Report to
The Vermont Legislature

Report of the Child Fatality Review Team
2018 Report to the Legislature

In Accordance with Act 103 (2018), An Act Relating to Establishing the Child Fatality Review Team

Submitted to: The Vermont General Assembly
Governor Phil Scott

Submitted by: Commissioner Mark Levine, MD

Prepared by: Elizabeth A. Bundock, MD., Ph.D.
Deputy Chief Medical Examiner

Report Date: December 1, 2018
INTRODUCTION

On April 17, 2018, Governor Phil Scott signed into law Act 103 (2018), which specifically established the authority, structure, and activities of the Vermont Child Fatality Review Team (CFRT). While a CFRT team had existed previously, its authority and operation were ambiguous; Act 103 resolved any ambiguity. The purpose of the CFRT is to review and analyze the deaths of Vermont children to monitor population-level child hazards at a system-level, and make specific recommendations to the Legislature to address such identified hazards.

2018 PROGRESS

In 2018, the CFRT established bylaws, appointed new members (see Appendix A), and completed a data report summarizing ten years of child fatality data (see Appendix B). The CFRT continued to review child fatalities, with 67 cases discussed in 2016-2018. In the coming year, data collection and analysis tools will be identified and implemented, enabling the CFRT to better recognize trends and make recommendations to improve the health and safety of Vermont’s children.

This year the CFRT assisted the Vermont Domestic Violence Fatality Review Commission for the first time in a joint review of a multiple fatality incident involving domestic violence. This lead to a recommendation from the Commission to law enforcement, DCF and the judiciary regarding supervised visitation when a supervised visitation center is not an option. On a regional level, two members of the Vermont CFRT attended the New England Regional Child Fatality Review Team meeting in Massachusetts in 2018 and Vermont will host the regional meeting here in the spring of 2019. This will allow Vermont’s team to provide leadership on select themes and expose more team members to the ideas and success stories of regional colleagues.

In October 2018, the Director of the National Center for Fatality Review and Prevention trained the CFRT in recommendation development. One child fatality was reviewed in-depth, with assistance from invited professionals involved in the case, and discussion of recommendations is underway.

In the coming years, the revitalized CFRT will be compiling discussing cumulative data, recurrent themes, current local and state-wide prevention efforts, and potential gaps and needs. These discussions will lead to comprehensive recommendations.
## APPENDIX A: 2018 Team Membership

<table>
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<th>Title</th>
</tr>
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<tbody>
<tr>
<td>Allen, Chief Douglas</td>
<td>Chief of Police, Colchester Police Department</td>
</tr>
<tr>
<td>Bell, Rebecca MD</td>
<td>Pediatric Critical Care Physician, UVMMC</td>
</tr>
<tr>
<td>Borden, Sally</td>
<td>Co-Chair VCAB Executive Director, KidSafe Collaborative</td>
</tr>
<tr>
<td>Bundock, Elizabeth MD, PhD (Team Chair)</td>
<td>Deputy Chief Medical Examiner</td>
</tr>
<tr>
<td>Burnham, Lance</td>
<td>Detective Lieutenant, VSP Technology Investigations Unit</td>
</tr>
<tr>
<td>Evans, Rob</td>
<td>VT School Safety Liaison Officer for AOE and Public Safety</td>
</tr>
<tr>
<td>Fassler, David MD</td>
<td>Child Psychiatrist, Otter Creek Associates</td>
</tr>
<tr>
<td>Hanson, Carolyn</td>
<td>Assistant Attorney General Co-Chair, Domestic Violence Fatality Review Committee</td>
</tr>
<tr>
<td>Haskins, Debby</td>
<td>Board of Vermont Association of Student Health Professionals Suicide Prevention Specialist Center for Health &amp; Learning</td>
</tr>
<tr>
<td>Hill, Cpt. Jeremy</td>
<td>BCI Commander, Vermont State Police</td>
</tr>
<tr>
<td>Kerschner, Sally RN (Team Vice-Chair)</td>
<td>MCH/Injury Prevention, Vermont Department of Health</td>
</tr>
<tr>
<td>Lucier, Kate</td>
<td>Assistant Attorney General Director, AGP DCF-Family Services Unit</td>
</tr>
<tr>
<td>McCorkel, Charlotte LICSW</td>
<td>Project Director of Integration, HowardCenter</td>
</tr>
<tr>
<td>McGivern, Laurie</td>
<td>Assistant Medical Examiner Coordinator Vermont Department of Health</td>
</tr>
<tr>
<td>Metz, James MD</td>
<td>Child Abuse Physician/Pediatric Hospitalist</td>
</tr>
<tr>
<td>Miller, Nancy</td>
<td>Child Safety Manager Operations Division, DCF</td>
</tr>
<tr>
<td>Ober, Fred MSW</td>
<td>Retired Child Safety and Field Operations Director, DCF</td>
</tr>
<tr>
<td>Patno, Karyn MD</td>
<td>Child Abuse Pediatrician ChildSafe Program/Clinic @ UVMCC VT Citizen's Advisory Board (VCAB)</td>
</tr>
<tr>
<td>Rettew, David MD</td>
<td>Medical Director, Department of Mental Health</td>
</tr>
<tr>
<td>Shapiro, Steven MD</td>
<td>Chief Medical Examiner</td>
</tr>
</tbody>
</table>
### Vermont Department of Health

**APPENDIX B: Ten-Year Data Report 2006-2015**

Continued on next page.

<table>
<thead>
<tr>
<th>Name</th>
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</thead>
<tbody>
<tr>
<td>Shea, Karen</td>
<td>Deputy Commissioner, Family Services Division, DCF</td>
</tr>
<tr>
<td>Trefry, Sharonlee RN</td>
<td>Nurse Program Coordinator, Vermont Department of Health</td>
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<tr>
<td>Wells-Lahae, Tanya</td>
<td>Injury Prevention Chief, Vermont Department of Health</td>
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</table>
VERMONT CHILD FATALITY REVIEW TEAM

Ten-Year Data Report 2006-2015

October 1, 2018
Dedication

This report is dedicated to the children and families of Vermont and to all members, past and present, of the Vermont Child Fatality Review Team (CFRT). Their time, energy and drive to gain a better understanding of how and why children die helps make Vermont a safer place for all our children.

Acknowledgements

We most especially thank Patrick T. Malone for his decades of service and dedication as Convener of the CFRT until September of 2017.

The members of the CFRT recognize that without the participation and support of numerous organizations, agencies, and individuals, committee activities and reports would not be possible. The CFRT wishes to specifically thank the following for individuals and agencies for assistance with this report: Allison Verbyla, Tanya Wells, Sally Kerschner, Elizabeth Bundock, Karen Lapan, the Vermont Office of the Chief Medical Examiner, and the Vermont Department of Health.

Financial support for the printing of this report was provided by the Department of Children and Families and KidSafe Collaborative, Inc. from grant monies made available by the Child Abuse Prevention & Treatment Act.
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</table>
INTRODUCTION

The death of a child is a loss for all Vermonters and presents us with an opportunity for examination and reflection. The Vermont Child Fatality Review Team (CFRT) is responsible for reviewing child fatalities in the State of Vermont, focusing on identifying patterns of risk factors and death, examining system issues, and searching for solutions that will reduce injury and death of children, our most precious resource.

The CFRT was established to review deaths due to neglect and abuse over thirty years ago as the Vermont Child Fatality Review Committee. Since that time, the CFRT has evolved into a multi-disciplinary team concerned with all types of unnatural, preventable deaths. Our activities have expanded from individual case reviews to examining patterns across case types through increasingly detailed data collection and analysis.

From the establishment of the CFRT in 1985 through 1998, annual and eventually biennial reports of fatality data were issued. Due to the relatively low and stable number of child deaths in Vermont, annual reports were not performed from 1998 through 2017. The first ten-year report was issued in 2007 and covered data from 1996-2005 (included herein for reference). In that report, annual data were categorized by cause and manner of death, allowing for examination of patterns of death and trends over time. In the Fall of 2017, the CFRT adopted bylaws which established a biennial report and continuance of the ten-year report. This ten-year report, presenting data from 2006-2015, is modeled after the 2007 report.

HISTORY

The Vermont Child Fatality Review Committee began in response to a single fatality in 1985. Roberta Coffin, MD, Commissioner of the Vermont Department of Health, convened a case review for the death of an eighteen-month-old child. Staff from the Department of Health’s Division of Maternal & Child Health, staff from the Department of Social & Rehabilitative Services, officers of the Burlington Police Department, the Chittenden County State’s Attorney, staff from the Office of the Chief Medical Examiner and faculty from the College of Medicine at the University of Vermont participated in the review. Paul Morrow, MD, then Deputy Chief Medical Examiner, presented the case and participants found the review an emotional and positive experience. They recommended establishing a similar, permanent process for discussion of future child deaths.

In 1986, a child involved with the Department of Social & Rehabilitative Services died. Eleanor McQuillen, MD, Chief Medical Examiner, participated in the Department’s investigation. Shortly after this tragic event, Dr. McQuillen and Patricia Berry, RN, Director of the Department of Health’s Division of Maternal & Child Health, joined George Karson and Leane Garland-Page of the Department of Social & Rehabilitative Services to begin the process of creating a child fatality review team in Vermont.

At the time, few statewide child fatality review teams existed. The Team was originally empaneled as a statewide child protection group. The Team’s approach to child death review, which continues to this day, focused on public health and prevention, rather than on investigation and prosecution. Since its inception, the Team has been multi-disciplinary in nature. It is composed of members from public health, social services, the medical community and law enforcement. Membership includes state and municipal employees, as well as professionals in education, healthcare and non-profit organizations. The current membership roster is provided in Appendix C.
The Team has met continuously since 1986, operating under 33 V.S.A. § 4917-1919 as a statewide Child Protection Team and under 18 V.S.A. § 107 (a) for public health activities up until 2018. Bylaws were adopted in 2017 to codify and refine the long-standing processes of the Team (see Appendix B). In 2018, a bill was passed to formally establish the CFRT in Vermont Statute (Act No. 103 (H.686). Human services; health care. An act relating to the Child Fatality Review Team) (see Appendix A). The Team relies on small grants and in-kind contributions from member’s organizations to support its work. Administrative support has been provided by the Department of Children and Families in the past and more recently by the Vermont Department of Health.

PURPOSE AND MISSION STATEMENT
The purpose of the CFRT is to bear witness to deaths of Vermont children so that public systems, communities, and individuals can learn ways to protect our children from harm and prevent future deaths.

The mission of the CFRT is to:

- Review the individual case circumstances for unnatural fatalities of Vermont children (defined as either Vermont occurrent deaths or out-of-state deaths of Vermonter residents where the incident of injury was in Vermont), birth through, and including, 18 years of age.
- Improve collection of data during all phases of investigation and review so that a comprehensive record of these deaths is maintained for the purposes of improved evaluation, research and prevention by the CFRT.
- Analyze aggregate data for Vermont children to identify patterns, trends and risk factors for preventable deaths;
- Evaluate the response of public support systems to the children and families who are reviewed;
- Recommend changes in procedures, resources and service delivery systems, with focus on future prevention strategies;
- Educate the public, service providers, medical community, and policymakers about preventable deaths and strategies for intervention; and
- Recommend legislation, rules, policies, procedures, practices, or trainings that promote coordination of services to children and families and improve the safety and well-being of children overall.

ACTIVITIES
To accomplish its mission, the CFRT performs a multi-disciplinary review of each unnatural child death that occurs in Vermont. The Team meets monthly to review individual fatalities and discuss issues. If additional information or review is necessary, the Team will continue discussion at later meetings. On occasion, special meetings are held for specific topics or projects. Recommendations are issued ad hoc. Each year, the Team sends representatives to a regional meeting of Northeast child fatality review teams.
Case Reviews:

Vermont resident children that die in Vermont of unnatural causes are reviewed. Additional reviews include deaths in which the child was an active client of the Department for Children & Families and reviews requested by the Commissioners of the Departments of Health or Children & Families or any Team member. Case reviews are completed only after criminal proceedings are complete. Reviews vary in scope and breadth, but all include the collection and review of records made available to the CFRT from the Department of Children & Families, the Office of the Chief Medical Examiner, law enforcement and the State’s Attorney. The Team is not an investigative body and relies only on records created by other agencies or entities. Typically, a small group gathers between meetings to prepare a case synopsis based on these records for presentation to the larger group. Other members contribute information and insight from their organization during the case discussion and occasionally, non-member professionals involved with the case are invited to provide testimony. The multi-disciplinary review provides a forum for team members to gain insight into other agency activities and perspectives, discuss system issues, recognize commonalities across cases, and suggest prevention strategies. Some case reviews result in recommendations for system improvements or prevention efforts that are submitted to the Commissioners of the Departments of Health and Children & Families.

Topic Reviews

The CFRT periodically conducts topic reviews based on cumulative numbers, a pattern of death the Team identifies, or the interest of an individual member. Since Vermont experiences a relatively small number of child fatalities each year, topic review may include cases from several years.

A topic review begins with a presentation by content experts to educate the CFRT members. The Team then discusses the related deaths to focus on systems issues and prevention strategies.

System Review

The Team may reveal specific system issues that require additional review. The Team can convene a group of content experts or representatives of the specific system being reviewed to discuss the issues or cases. An evaluation of the system is conducted to identify areas of improvement. Recommendations are forwarded to the involved organizations.

Regional & National Activities:

The Vermont Child Fatality Review team strives to be informed on the national research and latest best practice by maintaining connections with regional and national organizations. Vermont has regularly participated in the annual meeting of the New England Regional Child Fatality Coalition held every spring. In May 2013, Vermont hosted the New England states at the University of Vermont. Strong ties are also maintained between the Vermont Department of Health Sudden Infant Death Prevention programming and the New Hampshire SUID Prevention Project based at the NH Division of Public Health Services. The VDH Injury Prevention Chief and the VDH MCH Injury Prevention Coordinator regularly attend the Safe States Annual Meeting where research and best practice for child injury prevention is shared. The Deputy Chief Medical Examiner participates on a national panel, sponsored by the National Association of Medical Examiners and American Academy of Pediatrics, to review the current state of knowledge and investigation practices for sudden and unexpected deaths in pre-pubescent children. Vermont is also in regular communication with the National Center for Child Fatality Review and Prevention for technical assistance and resources on developing and improving our review processes: [https://www.ncfrp.org](https://www.ncfrp.org)
DEFINITIONS AND METHODOLOGY

Death certificate data for all deaths of Vermont residents, ages 0-18 years, were provided by the Vermont Department of Health’s Division of Health Statistics and Vital Records. As a consequence of inter-state sharing of death certificate data, there is a two-year delay in obtaining all Vermont resident death certificates. Thus, data through the end of 2015 was not ready for analysis until the end of 2017. Categories in Table 4 were chosen to reflect areas of public health interest and represent a combination of causes of death, manners of death, and types of fatalities. Initial sorting was accomplished using underlying cause of death ICD codes, with final categorization of each death being based on the literal text of the death certificate.

The manner of death describes the circumstances surrounding the death. In Vermont, and most of this country, there are only 5 manners: Natural, Accident, Suicide, Homicide, and Undetermined. The cause of death (sometimes called proximate cause) is the disease or injury responsible for starting the lethal sequence of events which ultimately lead to death. A competent cause of death must be etiologically specific. Examples include bacterial meningitis, congenital heart disease, blunt force trauma, and drowning. Mechanisms of death (sometimes called immediate causes) are the altered physiology or anatomy through which the cause exerts its lethal effect. Mechanisms are not etiologically specific. Examples include bronchopneumonia, kidney failure, and encephalopathy.

For purposes of this report deaths were classified into five major categories as defined below:

Natural: Deaths in this category were caused exclusively by a disease process. Subcategories include Disease-related deaths (congenital disorders, neoplasia, infections and other diseases), Neonatal deaths (prematurity, infection, other), Maternal conditions, Sudden Infant Death Syndrome, and Undetermined natural cause.

Unnatural-Unintentional: Deaths in this category were caused by injury or trauma. Manner of death on these death certificates was Accident, which may incorrectly imply that the death was random, unpredictable and unpreventable. Examples include motor vehicle collisions, house fires, drownings, or complications of a therapeutic intervention.

Unnatural-Intentional: All deaths in this category were certified as Homicide or Suicide. Homicide is defined as a death caused by the actions of another individual. The intent of that action is not always to cause death. For example, when one child is holding and fires a gun that causes the death of another child, it is certified as homicide, regardless of whether the shooter intended to shoot or kill the other. Suicide is defined as death caused by oneself.

Unnatural-Unknown Intent: Occasionally, a death was clearly an unnatural cause (e.g. trauma, drowning, overdose) but the manner could not be determined with reasonable certainty. These certificates had Undetermined manners of death. Examples might include circumstances that may be either accident or suicide (e.g. drug overdose) or homicide or accident (e.g. blunt trauma).

Undetermined: These deaths had both an undetermined cause and an undetermined manner. This category included deaths that remained undetermined after thorough investigation and autopsy, deaths that were certified as undetermined cause and manner but level of investigation was unknown, and deaths that we could not classify due to lack of sufficient death certificate data (e.g. records from some states have redacted cause of death statements). For records with redacted cause of death statements, ICD codes were used whenever available to classify the death.

Neonate: A newborn in the first month of life. The age of decedent will be in minutes, hours or days.

Infant: Children age 1-11 months of age (through end of eleventh month). Neonates excluded.
**Neonatal mortality rate:** The number of neonatal deaths per 1,000 live births.

**Infant mortality rate:** The number of infant deaths per 1,000 live births.

**Child death rate:** Number of child deaths (0-18 years of age) per 100,000 Vermont children.
2006-2015 DATA

POPULATION DEMOGRAPHICS for VERMONT

Population Distribution of Children (0-18 years) by Race/Ethnicity, Vermont 2006-2015

<table>
<thead>
<tr>
<th>Table 1: Population Distribution of Children (0-18 years) by Race, 2015</th>
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<tbody>
<tr>
<td>Racial / Ethnic Minority</td>
<td>Population Estimate</td>
<td>Percent</td>
</tr>
<tr>
<td></td>
<td>12,257</td>
<td>7.85%</td>
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<tr>
<td>White Only</td>
<td>116,556</td>
<td>92.15%</td>
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<tr>
<td>Total</td>
<td>126,483</td>
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<thead>
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<th>Table 2: Population Distribution of Children (0-18 years) by Age, 2015</th>
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<tbody>
<tr>
<td>&lt;1 years</td>
<td>5,903 live births</td>
<td>4.6*</td>
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<tr>
<td>1-4 years</td>
<td>24,414</td>
<td>18.9</td>
</tr>
<tr>
<td>5-9 years</td>
<td>32,247</td>
<td>24.9</td>
</tr>
<tr>
<td>10-14 years</td>
<td>34,577</td>
<td>26.7</td>
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<tr>
<td>15-17 years</td>
<td>22,691</td>
<td>17.5</td>
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<td>18 years</td>
<td>9,589</td>
<td>7.4</td>
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<tr>
<td>Total</td>
<td>129,512</td>
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Sources: Vermont Department of Health; * CDC/National Center for Health Statistics [https://www.ncfrp.org/resources/child-mortality-data/](https://www.ncfrp.org/resources/child-mortality-data/)

<table>
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<tr>
<th>Table 3: Annual Death Rate for VT Residents per 100,000 (0-18 years) by Age, 2015</th>
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<tr>
<td>&lt;1 years</td>
<td>27</td>
<td>N/A</td>
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<tr>
<td>1-4 years</td>
<td>2</td>
<td>8.2</td>
</tr>
<tr>
<td>5-9 years</td>
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<td>9.3</td>
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<tr>
<td>10-14 years</td>
<td>3</td>
<td>8.7</td>
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<tr>
<td>15-17 years</td>
<td>6</td>
<td>26.4</td>
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<tr>
<td>18 years</td>
<td>6</td>
<td>62.6</td>
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Source: Vermont Department of Health, Vital Statistics System
Figure 1. Death rate in children ages 0-18 years, per 100,000 population is shown for 1996 through 2015.

Figure 2. Death rate by manner in children ages 0-18 years, per 100,000 population is shown for 1996 through 2015. *A new protocol for classification of cause of death began in 2006 but had no impact on manner of death data.
### Table 4: Child Fatalities Among Vermont Residents 2006-2015

<table>
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<tr>
<th>CATEGORY OF FATALITY</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>Total</th>
<th>%</th>
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<tr>
<td>NATURAL</td>
<td>47</td>
<td>32</td>
<td>34</td>
<td>38</td>
<td>22</td>
<td>32</td>
<td>27</td>
<td>31</td>
<td>32</td>
<td>33</td>
<td>328</td>
<td>57%</td>
</tr>
<tr>
<td>Infants (excluding neonates)</td>
<td>23</td>
<td>8</td>
<td>12</td>
<td>13</td>
<td>7</td>
<td>10</td>
<td>11</td>
<td>12</td>
<td>10</td>
<td>16</td>
<td>123</td>
<td>38%</td>
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<tr>
<td>Congenital</td>
<td>8</td>
<td>5</td>
<td>4</td>
<td>7</td>
<td>3</td>
<td>6</td>
<td>4</td>
<td>7</td>
<td>5</td>
<td>8</td>
<td>58</td>
<td></td>
</tr>
<tr>
<td>Neoplasia</td>
<td>3</td>
<td>0</td>
<td>4</td>
<td>4</td>
<td>2</td>
<td>1</td>
<td>5</td>
<td>5</td>
<td>2</td>
<td>2</td>
<td>28</td>
<td></td>
</tr>
<tr>
<td>Infection</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>1</td>
<td>3</td>
<td>14</td>
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<tr>
<td>Other</td>
<td>11</td>
<td>2</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>3</td>
<td>23</td>
<td></td>
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</tbody>
</table>

| Neonates (<1 mon)   | 19   | 21   | 19   | 17   | 11   | 20   | 13   | 18   | 18   | 15   | 170   | 52% |
| Prematurity          | 14   | 15   | 12   | 10   | 8    | 13   | 5    | 6    | 11   | 3    | 98    |    |
| Neonatal Infection  | 0    | 1    | 0    | 1    | 1    | 0    | 0    | 1    | 0    | 3    | 7     |    |
| Neonatal Other      | 5    | 5    | 7    | 6    | 2    | 7    | 8    | 11   | 7    | 9    | 65    |    |
| Maternal Conditions | 5    | 1    | 2    | 8    | 4    | 2    | 2    | 0    | 3    | 1    | 28    | 9% |
| “SIDS”               | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0     | 0% |
| Undetermined/Natural| 0    | 2    | 1    | 0    | 0    | 0    | 1    | 1    | 1    | 1    | 7     | 2% |

| UNNATURAL           | 21   | 21   | 27   | 22   | 18   | 25   | 19   | 25   | 17   | 12   | 207   | 36% |
| Unintentional Totals| 16   | 14   | 18   | 15   | 13   | 19   | 14   | 15   | 5    | 8    | 137   | 66% |

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<tbody>
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<td>Passenger</td>
<td>3</td>
<td>4</td>
<td>7</td>
<td>5</td>
<td>6</td>
<td>5</td>
<td>2</td>
<td>3</td>
<td>1</td>
<td>2</td>
<td>38</td>
<td></td>
</tr>
<tr>
<td>Driver</td>
<td>5</td>
<td>1</td>
<td>3</td>
<td>5</td>
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<td>6</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>25</td>
<td></td>
</tr>
<tr>
<td>Pedestrian</td>
<td>1</td>
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<td>2</td>
<td>42</td>
<td>7%</td>
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* MVC—Other category includes non-motorized vehicles (such as a bicycle, skateboard, scooter) struck by motorized vehicles.

** Bicycle category includes bicyclist deaths independent of motor vehicles.

** Abbreviations: MVC (Motor Vehicle Collision), ATV (All-Terrain Vehicle).
Figure 3. Distribution of natural, accident, homicide and undetermined manners of death at ages 0 to 11 months.

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<td>Undetermined</td>
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Neonate and Infant Deaths by Manner
Ages 0-11 months, 2006-2015

Figure 4. Distribution of natural, accident, homicide and undetermined manners of death at ages 1 to 9 years.

<table>
<thead>
<tr>
<th>Manner</th>
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<td>Homicide</td>
<td>12%</td>
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<td>Undetermined</td>
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</table>

Early Childhood Deaths by Manner
Ages 1-9, 2006-2015
Figure 5. Distribution of natural, accident, homicide, suicide and undetermined manners of death at ages 10 to 14 years.

Figure 6. Distribution of natural, accident, homicide, suicide and undetermined manners of death at ages 15-18 years.
Figure 7. Distribution of natural, unnatural and undetermined causes of death overall (pie chart) and by year (bar graph).
Figure 8. Causes of natural deaths beyond the neonatal period, overall (pie chart) and by year (bar graph).

Natural Infant Deaths
VT Resident Children [1 -11 months]*  2006-2015

- Congenital: 57 (47%)
- Neoplasia: 28 (23%)
- Infection: 14 (11%)
- Other: 23 (19%)

*Does not include neonates (under 1 month of age) or children that died due to premature birth or maternal conditions.
Infant Deaths (Excluding Neonates) Per Year

![Infant Deaths Graph]

Figure 9. Count of deaths from ages 1-11 months (all manners and causes).

Neonatal Deaths by Type
VT Resident Children [<1 month age] 2006-2015

- Prematurity: 57%
- Neonatal Other: 39%
- Neonatal Infection: 4%

![Neonatal Deaths by Type Pie Chart]

Figure 10. Causes of neonatal deaths, overall (pie chart) and by year (bar graph).
Figure 11. Accidental causes of death, overall (pie chart), and by year excluding MVA-related deaths (bar graph).
Figure 12. Accidental causes of death by categories.

Figure 13. Motor vehicle-related deaths by year and occupant type. The category Motor Vehicle: Pedestrian represents pedestrians stuck by motor vehicles. The category Motor Vehicle: Other includes off-road accidents (including ATVs, Trains, snowmobiles, etc.).
Figure 14. Suicides, overall by means (pie chart), and for all means by year (bar graph).
Figure 15. Homicides by year.

Figure 16. Number and percentage of firearm deaths by manner for all ages and years.
**Substance-Related Deaths by Manner**

VT Resident Children [0-18 years] 2006-2015

![Pie chart showing the distribution of substance-related deaths by manner.](chart)

- Accidental Overdose: 5 (56%)
- Suicide by Substances: 3 (33%)
- Homicide by Substances: 2 (20%)

Figure 17. Number and percentage of substance-related deaths by manner for all ages and years.

**Place of Injury**

VT Resident Children [0-18 years] 2006-2015

- Decedent's residence: 79
- Highway or Road: 69
- Unknown: 16
- Other specified places: 12
- Body of water: 9
- Residence of other: 7
- Woods: 6
- Outside of decedent's residence: 5
- Farm/Field: 4
- In or around school: 2
- Railroad: 2

Figure 18. Place of injury for unnatural deaths, including deaths due to injury of undetermined manner.
DISCUSSION OF FATALITY DATA

Rates

The approximately 129,000 children (0-18 years of age) that reside in Vermont are predominantly (92%) white and are distributed across the ages in a bell curve with peak at 10-14 years; just over 50% are between 5-14 years of age (Tables 1 and 2). The overall death rate in children ages 0-18 years has declined over the last two decades and is currently 36.3 per 100,000 population (Figure 1) comparable to neighboring states of New Hampshire and New York and lower than Maine (https://www.ncfrp.org/resources/child-mortality-data/). According to the National Center for Health Statistics, Vermont’s infant mortality rate, as calculated per 1,000 live births, was 4.6 in 2015 (https://www.ncfrp.org/resources/child-mortality-data/). Excluding infancy, death rates are greatest among our teens (Table 3; 26.4 per 100,000 at 15-17 years and 62.6 per 100,000 at 18 years), driven largely by natural etiologies (Figure 2). The rate of child deaths due to suicide (Figure 2) shows a brief rise in 2013 and 2015 that has returned to the usual baseline by 2015. Given our small numbers, a statistical analysis is not possible and therefore caution in over-interpretation is warranted.

Manners

Child fatality data, tabulated in Table 4, are broadly divided into Natural, Unnatural, and Undetermined causes and reflect deaths of Vermont residents, ages 0-18 years. Categories (row headers) based on either cause of death (e.g. neoplasia, asphyxia by hanging) or circumstances (motor vehicle collision, unintentional farm accident), were chosen to best convey data for risk identification and prevention assessment, rather than adherence to a strict definitions of cause and manner of death.

More than half of deaths were due to natural causes (57%; 328/577) (Figure 7). Twenty four percent (24%) were accidents (137/577), 7.6% were suicides (44/577), 4% (23/577) were homicides and 7% (45/577) were of undetermined manner. Figures 3-6 illustrate how the distribution of manners changes from infants, to early childhood, to early then late adolescence.

Neonates and Infants

A few natural subcategories are highlighted for neonates and infants (Table 4). The majority (57%) of neonatal death in Vermont is due to complications of prematurity (birth before the 37th week of pregnancy) (Table 4 and Figure 10), such as breathing disorders caused by underdeveloped lungs and bleeding in the brain. A substantial percentage (38%) is due to various developmental disorders, genetic conditions, and birth or pregnancy complications (meconium aspiration, umbilical cord compression, placental abruption). Maternal conditions included such things as HELLP Syndrome, prematurity due to cervical incompetence, and placental abruption. Although infection is the leading cause of neonatal death world-wide, it accounts for less than 5% of neonatal deaths in Vermont. Note that deaths were counted as being due to infection when infection was the underlying etiology (e.g. HSV, Coxsackievirus myocarditis). If the mechanism of death included infection (e.g. NEC due to prematurity, sepsis complicating other condition) the death was categorized by the underlying etiology.

The number of post-neonatal infant deaths shows a general trend of decline in the last decade, but sample size is too small to determine statistical significance (Figure 9). Congenital defects and neoplasia (benign and malignant tumors) comprise 70% of infant deaths beyond the neonatal period (Figure 8).

Unnatural Deaths

The CFRT focuses on review of unnatural deaths with an eye on future prevention. On average, there are 21 unnatural deaths each year, with 66% being accidental (annual average 14) and 21% being suicide (annual average 4). Among accidental deaths, motor vehicle collisions are the most frequent single category (discussed in detail below) followed by asphyxia (19/137; 14%) (Figure 11). Twelve of the fifteen asphyxial accidents were infants, ages 1-7 months, that died suddenly in the setting of unsafe sleep environments (84% in their own home).
Despite having many natural bodies of water for recreation and several recent incidents that captured public attention, childhood drownings occur rarely (<1% of accidents; n=9), with six years in the last decade having no drownings (Table 4). Of the nine accidental drownings, five were in natural bodies of water, three in pools, and one in a bathtub. The frequency of various accidental causes of death are illustrated in Figures 11 and 12. The average age of victims drowning in a natural body of water was 9.25 years and included toddlers to teens. The average age of victims drowning in pool/bath was 3 years and all were young children.

**Motor Vehicles**

Deaths related to motorized vehicles were the single largest cause of accidental death (63%) (Figure 11), with annual averages of 4 drivers, 4 passengers, and 1 pedestrian deaths. For the years 2006-2015, 60% (37 of 62) of the youths that died in a motor vehicle collision (MVC) were passengers and 40% (25 of 62) were drivers (annual distributions shown in Figure 13). There are also a couple of deaths each year involving other types of motorized vehicles (e.g. all-terrain vehicles, motorcycles, snowmobiles, trains) or non-pedestrians (e.g. bicyclists) struck by motorized vehicles (categorized under Unnatural/Unintentional/Other MVC/Other in Table 4). About half of the passenger fatalities were 16-18 years old (49%) and 24% were 11-15 years old. Of the youth driver fatalities, 100% were the at-fault party in the collision. The most frequent circumstances contributing to the collision were: 1) at-fault youth driver failed to keep in proper lane (25%), 2) driving too fast for conditions (21%), and 3) operating the vehicle in an erratic, reckless or careless way (25%) (data from VT Governor’s Highway Safety).

**Suicides**

There were 44 completed suicides among Vermont resident children between 2006 and 2015. Although 2013 and 2014 had a few more suicides than usual, there were no suicide clusters in those years. The ages ranged from 11 to 18 years. Data on sex is not given since it was unavailable for eighteen deaths. Suicides occurred at the child’s home (inside or outside) in 77% of incidents and was most often by hanging or firearm (Figure 14). Indeed, the majority (71%) of firearm deaths in Vermont children are suicides (Figure 16).

**Substances**

Substance-related deaths remain rare in Vermont children (Figure 17). Accidental overdoses included medications and illicit substances without a notable trend. Three of five accidental deaths were intoxications by multiple substances. There were no accidental substance-related deaths under age 14 years.

**Homicides**

The annual number of child homicides ranges from 0 to 5 (Figure 15). Of the 23 homicides, 6 were infants, 9 were young children (ages 1-6 years) and 8 were adolescents (ages 12-18 years). The most common cause of homicidal death was blunt head trauma, which occurred in 9 homicides (41%) at ages ranging from 1 month to 3 years. Five homicides (22%) were by gunshot wound. Data regarding domestic violence was not available. Data were insufficient to determine place of injury in 9 homicides. Thirteen (13) injuries occurred at the decedent’s home.

**FUTURE DIRECTIONS**

This and the prior ten-year report were derived from death certificate data, which provide cause of death, manner of death, age and only a few other parameters. The CFRT is developing methods for collecting more detailed data from sources other than death certificates and hopes to complete topic-specific studies to facilitate evidence-based recommendations.
§4917. Multidisciplinary Teams; empaneling.

(a) The Commissioner or his or her designee may impanel a multidisciplinary team or a special investigative multitask force team or both wherever in the State there may be a probable case of child abuse or neglect which warrants the coordinated use of several professional services. These teams shall participate and cooperate with the local special investigation unity in compliance with 13 V.S.A. §5415.

(b) The Commissioner or his or her designee, in conjunction with professionals and community agencies, shall appoint members to the multidisciplinary teams which may include persons who are trained and engaged in work relating to child abuse or neglect such as medicine, mental health, social work, nursing, child care, education, law, or law enforcement. The teams shall include a representative of the Department of Corrections. Additional persons may be appointed when the services of those persons are appropriate to any particular case.

(c) The empaneling of a multidisciplinary or special investigative multi-task force team shall be authorized in writing and shall specifically list the members of the team. This list may be amended from time to time as needed as determined by the Commissioner or his or her designee. (Added 1981, No., 207 (Adj. Sess.), §1, eff. April 25, 1982; amended 2007, No. 168 (Adj. Sess.) §13; 2007, No. 172 (Adj. Sess.), §21; 2007, No 174 (Adj. Sess.), §17; 2009, No. 1, §18, eff. March 4, 2009).

§4918. Multidisciplinary teams; functions; guidelines.

(a) Multidisciplinary teams shall assist local district offices of the Department in identifying and treating child abuse or neglect cases. With respect to any case referred to it, the team may assist the district office by providing:

1. Case diagnosis or identification;
2. A comprehensive treatment plan; and
3. Coordination of services pursuant to the treatment plan.

(b) Multidisciplinary teams may also provide public informational and educational services to the community about identification, treatment, and prevention of child abuse and neglect. It shall also foster communication and cooperation among professionals and organizations in its community, and provide such recommendations or changes in service delivery as it deems necessary. (Added 1981, No., 207 (Adj. Sess.), §1, eff. April 25, 1982; amended 2007, No. 168 (Adj. Sess.) §13; 2007, No. 172 (Adj. Sess.), §21; 2007, No 174 (Adj. Sess.), §17; 2009, No. 1, §18, eff. March 4, 2009).


(d) Disclosure of registry records or information or other records used or obtained in the course of providing services to prevent child abuse or neglect or to treat abused or neglected children and their families by one member of a multidisciplinary team to another member of that team shall not subject either member of the multidisciplinary team, individually, or the team as a whole, to any civil or criminal liability notwithstanding any other provision of law.
Title 18: Health

Chapter 003: State Board of Health

§107. Life and health of inhabitants; inspections, investigations.

(a) The Commissioner shall take cognizance of the interest of the life and health of the inhabitants of the state, shall make or cause to be made inspections, investigations, and inquiries respecting causes of disease and the means of preventing the same and the effect of all circumstances relating to or affecting the public health.

Act No. 103 (H.686). Human services; health care. An act relating to the Child Fatality Review Team

It is hereby enacted by the General Assembly of the State of Vermont:

Sec. 1. 18 V.S.A. chapter 30A is added to read:

CHAPTER 30A. CHILD FATALITY REVIEW TEAM § 1561. CHILD FATALITY REVIEW TEAM

(a) Creation. There is created the Child Fatality Review Team within the Department of Health for the following purposes:

(1) To examine cases of child fatality in Vermont in which the fatality is either unexpected, unexplained, or preventable;

(2) To identify system gaps and risk factors associated with child fatalities that are either unexpected, unexplained, or preventable;

(3) To educate the public, service providers, and policymakers about unexpected, unexplained, or preventable child fatalities and strategies for intervention;

(4) To recommend legislation, rules, policies, practices, training, and coordination of services that promote interagency collaboration and prevent future unexpected, unexplained, or preventable child fatalities.

(b) Membership.

(1) The Team shall comprise the following members:

(A) the Chief Medical Examiner or designee;

(B) the Commissioner of Health or designee;

(C) the Commissioner for Children and Families or designee;

(D) the Commissioner of Mental Health or designee;

(E) the Commissioner of Public Safety or designee;

(F) the Secretary of Education or designee;

(G) the Attorney General or designee;

(H) a physician licensed to practice pursuant to 26 V.S.A. chapter 23 or 33 who specializes in the practice of pediatrics, appointed by the Vermont chapter of the American Academy of Pediatrics;

(I) a physician licensed to practice pursuant to 26 V.S.A. chapter 23 or 33 who specializes in the practice of child psychiatry, appointed by the Vermont Psychiatric association;

(J) a municipal law enforcement officer, appointed by the Vermont Association of Chiefs of Police; and

(K) any other professional specializing in child abuse or neglect, health, social work, child care, education, or law enforcement and who is appointed by the Secretary of Human Services.

(2) (A) The members of the Team specified in subdivision (1) of this subsection shall serve three-year terms, except that of the members first appointed pursuant to subdivisions (1)(H)-(K) of this subsection, two shall serve a term of one year and two shall serve a term of two years.
(B) Any vacancy on the Team shall be filled in the same manner as the original appointment. The replacement member shall serve for the remainder of the unexpired term.

(c) Meetings.

(1) The Team shall meet at such times as may reasonably be necessary to carry out its duties, but at least once in each calendar quarter.

(2) The Commissioner of Health or designee shall call the first meeting of the Team to occur on or before September 30, 2018.

(3) The Team shall select a chair and vice-chair from among its members at the first meeting, and biannually thereafter.

(d) Assistance. The Team shall have the administrative, technical, and legal assistance of the Department of Health.

(e) Access to information and records.

(1) In any case under review by the Team, upon written request of the Chair, a person who possesses information or records that are necessary and relevant to the review of a child fatality that is either unexpected, unexplained, or preventable shall, as soon as practicable, provide the Team with the information and records. All requests for information or records by the Chair related to a case under review shall be provided by the person possessing the information or records to the Team at no cost.

(2) A person shall not be held criminally or civilly liable for disclosing or providing information or records to the Team pursuant to this subsection.

(3) The Team shall not have access to the proceedings, reports, and records of a peer review committee as defined in 26 V.S.A. §1441.

(f) Limitations.

(1) The Team’s review process shall not commence until:

   (A) any criminal prosecution arising out of the child fatality is concluded or the Attorney General and the State’s Attorney provide written notice to the Team that no criminal charges shall be filed; and

   (B) any investigation by the Department for children and Families is concluded.

(2) The Team shall seek to obtain information or records generated in the course of an investigation from State agencies or law enforcement officials before making a request to health care providers and educators.

(g)(1) Confidentiality. The records produced or acquired by the Team are exempt from public inspection and copying under the Public Records Act and shall be kept confidential. The records of the Team are not subject to subpoena, discovery, or introduction into evidence in a civil or criminal action. Nothing in this section shall be construed to limit or restrict the right to discover or use in any civil or criminal proceedings information or records that are available from another source and entirely outside the Team’s review. The Team shall not use the information or records generated during the course of its review for purposes other than those described in this action.
APPENDIX B: CURRENT MEMBERSHIP

Leadership:
Elizabeth A Bundock, MD, PhD. Chair, Jan 2018-Present
Sally Kerschner, RN Vice-Chair, Jan 2018-Present

Office of the Chief Medical Examiner:
Steven Shapiro, MD Chief Medical Examiner
Elizabeth A. Bundock, MD, PhD Deputy Chief Medical Examiner
Lauri McGivern Assistant Medical Examiner Coordinator

VT Department of Health:
Sally Kerschner, RN Maternal Child Heath Planning Specialist
Sharonlee Trefry, RN Maternal and Child Health
Tanya Wells Injury Prevention Program Director

VT Department of Children and Families:
Karen Shea Deputy Commissioner, Family Services Division
Nancy Miller Child Safety Manager, Operations Division

Vermont Department of Mental Health/Vermont Psychiatric Association:
David Rettew, MD Child and Adolescent Psychiatry, UVMMC
David Fassler, MD Department of Psychiatry, UVMMC

Department of Public Safety/Municipal Law Enforcement
Jeremy Hill Commander, Bureau of Criminal Investigations, Vermont State Police
Lance Burnham Lieutenant, Vermont State Police
Douglas Allen Chief of Police, Colchester Police Department

Vermont Agency of Education:
Robert Evans Vermont School Safety Liaison Officer, AOE and Public Safety

Vermont Office of the Attorney General:
Kate Lucier Assistant Attorney General; Director, AGO DCF-Family Services Unit
Carolyn Hanson Assistant Attorney General; Co-Chair, Domestic Violence Fatality Review Committee

Pediatricians:
Rebecca Bell, MD Pediatrician, UVM Children’s Hospital
Karyn Patno, MD Child Abuse Pediatrician, UVM Children’s Hospital; ChildSafe Program/Clinic at UVMMC, Vermont Citizen’s Advisory Board (VCAB)
James Metz, MD, MPH, FAAP Child Abuse Pediatrician, UVM Children’s Hospital

Other Agency of Human Services Appointees:
Joan Carson, RN Clinical Coordinator, Sexual Assault Nurse Examiner Program at UVMMC Forensic Nurse, UVMMC Emergency Department
<table>
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<tr>
<th>Name</th>
<th>Position and Affiliation</th>
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<tr>
<td>Frederick Ober, MSW</td>
<td>Former Director, Child Protection and Field Operations,</td>
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<td>Family Services Division, Department for Children &amp; Families</td>
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<tr>
<td>Sally Borden</td>
<td>Co-Chair of Vermont Citizen’s Advisory Board (VCAB); Executive</td>
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<td>Director of KidSafe Collaborative</td>
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<tr>
<td>Debby Haskins</td>
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<td>Vermont Suicide Prevention Specialist, Center for Health &amp; Learning</td>
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<td>Charlotte McCorkel, LICSW</td>
<td>Project Director of Integration, Howard Cener</td>
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<td><strong>Administrative Support:</strong></td>
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<td>Karen Lapan</td>
<td>Vermont Department of Health</td>
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Annual New England Regional Child Death Review Meeting
May 30 & May 31, 2013     Davis Center
University of Vermont, Burlington Vermont

Thursday, May 30
8:30 – 4:30  Sudden Unexpected Infant Death Investigation (SUIDI) Course
5:00 – 8:00  Annual New England Regional CDR Meeting

Friday, May 31
8:00  Registration
8:30  Welcome  Patrick Malone, Chair
      Vermont Child Fatality Review Team
      Steve Shapiro, MD
      Chief Medical Examiner – Vermont Department of Health

8:45  Keynote: Firearm Injuries and Deaths:  Catharine Barber, MPA, Harvard Injury Control Research Center, Harvard School of Public Health

9:45  CT 1 Word 1 Voice 1 Life Suicide Prevention Initiative  Faith Voswinkel, MSW, Connecticut CDR

10:15  Break

10:30  Panel Discussion:  SUID & SIDS: The National Data Base, State Response and Activities  Sally Kerschner, RN, MSN
       Vermont Department of Health, VT CFRT

11:30  The Next Step:  The View of a Rural Trauma Center  Kenneth Sartorelli, MD,
       Fletcher Allen Health Care, Burlington, Vermont

12:15  Lunch

1:00  Panel Discussion:  Gun Laws In New England  Marc Clement – New Hampshire

2:00  A Comparison of Vermont’s Child Fatality Review Team and Vermont’s Domestic Violence Fatality Review Commission  Amy Fitzgerald – Vermont

3:00  Break

3:15  Closing Remarks  Teri Covington, National Center for CDR

4:00  End
APPENDIX D: VERMONT CHILD FATALITIES 1996-2005

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