STATE OF NEVADA

DIVISION OF CHILD AND FAMILY SERVICES

2004 STATEWIDE CHILD DEATH REPORT

Submitted by:

The Executive Committee to Review the Death of Children

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Table of Contents

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Data Confidentiality

PLEASE NOTE: PORTIONS OF THE COLLECTIVE INFORMATION AND DATA CONTAINED IN THIS REPORT WERE COMPILED FROM CHILD RECORDS THAT ARE CONFIDENTIAL AND CONTAIN INFORMATION WHICH IS PROTECTED FROM DISCLOSURE TO THE PUBLIC PURSUANT TO NEVADA REVISED STATUTES AND FEDERAL LAWS AND REGULATIONS.

Executive Summary

Regional child death review (CDR) teams are organized and operational in Nevada based on Nevada Revised Statutes (NRS) chapter 432B, sections 403 through 409. There are five regional CDR teams in the state: The Clark County and Washoe County Teams review child deaths in the two major urban areas of Las Vegas and Reno, respectively. The Carson City, Elko, and Fallon Teams review child deaths in all other counties, which comprise Nevada's rural region.

Two statewide groups provide coordination and oversight for the review of child death in Nevada: 1) the Administrative Team and 2) the Executive Committee to Review the Death of Children. The Administrative Team reviews reports and recommendations from the regional CDR teams and makes decisions regarding recommendations for improvements to laws, policies, and practices. The Executive Committee makes decisions about funding initiatives to prevent child maltreatment and death, which may be based on recommendations from the Administrative Team and annual child death data analysis. Additionally, the Executive Committee adopts statewide protocols for the review of the death of children; oversees training and development for the regional CDR teams; and compiles and distributes a statewide annual report.

For the first time in 2004, the Executive Committee compiled statewide child death data from the Nevada State Health Division (NSHD) – Center for Health Data and Research. This data was then compared with case review data derived from the work of the five regional CDR teams, and analyzed to produce the *2004 Statewide Child Death Report*. This 2004 report marks a significant step forward in the Executive Committee's work to effectively review and evaluate child deaths in Nevada.

Based on death certificates issued by the State of Nevada in 2004, there were a total of 407 child and adolescent deaths in the state, ages birth to 17 years.[1] The greatest number of child deaths in 2004 occurred among infants less than one year of age, which is consistent with national death rates that indicate the highest rate of deaths for infants ages birth to one year. Infant mortality rates are calculated based on live births (rate per 1,000 live births) rather than population estimates (rate per 100,000 population), which is common for most other forms of mortality statistics. In 2004, Nevada's infant mortality rate was 6.3 per 1,000 live births. This is slightly under the national average of 6.4 per 1,000 live births for the same year.[2]

Evaluation of 2004 statewide vital records data shows the following four leading causes of death for children and adolescents ages birth to 17 years, excluding natural deaths:

1. Motor vehicle accidents
2. Homicide (with and without firearms combined)
3. Asphyxia (with and without bedding combined)
4. Suicide

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[1] Yang, Wei. (2005). *Custom Vital Statistics Database on Child Deaths, 2000 – 2005*. Carson City, NV: Nevada State Health Division, Center for Health Data and Research.

[2] Munson, M.L. and Sutton, P.D. (2005). *Births, marriages, divorces, and deaths: Provisional data for 2004. National Vital Statistics Reports; Vol. 53 No. 21*. Hyattsville, MD: National Center for Health Statistics.

A total of 159 child and adolescent deaths were reviewed by the five regional CDR teams in 2004. Evaluation of CDR data shows the following four leading causes of death for children and adolescents ages birth to 17 years, excluding natural deaths:

1. Motor vehicle accidents
2. Drug overdose/intoxication
3. Asphyxia (with and without bedding combined)
4. Gunshot wounds

Motor vehicle accidents (MVA) are the leading cause of death, regardless of which data source is evaluated. Drug-related and gunshot wounds (GSW) deaths emerge as leading causes when regional CDR team data is evaluated, because greater detail can be obtained about the cause of death and the involvement of drugs and firearms. Comparison of vital records data in conjunction with regional CDR team data yields more complete information on causes of death, and contributes to a more effective evaluation of causes where prevention efforts would contribute to a reduction in child deaths. The Executive Committee plans to continue this combined data analysis from this year forward.

During 2004, the Executive Committee made progress in two important areas: 1) improvement in child death data collection, and 2) development of a public awareness campaign plan for prevention of child death. Improvement efforts in data collection included adopting the use of the data instrument developed by the National MCH Center for Child Death Review. Use of this national data collection instrument will be implemented in 2005, and will address a variety of data problems encountered with the current Nevada data collection instrument. Nevada will also begin participating in a six-state pilot project for the new CDR Case Reporting System, a national database the supports web-based data entry using the national data collection instrument. Additionally, the Executive Committee approved a contract with the Nevada Institute for Children's Research and Policy (NICRP) to address 2004 data processing needs and system transition during 2005.

Development of a public awareness campaign plan was also completed in 2004, and the Executive Committee approved a media campaign contract with the Nevada Broadcasters Association (NBA), which has extensive experience serving government and nonprofit organizations. The initial campaign will consist of public service announcements focused on four topic areas for prevention:

1. Teen suicide
2. Parents co-sleeping with children
3. Shaken baby syndrome
4. Car safety

These topic areas are based on the leading causes of child death outlined in the *2002 – 2003 Statewide Child Death Report*. The NBA will run a series of targeted radio and television announcements for a six-month period, after which the outcomes of the initial campaign will be evaluated and additional media buying will be reviewed by the Executive Committee.

2004 Key Findings

Total Statewide Deaths and Child Deaths Reviewed

- Total statewide child and adolescent deaths in 2004: 407
- Total child and adolescent deaths reviewed in 2004: 159

Leading Causes of Death: Statewide Health Division Data Versus Regional CDR Team Data

STATEWIDE HEALTH DIVISION DATA			REGIONAL CDR TEAM DATA		
Leading Cause:	Number:	Percentage of Total:	Leading Cause:	Number:	Percentage of Total:
1. MVA	60	14.7%	1. MVA	39	24.5%
2. Homicide	19	4.6%	2. Drug	15	9.4%
3. Asphyxia	13	3.2%	3. Asphyxia	14	8.8%
4. Suicide	11	2.7%	4. GSW	13	8.2%

DATA NOTES: MVA = motor vehicle accidents; GSW = gunshot wounds; Drug = drug overdose/intoxication. MVA are not restricted to automobile accidents and may include any type of motor vehicle, such as a moped, all-terrain vehicle, or watercraft. Additionally, this may also include pedestrian deaths where the child victim is struck or injured by a motor vehicle.

- Motor vehicle accidents (MVA) are the leading cause of death, regardless of which data source is evaluated.
- Drug-related deaths emerge as a leading cause when regional CDR team data is evaluated, because greater detail can be obtained about the cause of death and the involvement of drugs, particularly in cases where maternal drug use was a contributing factor.
- Total asphyxia deaths are higher when regional CDR team data is evaluated, because asphyxia is assessed across a range of manners of death, including accidents and suicide. The statewide Health Division data evaluation for 2004 includes only accidental deaths for asphyxia.
- Deaths involving gunshot wounds (GSW) also emerge as a leading cause when regional CDR team data is evaluated, because the involvement of firearms can be assessed across a range of manners of death, including homicide, suicide, and accidents.
- Comparison of Nevada State Health Division data in conjunction with regional CDR team data yields more complete information on causes of death, and contributes to a more effective evaluation of causes where prevention efforts would contribute to a reduction in child deaths.

Statewide Health Division Data Findings

- Based on death certificates issued by the State of Nevada in 2004, there were a total of 407 child and adolescent deaths in the state, ages birth to 17 years.
- The greatest number of child deaths in 2004 occurred for infants less than one year of age, which is consistent with national death rates that indicate the highest rate of deaths for infants ages birth to one year.
- In 2004, Nevada's infant mortality rate was 6.3 per 1,000 live births. This is slightly under the national average of 6.4 per 1,000 live births for the same year.
- Nevada child deaths in 2004 included more males than females. This is consistent with national death rates, which indicate that males die more frequently that females within all of the age groups evaluated for this report.
- When comparing child deaths with the statewide population distribution, the percentage of child deaths by race suggests that deaths among white children may be disproportionately low, while deaths among African American children may be disproportionately high.
- Asian females died at almost twice the rate of Asian males in 2004. This is inconsistent with national death rates, which indicate that Asian males die more frequently that females within all of the age groups evaluated for this report.
- When comparing child deaths in Nevada's two largest counties (Clark and Washoe) with the statewide population distribution, the percentage of child deaths by county suggests that they are consistent with the statewide population distribution, with minimal differences in percentages.
- The second most common manner of death (after natural deaths) is accidental, accounting for almost one-fourth of child deaths in Nevada. This is consistent with national data, which shows that accidents are the leading cause of death for all age groups except infants less than one year of age.
- Accidental deaths are highest in the adolescent age groups of 10 – 14 and 15 – 17, and increase with age. This is also consistent with national data, which shows that the leading cause of death for the same age groups is accidental. National data also shows a sharp increase in accidental deaths with age, as reflected in the Nevada data.
- In a reversal of national trends, female adolescents in Nevada committed suicide at almost twice the rate of male adolescents in 2004. This is inconsistent with national data, which shows the death rate for male suicides in the 15 – 19 age group at 12.2 per 100,000 population, compared with female suicides in the same age group at 2.4 per 100,000. Nationally, males have higher suicide rates than females throughout the lifespan.
- Males died from asphyxia at twice the rate of females in 2004.
- Male victims of homicide are much more likely to die from a gunshot wound.
- The risk of death from motor vehicle accidents increases in direct proportion with age for children in Nevada, which is consistent with national data.
- When comparing motor vehicle accidents by race with the statewide population distribution, the percentage of motor vehicle accidents by race indicates that deaths among Hispanic children are disproportionately high.
- Likewise, homicide deaths for Hispanics are disproportionately high relative to the statewide population distribution, totaling almost the same number of homicide deaths as whites.

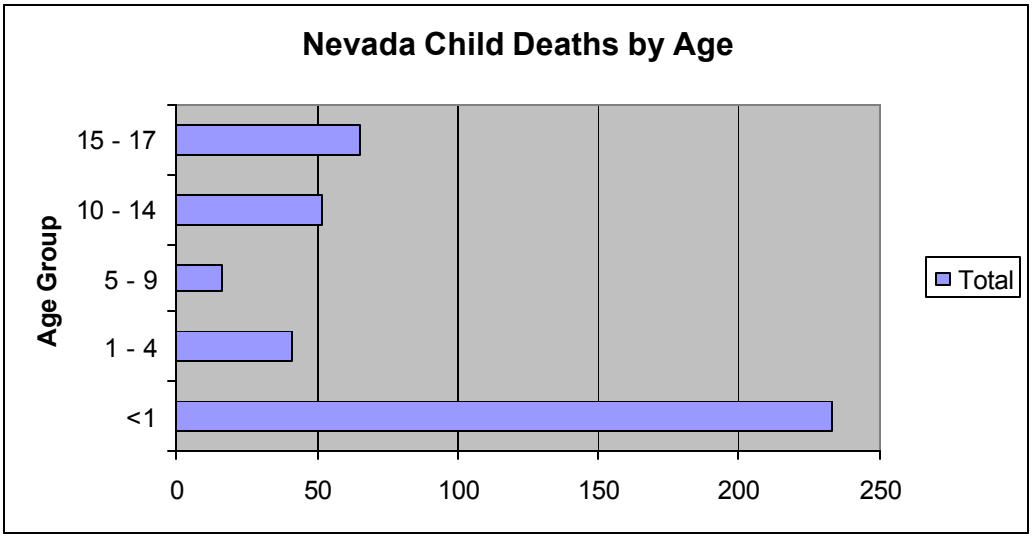
- Deaths resulting from asphyxia involving bedding for African Americans are also disproportionately high relative to the statewide population distribution. This race category includes the highest number of deaths by asphyxia involving bedding in 2004.
- There were no suicides reported for American Indians in 2004. National data shows that the highest suicide rates for both males and females are among American Indians. Given Nevada's indigenous American Indian population, the lack of any suicides among Native Americans may suggest that some suicides are incorrectly classified by either race or cause, or they are under-reported. This may also suggest the need for a formal interface with tribal governments in the state in order to obtain more complete data surrounding suicide.

Section 1: 2004 Child Deaths in Nevada

PLEASE NOTE: All data in Section 1 of this report is derived from the Nevada State Health Division – Center for Health Data and Research.

Based on death certificates issued by the State of Nevada in 2004, there were a total of 407 child and adolescent deaths in the state, ages birth to 17 years.[3] Standard demographic analysis of these deaths reveals a variety of comparative information and key findings as follows.

Age



Age Group:	Total:	Percentage:
Less than 1 year old	233	57.2%
1 – 4 years	41	10.1%
5 – 9 years	16	3.9%
10 – 14 years	52	12.8%
15 – 17 years	65	16.0%
TOTAL:	407	100.0%

Findings:

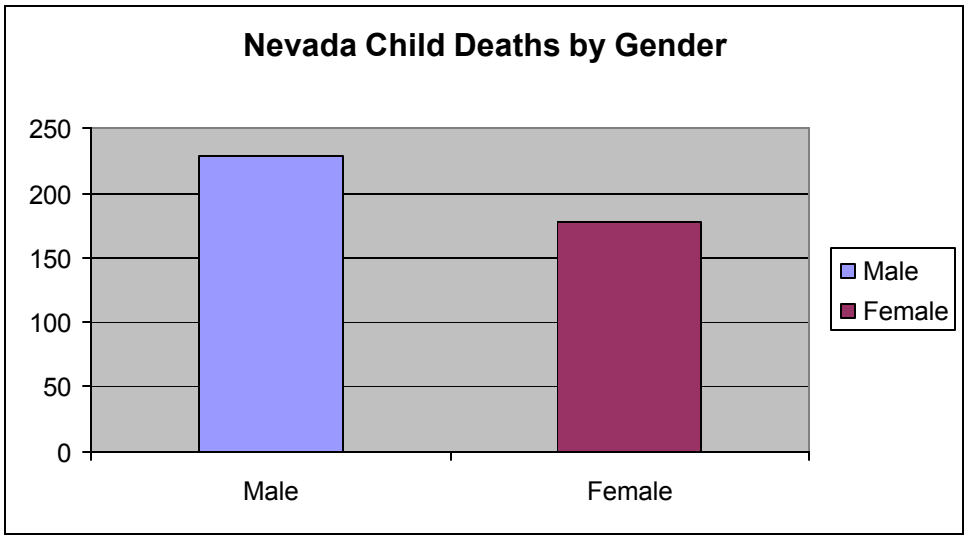
- The greatest number of Nevada child deaths in 2004 occurred among infants less than one year of age. This is consistent with national death rates, which indicate the highest rate of deaths for infants ages zero to one, at approximately 695 per 100,000 of the population.

[3] Yang, Wei. (2005). *Custom Vital Statistics Database on Child Deaths, 2000 – 2005*. Carson City, NV: Nevada State Health Division, Center for Health Data and Research.

Nevada child death rates in other age groups are significantly lower, with the next highest age group being from 15 – 17 years of age. This is again consistent with national death rates for the same age groups, which range from approximately 15.2 per 100,000 for children ages five to nine, to 67.8 per 100,000 for adolescents ages 15 to 19 years.[4]

- Infant mortality rates are calculated differently from death rates, and are calculated based on live births (rate per 1,000 live births) rather than population estimates (rate per 100,000 population). In 2004, Nevada's infant mortality rate was 6.3 per 1,000 live births. This is slightly under the national average of 6.4 per 1,000 live births for the same year.[5]

Gender



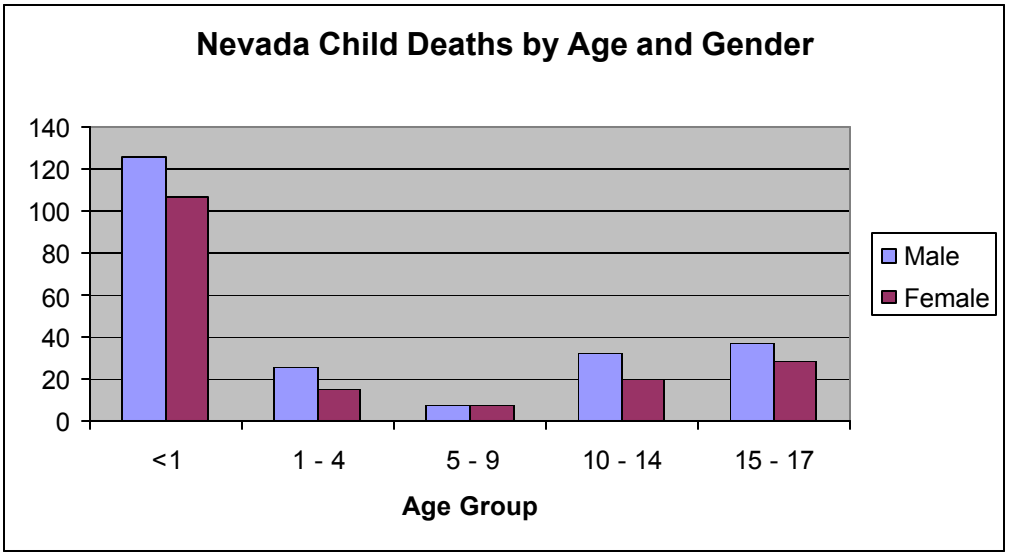
Gender:	Total:	Percentage:
Male	229	56.3%
Female	178	43.7%
TOTAL:	407	100.0%

Findings:

- Nevada child deaths in 2004 included more males than females. This is again consistent with national death rates, which indicate that males die more frequently that females within all of the age groups evaluated for this report.[6]

[4] National Center for Health Statistics. (2004). *National Vital Statistics Reports; Vol. 53 No. 5*. Retrieved February 3, 2006, from http://www.cdc.gov/nchs/fastats/deaths.htm.
[5] Munson, M.L. and Sutton, P.D. (2005). *Births, marriages, divorces, and deaths: Provisional data for 2004. National Vital Statistics Reports; Vol. 53 No. 21*. Hyattsville, MD: National Center for Health Statistics.
[6] National Center for Health Statistics. (2004). *National Vital Statistics Reports; Vol. 53 No. 5*. Retrieved February 3, 2006, from http://www.cdc.gov/nchs/fastats/deaths.htm.

Age and Gender



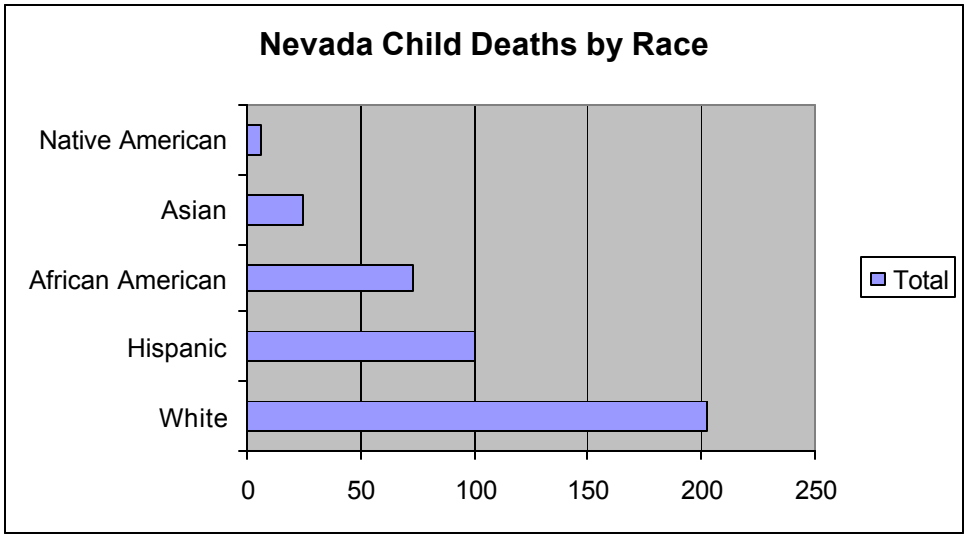
Age Group:	Male:	Female:	Male Percentage:	Female Percentage:
Less than 1 year old	126	107	54.1%	45.9%
1 – 4 years	26	15	63.4%	36.6%
5 – 9 years	8	8	50.0%	50.0%
10 – 14 years	32	20	61.5%	38.5%
15 – 17 years	37	28	56.9%	43.1%
TOTAL:	229	178		

Findings:

- Comparing Nevada child deaths in 2004 by age and gender again demonstrates that males die more frequently than females, as noted above.
- For Nevada, this gender disparity is highest in the age groups from 1 – 4 years and 10 – 14 years. This is somewhat inconsistent with national death rates, which show a general trend upward for males relative to females, such that gender disparity is highest in the 10 – 14 and 15 – 19 age groups.[7] Other national research also indicates that gender disparity for death rates increases with age, with an increasing proportion of males dying through age 24.[8] This suggests that for 2004, deaths for Nevada males are unusually high in the 1 – 4 age group, and unusually low for the 15 – 18 age group.

[7] National Center for Health Statistics. (2004). *National Vital Statistics Reports; Vol. 53 No. 5*. Retrieved February 3, 2006, from http://www.cdc.gov/nchs/fastats/deaths.htm.
[8] National Adolescent Health Information Center. (2005). *Fact Sheet on Mortality: Adolescents & Young Adults*. San Francisco, CA: University of California, San Francisco.

Race



Race:	Total:	Percentage:
White	203	49.9%
Hispanic	100	24.6%
African American	73	17.9%
Asian	25	6.1%
Native American	6	1.5%
TOTAL:	407	100.0%

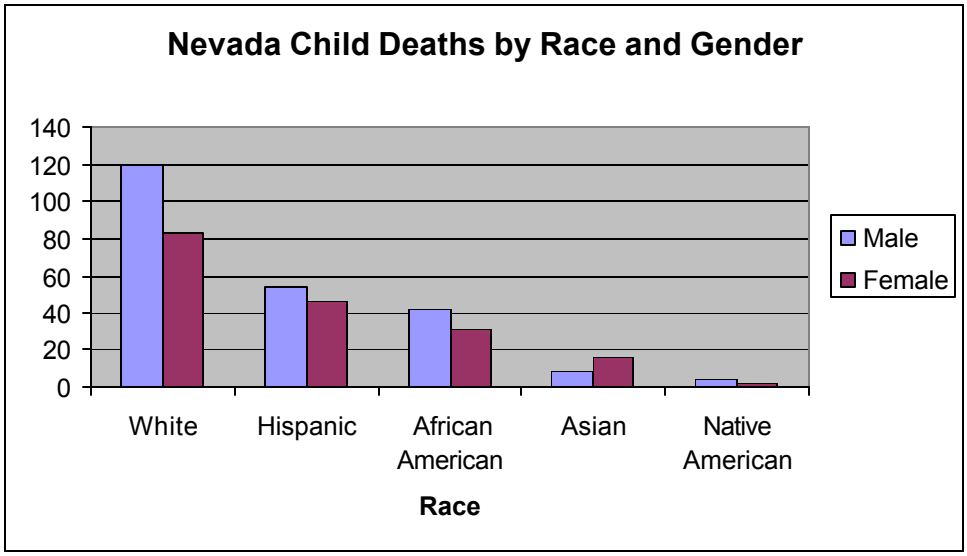
Findings:

- When comparing child deaths with the statewide population distribution, the percentage of child deaths by race suggests that deaths among white children may be disproportionately low, while deaths among African American children may be disproportionately high:

Race:	Percentage of child deaths:	Percentage of statewide population distribution:[9]
White	49.9%	63.1%
Hispanic	24.6%	22.5%
African American	17.9%	6.9%
Asian	6.1%	6.1%
Native American	1.5%	1.3%
TOTAL:	100.0%	100.0%

[9] Hardcastle, J. (2004). *ASRHO Estimates from 1990 to 2003 and Projections from 2004 to 2024 for Nevada and Its Counties*. Retrieved January 20, 2006, from http://www.nsbdc.org/demographer/pubs.

Race and Gender



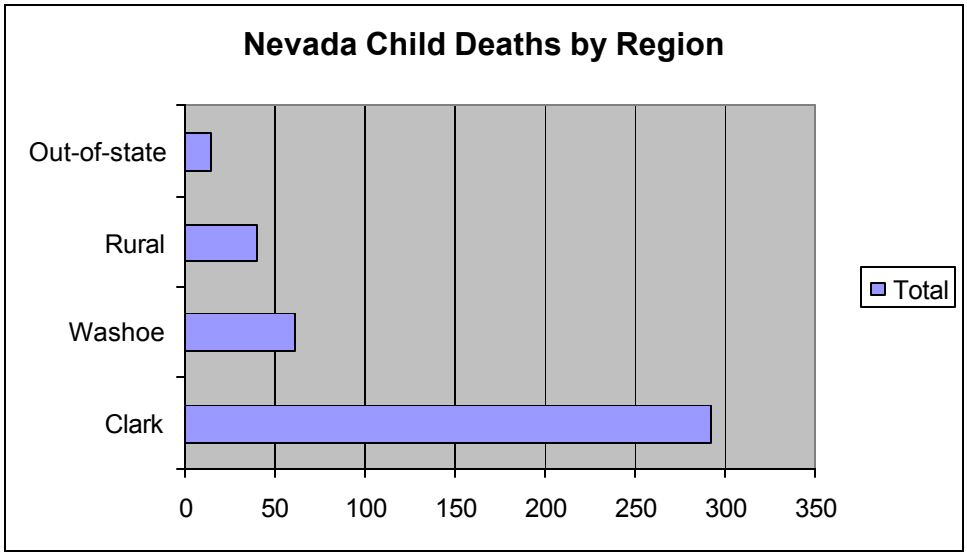
Race:	Male:	Female:	Male Percentage:	Female Percentage:
White	120	83	59.1%	40.9%
Hispanic	54	46	54.0%	46.0%
African American	42	31	57.5%	42.5%
Asian	9	16	36.0%	64.0%
Native American	4	2	66.7%	33.3%
TOTAL:	229	178		

Findings:

- Comparing Nevada child deaths in 2004 by race and gender again demonstrates that in general, males die more frequently than females, as discussed above.
- The only exception for this racial comparison is Asian females, who died at almost twice the rate of Asian males in 2004. This is inconsistent with national death rates, which indicate that Asian males die more frequently that females within all of the age groups evaluated for this report.[10] Half of the 16 deaths were due to natural causes among infants less than one year old. Two additional natural deaths included a two-year-old and a six-year-old. Four of the deaths were accidents including one motor vehicle accident, one case of asphyxia involving bedding, and two drownings. The two remaining deaths included a three-year-old who died of undetermined causes, and a 15-year-old who committed suicide.

[10] National Center for Health Statistics. (2004). *National Vital Statistics Reports; Vol. 53 No. 5*. Retrieved February 3, 2006, from http://www.cdc.gov/nchs/fastats/deaths.htm

County of Death



County:	Total:	Percentage:	County:	Total:	Percentage:
Carson City	4	1.0%	Lander	1	0.2%
Clark	292	71.7%	Lincoln	0	0.0%
Churchill	4	1.0%	Mineral	3	0.7%
Douglas	2	0.5%	Pershing	2	0.5%
Esmeralda	0	0.0%	Storey	0	0.0%
Humboldt	3	0.7%	Washoe	61	15.0%
Lyon	7	1.7%			
Nye	7	1.7%	Out-of-state	14	3.4%
White Pine	1	0.2%			
Elko	5	1.2%			
Eureka	1	0.2%	TOTAL:	407	100.0%

Findings:

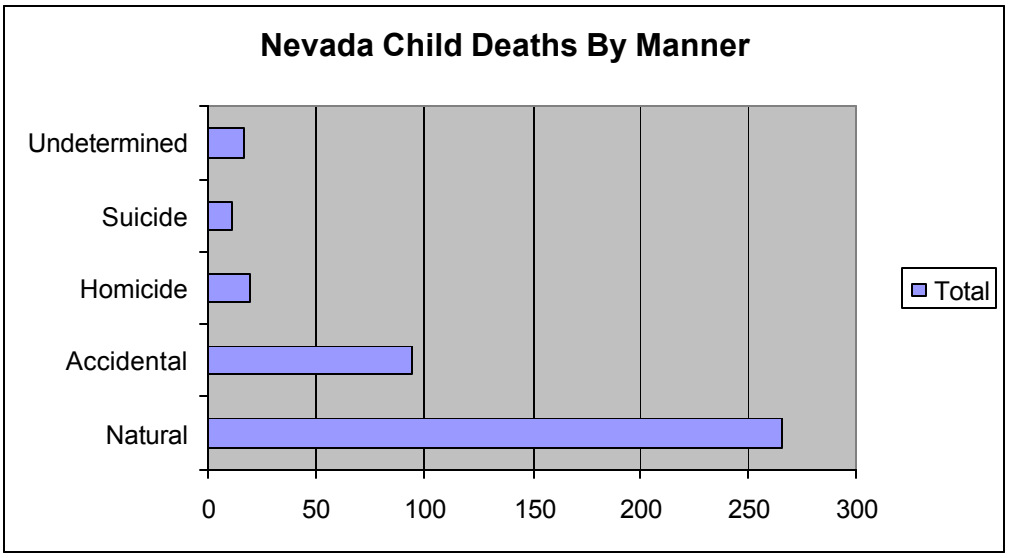
- When comparing child deaths in Nevada's two largest counties with the statewide population distribution, the percentage of child deaths by county suggests that they are consistent with the statewide population distribution, with minimal differences in percentages:

County:	Percentage of child deaths:	Percentage of statewide population distribution:
Clark	71.7%	71.3%
Washoe	15.0%	16.0%

Manner of Death

Prior to the regional CDR teams' analysis or involvement in a child fatality, a coroner or private attending physician identifies the manner of death. The coroner then forwards the information to the regional CDR team coordinator. The coroner lists one of five manners of death on the death certificate as follows:

1. **Natural**: These are deaths that result from natural disease mechanisms and include Sudden Infant Death Syndrome (SIDS) cases.
2. **Accidental**: These are deaths where there was not any intent to cause harm to another person and include causes such as motor vehicle accidents, asphyxia, and drowning.
3. **Homicide**: Homicide is the killing of one human by another.
4. **Suicide**: Suicide is the taking of one's own life voluntarily and intentionally.
5. **Undetermined**: These are deaths where sufficient evidence or information cannot be deduced during the investigation, usually about intent, to assign a manner of death.

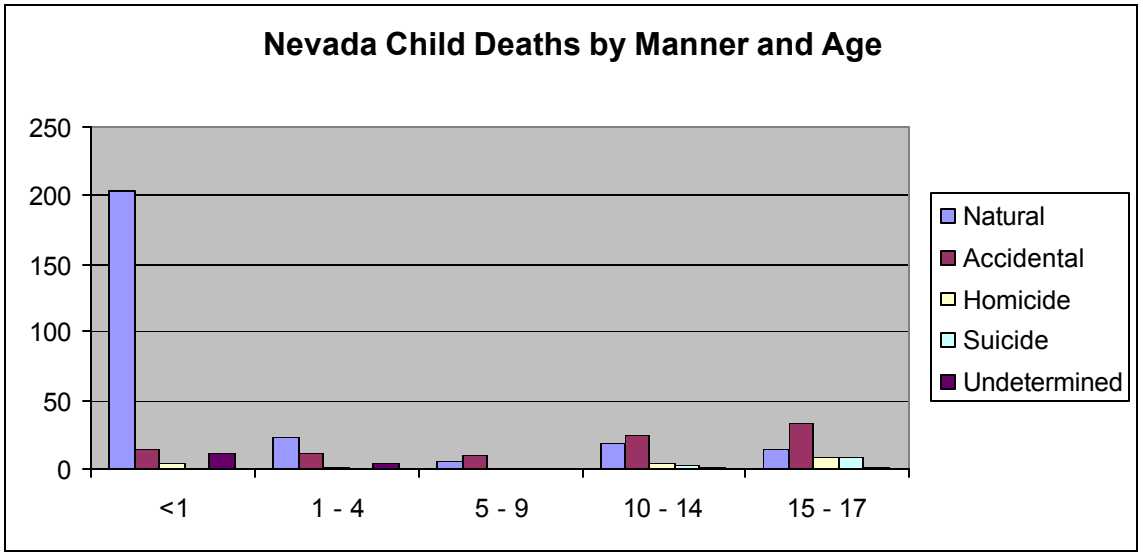


Manner of Death:	Total:	Percentage:
Natural	266	65.4%
Accidental	94	23.1%
Homicide	19	4.7%
Suicide	11	2.7%
Undetermined	17	4.2%
TOTAL:	407	100.0%

Findings:

- The greatest number of Nevada child deaths in 2004 were natural, largely due to the high incidence of natural deaths among infants less than one year of age. This is discussed in more detail below under *Manner of Death and Age*.
- The second most common manner of death is accidental, accounting for almost one-fourth of child deaths in Nevada. When infants less than one year old are separated out, accidents become the most common manner of death for children and adolescents ages one through 17. This is consistent with national data, which shows that accidents are the leading cause of death for all age groups except infants less than one year of age.[11]
- Accidental deaths represent the type of deaths where prevention efforts would most likely contribute to a reduction in fatalities. Leading causes of accidental death are discussed in more detail below in *Section 2*.

Manner of Death and Age



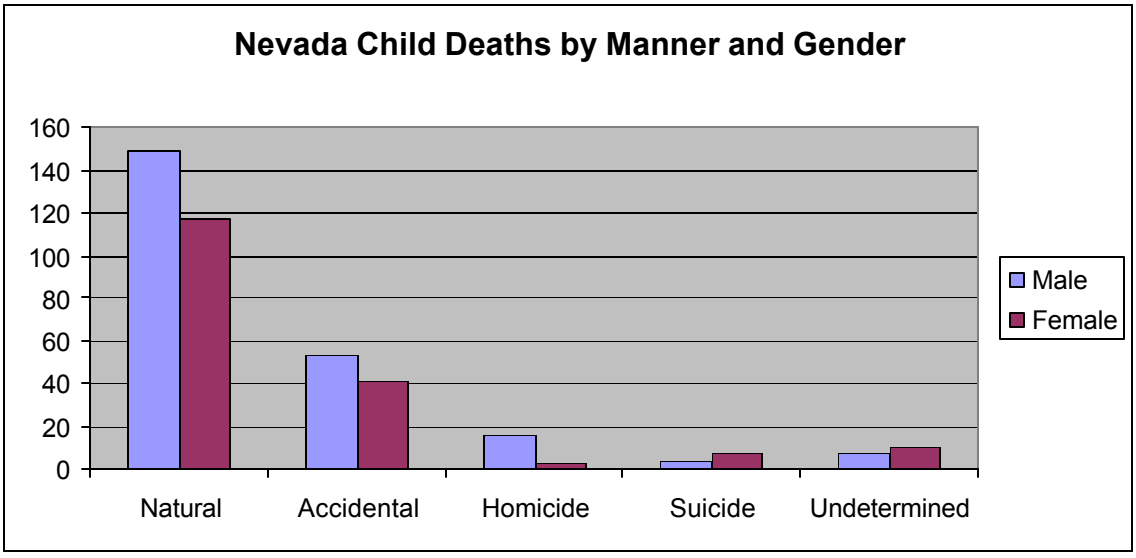
Manner:	Less than 1	1 – 4	5 – 9	10 – 14	15 – 17
Natural	203	23	6	19	15
Accidental	15	12	10	24	33
Homicide	4	2	0	5	8
Suicide	0	0	0	3	8
Undetermined	11	4	0	1	1
TOTAL:	233	41	16	52	65

[11] National Center for Injury Prevention and Control. (2006). *Web-based Injury Statistics Query and Reporting System: 10 Leading Causes of Death, United States, 2003* [custom data query]. Retrieved February 4, 2006, from http://www.cdc.gov/ncipc/wisqars/.

Findings:

- As noted above, the greatest number of child deaths in 2004 were natural deaths of infants less than one year of age. This is consistent with national data, which indicates that the top five causes of infant death are natural, and represent 55.1% of infant deaths nationwide.[12]
- Accidental deaths are highest in the adolescent age groups of 10 – 14 and 15 – 17, and increase with age. This is also consistent with national data, which shows that the leading cause of death for the same age groups is accidental. National data also shows a sharp increase in accidental deaths with age, as reflected in the Nevada data.[13]
- Homicides occur in all age groups, with the exception of 5 – 9 year-olds. Homicides are highest in the adolescent age groups of 10 – 14 and 15 – 17, and increase with age. This is again consistent with national data, which shows that homicide is the fifth and second leading cause of death for the same age groups, respectively. As with accidental deaths, national data also shows a sharp increase in homicide deaths with age, particularly since this cause of death jumps from the fifth to second leading cause when crossing over from the 10 – 14 age group to the 15 – 17 age group.[14]
- Suicides occur only within the adolescent age groups of 10 – 14 and 15 – 17, and increase with age. As with accidental deaths and homicides, this is consistent with national data, which shows suicide as the third leading cause of death for the same age groups. Likewise, national data shows a sharp increase in suicides with age, as reflected in the Nevada data.[15]

Manner of Death and Gender



[12] National Center for Health Statistics. (2006). *Deaths: Final Data for 2003*. Retrieved February 3, 2006, from http://www.cdc.gov/nchs/deaths.htm

[13] National Center for Injury Prevention and Control. (2006). *Web-based Injury Statistics Query and Reporting System: 10 Leading Causes of Death, United States, 2003* [custom data query]. Retrieved February 4, 2006, from http://www.cdc.gov/ncipc/wisqars/.

[14] Ibid.

[15] Ibid.

Manner of Death:	Male:	Female:	Male Percentage:	Female Percentage:
Natural	149	117	56.0%	44.0%
Accidental	53	41	56.4%	43.6%
Homicide	16	3	84.2%	15.8%
Suicide	4	7	36.4%	63.6%
Undetermined	7	10	41.2%	58.8%
TOTAL:	229	178		

Findings:

- Comparing manner of death by gender again demonstrates that overall, males die more frequently than females, as discussed above.
- Males were victims of homicide at five times the rate of females in 2004. This is again consistent with national data, which shows the rate of death for male homicides in the 15 – 19 age group at 15.3 per 100,000 population, compared with female homicides in the same age group at 2.9 per 100,000.[16] As noted above, most homicides occur in the 15 – 17 age group for adolescents in Nevada.
- In a reversal of national trends, female adolescents in Nevada committed suicide at almost twice the rate of male adolescents in 2004. This is inconsistent with national data, which shows the rate of death for male suicides in the 15 – 19 age group at 12.2 per 100,000 population, compared with female suicides in the same age group at 2.4 per 100,000.[17] Nationally, males have higher suicide rates than females throughout the lifespan. Other national research shows that adolescent males are much more likely to commit suicide, while adolescent females are much more likely to attempt suicide.[18] It is possible this data is anomalous for 2004, meaning that a multi-year trend analysis may show that males in Nevada commit suicide at a greater rate overall when compared to females over time. However, if this data is not anomalous for the year, the higher rate of completed suicides by females suggests that specific outreach to adolescent females may be necessary in Nevada in order to improve statewide suicide prevention efforts.

[16] National Center for Health Statistics. (2004). *Health, United States, 2004, With Chartbook on Trends in the Health of Americans.* Hyattsville, MD: National Center for Health Statistics.
[17] Ibid.
[18] National Adolescent Health Information Center. (2005). *Fact Sheet on Suicide: Adolescents & Young Adults*. San Francisco, CA: University of California, San Francisco.

Target Causes for Data Comparison

Target causes for data comparison include the types of death where statewide data from the Nevada State Health Division can be grouped and compared with data from cases reviewed by the regional CDR teams. For statewide data, groupings are made based on International Classification of Diseases (ICD) 10 codes and information grouping details. The ICD-10 classification system is developed and published by the World Health Organization (WHO), and used to code and classify mortality data from death certificates.[19] For regional CDR team data, groupings are made based on deaths required for review by NRS 432B.405, deaths commonly related to abuse and neglect, and causes of death where prevention efforts could contribute to a reduction in fatalities.

Target Cause:	Total:	Percentage:
Homicide involving firearms	11	2.7%
Homicide (all others)	8	2.0%
Suicide	11	2.7%
Motor vehicle accidents	60	14.7%
Asphyxia involving bedding	8	2.0%
Asphyxia (all others)	5	1.2%
Drowning	4	1.0%
Fire or smoke exposure	4	1.0%
Poisoning	1	0.2%
Accident	2	0.5%
Unknown accidents	10	2.5%
Unknown	17	4.2%
Maternal drug use	1	0.2%
SIDS	13	3.2%
Remainder	252	61.9%
TOTAL:	407	100.0%

Maternal drug use deaths have limited determinability using Nevada State Health Division data. The remainder of deaths not assigned a target cause for data comparison are all natural.

[19] National Center for Health Statistics. (2004). *About the International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM)*. Retrieved January 24, 2006, from http://www.cdc.gov/nchs/about/otheract/icd9/abticd10.htm

Leading Causes of Death

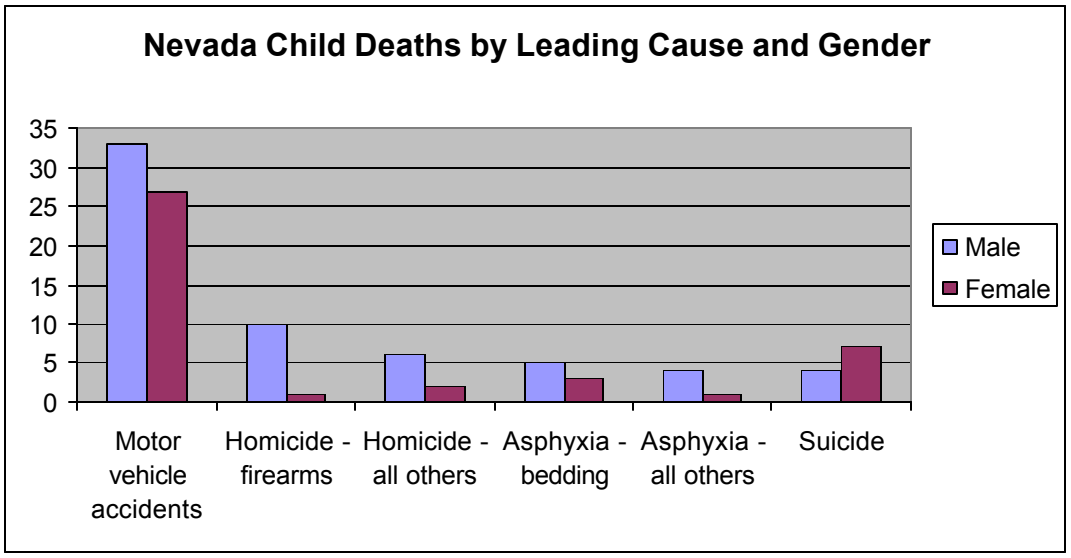
Target Causes for Prevention Efforts

The four leading causes of child death where prevention efforts could contribute to a reduction in fatalities are as follows:

Leading Cause:	Total Deaths by Cause:	Percentage of Total Statewide Deaths:
1. Motor vehicle accidents	60	14.7%
2. Homicide (with and without firearms combined)	19	4.7%
3. Asphyxia (with and without bedding combined)	13	3.2%
4. Suicide	11	2.7%
TOTAL targeted deaths:	103	

These causes exclude unknown accidents and other unknown deaths, which cannot be targeted for prevention due to lack of information. These causes also exclude most natural deaths, which are discussed separately below under *Natural Deaths*.

Leading Cause and Gender

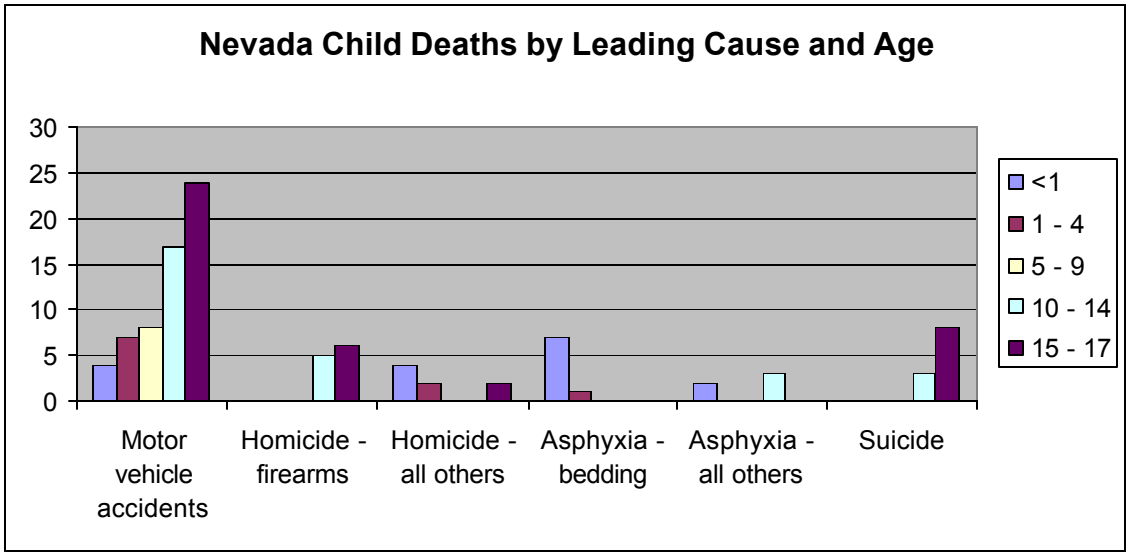


Leading Cause:	Male:	Female:	Male Percentage:	Female Percentage:
Motor vehicle accidents	33	27	55.0%	45.0%
Homicide – firearms	10	1	90.9%	9.1%
Homicide – all others	6	2	75.0%	25.0%
Asphyxia – bedding	5	3	62.5%	37.5%
Asphyxia – all others	4	1	80.0%	20.0%
Suicide	4	7	36.4%	63.6%
TOTAL:	62	41		

Findings:

- Comparison of leading causes by gender supports the findings outlined above in the manner of death analyses. Again, the data demonstrates that males die more frequently than females overall, and that males are much more likely to be victims of homicide than females. The unusually high number of female versus male suicides is also seen again here.
- Comparison of leading causes by gender reveals that male victims of homicide are much more likely to die from a gunshot wound than females.
- Comparison of leading causes by gender also reveals that males died from asphyxia at twice the rate of females in 2004.

Leading Cause and Age



Leading Cause:	Less than 1:	1 – 4:	5 – 9:	10 – 14:	15 – 17:
Motor vehicle accidents	4	7	8	17	24
Homicide – firearms	0	0	0	5	6
Homicide – all others	4	2	0	0	2
Asphyxia – bedding	7	1	0	0	0
Asphyxia – all others	2	0	0	3	0
Suicide	0	0	0	3	8
TOTAL:	17	10	8	28	40

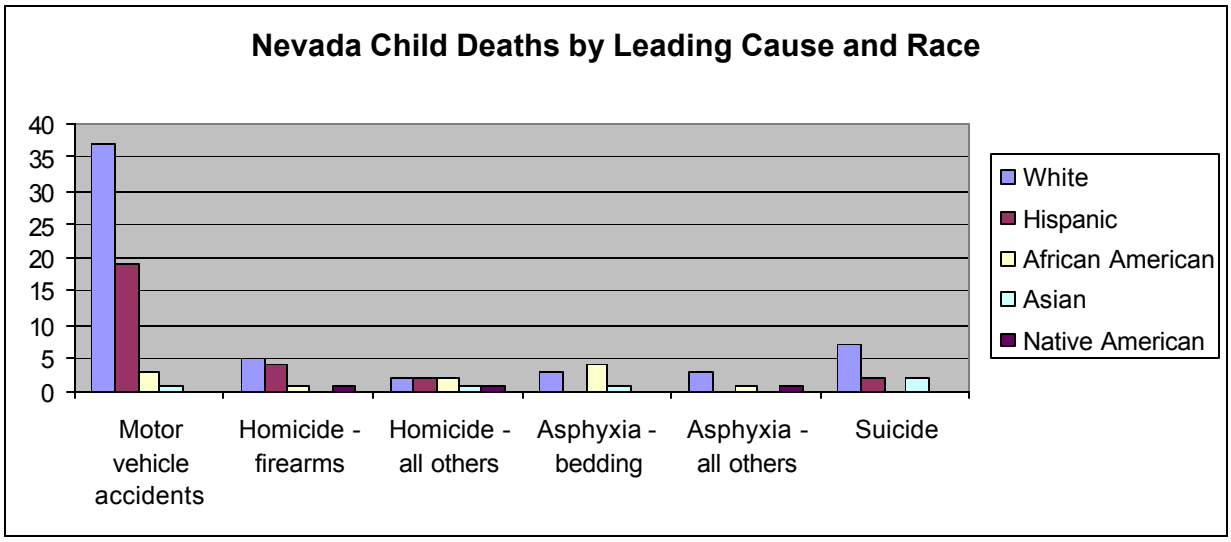
Findings:

- The risk of death from motor vehicle accidents increases in direct proportion with age for children in Nevada. This is consistent with national data, which shows that motor vehicle accidents account for almost 30% of all accidental deaths in the 1 – 4 age group, increasing to 78% of all accidental deaths in the 15 – 17 age group.[20]
- Comparison of leading cause by age reveals that homicide deaths involving firearms occurred only in the 10 – 14 and 15 – 17 age groups in 2004. This finding is consistent with national data, which shows that deaths from firearm-related injuries increase considerably in the 15 – 19 age group.[21]
- Comparison of leading cause by age reveals that asphyxia deaths involving bedding occurred most frequently for infants less than one year of age.

[20] National Center for Injury Prevention and Control. (2006). *Web-based Injury Statistics Query and Reporting System: 10 Leading Causes of Death, United States, 2003* [custom data query]. Retrieved February 4, 2006, from http://www.cdc.gov/ncipc/wisqars/.

[21] National Center for Health Statistics. (2004). *Health, United States, 2004, With Chartbook on Trends in the Health of Americans.* Hyattsville, MD: National Center for Health Statistics.

Leading Cause and Race



Leading Cause:	White:	Hispanic:	African American:	Asian:	Native American:
Motor vehicle accidents	37	19	3	1	0
Homicide – firearms	5	4	1	0	1
Homicide – all others	2	2	2	1	1
Asphyxia – bedding	3	0	4	1	0
Asphyxia – all others	3	0	1	0	1
Suicide	7	2	0	2	0
TOTAL:	57	27	11	5	3

Findings:

- When comparing motor vehicle accidents by race with the statewide population distribution, the percentage of motor vehicle accidents by race indicates that deaths among Hispanic children are disproportionately high:

Race:	Percentage of child deaths due to MVA:	Percentage of statewide population distribution:[22]
White	61.7%	63.1%
Hispanic	31.7%	22.5%
African American	5.0%	6.9%
Asian	1.7%	6.1%
Native American	0.0%	1.3%
TOTAL:	100.0%	100.0%

- Likewise, combined homicide deaths for Hispanic children are disproportionately high relative to the statewide population distribution, totaling almost the same number of homicide deaths as whites.
- Deaths resulting from asphyxia involving bedding for African American infants are also disproportionately high relative to the statewide population distribution, given that this race category includes the highest number of deaths by this cause in 2004, while representing only 6.9% of the state's population.
- Suicide occurs most frequently among whites. This is generally consistent with national data, which shows that whites account for the second highest suicide rate within race categories.[23] However, taking into account the unusually high number of female suicides in Nevada discussed above, the statewide data shows that white females account for the greatest number of suicides in 2004. This is not consistent with national data for females, which show American Indian and Asian females with the leading suicide death rates, respectively.[24]
- Additionally, the same national data shows that the highest suicide rates for both males and females are among American Indians. Given Nevada's indigenous American Indian population, the lack of any suicides among Native Americans may suggest that some suicides are incorrectly classified by either race or cause, or they are under-reported. This may also suggest the need for a formal interface with tribal governments in the state in order to obtain more complete data surrounding suicide.

[22] Hardcastle, J. (2004). *ASRHO Estimates from 1990 to 2003 and Projections from 2004 to 2024 for Nevada and Its Counties*. Retrieved January 20, 2006, from http://www.nsbdc.org/demographer/pubs.
[23] National Adolescent Health Information Center. (2005). *Fact Sheet on Suicide: Adolescents & Young Adults*. San Francisco, CA: University of California, San Francisco.
[24] Ibid.

Deaths Caused by Abuse and Neglect

Deaths caused by abuse and neglect may be categorized under a variety of target causes. The most visible are homicide deaths resulting from severe abuse. There are several types of death that may be determined to result from natural or accidental causes, but still involve some form of abuse and neglect. Deaths caused by abuse and neglect are determinable from Nevada State Health Division only when clearly coded as such using ICD-10 codes and information grouping details, discussed above under *Target Causes for Data Comparison*. Because this classification system is limited in its ability to specifically identify a variety of deaths related to abuse and neglect, much more specific information can be gathered and analyzed through the regional CDR case review process. Evaluation of Nevada State Health Division data in conjunction with regional CDR data yields more complete information on causes of death, and allows for a more detailed review of deaths caused by abuse and neglect. This analysis is provided below under *Section 2*.

Natural Deaths

As discussed throughout this section, natural deaths are the leading cause of child death in the state, accounting for 65.4% of all deaths and occurring primarily in infants less than one year of age. Natural deaths are targeted for review by regional CDR teams when several types of natural causes are indicated as follows:

- Sudden Infant Death Syndrome (SIDS): Review of these deaths are mandated by NRS 432B.405.
- Natural causes that may be associated with abuse and/or neglect: Although the coroner may determine that a child death resulted from identifiable natural causes, investigation findings may suggest signs of abuse and/or neglect.
- Toxicology reports suggesting maternal drug use: Again, although the coroner may determine that a child death resulted from identifiable natural causes, toxicology tests conducted at birth may suggest that maternal drug use contributed to the fatality.

More detailed data for these types of deaths are available based on the regional CDR case review process and are discussed in detail below under *Section 2*.

Section 2: 2004 Child Deaths Reviewed

PLEASE NOTE: All data in Section 2 of this report is derived from the regional CDR teams, which is collected and analyzed by the Nevada Institute for Children's Research and Policy (NICRP).

Child Death Review in Nevada

Five regional CDR teams are required to review local child deaths throughout the State of Nevada as follows:

1. Clark County Team
2. Washoe County Team
3. Carson City Team: covers Carson City, Douglas, Lyon, and Storey Counties
4. Elko Team: covers Elko, Eureka, Humboldt, Lander, Lincoln, Pershing, and White Pine Counties
5. Fallon Team: covers Churchill, Esmeralda, Mineral, and Nye Counties

The purpose, organization, and functions of the regional CDR teams are mandated by Nevada Revised Statutes (NRS) Chapter 432B, sections 403 through 409. State-mandated reviews include the following:

- Reviews requested from adults related to the child within one year of the date of death.
- Children who were in the custody of a child welfare agency or whose family received services from such an agency.
- Children who died from alleged abuse or neglect.
- Children whose siblings, household members, or day care providers were subject to an abuse or neglect investigation within the previous 12 months.
- Children who were adopted through a child welfare agency.
- Children who died from Sudden Infant Death Syndrome (SIDS).

Additional detail about the organization and functions of the five regional CDR teams is included in Appendix A of this report. Complete membership lists for the teams are included in Appendix B of this report.

Deaths Reviewed Versus Deaths Not Reviewed

Each of the five regional CDR teams reviews all child deaths within their region with the exception of the Clark County Team, which reviews State-mandated cases along with a selection of additional cases because of high caseload. Clark County accounts for approximately 71% of the state's population, and it is not feasible for the Clark County Team to review all child deaths

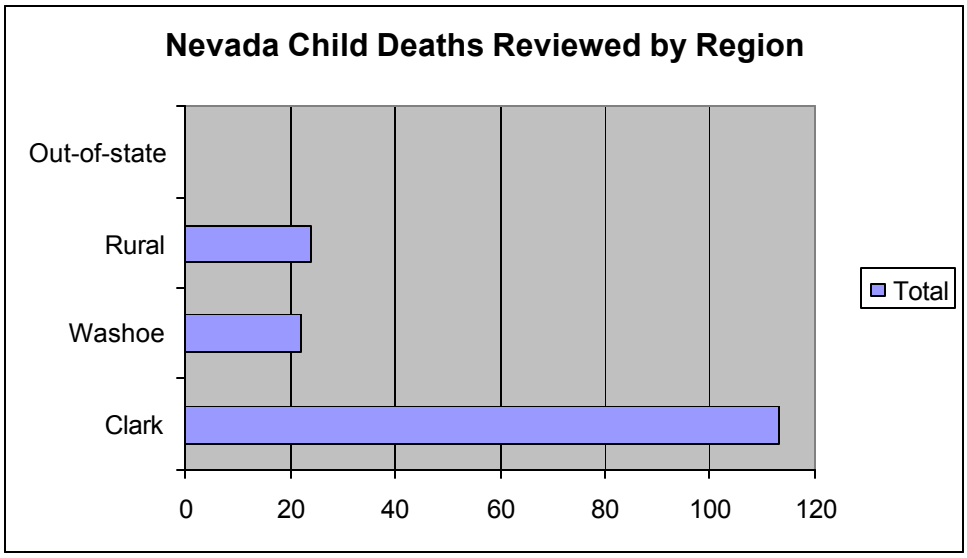
in the area. Currently, most of the regional teams meet quarterly to review child death cases referred by coroners' offices, or as requested, in their respective regions. In Clark County, the team meets monthly because of its high caseload. In the rural region, the regional teams may meet less often if coroners' reports are not received within a given quarter.

2004 Child Deaths Reviewed

During 2004, a total of 159 child deaths were reviewed by the five regional CDR teams as follows, ages birth to 17 years:

Regional CDR Team:	Total Cases:	Percentage:
Clark County	113	71.1%
Washoe County	22	13.8%
Carson City	18	11.3%
Elko	5	3.1%
Fallon	1	0.6%
TOTAL:	159	100.0%

County of Death



County:	Total:	Percentage:	County:	Total:	Percentage:
Carson City	7	4.4%	Lander	1	0.6%
Clark	113	71.1%	Lincoln	0	0.0%
Churchill	1	0.6%	Mineral	0	0.0%
Douglas	4	2.5%	Pershing	0	0.0%
Esmeralda	0	0.0%	Storey	1	0.6%
Humboldt	4	2.5%	Washoe	22	13.8%
Lyon	6	3.8%			
Nye	0	0.0%	Out-of-state	0	0.0%
White Pine	0	0.0%			
Elko	0	0.0%			
Eureka	0	0.0%	TOTAL:	159	100.0%

Leading Causes of Death

Target Causes for Prevention Efforts

Based on analysis of data derived from the 159 cases reviewed by the five regional CDR teams, the four leading causes of child death where prevention efforts would contribute to a reduction in fatalities are as follows:

Leading Cause:	Total Deaths:	Percentage of Total Deaths Reviewed:
1. Motor vehicle accidents	39	24.5%
2. Drug overdose/intoxication	15	9.4%
3. Asphyxia (with and without bedding combined)	14	8.8%
4. Gunshot wounds	13	8.2%
TOTAL targeted deaths:	81	

These causes exclude natural deaths, which are discussed separately below under *Natural Deaths*.

Statewide Health Division Data Versus Regional CDR Team Data

STATEWIDE HEALTH DIVISION DATA			REGIONAL CDR TEAM DATA		
Leading Cause:	Number:	Percentage of Total:	Leading Cause:	Number:	Percentage of Total:
1. MVA	60	14.7%	1. MVA	39	24.5%
2. Homicide	19	4.6%	2. Drug	15	9.4%
3. Asphyxia	13	3.2%	3. Asphyxia	14	8.8%
4. Suicide	11	2.7%	4. GSW	13	8.2%

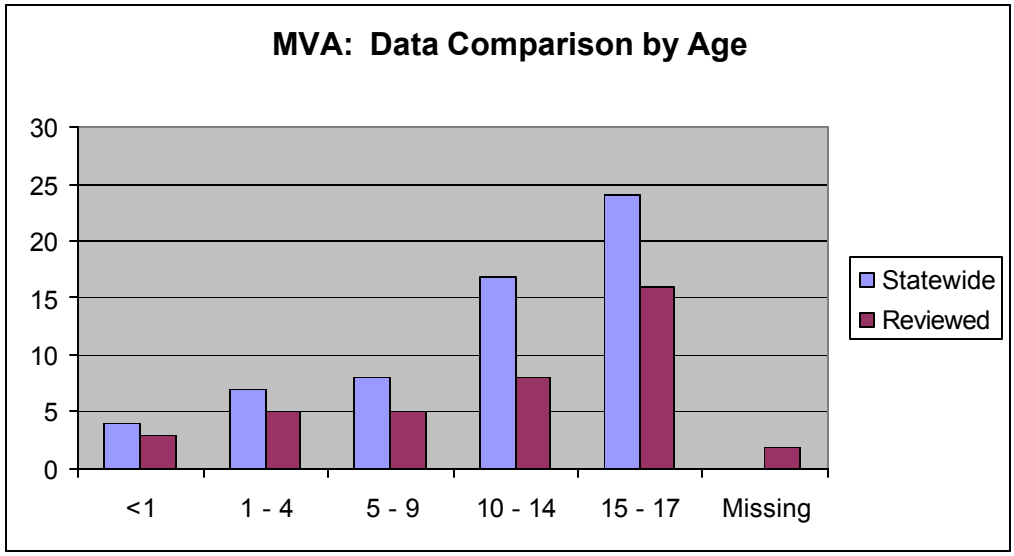
DATA NOTES: MVA = motor vehicle accidents; GSW = gunshot wounds; Drug = drug overdose/intoxication. MVA are not restricted to automobile accidents and may include any type of motor vehicle, such as a moped, ATV, or watercraft. Additionally, this may also include pedestrian deaths where the child victim is struck or injured by a motor vehicle.

Findings:

- Motor vehicle accidents (MVA) are the leading cause of death, regardless of which data source is evaluated.
- Drug-related deaths emerge as a leading cause when regional CDR team data is evaluated, because greater detail can be obtained about the cause of death and the involvement of drugs, particularly in cases where maternal drug use was a contributing factor.
- Total asphyxia deaths are higher when regional CDR team data is evaluated, because asphyxia is assessed across a range of manners of death, including accidents and suicide. The statewide Health Division data evaluation for 2004 includes only accidental deaths for asphyxia.
- Deaths involving gunshot wounds (GSW) also emerge as a leading cause when regional CDR team data is evaluated, because the involvement of firearms can be assessed across a range of manners of death, including homicide, suicide, and accidents.

Detail: Motor Vehicle Accidents

Age – Motor Vehicle Accidents



Data Source:	Less than 1:	1 – 4:	5 – 9:	10 – 14:	15 – 17:
Statewide	4	7	8	17	24
Reviewed	3	5	5	9	17

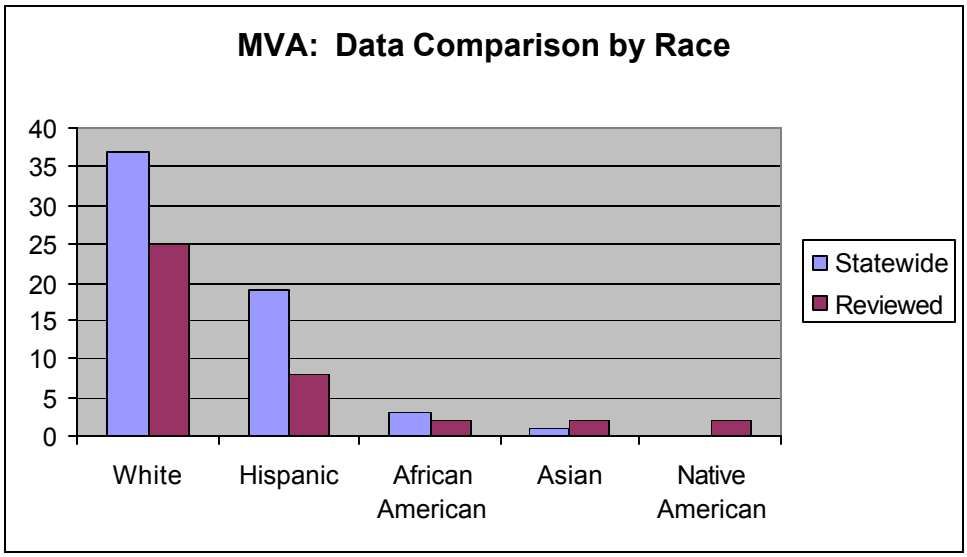
Findings:

- Consistent with the statewide data analysis, the risk of death from motor vehicle accidents increases in direct proportion with age for children in Nevada.

Gender – Motor Vehicle Accidents

Data Source:	Male:	Female:	Male Percentage:	Female Percentage:
Statewide	33	27	55.0%	45.0%
Reviewed	18	21	46.2%	53.8%

Race – Motor Vehicle Accidents



Data Source:	White:	Hispanic:	African American:	Asian:	Native American:
Statewide	37	19	3	1	0
Reviewed	25	8	2	2	2

Findings:

- Racial distributions are roughly consistent with statewide data, with the exception of the Asian and Native American race categories. This suggests that racial classification errors may have been made within the Nevada State Health Division data system or in the regional case review process. Race data from coroners' offices may also be incorrect, because race is typically self-reported by family members or visually determined by the coroner.

Contributing Factors – Motor Vehicle Accidents

Factor:	Yes:	No:	Unknown:	Not Applicable:
Was the driver wearing a seatbelt?	4	3	14	5
Was the passenger wearing a seatbelt?	6	10	4	9
Was the child a pedestrian?	7	10	-	6

Findings:

- Responses to the question "Was the driver wearing a seatbelt?" total 26, out of the 39 cases reviewed that were identified as caused by a motor vehicle accident. Furthermore, more than half of the 26 responses were marked 'unknown.' This demonstrates a need for more

accurate data collection, related to contributing factors, and may demonstrate difficulty accessing case information from agencies participating in investigation of this type of death. This will be partly addressed by the use of a new national data instrument in 2005, which is discussed in more detail below under *2005 Data Collection Improvements.*

- Similar problems occur with the other questions, such that the total responses do not equal the total number of cases. Drawing conclusions from unreliable data is not appropriate for this report and better data should be obtained in 2005.
- Additional data analysis problems arise when considering the ambiguity of the questions. The case data does not make clear whether the child victim was the driver or the passenger in relation to the contributing factor questions, and does not address the use of car seats for younger children. Additional questions related to substance use, vehicle speed, and the type of vehicle involved in the accident would also generate more specific information that would contribute to prevention efforts. Again, data problems such as this will be partly addressed by the use of a new national data instrument in 2005.

Detail: Drug Overdose/Intoxication

As noted above, deaths from drug overdose/intoxication have limited determinability using Nevada State Health Division data, therefore statewide comparison data will not be used.

Age – Drug Overdose/Intoxication

Data Source:	Less than 1:	1 – 4:	5 – 9:	10 – 14:	15 – 17:
Statewide	-	-	-	-	-
Reviewed	6	0	0	1	8

Findings:

- Deaths resulting from drug overdose or intoxication are clustered in the age groups of infants less than one year old, and adolescents in the 10 – 14 and 15 – 17. This suggests that the infant deaths may be related to maternal drug use, while the adolescent deaths may result from accidental overdoses or suicide. These preliminary conclusions are explored in more detail below under *Manner of Death and Age*.

Gender – Drug Overdose/Intoxication

Data Source:	Male:	Female:	Male Percentage:	Female Percentage:
Statewide	-	-	-	-
Reviewed	7	8	46.7%	53.3%

Race – Drug Overdose/Intoxication

Data Source:	White:	Hispanic:	African American:	Asian:	Native American:
Statewide	-	-	-	-	-
Reviewed	9	1	3	2	0

Manner of Death and Age – Drug Overdose/Intoxication

Manner:	Total:	Age Group:
Natural	0	-
Accidental	12	5: Less than one year old 7: 15 – 17 years old
Homicide	1	1: Less than one year old
Suicide	2	1: 10 – 14 years old 1: 15 – 17 years old
Undetermined	0	-

Findings:

- For the five accidental deaths of infants less that one year old, all five were born with positive toxicology for exposure to drugs, indicating maternal drug use. Additionally, all five cases showed that the primary caretaker or family member had a history of drug abuse, possession, or arrest.
- For the seven accidental deaths of adolescents 15 – 17 years old, none were listed as deaths related to child abuse or neglect, indicating that accidental drug overdose was the cause.
- For the homicide death of an infant less than one year old, the child was not born with positive toxicology for exposure to drugs, and the death was listed as related to child abuse, indicating intentional drug overdose resulting in death.
- For the two suicides, both cases resulted from drug overdoses. One case indicated a history of sexual abuse and repeated suicide attempts, while the other indicated ongoing mental health problems.

Maternal Drug Use

In addition to deaths clearly caused by drug overdose and intoxication, deaths caused by prematurity/intrauterine fetal demise may also be a result of maternal drug use. When prematurity/intrauterine fetal demise is determined to be the cause of death by the coroner, maternal drug use becomes less obvious when completing a statistical analysis and review of data.

In 2004, a total of 11 child deaths reviewed were caused by prematurity/intrauterine fetal demise. Examining contributing factors reveals that in almost half the cases, the caretaker or a family member had a history of drug abuse, possession, or arrest. And in four of the cases, both the child and mother tested positive for exposure to drugs at birth:

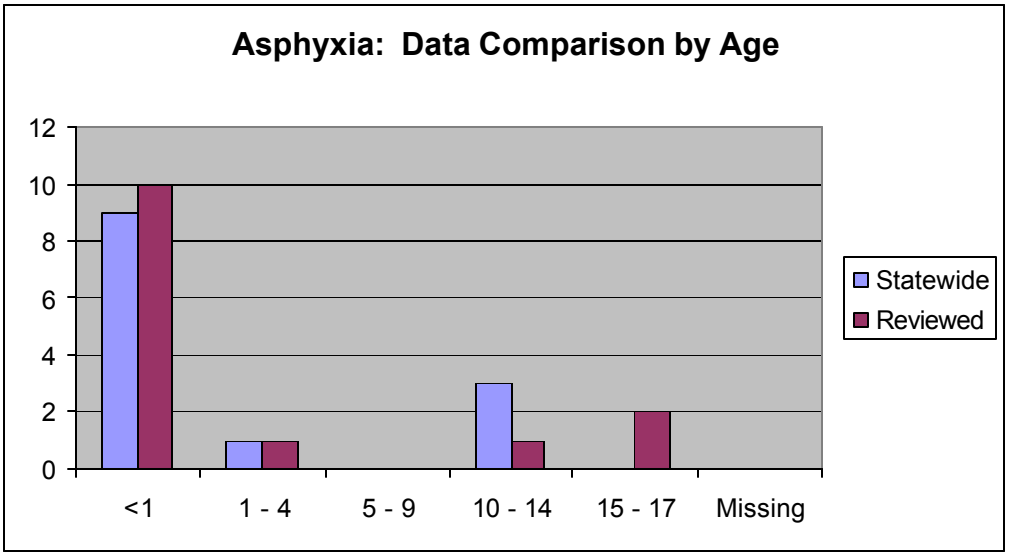
Factor:	Yes:	No:	Unknown:	Not Applicable:	Missing:
The caretaker/family member has a history of drug abuse, possession or arrest?	5	1	1	1	3
The child was drug/alcohol exposed at birth?	4	3	-	1	3
The mother was drug/alcohol positive at birth?	4	3	-	1	3

In the 2004 cases reviewed, if maternal drug use was determined to be the actual cause of death, these cases were categorized as deaths resulting from drug overdose/intoxication. However, it is equally important to consider deaths from prematurity/intrauterine fetal demise where drug exposure may have contributed to the death. Taken together, drug overdose/intoxication and prematurity/intrauterine fetal demise involving drug exposure total nine deaths in 2004:

Manner:	Cause:	Age Group:	Total:
Accidental	Drug overdose/intoxication	Less than 1 year old	5
Natural	Prematurity/ intrauterine fetal demise	Less than 1 year old	4
TOTAL:			9

Detail: Asphyxia

Age – Asphyxia



Data Source:	Less than 1:	1 – 4:	5 – 9:	10 – 14:	15 – 17:
Statewide	9	1	0	3	0
Reviewed	10	1	0	1	2

- As with deaths resulting from drug overdose or intoxication, asphyxia deaths are clustered in the age groups at the low and high ends of the spectrum. This suggests that the infant deaths are likely related to accidents, co-sleeping, or excessive bedding, while the adolescent deaths are likely to result from suicide. These preliminary conclusions are explored in more detail below under *Manner of Death and Age*.
- There is a discrepancy in the total number of cases: 13 statewide versus 14 reviewed. As noted above, total asphyxia deaths are higher when regional CDR team data is evaluated, because asphyxia is assessed across a range of manners of death, including accidents and suicide. The statewide data evaluation for 2004 includes only accidental deaths for asphyxia.
- Age distributions are roughly consistent with statewide data, with the exception of the 15 – 17 age group. Again, this is due to the evaluation of asphyxia deaths across a range of manners of death.

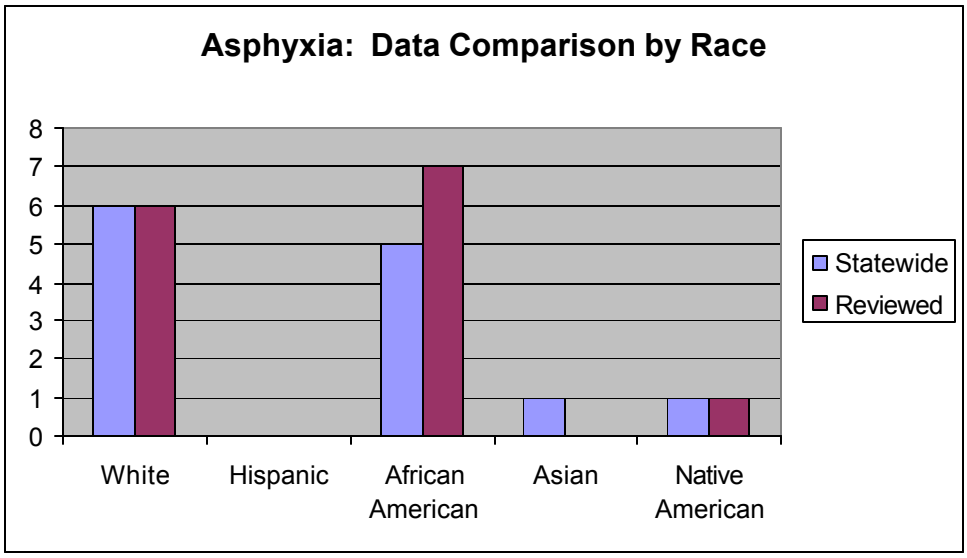
Gender – Asphyxia

Data Source:	Male:	Female:	Male Percentage:	Female Percentage:
Statewide	9	4	69.2%	30.8%
Reviewed	8	6	57.1%	42.9%

Findings:

- There is a discrepancy in the total number of cases and gender distribution is inconsistent with statewide data for females. Again, this is due to the evaluation of asphyxia deaths across a range of manners of death through the CDR process, compared with accidental deaths only in the statewide data evaluation.

Race – Asphyxia



Data Source:	White:	Hispanic:	African American:	Asian:	Native American:
Statewide	6	0	5	1	1
Reviewed	6	0	7	0	1

Findings:

- Racial distributions are roughly consistent with statewide data, with the exception of the African American and Asian race categories. This may suggest racial classification errors within the Nevada State Health Division data system or in the regional CDR process. This may also be a result of the differing evaluation in manner of death, as noted above.

- As discussed above in Section 1, deaths resulting from asphyxia for African American infants are disproportionately high, given that this race category is almost equal to the number of deaths by asphyxia for whites, while African Americans represent only 6.9% of the state's population.

Manner of Death and Age – Asphyxia

Manner:	Total:	Age Group:
Natural	0	-
Accidental	11	9: Less than one year old 1: 1 – 4 years old 1: 10 – 14 years old
Homicide	0	-
Suicide	2	2: 15 – 17 years old
Undetermined	1	1: Less than one year old

Findings:

- Two of the nine accidental deaths of infants less than one year of age were due to excessive bedding and/or an improper sleeping environment. One child was found face down in a bean-bag chair, the other suffocated from bedding in a crib.
- Five of the nine accidental deaths of infants less than one year of age involved co-sleeping. It is important to note that co-sleeping deaths are not restricted only to cases where parents sleep with their children. In one case, the child was on a couch with a babysitter. In another case, the child was in bed with the mother and three siblings.
- In five of the nine accidental deaths of infants less than one year of age, the child victim was found face down on his or her stomach. Placing infants on their stomachs to sleep is a risk factor for SIDS, as discussed below under *Natural Deaths*, and puts the child at risk of suffocation.
- As noted above under *Age*, the adolescent deaths did result from suicide, although no additional case details are available regarding the nature of the asphyxia deaths.

Contributing Factors – Asphyxia

Factor:	Yes:	No:	Unknown:	Not Applicable:
Had the adult been drinking or using any controlled substances?	4	3	4	1
Was the child sleeping with one or more adults?	5	5	0	2

Note: These questions were not applicable to the two suicide deaths, so this breakdown includes 12 out of 14 deaths total.

Findings:

- The four cases where adult caretakers were drinking or using controlled substances were all among the accidental deaths of infants less than one year of age.
- As noted above, five of the nine accidental deaths of infants less than one year of age involved co-sleeping. More details about the sleeping circumstances are provided below under *Sleeping Location*.

Sleeping Location – Asphyxia

Location:	Total:	Percentage:
Bed	3	25.0%
Couch	2	16.7%
Crib	3	25.0%
Other	2	16.7%
Not Applicable	2	16.7%

Note: These questions were not applicable to the two suicide deaths, so this breakdown includes 12 out of 14 deaths total.

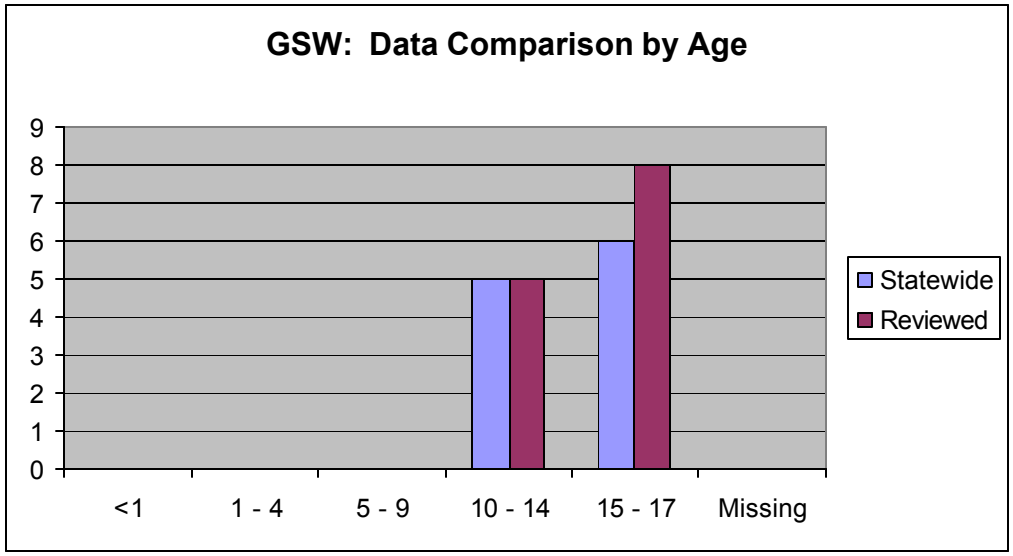
Findings:

- Co-sleeping was a factor in all three bed deaths and both couch deaths, for a total of five co-sleeping deaths as outline above.
- No co-sleeping with siblings was involved in any of the crib deaths.
- The locations designated as 'other' include a bean-bag chair and a playpen.
- 'Not applicable' indicates that the child was not sleeping at the time the death occurred. In one case, a 10-year-old female died from choking on food. In the other case, a 16-month-old male was left unattended in a chair by his parents. Upon returning, they found he had fallen between the chair and the wall, causing suffocation.

Detail: Gunshot Wounds

Although data on homicide involving firearms is determinable using Nevada State Health Division data, more complete information is available when regional CDR team data is evaluated, because the involvement of firearms can be assessed across a range of manners of death, including homicide, suicide, and accidents. Therefore, no statewide comparison will be made for this cause of death.

Age – Gunshot Wounds



Data Source:	Less than 1:	1 – 4:	5 – 9:	10 – 14:	15 – 17:
Statewide	0	0	0	5	6
Reviewed	0	0	0	5	8

Findings:

- Deaths from gunshot wounds increase with age, and are clustered in the 10 – 14 and 15 – 17 age groups. This is consistent with national data, which shows that the rate of death from gunshot wounds increases with age for both males and females through age 24.[25]
- There is a discrepancy in the total number of cases: 11 statewide versus 13 reviewed. As with the asphyxia deaths discussed above, total gunshot wound deaths are higher when regional CDR team data is evaluated, because they are assessed across a range of manners of death, including accidents, homicide, and suicide. The statewide data evaluation for 2004 includes only homicide deaths for gunshot wounds.

[25] National Center for Health Statistics. (2004). *Health, United States, 2004, With Chartbook on Trends in the Health of Americans.* Hyattsville, MD: National Center for Health Statistics.

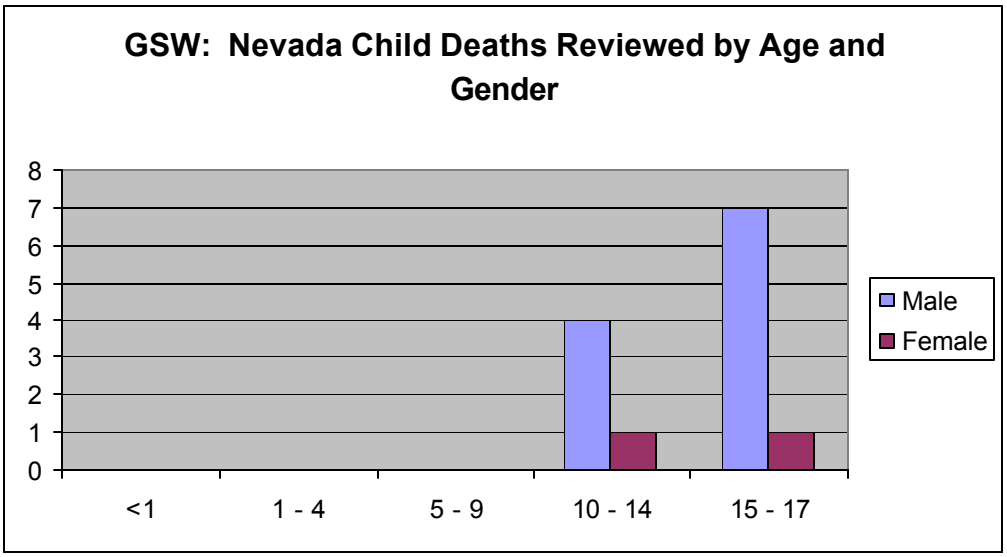
Gender – Gunshot Wounds

Data Source:	Male:	Female:	Male Percentage:	Female Percentage:
Statewide	10	1	-	-
Reviewed	11	2	84.6%	15.4%

Findings:

- Males were victims of gunshot wounds at over five times the rate of females in 2004, when examining regional CDR team data. This is again consistent with national data, which shows the rate of death for males from firearms is more than six times the rate of females across the lifespan.[26]
- There is a discrepancy in the total number of cases. Again, this is due to the evaluation of gunshot wound deaths across a range of manners of death through the CDR process, compared with homicide deaths only in the statewide data evaluation.

Age and Gender – Gunshot Wounds



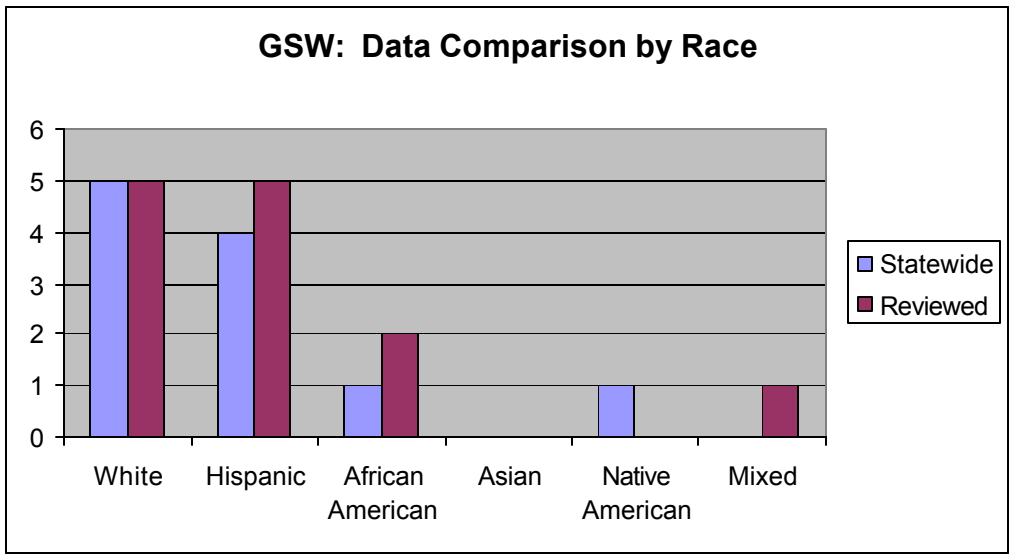
[26] National Center for Health Statistics. (2004). *Health, United States, 2004, With Chartbook on Trends in the Health of Americans.* Hyattsville, MD: National Center for Health Statistics.

Age Group:	Male:	Female:	Male Percentage:	Female Percentage:
Less than 1 year old	0	0	0.0%	0.0%
1 – 4 years	0	0	0.0%	0.0%
5 – 9 years	0	0	0.0%	0.0%
10 – 14 years	4	1	80.0%	20.0%
15 – 17 years	7	1	87.5%	12.5%
TOTAL:	13			

Findings:

- Analysis of regional CDR team data by age and gender is also consistent with national data, which shows the rate of death for males from firearms is at least twice the rate of females through age 14. This disparity increases considerably in the 15 – 19 age group, with a rate of death for males at 21.1 per 100,000 population, compared with females in the same age group at 2.7 per 100,000.[27]

Race – Gunshot Wounds



Data Source:	White	Hispanic	African American	Asian	Native American	Mixed
Statewide	5	4	1	0	1	0
Reviewed	5	5	2	0	0	1

[27] National Center for Health Statistics. (2004). *Health, United States, 2004, With Chartbook on Trends in the Health of Americans.* Hyattsville, MD: National Center for Health Statistics.

Findings:

- The nearly equal number of deaths from gunshot wounds for both whites and Hispanics, in both the statewide and regional CDR data, suggests that deaths among Hispanic adolescents may be disproportionately high when compared to the statewide population distribution. Whites account for 63.1% of the Nevada population, while Hispanics account for only 22.5% by comparison.
- Deaths among other racial groups are consistent with the statewide population distribution.
- Racial distributions are roughly consistent between statewide and regional CDR data, with the exception of the Native American and mixed race categories. For the Native American death, this may again suggest racial classification errors within the Nevada State Health Division data system or in the regional CDR process. Mixed race statistics are not currently available from statewide data.

Manner of Death and Age – Gunshot Wounds

Manner:	Total:	Age Group:
Natural	0	-
Accidental	2	2: 10 – 14 years old
Homicide	7	3: 10 – 14 years old 4: 15 – 17 years old
Suicide	4	4: 15 – 17 years old
Undetermined	0	-

Findings:

- For the accidental deaths, case details regarding to gun safety, storage, and access are not available. A series of questions related to these factors are included in the new 2005 national data instrument.
- For the homicide deaths, case details regarding gang involvement are not available. Again, this will be assessed as part of the new 2005 national data instrument.
- As with the accidental deaths, suicide cases involving gunshot wounds will be evaluated in terms of gun access using the new 2005 national data instrument.

Deaths Caused by Abuse and Neglect

During 2004, there were 10 cases reviewed that involved abuse or neglect. In four of these cases, the death was determined to be caused by abuse or neglect. In the remaining six cases, the death was directly related to abuse and/or neglect.

Manner and Cause – Abuse and Neglect

Reference:	Manner and Cause:	Abuse related?	Neglect Related?
1	Homicide: child abuse	Yes	No
2	Homicide: blunt head trauma, child abuse	Yes	No
3	Homicide: blunt force head trauma, child abuse	Yes	No
4	Homicide: diabetic acidosis, medical neglect	No	Yes
5	Accident: intrauterine fetal demise, MVA	No	Yes
6	Accident: intrauterine fetal demise, maternal drug	Yes	Yes
7	Accident: intrauterine fetal demise, maternal drug	Yes	Yes
8	Accident: drowning	No	Yes
9	Accident: asphyxia	No	Yes
10	Homicide: drug intoxication, skull fractures	Yes	No

Findings:

- Homicides and accidents are the most likely manner of death to be associated with abuse and neglect.
- Deaths involving maternal drug use may be deemed accidental by the coroner's office, or natural as discussed above, with abuse and neglect factors assessed separately.

Demographics – Abuse and Neglect

Reference:	Age:	Gender:	Race:
1	Less than one year old	Female	White
2	Less than one year old	Male	African American
3	Less than one year old	Male	Hispanic
4	10 – 14 years old	Female	White
5	Less than one year old	Male	White
6	Less than one year old	Female	White
7	Less than one year old	Female	White
8	1 – 4 years old	Male	White
9	1 – 4 years old	Male	White
10	Less than one year old	Male	White

Findings:

- Seven of 10 cases involved children less than one year old, demonstrating that infants are more likely to die from child abuse and neglect.
- The gender breakdown includes six males and four females, which is again consistent with the finding that overall, males die more frequently than females, as discussed throughout this report.
- The racial composition of the cases shows that eight of 10 were white, along with one Hispanic and one African American. This is again roughly consistent with the statewide population distribution.

Shaken Baby Syndrome

One homicide death reviewed in 2004 showed indications of shaken baby syndrome. However, this determination was made based on an analysis of case data from the DCFS child welfare information system, and was not based on Nevada State Health Division data or regional CDR team case review data. This type of death is not determinable using Nevada State Health Division data, as noted above. This type of death is also not assessed with the data instrument used by the regional CDR teams in 2004. However, this will be addressed in the new 2005 national data instrument.

Natural Deaths: SIDS

SIDS deaths are required for regional CDR team review by NRS 432B.405, and so data gathered by the regional CDR teams for this cause of death should be representative of statewide data.

When ranked in conjunction with other leading causes of death, SIDS is the fifth leading cause of child death after gunshot wounds. However, there is no known cause for SIDS, although it is associated with several risk factors, discussed below under *Contributing Factors*.[28]

Age – SIDS

By definition, all SIDS deaths occur in infants less than one year of age.[29]

[28] Centers for Disease Control and Prevention. (2006). Sudden Infant Death Syndrome (SIDS): Home. Retrieved February 6, 2006, from http://www.cdc.gov/SIDS/index.htm.
[29] Ibid.

Gender – SIDS

Data Source:	Male:	Female:	Male Percentage:	Female Percentage:
Statewide	5	8	38.5%	61.5%
Reviewed	5	7	41.7%	58.3%

Findings:

- Females died from SIDS at a higher rate than males in 2004. This is unusual based on national and statewide data reviewed in Section 1 of this report, which clearly indicates that males typically die at a higher rate than females in general, as well as across different age and race groups.

Race – SIDS

Data Source:	White	Hispanic	African American	Asian	Native American	Mixed
Statewide	6	3	4	0	0	0
Reviewed	5	2	3	0	0	1

Note: There was one SIDS death unclassified by race, so the breakdown for reviewed deaths includes 11 out of 12 deaths total.

Findings:

- African Americans died from SIDS at a disproportionately higher rate than other races in 2004, based on statewide population data reviewed throughout this report. African Americans represent only 6.9% of the state's population, yet account for 25% of SIDS deaths reviewed.

Manner of Death – SIDS

All SIDS deaths in 2004 were classified as natural by coroners' offices.

Contributing Factors – SIDS

The American Academy of Pediatrics (AAP) identifies 11 recommendations to reduce the primary risk factors that are associated with SIDS deaths, although the cause is unknown: [30]

1. **Back to sleep**: Infants should be placed for sleep in a supine position (wholly on the back) for every sleep. Side sleeping is not as safe as supine sleeping and is not advised.
2. **Use a firm sleep surface**: Soft materials or objects such as pillows, quilts, comforters, or sheepskins should not be placed under a sleeping infant. A firm crib mattress, covered by a sheet, is the recommended sleeping surface.
3. **Keep soft objects and loose bedding out of the crib**: Soft objects such as pillows, quilts, comforters, sheepskins, stuffed toys, and other soft objects should be kept out of an infant's sleeping environment. If bumper pads are used in cribs, they should be thin, firm, well secured, and not "pillow-like." In addition, loose bedding such as blankets and sheets may be hazardous. If blankets are to be used, they should be tucked in around the crib mattress so that the infant's face is less likely to become covered by bedding. One strategy is to make up the bedding so that the infant's feet are able to reach the foot of the crib (feet to foot), with the blankets tucked in around the crib mattress and reaching only to the level of the infant's chest. Another strategy is to use sleep clothing with no other covering over the infant or infant sleep sacks that are designed to keep the infant warm without the possible hazard of head covering.
4. **Do not smoke during pregnancy**: Maternal smoking during pregnancy has emerged as a major risk factor in almost every epidemiologic study of SIDS. Smoke in the infant's environment after birth has emerged as a separate risk factor in a few studies, although separating this variable from maternal smoking before birth is problematic. Avoiding an infant's exposure to second-hand smoke is advisable for numerous reasons in addition to SIDS risk.
5. **A separate but proximate sleeping environment is recommended**: The risk of SIDS has been shown to be reduced when the infant sleeps in the same room as the mother. A crib, bassinet, or cradle that conforms to the safety standards of the Consumer Product Safety Commission and ASTM (formerly the American Society for Testing and Materials) is recommended. Although bed-sharing rates are increasing in the United States for a number of reasons, including facilitation of breastfeeding, the task force concludes that the evidence is growing that bed sharing, as practiced in the United States and other Western countries, is more hazardous than the infant sleeping on a separate sleep surface and, therefore, recommends that infants not bed share during sleep. Infants may be brought into bed for nursing or comforting but should be returned to their own crib or bassinet when the parent is ready to return to sleep. The infant should not be brought into bed when the parent is excessively tired or using medications or substances that could impair his or her alertness. The task force recommends that the infant's crib or bassinet be placed in the parents'

[30] American Academy of Pediatrics. (2005). *PEDIATRICS Vol. 116 No. 5: The Changing Concept of Sudden Infant Death Syndrome: Diagnostic Coding Shifts, Controversies Regarding the Sleeping Environment, and New Variables to Consider in Reducing Risk*. Elk Grove Village, IL: American Academy of Pediatrics.

bedroom, which, when placed close to their bed, will allow for more convenient breastfeeding and contact. Infants should not bed share with other children. Because it is very dangerous to sleep with an infant on a couch or armchair, no one should sleep with an infant on these surfaces.

6. **Consider offering a pacifier at nap time and bedtime**: Although the mechanism is not known, the reduced risk of SIDS associated with pacifier use during sleep is compelling, and the evidence that pacifier use inhibits breastfeeding or causes later dental complications is not. Until evidence dictates otherwise, the task force recommends use of a pacifier throughout the first year of life according to the following procedures: 1) The pacifier should be used when placing the infant down for sleep and not be reinserted once the infant falls asleep. If the infant refuses the pacifier, he or she should not be forced to take it. 2) Pacifiers should not be coated in any sweet solution. 3) Pacifiers should be cleaned often and replaced regularly. 4) For breastfed infants, delay pacifier introduction until 1 month of age to ensure that breastfeeding is firmly established.
7. **Avoid overheating**: The infant should be lightly clothed for sleep, and the bedroom temperature should be kept comfortable for a lightly clothed adult. Overbundling should be avoided, and the infant should not feel hot to the touch.
8. **Avoid commercial devices marketed to reduce the risk of SIDS**: Although various devices have been developed to maintain sleep position or to reduce the risk of rebreathing, none have been tested sufficiently to show efficacy or safety.
9. **Do not use home monitors as a strategy to reduce the risk of SIDS**: Electronic respiratory and cardiac monitors are available to detect cardiorespiratory arrest and may be of value for home monitoring of selected infants who are deemed to have extreme cardiorespiratory instability. However, there is no evidence that use of such home monitors decreases the incidence of SIDS. Furthermore, there is no evidence that infants at increased risk of SIDS can be identified by in-hospital respiratory or cardiac monitoring.
10. **Avoid development of positional plagiocephaly**: 1) Encourage "tummy time" when the infant is awake and observed. This will also enhance motor development. 2) Avoid having the infant spend excessive time in car-seat carriers and "bouncers," in which pressure is applied to the occiput. Upright "cuddle time" should be encouraged. 3) Alter the supine head position during sleep. Techniques for accomplishing this include placing the infant to sleep with the head to one side for a week and then changing to the other and periodically changing the orientation of the infant to outside activity (e.g., the door of the room). 4) Particular care should be taken to implement the aforementioned recommendations for infants with neurologic injury or suspected developmental delay. 5) Consideration should be given to early referral of infants with plagiocephaly when it is evident that conservative measures have been ineffective. In some cases, orthotic devices may help avoid the need for surgery.
11. **Continue the Back to Sleep campaign**: Public education should be intensified for secondary care-givers (child care providers, grandparents, foster parents, and babysitters). The campaign should continue to have a special focus on the black and American Indian/Alaska Native populations. Health care professionals in intensive

care nurseries, as well as those in well-infant nurseries, should implement these recommendations well before an anticipated discharge.

Regional CDR team data collection in 2004 assessed only a few risk factors associate with SIDS deaths as follows:

Factor:	Yes:	No:	Unknown:	Not Applicable:
Was the child born premature?	3	7	1	0
Had the child been ill?	3	5	3	0
Was the child sleeping with one or more adults?	7	3	0	0

Note: There was one missing entry for the first two questions, so the breakdown includes 11 out of 12 deaths total. There were two missing entries for the third question, so the breakdown includes 10 out of 12 deaths total.

Findings:

- In at least 25% of cases reviewed, the child victim was either born premature and/or had been ill. According to the CDC, prematurity is considered a risk factor for SIDS, though illness is not.
- In at least 70% of cases reviewed, the child victim was co-sleeping with a parent or other adult. According to the CDC, this is also considered a risk factor for SIDS.

Sleeping Location – SIDS

Location:	Total:	Percentage:
Bed	7	70.0%
Couch	0	0.0%
Crib	2	20.0%
Other	1	10.0%
Not Applicable	0	0.0%

Note: There were two missing entries for sleeping location, so this breakdown includes 10 out of 12 deaths total.

Findings:

- In most SIDS cases reviewed, children were sleeping in a bed. The one location designated as 'other' was a playpen. Risk factors such as soft sleep surfaces, loose bedding, and overheating were not assessed. Some of these factors will be addressed by the new 2005 national data instrument.

Deaths of Children With a Current or Prior CPS History

During 2004, 24 out of 159 cases reviewed included children with a current or prior child protective services (CPS) history. CPS involvement is not tracked by the Nevada State Health Division, therefore statewide comparison data will not be used.

Age – CPS Involved

Data Source:	Less than 1:	1 – 4:	5 – 9:	10 – 14:	15 – 17:
Statewide	-	-	-	-	-
Reviewed	6	2	0	12	4

Findings:

- Half of the child deaths with a current or prior CPS history occurred in the 10 – 14 age group.

Gender – CPS Involved

Data Source:	Male:	Female:	Male Percentage:	Female Percentage:
Statewide	-	-	-	-
Reviewed	15	9	62.5%	37.5%

Findings:

- Child deaths with a current or prior CPS history include more males than females. This is again consistent with national and statewide data reviewed in *Section 1* of this report, which clearly indicates that males die at a higher rate than females in general.

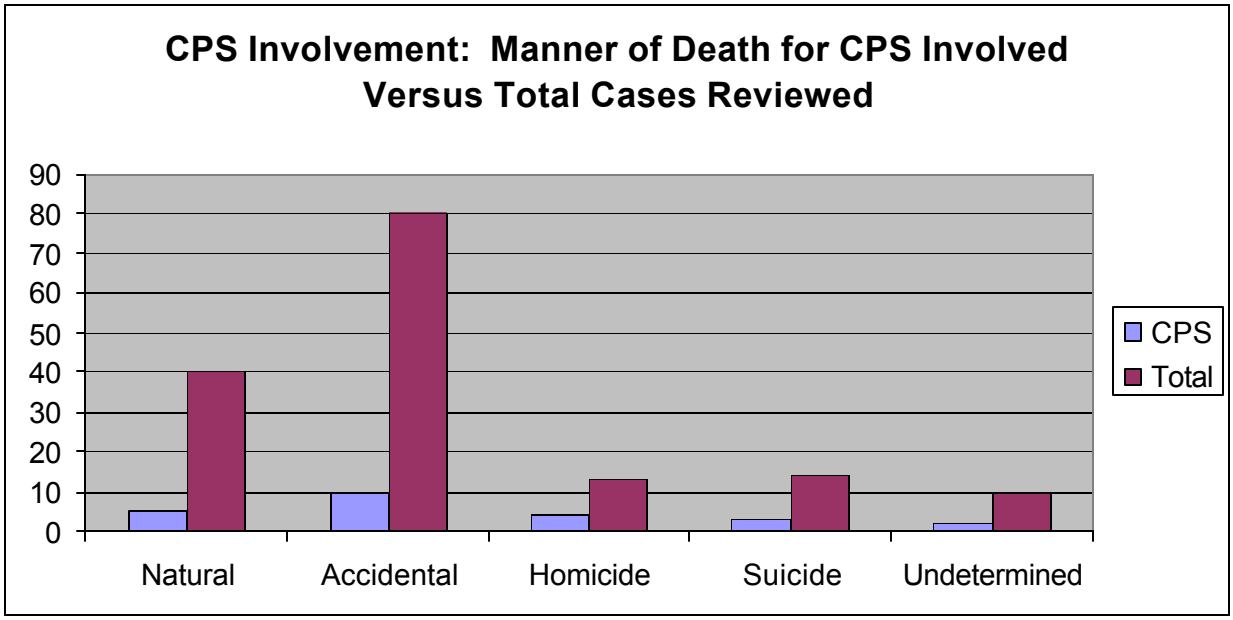
Race – CPS Involved

Data Source:	White	Hispanic	African American	Asian	Native American	Mixed
Statewide	-	-	-	-	-	-
Reviewed	10	2	8	1	2	1

Findings:

- African American children and adolescents with a current or prior CPS history died at a disproportionately higher rate than other races in 2004, based on statewide population data reviewed throughout this report. African Americans represent only 6.9% of the state's population, yet account for almost as many deaths as white children with a CPS history.

Manner of Death – CPS Involved



Manner of Death:	Total CPS Involved:	Total Cases Reviewed:	Percentage of Total CPS Involved by Each Manner:
Natural	5	40	14.3%
Accidental	10	80	14.3%
Homicide	4	13	44.4%
Suicide	3	14	27.3%
Undetermined	2	10	25.0%
TOTAL:	24	157	

Findings:

- Over 44% of homicides and over 27% of suicides reviewed in 2004 involved children with a current or prior CPS history.

Manner of Death and Age – CPS Involved

Manner:	Total:	Age Group:
Natural	5	2: Less than one year old 3: 10 – 14 years old
Accidental	10	1: Less than one year old 2: 1 – 14 years old 5: 10 – 14 years old 2: 15 – 17 years old
Homicide	4	1: Less than one year old 2: 10 – 14 years old 1: 15 – 17 years old
Suicide	3	2: 10 – 14 years old 1: 15 – 17 years old
Undetermined	2	2: Less than one year old

Findings:

- As noted above, half of the child deaths with a current or prior CPS history occurred in the 10 – 14 age group, for a total of 12 deaths. Two of these were homicides and another two were suicides.

Cases Involving Abuse and Neglect – CPS Involved

Three of the deaths caused by abuse and neglect, reviewed above under *Deaths Caused by Abuse and Neglect*, involved children with a current or prior CPS history. These are highlighted below:

Reference:	Manner and Cause:	Abuse related?	Neglect Related?
1	Homicide: child abuse	Yes	No
2	Homicide: blunt head trauma, child abuse	Yes	No
3	Homicide: blunt force head trauma, child abuse	Yes	No
4	Homicide: diabetic acidosis, medical neglect	No	Yes
5	Accident: intrauterine fetal demise, MVA	No	Yes
6	Accident: intrauterine fetal demise, maternal drug	Yes	Yes
7	Accident: intrauterine fetal demise, maternal drug	Yes	Yes
8	Accident: drowning	No	Yes
9	Accident: asphyxia	No	Yes
10	Homicide: drug intoxication, skull fractures	Yes	No

Findings:

- Two of the five homicides related to abuse and neglect involved children with CPS contact.
- Three of 10 abuse and neglect related deaths involved children with CPS contact.

Section 3: 2004 Regional CDR Team Recommendations

PLEASE NOTE: All recommendations in Section 3 of this report are developed by the regional CDR teams, and then compiled the Nevada Institute for Children's Research and Policy (NICRP).

The following recommendations from the regional CDR team are presented based on leading and other targeted causes of death.

Motor Vehicle Accidents

Recommendations – Agency and Public Prevention Strategies

1. All "go-carts" and similar motorized vehicles should be mandated to have proper safety equipment, including seat belts and roll cages, as applicable.
2. Children who operate motorized vehicles (i.e., go-carts, ATVs, etc.) should be properly supervised by an adult. Penalties should apply to inadequate supervision.
3. Require the use of helmets by children who operate or are passengers in any type of off-road motorized vehicle (mopeds, go-carts, ATVs, etc.) as well as bicycles and motorcycles. Additionally, ensure that these laws are properly enforced.
4. Institute a "no-fly" policy for medi-copters during inclement weather.
5. Step-up enforcement and promote public education regarding the use of child car safety seats and proper restraints.

Recommendations – CDR Process and Data Collection Improvement Strategies

1. Expand data collection to include more relevant and prevention related information such as:
    a. Whether the decedent child was a driver or passenger;
    b. Whether drugs and/or alcohol were involved and by whom;
    c. Why type of vehicle(s) and how many were involved;
    d. Whether the child was properly restrained in the vehicle.

    Note: Many of these data collection concerns will be resolved beginning in 2005 through the use of the new national data collection tool which provides more detailed information.
2. Require law enforcement to attend regional CDR team case reviews and provide documentation regarding motor vehicle accidents when a child dies in their jurisdiction. This should include traffic reports and investigative reports.

Drug Overdose/Intoxication

Recommendations – Agency and Public Prevention Strategies

1. Provide education for teens and their parents who participate in drug rehabilitation programs regarding the dangers of overdosing after detoxification due to decreased tolerance levels.
2. Ensure proper transition and after-care for youth who participate in drug rehabilitation programs.
3. Enforce underage drinking laws and look at the establishment of social host laws.
4. Look at laws regarding drug and substance abuse during pregnancy to ensure that pregnant women are aware of and receive appropriate education and treatment.
5. Provide training for schools, CPS, law enforcement, and parents/caregivers on what to do in situations where a child is at risk for suicide.

Recommendations – CDR Process and Data Collection Improvement Strategies

1. Require school districts, hospitals, and drug treatment facilities to provide any information that they may have regarding a child with substance abuse problems which may assist in the death review process.
2. CDR teams should make a determination with all accidental drug overdose/intoxication cases regarding whether the death was abuse and/or neglect related as well.
3. Ensure that all teams are using the same categorical review policies to ensure better data collection and reporting.
4. Expand data collection to include more relevant and prevention related information such as:
    a. Whether the death of the infant was associated with maternal drug use, and if so –
        i. What type of drugs and/or substances were used;
        ii. Whether the mother received prenatal care & how much;
        iii. Whether the mother had medical insurance;
        iv. Any other relevant information.
    b. If the death was a suicide by overdose –
        i. What type of drugs were used;
        ii. How the child got the drugs;
        iii. If there was any known suicidal ideation or previous attempts;
        iv. Any other relevant information.

    Note: Many of these data collection concerns will be resolved beginning in 2005 through the use of the new national data collection tool which provides more detailed information.

Asphyxia

Recommendations – Agency and Public Prevention Strategies

1. Provide education to parents and caregivers, including mandated training for foster parents, on proper sleeping positions for infants and the dangers of co-sleeping as it pertains to over-laying, suffocation, and increased risk of SIDS.

Recommendations – CDR Process and Data Collection Improvement Strategies

1. Expand data collection to include more relevant and prevention related information such as:
    a. Differentiating between co-sleeping/overlay deaths and suicides;
    b. Number and ages of people sleeping in same place as the child;
    c. For infants, whether the child was placed to sleep on stomach or back.

Gunshot Wounds

Recommendations – Agency and Public Prevention Strategies

1. Provide education about gun safety and proper storage of guns.
2. Provide more law enforcement and gang prevention services to areas where there is known gang activity to prevent homicides of youth, especially males.

Recommendations – CDR Process and Data Collection Improvement Strategies

1. Expand data collection to include more relevant and prevention related information such as:
    a. Who the perpetrator was in the case of homicides;
    b. How the child gained access to a gun in suicide, accidental, and applicable homicide cases;
    c. Whether there was known gang affiliation and/or involvement with juvenile justice
2. Require school districts, juvenile justice, and youth treatment facilities to provide any information they may have regarding a child's mental state or familial situation that may assist in reviewing a suicide by gunshot.

SIDS

Recommendations – Agency and Public Prevention Strategies

1. Provide education to parents and caregivers, including mandated training for foster parents, on proper sleeping positions for infants and the factors that increase an infant's risk for SIDS.

Recommendations – CDR Process and Data Collection Improvement Strategies

1. Provide education to CDR team members, as well as coroner's offices, on how to identify and properly investigate SIDS deaths.

Prematurity/Intrauterine Fetal Demise

Recommendations – Agency and Public Prevention Strategies

1. Look at laws regarding drug and substance abuse during pregnancy to ensure that pregnant women are aware of and receive appropriate education and treatment.
2. Provide enhanced public education regarding the importance of receiving appropriate levels of prenatal care as well as services available to pregnant women, including parenting classes; drug treatment programs; Women, Infants, and Children (WIC); insurance programs; etc.
3. Research methods to develop a system to identify women who give birth to drug exposed children who die so that they can be tracked in the future and identified by medical personnel, as well as child welfare agencies, in the event of a future pregnancy.

Recommendations – CDR Process and Data Collection Improvement Strategies

1. Expand data collection to include relevant and prevention related information such as:
    a. Whether the mother received appropriate prenatal care;
    b. Whether the mother had medical insurance;
2. Develop procedures that allow cases to be considered as abuse/neglect, rather than accidents, when alcohol and/or substance abuse cause the prematurity/intrauterine fetal demise.
3. Develop policies to ensure that all teams across the state are collecting the same type of information and have similar case selection practices to ensure uniform and accurate data collection and reporting.

All Mandatory Case Reviews

Recommendations - Agency and Public Prevention Strategies

1. Inform parents and relatives that they may request the review of a child's death by the local child death review team.
2. Enact laws that provide penalties to caregivers who fail to supervise children around swimming pools.
3. Do not allow waivers to foster or shelter parents to have more than two children under the age of 18 months and more than four children under the age of four.

4. Institute practices to ensure that children who are under the care of a relative due to child welfare involvement are not allowed unauthorized and/or unsupervised visits with the parents they were removed from.
5. Clarify the responsibilities and protocols of child welfare agencies when a child is identified as suicidal or has made previous attempts at suicide.
6. Institute policies that require notification to both law enforcement and the coroner's office whenever a child death occurs.

Recommendations – CDR Process and Data Collection Improvement Strategies

1. Require teams to identify when a case is reviewed due to mandate. Clarify if deaths alleged to be from abuse or neglect of the child are mandated only when the coroner makes an abuse and/or neglect determination or if the mandate is also appropriate to check off when a review team deems the case to be abuse/neglect related.

   For example, if a two year old child dies from drowning in a family pool, the coroner's office would determine that the death was an accidental drowning. However, the review team may deem the death to be neglect related because the caregiver did not properly supervise the child (i.e., did not check on the two year old for several hours). Another example would be a motor vehicle accident, wherein the coroner's office determines an infant's death to be due to blunt force trauma via a motor vehicle accident. The review team may determine the death to be neglect related where the infant child was an unrestrained passenger in the vehicle.

2. Provide training to law enforcement patrol officers regarding the proper protocol for child death scene investigations to ensure proper collection of necessary information.

2004 Process Recommendations and Responses

The following are recommendations from the Statewide Child Death Review Team set forth for 2004. As explained in Appendix A below, the Statewide Child Death Review Team has been replaced by the newly-mandated statewide oversight groups established by Assembly Bill (AB) 381, enacted by the 2003 Nevada State Legislature. These include the Administrative Team and the Executive Committee to Review the Death of Children. Future process recommendations will be responded to differently based on the formation of these two new groups.

1. Multidisciplinary teams should use the National Child Death Review Report Form as their data instrument to ensure that data collection is uniform. Teams should be trained to use the web-based instrument.

Response: Use of this national data instrument will be implemented in 2005. Regional CDR team Chairs will receive initial training on the use of the web-based instrument from the National MCH Center for Child Death Review in February, 2005. Ongoing training on data entry with the

web-based instrument for the regional CDR team members will be conducted by the Nevada Institute for Children's Research and Policy (NICRP) throughout 2005.

2. Completion of a protocol for the Administrative Team and the Executive Committee to Review the Death of Children.

Response: NICRP will adapt the national *Program Manual for Child Death Review*, developed by the National MCH Center for Child Death Review, in order to customize it for the Nevada statewide CDR process. This manual will include forms and protocols to streamline and standardize processes across all regional CDR teams in the state. A statewide training curriculum will be developed based on the national manual, in order to provide a uniform approach to educate new members of the regional CDR teams as they are recruited to take part in the CDR process. This is projected for completion in mid-2006.

3. Development of training to address public education concerns as well as training for regional CDR teams and professional staff.

Response: As noted in the Executive Summary, the Executive Committee completed a public awareness campaign plan in 2004 and approved a media campaign contract with the Nevada Broadcasters Association (NBA). In 2005, the Executive Committee will convene a Public Awareness Subcommittee to provide specific ideas for the development of the 2005 radio and television public awareness messages, as well as ongoing oversight of the development and broadcast of the public awareness campaign.

Training for regional CDR team members and professional staff will be ongoing, and is budgeted annually as part of Executive Committee activities. Training on targeted improvements to the regional CDR process is planned for each of the regional CD teams in 2005, and will be provided by staff from the National MCH Center for Child Death Review.

4. Development of a training manual with a glossary of terms to be created for the distribution to all regional CDR team members.

Response: A training manual, including a glossary of relevant terms, will be developed as part of the statewide program manual outlined above under item two.

2004 Data Collection Problems

When reviewing findings derived from the 2004 child death data, several problems in the data collection process should be taken into consideration:

- Incomplete responses: Some items in the 2004 data collection instrument were left blank. Incomplete responses may result from a variety factors: There may be human error during data entry, or inadequate information from participating agencies in the regional CDR team. Response options may not allow for all possible outcomes in a given case, which may reduce the likelihood of providing an answer.

- Ambiguous questions and responses: Likewise, the interpretation of questions may differ such that a blank response may mean "no," "not applicable," or "unknown." However, relevant to certain questions such as the contributing factors reviewed throughout this report, the differences between "no," "not applicable," or "unknown" become very important.
- Lack of relevant data elements: Within several leading causes of death, there are key data elements missing, as discussed throughout this report. For example, information on motor vehicle accidents would benefit from additional questions related to substance use, vehicle speed, and the type of vehicle involved. Similarly, information on accidental gunshot wound deaths would benefit from additional questions related to gun safety, storage, and access.
- Data limitations: In addition to a lack of relevant data elements for the 2004 data collection instrument, data limitations exist within the ICD-10 coding for Nevada State Health Division data. As noted above, shaken baby deaths are not determinable using this data, and deaths related to maternal drug use have limited determinability.
- Data inconsistencies: When comparing statewide data from the Nevada State Health Division with case review data from the regional CDR teams, a variety of data inconsistencies surface. As noted throughout this report, there are discrepancies in race categorization, age grouping, and sometimes cause of death.

2005 Data Collection Improvements

As discussed above, many of the data collection problems encountered during 2004 will be corrected by implementing the data collection instrument developed by the National MCH Center for Child Death Review. During 2005, Nevada will begin participating in a six-state pilot project for the new CDR Case Reporting System for child death data collection, in conjunction with the National Center. This presents an important opportunity for Nevada to implement a nationally-researched data collection instrument, as well as capitalize on a low-cost option for data collection, storage, processing, and reporting through web-based data entry and analysis. As part of the pilot project, the National Center will be providing a software demonstration and training scheduled in February, 2005, as well as regular technical support and user group feedback throughout the pilot project. The Committee will be obtaining additional support to address data processing needs and system transition during 2005 from the Nevada Institute for Children's Policy and Research (NICRP).

Additionally, the Division of Child and Family Services will be proposing the development of a Memorandum of Understanding (MOU) with the Nevada State Health Division (NSHD) to allow the secure, confidential exchange of information in order to plan for a system of cross-checks between data from death certificates issued in the state and data derived from the regional CDR team process.

Appendix A

Background on Child Death Review in Nevada

The State of Nevada Division of Child and Family Services (DCFS) established the Children's Justice Act (CJA) Task Force in 1994, based on a federal mandate through the Child Abuse Prevention and Treatment Act (CAPTA). The Statewide Child Death Review (CDR) Subcommittee, operating as part of the CJA Task Force, was formed as a partnership of professionals, organizations, and agencies in order to coordinate the statewide activities of child welfare agencies involved in the review of child death. Prior to 2003, the Statewide CDR Subcommittee engaged in several core activities:

- Reviewing cases of child fatalities to gain a better understanding of the causes of child death
- Identifying patterns of abuse, neglect, and other causal factors of child death that may respond to intervention
- Data collection and trends analysis surrounding child death
- Reviewing laws, policies, and practices
- Addressing statewide staff training needs
- Addressing public awareness and education needs

The primary goal of the Statewide CDR Subcommittee was to prevent future child maltreatment and deaths in Nevada by making recommendations for law, policy, and practice changes; staff training; and public education based on data from child death reviews.

While the Statewide CDR Team reviewed select cases of child death statewide in order to meet its goals, five regional CDR teams are required to review local child deaths throughout the State of Nevada as follows:

1. Clark County Team
2. Washoe County Team
3. Carson City Team: covers Carson City, Douglas, Lyon, and Storey Counties
4. Elko Team: covers Elko, Eureka, Humboldt, Lander, Lincoln, Pershing, and White Pine Counties
5. Fallon Team: covers Churchill, Esmeralda, Mineral, and Nye Counties

Within the rural region, the Elko Team is subdivided into three local teams: 1) The Elko Team, which covers Elko County; 2) the Ely Team, which covers Eureka, Lincoln, and White Pine Counties; and 3) the Tri-County Team, which covers Humboldt, Lander, and Pershing Counties. Similarly, the Fallon Team is also subdivided into three local teams: 1) The Churchill County Team, 2) the Mineral County Team, and 3) the Nye/Esmeralda County Team. Each of these covers their respective counties.

The purpose, organization, and functions of the regional CDR teams are mandated by Nevada Revised Statutes (NRS) Chapter 432B, sections 403 through 409. Each of the teams reviews all child deaths within their region with the exception of the Clark County Team, which reviews State-mandated cases along with a selection of additional cases because of high caseload. Clark County accounts for approximately 71% of the state's population, and it is not feasible for the Clark County Team to review all child deaths in the area. State-mandated reviews include the following:

- Reviews requested from adults related to the child within one year of the date of death.
- Children who were in the custody of a child welfare agency or whose family received services from such an agency.
- Children who died from alleged abuse or neglect.
- Children whose siblings, household members, or day care providers were subject to an abuse or neglect investigation within the previous 12 months.
- Children who were adopted through a child welfare agency.
- Children who die from Sudden Infant Death Syndrome (SIDS).

Currently, most of the regional teams meet quarterly to review child death cases referred by coroners' offices, or as requested, in their respective regions. In Clark County, the team meets monthly because of its high caseload. In the rural region, the regional teams may meet less often if coroners' reports are not received within a given quarter.

During 2002, the Statewide CDR Subcommittee developed recommendations for new laws relating to child death review. A primary goal was to give the five regional teams a mechanism to channel recommendations to appropriate agencies and maximize community resources so that future child deaths can be prevented.

These efforts resulted in a bill draft request supported by State Assemblywoman Sheila Leslie, who sponsored Assembly Bill (AB) 381 during the 2003 Nevada State Legislature. This landmark legislation was passed by the Legislature and allows for the implementation of significant changes in the child death review process. This legislation creates a clear purpose for the regional teams to review child death and make recommendations for the improvement of laws, policies, and practices; support the safety of children; and prevent future deaths. Other provisions of the legislation establish the confidentiality of information obtained and reviewed by the regional teams, including protection from disclosure, subpoena, discovery, and introduction into evidence for civil or criminal proceedings.

Additionally, this bill established two statewide oversight committees: 1) the Administrative Team and 2) the Executive Committee to review the death of children. The Administrative Team reviews reports and recommendations from the regional CDR teams and makes decisions regarding the recommendations for improvements to laws, policies, and practices. The Administrative Team also makes recommendations about funding for improvements, initiatives, and public education requiring expenditures.

The Executive Committee, in turn, makes decisions about funding initiatives to prevent child maltreatment and death, which may be based on recommendations from the Administrative Team. Additionally, per NRS, the Executive Committee adopts statewide protocols for the review of the death of children; designates the members of the Administrative Team; oversees training and development for the regional CDR teams; and compiles and distributes a statewide annual report, which includes statistics and recommendations for regulatory and policy changes. Funding for the work of the Committee was also established as a result of AB 381, and is derived from a $1 fee collected from death certificates issued by the State. The funds are intended to be used for prevention efforts and training of the regional CDR teams.

In essence, the Administrative Team and the Executive Committee have taken over the functions of the original Statewide CDR Team, and now work together to prevent future child deaths in Nevada.

Appendix B

Child Death Review Team Members

Clark County Team

Anderson, Debbie
North Las Vegas Police

Campbell, Elena
Nellis Air Force Base

Cosgrove, Jeannie
Safe Kids Coalition

Courtney, Francis
Public Health

Cummings. Karen
Special Children's Clinic

Eisen, Andrew M.D.
University of Nevada School of Medicine

Fanning, Maureen
Public Health

Flud, Ron
Coroner's Office

Hancock, Marion
Sunrise Hospital

Herndon, Doug
District Attorney's Office

Jones, Kari M.D.
Sunrise Hospital

Lipscomb, Diane M.D.
Sunrise Hospital

Magleby, Suzanne
Clark County Department of Family Services

Martin, Jon
North Las Vegas Police

Mehta, Neha M.D.
Sunrise Hospital

Monohan, Lt. Tom
LVMPD Homicide

New, Judy
Clark County Department of Family Services CPS

Rader, Vicki
Clark County Department of Family Services CPS

Sauchak, Cyndi
LVMPD Abuse/Neglect Unit

Schmidt, Edith M.D.
Sunrise Hospital

Scotellaro, Margaret M.D.
Sunrise Hospital

Sigdestad, Karin M.D.
Special Children's Clinic

Simms, Larry M.D.
Coroner's Office

Worrell, Rexene
Coroner's Office

Zbiegien, Michael M.D.
Sunrise Hospital

Washoe County Team

Clark, Ellen M.D.
Washoe Medical Center

Druckman, Rebecca
Washoe County Deputy District Attorney

Evans, Doug
Reno Police Department

Frank, Barry
Washoe Medical Center

Fricke, Carolyn
Washoe County School District

Gavin, Art
Paramedic

Hayden, Kelly
Washoe County Sheriff's Office

Hunter, Candace
Washoe County District Health Department

Kohls, Joanne
Washoe Medical Center

Lucier, Michelle
Washoe County Department of Social Services

Marsh, Jeanne
Washoe County Department of Social Services

Mayeroff, Meredith
Washoe County Department of Social Services

McCarty, Vernon
Washoe County Coroner

McDonald, Bill
CASA

Miller, Tom
Sparks Police Department

Olsen, Alane
Washoe County Coroner's Office

Carson City Team

>> Covers Carson City, Douglas, Lyon, and Storey Counties

Abserasturi, Ruth
Carson City School District

Arndell, Sgt.
Lyon County Sheriff's Office

Bayer, Chris
CASA

Beseler, Ruth
Coroner's Office

Church, Pam
Carson City Sheriff's Office

Claassen, Sharon
Carson City District Attorney

Fabrizius, Vicki
Division of Child and Family Services

Hall, Rob
Lyon County Sheriff's Office

Molina, Kathy
Carson Tahoe Hospital

Numes, Norm
Carson City Coroner's Office

Carson City Team (continued)

Pittsley, Alice
Division of Child and Family Services

Elko Team

>> Covers Elko, Eureka, Humboldt, Lander, Lincoln, Pershing, and White Pine Counties

Allison, Dave
Humboldt County District Attorney

Bauer, Bill
Carlin Police Department

Cavanaugh, Antionette
Elko County School District

Cline, Bill
Lander County Coroner

Dinwiddie, Kevin M.D.

Forgeron, Hy
Battle Mountain District Attorney

Griener, Gretchen

Harris, Neil
Elko County Sheriff

Hill, Gene
Humboldt County Sheriff's Office

Jonas, Ilene
Division of Child and Family Services

Morris, Clair
Elko Police Department

Norton, Deb
Division of Child and Family Services

Power, Carrie
Public Health Nurse

Robb, Larry
Division of Child and Family Services

Schott-Bernius, Martha
NEIS

Shirley, Jim
Pershing County District Attorney

Skinner, Ron
Pershing County Sheriff's Office

Webb, Bill
Elko County Coroner

Woodbury, Gary
Elko District Attorney

Fallon Team

>> Covers Churchill, Esmeralda, Mineral, and Nye Counties

Churchill County:

Bowmer, Linda
Youth Parole Officer

Coke, Dolly
Fallon Mental Health

East, Ray
Fallon Paiute Law Enforcement

Ingram, Richard
Churchill County Sheriff's Office

Mallory, Art
District Attorney

McDonald, Arlene
Churchill Community Hospital

Phillips, Bob
Churchill School District

Richardson, James
Adult Parole and Probation

Richardson, Tami
Juvenile Probation

Shyne, Frank
Fallon Police Department

Smith, Russell
Churchill County District Attorney

Stadler, Shelly
Churchill Community Hospital

Stuart, Jim
Churchill County Sheriff's Office

Syriac, Shelly
Churchill Community Hospital

Warner, Richard
Fallon Naval Criminal Investigative Services

Mineral County:

Baker, Clyde
Mineral High School

Bishop, Betty
Mineral County School District

Cook, Steve
Mineral County School Administrator

Emm, Cheri
Mineral County District Attorney

Farrall, Juanita
Mineral County Junior High School

Hagen, Steve
Juvenile Probation

Hoferer, Rob
Mineral County Sheriff's Department

Horton, Charlie
CAHS

Jackson, Joann
Family Resource Center

Mineral County (continued):

Kollege, Jan
Mt. Grant General Hospital

Montoya, Julian
Mental Health Counselor

Munger, Richard
Mt. Grant General Hospital

Oberhansil, Sandy
Juvenile Probation Department

Richardson, James
Adult Parole and Probation

Schott, Susan
Family Resource Center

Smith, Kristy
Mineral County High School

Torres, Connie
Public Health Nurse

Nye/Esmeralda County:

Cameron, Karen
WIC

Cobb, Debbie
UNCE

Ebeling, Corrie
Mental Health

Elgan, Kenneth
Esmeralda County Sheriff's Office

Ennis, Beth
Public Health Nurse

Floto, Barbar
Tonopah High School

Friel, John
Nye County District Attorney

Greber, Curly
Nye County Juvenile Probation

Howerton, Lynna
Silver Rim Elementary School

Jordan, Curtis
Esmeralda County School District

Kryder, Joy
Nye County Health and Human Services

McBride, Brent
Tonopah Middle and Elementary School

Phillips, Tony
Nye County Sheriff's Office

Scoccia, Vincent
Nye Regional Medical Center

Shaffer, William
Esmeralda County District Attorney

Walker, Kay
Nye County School District

Watts, Debbie
Round Mountain High School