while 16% of deaths amongst children was due to accidental drowning and submersion (classified as unintentional injury).

Table 9. Accident Child Deaths (<18 years of age) by Race/Ethnicity, 2016 [2]

Race	(n)	%
Non-Hispanic White	5	16.1
Non-Hispanic Black	3	9.7
Non-Hispanic Asian/Pacific Islander	0	0
Non-Hispanic American Indian	0	0
Hispanic	21	67.7
Other	2	6.5
Total	31	100

Homicide Child Deaths

In 2016, six (1.96%) child deaths were classified as a homicide death. The crude mortality rate was 1.06 homicides per 100,000 children. Of those, one case was female and five were male. The age range was dispersed with 16% of cases under 5 years of age. The leading causes of homicide deaths amongst children was an *assault by other and unspecified firearm and gun discharge* (n = 4, 67%) and *assault* (n = 2, 33%).

Table 11. Homicide Child Deaths by Race/Ethnicity, 2016

Race	(n)	%
Non-Hispanic White	4	30.8
Non-Hispanic Black	3	23.1
Non-Hispanic Asian/Pacific Islander	0	0
Non-Hispanic American Indian	0	0
Hispanic	6	46.2
Other	0	0
Total	13	100

Spotlight | Child Abuse and Neglect Deaths

SBC CDRT reviews cases that were of child abuse or neglect to better recognize risks and prevent any future abuse or neglect related child deaths for the victims' siblings and children in SBC.

Abuse can be defined as death due to physical, sexual or emotional abuse.

Neglect is the failure to meet a child's basic physical and emotional need such as housing, food, education, access to medical care and more. [3]

To be an abuse or neglect case, there must be evidence of maltreatment in the Coroner's report, police investigation or Children and Family Services (CFS) investigation.

In 2016, there were 16 cases involving children who died as a result of suspected child abuse and neglect. It is important to note that the homicide number varies from the original figure on page ten because many of these cases were originally classified as pending or undetermined. When reported to the state, these were updated with appropriate manner of death after all investigations were complete.

Additionally, these 16 cases were reported to San Bernardino County Children and Family Services and were followed through accordingly. Of the 16 deaths resulting from child abuse and neglect, 15 were under the age of ten. Sixty-three percent of these deaths were of children under the age of one. Three cases were of Non-Hispanic Black racial background, six were of Hispanic ethnic background, six were of Caucasian racial background and one was from an unknown background.

Many of these cases were originally classified as natural, homicide, accident or undetermined deaths. However, upon closer inspection, there was suspicion of child abuse and neglect for all 16 cases.

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[3] Centers for Disease Control and Prevention, National Center for Injury Prevention and Control. Technical Packages for Violence Prevention. Available from: https://www.cdc.gov/violenceprevention/pdf/CAN-Prevention-Technical-Package.pdf

The leading cause of death was blunt force head injury comprising of 25% of all child abuse and neglect cases. The other causes of death were listed as the following: hypoxic encephalopathy due to ligature strangulation, hypoxic encephalopathy due to smothering, end stage liver disease, congenital syphilis, asphyxia with pressure on neck, asphyxia due to drowning, subdural hematoma and methamphetamine toxicity.

Natural Child Deaths

Out of the 306 child deaths that occurred in 2016, 225 (73.5%) were classified as natural deaths. The crude mortality rate was 39.9 natural deaths per 100,000 children. More males (58%) died from natural causes compared to females (41%).

Table 12. Total Natural Child Deaths (<18 years of age per 100,000 children) by Sex, 2016

Sex	(n)	%	Mortality Rate
Female	93	41.3	32.2
Male	132	58.7	48.0
Total	225	100	39.9

Of the 225 natural deaths among children, the majority occurred amongst Hispanic children, which accounted for more than 55 percent. Non-Hispanic Black child deaths due to natural causes accounted for about 17 percent. However, the Non-Hispanic Black natural death child mortality rate was the highest amongst all race/ethnicities at 77.8 per 100,000 Non-Hispanic Black children. Table 13 displays child mortality rates for natural cause of death by racial/ethnic categories.

Table 13. Natural Child Deaths (<18 years of age per 100,000 children) by Race/Ethnicity, 2016

Race	(n)	%	Mortality Rate
Non-Hispanic White	33	14.7	24.5
Non-Hispanic Black	38	16.9	77.8
Non-Hispanic Asian/Pacific Islander	14	6.2	46.9*
Non-Hispanic American Indian	0	0	0
Hispanic	124	55.1	35.7
Other	16	7.1	N/A
Total	225	100	40.0

Mortality rates calculated based on less than 20 cases are considered unreliable.

In 2016, the majority of natural child deaths occurred amongst infants under one year of age (73%). Table 14 outlines the number of natural child deaths and mortality rate by age group.

Table 14. Total Natural Child Deaths (<18 years of age per 100,000 children) by Age Groups, 2016

Age Groups	(n)	%	Mortality Rate
0-5	184	81.8	119.0
5-9	12	5.3	7.7*
10-14	14	6.2	9.0*
15-17	15	6.7	15.5*
Total	225	100	40.0

Mortality rates calculated based on less than 20 cases are considered unreliable.

Spotlight | Infant Sleep-Related Deaths

SBC CDRT reviews all infant sleep-related deaths in order to educate parents and caregivers to better understand the ways to reduce the risk of sleep-related infant deaths. *Sleep-related infant deaths* is classified as a death of an infant less than one year of age that occurs suddenly and unexpected where the sleep environment was likely to have contributed to their death. The following terms better define sleep-related deaths.

Sudden Unexpected Infant Death (SUID) is used to describe any sudden and unexpected death, whether explained or unexplained (including sudden infant death syndrome and undetermined deaths) of a child under 12 months of age. [4]

Sudden Infant Death Syndrome (SIDS) is defined as the sudden death of an infant younger than 12 months of age that remains unexplained after a thorough case investigation, including performance of a complete autopsy, thorough examination of the death scene and review of the infant clinical history. [5]

The three most commonly reported types of SUIDS are: SIDS, undetermined causes, accidental suffocation and strangulation in bed. [6]

In 2016, there were a total of twenty-four SBC sleep-related infant deaths. (Note: SIDS/Sleep-related deaths identified within the 2016 CDPH-Center for Health Statistics and Informatics-Death Statistical Master File were re-classified by the SBCDPH Medical Director for reporting purposes).
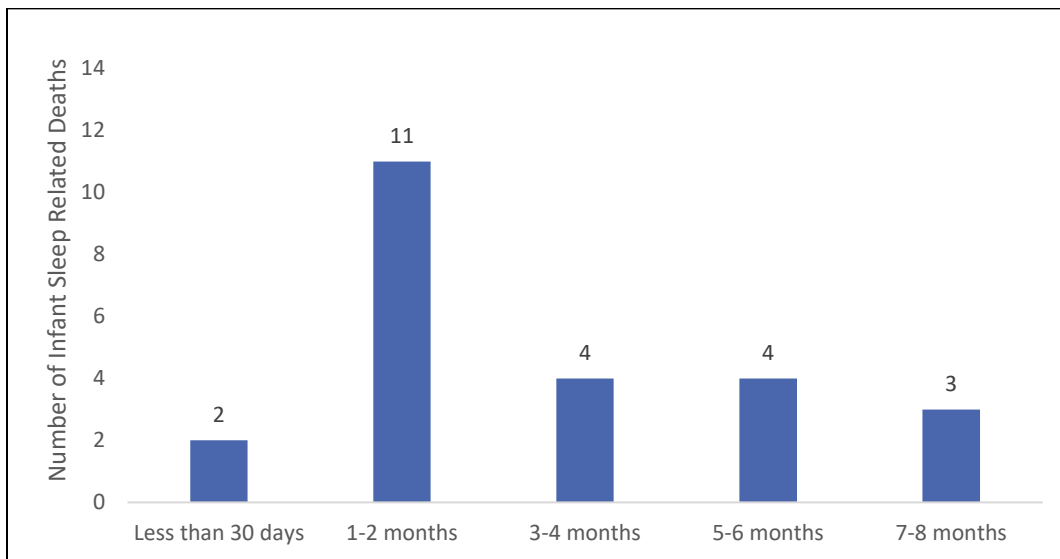
In 2016, there were nine female and fifteen male sleep-related infant deaths. Ten cases were of Hispanic racial background, nine cases were of Non-Hispanic Black racial background, four cases were of White racial background, and one case was of a multiracial background.

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[4] SIDS and Other Sleep-Related Infant Deaths: Updated 2016 Recommendations for a Safe Infant Sleeping Environment, Task Force on Sudden Infant Death Syndrome, Pediatrics Oct 2016, e20162938; DOI: 10.1542/peds.2016-2938
[5] Willinger, M., James, L. S., & Catz, C. (1991). Defining the sudden infant death syndrome (SIDS): Deliberations of an expert panel convened by the National Institute of Child Health and Human Development. Pediatric Pathology, 11(5), 677–684
[6] Center for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion. Available from https://www.cdc.gov/sids/data.htm
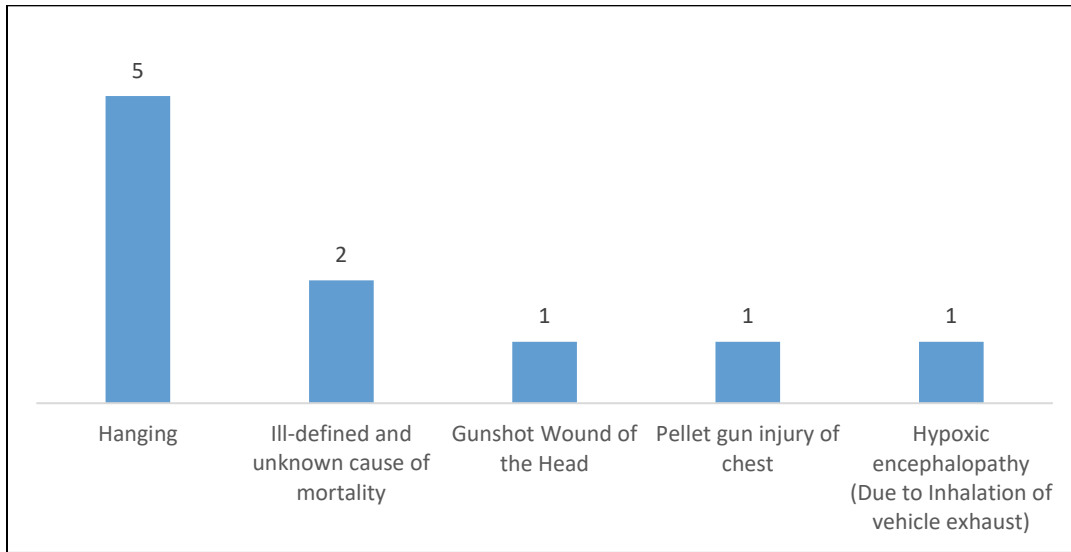
Figure 4. Sleep-Related Infant Deaths by Age (months), 2016

Suicide Child Deaths

In 2016, there were ten suicide deaths, four female and six male cases. The age range for these cases was from 13 to 17 years of age. Four suicides were Hispanic, three were multi-race, one each for Non-Hispanic Black, Non-Hispanic White, and Non-Hispanic Other. The cause of death for these cases were listed as follows: hanging, gunshot wound of the head, pellet gun injury of chest, hypoxic encephalopathy (due to inhalation of vehicle exhaust) and ill-defined and unknown cause of mortality. Males continue to outnumber females in suicide related deaths amongst children, a trend that has not changed since 2009.

Figure 5. Suicide Deaths by Cause of Death, 2016

Undetermined Child Deaths

There were 34 (11.1%) child death cases classified as undetermined in 2016 due to the lack of conclusive evidence during the autopsy. In 2016, the child crude mortality rate for undetermined death was 6 deaths per 100,000 children, of which 11 were female and 23 were male. Additionally, ninety-one percent of undetermined deaths occurred amongst infants. There were two multi-race, seven Non-Hispanic White, eight Non-Hispanic Black and 17 Hispanic cases.

Table 15. Undetermined Child Deaths by Race/Ethnicity, 2016

Race	(n)	%
Non-Hispanic White	7	20.6
Non-Hispanic Black	8	23.5
Non-Hispanic Asian/Pacific Islander	0	0
Non-Hispanic American Indian	0	0
Hispanic	17	50
Multi-Race	2	5.9
Total	34	100

IIII. Five Leading Causes of Death by Age Group

The table below lists the leading cause of death by age for SBC resident children and infant decedents with a residence address located in SBC (while deaths may have occurred outside).

Table 16. Five Leading Causes of Death by Age Group, 2016

Rank	<1	1-4	5-9	10-14	15-17	Ages 1-17
	AGE GROUPS					
1	Maternal Complications and Short Gestation	Unintentional Injuries	Cancers	Unintentional Injuries	Unintentional Injuries	Unintentional Injuries
2	Birth Defects	Birth Defects	Unintentional Injuries	Cancers	Suicide	Cancers
3	Sudden Infant Death Syndrome/ Sleep Related	Nervous System Disease	Birth Defects	Heart Disease	Cancers	Birth Defects
4	Circulatory System Disease	Cancers	Circulatory System Disease	Suicide	Nervous System Disease	Suicide
5	Other Causes	Other Causes	Nervous System Disease	Cerebrovascular	Anemia	Nervous System Disease

Note:

- The leading causes of death categories outlined above were classified based on the Final Cause of Death ICD-10 codes listed within the CDPH Death Statistical Master file.
- Fetal deaths identified by the SBCDPH Medical Director were removed from this analysis and cases where the cause of death was unknown were reviewed by the SBCDPH Medical Director for cause of death confirmation utilizing the SBCDPH Coroner's database.
- Deaths were classified by Final Cause of Death ICD-10 code utilizing CDC WISQARS (Web-based Injury Statistics Query and Reporting System). List of Causes Used in Leading Causes of Death and Years of Potential Life Lost (YPLL) definitions. Deaths not classified through the CDC WISQARS were classified from the National Vital Statistics Report *Deaths:* Leading Causes for 1999 (Volume 49 Number 11), available online at: https://www.cdc.gov/injury/wisqars/fatal_help/causes_icd10.html.
- Common categorical terms were substituted for public use and interpretation.

Recommendations

After review of the data, the CDRT has the following recommendations:

There is a need to further examine the disproportionate death rate of African Americans/Blacks in San Bernardino County. Their child mortality rate is more than double the total child mortality of other races for 2016 in SBC. Efforts need to be made to reduce this incredibly high rate. In the future, there are plans to perform a trend analysis on the leading causes of death in children as this will further help identify areas that may need more attention.

Rates of death for children under the age of five continue to be the highest amongst all age ranges. Many of these deaths are preventable. More research and examination needs to be done to understand these continued high rates.

Child abuse and neglect deaths are preventable but are still occurring in this county at disheartening levels. Research shows that parents and caregivers who have support are more likely to provide a safe and healthy environment for the child. Children need much attention to ensure that they are growing up to be healthy and productive adults. CDRT may consider promoting the ACE (Adverse Childhood Experiences) approach for harm reduction and prevention of child abuse and neglect.

Child abuse hotline: 1-800-827-8724

Youth suicide has continued at a steady increase in recent years. Further examination of risk factors is needed to understand the increased rates of suicidal ideation in teens. It is important to do a gap analysis of existing available resources for youth and families.

Ultimately, it is important to look at these issues collaboratively to find solutions. Many of these deaths are preventable and as San Bernardino County continues to work diligently and in one coordinated effort, many of these trends may be successfully reversed. It is important to look at the whole family and see what resources and support can be offered to build the resiliency of our families.

Appendix A: Glossary

Abuse: any act of physical, sexual or emotional abuse.

Accidental Death: Deaths that are not intentional, expected or foreseeable (excludes natural and traffic deaths). These could be due to injuries without elements of neglect and if reasonable precautions were taken to prevent it from occurring, including medical errors.

Child Death Review Team (CDRT): composed of a collaborative body of professionals, that was established to provide professional review of deaths of individuals under the age of 18 who died in San Bernardino County.

Child Death: Any death to an individual under the age 18.

Crude Child Mortality Rate: The number of child deaths within a population divided by the total number of children in that population. This rate is a measure of frequency of occurrence of death in a defined population during a specified interval.

Death Certificate: Certifies the occurrence of death. This information is provided to the Medical Examiner/Coroner's Office who then provide information for review by CDRT.

Drowning: a submersion under water that leads to suffocation and ultimately death.

Homicide: Death caused by an individual's intent to end the life of another individual. This can be abuse by parent/caregiver or a third-party. This can also result from high risk behavior such as gang affiliation or resulting from verbal and physical altercation.

Infant Death: Specifically, any death that occurs during the first 12 months of life.

Infant Mortality Rate: The number of infant deaths (less than one year of age) per every 1,000 live births. This rate is a measure of frequency of occurrence of death in a defined population during a specified interval.

Manner of Death: refers to how the person died and included is consideration of intention, circumstance or action that led to the cause of death. This is indicated on the death certificate including six classifications: natural, accidental, traffic, homicide, suicide and undetermined.

Natural Death: Death due to complication(s) of disease, infection, congenital condition and/or perinatal cause.

Neglect: the failure to meet a child's basic physical and emotional need such as housing, food, education, access to medical care and more.

Preterm: is a birth that occurs before 38 weeks of gestation.

Sudden Infant Death Syndrome (SIDS): the sudden death of an infant younger than 12 months of age that remains unexplained after a thorough case investigation, including performance of a complete autopsy, thorough examination of the death scene and review of the infant's and family's clinical histories.

Sudden Unexpected Infant Death Syndrome (SUIDS): used to describe any sudden and unexpected death, whether explained or unexplained (including sudden infant death syndrome and ill-defined deaths) of a child under 12 months of age.

Suicide: Death caused by self-harm with an intent to die as a result. This can be related to child abuse or neglect, substance use/abuse, bullying, loss of family member/significant other or history of clinical mental illness.

Traffic Death: This could be death resulting while driving a motorized vehicle, at fault or victim; or death resulting from being a passenger in motorized vehicle.

Undetermined Death: No significant finding during the autopsy to conclusively give a cause or manner of death. Also, if there are many questionable or confounding factors, death could be determined as Undetermined.