MASSACHUSETTS CHILD FATALITY REVIEW ANNUAL REPORT

State Fiscal Year 2020







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State Fiscal Year 20

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MESSAGE FROM THE CHAIRPEOPLE

Dr. Mindy Hull & Rebekah Thomas

Dear Stakeholders:

A child's death is a time for grieving within a community. It is also a time for a community to come together and reflect on how it can best protect the health and safety of children in the future. The purpose of the Massachusetts Child Fatality Review (CFR) program is to help the Commonwealth accomplish that goal by conducting comprehensive reviews of the circumstances surrounding child deaths. This Fiscal Year 2020 (FY20) Annual Report of the CFR program describes its activities for the period from July 1, 2019 through June 30, 2020 and is released in compliance with the program's authorizing statute (M.G.L. Chapter 38 § 2A).

The Massachusetts CFR program has two elements—local CFR teams and a State CFR Team, both of which bring together health practitioners and government officials. Eleven local teams meet under the leadership of their local District Attorney's office to conduct multidisciplinary reviews of individual child deaths. Local teams examine the circumstances of a child's death under their jurisdiction, determine if a death was preventable, and recommend actions that could stop similar deaths from occurring in the future. Grounding its work in data and recommendations from the local teams, the State Team advises the Governor, the state legislature, and the public on changes in law, policy, and practice that could prevent child fatalities and near fatalities.

The most recent calendar year for which Massachusetts child fatality data is available is 2017. There were four fewer deaths among Massachusetts children from birth to age

17 in 2017 (n=458) compared to 2016 (n=462). For infants, the leading cause of death was congenital malformations, such as heart, lung, or genetic abnormalities. The leading cause of death for children ages 1–17 years was unintentional injuries, such as injuries from motor-vehicle crashes and drownings. Notably, Massachusetts had the lowest infant mortality rate (3.66/1,000 births) compared to all other states and to the overall US rate (5.79/1,000 births).¹ Still, racial and ethnic differences in child mortality continue to exist in Massachusetts, for which structural and systems-level changes are necessary to improve children's wellbeing.²

The State Team occasionally considers fundamental changes to the organization of the CFR program that will improve how the program functions. Accordingly, the Team offers the following structural recommendation:

 The State Team continues its support for legislation moving the responsibility for administrating the CFR program from the Office of the Chief Medical Examiner (OCME) to the Office of the Child Advocate (OCA), with the OCA and the Department of Public Health (DPH) representatives becoming designated co-chairs of the State Team.

Furthermore, for FY20, the State Team offers the following policy recommendations:

- Recommendation 1: The Commonwealth should study the feasibility of requiring that public and semi-public swimming pools have emergency service activation systems or call boxes within the pool's fence perimeter and in a form that complies with ADA accessibility guidelines.
- Recommendation 2: The Commonwealth should work with providers to increase cell phone coverage in underserved areas, particularly along roadways.
- Recommendation 3: In order to practice, licensed mental health clinicians and social workers should be required to have continued education/training on suicidality, screening for suicide risk, and suicide prevention strategies.
- Recommendation 4: Commonwealth executive branch agencies should collect gender identity in their data sets.
- Recommendation 5: In order to better coordinate care for children across state providers, all EOHHS agencies should use a standard confidential information sharing mechanism for client case records.

• Recommendation 6: Adults operating a motorboat or other motorized personal watercraft in Massachusetts should be required to take a boating safety course.

This year also saw significant changes to the CFR program: DPH hired a full-time coordinator to support CFR activities, and CFR staff piloted an effort to better integrate public health evidence into its technical assistance to teams. In the latter quarter of the year, the program adjusted its operations in light of the COVID-19 pandemic, moving state and local team meetings and technical assistance activities online.

As the CFR program enters FY21, there are opportunities to reflect on the twenty years since the program's inception, to identify lessons from team members and program stakeholders, and to shape the future of child fatality review in Massachusetts by continuing and strengthening the program's commitment to equity and reflective, evidence-based practice.

Respectfully,

DR. MINDY HULL State Team Co-Chair

REBEKAH THOMAS State Team Co-Chair





The most recent calendar year for which Massachusetts child fatality data is available is 2017. A total of 458 Massachusetts (MA) children from birth to age 17 died in 2017. There were four fewer deaths among Massachusetts children from birth to age 17 in 2017 compared to 2016 (n=462).

Among all children birth to age 17, the three leading causes of deaths in 2017 were:

- 1. Congenital malformations (n=62)
- 2. Unintentional injuries (n=49)
- Short gestation/low birth weight (LBW) (n=44)

This is consistent with the leading causes of childhood deaths in 2016. However, the order of ranking varied between 2017 and 2016.

- 1. Short gestation/LBW (n=70)
- 2. Congenital malformations (n=58)
- 3. Unintentional injuries (n=48)

In 2017, infants—children less than one year of age—had the highest number of deaths (n=263) and accounted for more than half (57%) of the child deaths. The leading cause of infant death in MA was congenital malformations (n=54), which mirrors overall US data.³ In MA, congenital malformations accounted for a fifth (21%) of all infant deaths in 2017. The leading cause of death for children ages 1–17 years in MA was unintentional injuries, such as motor-vehicle crashes and drowning (n=45), making up almost a quarter (23%) of the deaths in that age group. Similarly, in age groups 1–19 unintentional injuries was the leading cause of death in the US.³

Of the 458 child deaths in MA in 2017, 39% were female (n=178) and 61% were male (n=279) children. The death rate was 1.5 times higher for male children compared to female children. However, in the 15–17 age group, the death rate was 2.6 times higher for male children compared to females. Higher number of homicides and suicides are noted in male children compared to females in this age group, contributing to higher death rates in males in this age group. Similarly, in the US³, the male children's death rate was higher than female children's death rate across all age groups. Additional 2017 Massachusetts death data are available in the Massachusetts Deaths 2017 report and 2017 US death data can be found in the CDC Deaths: Final Data for 2017 report.



Table 1: Top Five Leading Causes of Death Among Massachusetts Children Ages 0–17 Years by Age Group, 2017

Rank	<1 Year	1–4 Years	5–9 Years	10–14 Years	15–17 Years	1–17 Years	0–17 Years (Total)
1	Congenital malformations (n=54)	III-defined conditions- signs and symptoms ^b (n=9)	Cancer (n=9)	Cancer (n=9)	Unintentional injuries (n=25)	Unintentional injuries (n=45)	Congenital malformations (n=62)
2	Short gestation/low birth weight (n=44)	Cancer (n=8)	Unintentional injuries (n=6)	Unintentional injuries (n=8)	Suicide (n=16)	Cancer (n=32)	Unintentional injuries (n=49)
3	Sudden Infant Death Syndrome (SIDS) (n=24)	Unintentional injuries (n=6)	Heart disease (n=3)	Suicide (n=6)	Homicide (n=9)	Suicide (n=22)	Short gestation/low birth weight (n=44)
4	III-defined and unknown cause of mortality ^a (n=15)	Stroke (n=3)	Stroke (n=3)	Congenital malformations (n=3)	Cancer (n=6)	III-defined conditions- signs and symptoms (n=14)	Cancer (n=34)
5	Pregnancy complications (n=14)	Congenital malformations (n=2)	Congenital malformations (n=2)	Heart disease (n=2)	III-defined conditions- signs and symptoms (n=3)	Homicide (n=10)	lll-defined conditions ^c (n=29)
Total	263	46	33	43	73	195	458

Data Source: Massachusetts (MA) Registry of Vital Records and Statistics, MA Department of Public Health, 2017

Note:

- a. Ill-defined and unknown cause of mortality includes ICD-10 code R99
- b. Ill-defined conditions-signs and symptoms includes ICD-10 codes R00-R99
- c. Ill-defined conditions include both unknown cause of mortality and signs and symptoms



Figure 1: Death Rate Among Massachusetts Children Ages 0–17 Years by Age Group, 2017

In 2017, the Massachusetts death rate for children ages 0–17 years was 32.8 per 100,000 population. Children under the age of one had the highest death rate (363.7) in MA. Among children ages 1–17, children in the 15–17 age group had the highest death rate (27.7), followed by children in 1–4 (15.4) and 10–14 (10.8) age groups. Children in the 5–9 age group had the lowest death rate (9.0) in MA.



Data Sources: Death data-Massachusetts (MA) Registry of Vital Records and Statistics, MA Department of Public Health, 2017; Population estimates developed by the University of Massachusetts Donahue Institute (UMDI) in partnership with the Massachusetts Department of Public Health, Bureau of Environmental Health. Detailed population estimates at fine levels of geography are prone to estimation error. Estimated error was best described by age and population size and was used to adjust final population numbers, however a margin of error exists for all estimates.

Figure 2: Death Rate Among Massachusetts Children Ages 0–17 Years by District, 2017

The Districts of Hampden (48.6), Suffolk (46.7), Northwest (40.5), Worcester (39.1) and Berkshire (36.5) had higher death rates than overall MA child death rate (32.8). The Cape and Islands (18.2) had the lowest child death rate in MA.



Data Sources: Death data-Massachusetts (MA) Registry of Vital Records and Statistics, MA Department of Public Health, 2017; Population estimates developed by the University of Massachusetts Donahue Institute (UMDI) in partnership with the Massachusetts Department of Public Health, Bureau of Environmental Health. Detailed population estimates at fine levels of geography are prone to estimation error. Estimated error was best described by age and population size and was used to adjust final population numbers, however a margin of error exists for all estimates.

Note: Red line indicates 2017 MA Statewide child death rate/100,000 population.

- a. Includes Barnstable, Dukes, and Nantucket counties
- b. Includes Franklin and Hampshire Counties



Table 2: Deaths Among Massachusetts Children Ages 0–17 Years by Race/Ethnicity, 2017

Overall, the number of deaths is highest among White non-Hispanic children followed by Hispanic, Black non-Hispanic, Asian non-Hispanic and other, non-Hispanic/Unknown race/ ethnicity children. However, when child death rates are compared racial/ethnic disparities exist and are shown in Figures 3 and 4 below.

Race/Ethnicity Categories	<1 Year	1–4 Years	5–9 Years	10–14 Years	15–17 Years	1–17 Years	0–17 Years (Total)
White, non-Hispanic	109	25	19	24	44	112	221
Hispanic	71	7	8	10	12	37	108
Black, non-Hispanic	49	8	2	6	10	26	75
Asian, non-Hispanic	19	4	3	3	5	15	34
Other, non-Hispanic/Unknown	15	2	1	0	2	5	20
Total	263	46	33	43	73	195	458

Data Source: Death data-Massachusetts (MA) Registry of Vital Records and Statistics, MA Department of Public Health, 2017

Note: Other, Non-Hispanic/Unknown- Includes American Indian/Alaska Native, Non-Hispanic; Other, Non-Hispanic; Unknown Race/Ethnicity.



Figure 3: Death Rate Among Massachusetts Infants (<1 year) by Race/Ethnicity, 2017



Data Sources: Death data-Massachusetts (MA) Registry of Vital Records and Statistics, MA Department of Public Health, 2017; Population estimates developed by the University of Massachusetts Donahue Institute (UMDI) in partnership with the Massachusetts Department of Public Health, Bureau of Environmental Health. Detailed population estimates at fine levels of geography are prone to estimation error. Estimated error was best described by age and population size and was used to adjust final population numbers, however a margin of error exists for all estimates.



Data Sources: Death data-Massachusetts (MA) Registry of Vital Records and Statistics, MA Department of Public Health, 2017; Population estimates developed by the University of Massachusetts Donahue Institute (UMDI) in partnership with the Massachusetts Department of Public Health, Bureau of Environmental Health. Detailed population estimates at fine levels of geography are prone to estimation error. Estimated error was best described by age and population size and was used to adjust final population numbers, however a margin of error exists for all estimates.

In 2017, the MA infant death rate was 363.7 per 100,000 population. However, the Black, non-Hispanic infant death rate (751.7) was almost three times higher than the White, non-Hispanic (261.2) infant death rate in MA. Hispanic (465.3) infant death rate was also higher than the White, non-Hispanic infant death rate in MA. The Asian, non-Hispanic infant death rate (362.0) was slightly lower than the overall MA infant death rate.

Massachusetts had the lowest infant mortality rate (3.66/1,000 births) compared to all other states and to the overall US rate (5.79/1,000 births).¹ However, the inequities in the infant death rates in MA are similar to those seen at the national level.¹ Lack of access to quality health care, socioeconomic disparities and structural racism contributes to persistent racial/ ethnic disparities in birth outcomes and infant mortality.⁴ To reduce racial/ethnic disparities in infant deaths, investments in under resourced communities to address social determinants of health are necessary.³

In 2017, the death rate for MA children ages 1–17 was 14.7 per 100,000 population. However, the Black non-Hispanic child death rate (23.1) was 1.7 times higher than the White non-Hispanic child death rate (13.6). The Asian non-

Hispanic (16.8) and Hispanic (15.5) child death rates were also higher than White non-Hispanic child death rate. For overall US child death rates for ages 1–19, similar disparities exist.⁵ Similar to infant mortality, racial/ethnic differences in child mortality continue to exist in MA. Delays in seeking medical care indicating poor access to health care or lack of health insurance is one of the contributing factors for racial/ethnic differences in child mortality.⁶ In addition, parental socioeconomic status (education, income, wealth) influences the safety and wellbeing of children. Structural and systems-level changes such as residential segregation and neighborhood level socioeconomic status need to be addressed to impact children's wellbeing and reduce racial/ ethnic disparities in child mortality.²





PROGRAM ACTIVITIES, UPDATES, AND OUTCOMES

PROGRAM OVERVIEW

The Massachusetts CFR program involves the work of several groups: there are 11 local teams—one in each of the Commonwealth's judicial districts—and one state team. The local teams conduct fatality reviews that aim to understand the circumstances and causes of individual child deaths. In these reviews, local teams bring together a multidisciplinary group of state agency representatives, health care experts, and law enforcement officers to analyze birth and death records, medical records, social service case files, autopsy reports, and police records. (See Appendix B for team membership.) When a review reveals an opportunity to improve policy or practice, the local team issues a recommendation to the State Team. The State Team—comprising a similar set of stakeholders—reviews these recommendations and gathers evidence from outside experts. The State Team then works to implement local team recommendations and issues its own recommendations for consideration by the Governor and state legislature.

STATE AND LOCAL TEAM ACTIVITIES

In FY20, the State Team held six meetings—starting in July 2019 and meeting every two months thereafter. The local teams held 14 meetings, reviewing 88 fatalities and issuing 57 recommendations to the various member agencies of the State Team, the State Team as a whole, and other organizations. Appendix A lists the number of meetings, fatalities reviewed, and recommendations issued by each team.

Starting in March 2020, the COVID-19 pandemic resulted in restrictions on public gatherings in Massachusetts, requiring both the state and local teams to adjust their plans for scheduled meetings. Three local teams held modified virtual meetings where cases were discussed through a secure videoconference. The State Team also held its March and May meetings virtually.

UPDATES AND OUTCOMES

State Team Focus on Water-Related Fatalities and Suicide Prevention

Historically, the State Team has devoted its meetings to detailed reviews of individual fatalities. Beginning in FY19 and continuing into FY20, the State Team focused some of its meetings on specific causes and manners of death, exploring issues through public health data and related local team recommendations. One meeting was devoted to studying suicide data presented in FY19 and discussing opportunities for improving service coordination around suicide prevention. (For a detailed description of the reviewed suicide data, see the FY19 Annual Report.) The State Team also devoted two meetings to studying data on water-related fatalities and explored opportunities for interventions with representatives from agencies that regulate public and private pools and swimming at bodies of water. (See page 21, "State Team Focus: Unintentional Drowning Data Among Massachusetts Children Ages 0–17 years.")

State Team Review, Implementation, and Issuance of Recommendations

In FY19, local teams began to assign recommendations either to the State Team as a whole or to a State Team member that could best implement a given recommendation. The State Team addressed the 44 outstanding recommendations assigned to it by local teams; some require further input from local teams, others have been addressed by existing programs, and others are assigned to specific State Team members for further action. Six of them are included here as the State Team recommendations for the fiscal year (See page 25, "State Team Recommendations").

Individual State Team members worked with local teams, the Office of the Chief Medical Examiner (OCME), and the Department of Public Health (DPH) to implement agency-specific recommendations and action items. Highlights include:

• The Department of Children and Families (DCF) distributed water safety

Real strength has to do with helping others."

Fred Rogers Television Host messages and materials through Family Resource Centers (FRCs). These community-based FRCs are located across the Commonwealth, including at least one in each county, and provide a variety of services to all families—not just those with DCF involvement. For more information on FRCs, visit www.frcma.org.

- DPH and OCME drafted a letter on behalf of the State Team to two municipalities offering recommendations on how local governments can reduce the risk of drowning within their communities.
- DCF began a collaboration with the Suicide Prevention Program at DPH to develop a DCF protocol for responding to youth suicide risk and ideation when identified by response workers.

Continuous Quality Improvement

The State Team continued its quality improvement process aimed at identifying barriers local teams face in carrying out their mandate. Quality improvement matters raised by local teams are addressed at state meetings. In FY20, the State Team collaborated with local teams to establish a regular representative from the OCME; clarified the process for determining that death resulted from Sudden Infant Death Syndrome (SIDS) or Sudden Unexpected Infant Death (SUID); adopted a program-wide set of definitions around safe sleep terminology; and revised the case review form used by local teams.

New State Child Fatality Review Coordinator

To address previously identified program needs, the Office of the Child Advocate (OCA) provided funding to the Department of Public Health to hire the CFR program's first full-time coordinator in December 2019. In 2017 and 2018 needs assessments, OCA found that state and local team members wanted to define program roles more clearly, improve communications within the program, and receive more technical assistance. To support these goals, DPH hired the new coordinator, who has revised program guidelines to clarify the structure, purpose, and roles within the review process; disseminated regular messages to the state and local teams; provided research and analytical support around recommendation development; and arranged the logistics of the State Team meetings. Moving forward, the coordinator will guide strategic planning efforts and provide additional technical assistance to the state and local teams.

PROGRAM ACTIVITIES, UPDATES, AND OUTCOMES



Pilot Approach to Supporting Teams in Developing Evidence-Based Recommendations

In January 2020, the CFR program staff adapted its technical assistance to local teams on drafting recommendations to integrate a review of public health evidence. As local teams have submitted draft recommendations for review, CFR program staff have examined the readily available peer-reviewed literature and relayed insights on the effectiveness and feasibility of recommended interventions. Program staff anticipate that with the hiring of a full-time CFR epidemiologist, which is planned for FY21, this pilot project can be expanded to support all local teams and the State Team.

Temporary Transition to Remote Operations

Due to the COVID-19 pandemic, the state and local teams did not conduct in person reviews for part of the fiscal year. Between March and June 2020, the State Team held two meetings virtually. Due to the sensitive, identifiable information discussed during case reviews, local teams faced more complex considerations about how to proceed with their work during the pandemic. Some opted to delay scheduled meetings until FY21; others held modified virtual meetings that convened stakeholders while safeguarding case data.

STATE TEAM FOCUS: UNINTENTIONAL DROWNING AMONG MASSACHUSETTS CHILDREN AGES 0–17 YEARS

Injury deaths are divided into four categories by intent: unintentional, homicide, suicide, and injuries of undermined intent. The data shown here is for unintentional drowning deaths. Over a five-year period (2013–2017) MA had 34 unintentional drowning-related deaths among children ages 0–17 years. The highest number of deaths were in the 10– 14 age group (n=11) followed by 1–4 (n=9) and 15–17 (n=8) age groups. Across the US, one in five drowning deaths are among children 14 and younger.^{7,8} In MA, Black non-Hispanic children had the highest rate of drowning deaths (2.1 per 100,000) followed by Hispanic (0.4 per 100,000), and White non-Hispanic children (0.3 per 100,000). Black non-Hispanic children are 7 times more likely to die due to drownings compared to White, non-Hispanic children.

Nonfatal emergency department (ED) visits data from Fiscal Year 2011–2015⁹ for unintentional drowning showed a much higher rate among children in the 1–4 year age group (8.4 per 100,000) than



Data Source: Death Data-Massachusetts (MA) Registry of Vital Records and Statistics, MA Department of Public Health, 2013–2017; Population estimates developed by the University of Massachusetts Donahue Institute (UMDI) in partnership with the Massachusetts Department of Public Health, Bureau of Environmental Health. Detailed population estimates at fine levels of geography are prone to estimation error. Estimated error was best described by age and population size and was used to adjust final population numbers, however a margin of error exists for all estimates.

Note: * Suppressed rates due to counts < 5

children under 1 year (4.4 per 100,000) and children in the 5–9 year age group (4.3 per 100,000). The highest rate of hospital stays was seen in age groups 1–4 (2.2 per 100,000) followed by 5–9 (1.2 per 100,000). Combined hospital stays and emergency visits data show that Black non-Hispanic children had the highest rate of nonfatal drowning-related hospital stays and ED visits (7.7 per 100,000), followed by white non-Hispanic (5.6 per 100,000), Asian non-Hispanic (4.9 per 100,000), and Hispanic children (4.4 per 100,000).

The main factors that affect drowning risk are lack of swimming ability, lack of barriers to prevent unsupervised water access, lack of close supervision while swimming, location, failure to wear life jackets, alcohol use, and seizure disorders.⁷ Additionally, structural issues such as historical segregation of municipal

swimming pools, increased privatization of swimming lessons and pools, lack of access to swimming pools, and a lack of representation in professional swim sports lead to lower rates of learning how to swim among Black and Hispanic populations.¹⁰ At an interpersonal level, parental ability to swim influences child's ability to swim.¹¹ Prevention strategies such as use of barriers (fences), life jackets, active supervision, basic swimming skills and performing bystander cardiopulmonary resuscitation (CPR) can help reduce drowning among children.¹² However, structural issues such as access to swimming pools, availability of free or low-cost swimming lessons (in different languages) for children need to be addressed to reduce racial/ethnic disparities in drowning rates among children in communities of color.





STATE TEAM RECOMMENDATIONS

The State Team offered one structural recommendation and six policy recommendations in FY20 that address an array of problems.

Although population-level data on the burden of the problems addressed by the recommendations are not always available, all recommendations are based in part on confidential reviews of individual child fatalities. To preserve the confidentiality of that information, case details are not discussed in this report.

As a new practice starting with this year's report, the State Team will republish previous recommendations that have not been addressed through changes in policy or practice.

STRUCTURAL RECOMMENDATION

The State Team continues its support for legislation moving the responsibility for administrating the CFR program from OCME to OCA, with OCA and DPH representatives becoming designated co-chairs of the State Team.

Having OCA assume responsibility from OCME for the CFR program would allow for closer coordination between CFR activities and the OCA's work to ensure the wellbeing of vulnerable and at-risk children in the Commonwealth. State Team members and stakeholders from OCME, OCA, and DPH supported the change as proposed in the FY21 Governor's budget and in separate legislation during the 2019– 2020 legislative session. The State Team maintains its support for this change.

Safety is something you should be thinking about from the beginning, rather than after people have been hurt."

> **Sue Baker** *Injury prevention researcher*

POLICY RECOMMENDATIONS

Recommendation 1

The Commonwealth should study the feasibility of requiring that public and semi-public swimming pools have emergency service activation systems or call boxes within the pool's fence perimeter and in a form that complies with ADA accessibility guidelines.

Public pools are pools accessible "by the general public with or without the payment of a fee." Semi-public pools are pools "on the premises of, or used in connection with a hotel..., apartment house, condominium, country club, youth club, school, camp, or similar establishment." Although the Massachusetts sanitation code currently requires such pools to have "convenient, immediate and toll-free communication with emergency medical services," such communication options are often too difficult to use in an emergent situation. The State Team recommends that the General Court explore a requirement for such pools to have emergency callboxes like "Blue Light" boxes frequently seen on university and hospital campuses-that are immediately adjacent to the pool and directly connect callers to emergency services.

Recommendation 2

The Commonwealth should work with providers to increase cell phone coverage in underserved areas, particularly along roadways.

Immediate access to emergency medical services is critical to preventing deaths from medical emergencies: the sooner first responders can reach a person in crisis, the sooner they can provide needed care and transportation, and the better the outcome for the patient.^{13,14} In particular, using a cell phone to call for emergency services during a medical crisis can facilitate this process, leading to shorter response times and improved outcomes.^{15,16} Unreliable cell phone coverage can hinder such calls; Massachusetts has a number of "dead zones" that prevent communication during an emergent situation and have resulted in delayed emergency medical care. A 2010 analysis of Massachusetts cell phone service found that "zero coverage areas are prevalent across the Berkshire and Pioneer Valley regions."¹⁷ In subsequent years, coverage has improved, but remains unreliable in many places.¹⁸⁻²² The State Team recommends remedying this issue by improving cell coverage in underserved areas, with a focus on the Commonwealth's roads due to challenges faced by those involved in car crashes in rural areas.

Recommendation 3

In order to practice, licensed mental health clinicians and social workers should be required to have continued education/training on suicidality, screening for suicide risk, and suicide prevention strategies.

Social work and mental health professionals—including psychologists, psychiatrists, and licensed mental health counselors—are not required to have training and education specifically related to suicide. (For an overview of relevant professions, see the Division of Professional Licensure's Licensed Mental Health Professionals Consumer Fact Sheet.) Although these professionals are tasked with addressing an array of mental health issues that individuals face, both the finality and preventability of suicide commands special attention. 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.²³ The State Team previously issued this recommendation in its FY19 Annual <u>Report</u>.

Recommendation 4

Commonwealth executive branch agencies should collect gender identity in their data sets.

Gender identity is an important characteristic for public health agencies to track. Such data can help agencies better serve transgender individuals with culturally responsive, and patient- and family-centered care; that data can also help agencies identify and ameliorate health disparities across the transgender population.^{24,25} Compared with their cisgender peers, transgender youth report generally poorer health and lower rates of preventive health care utilization, and are at higher risk for depressive disorders, suicidality, and bullying and violence victimization.²⁶⁻²⁹ Currently, EOHHS agencies lack complete data on the gender identity of children served. Accordingly, the State Team recommends EOHHS collect this data consistently across the Secretariat. The data should be collected in a manner that would not put children served by EOHHS agencies at risk and that would protect against disclosure of that data to a child's parents, guardians, or caregivers. Some EOHHS agencies have data standards around sexual orientation and gender identity that may be of use in implementing this recommendation.

STATE TEAM RECOMMENDATIONS

Recommendation 5

In order to better coordinate care for children across state providers, all EOHHS agencies should use a standard confidential information sharing mechanism for client case records.

Some Massachusetts children receive services from a number of agencies within the Executive Office of Health and Human Services. Recordkeeping systems vary greatly across individual programs and agencies, and there is no standardized mechanism for tracking children's interactions across the secretariat. Such systems have shown great promise in improving outcomes in healthcare settings, reducing documentation time, medication errors, and adverse drug effects and improving adherence to clinical guidelines.³⁰ Furthermore, other states have successfully implemented systems that integrate data on an individual child from across agency silos.³¹ EOHHS should explore the possibility of sharing data and tracking interactions across the secretariat whenever applicable laws governing privacy allow for the sharing of information.

Recommendation 6

Adults operating a motorboat or other motorized personal watercraft in Massachusetts should be required to take a boating safety course.

Between 2015 and 2019, there were 45 boating-related deaths in Massachusetts.³² However, Massachusetts is one of the few states that does not require adults to take a boating safety course as a requirement for operating a motorboat, jet ski, or other motorized personal watercraft.³³ Although such legislation has been pending in Massachusetts for over ten years, it has never been enacted. The State Team notes that it would be most practical to have incremental implementation of such a law that offers boaters a grace period during which they can complete the education requirement. Similar strategies have been successful in New Hampshire, Connecticut, and New York.



APPENDIX A: MAP OF LOCAL TEAM MEETINGS, CASES, AND RECOMMENDATION









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APPENDIX B: FY20 STATE AND LOCAL TEAM MEMBERSHIP

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 Health & Hospital Association
- Chief Justice of the Juvenile Division of the Trial Court, or designee
- The Child Advocate, or designee
- Other individuals with information relevant to cases under review

LOCAL TEAMS

- District Attorney of the Judicial District (Chair)
- Chief Justice of the Juvenile Division of the 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 C: MEMBER VOTES ON THE APPROVAL OF THE FY20 **STATE TEAM ANNUAL REPORT AND RECOMMENDATIONS**

Agency represented	Annual Report	Structural Recommendation	1
Office of the Chief Medical Examiner	Yes	Yes	Yes
Dept. of Public Health	Yes	Yes	Yes
Dept. of Children and Families	Yes	Yes	Yes
Dept. of Developmental Services	Absent	Absent	Absent
Dept. of Early Education and Care	Yes	Yes	Yes
Dept. of Elementary and Secondary Education	Absent	Absent	Absent
Dept. of Mental Health	Absent	Absent	Absent
Dept. of Youth Services	Yes	Yes	Yes
Juvenile Division of the Trial Court	Vacant	Vacant	Vacant
Mass. Center for Unexpected Infant and Child Death	Yes	Yes	Yes
Mass. chapter of the American Academy of Pediatrics	Yes	Yes	Yes
Mass. Chiefs of Police Associastion	Absent	Absent	Absent
Mass. District Attorneys Association	Yes	Abstain	Yes
Mass. Health & Hospital Association	Yes	Yes	Yes
Mass. State Police	Yes	Yes	Yes
Office of the Attorney General	Yes	Yes	Yes
Office of the Child Advocate	Yes	Yes	Yes

Policy Recommendations							
2	3	4	5	6			
Yes	Yes	Yes	Yes	Yes			
Yes	Yes	Yes	Yes	Yes			
Yes	Yes	Yes	Yes	Yes			
: Absent	Absent	Absent	Absent	Absent			
Yes	Yes	Yes	Yes	Yes			
: Absent	Absent	Absent	Absent	Absent			
: Absent	Absent	Absent	Absent	Absent			
Yes	Yes	Yes	Yes	Yes			
Vacant	Vacant	Vacant	Vacant	Vacant			
Yes	Yes	Yes	Yes	Yes			
Yes	Yes	Yes	Yes	Yes			
: Absent	Absent	Absent	Absent	Absent			
Yes	Yes	Yes	Yes	Yes			
Yes	Yes	Yes	Yes	Yes			
Yes	Yes	Yes	Yes	Yes			
Yes	Yes	Yes	Yes	Yes			
Yes	Yes	Yes	Yes	Yes			

ENDNOTES

- Rogers RG, Lawrence EM, Hummer RA, Tilstra AM. Racial/Ethnic Differences in Early-Life Mortality in the United States. Biodemography Soc Biol. 2017;63(3):189-205. doi:10.1080/194855 65.2017.1281100
- Kochanek KD, Murphy SL, Xu JQ, Arias
 E. Deaths: Final Data for 2017. National Vital Statistics Reports: Vol. 68 No. 9. National Center for Health Statistics; 2019:77.
- Report of the Secretary's Advisory Committee on Infant Mortality: Recommendations for HHS Action and Framework for a National Strategy.; 2013. Accessed July 2, 2020. https:// www.hrsa.gov/sites/default/files/hrsa/ advisory-committees/infant-mortality/ reports/final-recommendations.pdf
- Infant, Child, and Teen Mortality. Child Trends. Published 2019. Accessed July 2, 2020. https://www.childtrends. org/indicators/infant-child-and-teenmortality

- Howell E, Decker S, Hogan S, Yemane A, Foster J. Declining Child Mortality and Continuing Racial Disparities in the Era of the Medicaid and SCHIP Insurance Coverage Expansions. Am J Public Health. 2010;100(12):2500-2506. doi:10.2105/AJPH.2009.184622
- National Center for Injury Prevention and Control. Unintentional Drowning: Get the Facts. Published February 5, 2019. Accessed July 2, 2020. https://www.cdc.gov/ homeandrecreationalsafety/watersafety/waterinjuries-factsheet.html
- National Center for Injury Prevention and Control. WISQARS. Published July 1, 2020. Accessed July 2, 2020. https:// www.cdc.gov/injury/wisqars/index.html
- The Center for Health Information and Analysis, Fiscal Year: October 1, 2011-September 30, 2015.
- Mondick L. Why are Black Youth at Highest Risk for Drowning? YMCA.
 Published August 31, 2017. Accessed July 2, 2020. https://www.ymca.net/ summer-buzz/highest-risk-for-drowning
- 11. Pharr J, Irwin C, Layne T, Irwin R.Predictors of Swimming Ability among Children and Adolescents in the United States. Sports. 2018;6(1):17. doi:10.3390/sports6010017

- 12. Gilchrist J, Parker EM. Racial/Ethnic
 Disparities in Fatal Unintentional
 Drowning Among Persons Aged ≤29
 Years United States, 1999–2010.
 Morb Mortal Wkly Rep. 2014;63(19):20.
- 13. Grill E, Reinhardt JD, Stucki G.
 Prevention, Tertiary. In: Kirch W,
 ed. Encyclopedia of Public Health.
 Springer Netherlands; 2008:1149-1152.
 doi:10.1007/978-1-4020-5614-7_2762
- 14. Harmsen AMK, Giannakopoulos GF, Moerbeek PR, Jansma EP, Bonjer
 HJ, Bloemers FW. The influence of prehospital time on trauma patients outcome: a systematic review. Injury.
 2015;46(4):602-609. doi:10.1016/j. injury.2015.01.008
- 15. Wu O, Briggs A, Kemp T, et al.
 Mobile Phone Use for Contacting Emergency Services in Life-threatening Circumstances. J Emerg Med.
 2012;42(3):291-298.e3. doi:10.1016/j.
 jemermed.2011.02.022
- 16. Gossage J, Frith D, Carrell T, Damiani M, Terris J, Burnand K. Mobile Phones, in Combination with a Computer Locator System, Improve the Response Times of Emergency Medical Services in Central London. Ann R Coll Surg Engl. 2008;90(2):113-116. doi:10.1308/003588408X242079

- 17. Massachusetts Department of Telecommunications and Cable.
 Competition Status Report.; 2010.
 Accessed June 26, 2020. https://www. mass.gov/files/documents/2016/07/vl/ competitionreport-combined.pdf
- 18. Wyner M. Cost of improved Weston cell phone service could be \$2.4M - News -The Weston Town Crier - Weston, MA. Weston Town Crier. https://weston. wickedlocal.com/news/20190118/costof-improved-weston-cell-phone-servicecould-be-24m. Published January 18, 2019. Accessed June 26, 2020.
- 19. Newberry L. Proposed cell tower could fix Agawam's wireless "dead zone." MassLive. Published October 7, 2014. Accessed June 26, 2020. https://www. masslive.com/news/2014/10/agawam_ one_step_closer_to_bett.html
- 20. Dravis S. Residents Turn Out to Question Williamstown Cell Tower Proposal. iBerkshires.com. Published November 20, 2017. Accessed June 26, 2020. https://www.iberkshires.com/ story/56086/Residents-Turn-Out-to-Question-Williamstown-Cell-Tower-Proposal.html

ENDNOTES

- 21. Drane A. Targeting mobile service dead zones, Verizon pitching new cell tower to Pittsfield ZBA. The Berkshire Eagle. https://www.berkshireeagle.com/ stories/targeting-mobile-service-deadzones-verizon-pitching-new-pittsfieldcell-tower-to-zba,523784. Published November 5, 2017. Accessed June 26, 2020.
- 22. Hartman K. Poor cell phone coverage causes problems for Connecticut's Northwest Corner. The Register Citizen. https://www.registercitizen.com/news/ article/Poor-cell-phone-coveragecauses-problems-for-12018450.php. Published January 9, 2014. Accessed June 26, 2020.
- 23. Massachusetts Department of Public Health Injury Surveillance Program. Massachusetts Violent Death Reporting System FINAL2003_2015. Published online July 2017.
- 24. Joint Commission. Advancing effective communication, cultural competence, and patient-and family-centered care for the lesbian, gay, bisexual, and transgender (LGBT) community: A field guide. Oak Brook IL Jt Comm. Published online 2011.
- 25. Graham R, Berkowitz B, Blum R, et al. The health of lesbian, gay, bisexual, and transgender people: Building a foundation for better understanding. Wash DC Inst Med. 2011;10:13128.

- 26. Rider GN, McMorris BJ, Gower AL, Coleman E, Eisenberg ME. Health and Care Utilization of Transgender and Gender Nonconforming Youth: A Population-Based Study. Pediatrics. 2018;141(3). doi:10.1542/peds.2017-1683
- 27. Becerra-Culqui TA, Liu Y, Nash R, et al. Mental Health of Transgender and Gender Nonconforming Youth Compared With Their Peers. Pediatrics.
 2018;141(5). doi:10.1542/peds.2017-3845
- 28. Thoma BC, Salk RH, Choukas-Bradley S, Goldstein TR, Levine MD, Marshal MP. Suicidality Disparities Between Transgender and Cisgender Adolescents. Pediatrics. 2019;144(5). doi:10.1542/peds.2019-1183
- 29. Stotzer RL. Violence against transgender people: A review of United States data. Aggress Violent Behav. 2009;14(3):170-179. doi:10.1016/j.avb.2009.01.006
- 30. Campanella P, Lovato E, Marone C, et al. The impact of electronic health records on healthcare quality: a systematic review and meta-analysis. Eur J Public Health. 2016;26(1):60-64. doi:10.1093/ eurpub/ckv122

- 31. National Conference of State Legislatures. Child Welfare Information Systems. Accessed June 9, 2020. https://www.ncsl.org/research/humanservices/child-welfare-informationsystems.aspx
- 32.U.S. Coast Guard Office of Auxiliary and Boating Safety. 2019 Recreational Boating Statistics.; 2020.
- 33. National Association of State Boating Law Administrators. State Boating Laws. Published 2007. Accessed June 25, 2020. https://www.nasbla.org/ nasblamain/nasbla-resources/stateboating-laws

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ACKNOWLEDGEMENT

We would like 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.

MASSACHUSETTS CHILD FATALITY REVIEW ANNUAL REPORT

State Fiscal Year 2020