

FY
21

MASSACHUSETTS

Child Fatality Review

Annual Report



Preface

The loss of a child is devastating to families and can have a profound impact on communities. Since 2001, the Massachusetts Child Fatality Review (CFR) program has tried to learn from such deaths and find ways to protect the health and safety of children in the future. To accomplish that goal, the CFR program convenes multidisciplinary teams of health practitioners and government officials to conduct comprehensive reviews of the circumstances surrounding child deaths. Those reviews help identify changes in policy and practice that can prevent similar deaths. This Fiscal Year 2021 (FY21) Annual Report of the State CFR Team describes program findings and activities from July 1, 2020 through June 30, 2021 and is released in compliance with the program's authorizing statute (M.G.L. Chapter 38 § 2A).

This report and the activities of the State Team would not be possible without financial support from the Office of the Child Advocate to the Department of Public Health under Interdepartmental Service Agreement # ISAOCA09300100DPH21A. With their contributions and input, the CFR program is developing more timely reports with deeper explorations of the causes and prevention of child fatalities.

The State Team is also immensely grateful to the local teams who carry out the psychologically taxing review of individual child fatalities. Child fatality review is not an easy task; without exception, local teams conduct professional, thorough, and thoughtful reviews that are foundational to the State Team's work.

Finally, the State Team would like to thank the many partners who helped gather data and inform discussions about child fatality, including the Injury Surveillance Program and the Center for Birth Defects Research and Prevention at DPH, as well as representatives from the Department of Transportation, the Executive Office of Public Safety and Security, and WalkBoston.

About the Child Fatality Review Program

The Massachusetts CFR program convenes a multidisciplinary group of state agency representatives, health care experts, and law enforcement officers who analyze birth and death records, medical records, social service case files, autopsy reports, and police records. The program comprises 11 local teams—one in each of the Commonwealth's judicial districts—and the State Team with 16 seats. The local teams conduct individual case review of child fatalities that aim to understand the circumstances and causes of child deaths. (For team membership, see Appendix C: FY21 State and Local Team Membership, page 3.) When a review identifies an opportunity to improve policy or practice, the local team issues a recommendation to the State Team. The State Team reviews these recommendations and gathers evidence from outside experts. The State Team then works with its members to change policies and practices under their purview when appropriate, and issues recommendations for consideration by the Governor and state legislature.

Executive Summary

Massachusetts is a national leader in safeguarding the health and welfare of children, as demonstrated by declining child fatality rates and low infant mortality rates. In 2019, the Massachusetts infant mortality rate (IMR) was 3.6 per 1,000 live births, one of the lowest in the country; the national IMR was 5.6 per 1,000 live births. Deaths among MA children—birth to age 17—have consistently declined year over year, from 648 in 2000 to 501 in 2010 and 389 in 2020.^a

Social determinants of health refer to the social, economic, behavioral, and physical factors that people experience where they work, live, and play. Those factors have important effects on people's health.

For more information, see DPH's reports on [Social Determinants of Health Data](#).

Still, the burden of child fatalities is notable and warrants action. On average for combined years 2018-2020, 411 children and infants died each year. Further, substantial inequities exist in infant and child fatalities. Boys, children of color, and children and infants living in urban centers are all at higher risk of fatality. These inequities are not rooted in biological or genetic differences between races and ethnicities, nor are they inherent to other aspects of a child's or infant's race or ethnicity. Rather, they are linked to social determinants of health, including factors like socioeconomic status and access to health care. Future analysis conducted by the CFR program will explore these inequities more closely and develop related recommendations.

The leading causes of death for children were congenital malformations, short gestation/low birth weight, and unintentional injuries such as motor vehicle crashes, drowning, poisoning, and falls. While fatalities from gestational malformations and short gestation/low birth weight typically occur within the first year or three years of life, those causes are listed as leading causes of death for 0-17 year olds because 65% of all child fatalities are among infants under the age of 1.

The State Team is issuing two recommendations in this report based on its in-depth examination of issues around birth defects and motor vehicle crashes. Neural tube defects (NTDs) are birth defects commonly known to cause infant fatalities. In many cases, NTDs can be prevented if a pregnant person ingests enough folic acid. In 1996, the Food and Drug Administration (FDA) issued a rule requiring grain manufacturers to fortify certain products with folic acid. NTDs decreased between 19% and 32% after the implementation of the rule. However, corn masa, used in many Latin American dishes, is not included under the regulations. Currently, Hispanic infants have some of the highest rates of NTDs in Massachusetts and nationally. **Massachusetts policymakers should petition the FDA to reconsider the inclusion of corn masa in their fortification requirements, and work to create incentives for corn masa manufacturers to fortify their products, for food manufacturers to use fortified corn masa**

^aUnless otherwise noted, rate refers to rate per 100,000 population

in their products, and for retailers to stock products that contain fortified corn masa.

Motor vehicle crashes are the most frequent unintentional injury. Children between the ages of 14-17 and 0-4 years old are particularly affected by car crashes. A substantial portion of children who die in car crashes are unbelted or incorrectly belted. **Massachusetts policymakers should implement an ethical and equitable primary seat belt law, alongside updated, linguistically appropriate, culturally responsive, and accessible education campaigns about the importance of seat belt use geared towards audiences with the lowest seat belt use rates and highest unbelted crash rates, and improved access to car seats and installation services.**

The following report provides additional data and justifications for these recommendations. Implementation of these recommendations could accelerate declines in child fatalities, saving lives and protecting families from unnecessary trauma and grief.







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THE STATE OF CHILD FATALITIES IN MASSACHUSETTS

The number of fatalities among Massachusetts children ages 0-17 decreased from 449 in 2018 to 389 in 2020.^b Though these data are preliminary, they align with a lengthy trend of declining child fatality rates dating back to 2000. While the overall child death rate^c for all children declined from 32.2 in 2018 to 28.1 in 2020, children under 1 year old and youth ages 15-17 saw increases in fatality rates. The infant fatality rate increased from 353 in 2019 to 364.1 in 2020, and the 15-17-year-old fatality rate went up from 17.9 in 2018 to 22.1 in 2020.

For combined years 2018-2020, the Massachusetts average death rate for children ages 0-17 was 29.7. Children under the age of 1 had the highest average death rate at 373.3 followed by 15-17 year-olds (18.0) and 1-4 year-olds (12.9). Children ages 5-9 and 10-14 years had similar death rates at 8.0 and 7.1 respectively.

Infants identified as male at birth are at higher risk for infant fatality. For the 1,233 child and infant fatalities in which sex was identified at birth, 44% were female (n=539) and 56% were male (n=694) between 2018 and 2020. The death rate was 1.2 times as high for male children compared to female children. Inequity among the sexes is deeper in the 15-17 age group, where the death rate for male children was 1.8 times as high when compared to females. The higher 15-17-year-old male death rate is mostly driven by homicides. Similarly, in the U.S., the death rate for male children was higher than female children's death rate across all age groups.¹

The overall child death rate for Massachusetts from 2018-2020 was 29.7. During the same period, Suffolk, Berkshire, Hampden, Northwestern, Bristol, Worcester and Cape and Islands districts^d all experienced higher than state average child fatality death rates. By contrast, the Essex, Plymouth, Middlesex, and Norfolk districts had lower child death rates than the state, with Norfolk having the overall lowest average child death rate.

^b Massachusetts (MA) Department of Public Health, Registry of Vital Records and Statistics, 2018-2020, preliminary data files. Please be advised that these data are preliminary and subject to change. Raw preliminary data may be incomplete or inaccurate, have not been fully verified, and revisions are likely to occur following the production of these data. The Department strongly cautions you regarding the accuracy of statistical analyses based on preliminary data and particularly with regard to the small numbers of events

^c Unless otherwise noted, rate refers to rate per 100,000 population

^d Districts refers to the Local Child Fatality Review Team districts, which are coordinated through each District Attorney's office in Massachusetts. For additional information, visit: www.mass.gov/directory-of-district-attorney-offices

Figure 1: Death Rate Among Massachusetts Children Ages 0-17 Years, Combined Years 2018-2020

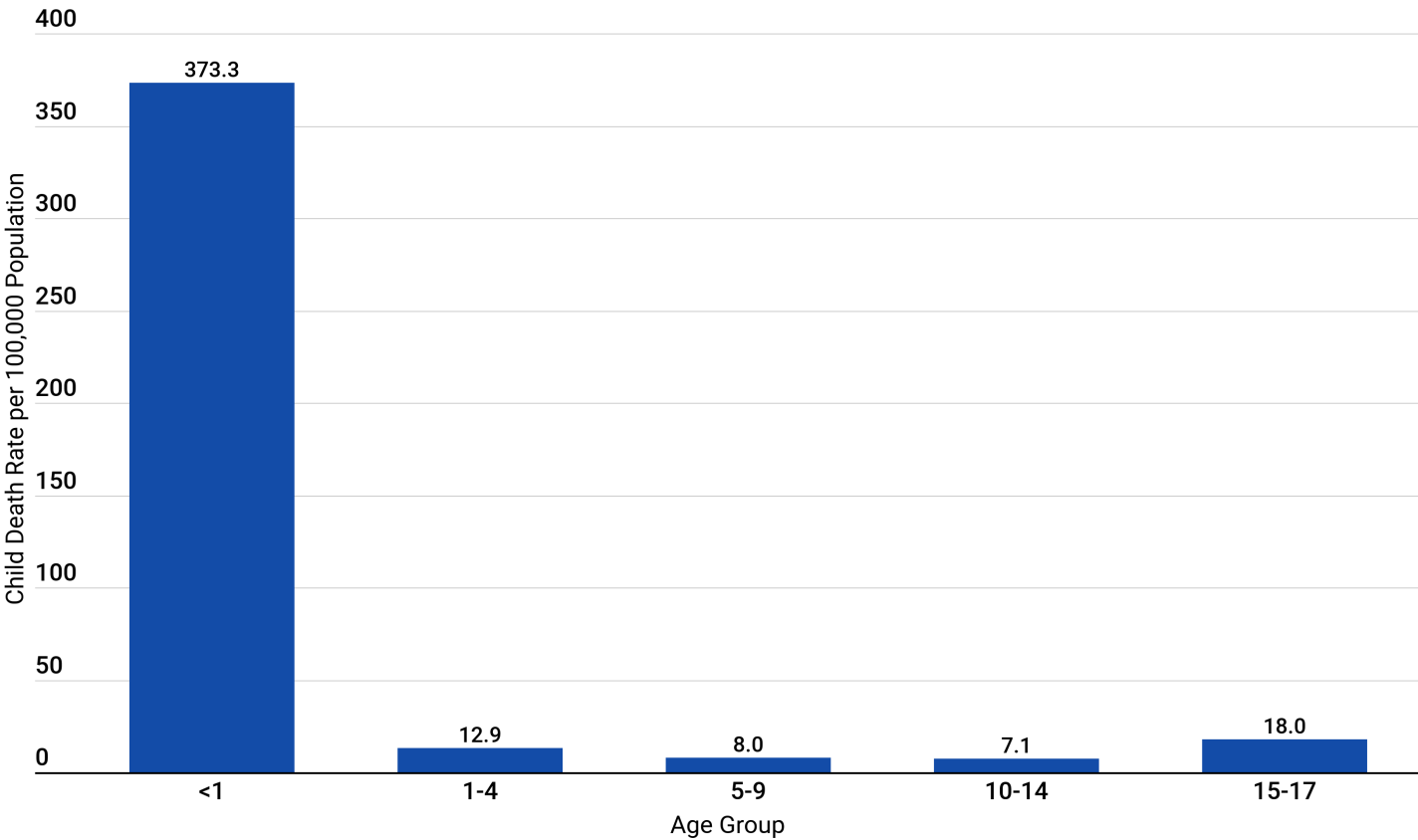


Figure 1 Data Sources: Death data- Massachusetts (MA) Department of Public Health, Registry of Vital Records and Statistics, 2018-2020, preliminary data files. Please be advised that these data are preliminary and subject to change. Raw preliminary data may be incomplete or inaccurate, have not been fully verified, and revisions are likely to occur following the production of these data. The Department strongly cautions you regarding the accuracy of statistical analyses based on preliminary data and particularly with regard to small numbers of events. 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 by District^e, Combined Years 2018-2020

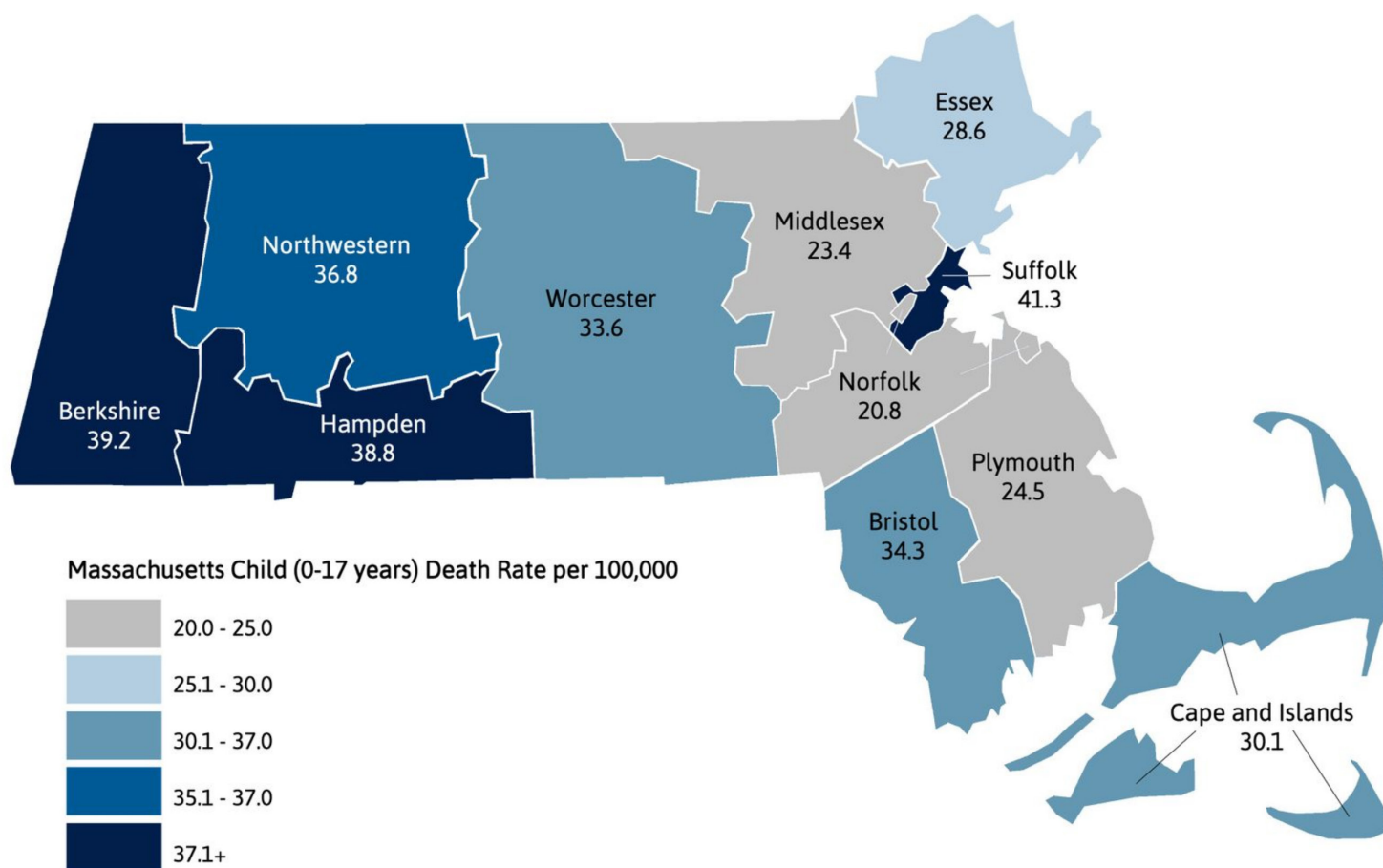


Figure 2 Data Sources: Death data - Massachusetts (MA) Department of Public Health, Registry of Vital Records and Statistics, 2018-2020, preliminary data files. Please be advised that these data are preliminary and subject to change. Raw preliminary data may be incomplete or inaccurate, have not been fully verified, and revisions are likely to occur following the production of these data. The Department strongly cautions you regarding the accuracy of statistical analyses based on preliminary data and particularly with regard to small numbers of events. 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; Geographic data- MassGIS (Bureau of Geographic Information), Commonwealth of Massachusetts EOTSS.

To explore those death rates more closely, the team examined inequities in death rates between race and ethnicities in each of the 11 local CFR team districts using older and finalized death data from 2015-2017. Some districts did not have enough data to establish reliable rates for comparison. Six districts had enough data to conduct the analysis. Patterns for the all-age child death rates were predominantly driven by infant death data because they represent 65% of all deaths in 0-17 age group.

Of the six districts with enough 2015-2017 data to make comparisons, Worcester and Essex had the deepest inequities between racial groups in all-age child death rates (Table 1). For the Worcester district, the largest

^eCape and Islands includes Barnstable, Dukes, and Nantucket counties; Northwestern includes Franklin and Hampshire counties.

differences were between Black, non-Hispanic (100.7) and White, non-Hispanic children (35.3); and between Black, non-Hispanic and Hispanic children (44.6). The Essex district had the largest inequity in all-age child mortality between Hispanic (45.5) and White, non-Hispanic (20.7) children. The smallest inequities in racial and ethnic differences were found in Suffolk and Middlesex. The Suffolk district had the smallest differences in all-age child death rates between Black, non-Hispanic (66.9) and White, non-Hispanic (34.5) children; and between Black, non-Hispanic and Hispanic children (53.3). The Middlesex district had the smallest difference between Hispanic (32.9) and White, non-Hispanic (24.3) children. It is important to note that the available data prevented most comparisons involving Asian and Pacific Islander, non-Hispanic children. In the one district with sufficient data—Middlesex—the all-age child death rates for that group were very close to those of White, non-Hispanic children and were lower than both Hispanic and Black, non-Hispanic death rates.

Table 1: Death Rate Comparisons Among Massachusetts Children Ages 0-17 by District and Race/Ethnicity, Combined Years 2015-2017

District	Black, non-Hispanic	Hispanic	White, non-Hispanic	Asian/Pacific Islander, non-Hispanic ^f
Worcester	100.7	44.6	35.3	--
Essex	--	45.5	20.7	--
Suffolk	66.9	53.3	34.5	--
Middlesex	61.0	32.9	24.3	25.9
Northwestern	--	--	37.4	--
Berkshire	--	--	37.9	--
Bristol	--	--	22.8	--
Hampden	81.5	43.4	31.7	--
Norfolk	67.5	--	21.7	--
Plymouth	--	--	16.2	--

Table 1 Data Sources: Death data-Massachusetts (MA) Registry of Vital Records and Statistics, MA Department of Public Health, 2015-2017; 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.

The leading causes of death for 0-17-year-olds in 2018-2020 was congenital malformations, short gestation/low birth weight, and unintentional injuries such as motor-vehicle crashes, drowning, poisoning, SUID and falls. There was one child death caused by COVID-19 in 2020. Infant deaths accounted for about 65% (n=807) of all child deaths for combined years 2018-2020. Because the majority of deaths among children aged 0-17 years are infants—aged < 1 year—causes of death for infants overshadowed the causes of death for children ages 1-17-years in analysis. This warranted analyzing the two age groups separately in this report.

^fOnly the Middlesex District had stable rates for Asian / Pacific Islander children ages 0-17. All other districts lacked sufficient data for calculating stable rates.

Table 2: Top 5 Leading Causes of Death Among Massachusetts Children by Age Group, Combined Years 2018-2020

Rank	<1 Years	1-4 Years	5-9 Years	10-14 Years	15-17 Years	0-17 Years (Total)
1	Short gestation/ low birth weight (n=168)	Unintentional injuries (n=21)	Unintentional injuries (n=18)	Cancer (n=23)	Unintentional injuries (n=42)	Congenital malformations (n=197)
2	Congenital malformations (n=165)	Congenital malformations (n=18)	Cancer (n=15)	Unintentional injuries (n=13)	Suicide (n=36)	Short gestation/ low birth weight (n=168)
3	Sudden Infant Death Syndrome (SIDS) [§] (n=67)	Cancer (n=12)	Homicide (n=7)	Suicide (n=9)	Homicide (n=17)	Unintentional injuries (n=99)
4	Pregnancy complications (n=49)	Other infections (n=8)	Congenital malformations (n=6)	Ill-defined conditions-signs and symptoms (n=5)	Cancer (n=12)	Sudden Infant Death Syndrome (SIDS) (n=67)
5	Complications of placenta (n=43)	Ill-defined conditions-signs and symptoms ^h (n=6)	Heart disease (n=5)	Congenital malformations (n=4)	Congenital malformations (n=4) Heart disease (n=4)	Cancer (n=63)
All other causes	315	50	36	30	27	641
Total	807	115	87	84	142	1235

Table 2 Data Source: Massachusetts (MA) Department of Public Health, Registry of Vital Records and Statistics, 2018-2020, preliminary data files. Please be advised that these data are preliminary and subject to change. Raw preliminary data may be incomplete or inaccurate, have not been fully verified, and revisions are likely to occur following the production of these data. The Department strongly cautions you regarding the accuracy of statistical analyses based on preliminary data and particularly regarding small numbers of events.

[§]Sudden Unexpected Infant Death (SUID) includes SIDS (leading cause for SUID), accidental suffocation and ill-defined conditions.

^hIll-defined conditions-signs and symptoms includes ICD -10 codes R00-R99.



Infant Deaths in Massachusetts, 2018-2020

In 2019, Massachusetts' infant mortality rate was 3.6/1,000 live births^{i,2}, one of the lowest in the United States and substantially lower than the national infant mortality rate, which was 5.6/1,000 live births in the same year.³ Still, between 2018 and 2020, a total of 807 infants died in Massachusetts, representing 65% of all child fatalities and resulting in immeasurable grief for families.

The top three leading causes of infant death in Massachusetts for combined years 2018-2020 were short gestation/low birth weight, congenital malformations, and sudden infant death syndrome (SIDS). The leading causes of death in Massachusetts are similar to national trends.⁴ Short gestation/low birth weight accounted for about a fifth (21%, n=168) of all Massachusetts infant deaths, and is the leading cause of infant death in Massachusetts, and second leading cause of death nationally.⁵ The number of these deaths decreased from 67 in 2018 to 45 in 2020.

Table 3: Top 5 Leading Causes of Death Among Massachusetts Infants (<1 year), 2018-2020

Rank	2018	2019	2020	2018-2020 combined
1	Short gestation/low birth weight (n=67)	Congenital malformations (n=56)	Congenital malformations (n=48)	Short gestation/low birth weight (n=168)
2	Congenital malformations (n=61)	Short gestation/low birth weight (n=56)	Short gestation/low birth weight (n=45)	Congenital malformations (n=165)
3	Sudden Infant Death Syndrome (SIDS) ^j (n=23)	SIDS (n=21)	SIDS (n=23)	SIDS (n=67)
4	Pregnancy complications (n=19)	Complications of placenta (n=19)	Pregnancy complications (n=17)	Pregnancy complications (n=49)
5	Complications of placenta (n=13)	Pregnancy complications (n=13)	Complications of placenta (n=11) Neonatal hemorrhage (n=11)	Complications of placenta (n=43)
All other causes	108	89	107	315
Total	291	254	262	807

Table 3 Data Source: Massachusetts (MA) Department of Public Health, Registry of Vital Records and Statistics, 2018-2020, preliminary data files. Please be advised that these data are preliminary and subject to change. Raw preliminary data may be incomplete or inaccurate, have not been fully verified, and revisions are likely to occur following the production of these data. The Department strongly cautions you regarding the accuracy of statistical analyses based on preliminary data and particularly regarding small numbers of events.

ⁱ Infant mortality rates are calculated as per 1,000 live births, which has a different denominator than standard mortality rates. Live births are defined by the CDC as “the complete expulsion or extraction from its mother of a product of human conception, irrespective of the duration of pregnancy, which, after such expulsion or extraction, breathes, or shows any other evidence of life such as beating of the heart, pulsation of the umbilical cord, or definite movement of voluntary muscles, whether or not the umbilical cord has been cut or the placenta is attached. Heartbeats are to be distinguished from transient cardiac contractions; respirations are to be distinguished from fleeting respiratory efforts or gasps.” This definition excludes situations such as stillbirths (CDC 1997, “State Definitions and Reporting Requirements for Live Births, Fetal Deaths, and Induced Terminations of Pregnancy”).

^j Sudden Unexpected Infant Death (SUID) includes SIDS (leading cause for SUID), accidental suffocation and ill-defined conditions.

For combined years 2018-2020 and for each individual year, SIDS was the third leading cause of death among infants in Massachusetts. Nationally, SIDS was the fourth leading cause of death among infants in 2019.⁵

Even though Massachusetts has one of the lowest infant mortality rate in the U.S., there are deep inequities in the infant death rates in Massachusetts, similar to those seen at the national level.⁶ At a rate of 822.9, the Black, non-Hispanic infant death rate was 2.8 times as high when compared to the White, non-Hispanic infant death rate in Massachusetts. The Hispanic infant death rate was 1.4 times as high when compared to the White, non-Hispanic rate. The Asian/Pacific Islander, non-Hispanic infant death rate was 242.9, which is the lowest of the race and ethnicities explored in this analysis. These inequities can be attributed to lack of access to quality health care, socioeconomic disparities, and structural racism.⁷ These inequities are not rooted in biological or genetic differences between races and ethnicities, nor are they inherent to other aspects of an infant’s race or ethnicity.⁷ To reduce racial and ethnic inequities in infant deaths, under resourced communities can benefit greatly from efforts to address social determinants of health.³

Figure 3: Death Rate Among Massachusetts Infants (< 1 year) by Race/Ethnicity, Combined Years 2018-2020

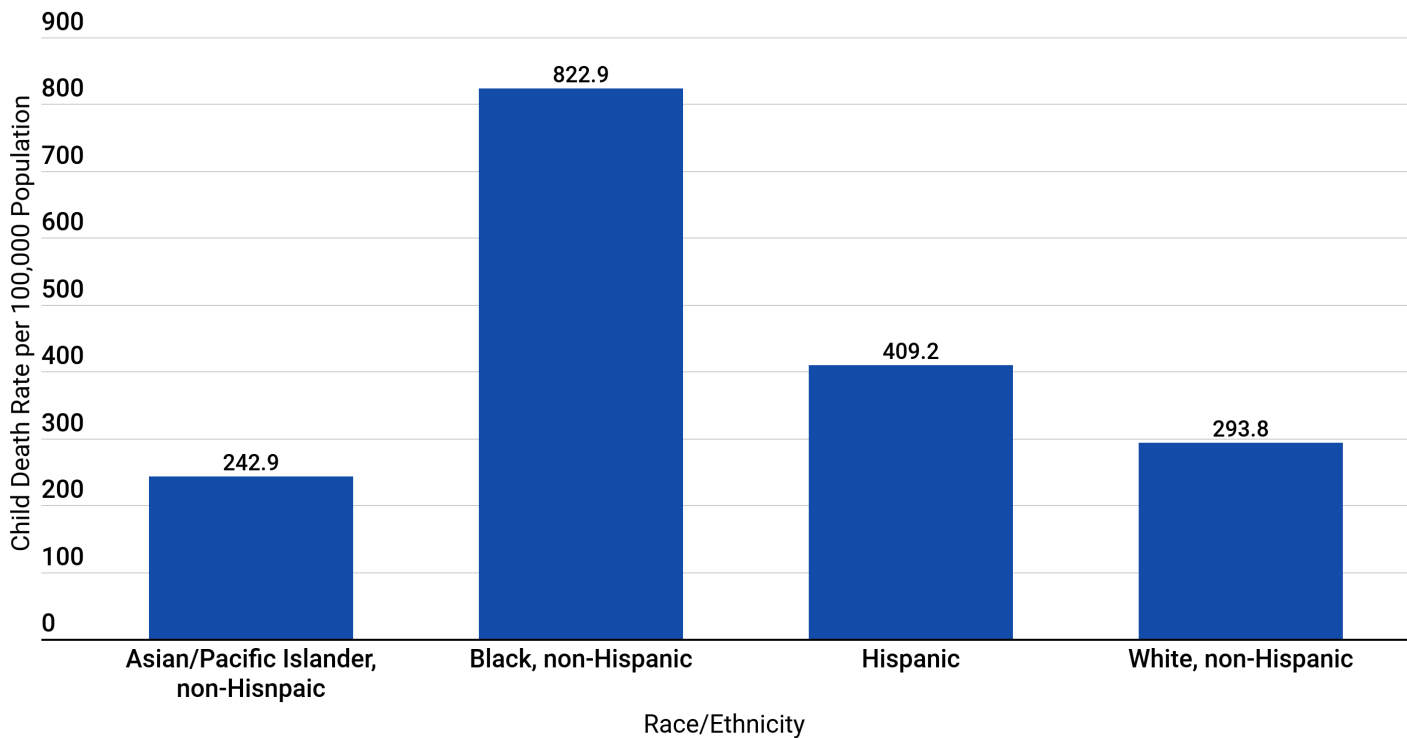


Figure 3 Data Sources: Death data- Massachusetts (MA) Department of Public Health, Registry of Vital Records and Statistics, 2018-2020, preliminary data files. Please be advised that these data are preliminary and subject to change. Raw preliminary data may be incomplete or inaccurate, have not been fully verified, and revisions are likely to occur following the production of these data. The Department strongly cautions you regarding the accuracy of statistical analyses based on preliminary data and particularly with regard to small numbers of events. 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 4: Death Rate Among Massachusetts Infants (< 1 year) by District^k, Combined Years 2018-2020

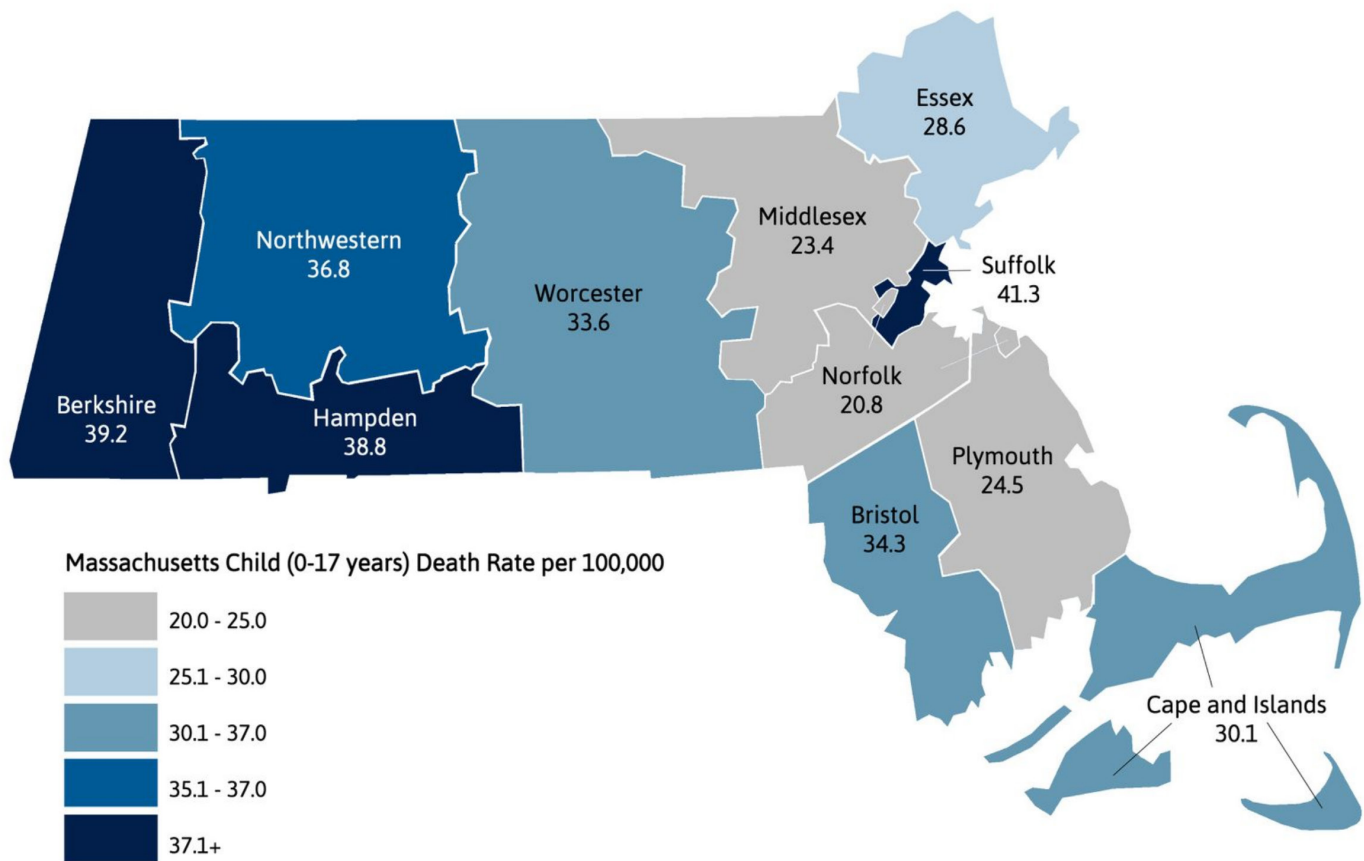


Figure 4 Data Sources: Death data-Massachusetts (MA) Registry of Vital Records and Statistics, MA Department of Public Health, 2017; Population estimates developed by the University of Massachusetts Donahue Institute (UMDI) in partnership with the Massachusetts Department of Public Health, Bureau of 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; Geographic data- MassGIS (Bureau of Geographic Information), Commonwealth of Massachusetts EOTSS.

Child and infant death rates also vary by district, and level of urbanization. Comparing district-specific data to the state average, Northwestern, Berkshire, Hampden, Worcester, Suffolk and Bristol Districts had higher average infant death rates. By contrast, the districts of Essex, Cape and Islands, Plymouth, Norfolk, and Middlesex Districts had lower average infant death rates.

Of the 11 CFR local team districts, five had enough historical data from 2015-2017 to make comparisons. Of those five, Worcester and Essex had the largest racial inequities in infant death rates (Table 4). The Worcester district had the largest differences in death rates between Black, non-Hispanic (1,340.1) and White, non-Hispanic infants (439.7); and between Black, non-Hispanic and Hispanic infants (528.9). The Essex district had the largest difference in rates between Hispanic (601.9) and White, non-Hispanic infants (249.6).

^kCape and Islands includes Barnstable, Dukes, and Nantucket counties; Northwestern includes Franklin and Hampshire counties.

As with all-age child mortality, the available death data prevented most comparisons involving Asian and Pacific Islander, non-Hispanic infants.

Among the five districts, Middlesex and Suffolk had the smallest differences in infant death rates across racial groups. The Middlesex District had the smallest differences between Black, non-Hispanic (721.0) and White non-Hispanic infants (262.0); and between Hispanic (347.7) and White, non-Hispanic infants (262.0). Suffolk had the smallest difference between Black, non-Hispanic (819.0) and Hispanic infants (541.3).

Table 4: Death Rate Comparisons Among Massachusetts Infants (<1 year) by District¹ and Race/Ethnicity, Combined Years 2015-2017

District	Black, non-Hispanic	Hispanic	White, non-Hispanic
Worcester	1,340.1	528.9	439.7
Essex	--	601.9	249.6
Suffolk	721	347.7	262.0
Middlesex	819	541.3	220.1
Hampden	--	541.6	364.7
Bristol	--	--	264.7
Norfolk	--	--	254.9

Table 4 Data Sources: Death data-Massachusetts (MA) Registry of Vital Records and Statistics, MA Department of Public Health, 2015-2017; 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.

¹All districts lacked sufficient data for calculating stable rates for Asian/Pacific Islander infants.

Child Deaths in Massachusetts, 2018-2020

In 2018-2020, the average death rate for Massachusetts children ages 1-17 years was 10.9 per 100,000 population. The leading cause of death for children ages 1-17 years was unintentional injuries from 2018 to 2020, which accounted for 22% of the overall deaths in this age group. Unintentional injuries include but are not limited to deaths from motor vehicle crashes, drowning, poisoning, suffocation, and falls. Deaths due to cancer, suicide, congenital malformations, and homicide are the top five leading cause of death for 1-17 years. Massachusetts data is similar to the 2019 national data where unintentional injuries were the leading cause of death, followed by suicide, cancer, homicide, and congenital malformations.⁸

Inequities also exist in deaths among 1-17 year-old children. While White, non-Hispanic children experience a death rate of 8.9, which is lower than the statewide child fatality rate, Black, non-Hispanic children (21.1) die at a rate 2.4 times as high as the White, non-Hispanic child death rate. The Asian/Pacific Islander, non-Hispanic (12.2) and Hispanic (11.9) child death rates were also higher than the White, non-Hispanic child death rate and the overall Massachusetts child death rate.

Table 5: Top 5 Leading Causes of Death Among Massachusetts Children Ages 1-17, 2018-2020

Rank	2018	2019	2020	2018-2020 combined
1	Unintentional injuries (n=32)	Unintentional injuries (n=31)	Unintentional injuries (n=31)	Unintentional injuries (n=94)
2	Cancer (n=26)	Cancer (n=22)	Suicide (n=17)	Cancer (n=62)
3	Suicide (n=17)	Homicide (n=12)	Cancer (n=14)	Suicide (n=45)
4	Congenital malformations (n=13)	Congenital malformations (n=11)	Homicide (n=10)	Congenital malformations (n=32)
5	Homicide (n=9) Heart disease (n=9) Ill-defined conditions-signs & symptoms (n=9) ^m	Suicide (n=11)	Congenital malformations (n=18)	Homicide (n=31)
All other causes	43	56	47	164
Total	158	143	127	428

Table 5 Data Source: Massachusetts (MA) Department of Public Health, Registry of Vital Records and Statistics, 2018-2020, preliminary data files. Please be advised that these data are preliminary and subject to change. Raw preliminary data may be incomplete or inaccurate, have not been fully verified, and revisions are likely to occur following the production of these data. The Department strongly cautions you regarding the accuracy of statistical analyses based on preliminary data and particularly with regard to small numbers of events.

^mIll-defined conditions-signs and symptoms includes ICD-10 codes R00-R99.

Similar inequities exist in national child death rates for ages 1-19.⁹ Delays in seeking medical care, indicating poor access to health care or lack of health insurance, are one of the contributing factors for racial/ethnic differences in child mortality.¹⁰ In addition, socioeconomic factors can affect a family's access to safety devices, their knowledge of safe behaviors, the environment where they live, and other protective or risk factors that influence the safety and wellbeing of children. Structural and systems-level changes such as residential segregation and neighborhood level socioeconomic status merit close attention as factors to be addressed when working to reduce racial and ethnic inequities in child wellbeing and mortality.¹¹

Figure 5: Death Rate Among Massachusetts Children Ages 1-17 by Race/Ethnicity, Combined Years 2018-2020

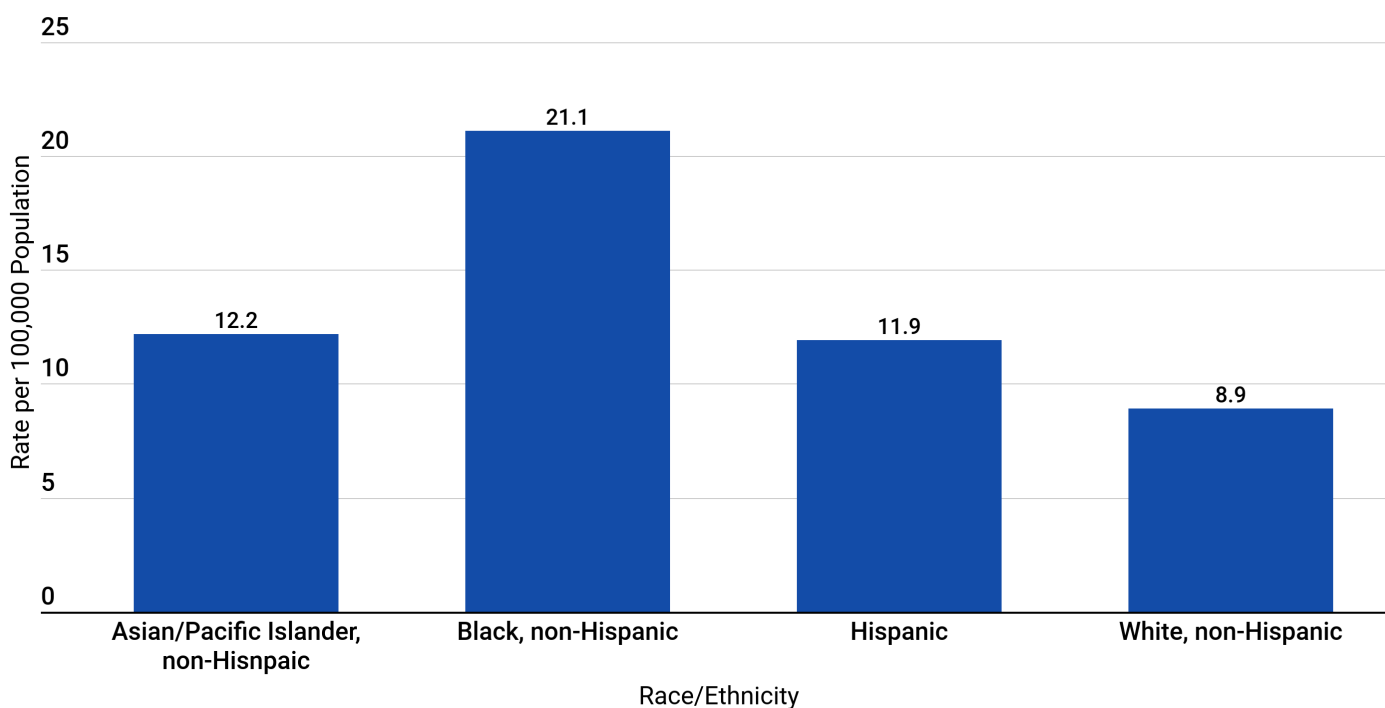


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The overall child death rate for the Commonwealth of Massachusetts between 2018-2020 was 10.9 deaths per 100,000 population. The statewide average rate was exceeded by the district-specific rates for the Hampden, Cape and Islands, Berkshire, Bristol, Suffolk, and Worcester districts. By contrast, the Essex, Middlesex, Plymouth, Northwestern and Norfolk districts had a lower average death rate than overall average rate of MA.

For the in-depth analysis of 2015-2017 data, the data were insufficient to fully calculate rates by district and race and ethnicity. Suffolk District was the only district with high enough mortality of Black, non-Hispanic and Hispanic children to create rates per 100,000 population, but there was a lack of data to compare mortality rates to White, non-Hispanic children in the same district. Nonetheless, as previously stated, the statewide child mortality rates of Black, non-Hispanic, and Hispanic children aged 1-17 years were consistently higher than the rates of White, non-Hispanic children of the same age group.

Figure 6: Death Rate Among Massachusetts Children Ages 1-17 by Districtⁿ, Combined Years 2018-2020

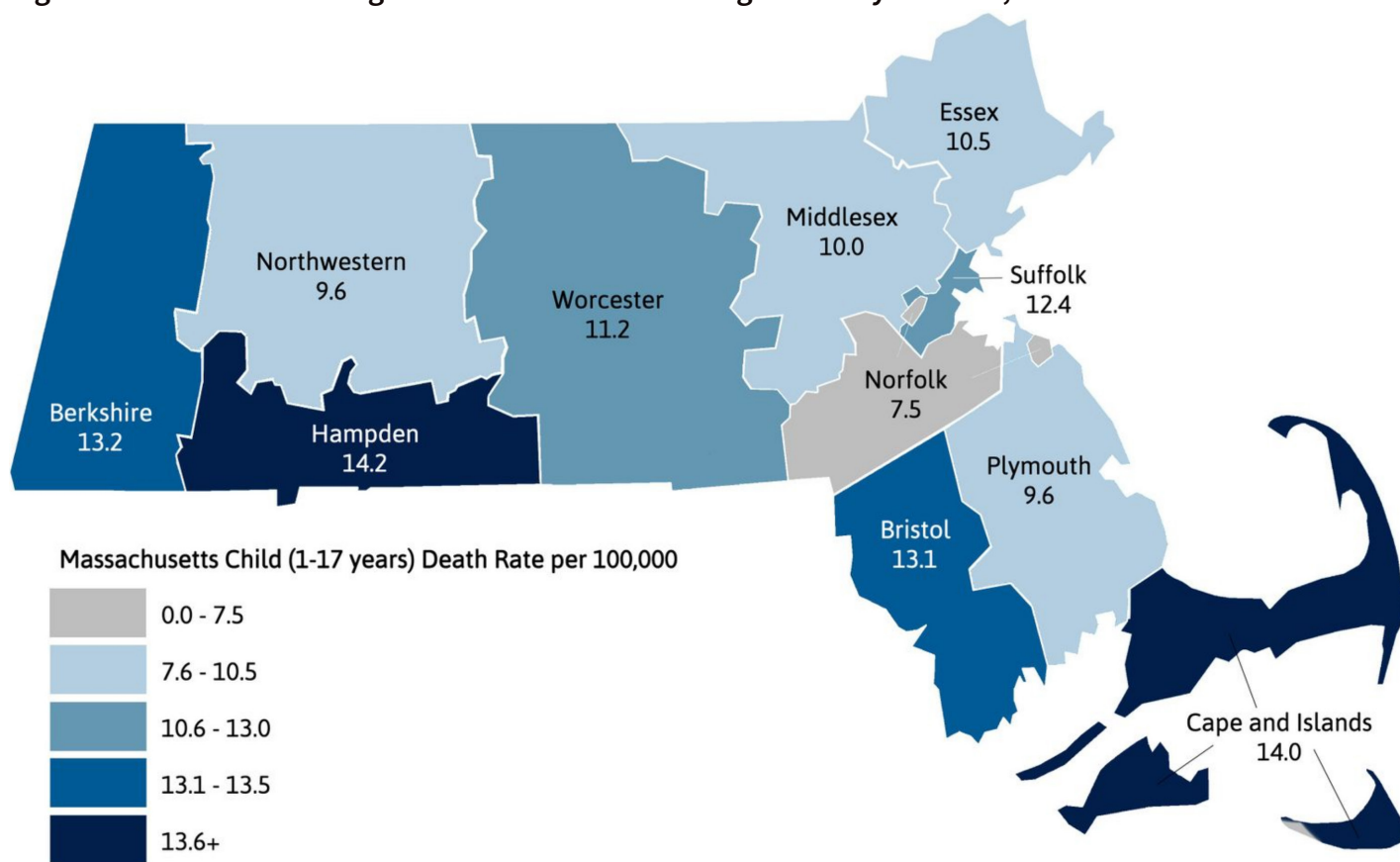


Figure 6: Data Sources: Death data-Massachusetts (MA) Registry of Vital Records and Statistics, MA Department of Public Health, 2017; Population estimates developed by the University of Massachusetts Donahue Institute (UMDI) in partnership with the Massachusetts Department of Public Health, Bureau of 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; Geographic data- MassGIS (Bureau of Geographic Information), Commonwealth of Massachusetts EOTSS.

ⁿCape and Islands includes Barnstable, Dukes, and Nantucket counties; Northwestern includes Franklin and Hampshire counties



BIRTH DEFECTS RESULTING IN FETAL & INFANT MORTALITY

Nationally, congenital malformations were the leading cause of death among infants in 2019.⁵ In Massachusetts for combined years 2018-2020, congenital malformations accounted for a fifth of all infant deaths (n=165). Between 2003 and 2017, infant deaths due to birth defects declined 10% nationally. In Massachusetts, infant deaths due to birth defects decreased from 61 deaths in 2018 to 48 deaths in 2020. These trends are likely due to improvements in prenatal care, postnatal care, and birth defects prevention measures. While etiologies for many birth defects are unknown, neural tube defects (NTDs) are a major driver of some relatively common abnormalities, including anencephaly and spina bifida.

Some of the most effective strategies for preventing NTDs include folic acid supplementation and fortification, improving vaccination rates, and decreasing rates of drinking, smoking, and drug use among pregnant people. In 1996, to increase folic acid intake among people who may become pregnant, the Food and Drug Administration (FDA) mandated the nationwide fortification of enriched grain products, such as bread, rolls, wheat flours, corn meals, and rice. This intervention resulted in a 19% to 32% decrease in the prevalence of NTDs across the U.S. However, inequities in the rate of NTDs persist even after fortification.^{12,13} Specifically, Hispanic women typically have lower intake of folic acid and give birth to infants with NTDs at higher rates than other ethnicities.¹⁴

Notably, the 1996 FDA rule does not include corn masa, which is used in cooking many Latin American cuisine staples like tortillas, tamales, and pupusas. Fortification of corn masa with folic acid is voluntary for manufacturers, with few manufacturers opting to fortify their products.¹⁵ In Massachusetts, Hispanic (sometimes referred to as Latinx) people have the second highest rate of congenital malformations and would benefit from a passive, cost-effective intervention to reduce NTDs while having a negligible effect on food prices.¹⁶ The State Team recommends that Massachusetts policymakers petition the FDA to reconsider the inclusion of corn masa in their fortification requirements, and work to create incentives for corn masa manufacturers to fortify their products, for food manufacturers to use fortified corn masa in their products, and for retailers to stock products that contain fortified corn masa.



MOTOR VEHICLE CRASHES & CHILD FATALITIES

Teens and children are particularly vulnerable to motor vehicle injury deaths. In 2017, there were 49 unintentional injury deaths in children ages 1-17. Motor vehicle (MV) traffic-related injuries constitutes the largest number of unintentional injury deaths in children (n=27).

A detailed analysis from national traffic fatality databases indicated that there were 13 MV occupant injury deaths in MA, 11 of which were among children ages 14-17,¹⁷ and most of those children (n=9) were not wearing seat belts. Five of the unbelted victims were children of color and six were White, non-Hispanic children. This reflects a disproportionate burden on children of color, who represent only 37.5% of the under-18-year-old population but 45.5% of the MV occupant injury deaths. The drivers involved in all of these fatalities (n=8) were between the ages of 16 and 20. Some of them (n=3) were Junior Operators, and one was driving unlicensed. Driving recklessly, speeding, and drug and alcohol use contributed to at least half of these crashes.

The same national traffic fatality systems also captured information regarding pedestrian injury deaths. There were six pedestrian injury deaths among children in 2017 in MA, with ages ranging from 4 to 12 years. Four of these children were of Hispanic ethnicity and the remaining two were White, non-Hispanic children. Most of the children (n=4) were not in a crosswalk at the time of the injury. As with children of color broadly, the burden of pedestrian MV injuries is greater on the Hispanic population, who constitute 18.1% of the under-18-year-old population but 66.7% of the pedestrian injuries.

Data from the Youth Health Survey (YHS) and the Youth Risk Behavior Survey (YRBS) for the years 2013, 2015, and 2017 reveal racial inequities in risk and protective behaviors and practices around MV occupant injuries. In particular, the YHS data highlighted a pressing issue that compelled a response from the State Team: seat belt use. Students of color in Massachusetts middle schools reported not wearing seat belts more frequently (Hispanic: 14.3%, Black, Non-Hispanic: 11.0%, Asian, Non-Hispanic: 7.2%) than their White, non-Hispanic counterparts (3.2%).



Figure 7: Massachusetts (MA) Middle School Students who Reported Never or Rarely Using a Seat Belt as a Passenger by Race/Ethnicity, 2013-2017

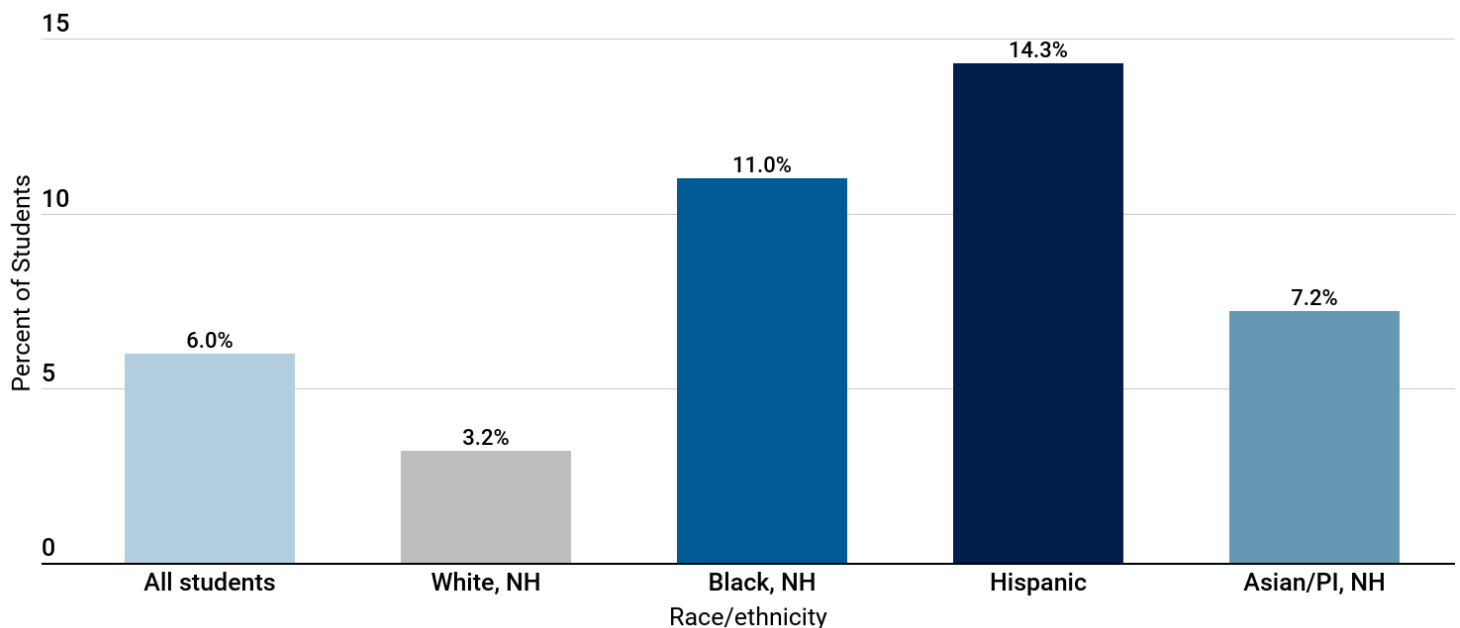


Figure 7 Data Source: MA Youth Health Survey-Middle School data, 2013, 2015 and 2017

This inequity exists on top of a remarkably low seat belt use rate in the overall population compared to the national rate. In 2019, the Massachusetts seat belt use rate was 81.6%, which was unchanged from the 2018 seat belt use rate.¹⁸ During the same time period, the national seat belt use rate increased slightly to 90.7% from 89.6%.¹⁹

Among drivers and front-seat passengers, seat belts reduce the risk of death by 45%, and cut the risk of serious injury by 50%.²⁰ For rear seat occupants, seat belts are estimated to reduce the risk of fatal injury by 54% in passenger vehicles and by 75% in light trucks, SUVs, and vans.²¹ Data from the Massachusetts Department of Transportation conveys the injury burden on those who travel unbelted: between 2014 and 2018, there were 14 fatalities among children involved in a motor vehicle crash who were not wearing a seat belt; 86 suffered incapacitating injuries. Fifty-nine of the injured children were age 16 or 17.²²

Cultural factors may influence seat belt use. Hispanic individuals who have spent significant time in Central and South America tend to have less careful attitudes as pedestrians, as traffic laws are more strictly enforced in the United States.²³ Similarly, non-Hispanic immigrants also have documented differences in understandings of “safety culture” in the United States.²⁴ Hispanic parents were more likely to indicate that it was appropriate to keep children unrestrained than other populations.²⁵ Other inequities in seat belt use can be found in rural teens and LGBTQ youth, and may also be affected by both cultural factors and specific structural factors.^{26,27}

One of the most effective tools in reducing part of the burden of motor vehicle crashes is the enforcement of a primary seat belt law.^{28–30} An important element of a safe systems approach to road safety, primary seat belt laws allow for drivers to be cited for their or their passengers’ not wearing a seat belt without any

other initial separate violation.³¹ Currently, Massachusetts has a secondary seat belt law; drivers can only be cited for not wearing a seat belt if they are stopped for a separate violation of the motor vehicle laws or some other offense.³² The State Team recommends that the Commonwealth enact an ethical and equitable primary seat belt law. Traffic safety research has long demonstrated the effectiveness of primary seat belt laws in increasing seat belt use rates and lowering rates of injury. In 2019, the seat belt use rate across all states with primary enforcement laws was 92%; the use rate in secondary enforcement states was 86.2%.³³ Within individual states, primary seat belt laws have been associated with marked increases in seat belt use—between 9% and 14%—and decreases in driver and passenger fatalities.²⁹ Furthermore, by modeling and encouraging seat belt use, adults can increase seat belt use among children.³⁴ Observation of high school student behavior found that 64%-74% of teenagers were belted when adult drivers were as well; in cars where adult drivers were unbelted, teenage passenger use was 22%-34%.³⁵ Primary seat belt laws are also associated with lessening or elimination of disparities in seat belt use rates between racial groups.^{36–38}

Although a primary seat belt law has the potential to improve driver and passenger safety in Massachusetts, there is some risk of bias in the enforcement of such a policy.³⁹ Preliminary analysis of the enforcement of Massachusetts' hands-free driving law found evidence of disparate enforcement, with 70% of stopped White drivers receiving warnings instead of civil or criminal penalties, while only around 60% of stopped drivers of color received warnings.⁴⁰ Furthermore, although the vast majority of traffic stops are uneventful, drivers of color face a higher risk of searches and arrest incidences to a stop than their White counterparts.^{41,42} Nonetheless, the State CFR Team believes that a primary seat belt law is necessary because of the limited success of other programs in increasing seat belt use and the persistent racial disparities in seat belt use and related injuries.

Implementation of this evidence-based approach should integrate considerations around equitable enforcement of such a law. Policymakers should engage communities of color throughout the process of developing, piloting, and evaluating primary seat belt legislation.⁴³ In the implementation phase, enforcement should be phased in gradually and policymakers should provide sufficient resources to support culturally responsive outreach to populations with lower seat belt use rates. Furthermore, primary seat belt legislation should provide for the collection of race and ethnicity data for cited drivers to facilitate evaluation of the policy.

The legislature should also study the feasibility and potential impact of passive citation interventions, such as automated or camera enforcement, that do not result in roadway stops for drivers who do not present a danger to other roadway users. As primary seat belt laws also include the proper restraint of young children, any legislation should include provisions for improved access to low or no cost car seats for all families, and car seat installation services. Any legislation should also include and center funding for upstream approaches to increasing seat belt use. As an example, a teen service-learning program was instituted in high schools across multiple states with primary seat belt laws. While racial disparities persisted, these programs did increase overall seat belt use and disparities in seat belt use were less pronounced.



CONCLUSIONS & RECOMMENDATIONS

Overall, child mortality rates and infant mortality rates are declining in Massachusetts. While Massachusetts had one of the lowest infant mortality rates in the United States, infant mortality constitutes 65% of child fatalities, resulting from gestational malformations and short gestation/low birth weight. Top causes of death for children ages 1-17 included unintentional injuries, cancer, and suicide, with many of these driven by the 15-17 year age bracket. Populations that were at the highest risk of fatalities were boys, children of color, and children and infants in urban areas. Given the magnitude and impact of infant mortality in the state and its outsize contribution to child fatality overall, public health problems associated with those deaths merit further, future study by the State Team, with a focus on the inequities highlighted in this report.

Geographic variations in child fatality rates across Massachusetts are a product of the socioeconomic setting, as well as the imprint of historic and present systemic oppression. Poverty itself disproportionately affects young children, with its impact inequitably burdening certain racial and ethnic groups.⁴⁴ Across the state, about 7% of Asian children, 27% of Black children, and 24% of Hispanic children experienced poverty as compared to 6% of White, non-Hispanic children in 2019.⁴⁵⁻⁴⁸ County-level poverty is associated with higher rates of child mortality, specifically unintentional injury mortality and emergency department-documented deaths.^{49,50}

Inequities also exist based on a given district's urbanization and rurality. In rural areas from 2015 to 2017, the infant death rate was 313.2, while urban areas had a higher rate of 367.7. The disparity seen in infant death rates drove a disparity in all-age child death rates between rural (25.0) and urban (33.8) areas. In FY22, the State CFR team will explore these inequities more deeply using a social determinants of health framework.

Based on the explorations of deaths resulting from birth defects and motor vehicle crashes, the state CFR Team recommends that:

Massachusetts policymakers petition the FDA to reconsider the inclusion of corn masa in their fortification requirements, and work to create incentives for corn masa manufacturers to fortify their products, for food manufacturers to use fortified corn masa in their products, and for retailers to stock products that contain fortified corn masa.

Massachusetts policymakers implement an ethical and equitable primary seat belt law, alongside updated, linguistically appropriate, culturally responsive, and accessible education campaigns about the importance of seat belt use geared towards audiences with the lowest seat belt use rates and highest unbelted crash rates, and improved access to car seats and installation services.

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.

Summary of Program Activities

State Team Activities

In FY21, the State Team held five meetings—starting in July 2020 and meeting every two months thereafter, except for November 2020. The COVID-19 pandemic resulted in restrictions on public gatherings in Massachusetts, requiring the State Team to hold its meetings virtually.

The State Team focuses most of its meetings on specific issues related to child fatalities, typically using one or two meetings to examine a particular cause or manner of death by exploring public health data and related local team recommendations. In FY21, the State Team devoted two meetings to motor vehicle crashes, one meeting to birth defects, and one meeting to geographic disparities in child fatality rates and causes.

Local Team Activities

The 11 local teams collectively held 20 meetings, reviewed 99 fatalities and issued 25 recommendations. Local teams issued 8 to the State Team, 8 to DPH, 5 to the Massachusetts Health and Hospital Association, 4 to the Massachusetts Center for Unexpected Infant and Child Death, 4 to the Massachusetts Chiefs of Police Association, 3 recommendations to the Massachusetts chapter of the American Academy of Pediatrics, 1 to the Department of Children and Families, 1 to the Department of Mental Health, 1 to the Office of the Child Advocate, and 1 to the Office of the Chief Medical Examiner.

Local teams found innovative approaches to holding case reviews online that convened stakeholders while safeguarding case data. Many teams held modified virtual meetings where cases were discussed through a secure video conference. In all, eight local teams held at least one virtual meeting during the reporting period; most resumed their regular quarterly meeting schedules using teleconferencing platforms.

For more information on the operational activities of the CFR program, see Appendix B: Activities of the Child Fatality Review Program, page 30.

APPENDIX A:

PREVIOUSLY ISSUED RECOMMENDATIONS

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

Issued FY2020

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 well-being 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.

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.

Issued FY2020

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 emergency 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.

This recommendation is particularly important because of the burden of unintentional drownings. Of unintentional injuries in Massachusetts, drowning was the second most frequent cause of death for children (n=19) aged 1-17 between 2018-2020. 10% of all drowning deaths between 2016-2017 took place in pools. Between 2016 and 2019, the average annual rate of unintentional drowning deaths for children under the age of 14 was 0.48; for children between 15 to 19 years, the rate was 1.08.^{51,52}

Unintentional drownings resulted in significant nonfatal injuries among children between 2016-2019. There was an average rate of 5.59 emergency departments visits per year; children ages 15-19 had a rate of 1.72 visits per year. Children under 14 years old also had an average rate of 0.84 hospitalizations per year resulting from unintentional drownings.⁵²⁻⁵⁵

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

Issued FY2020

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.^{56,57} 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.^{58,59} This is particularly relevant to motor vehicle crashes involving older children: from 2018-2020, occupant injury deaths occurred at a rate of 2.29 deaths per 100,000 population for 15-17 year olds, while all children had a rate of 0.72 deaths per 100,000 population. Unreliable cell phone coverage can hinder emergency calls when such incidents occur; Massachusetts has multiple “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.”⁶⁰ In subsequent years, coverage has improved, but remains unreliable in many places.⁶¹⁻⁶⁵ 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.

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.

Issued FY2019

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 a 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 the 15-17 years old age group.⁶⁶

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

Issued FY2020

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.^{67,68} Nationally, 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, and violence victimization.^{69–72} Data from 2015–2017 Massachusetts Youth Risk Behavior Survey found that transgender students reported rates of in-person and electronic bullying, and participation in fights at rates over double their cisgender peers.⁷³ Transgender students also reported rates of self-harm, suicidality, and suicide attempts at rates that were respectively 3.5, 3.6, and 5.8 times as high when compared to their cisgender peers.⁷³

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.

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.

Issued FY2020

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.⁷⁴ Furthermore, other states have successfully implemented systems that integrate data on an individual child from across agency silos.⁷⁵ 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.

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

Issued FY2020

Between 2016 and 2020, there were 48 boating-related deaths in Massachusetts.⁷⁶ 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.⁷⁷ 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 B: ACTIVITIES OF THE CHILD FATALITY REVIEW PROGRAM

The operation and activities of the State Team and local teams are supported by the work of staff at OCME and DPH. Agency staff who are assigned to the program provide administrative support, conduct research, and gather data to assist teams in their deliberations, evaluate program performance, and streamline program operations.

Review of Local 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 submitted by the local teams. Highlights include:

- In October 2020 and March 2021, program staff engaged with the Massachusetts Off-Highway Vehicle Advisory Committee to get insight on local team recommendations related to the use of all-terrain vehicles. Based on findings from those discussion it was determined that due to the complicated nature of safety on OHVs related to restraints and roll over cages, no recommendation is merited at this time.
- In February 2021, at the request of the State Team, the Massachusetts Chiefs of Police Association reached out to the Cannabis Control Commission to convey a recommendation from a local team to increase awareness about the importance of having a designated caregiver who can always provide uninhibited supervision of children.
- In March 2021, DPH and OCME sent a letter on behalf of the State Team to three municipalities offering recommendations on how local governments can reduce the risk of drowning within their communities.

In addition to individual State Team members reviewing local team recommendations submitted to the State Team for consideration and action, the State Team reviewed eight recommendations assigned to it by local teams; the State Team and its members have worked over the course of the year to address each recommendation.

Table 6: Local Team Recommendations and Associated State Team Actions

Local Team Recommendation	State Team Approval
C1881R1: The State Team should advocate for the passage of “Sean’s Law,” which would require all motorized water vehicle operators on MA waters to pass a safety course and obtain a license to operate such a vehicle.	This recommendation was marked as pending as the State Team issued a similar recommendation in the FY20 Annual Report. (See Appendix A: Previously Issued Recommendations, page 27)
<p>C960R1: As a result of the many cultures in Massachusetts, all state-licensed services should have a policy in place to acknowledge and be functional with cultural practices.</p> <p>C960R2: As a result of the many languages found within Massachusetts, all state-licensed services should have a policy in place to be able to access certified translators when working with the public.</p>	<p>The State Team referred the recommendations to DPH and the Massachusetts Health and Hospital Association (MHA). DPH worked with the Office of Preparedness and Emergency Management to learn more about the Massachusetts File of Life program and the site profile functionality in the state 911 system. MHA investigated how hospitals make use of translation services and how home healthcare workers might access similar services.</p> <p>While the State Team agrees with the intent of these recommendations, a pathway for implementation is not clear.</p>
C1020R2: Due to different levels of competency, all state-provided goods and services should be distributed with a socially, racially, and culturally-appropriate ‘teach back’ similar to the medical community to verify that the goods and services will be safely used or carried out.	The local team had clarified that this should apply to home goods that require assembly by recipients, such as cribs or Pack ‘n Plays. DPH raised the issue with the state Interagency Safe Sleep Taskforce. Affiliate of the Taskforce work to assure Consumer Product Safety Commission standards and installation guidance is shared during relevant trainings.
C959R4: The State Team should work with the Cannabis Commission to increase awareness of having a “designated parent” providing uninhibited supervision at all times. Also, there should be increased awareness of keeping edibles out of reach of children (i.e., a gummy bear is a gummy bear to a child).	The Massachusetts Chiefs of Police Association (MCO-PA) forwarded the recommendation to a member of the Cannabis Advisory Board, which provides guidance to the Cannabis Control Commission.
C1134R2: As a result of American Indians often receive their healthcare and associated coaching through the Indian Health Service, the EHS Interagency Safe Sleep Task Force should confirm that IHS is sending the same safe sleep messaging.	DPH and MHA have identified contacts with the local tribes and at IHS. DPH is moving forward with outreach to both parties.
C1161R1: As the purpose of the state sanitation code is to, “... protect the health, safety, and well-being of the occupants of housing and of the general public...” landlords should be required to provide tenants with teach-back style life safety instructions (for example, window safety, fires, egress) to ensure comprehension.	The State Team and DPH plan to discuss potential collaboration with landlord associations regarding safety.
C1106R1: Consideration of a registration system for private pool owners and utilization of building permit records to communicate with and engage private pool owners in safety training.	DPH attempted to develop a strategy for identifying pool owners through tax assessment records. DPH also investigated possible funding sources to support DCR’s provision of water safety training and swim lessons.

Local Team Activities

The 11 local teams collectively held 20 meetings, reviewed 99 fatalities and issued 25 recommendations. The distribution of meetings, cases, and recommendations by district is summarized below.

Table 7: Number of meetings, cases reviewed, and recommendations issued by local team

Local Team Recommendation	Meetings	Cases	Recommendations
Berkshires	0	0	0
Bristol	1	4	0
Cape and Islands	0	0	0
Essex	1	2	0
Hampden	0	0	0
Middlesex	5	32	15
Norfolk	4	32	0
Northwestern	2	7	0
Plymouth	2	4	0
Suffolk	3	4	7
Worcester	2	14	3

Administrative Changes and Activities of the CFR program

Starting in FY19 the Office of the Child Advocate (OCA) provided funding to the Department of Public Health to hire a CFR program epidemiologist. In October 2020, DPH hired Jonathan Bressler to serve in this role full-time. Since his hiring, Jonathan has provided dedicated support to the program around data collection, management, and analysis, including maintenance and improvement of the CFR database, and compilation of research and analyses for State Team meetings and this report.

In April 2021, Jeff Doyle, Director of Emergency Medical Services for Children departed DPH for position with Yale New Haven Hospital. During his time at DPH, Jeff was instrumental in supporting local teams, bringing his clinical expertise to bear in reviewing cases and crafting bold recommendations. He also oversaw major staffing changes in the program, helped implement systems to support the State Team in tracking its work, and led a comprehensive revision of the annual reporting process.

In FY21, CFR staff began conducting a needs assessment for the program. The last needs assessment for the CFR program was conducted in 2017. In the years since, the State and local teams and administrative staff have revised program practices in an effort to address the findings of that study. Another needs assessment was launched in March 2021 which aims to determine whether program stakeholders believe previously identified issues have been addressed and whether they believe other strengths or weaknesses of the program have emerged since the 2017 needs assessment. Furthermore, data from the assessment will inform a strategic planning process that will evaluate stakeholder visions for the future of the program and generate a plan to guide operations in the coming years. Completion of the needs assessment and issuance of findings is anticipated in spring 2022.

In a continuing effort to address a backlog of recommendations provided by the local teams, program staff provided guidelines to State Team members to review 142 outstanding recommendations. Forty-nine of those recommendations are now marked as pending, while 93 remain open and 7 received comments. If local teams are seeking information about the status of a specific recommendation, please contact Max Rasbold-Gabbard at Max.Rasbold-Gabbard@mass.gov.



APPENDIX C: FY21 STATE & LOCAL TEAM MEMBERSHIP

State Team Membership

Dr. Mindy Hull

Chief Medical Examiner, Co-Chair

Bekah Thomas

Designee of the Commissioner of the Department of Public Health, Co-Chair

Jeff Bourgeois

Designee of the Attorney General

Karla Canniff

Designee of the Commissioner of the Department of Children and Families

Anne Conners

Designee of the Commissioner of the Department of Early Education and Care

Katharine Folger

Representative of the Massachusetts District Attorneys Association

Janet George

Designee of the Commissioner of the Department of Developmental Services

Anne Gilligan

Designee of the Commissioner of the Department of Elementary and Secondary Education

Shari King

Director of the Massachusetts Center for Unexpected Infant and Child Death

Karine Martirosyan

Designee of the Commissioner of the Department of Youth Services

Capt. Mario Monzon

Designee of the Colonel of the Massachusetts State Police

Maria Mossaides

Director of the Office of the Child Advocate

Dr. Nandini Talwar

Designee of the Commissioner of the Department of Mental Health

Dr. Celeste Wilson

Representative of the Massachusetts chapter of the American Academy of Pediatrics with experience in child abuse and neglect

Leigh Youmans

Representative of the Massachusetts Health & Hospital Association

The team position for Chief Justice of the Juvenile Division of the Trial Court or designee is vacant. The CFR statute also allows for attendance to State Team meetings by other individuals with information relevant to cases under review

Local Team Membership

- 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

The CFR statute also allows for attendance to State Team meetings by other individuals with information relevant to cases under review.

Local Team Leadership

Berkshires

Andrea Harrington, District Attorney
Team Leader: Stephanie Ilberg,
Assistant District Attorney

Bristol

Thomas Quinn, District Attorney
Team Leaders: Andrea Baldwin,
Assistant District Attorney;
Dennis Collins,
Assistant District Attorney

Cape and Islands

Michael O'Keefe, District Attorney
Team Leader: Sharon Thibeault,
Assistant District Attorney

Essex

Jonathan Blodgett, District Attorney
Team Leader: Kate MacDougall,
Assistant District Attorney

Hampden

Anthony Gulluni, District Attorney
Team Leader: Eileen Sears,
Assistant District Attorney

Middlesex

Marian Ryan, District Attorney
Team Leader: Katharine Folger,
Assistant District Attorney

Norfolk

Michael Morrissey, District Attorney
Team Leader: Lisa Beatty,
Assistant District Attorney

Northwestern

David Sullivan, District Attorney
Team Leader: Linda Pisano,
Assistant District Attorney

Plymouth

Timothy Cruz, District Attorney
Team Leader: Elizabeth Mello,
Assistant District Attorney

Suffolk

Rachael Rollins, District Attorney
Team Leader: Susan Goldfarb,
Executive Director,
Children's Advocacy Center of Suffolk
County

Worcester

Joseph Early, District Attorney
Team Leader: Courtney Sans,
Assistant District Attorney

APPENDIX D: MEMBER VOTES ON THE APPROVAL OF THE FY21 STATE TEAM ANNUAL REPORT AND RECOMMENDATIONS

Table 8: Approval of the FY21 Annual Report and Recommendations

Member Organization	Report	Rec. #1	Rec. #2
Office of the Chief Medical Examiner	Yes	Yes	Yes
Dept. Public Health	Yes	Yes	Yes
Office of the Attorney General	Yes	Yes	Yes
Office of the Child Advocate	Yes	Yes	Yes
Dept. of Children and Families	Absent	Absent	Absent
Dept. of Developmental Services	Absent	Absent	Absent
Dept. of Early Education and Care	Yes	Yes	Yes
Dept. of Elementary and Secondary Education	Yes	Yes	Yes
Dept. of Mental Health	Yes	Yes	Yes
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 Association, Inc.	Absent	Absent	Absent
Mass. District Attorneys Association	Yes	Yes	Yes
Mass. Health & Hospital Association	Yes	Yes	Yes
Mass. State Police	Absent	Absent	Absent

ENDNOTES

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