Overview

One significant underlying cause of adolescent behavioral and mental health challenges is trauma stress that has come as a result of adverse childhood events (ACEs). Massachusetts and the nation now face two public health crises—COVID-19 and racism-related violence—that have the potential as traumatic events or ACEs to negatively impact youth now and throughout their lifetimes. By becoming a trauma-informed and responsive state, including a focus on racial and historical trauma, Massachusetts can take active steps to reduce trauma and promote resilience. This effort will have both immediate and long-term impacts on the mental and physical health of adolescents, particularly for the disproportionate number of youth of color impacted by trauma.¹ This issue brief explores the:

1. Impact of trauma on mental and physical health, particularly for youth of color;
2. Significant fiscal and human costs of trauma;
3. Potential that evidence-based treatment and the promotion of resilience have for reducing the negative impact of trauma; and
4. Results of two recent interventions implemented by UMass Medical School to address trauma and promote resilience in Massachusetts.

ACEs occur before age 18 and can constitute a form of trauma. There are ten criteria that are used to define the more traditional ACEs: physical, sexual, and emotional abuse; physical or emotional neglect; or household dysfunctional such as violence against the mother, incarceration of a relative, substance abuse, divorce or mental illness. Beyond what is thought of as the more traditional adverse childhood events which focus on adversities specific to the family and household, recent literature has expanded our lens to include community level adversities such as economic hardship, community violence, bullying, foster care involvement and discrimination.² ACEs are a form of trauma that correlate with psychiatric difficulties in children and adults. These correlations have been well-documented in clinical and/or cross-sectional studies and in large community studies³ linking ACEs to a range of adverse mental health outcomes and unproductive life choices throughout the lifespan, including depression, antisocial behavior, and drug use during the early transition to adulthood.⁴ These findings suggest a critical need for prevention and intervention strategies targeting ACEs and their subsequent negative mental health consequences.⁵ The Centers for Disease Control and Prevention estimate that across the United States, one in six people have experienced four or more kinds of adverse childhood events.⁶ When expanded to look at community level indicators, that rate is significantly higher in urban settings.⁷

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² Household and community-level Adverse Childhood Experiences and adult health outcomes in a diverse urban population https://www.sciencedirect.com/science/article/abs/pii/S0145213415004524?via%3Dihub#aep-article-footnote-id2 Roy Wade Jr., Peter F. Cronholm, Joel A. Fein, Christine M. Forke, Martha B. Davis, Mary Harkins-Schwarz, Lee M. Pachter, Megan H. Bair-Merritt


⁷ Household and community-level Adverse Childhood Experiences and adult health outcomes in a diverse urban population https://www.sciencedirect.com/science/article/abs/pii/S0145213415004524?via%3Dihub#aep-article-footnote-id2 Roy Wade Jr., Peter F. Cronholm, Joel A. Fein, Christine M. Forke, Martha B. Davis, Mary Harkins-Schwarz, Lee M. Pachter, Megan H. Bair-Merritt
Impacts on Youth of Color and Other Vulnerable Populations

Youth of color are particularly vulnerable to a higher number of adverse childhood events, of both conventional and expanded type.⁸ While trainings on the impact of trauma are becoming more common, few of these trainings focus on the relationship between race and trauma. This is the case even though children of color are disproportionately likely to enter state systems, tend to stay in the system longer and enter additional systems (such as being in child welfare at one point in time and later in the juvenile justice system), and are more likely to be placed in more secure settings.⁹ However, trauma is more likely to be experienced by children and families of color. According to data from Child Trends, 61 percent of black (non-Hispanic) children and 51 percent of Hispanic children experience at least one ACE, while 40 percent of white children experience one or more. Recent studies have indicated that being non-white in the United States is itself a form of trauma for children of color due to institutional racism and discrimination.¹⁰ The lack of trauma trainings focused on race and culture is of particular concern in Massachusetts.¹¹

Scholars have only recently begun to focus on the role that racism and discrimination play in producing negative outcomes. While more work remains to be done in this area, the link between racial discrimination and increased psychological disorders is clear, and the mental health symptoms a person experiences as a result of racism have been compared to post-traumatic stress disorder (PTSD). Although PTSD is normally linked to one precipitating event, vicarious experiences and racial micro- and macroaggressions can contribute to a cumulative effect that can cause or magnify PTSD symptoms.¹²

Beyond immediate experiences in their homes or families, children may also experience what is referred to as “historical trauma.” This form of trauma can affect entire communities and encompass cumulative emotional and psychophysiological harm done across locations and generations.¹³ For example, certain racial and ethnic groups in the United States have suffered major intergenerational losses or attacks on their lives or their way of living. These losses could include the legacy of enslavement or colonization, the aftereffects of genocide in their country of origin, or other broad attacks on a population due to their skin color, religion, or ethnic group. This community-wide or system-wide traumatic stress may be exacerbated by individual-level racism or discrimination taking place in the present.¹⁴

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¹¹ In comparison to other states, Massachusetts has relatively low rates of juvenile incarceration and involvement in the child welfare system but the rates of disparities are high in both systems.
**Long Term Cost of ACEs**

In addition to the cost in terms of lost human potential, negative health outcomes related to ACEs are also costly for health and other state systems. Recent research has connected ACEs to five different chronic health conditions (asthma, arthritis, COPD, depression, and cardiovascular disease) and three health risk factors (lifetime smoking, heavy drinking, and obesity). Only 16 percent of the population has four or more ACEs, but this fraction of the public accounts for 36 percent of total ACE-related health care costs. A recent study utilizing 2013 data in California found annual direct health care expenditures due to ACEs to be $10.5 billion, with an additional loss in terms of disability and years of productive life equaling $102 billion, for a total annual cost to the state of $112.5 billion.

Data indicates that preventing ACEs and promoting resilience can help children thrive by lowering the risk of depression, asthma, and cardiovascular issues; there may also be an impact on the risk of cancer and diabetes. Beyond lowering psychophysiological risks, prevention of trauma (and promotion of resilience) can also reduce the propensity for making risky lifestyle choices such as smoking and heavy drinking. Prevention may also lead to more positive education and employment outcomes. Reducing adverse childhood events and/or promoting resilience would reduce the physiological pathways that promote trauma-related chronic health conditions, leading to a reduction in long-term health care costs and an increase in productive life years.

**Interventions**

**Model 1: Multi-system Provider Trainings**

In order to raise awareness of these issues and promote resilience, our Commonwealth Medicine team developed and conducted six multi-hour regional Trauma and Resilience trainings for a wide range of staff and leadership from state entities and community programs at different locations in Massachusetts from April to June of 2019. These trainings were developed in collaboration with several state and community agencies.

The first part of the training focused on the science of trauma, how adverse childhood events caused trauma, and what impacts trauma can have on a population. The training also presented some resiliency tools such as linking children to a caring adult, provision of evidence-based treatment, and supporting their growth in a healthy environment. In the second part, our facilitators turned to race and the role that structural racism plays in the creation of trauma.

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Beyond the learning objectives outlined above, a key goal of the program was to support connections between various types of providers, including teachers, school administrators, child welfare workers, juvenile justice case workers, and others in the field. While they often serve the same populations, communication and collaboration between these providers are often limited, thus constraining the ability of the providers to help the children and families.

Goals from the training included:

- Describing the impact trauma has on development and explaining the potential consequences of untreated trauma and adverse childhood experiences.
- Defining terms and processes that are key to the perpetuation of racism and institutionalized racial inequities that lead to trauma.
- Summarizing strategies for trauma-responsive approaches to working with youth that can also promote resilience.

Approximately 500 child and family-focused providers attended the trainings and completed pre- and post-evaluation forms developed to measure changes in knowledge and attitudes related to trauma, resilience, and the role racism plays in the creation and perpetuation of trauma. A comparison of pre-test and post-test results showed increases in knowledge about trauma and racism, in awareness of strategies to build resilience, and comfort in taking action against racism and toward racial equity in their respective agencies. Participants reported high satisfaction with all sessions.19

Model 2: Early Education Provider Training and Coaching Intervention

While the statewide trainings were able to provide information and resources, they did not have in-depth tools and techniques that providers can use with the most vulnerable children. The next intervention, funded through the Massachusetts Office of the Child Advocate, sought to provide intensive training and coaching on trauma by targeting early childhood providers in areas with numerous children at risk for adverse childhood events.20 This was piloted as the Worcester Trauma and Resilience Collaborative.

Although quality childcare can promote resilience, early childhood providers are now seeing high levels of trauma-related outbursts and maladaptive behavior.21 When provided with training and in-classroom coaching, preschool educators are able to learn how to use tools to better address trauma-linked troubling behavior and, where necessary, support children in getting evidence-based treatment. There is significant evidence that youth at risk of high levels of trauma are subject to more punitive outcomes.22

19 Internal UMMS program evaluation data.
20 The effort to allocate funding for this initiative was led by Massachusetts State Senator Harriette Chandler and Representative Jim O’Day. They partnered to develop a budget amendment that would fund the Office of the Child Advocate for the pilot Worcester Collaborative on Trauma and Resilience. This effort was supported further by a wide number of legislators.
It is also known that youth of color are more likely to be observed and subjected to punishment than their white peers. One recent study found that black preschoolers are 3.6 times more likely to receive one or more suspensions than comparable white children. In general, there is evidence that preschool teachers more closely observe black boys and expect more negative behavior from them. All training and coaching are done through a racial equity lens toward reducing the disparate punishment based on color.

The Worcester Trauma and Resilience Collaborative has trained nearly 100 providers and is currently partnering with ten local childcare centers to offer coaching and real-time solutions in responding to children experiencing trauma. The evaluation strongly indicated reductions on rates of suspension, disruptions, and negative outcomes. We are currently exploring how to sustain the pilot and expand to other areas of Massachusetts. This intervention is one of several similar efforts taking place across the state; a recent statewide trauma and resilience conference (Building Resilient Communities, Building Resilient Children) had over 200 partners and collaborators who shared trainings, models, and interventions that are working throughout the state.

Research shows that trauma trainings and evidence-based treatments can be effective at reducing the deleterious impacts of adverse childhood events. There is significant further work to be done to coordinate trauma training and intervention efforts, strengthen the base of evidence from which they draw, and improve their overall quality. Despite these challenges, Massachusetts can become a trauma-informed and responsive state.

The next steps toward becoming a trauma-informed and responsive state include:

- **Developing systems review:** Assessing state and local systems such as schools, child welfare, juvenile justice, law enforcement, and related child and family programs to assure they are trauma-informed and responsive and have policies in place to ensure ongoing training and practices that are trauma-sensitive.

- **Funding trainings and coaching for all providers across the state on trauma, race, and resiliency:** Trainings can plant seeds that will grow into fruitful discussions and, ultimately, produce positive changes in policy, programs, and people. In-depth coaching can assist education, community support, and other child and family providers in supporting traumatized children and assuring they are connected with resources and support.

- **Building an information sharing system:** Creating a website that provides resources for evidence-based practices on trauma, race, and resiliency for providers and community members.

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• **Increasing the availability and accessibility of evidence-based treatment:** Increasing state and private funding and access for evidence-based treatments for trauma, including trauma-focused cognitive behavioral therapy and other treatments that reduce the negative impacts of trauma and promote resilience. In order to be successful, practitioners should be trained with a racial equity lens. Additional inclusion of diverse voices is important to effectively support youth of color that are disproportionately impacted by trauma and likely to have lifelong consequences of racial trauma.

Our most vulnerable children, particularly youth of color, are facing adverse childhood events that can have a serious long-term impact on their mental and physical health. By moving toward becoming a trauma-informed and responsive state, Massachusetts will support these children and families in reaching their full potential.

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