Orange County
Child Death Review Team
Five Year Report
2007 - 2011

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OC CDRT FIVE YEAR REPORT

i Introduction

History

The Orange County Child Death Review Team (OCCDRT) was established in 1987 to provide a forum for multi-disciplinary review of child deaths reported to the Coroner. Initially, the team's focus was on fetal deaths and deaths of children through 12 years of age, with particular focus on improving multi-agency communication on child homicides and unexplained child deaths. One year after the conception of the OCCDRT, the California Legislature authorized counties to officially establish interagency child death review teams. In 1993, the review process expanded to include children through 17 years of age. With the improved coordination and communication among the many agencies responsible for child health, safety, and protection achieved by the pioneering team, the primary objectives of the OCCDRT are now broadening to include prevention efforts. In mid 2009 fetal deaths were removed from the main team review and a fetal subcommittee was formed to assess the need for a separate fetal review committee.

Introduction

The OCCDRT currently holds meetings every two months. The meetings are chaired by the Orange County Sheriff-Coroner Department and co-chaired by the Raise Foundation. OCCDRT members represent a wide variety of Orange County agencies. Each member believes that deaths of children caused by injury or abuse are preventable and each child death deserves a competent case review. The OCCDRT meetings also provide an educational opportunity for each member of the team to expand his/her individual awareness of the responsibilities and functions of the other agencies.

The team's focus has largely been to ensure the quality of the multi-agency response to child deaths through increased communication, collaboration and education. The team is now directing additional focus toward enhancing data collection methods in order to provide greater information about the causes of child deaths. The team's ultimate goal is that this data will result in reducing/eliminating the unintentional injury and other non-natural deaths of children. Our strategy is to provide organizations focused on children and families with the statistical information they need to design and deliver effective child injury and abuse prevention programs.

Team Membership

Core members of this multi-disciplinary team are drawn from public agencies responsible for the investigation of child deaths and agencies responsible for protecting the health and welfare of children. Each team member is required to sign a confidentiality statement.

The team is comprised of representatives from the following agencies or entities:

1. Coroner's Office
2. The Sheriff Department
3. Health Care Agency
4. District Attorney's Office

5. County Counsel
6. Department of Education
7. Probation Department
8. Local Police Agencies
9. Social Services
10. Raise Foundation (the local child abuse prevention council)
11. Children's Hospital of Orange County
12. UCI Pediatrics
13. Child Abuse Services Team (Orange County's multi-disciplinary investigative team for child abuse and maltreatment)

Case Intake

The team receives all cases for review from the Coroner. These include the deaths of children less than 18 years of age as well as deaths of fetuses that are more than 20 weeks gestation (2007 - 2009). Coroner cases encompass deaths in which the cause is unknown or unexpected, involves a contagious disease, occurs at home, is traumatic, or occurs under suspicious circumstances. Deaths that are not reportable to the Coroner and are not reviewed by the OCCDRT are those occurring from a known and expected cause in a medical facility (for children, the vast majority are perinatal and congenital conditions).

Review Process

The first step is to prepare an information sheet for each child to be reviewed. Two weeks prior to the meeting, the information sheet is delivered to team members. Team members are responsible for reviewing each case and for researching their agency's involvement with the deceased child and family members.

At the meetings, team members provide the results of their research into their agency's involvement with the child or child's family. The OCCDRT seeks to determine if there were any issues and/or gaps in service in the areas of investigation, prevention, advocacy, or public health. Follow-up assignments may be given to team members as appropriate.

Summary of Case Data

The OCCDRT examines deaths of children reported to the Coroner. These deaths are categorized into two groups: child deaths and fetal deaths. The age range for child deaths is defined as live birth through 17 years. Fetal deaths are reported to the Coroner when the cause of death is unknown and the gestational age is greater than 20 weeks. This report does not include fetal deaths.

Special Section

Included in the appendices of each year is a special section located at the end which focuses on the bed sharing deaths (Children under one year of age sleeping with a sibling, an adult caregiver or both) reviewed during that specific year. It is interesting to note that during this five year span thirty-one (63.3%) of the forty-nine bed sharing deaths were classified as Undetermined with an unknown cause, eleven (22.4%) were Natural, five (10.2%) were due to Unintentional Injury and two (4.1%) were Homicides.

This report examines and analyzes data for the years 2007 through 2011.

Manner of Death Definitions

The child deaths identified in this report are organized in five main categories; these are Natural, Unintentional Injury, Homicide, Suicide, and Undetermined. Listed below are each of these categories and their definition.

Natural Deaths

Natural deaths discussed in this report are those that were reported to the Coroner and determined to be due to complications of disease processes, or due immediately to one or more natural cause(s), such as perinatal conditions, congenital anomalies, Sudden Infant Death Syndrome (SIDS), cancers, or due to infections or respiratory conditions.

Natural deaths are reportable to the Coroner when a person dies and has not been seen by a doctor within 20 days prior to the death, when the death is unexpected, or when the death is unexplained and the treating physician is unable to offer a cause of death.

Sudden Infant Death Syndrome (SIDS) is defined as the sudden death of an infant one year of age or younger which is unexpected and for which a postmortem examination including an autopsy, death scene investigation, and review of infant's medical history, fails to identify an adequate cause of death.

Unintentional Injury Deaths

Unintentional Injury deaths are those where the death did not result from natural processes and did not occur intentionally.

Included in this manner are all accidental traffic related deaths. These include any death in which a motorized vehicle is involved, i.e. automobile, motorcycle, dune buggy, etc.

Homicide Deaths

Homicide deaths are those where death results from a volitional act committed by another person to cause fear, harm, or death. Intent to cause death is a common element but is not required for classification as homicide. It is to be emphasized that the classification of Homicide for the purposes of death certification is a "neutral" term and neither indicates nor implies *criminal* intent, which remains a determination within the province of legal processes.

Suicide Deaths

Suicide deaths are those where the death is the result of an intentional, self-inflicted act intended to commit self-harm or cause death to oneself. Methods may include asphyxia (via hanging or suffocation), gunshot, and overdose of medication or other drugs.

Undetermined Deaths

Classified in the Undetermined death category are those deaths where the designation of Natural, Unintentional Injury, Suicide or Homicide could not be determined. After thorough consideration of all available information the classification of one manner of death may be no more compelling than the other competing manners.

Generally, these deaths have been thoroughly investigated by the Coroner including an autopsy examination and related scientific tests. In many cases the cause of death may be known, however the external factors cannot be confidently established.

1 Five Year Report

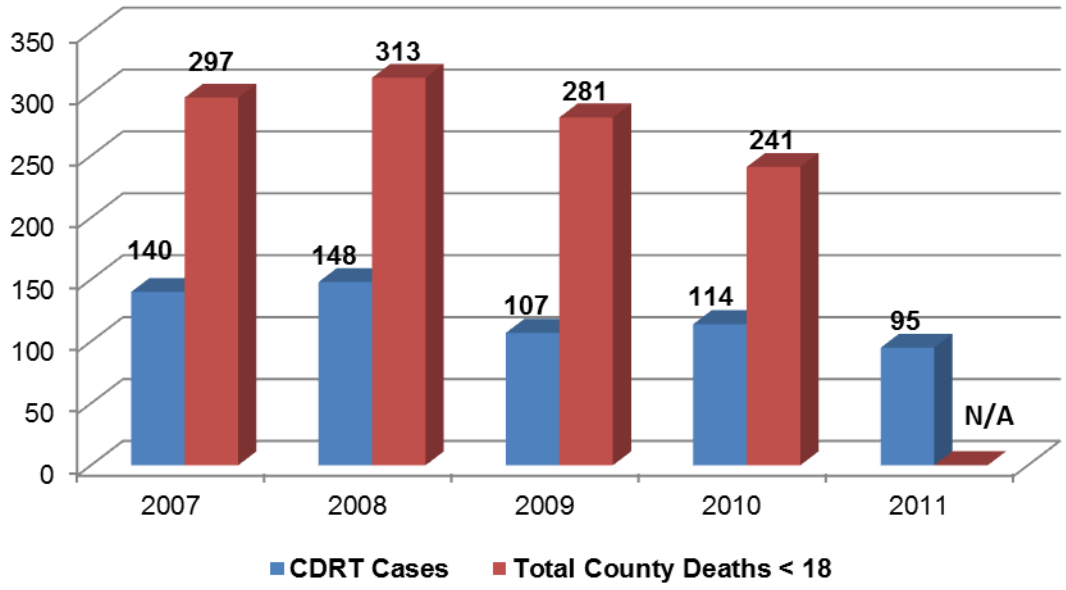
Overview

In the five year span from 2007 through 2011, the OCCDRT reviewed 604 child deaths. The tables and charts presented include the most current information about each case available at the time of preparation of this report. For more specific information about each year, please refer to the links on page 17, which give detailed breakdowns of each year's cases.

Cases Per Year

The number of cases reviewed decreased in the last three years of the study period, as did the overall number of deaths in those years (death file not available yet for 2011). During the years 2007 - 2010, there were 1132 deaths in children under age 18, and 509 (45%) of these deaths were reviewed by the CDRT. The percent reviewed year-to-year was relatively stable (47%) except for 2009, when 38% of deaths were reviewed (see Figure 1).

Figure 1: Total Deaths and Reviewed Deaths
Age < 18 Years, Orange County 2007 - 2011

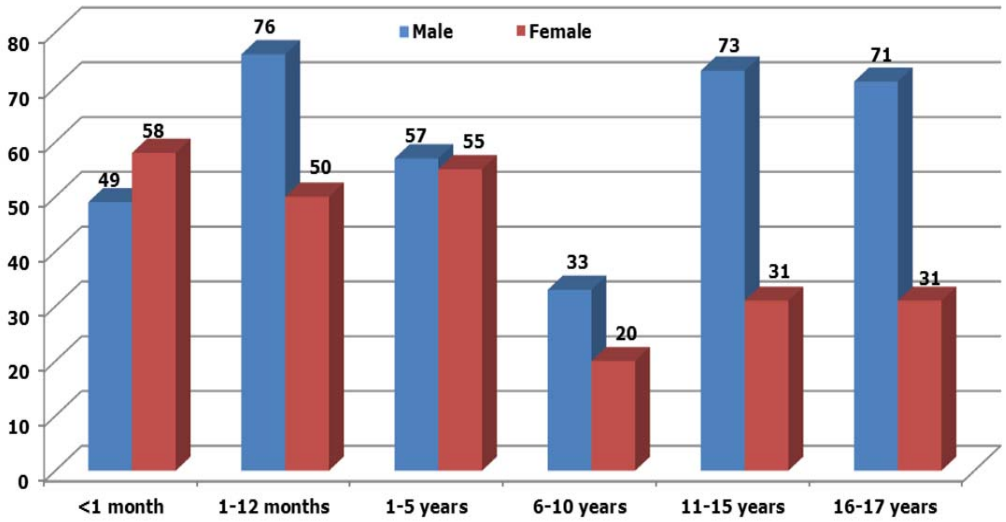


Demographics

Age & Gender

Almost 60% of the deaths reviewed between 2007 and 2011 occurred in males. Thirty-nine percent of child deaths (233 cases) occurred during the first year of life, with more than half of deaths (345 cases) occurring before the age of six. See Figure 2 for the gender breakdown by age category.

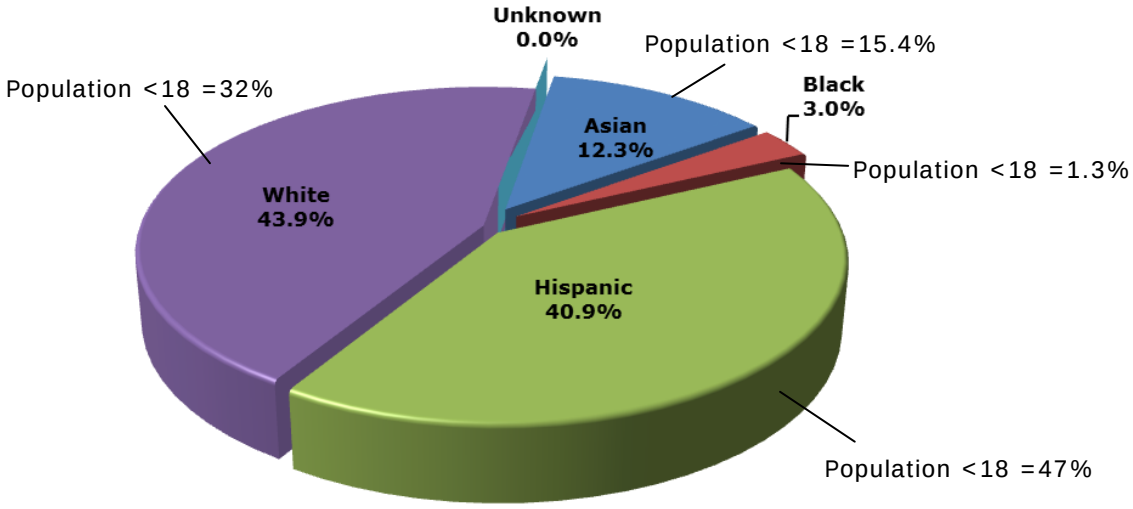
Figure 2: CDRT Cases by Age Group and Gender, 2007 - 2011



Race / Ethnicity

Of the 604 deaths of children reviewed, 247 (40.9%) were classified as Hispanic, 265 (43.9%) were White, 74 (12.3%) were Asian or Pacific Islander, and 18 (3%) were Black (see Figure 3). In comparison, the racial/ethnic breakdown for the total population under age 18 in Orange County is 47% Hispanic, 32% White, 15.4% Asian/Pacific Islander, 1.3% Black and 4% multiracial (2010 Census).

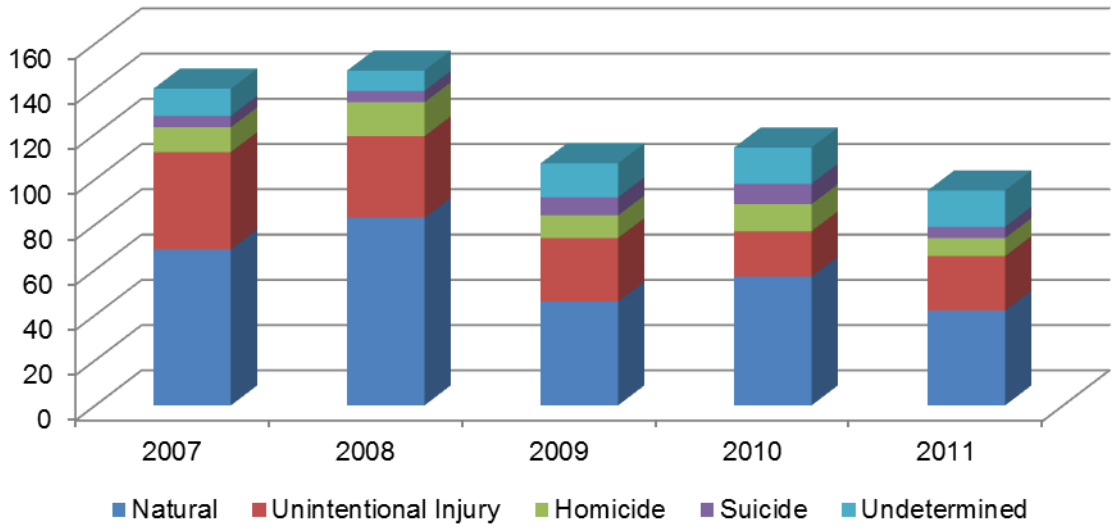
Figure 3: CDRT Cases by Race / Ethnicity, 2007 - 2011



Major Categories of Child Death

Natural deaths made up the largest grouping of child deaths in Orange County during this five year period, accounting for nearly half of the cases examined (49.2% or 297 cases), followed by Unintentional Injuries (25.0% or 151 cases). Figure 4 shows the proportions of the major categories per year for the last five years.

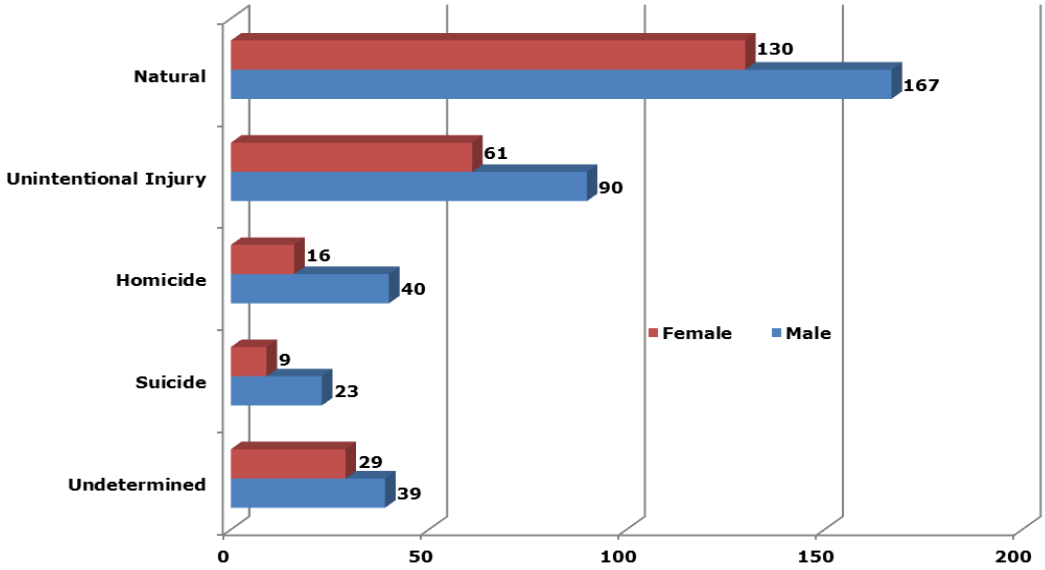
Figure 4: CDRT Cases, Major Categories of Death Per Year, 2007 - 2011



Major Categories by Gender

The relative proportions of deaths by manner among males and females were similar for all categories except for homicide, which accounted for 11.1% of reviewed male deaths but only 6.5% of reviewed female deaths, and suicide, which accounted for 6.4% of reviewed male deaths but only 3.7% of reviewed female deaths ; see Figure 5.

Figure 5: CDRT Cases by Category and Gender, 2007 - 2011



Major Categories by Age

Children under one year of age made up nearly 40% of all cases, and in this age group, Natural death was the cause in almost two-thirds of the cases. Undetermined cause was also common in those <one year of age, but became less common in older age groups. Natural deaths remained a prominent category of death in all age groups, and Unintentional Injury accounted for significant proportions of deaths in those over age one. See Table 1 for the number of cases and relative percentages of total per category.

Table 1. Categories of Death by Age Group, CDRT 2007 - 2011

Age Group	N (% of CDRT cases)	Category of Death, N (% of total)				
		Natural	Unintent. Injury	Homicide	Suicide	Undetermined
< 1 month	107 (18%)	87 (29%)	7 (5%)	2 (4%)	0 (0%)	11 (16%)
1-12 months	126 (21%)	63 (21%)	13 (9%)	10 (18%)	0 (0%)	40 (59%)
1-5 years	112 (19%)	38 (13%)	52 (34%)	12 (21%)	0 (0%)	10 (15%)
6-10 years	53 (9%)	38 (13%)	11 (7%)	3 (5%)	1 (3%)	0 (0%)
11-15 years	105 (17%)	43 (14%)	33 (22%)	13 (23%)	13 (41%)	3 (4%)
16-17 years	101 (17%)	28 (9%)	35 (23%)	16 (29%)	18 (56%)	4 (6%)
TOTALS	604	297	151	56	32	68

Major Categories by Race/Ethnicity

Hispanics and Whites accounted for 85% of the deaths reviewed from 2007 - 2011. Whereas Natural deaths were relatively proportional among the racial/ethnic groups, some disproportions were noted among the other categories (see Table 2): Unintentional Injury was higher among Asians, but lower in Hispanics; Homicide was higher among Hispanics, but lower in Whites; Suicide affected a much lower proportion of Hispanics than other groups, and Undetermined deaths affected a higher proportion of Whites than other groups.

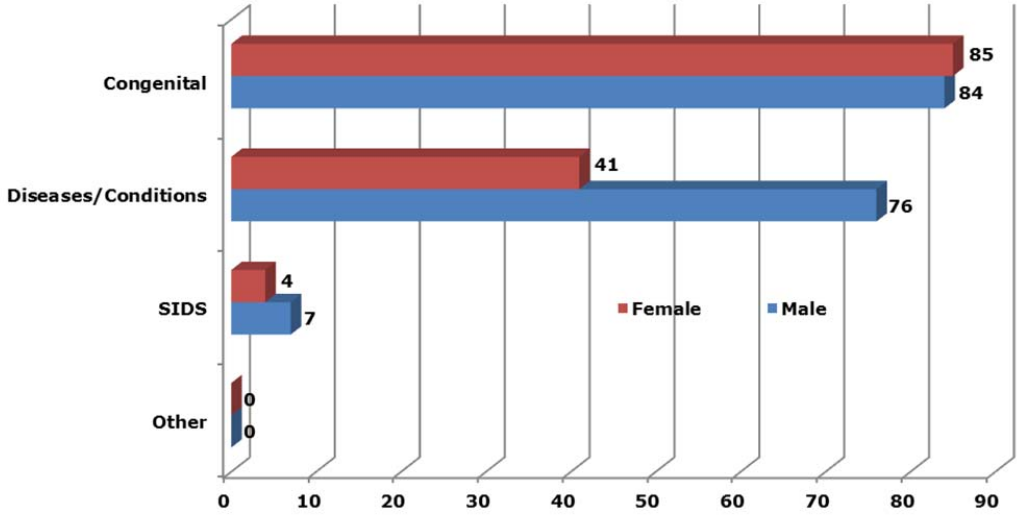
Table 2. Categories of Death by Race/Ethnicity, CDRT 2007 - 2011

Race/Ethnic.	% Pop. < 18	N (% of CDRT cases)	Category of Death, N (% of total)				
			Natural	Unintent. Injury	Homicide	Suicide	Undetermined
Asian	15.40%	74 (12%)	28 (9%)	28 (18.5%)	8 (14%)	6 (19%)	4 (6%)
Black	1.30%	18 (3%)	6 (2%)	4 (2.6%)	3 (5%)	3 (9%)	2 (3%)
Hispanic	47%	247 (41%)	124 (42%)	55 (36%)	36 (64%)	7 (22%)	25 (37%)
White	32%	265 (44%)	139 (47%)	64 (42%)	9 (16%)	16 (50%)	37 (54%)
TOTALS		604	297	151	56	32	68

Natural Deaths

Deaths classified as a Natural manner of death represent the largest number (297) and portion (49.2%) of child deaths reviewed. There were 167 males and 130 females (see Fig.6), and by race/ethnicity, there were 124 Hispanic, 139 White, 28 Asian and six Black.

Figure 6: Natural Deaths by Gender, CDRT, 2007 - 2011



There were a total of 11 reviewed deaths classified as SIDS during the five year period. While SIDS cases are categorized as Natural deaths, there is some potential for prevention through risk reduction.

Of the Natural deaths, the largest group was due to congenital conditions of those under one month of age which made up 25.3% of the deaths (75 cases). See Figure 7 for a breakdown of the causes by age group.

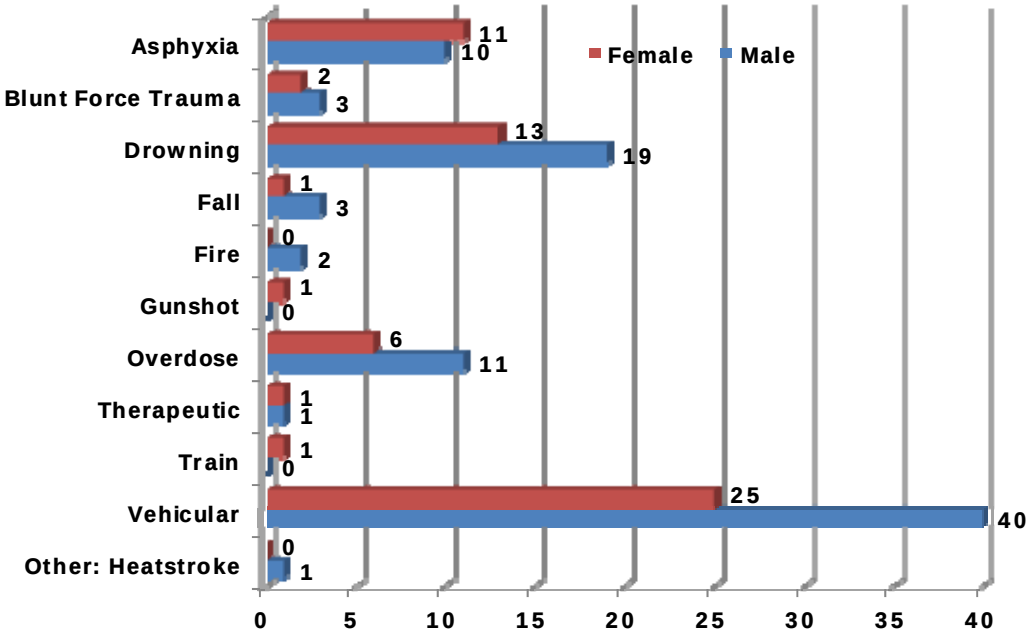
Figure 7: Natural Deaths by Age Group, CDRT 2007 - 2011

Natural Death Causes								
	N	%	< 1 month	1-12 months	1-5 years	6-10 years	11-15 years	16-17 years
Congenital	169	56.9%	75	31	16	8	24	15
Diseases/Conditions	117	39.4%	11	22	22	30	19	13
SIDS	11	3.7%	1	10				
Other	0	0.0%						
Total	297	100%	87	63	38	38	43	28

Unintentional Injury Deaths

Of the Orange County child deaths reviewed in this five year period, 151 children (25.0%) died of Unintentional Injuries. Of these 151 deaths, 65 cases (43.0%) involved motor vehicle related incidents and another 32 cases (21.2%) were due to drowning. See Figure 8 for the breakdown of causes by gender; 60% occurred in males. Additional causes of Unintentional Injury deaths included 21 cases of asphyxia, 17 overdoses of drugs, five blunt force traumas, four falls, two fire, two therapeutic, one gunshot, one train, and one death that was attributed to heatstroke.

Figure 8: Causes of Unintentional Injury Deaths by Gender, CDRT 2007 - 2011



See Table 3 for the causes of Unintentional Injury deaths by age group; the most deaths (n=52, 34%) occurred in the age group one-five years old. Twenty-two (69%) of the drowning deaths were children under the age of six, whereas children over the age of 16 years accounted for the highest number of vehicular deaths. Among all Unintentional Injuries by race/ethnicity, there were 55 Hispanics, 64 Whites, 28 Asians and four Blacks. Thirty-two (58%) of the Hispanic deaths and twenty-three (36%) of the White deaths were due to vehicular accidents.

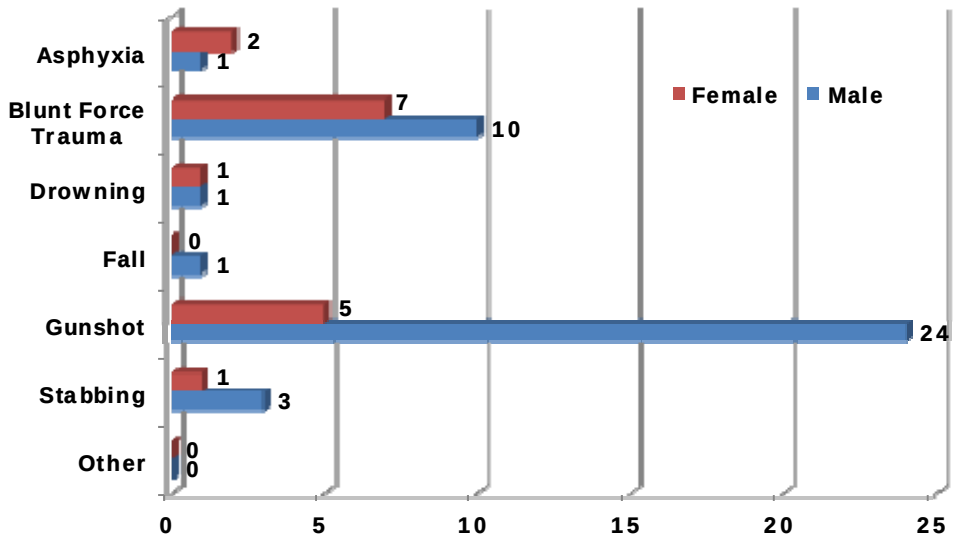
Table 3: Causes of Unintentional Injury Deaths by Age Group, CDRT 2007 - 2011

Unintentional Injuries	N	%	< 1 month	1-12 months	1-5 years	6-10 years	11-15 years	16-17 years
Asphyxia	21	13.9%	2	9	7		1	2
Blunt Force Trauma	5	3.3%			3		2	
Drowning	32	21.2%			22	3	5	2
Fall	4	2.6%			1	1	2	
Fire	2	1.3%					1	1
Gunshot	1	0.7%					1	
Overdose	17	11.3%	2	1			6	8
Therapeutic	2	1.3%	1	1				0
Train	1	0.7%						1
Vehicular	65	43.0%	2	2	19	7	15	20
Other: Heatstroke	1	0.7%						1
Total	151	100%	7	13	52	11	33	35

Homicide Deaths

There were 56 child deaths (9.3% of child cases reviewed) classified as Homicide. Of the Homicide deaths, 40 were male, accounting for 71% of all Homicides (see Figure 9). Gunshot deaths were the largest subcategory (83% involved males).

Figure 9: Causes of Homicide Deaths By Gender, CDRT 2007 - 2011



Of the 56 children, 29 (51.8%) were older than 11 years of age; see Table 4 for the causes by age group. Twenty-nine died from gunshot, 17 from blunt force trauma, four from stabbing, three from asphyxia, two from drowning and one as the result of a fall. Of the 56 cases, 36 were Hispanic, nine were White; eight were Asian; and three were Black.

Table 4: Causes of Homicide Deaths by Age Group, CDRT 2007 - 2011

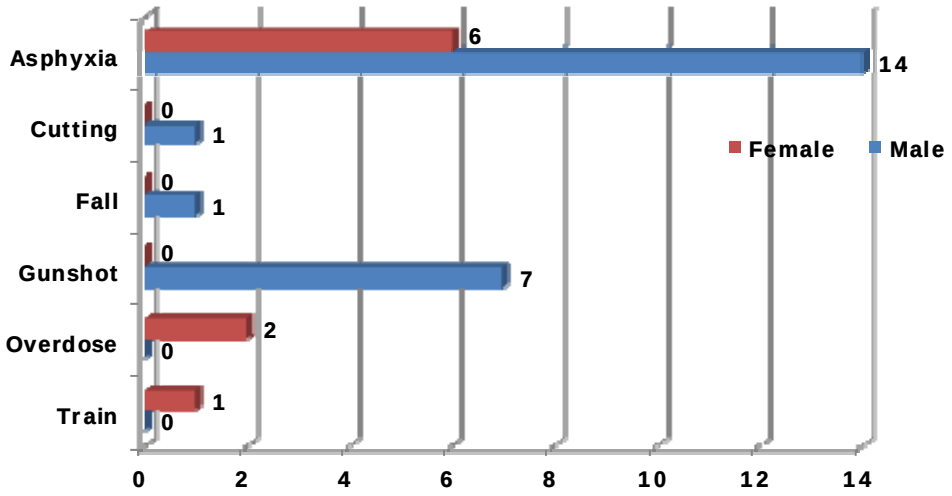
Homicide								
	N	%	<1 months	1-12 months	1-5 years	6-10 years	11-15 years	16-17 years
Asphyxia	3	5.4%	1	1				1
Blunt Force Trauma	17	30.4%		8	6		3	
Drowning	2	3.6%	1		1			
Fall	1	1.8%		1				
Gunshot	29	51.8%			4	3	8	14
Stabbing	4	7.1%			1		2	1
Other	0	0.0%						
Total	56	100%	2	10	12	3	13	16

Suicide Deaths

Thirty-two (5%) of child deaths reviewed were intentionally self-inflicted and classified as Suicide. Over half (62.5%) were due to asphyxia.

Twenty-three (72%) of the Suicides were by males; see Figure 10 for the breakdown of causes by gender. Fourteen of the males died due to ligature hanging (included in the asphyxia category), seven from self-inflicted gunshot wounds, one from a jump from a height (included in the fall category) and one from a cutting wound. Asphyxia was the most common cause in females, followed by overdose.

Figure 10: Causes of Suicide Deaths by Gender, CDRT 2007 - 2011



Of the thirty-two Suicides of children during these five years, there were eight at age 17 years, ten at age 16 years, eight at age 15 years, four at age 14 years, one at age 13 years and one at age ten years who hanged himself; see Table 5 for the causes by age group. Sixteen of the Suicide deaths were White; seven were Hispanic; six were Asian; and three were Black.

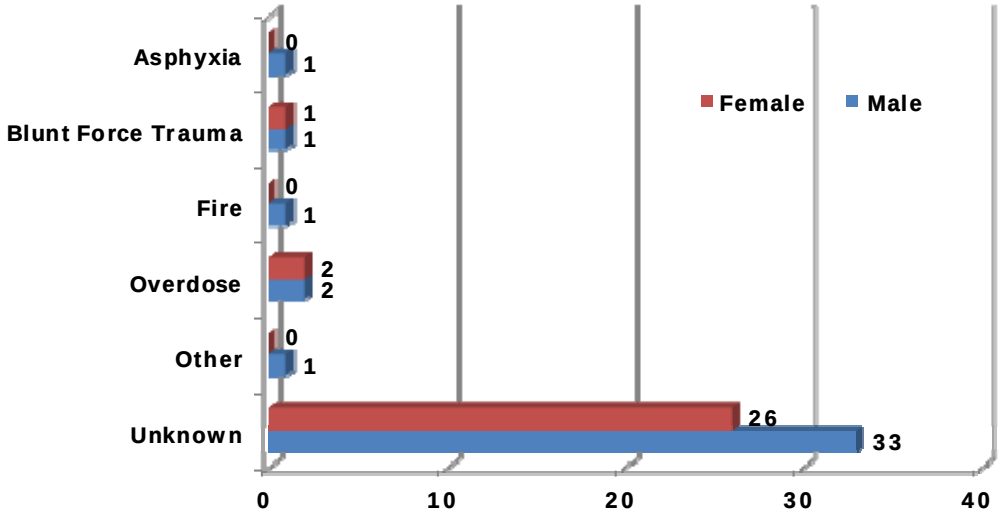
Table 5: Causes of Suicide Deaths by Age Group, CDRT 2007 - 2011

Suicide								
	N	%	<1 months	1-12 months	1-5 years	6-10 years	11-15 years	16-17 years
Asphyxia	20	59.3%				1	6	13
Cutting	1	3.7%					1	
Fall	1	3.7%						1
Gunshot	7	22.2%					5	2
Overdose	2	7.4%						2
Train	1	3.7%					1	
Total	32	100%	0	0	0	1	13	18

Undetermined Deaths

There were 68 reviewed deaths, or approximately 11.3%, that were classified as Undetermined manner after completion of a thorough investigation, which included an autopsy. The chart below shows the number of Undetermined deaths for the five years combined. Following completion of the child death review, nine cases were assigned a cause of death and 59 cases remained of unknown cause.

Figure 11: Causes of Undetermined Death by Gender, CDRT 2007 - 2011



Notably, over 80% of the deaths in the Unknown category involve infants less than one year of age; see Table 6 for the causes by age group. In 45 of these cases, the baby was in a sleep environment at the time of death. In 31 of those cases, bed sharing was involved. None of these cases met the full criteria to be classified as SIDS.

Of the cases reviewed, 37 were White, 25 were Hispanic, four were Asian and two were Black.

Table 6: Causes of Undetermined Deaths by Age Group, CDRT 2007 - 2011

Undetermined								
	N	%	<1 months	1-12 months	1-5 years	6-10 years	11-15 years	16-17 years
Asphyxia	1	1.5%		1				
Blunt Force Trauma	2	2.9%		2				
Fire	1	1.5%						1
Overdose	4	5.9%					2	2
Other	1	1.5%						1
Unknown	59	86.8%	11	37	10		1	
Total	68	100%	11	40	10	0	3	4

Preventable Deaths

Preventable deaths (deaths that are due to preventable causes, such as Unintentional Injury, Homicide and Suicide) deserve special attention because of the possibility of intervention. In the Figure 12 below, the annual percentage breakdown, and in figure 13, the annual number of deaths in each category of preventable deaths are presented by year.

Figure 12: Annual Percent of Preventable Category of Reviewed Deaths by Year

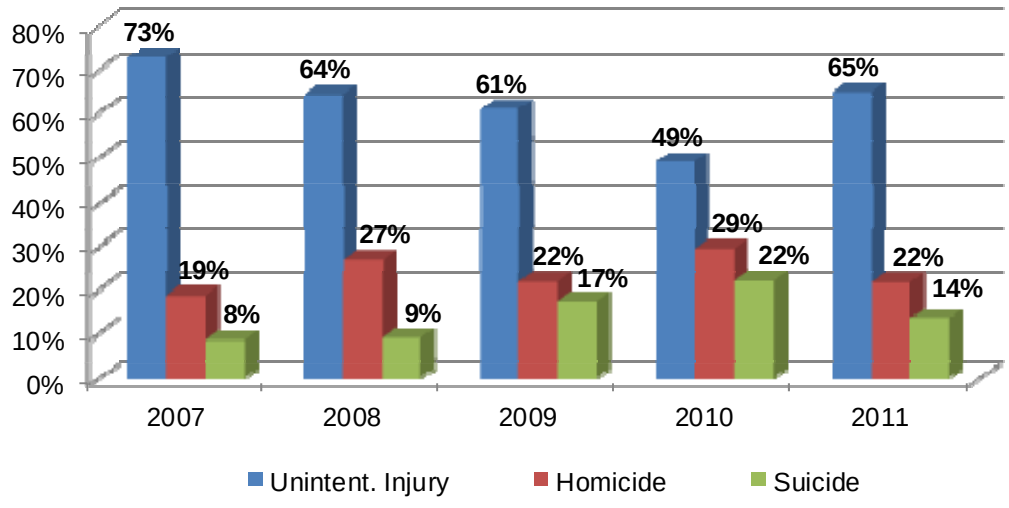
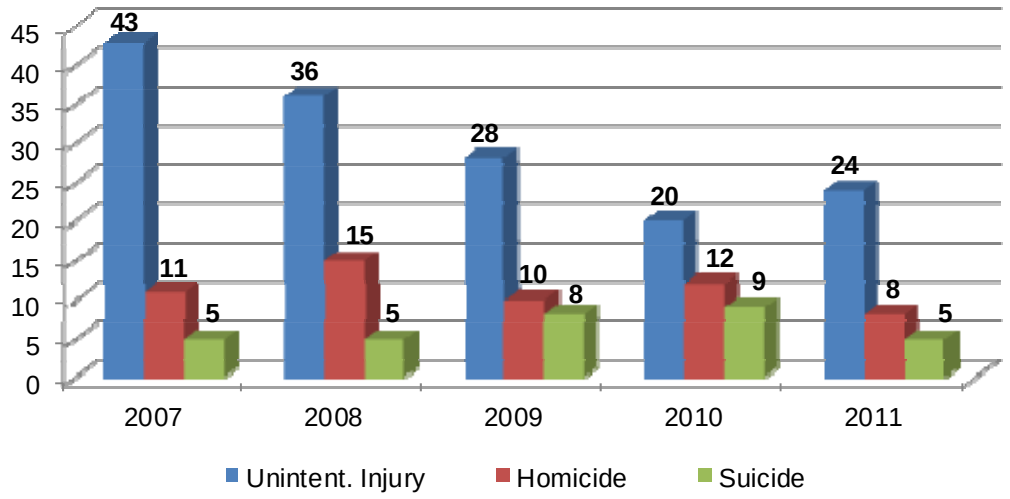


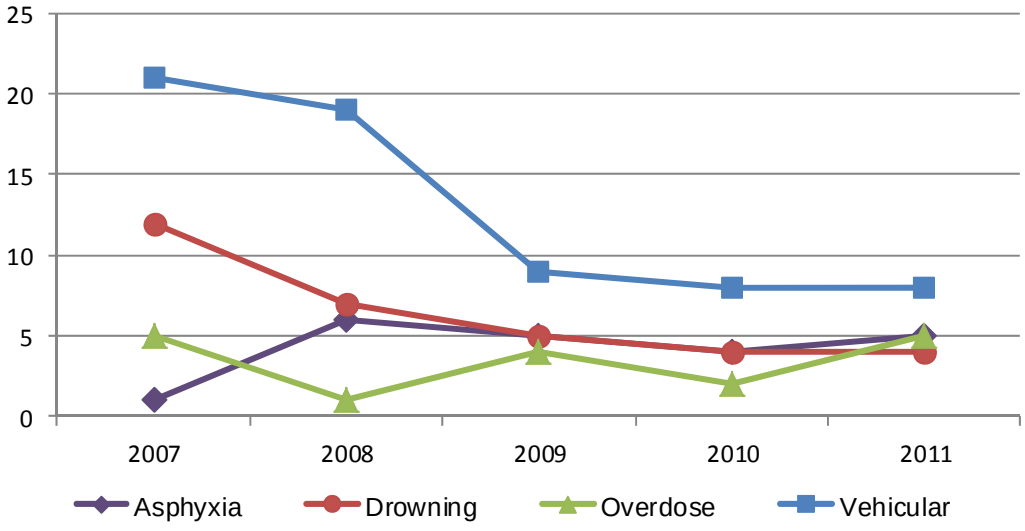
Figure 13: Annual Number of Preventable Category of Reviewed Deaths by Year



Preventable Deaths Due to Unintentional Injury

The annual number of deaths due to Unintentional Injuries was on a downward trend during the five year time period, with substantial decreases in vehicular deaths (from 21 in 2007 to eight in 2011) and deaths due to drowning (from 12 in 2007 to four in 2011), but no significant change in the deaths due to overdoses or asphyxia (see Figure 14).

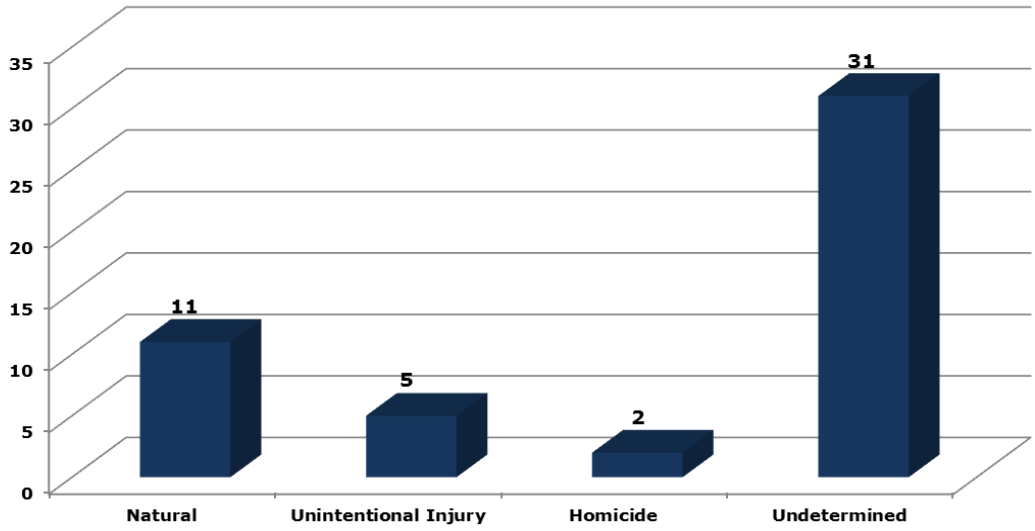
Figure 14: Main Causes of Unintentional Injury Deaths Per Year, CDRT 2007 - 2011



Preventable Deaths Due to Bed Sharing

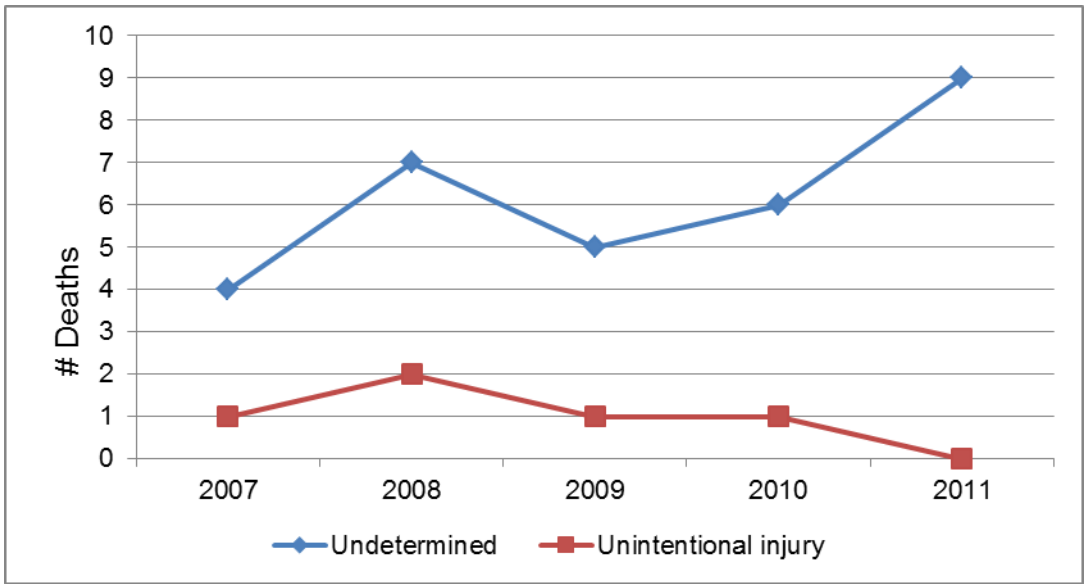
One particular area of focus for the CDRT has been deaths that occur while the infant is sharing a bed (or other sleeping surface such as a couch or chair) with an older sibling and/or an adult (bed sharing death). In these five years, the OCCDRT reviewed 49 child deaths that involved bed sharing. These deaths accounted for 8.1% of the child deaths reviewed during that period. Of those 49, 31 (63.3%) were classified as Undetermined, with all of them having an unknown cause (that is, no evidence for a Natural cause, Unintentional Injury or Homicide detected); 11 (22.4%) were classified as Natural, with two of those being SIDS cases; five (10.2%) were classified as Unintentional Injury, with four of those due to accidental asphyxia; one was due to an overdose of over the counter medication; and the remaining two (4.1%) were Homicides (see Figure 15). Males made up 55% of the bed sharing deaths and females the other 45%. Of the 49 bed sharing deaths, 16 (32.7%) were <one month old; six (12.2%) were one month old; 11 (22.4%) were two months old; eight (16.3%) were three months old; three (6.1%) were four months old; two (4.1%) were five months old; two (4.1%) were six months old; and one (2.0%) was seven months old. Of the 49 bed sharing deaths, 26 (53.1%) were Hispanic; 19 (38.8%) were White; three (6.1%) were Black; and one (2.0%) was Asian.

Figure 15: Causes of Death with Bed Sharing as a Risk Factor, CDRT 2007 - 2011



Of the 31 with Undetermined cause, it is possible that at least some, if not many of these deaths may have been caused by accidental suffocation or strangulation in bed (ASSB), due to unsafe sleep conditions. Adding in the deaths which were due to accidental asphyxiation (four), the total potentially preventable deaths related to bed sharing during this time period could be as many as 35, or about seven per year. The trend of these Undetermined deaths shows an increase during the five year period (see Figure 16).

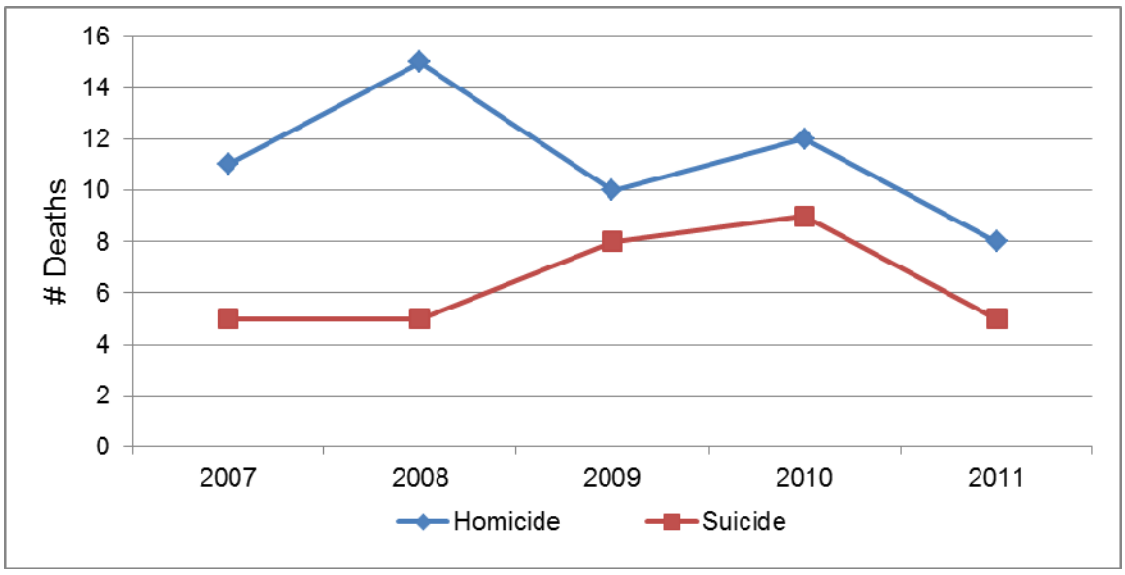
Figure 16: Main Causes of Bed Sharing Death Per Year, CDRT 2007 - 2011



Preventable Death by Homicide or Suicide

Homicides accounted for eight to 15 deaths per year, with a slight downward trend during the time period, whereas Suicide accounted for five to nine deaths per year, with increases during 2009 and 2010 (see Figure 17). As noted in Table 2, there are some racial/ethnic differences in the relative proportions of Suicides and Homicides.

Figure 17: Homicide and Suicide Deaths Per Year, CDRT 2007 - 2011



The causes of potentially preventable death by age group (Table 7) and race/ethnicity (Table 8) are presented below. (Note: Age groups *less than one month* and *one month – twelve months* were combined because of similar percentages; and "Undetermined" as a cause was included due to the high number of Undetermined deaths in infants, and because many of these could have been due to preventable causes.)

Table 7. Categories of Preventable Death by Age Group, CDRT 2007 - 2011

Age Group	N (% of total)	Category of Death, N (% of total)			
		Unintent. Injury	Homicide	Suicide	Undeter-mined
<12 months	83 (27%)	20 (13%)	12 (21%)	0 (0%)	51 (75%)
1-5 years	74 (24%)	52 (34%)	12 (21%)	0 (0%)	10 (15%)
6-10 years	15 (5%)	11 (7%)	3 (5%)	1 (3%)	0 (0%)
11-15 years	62 (20%)	33 (22%)	13 (23%)	13 (41%)	3 (4%)
16-17 years	73 (24%)	35 (23%)	16 (29%)	18 (56%)	4 (6%)
TOTALS	307	151	56	32	68

Table 8. Categories of Preventable Death by Race/Ethnic., CDRT 2007 - 2011

Race/Ethnic.	N (% of total)	Category of Death, N (% of total)			
		Unintent. Injury	Homicide	Suicide	Undeter-mined
Asian	46 (15%)	28 (18.4%)	8 (14%)	6 (19%)	4 (6%)
Black	12 (4%)	4 (2.6%)	3 (5%)	3 (9%)	2 (3%)
Hispanic	123 (40%)	55 (36%)	36 (64%)	7 (22%)	25 (37%)
White	126 (41%)	64 (42%)	9 (16%)	16 (50%)	37 (54%)
TOTALS	307	151	56	32	68

Summary and Conclusions

During the five year period from 2007 to 2011 covered by this report, both the annual number of child deaths and the number of cases of child deaths reviewed by the CDRT have decreased. However, the annual percentage of child deaths reviewed has been relatively stable at 38-45% of the total deaths. Analysis of this data has shown that the majority of deaths were due to Natural causes (almost 50%) with the second leading manner being Unintentional Injuries.

Preventable deaths are those which may have been avoided; leading causes of preventable deaths among the age categories varied. Except in infants <twelve months old, Unintentional Injury was the leading cause of preventable death, but the causes were different by age (drowning for ages one-five, vehicular deaths for all age groups over five; see Table 3). Although vehicular and drowning deaths both decreased during the five year period (Figure 14), continued study, public education, and community outreach is required because there remain significant annual numbers of preventable deaths due to these two etiologies.

For infants, the major cause of potentially preventable deaths was Undetermined/ Unknown cause (48 cases), two-thirds of which were associated with bed sharing, in which an unsafe sleep environment may have contributed to or been the direct cause of the death. The American Academy of Pediatrics cautions parents that babies who sleep in the same bed as their parents are at risk of SIDS, suffocation, or strangulation. A coordinated and continuing campaign of safe sleep education (including “back to sleep”) for parents/caregivers of infants may help reduce the numbers of these preventable deaths.

Homicide and Suicide were prominent causes of preventable deaths in those ages 11-17 years, accounting for over 40% of the preventable deaths in these age categories. Prior published studies have identified groups at greatest risk of early violent death to include racial/ethnic minorities, male youth, and urban youth. Continued and increased local efforts are needed to support effective programs addressing youth delinquency, gang involvement, violence prevention, and mental health treatment services. Suicides are often rooted in stress and depression; greater effort needs to be focused on early identification of youths in crisis. With family support and appropriate treatment, children and teens who are suicidal can heal and return to a healthy path of development.

	2007		2008		2009		2010		2011		5 Year Total	
	N	%	N	%	N	%	N	%	N	%	N	%
Total Child Deaths Reviewed												
	140		148		107		114		95		**604**	**100%**
Gender												
Male	89	64%	90	61%	59	55%	71	62%	50	53%	**359**	**59%**
Female	51	36%	58	39%	48	45%	43	38%	45	47%	**245**	**41%**
Total	**140**	**100%**	**148**	**100%**	**107**	**100%**	**114**	**100%**	**95**	**100%**	**604**	**100%**
Age Group												
<1 Month	23	16%	32	22%	15	14%	21	18%	16	17%	**107**	**18%**
1-12 Months	26	19%	31	21%	22	21%	23	20%	24	25%	**126**	**21%**
1-5 Years	25	18%	24	16%	21	20%	21	18%	21	22%	**112**	**19%**
6-10 Years	14	10%	8	5%	15	14%	12	11%	4	4%	**53**	**9%**
11-15 Years	23	16%	28	19%	18	17%	21	18%	15	16%	**105**	**17%**
16-17 Years	29	21%	25	17%	16	15%	16	14%	15	16%	**101**	**17%**
Unknown	0	0%	0	0%	0	0%	0	0%	0	0%	**0**	**0%**
Total	**140**	**100%**	**148**	**100%**	**107**	**100%**	**114**	**100%**	**95**	**100%**	**604**	**100%**
Race/Ethnicity												
Hispanic	52	37%	71	48%	41	38%	51	45%	32	34%	**247**	**41%**
White	69	49%	53	36%	49	46%	48	42%	46	48%	**265**	**44%**
Asian & Pacific Islander	16	11%	19	13%	15	14%	11	10%	13	14%	**74**	**12%**
Black	3	2%	5	3%	2	2%	4	4%	4	4%	**18**	**3%**
Unknown	0	0%	0	0%	0	0%	0	0%	0	0%	**0**	**0%**
Total	**140**	**100%**	**148**	**100%**	**107**	**100%**	**114**	**100%**	**95**	**100%**	**604**	**100%**
Major Category of Death												
Natural	69	49%	83	56%	46	43%	57	50%	42	44%	**297**	**49%**
Unintentional Injury	43	31%	36	24%	28	26%	20	18%	24	25%	**151**	**25%**
Homicide	11	8%	15	10%	10	9%	12	11%	8	8%	**56**	**9%**
Suicide	5	4%	5	3%	8	7%	9	8%	5	5%	**32**	**5%**
Undetermined	12	9%	9	6%	15	14%	16	14%	16	17%	**68**	**11%**
Total	**140**	**100%**	**148**	**100%**	**107**	**100%**	**114**	**100%**	**95**	**100%**	**604**	**100%**
Natural Deaths												
Congenital	36	52%	62	75%	24	52%	32	56%	15	36%	**169**	**57%**
Diseases/Conditions	27	39%	17	20%	22	48%	24	42%	27	64%	**117**	**39%**
SIDS	6	9%	4	5%	0	0%	1	2%	0	0%	**11**	**4%**
Other	0	0%	0	0%	0	0%	0	0%	0	0%	**0**	**0%**
Total	**69**	**100%**	**83**	**100%**	**46**	**100%**	**57**	**100%**	**42**	**100%**	**297**	**100%**
Unintentional Injury Deaths												
Asphyxia	1	2%	6	17%	5	18%	4	20%	5	21%	**21**	**14%**
Blunt Force Trauma	0	0%	0	0%	4	14%	0	0%	1	4%	**5**	**3%**
Drowning	12	28%	7	19%	5	18%	4	20%	4	17%	**32**	**21%**
Fall	1	2%	1	3%	1	4%	1	5%	0	0%	**4**	**3%**
Fire	2	5%	0	0%	0	0%	0	0%	0	0%	**2**	**1%**
Gunshot	0	0%	0	0%	0	0%	0	0%	1	4%	**1**	**1%**
Overdose	5	12%	1	3%	4	14%	2	10%	5	21%	**17**	**11%**
Therapeutic	0	0%	2	6%	0	0%	0	0%	0	0%	**2**	**1%**
Train	0	0%	0	0%	0	0%	1	5%	0	0%	**1**	**1%**
Vehicular	21	49%	19	53%	9	32%	8	40%	8	33%	**65**	**43%**
Other: Heatstroke	1	2%	0	0%	0	0%	0	0%	0	0%	**1**	**1%**
Total	**43**	**100%**	**36**	**100%**	**28**	**100%**	**20**	**100%**	**24**	**100%**	**151**	**100%**

	2007		2008		2009		2010		2011		5 Year Total	
	N	%	N	%	N	%	N	%	N	%	N	%
Homicide Deaths												
Asphyxia	0	0%	0	0%	1	10%	1	8%	1	13%	3	5%
Blunt Force Trauma	2	18%	4	27%	6	60%	2	17%	3	38%	17	30%
Drowning	1	9%	0	0%	0	0%	1	8%	0	0%	2	4%
Fall	0	0%	0	0%	0	0%	0	0%	1	13%	1	2%
Gunshot	6	55%	10	67%	3	30%	8	67%	2	25%	29	52%
Stabbing	2	18%	1	7%	0	0%	0	0%	1	13%	4	7%
Other	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
Unknown	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
Total	**11**	**100%**	**15**	**100%**	**10**	**100%**	**12**	**100%**	**8**	**100%**	**56**	**100%**
Suicide Death												
Asphyxia	3	60%	4	80%	4	50%	5	56%	4	80%	20	63%
Cutting	1	20%	0	0%	0	0%	0	0%	0	0%	1	3%
Fall	1	20%	0	0%	0	0%	0	0%	0	0%	1	3%
Gunshot	0	0%	1	20%	3	38%	2	22%	1	20%	7	22%
Overdose	0	0%	0	0%	1	13%	1	11%	0	0%	2	6%
Train	0	0%	0	0%	0	0%	1	11%	0	0%	1	3%
Total	**5**	**100%**	**5**	**100%**	**8**	**100%**	**9**	**100%**	**5**	**100%**	**32**	**100%**
Undetermined Deaths												
Asphyxia	0	0%	0	0%	1	7%	0	0%	0	0%	1	1%
Blunt Force Trauma	1	8%	0	0%	0	0%	0	0%	1	6%	2	3%
Fire	0	0%	0	0%	0	0%	0	0%	1	6%	1	1%
Overdose	1	8%	0	0%	2	13%	1	6%	0	0%	4	6%
Other	1	8%	0	0%	0	0%	0	0%	0	0%	1	1%
Unknown	9	75%	9	100%	12	80%	15	94%	14	88%	59	87%
Total	**12**	**100%**	**9**	**100%**	**15**	**100%**	**16**	**100%**	**16**	**100%**	**68**	**100%**
Bed Sharing Deaths												
Natural	7	58%	3	25%	0	0%	0	0%	1	9%	11	22%
Unintentional Injury	1	8%	2	17%	1	14%	1	14%	0	0%	5	10%
Homicide	0	0%	0	0%	1	14%	0	0%	1	9%	2	4%
Undetermined	4	33%	7	58%	5	71%	6	86%	9	82%	31	63%
Total	**12**	**100%**	**12**	**100%**	**7**	**100%**	**7**	**100%**	**11**	**100%**	**49**	**100%**

Detailed Report for 2007

Detailed Report for 2008

Detailed Report for 2009

Detailed Report for 2010

Detailed Report for 2011

Raise Foundation

Conditions of Children Report

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