MASSACHUSETTS CHILD FATALITY REVIEW ANNUAL REPORT

State Fiscal Year 19

MASSACHUSETTS

CHILD FATALITY REVIEW

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MASSACHUSETTS CHILD FATALITY REVIEW

MESSAGE FROM **THE CHAIRPEOPLE**

Dr. Mindy Hull
& Rebekah Thomas

Dear Stakeholders:

A child's death is a sentinel event that should urge communities to identify other children at risk for illness or injury[1]. The purpose of Child Fatality Review (CFR) is to conduct a comprehensive, multi-disciplinary review of child deaths, to better understand how and why children die, and to use the findings to take action that can prevent additional deaths and improve the health and safety of children. In Massachusetts, the Child Fatality Review Program is governed by Massachusetts General Laws (MGL) Chapter 38 §2A. Local child fatality review teams examine the circumstances of child deaths under their jurisdiction to determine if the death was preventable and to formulate recommendations outlining education, policy, and prevention action steps that can prevent similar deaths from occurring. These local recommendations inform the statewide prevention efforts of the State CFR Team.

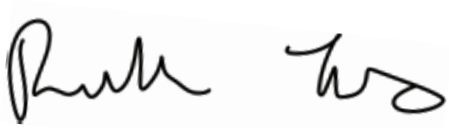
The purpose of the state team shall be to decrease the incidence of preventable child fatalities and near fatalities by: (i) developing an understanding of the causes and incidence of child fatalities and near fatalities; and (ii) advising the governor, the general court and the public by recommending changes in law, policy and practice that will prevent child fatalities and near fatalities.

1 The National Center for the Review & Prevention of Child Deaths, Michigan Public Health Institute. Retrieved on July 16, 2015 from https://www.ncfrp.org/cdr-process/cdr-principles

This annual report is a requirement of MGL Chapter 38 §2A. It reviews the changes that occurred during the reporting time period and the activities conducted by local and state teams. Please note that prior to writing this report, the state team determined that reporting on the state fiscal year (SFY) rather than calendar year is more appropriate. Therefore, the present report covers the gap (January through June 2018) between calendar year 2017 (January-December 2017) and SFY19 (July 2018 – June 2019).

Respectfully,

DR. MINDY HULL
State Team Co-Chair



REBEKAH THOMAS
State Team Co-Chair

PRINCIPLES OF **PREVENTION**

Because the cornerstone of the child fatality review process is the creation of recommendations that prevent similar fatalities from happening in the future, the CFR program guidelines were amended to include descriptions of three different prevention models. While each model presents the information in different manners, members can familiarize themselves with the frameworks in order to develop action oriented and clear prevention recommendations. The three frameworks include:

THE FOUR E'S

This framework can be used to understand what can be done to prevent injury-related deaths. Each of the categories can be acted on individually but have a symbiotic and compounding benefit when approached in multiples.

Engineering: Modifications to the environment or to products to make them safer.

Enforcement: Implementation or development of laws and policies that prevent death.

Education: Providing information needed to make safe choices by both the public and professionals.

Emergency Medical Services: Assuring that injured individuals receive quality trauma management.

THE SPECTRUM OF PREVENTION

The Spectrum of Prevention was originally developed by Larry Cohen and has six levels of intervention to illustrate the premise that prevention is merely education. While each level can be acted upon individually, the effects are greater when used together.

**Alone we can do so little;
together we can do so much.**

Helen Keller

THE SOCIO-ECOLOGICAL MODEL

Developed by the CDC, the Socio-Ecological Model addresses the factors that influence health outcomes. The structure of this model emphasizes the relatedness of health outcomes across different areas of influence and can help local teams determine where an action or intervention should take place.

CHANGES TO THE **CHILD FATALITY REVIEW** PROGRAM

PROGRAM REFORM

Needs assessments for the CFR program were carried out by the Office of the Child Advocate (OCA) for the local teams in 2017 and the state team in 2018, resulting in the development of revised guidelines in 2018. Those developments spurred additional program reform in State Fiscal Year (FY) 19. During FY19, the state team:

- Reorganized the structure and content of the state team meetings
- Revised the CFR database
- Assigned recommendations to agencies and organizations
- Added a continuous quality improvement component to the program
- Increased communication to the local teams

It is the hope that these changes in program structure and operations will lead to improved communication among state team members, improved communication with local teams, more actions, and clearer recommendations that will result in the prevention of child fatality.

DATABASE REVISIONS

A remarkable amount of information is gathered by the local teams during their review of every child fatality. This information is condensed and collected in a secure database at the Department of Public Health and used for routine child fatality review workflows. In FY19, the Office of the Child Advocate provided funding through an interagency service agreement to the Department of Public Health to revise and improve the database. The database revision resulted in a redesigned database that allows for retention of all historical information and automation of several reports and data entry steps. Maintaining this information in one centralized location will increase opportunity for efficiency and scale of impact.

ASSIGNING RECOMMENDATIONS TO STATE TEAM MEMBERS

Starting in FY19, local teams began to identify which state team member could potentially oversee or implement each recommendation. The Department of Public Health disseminates the recommendations to the named agency/ organization and their respective state team member in advance of state team meetings. State team members are asked to review the recommendations to identify what actions their respective agencies can accomplish, the barriers to implementation of the recommendations, context about what is already happening related to the recommendations or whether or not a different agency is better suited to oversee the recommendations. Responses to recommendations are submitted to and captured by the Department of Public Health in the revised database.

CONTINUOUS QUALITY IMPROVEMENT

An expectation of the State Child Fatality Review Team, as written in statute, is to provide training and written materials to local teams to assist them in carrying out their duties. In FY19, the program established a continuous quality improvement mechanism to identify barriers local teams face in carrying out their mandate. Quality improvement matters raised by local teams are discussed at state meetings. to implementation of the recommendations, context about what is already happening related to the recommendations or whether or not a different agency is better suited to oversee the recommendations. Responses to recommendations are submitted to and captured by the Department of Public Health in the revised database.

STRUCTURE AND CONTENT OF STATE TEAM MEETINGS

Fiscal Year 2019 brought a change in the meeting structure to separate the local and state teams so that each could focus on their respective responsibilities. Historically, the state child fatality review team spent a significant portion of the state team meetings reviewing details from each case reviewed by the local teams. While this was an opportunity to contextualize the cases and resulting recommendations, it also took time away from the state team's primary areas of responsibility, as outlined in the Office of the Child Advocate's Needs Assessment: Findings from the State Team, which are to:

- Identify systemic responses to common issues identified by local teams.
- Identify trends or patterns in child deaths based on local teams' recommendations.
- Share information and resources among members that can address issues discussed at state team meetings.
- Identify policies and procedures within each agency that can be modified to reduce child deaths.
- Assist in drafting state team recommendations for the governor and legislature in the annual report.

Beginning in FY19, the state team adjusted their approach to meetings, focusing on specific causes and manners of death, and exploring issues through data and related local team recommendations. The state team selects an area of focus to discuss for two to four meetings. An epidemiologist from the Department of Public Health then provides an overview of the data related to that area of focus, findings from local team case reviews on the same subject, and recommendations that resulted from those reviews leveraging the CFR database. These summaries generate digestible context for team members allowing for more dialogue about prevention and systems changes. Additionally, state subject matter experts are invited to the respective meetings to better inform team members.

In addition to themed reviews, the standing agenda also calls for a member to report on activities relative to the most recently received recommendations from local teams assigned to their agency/organization, quality improvement issues, and other technical assistance requests or operational improvement matters for the CFR program.

INCREASED COMMUNICATIONS TO LOCAL TEAMS

Citing the need for improved communication between the local and state teams, the state team now provides regular updates to all local team leaders and coordinators following state team meetings. The communication includes an overview of any data that was received, responses to recommendations (barriers, actions, context and next steps), and guidance related to quality improvement issues.

It is literally true that you can succeed best and quickest by helping others to succeed.
Napolean Hill

OVERVIEW OF **CHILD FATALITY** DATA

A total of 462 Massachusetts children from birth to 17 years of age died in 2016. The top three leading causes of deaths for birth to 17 years of age are short gestation / low birth weight (LBW) (N=70), congenital malformations (N=58) and unintentional injuries (N=44).

Infants (less than one year of age) had the highest number of deaths (N=283) and accounted for more than 60% of the child deaths in 2016.

For infants, the top three causes include short gestation / LBW (N=70), congenital malformations (N=50) and pregnancy complications (N=28).

Youth between 15-17 years of age experience the greatest risk for injury death (67% of deaths in their age group).

Children between the ages of 5-9 years had the lowest number of deaths followed by children ages 1-4 and 10-14 years of age. Additional Massachusetts death data is available here.

Table 1: Leading Causes of Death Among Massachusetts Children 0-17 Years, by Age Group, for 2016

Rank	<1 Year	1-4 Years	5-9 Years	10-14 Years	15-17 Years	All Ages
1	Short Gestation/Low Birth Weight (LBW) [n=70]	Unintentional Injuries [n=8]	Unintentional Injuries [n=11]	Cancer [n=11]	Unintentional Injuries [n=17]	Short Gestation/ Low Birth Weight [n=70]
2	Congenital Malformations [n=50]	Congenital Malformations [n=5]	Cancer [n=9]	Unintentional Injuries [n=8]	Suicide [n=15]	Congenital Malformations [n=58]
3	Pregnancy Complications [n=28]	Heart Disease [n=4]	Congenital Malformations [n=3]	Suicide [n=7]	Homicide [n=10]	Unintentional Injuries [n=48]
4	Sudden Infant Death Syndrome [n=14]	Ill-Defined Conditions - Signs and Symptoms [n=4]	Influenza and Pneumonia [n=1]	Heart Disease [n=4]	Cancer [n=7]	Pregnancy Complications [n=28]
5	Complications of Placenta [n=11]	Other Infections [n=3]	Chronic Lower Respiratory Disease [n=1]	Stroke [n=2]	In situ Neoplasms [n=2]	Cancer [n=27]
6	Respiratory Distress [n=9]	Cancer [n=3]	Perinatal Conditions [n=1]	Ill-Defined Conditions - Signs and Symptoms [n=1]	Diabetes [n=2]	Suicide [n=22]
7	Necrotizing Enterocolitis [n=8]	In situ Neoplasms [n=3]	Ill-Defined Conditions - Signs and Symptoms [n=1]	Other Infections [n=1]	Heart Disease [n=2]	SIDS [n=14]
8	Intrauterine Hypoxia [n=6]	Homicide [n=3]	Medical Complication [n=1]	Meningitis [n=1]	Septicemia [n=1]	Homicide [n=13]
9	Pulmonary Hemorrhage [n=4]; Neonatal Hemorrhage [n=4]	Influenza and Pneumonia [n=1]; Hernia [n=1]	-	Chronic Lower Respiratory Disease [n=1]	Ill-Defined Conditions - Signs and Symptoms [n=1]; Medical Complication [n=1]	Complications of Placenta [n=11]
10	Unintentional Injuries [n=4]	Injuries of Undetermined Intent [n=1]	-	-	Injuries of Undetermined Intent [n=1]	Heart Disease [n=10]
Totals	283	41	33	41	64	462

Source: Registry of Vital Records and Statistics, Massachusetts Department of Public Health

The purpose of each local team shall be to decrease the incidence of preventable child fatalities and near fatalities by: (i) coordinating the collection of information on fatalities and near fatalities; (ii) promoting cooperation and coordination between agencies responding to fatalities and near fatalities and in providing services to family members; (iii) developing an understanding of the causes and incidence of child fatalities and near fatalities in the county; and (iv) advising the state team on changes in law, policy or practice which may affect child fatalities and near fatalities.

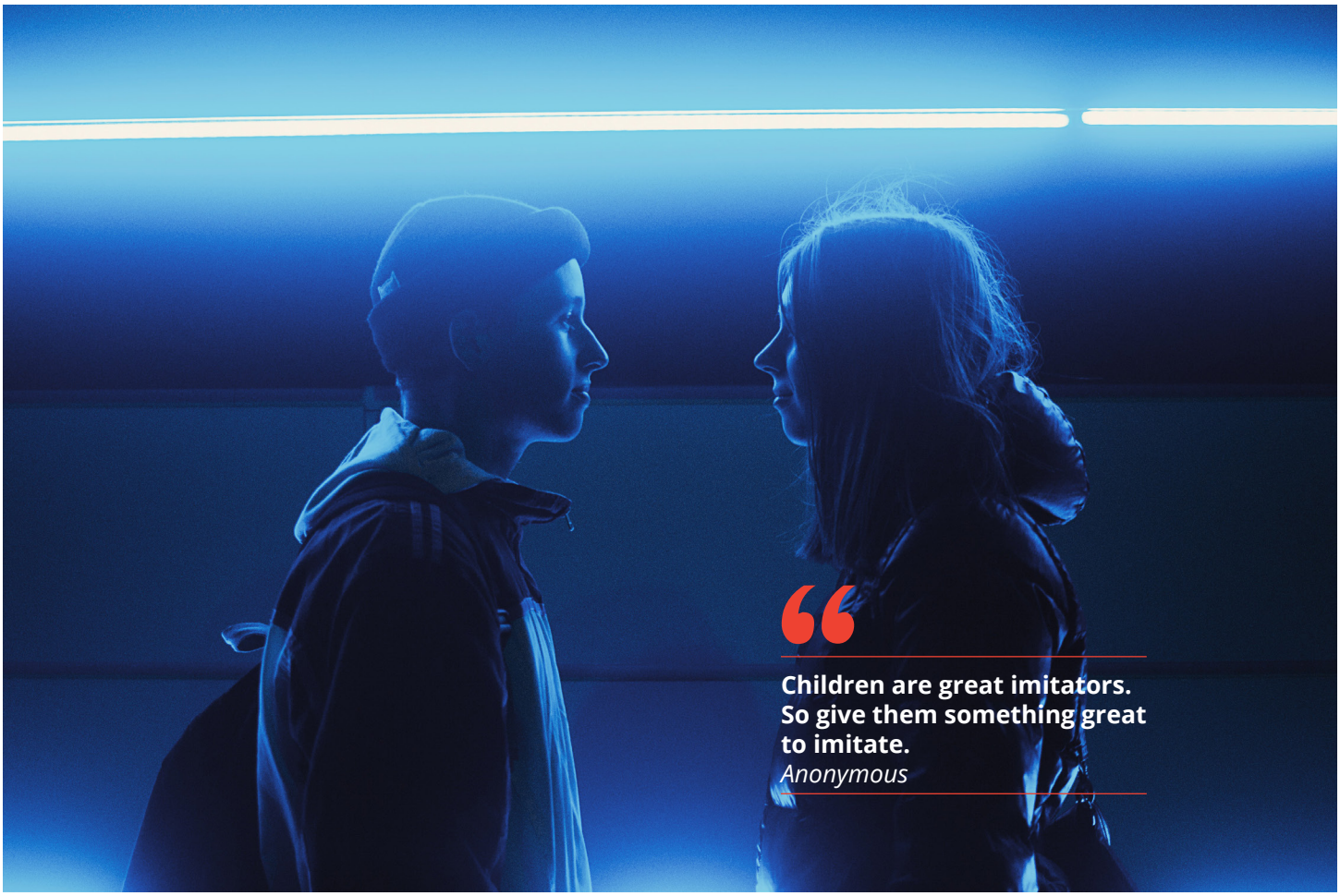
REVIEWS

135 CASES

103 RECOMMENDATIONS

LOCAL TEAM
MEETINGS & REVIEWS

In FY19, 9 of the 11 local teams met at least once. In total, 23 meetings occurred resulting in the review of 135 cases and 103 unique recommendations. See Appendix 2 for details on the teams that met, meeting dates, number of cases reviewed, manner of death for those cases, and number of unique recommendations received by the teams.



STATE TEAM
MEETINGS & ACTIVITIES

In FY19, the State Child Fatality Review Team focused on Sudden Unexpected Infant Death (SUID) and suicide, two of the most prevalent causes of child death in Massachusetts.

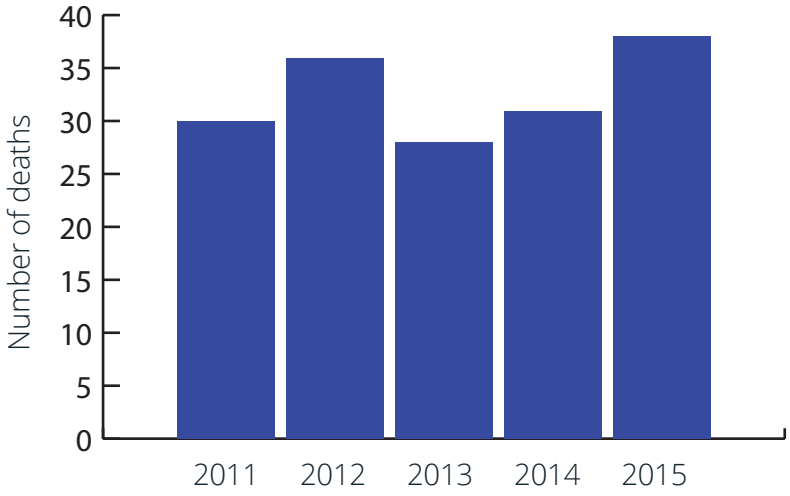
SUMMARY OF SUID REVIEW AND FINDINGS

Sudden Unexpected Infant Death (SUID) is the sudden and unexpected death of an infant under the age of 1 year where a cause is not immediately known before investigation. Often these deaths occur during sleep. The following causes of death are classified as SUID:

- Accidental suffocation and strangulation in bed (ASSB)
- Sudden infant death syndrome (SIDS)
- Undetermined cause

In Massachusetts, SUID is the leading cause of death among infants between the ages of 1-11 months and the 3rd leading cause of death among all infants under one year of age.[1] During the 5-year period of 2011-2015, there were a total of 163 SUID cases in Massachusetts – an average of 33 cases per year. Additional SUID data is available in the Data Brief: Sudden Unexpected Infant Death (SUID) released by Department of Public Health in March 2019.

Figure 1: Sudden Unexpected Infant Deaths, MA Residents <1 year, 2011-2015 (n=163)



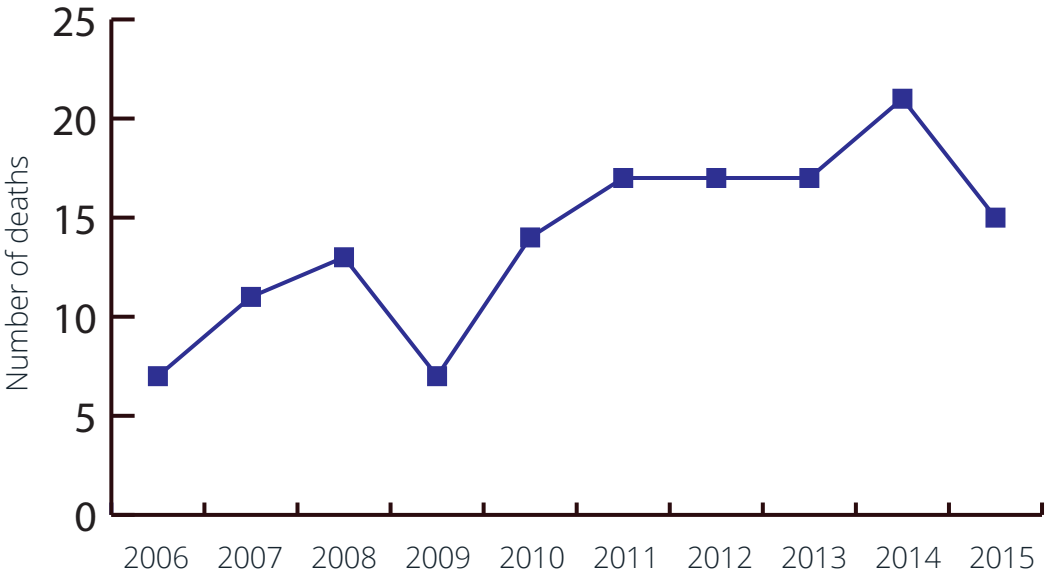
Source: MA Registry of Vital Records & Statistics, 2011-2015

1 The leading cause of death among infants less than one month of age are perinatal causes and congenital malformations.

YOUTH SUICIDE IN MASSACHUSETTS

The number of suicides among youth (10-17 years) went up from 2006 (n=7) to 2015 (n=15). In 2015, Suicide was the leading cause of death among 15-17 years age group. Additional suicide data is available here.

Figure 2: Number of suicides, youth 10-17 years by year, MA occurring, 2006-2015 (n=139)



Source: Compiled and extracted by the Massachusetts Violent Death Reporting System of the Injury Surveillance Program in the Massachusetts Department of Public Health (July 2017), FINAL2003_2015

ADDITIONAL STATE TEAM ACTIVITIES

Occasionally, the state team and its members have the capacity to carry out activities based on the recommendations they receive from the local teams. This section captures those activities; however, it does not represent the full scope of related work each member agency is conducting.

In September 2018, as a result of a recommendation made by local teams that schools should be educated on the resources available to them to prevent suicide, the state team circulated a letter to all superintendents through the Department of Elementary and Secondary Education; see Appendix 3 for the letter.

In November 2018, the representative from the State Police worked with his agency to recirculate the mandate to complete the Sudden Unexpected Infant Death Investigation (SUIDI) form. This was a request from local teams, who noted more reliable data and information when a SUIDI form is on file.

ANNUAL REPORT
CONCLUSION

MASSACHUSETTS CHILD FATALITY REVIEW

A total of 103 unique recommendations were generated by the local teams during Fiscal Year 2019. Historically, the cases were reviewed in depth at the local team level and then elevated to the state team with general recommendations. The state team would briefly review the case and recommendation, and then discuss which agency it should be assigned to. Recommendations are now routed directly to the respective agencies represented at the state team level.

Local team activity, recommendations, and data are presented to the state team in aggregate with the intention of providing a comprehensive picture of child fatality in Massachusetts. Based on the findings from the local team reviews and the discussion of the state team, the state team recommends the following to prevent childhood fatalities in Massachusetts:

RECOMMENDATION: In order to practice, licensed mental health clinicians and social workers should be required to have continued education/training on suicidality, assessment, and prevention

BACKGROUND: Social work and mental health professionals are not required to have training and education specifically related to suicide. While these professionals are tasked with addressing a myriad of facets that individuals are enduring, both the finality and preventability of suicide commands attention.

RECOMMENDATION: Schools should receive additional resources to carry out the provisions of MGL Chapter 71 §95 relative to suicide awareness and prevention training

BACKGROUND: The responsibilities and expectations of schools have exceeded the conventional model of academic enrichment. Schools are a constant in a child's life and are often presented with situations that require training outside of standard curriculum. Currently, there is a compiled list of "School-Wide Suicide Prevention and Intervention Training Programs" that explains training opportunities and their cost to schools.

In addition to the regular review and recommendation activities of the child fatality review program, this fiscal year included operational changes. Both the state and local teams will use the operational changes to inform established processes of identifying opportunities to prevent childhood fatalities.

APPENDIX 1:
CHILD FATALITY REVIEW
TEAM MEMBERS

STATE TEAM

CHIEF MEDICAL EXAMINER (CO-CHAIR)

COMMISSIONER OF THE DEPARTMENT OF PUBLIC HEALTH, OR DESIGNEE (CO-CHAIR)

ATTORNEY GENERAL, OR DESIGNEE

COMMISSIONER OF THE DEPARTMENT OF ELEMENTARY AND SECONDARY EDUCATION, OR DESIGNEE

COMMISSIONER OF THE DEPARTMENT OF MENTAL HEALTH, OR DESIGNEE

COMMISSIONER OF THE DEPARTMENT OF DEVELOPMENTAL SERVICES, OR DESIGNEE

COMMISSIONER OF THE DEPARTMENT OF CHILDREN AND FAMILIES, OR DESIGNEE

COMMISSIONER OF THE DEPARTMENT OF YOUTH SERVICES, OR DESIGNEE

REPRESENTATIVE OF THE MASSACHUSETTS DISTRICT ATTORNEYS ASSOCIATION

COLONEL OF THE MASSACHUSETTS STATE POLICE, OR DESIGNEE

DIRECTOR OF THE MASSACHUSETTS CENTER FOR UNEXPECTED INFANT AND CHILD DEATH, OR DESIGNEE

REPRESENTATIVE OF THE MASSACHUSETTS CHAPTER OF THE AMERICAN ACADEMY OF PEDIATRICS WITH EXPERIENCE IN CHILD ABUSE AND NEGLECT

REPRESENTATIVE OF THE MASSACHUSETTS HOSPITAL ASSOCIATION

CHIEF JUSTICE OF THE JUVENILE DIVISION OF TRIAL COURT, OR DESIGNEE

THE CHILD ADVOCATE, OR DESIGNEE

OTHER INDIVIDUALS WITH INFORMATION RELEVANT TO CASES UNDER REVIEW

LOCAL TEAMS

DISTRICT ATTORNEY OF COUNTY (CHAIR)

CHIEF JUSTICE OF THE JUVENILE DIVISION OF TRIAL COURT, OR DESIGNEE

CHIEF MEDICAL EXAMINER, OR DESIGNEE

COMMISSIONER OF THE DEPARTMENT OF PUBLIC HEALTH, OR DESIGNEE

COMMISSIONER OF THE DEPARTMENT OF CHILDREN AND FAMILIES, OR DESIGNEE

DIRECTOR OF THE MASSACHUSETTS CENTER FOR UNEXPECTED INFANT AND CHILD DEATH, OR DESIGNEE

PEDIATRICIAN WITH EXPERIENCE IN CHILD ABUSE AND NEGLECT

LOCAL POLICE OFFICER FROM THE COMMUNITY WHERE THE FATALITY OCCURRED

STATE LAW ENFORCEMENT OFFICER

OTHER INDIVIDUALS WITH INFORMATION RELEVANT TO CASES UNDER REVIEW

APPENDIX 2: **LOCAL TEAM** MEETINGS, REVIEWS, AND RECOMMENDATIONS

Team	Meeting Dates	Case Review Forms Submitted	Manner of Death						Unique Recommendations
			Accident	Homicide	Natural	Suicide	Undetermined	Pending	
Berkshire	-	-	-	-	-	-	-	-	-
Bristol	09/26/2018	4	-	-	3	-	1	-	12
Cape & Islands	-	-	-	-	-	-	-	-	-
Essex	07/18/2018 10/17/2018 05/01/2019	4 1 1	1 1	-	-	1 - -	2 - -	-	15
Hampden	10/03/2018 12/05/2018 03/06/2019 04/03/2019	8 4 5 10	2 4 - -	-	6 - 2 10	- - 3 -	4	-	17
Middlesex	09/28/2018 12/13/2018 03/15/2019 06/14/2019	3 3 8 12	1 1 - -	-	- - - 3	2 1 - -	- - 4 8	- 1 4 1	17
Norfolk	12/12/2018 06/12/2019	6 7	1 -	-	5 5	- 1	- 1	-	5
Northwest	07/10/2018 10/09/2018 04/09/2019	7 4 4	6 - -	-	1 4 4	-	-	-	15
Plymouth	10/18/2018 12/10/2018 05/10/2019	10 2 4	- - 2	-	10 - 1	1	- 1 1	- 1 -	3
Suffolk	02/25/2019	1	1	-	-	-	-	-	1
Worcester	10/24/2018 06/20/2019	14 13	3 4	-	4 5	-	7 4	-	18
TOTAL	23	135	28	-	63	9	33	7	103

APPENDIX 3:
SUICIDE PREVENTION
LETTER TO SCHOOL SUPERINTENDENTS & PRINCIPLES

The Commonwealth of Massachusetts
Executive Office of Public Safety and Security
Massachusetts Child Fatality Review Team

Mindy J. Hull, MD
Chief Medical Examiner
Chair, MA State Child Fatality Review Team

Rebekah Thomas
Director, Injury Prevention and Control Program
Department of Public Health
Co-Chair, MA State Child Fatality Review Team

September 25, 2018

Re: Youth Suicide Prevention Information

Dear Superintendent/Principal,

In Massachusetts, suicide is tragically the second leading cause of death for 15--24 year olds. SUicide is preventable, and schools and their personnel can play a key role in prevention and intervention efforts.

As Massachusetts students begin a new school year, we wanted to take the opportunity to remind you of helpful youth suicide prevention resources that are available to you and your students, as well as the requirement that all licensed school personnel should receive two hours of suicide awareness and prevention every three years in accordance with Massachusetts General Laws.

The following resources may be helpful in your effort to assist faculty, parents, and students in preventing, intervening, and referring you and their families for services:

MA Department of Public Health Suicide Prevention Program
https://www.mass.gov/suicide-prevention-program

MA Department of Elementary and Secondary Education
http://www.doe.mass.edu/sfs/safety/

MA Coalition for Suicide Prevention
https://www.masspreventssuicide.org

Suicide Prevention Resource Center (SPRC) - A Toolkit for Schools
http://www.sprc.org/settings/schools

SAMHSA (Substance Abuse & Mental Health Services Administration) - Preventing Suicide: A Toolkit for High Schools
https://store.samhsa.gov/product/Preventing-Suicide-A-Toolkit-for-High-Schools/SMA12-4669

CDC Injury Prevention & Control
https://www.cdc.gov/violenceprevention/suicide/

For further assistance, please contact Darlyn Beaujour, Program Coordinator, at the Massachusetts Department of Public Health's Suicide Prevention Program, at darlyn.beaujour@state.ma.us or 617.624.5438.

Sincerely,

Mindy J. Hull, MD
Chief Medical Examiner

Rebekah Thomas
Director, Injury Prevention and Control Program/MDPH

ACKNOWLEDGEMENT

We would like to take a moment to acknowledge the hard work and dedication that every participant of both the State and Local teams contributes to the efforts of child fatality review. Reviewing circumstances surrounding any death is never easy and it is that much more difficult when it is a child.

Through your commitment to this program, recommendations are created in an effort to prevent similar unfortunate circumstances from occurring again.

Thank you.

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Photos Credit: pexels.com