

**San Bernardino County
Child Death Review Team
Annual Report
2011 Data**

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Background of the Child Death Review Team in San Bernardino County

California enacted legislation in 1988 which allowed the development of interagency child death review teams. These teams are intended to assist local agencies in identifying and reviewing child deaths and facilitating communication involved in the investigation of such cases. In response to this legislation, the San Bernardino County Child Death Review Team (CDRT) was formed to provide professional review of deaths of persons under the age of 18 who lived in San Bernardino County.

State law mandates that no less than once each year, each child death review team shall make available to the public; findings, conclusions and recommendations, including aggregate statistical data on the incidences and causes of child deaths (SB 1668 (e) (1)). Due to the sensitivity of the material discussed, confidentiality is maintained pursuant to California Penal Code 11167.5. The San Bernardino County CDRT is a multidisciplinary collaborative body guided by agreed upon goals and objectives.

The San Bernardino County CDRT reviews and evaluates the deaths of children less than 18 years of age reported to the Medical Examiner/Coroner's office. The hope is that, through a comprehensive and multidisciplinary review of child deaths, we will better understand how and why children die and use our findings to take actions to prevent other deaths, and to improve the health and safety of our children.

The team is composed of designated representatives from the following agencies:

Sheriff's Department, Crimes Against Children Division
Sherriff's Department, Coroner's Division
Children & Family Services
District Attorney's Office
Department of Public Health
Probation Department
Program Integrity Division
Loma Linda Medical Center
Arrowhead Regional Medical Center
Children's Network
Department of Behavioral Health
San Bernardino County Superintendent of Schools
Inland Regional Center
American Medical Response
Inland Counties Emergency Medical Agency

Prior to each meeting, selected CDRT members receive record check information of each child death to be reviewed for the month. The members research their own agency's files for additional information on the child and his/her family. All of the related information is then brought to the monthly meeting for disclosure, compilation, discussion, review and classification. A course of action is determined once the review is complete.

Executive Summary

This report will focus on deaths that occurred across all six manners of death assigned by the Coroner. Manner of death refers to how an individual died and includes consideration of intention, circumstances, and/or actions that led to the death. The six manners include Natural, Accident, Traffic, Homicide, Suicide, and Undetermined. Natural manner deaths include those that were due to disease, congenital conditions, and/or perinatal causes.

The data and cases that are being shared in this report were obtained through the San Bernardino County Coroner's Case Management System.

A total of 142 child deaths were reviewed in 2011 by San Bernardino County's Child Death Review Team (CDRT). Of those, 44% (n=63) of children's deaths were designated as natural in manner, which was followed by accident and traffic deaths at 22% (n=31), undetermined deaths at 15% (n=22), homicide deaths at 13% (n=18), and suicide deaths at 6% (n=8).

Over half of accidental and traffic-related deaths were due to vehicular blunt force trauma. The next most common cause of accidental death was drowning. Almost one-third of accident and traffic-related deaths were among children ages 0 – 5.

Homicide deaths among children decreased by 18% from 2010 (n=22) to 2011 (n=18). The number of homicide deaths resulting from child abuse and neglect overall decreased by 36% in 2011. It should be noted that 71% of these children were between the ages of 0 – 5.

Deaths by suicide were most common among males and youth ages 11 – 17. This age category accounted for over 87% (n=7) of children who died by suicide in San Bernardino County.

The most common cause of death among undetermined manner deaths was sudden unexplained infant death. Many of these infants were considered to be in unsafe sleeping environments. A special focus area for our CDRT has been examining all sleep-related deaths of infants. In 2011, 19 infants died in their sleeping environments, 74% of whom were known to be bed-sharing with at least one parent.

We invite interested parties to use this report's data for research and policy development purposes and to contact us if further information is required.

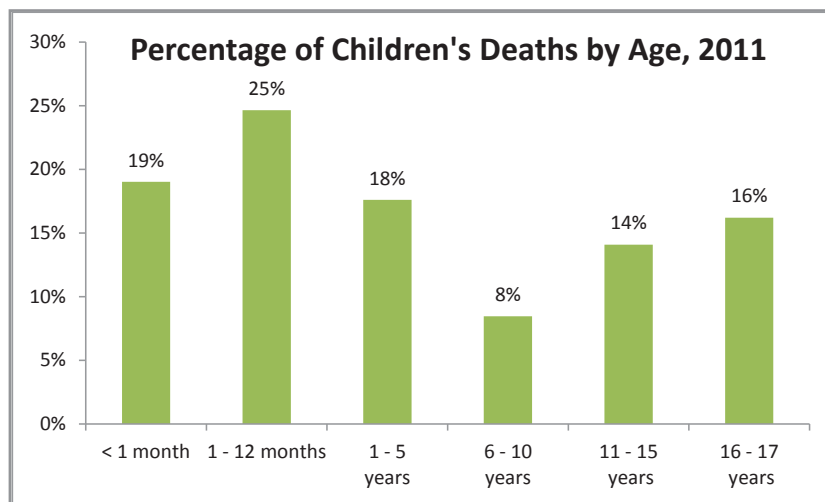
Demographics: 2011

Age/Gender

During 2011, a total of 142 deaths were reviewed by the San Bernardino County Child Death Review Team. All of these deaths were classified as either Natural, Accident, Traffic, Homicide, Suicide, or Undetermined in manner. The data and cases that are being shared in this report were obtained through the Coroner's database called the Coroner's Case Management System.

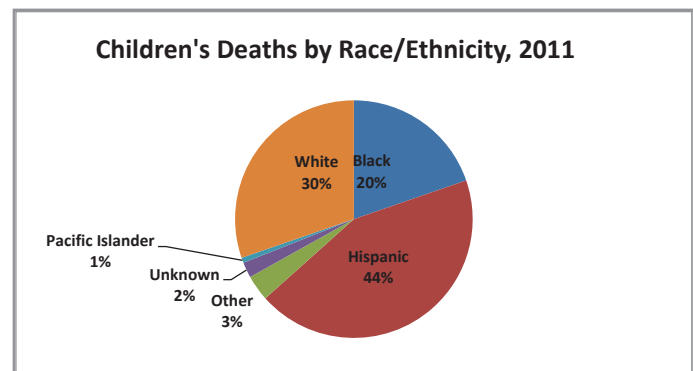
Of the 142 deaths reviewed in 2011, 61% (n=87) were male and 39% (n=55) were female. Like years past, fewer deaths occurred among female children in comparison to male children.

Children's deaths in San Bernardino County varied widely across the age spectrum; however, 62% (87 cases) of deaths occurred in children ages 0 – 5 in 2011. This is consistent with findings from 2010 where 66% of deaths occurred among children ages 0 - 5. About 30% (30 cases) of children's deaths were between the ages 11 and 17.



Race/Ethnicity

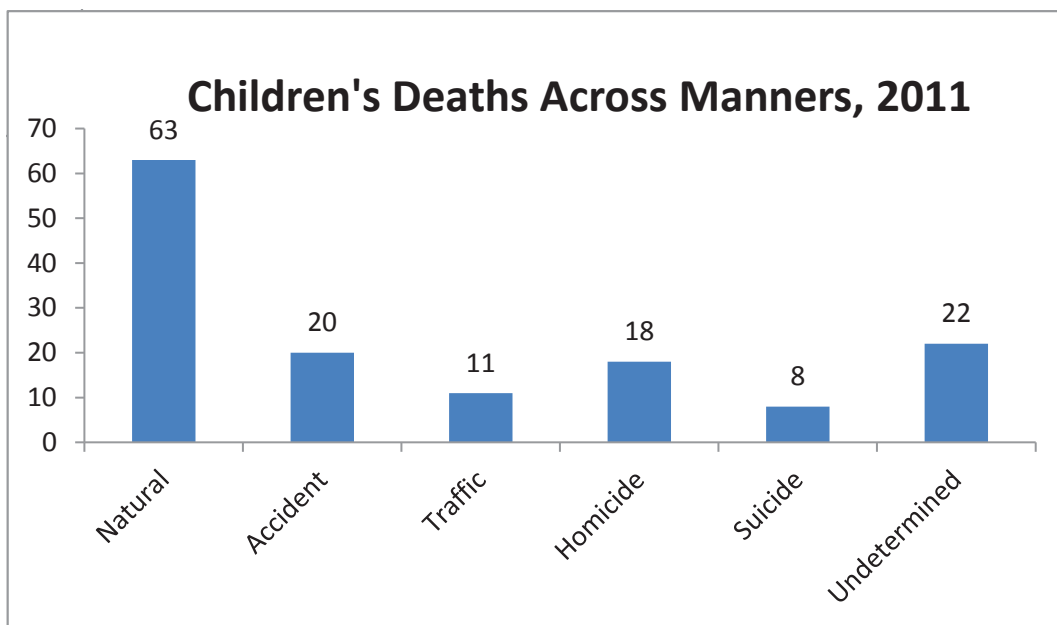
In 2011, Hispanics represented the majority of children's deaths. Hispanics also represent approximately 49% of San Bernardino County's general population. Although children's deaths among Blacks are a smaller proportion when compared to Hispanics and Whites, they are over-represented in comparison to their 9% proportionality in the general San Bernardino County population.



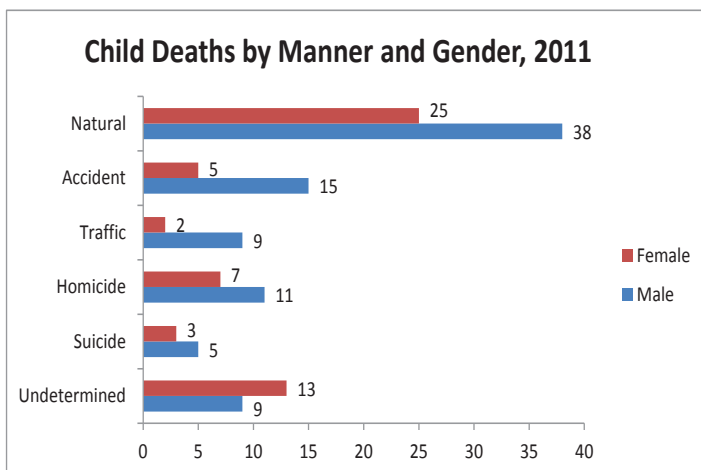
San Bernardino County Child Deaths Across Manners

In 2011, a majority of all child deaths (44% or n=63) reviewed by CDRT were classified as being natural in manner. Accidental and traffic-related deaths accounted for 22% (n=31) of child deaths. Almost 13% (n=18) of cases were determined to be homicide in manner while about 6% (n=8) of cases were suicide in manner. Alternatively, approximately 15% (n=22) of cases reviewed were classified as being undetermined in manner.

The number of suicide and undetermined cases has risen 14% from 2010. In 2010, there were seven cases while in 2011 there were eight. The number of undetermined cases increased from 18 in 2010 to 22 in 2011, resulting in a 22% increase from 2010 - 2011.



Child Deaths by Manner and Gender



Across almost all categories, male deaths outnumbered females in 2011. In fact, males made up 60% of natural deaths. Moreover, over 75% of accident and traffic-related deaths were among males. Homicide and suicide deaths were more common among males in comparison to females comprising just over 60% of all homicide and suicide deaths. Females outnumbered male deaths in the undetermined category by almost 20% in 2011.

Child Deaths by Manner and Age

	N	%	< 1 month	1-12 months	1-5 years	6-10 years	11-15 years	16-17 years
Natural	63	44	21	13	15	5	6	3
Accident	20	14		3	7	2	3	5
Traffic	11	8				2	4	5
Homicide	18	13	1	3	3	2	2	7
Suicide	8	6				1	4	3
Undetermined	22	15	5	16			1	

Although natural was the leading manner of death for a majority of children across the age spectrum in 2011; accident was the second most frequent manner of death for children age 1 - 5 years of age followed by undetermined deaths among children 1 – 12 months. Aside from natural deaths, undetermined was also the greatest manner among infants less than one month of age. Like years past, homicide was the leading manner of death for teens 16 – 17 years of age. Traffic and suicide were the leading manners of death for children 11 – 15 years of age followed by accident.

Child Deaths by Manner and Race/Ethnicity

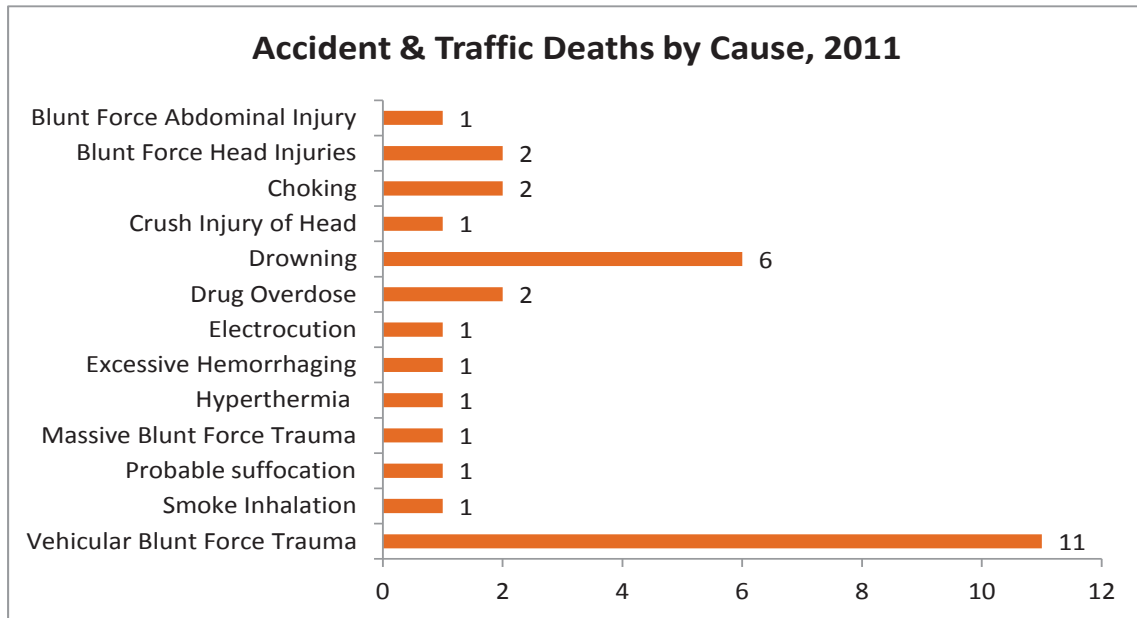
	N	%	Natural	Accident	Traffic	Homicide	Suicide	Undetermined
Black	28	20	13	2		8		5
Hispanic	62	43	28	10	7	4	4	9
Pacific Islander	1	1						1
White	43	30	19	8	3	5	3	5
Other	5	4	1		1	1	1	1
Unknown	3	2	2					1

In addition to natural deaths, undetermined manner deaths were the largest number of deaths across nearly all races followed by homicides. A greater percentage of deaths occurred among Hispanics than any other race. This was followed by Whites and Blacks. Accident, traffic, and undetermined deaths appear to be concentrated among Hispanics and Whites while homicides were most concentrated among Blacks in 2011.

Causes of Death by Manner: 2011

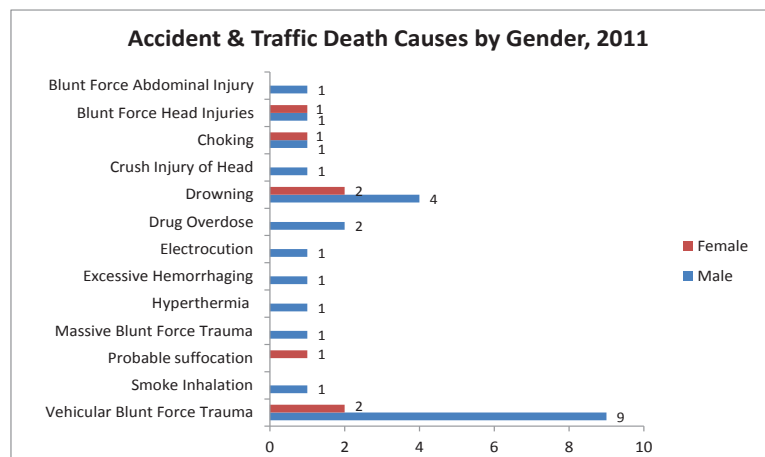
Accident & Traffic Deaths

In 2011, there were 31 children's deaths that were classified as accident and traffic in manner within San Bernardino County.



The leading cause of death for 2011 within these manners was motor vehicle-related (vehicular blunt force trauma) incidents. These incidents account for 35% of accident and traffic-related deaths. The second leading cause of death was drowning. These findings are consistent with data from 2009 and 2010.

Overall, most accidental deaths occurred among males. Male motor vehicle incident-related deaths far outnumbered female deaths in 2011. This year also saw a majority of drowning deaths occur amongst male children. Both cases of accidental drug overdose occurred only among male teens.



Accident & Traffic Death Causes by Age, 2011

	N	%	< 1 month	1- 12 months	1- 5 years	6- 10 years	11- 15 years	16- 17 years
Blunt Force Abdominal Injury	1	3				1		
Blunt Force Head Injury	2	6					1	1
Choking	2	6			1	1		
Crush Injury of Head	1	3			1			
Drowning	6	19			5			1
Drug Overdose	2	6						2
Electrocution	1	3						1
Excessive Hemorrhaging	1	3		1				
Hyperthermia	1	3		1				
Massive Blunt Force Trauma	1	3					1	
Probable Suffocation	2	6		1				
Smoke Inhalation	1	3					1	
Vehicular Blunt Force Trauma	11	36				2	4	5

In 2011, 32% (n=10) of accident and traffic-related deaths were amongst children ages 0 – 5 with drowning being the leading cause of death. In fact, half of the children in this age group died as a result of a drowning accident. The leading cause of death for teens ages 11 – 17 within this manner was vehicular blunt force trauma at 81%. It is also worth noting that deaths due to accidental drug overdoses were also amongst teens ages 16 – 17.

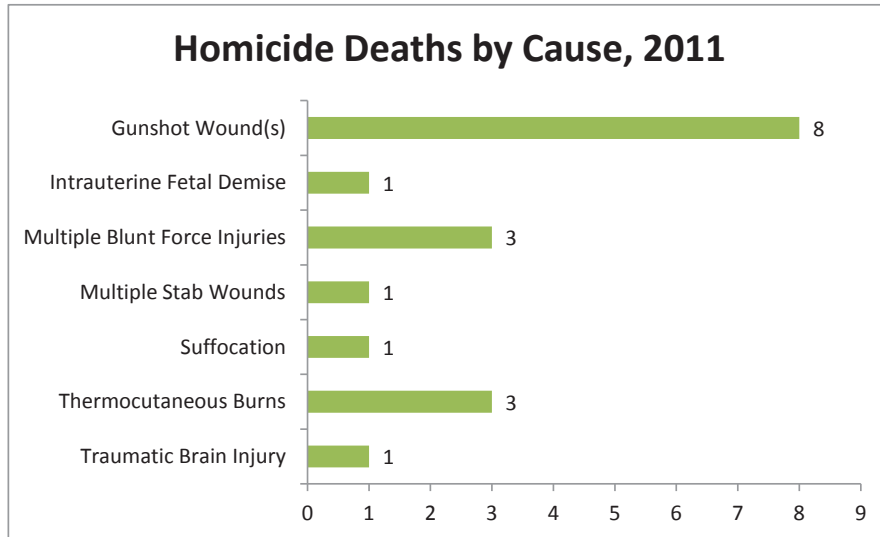
Special Topics: Drowning Deaths, 2011

A total of 6 deaths occurred as a result of drowning in 2011. A majority of deaths occurred in backyard in-ground swimming pools. Over half of these pools did not have a fence or other barrier surrounding the pool. Most caregivers had last seen their child approximately 5 – 20 minutes before finding their child floating in the pool. All but one of the drowning deaths occurred in a swimming pool. The exception was an accidental death that took place in a river. The following is descriptive data about the children who died by drowning:

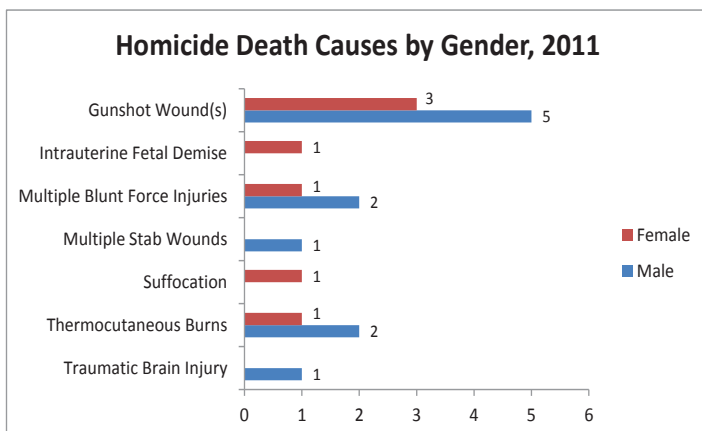
- Four of the six children were male; two were female
- Five of the six children were between the ages of 1 – 5 years old. One child was 16 years old
- Four children were Hispanic and two were White
- Deaths occurred in Apple Valley, Fontana, Ontario, and Needles

Homicide Deaths

In 2011, there were 18 children's homicide deaths within the County of San Bernardino.



Children's homicide deaths were almost evenly distributed across all categories in 2011 with the exception of gunshot wounds. In comparison to 2010, there was a decrease of gunshot wound deaths by 20% in 2011. About 44% (8 cases) of homicide deaths were due to gunshot wounds making it the leading cause. This was followed by three deaths each that were due to multiple blunt force injuries and thermocutaneous burns. One death was ruled a homicide and given a cause of intrauterine fetal demise because of intentional maternal blunt force trauma.



Over half of all homicide deaths were among males in 2011. The leading cause of homicide death, gunshot wounds, was most prevalent among males. Thermocutaneous burns and multiple blunt force injuries were also more common among males than females. The intrauterine fetal demise and suffocation deaths occurred among female children; however, the leading cause of homicide deaths for females was gunshot wound.

Homicide Death Causes by Age, 2011								
	N	%	< 1 month	1-12 months	1-5 years	6-10 years	11-15 years	16-17 years
Gunshot Wound(s)	8	44			1	1		6
Intrauterine Fetal Demise	1	6	1					
Multiple Blunt Force Injuries	3	16				1	1	1
Multiple Stab Wounds	1	6					1	
Suffocation	1	6		1				
Thermocutaneous Burns	3	16		1	2			
Traumatic Brain Injury	1	6		1				

In 2011, 39% (7 cases) of homicide deaths were among children ages 0 – 5. The causes of death for these children were thermocutaneous burns, traumatic brain injury, suffocation, gunshot wound, and intrauterine fetal demise. Another 28% (5 cases) of homicide deaths were among teens ages 16 – 17. An overwhelming majority of these youth died by gunshot wounds while one died by multiple blunt for injuries.

Special Topics: Child Abuse and Neglect Deaths, 2011

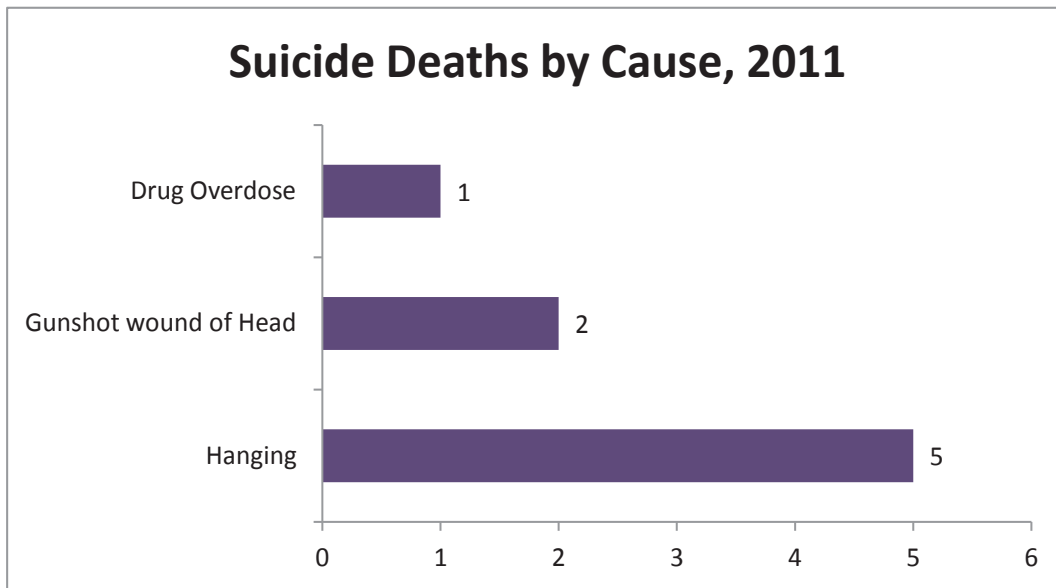
Every year, a number of children die in San Bernardino County from child abuse and neglect. In 2011, seven children died as a result of child abuse and neglect. Between 2010 and 2011, the number of child abuse and neglect related deaths have decreased by 36%.

Overall, 71% (5 cases) of homicide deaths resulting from child abuse are among children ages 0 – 5 in 2011. As noted earlier, thermocutaneous burns were the most common cause among children in this age range. Two of these burns were due to scalding of the child.

Homicide Deaths Resulting From Child Abuse and Neglect, 2011			
AGE	GENDER	RACE	CAUSE OF DEATH
3 months	Male	Black	Traumatic Brain Injury
6 months	Female	White	Suffocation
11 months	Male	White	Thermocutaneous Burns
1	Male	Other	Thermocutaneous Burns
4	Female	White	Thermocutaneous Burns
10	Male	Hispanic	Multiple Blunt Force Injuries
16	Male	Hispanic	Multiple Blunt Force Injuries

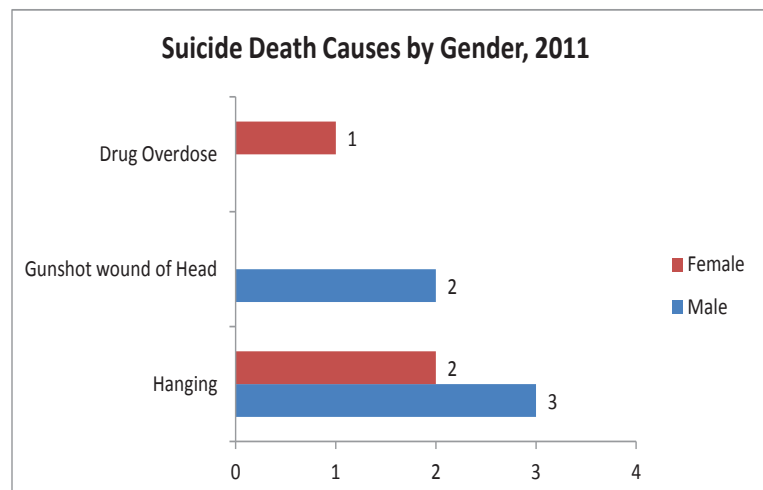
Suicide Deaths

Every year, a number of children die by suicide in San Bernardino County. In 2011, eight children died by suicide.



Deaths by suicide had varying causes; however, the most common among them was hanging. The overwhelming majority (62.5%, or 5 cases) of youth died by hanging themselves. Another 25% (2 cases) died by a gunshot wound to the head, while one youth died from a drug overdose.

Like years past, suicide deaths were more common among males than females. Almost 63% of deaths were among males while about 37% were among females. There were almost as many females as males who died by hanging. Both deaths due to gunshot wounds to the head were by male youth, while the drug overdose was by a female.

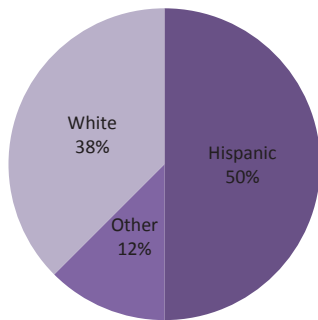


Suicide Death Causes by Age, 2011

	N	%	< 1 month	1- 12 months	1 - 5 years	6 - 10 years	11 - 15 years	16 - 17 years
Drug Overdose	1	12.5					1	
Gunshot Wound of Head	2	25						2
Hanging	5	62.5				1	3	1

Notably, 87.5% of all suicide deaths occurred among youth ages 11 – 17 in 2011. All deaths by gunshot wound to the head occurred among youth ages 16 -17. The majority of deaths by hanging, 60% (3 of 5 cases) occurred among youth 11 – 15 years of age. However, one child between the ages of 6 and 10 also died by hanging in San Bernardino County.

Suicide Deaths by Race, 2011

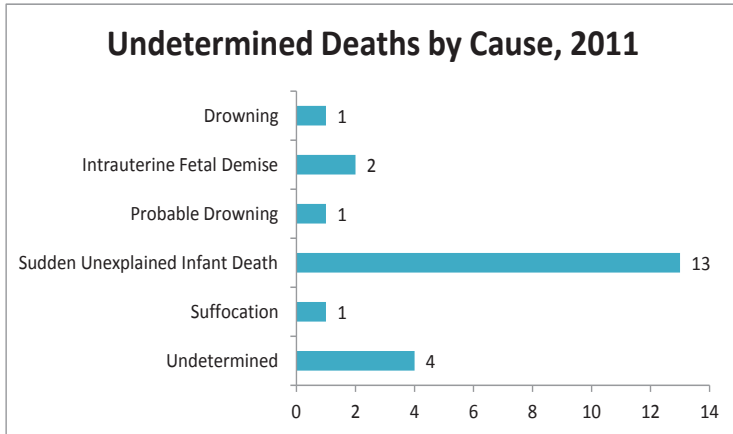


Half of all children who died by suicide in San Bernardino County were Hispanic, 38% were White, while another 12% were identified as Other in 2011. Similar to years past, the racial/ethnic composition of suicide deaths has varied across racial/ethnic groups from year to year.

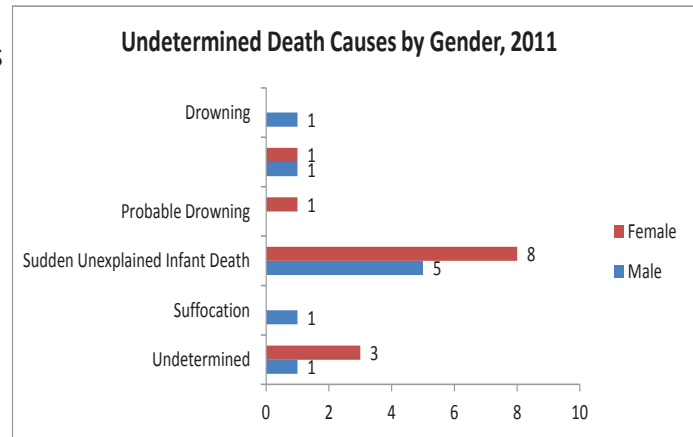
Undetermined Deaths

Undetermined was the second leading manner of death in 2011 accounting for 22 of the 142 total children's deaths reviewed by CDRT.

In 2011, a majority of the undetermined deaths were assigned the cause of sudden unexplained infant death, accounting for 59% of deaths that year. Nine percent of deaths were intrauterine fetal demise cases where the etiology was unknown while another three deaths were due to probable drowning and suffocation. The remaining deaths were due to an undetermined cause despite a thorough investigation of the evidence. Like 2009 and 2010, sudden unexplained infant death remained the most common cause of undetermined deaths 2011.



Sudden unexplained infant death was more common among females than males in 2011. In fact, 62% of female undetermined deaths were due to this cause. Overall, sudden unexplained infant death remained the leading cause of death for both females and males. The undetermined cause was also the second leading cause of death for females.



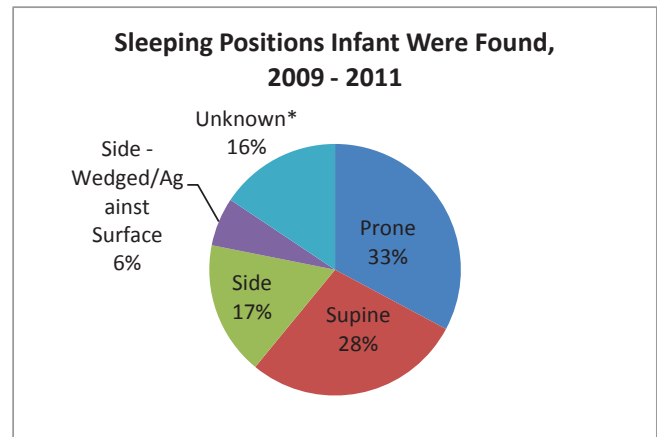
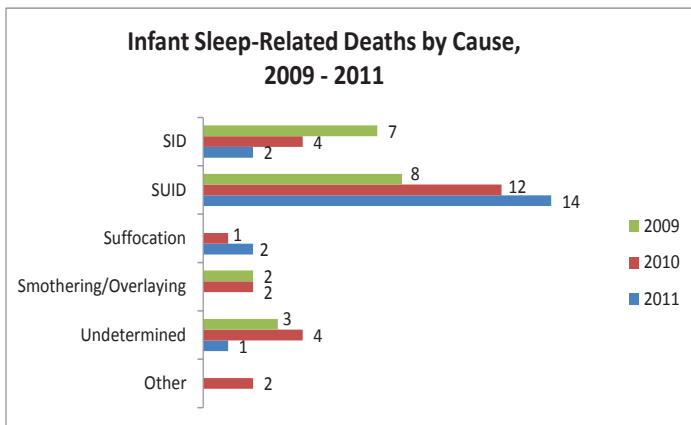
	N	%	< 1 month	1-12 months	1-5 years	6-10 years	11-15 years	16-17 years
Drowning	1	5		1				
Intrauterine Fetal Demise	2	9	2					
Probable Drowning	1	5	1					
Sudden Unexplained Infant Death	13	59		13				
Suffocation	1	5		1				
Undetermined	4	18	2	1			1	

It is worth noting that all but one of the 22 undetermined manner deaths occurred among children less than 12 months of age. The concentration of deaths in this age category was also observed in 2009 and 2010 too. Sudden unexplained infant death was the most common cause of death in this age category as well.

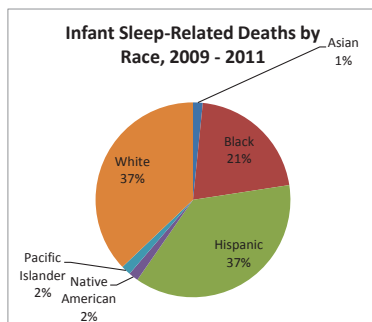
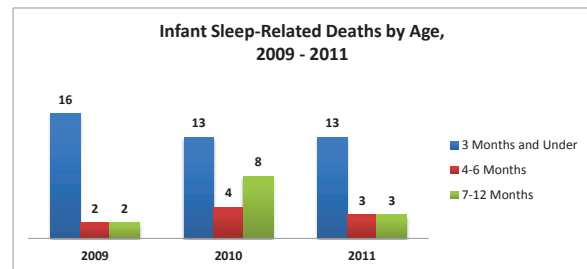
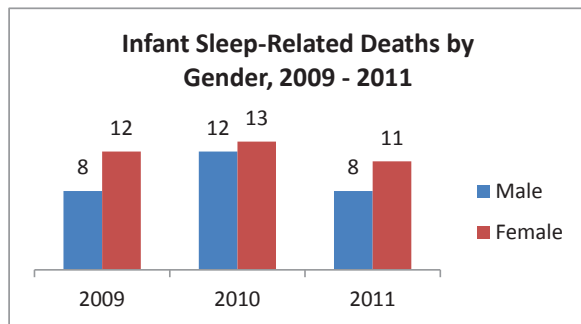
Special Topics: Infant Sleep-Related Deaths, 2009 - 2011

Between 2009 and 2011, 64 infants were found unresponsive in their sleep environments and subsequently died within San Bernardino County. Approximately, 70% of these infants were known to have been bed/space sharing with a parent or family member. More specifically, 82% of these bed/space sharing circumstances involved sleeping with one or more parent. Sleeping locations for bed sharing cases across all three years included the bed, on top of a pillow in the bed, a parent's chest or arm, couch, recliner, and the floor. Note: The cases included in this study include deaths across multiple manners including natural manner deaths.

YEAR	Infant Sleep-Related Deaths	Bed Sharing Cases	Bed Sharing Cases w/ One or More Parent
2009	20	14	12
2010	25	16	11
2011	19	15	14
TOTAL	64	45	37



Below are the demographic data that describe the 64 infants who were found unresponsive in their sleep environments and subsequently died between 2009 and 2011.



East Valley/Central Region	28
West End	5
High Desert	25
East Desert	4
Mountains	2

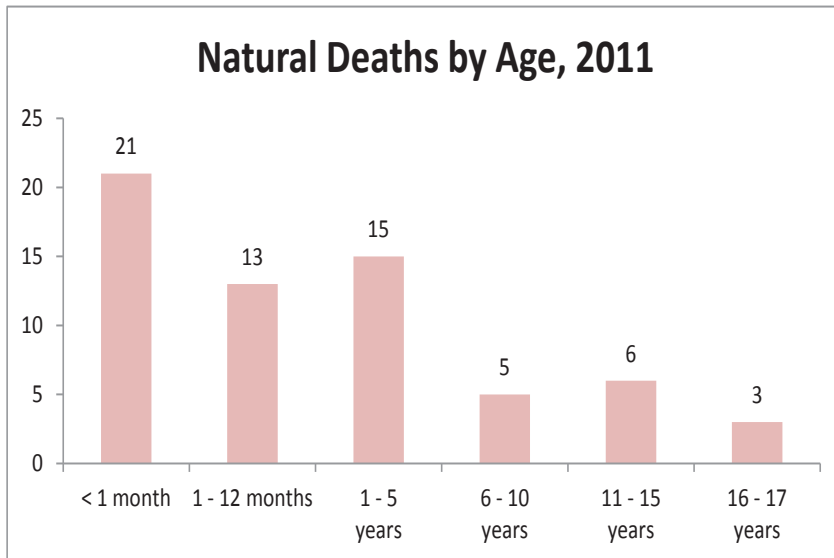
Natural Deaths

In 2011, the majority of San Bernardino County children deaths were classified as being natural in manner. In fact, these deaths accounted for 44% (n=63) of all child deaths reviewed by CDRT. Below is a listing of the natural death causes as well as the corresponding number of deaths associated with each cause:

Natural Deaths by Cause, 2011	
Cause of Death	Number of Deaths
Acute Asthma Exacerbation	1
Acute Laryngitis	1
Acute Lymphocytic Myocarditis	1
Acute Myocarditis	1
Acute Respiratory Tract Infection	1
Asthma	1
Bone Cancer	1
Brain Cancer	1
Bronchiopulmonary Dysplasia	1
Bronchopneumonia due to Asthma	1
Bronchopneumonia due to Cerebral Palsy	1
Cardiopulmonary Arrest due to Spinal Muscular Atrophy	1
Complications of Cerebral Palsy	1
Complications of Multiple Congenital Anomalies	1
Complications of Prematurity	1
Complications of Subglottic Stenosis	1
Congenital Heart Defects	3
Cystic Fibrosis	1
Ehlers-Danlos Syndrome	1
Gaucher's Disease	1
Hypoxic-ischemic Encephalopathy	1
Intrauterine fetal Demise due to Chorioamnionitis	1
Intrauterine Fetal Demise due to Maternal Drug Use	4
Intrauterine Fetal Demise due to Maternal Placental Abruption	2
Intrauterine Fetal Demise, Etiology Unknown	3
Intraventricular Hemorrhage	1
Leukemia	1
Lissencephaly	1
Multiorgan System Failure due to Septic Shock Unknown	1
Muscular Dystrophy	2
Neonatal Necrotizing Pseudomembranous Enterocolitis	1
Pneumonia	4
Pulmonary Stenosis	1
Seizure	1
Sepsis	6
Sequelae of Congenital Neurodevelopmental Disorder	1
Severe Prematurity, Etiology Unknown	7
Sudden Infant Death Syndrome	2
Sudden Unexplained Infant Death	1

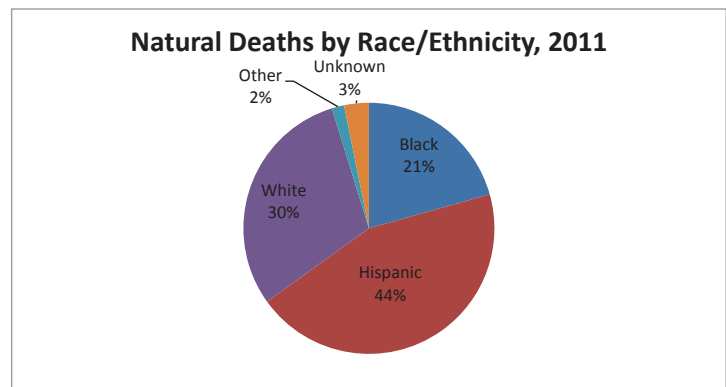
The most common types of deaths in the natural category were associated with intrauterine fetal demise and/or severe prematurity at birth, acute conditions like sepsis, pneumonia, or other respiratory infections, and congenital or chronic diseases. Fetal demise cases made up almost 27% of all deaths.

Approximately 60% (n=38) of natural manner deaths occurred among males followed by 40% (n=25) of females.



Compared to other age ranges, children ages 0 – 5 comprised an overwhelming majority of natural deaths at 78% (n=49). Of these, over half were children less than one year of age. Most of the children less than one month of age died while in utero or because of severe prematurity at birth.

Almost half (44%) of all children who died by a natural manner in San Bernardino County were Hispanic, 30% were Black, and 21% were White. The remaining children were Other or Unknown.





Children's Network
County of San Bernardino



Prepared by Children's Network using Child Death Review Team records and 2009 - 2011 Coroner's Case Management System data; June 2013.