



MUSC Boeing Center for Children's Wellness

2023

Impact Report



Letter from the Director

Dear friends of the MUSC Boeing Center for Children's Wellness,

I am amazed at the work being done by our school communities that is described in this report. Our School-based Wellness Initiative began in 2010 with strong partners from Charleston County School District. It is incredible that since then, so many districts have strived to create a culture of wellness that has persisted and even thrived through the disruptions of the COVID-19 pandemic. This is only possible because of the commitment of the participating districts and schools, the numerous community partners, and the relationships between all of us as individuals. We share a common mission; to improve the health and wellness of all children.

The 2021 expansion of our School-based Wellness Initiative to include mental health began in Charleston County School District with a listening and planning period. These efforts led to the development of an innovative multi-tiered model, School-centered, Wellness, Prevention, and Treatment Model, that reaches all students and staff with prevention strategies while also adding targeted strategies for those most at-risk. This model, led by Dr. Erin Scherder, EdD is School-centered, bringing coordinated resources into schools to support wellness and prevent and treat mental health problems.

Together with district leadership, we carefully determined unmet needs and found resources to address them, synergizing with existing services and not interfering with academic demands. Overall, this project has been successful, and we are taking an exciting opportunity to expand into two neighboring districts, Berkeley County School District and Dorchester School District 2. Of course, there will be differences in these new communities so we must again start with a listening and planning period. We will use what we learned in Charleston County School District as well as add new innovations to meet existing community needs.

Similarly, during the coming school year, we will also expand upon our School-based Wellness Initiative to include a focus on the prevention and treatment of diabetes in seven counties including Colleton County School District and Florence School District 1. This project, led by Dr. Kathleen Head, MD will build upon the foundation of wellness for all students while adding targeted strategies for at-risk students. Additional strategies will include treatment for obesity and diabetes through partnerships with MUSC School-based Telehealth, Pediatric Endocrinology, and Wellness Works.

The ability for the MUSC Boeing Center for Children's Wellness to continue to expand our scope of work is only possible due to our multi-talented team and director, Sarah Piwinski. Together we strive to achieve our vision: a South Carolina where all children are healthy, succeed in school, and thrive in life.

With gratitude for your continued encouragement and support without which this work would not be possible,



Janice D. Key, MD
Distinguished University Professor of Pediatrics
Medical Director, MUSC Boeing Center for Children's Wellness



About Us

Our Mission

The MUSC Boeing Center for Children's Wellness engages school communities in creating healthy learning environments through the implementation of targeted wellness initiatives.

Our Vision

Our vision is a South Carolina where all children are healthy, succeed in school, and thrive in life.



MUSC Boeing Center for Children's Wellness team

Who We Are

The MUSC Boeing Center for Children's Wellness (BCCW) was established in 2010, with foundational support from The Boeing Company and led by Dr. Janice Key. MUSC BCCW supports schools in the implementation of evidence-based policy, systems, and environmental (PSE) strategies. Implementation of these strategies helps schools build and sustain a culture of wellness that impacts their whole school community.

Many things have changed since the establishment of the Boeing Center more than 13 years ago. Our work has gradually spread from a single school district to more than 20 school districts across the state. Our Initiatives have evolved to better meet the needs of students and school staff, expanding from an obesity prevention focus to universal wellness supports that include mental health. Most recently, we have expanded the scope of our work beyond the implementation of universal wellness strategies to include the coordination of tiered supports for at-risk students.

Through all these changes, our goal remains the same, improving the health and wellness of children by reaching them where they are, in school. With support from our community and the hard work of our partnering schools, we are achieving our vision of a South Carolina where all children are healthy, succeed in school, and thrive in life.

Our Initiatives

School-based Wellness Initiative

The MUSC BCCW School-based Wellness Initiative works to create a culture of wellness by providing direct support and motivation for K-12 schools and districts as they implement evidence-based wellness strategies. This Initiative is not comprised of one specific program, but rather, a customizable model that supports schools and districts in the selection and implementation of best practices and policies that meet the wellness needs of students and staff.

The Initiative is designed to engage the entire school community in creating a healthy learning environment through three main components:

- Utilization of our custom implementation tool, the School Wellness Checklist
- Support from a MUSC BCCW Program Coordinator
- Active school and district wellness committees

Our implementation tool, the School Wellness Checklist (SWC), includes evidence-based strategies in seven categories: Getting Started, Nutrition, Physical Activity, Social Emotional Wellness, Establishing a Wellness Culture, Staff Wellness, and Sustainability. Each category includes policy, systems, environment, and behavior change strategies based on best practices for universal student and staff wellness. The SWC also serves as a scoreboard for an interschool competition within each participating school district. Schools accrue points for each wellness strategy they implement throughout the school year, and at the end of the year they earn a monetary wellness award for their efforts.

MUSC BCCW Program Coordinators provide ongoing support, training, and technical assistance to participating schools and districts by guiding them through the selection and implementation of wellness strategies. Coordinators also work to build relationships with community partners to assist schools in better alignment of community wellness and sustainability efforts.

The creation or maintenance of an active wellness committee is also required for participation in this Initiative. Committees are encouraged to begin each school year with a needs assessment. This process allows for the committee to select wellness strategies that best meet their school's needs. The committees receive ongoing support and technical assistance from a designated MUSC BCCW Program Coordinator for the implementation of selected strategies.

Docs Adopt Initiative

Schools that participate in our School-based Wellness Initiative are also encouraged to participate in Docs Adopt. This Initiative partners healthcare providers with schools to serve on a school's wellness committee.

In this role, healthcare providers do not provide clinical services but offer support, knowledge, and motivation to schools as they implement their selected evidence-based strategies. This volunteer opportunity plays a critical role in integrating the expertise of healthcare providers with targeted public health efforts.

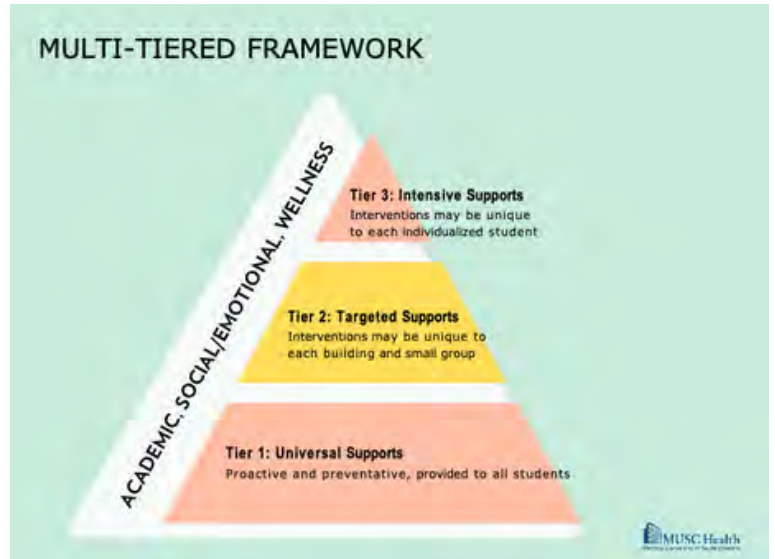


Participating Docs Adopt physician at Mt. Zion Elementary

Our Initiatives

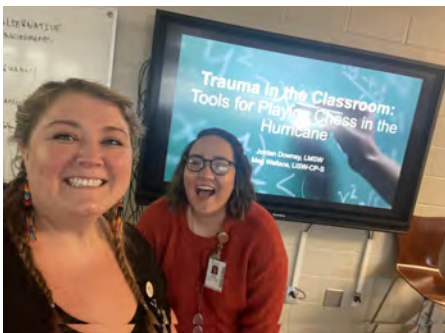
School-centered Wellness, Prevention, and Treatment Model Mental Health Prevention and Treatment

In 2021, we launched the School-centered Wellness, Prevention, and Treatment Model to expand our School-based Wellness Initiative beyond universal prevention to include coordinated, targeted mental health supports for students, staff, and their families. This model utilizes an existing school framework, the Multi-tiered System of Supports (MTSS) to integrate effective mental health and wellness strategies into school systems. MTSS is an evidence-based framework that integrates academic and behavioral interventions in varying intensities (tiers): Tier 1, universal for all students; Tier 2, targeted interventions for some students; and Tier 3, intensive interventions for a few students.



Through the School-centered Wellness, Prevention, and Treatment Model, our goal is to support the integration of wellness into the MTSS framework. This allows schools to build upon universal prevention and treatment strategies for academics, behavior, and wellness while synergizing efforts and maximizing the benefits for individual students and the entire school community.

During the planning phase of this model, the MUSC BCCW team works with community stakeholders to create a resource map that details all of the existing resources in a community. Through this process, we document each stakeholder's unique perspective concerning the mental health crisis, as well as unmet needs, barriers, and opportunities for integrating mental health and wellness interventions into a school district's multi-tiered framework.



Mental health training for school staff to support trauma in the classroom



School staff practicing mindfulness and meditation during resiliency training



Students practicing yoga at Burke High School

The School-centered Wellness, Prevention, and Treatment Model was originally piloted in Charleston County School District in 2021. With gratitude to the Duke Endowment, we will expand this Model to two additional school districts beginning in the 2023-24 school year. Critical partners in this model include the SC Department of Mental Health, National Crime Victims Research and Treatment Center, MUSC Arts in Healing, MUSC Institute of Psychiatry, USC School Behavioral Health Academy, MUSC Center for TeleHealth, and most importantly, school district leaders.

Our Initiatives

School-centered Wellness, Prevention, and Treatment Model Diabetes Prevention and Treatment

In 2020, the BlueCross BlueShield of South Carolina Foundation provided generous support to the MUSC Boeing Center for Children's Wellness through the Diabetes Free SC Initiative to expand our universal School-based Wellness Initiative to seven school districts.

Through this partnership, we set out to prevent risk factors for diabetes in youth such as lack of physical activity, poor dietary habits, stress, and obesity. Although 2020 was met with challenges including a worldwide pandemic and school closures, districts and school staff rose to the challenge with resilience and enthusiasm for creating a culture of wellness in their schools. During this expansion, 88 new schools participated in our School-based Wellness Initiative. Over this three-year period:

- 75% of participating schools increased student exposure to produce through farm-to-school activities
- Over 50% of participating schools provided staff with access to physical fitness opportunities and health assessments
- 45% of participating schools offered physical activity breaks in the classroom

Due to the success of this project, BlueCross BlueShield of South Carolina Foundation will continue to support our work through 2026. Over the next three years, MUSC BCCW will look to not only increase school participation in our universal School-based Wellness Initiative but also build upon our success with the School-centered Wellness, Prevention, and Treatment Model in two school districts to coordinate and implement multi-tiered nutrition and physical activity strategies for students and staff who are at risk for or living with diabetes.

“Florence 1 Schools is excited to partner with MUSC Boeing Center for Children’s Wellness as we engage in supporting our students and their families who may be living with diabetes or at risk of developing diabetes. Access to community support is imperative as families navigate the complexities of this chronic illness.”

-Elizabeth Holzbach, Lead Nurse FIS

For example, a tier 3 strategy we are working to implement is a pediatric endocrinology telehealth program with Colleton County School District. Through this program, students with diabetes will be able to visit with the MUSC diabetes care team virtually from the convenience and comfort of school, while parents/guardians will be able to connect to the visit from work or home. This program aims to reduce barriers for families to access specialty care, while also decreasing the amount of time a student is absent from school for care



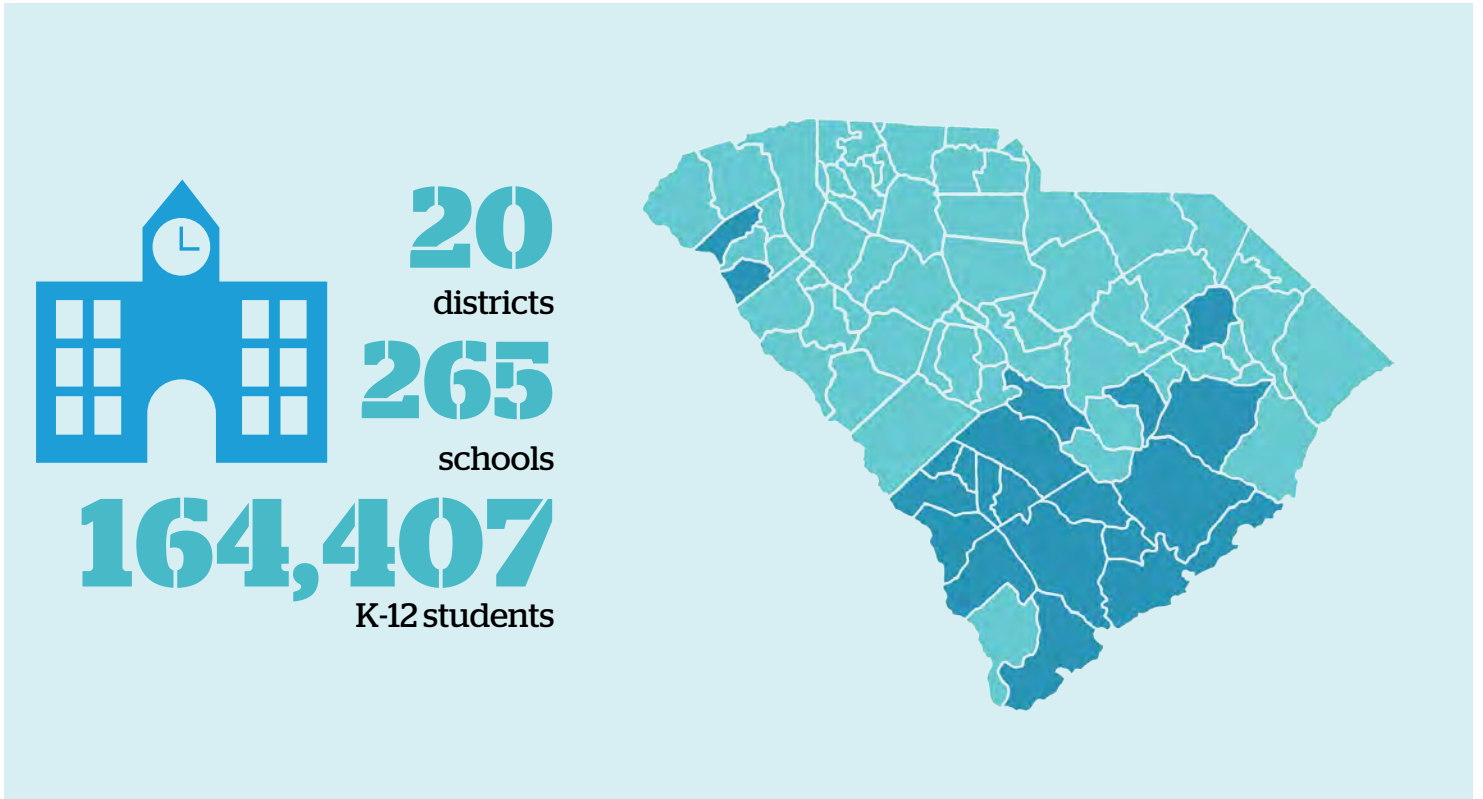
MUSC Telepresenter and Wellness Coordinator demonstrating the use of school-based telehealth equipment



Nutrition lesson in the teaching kitchen at the Farm at Florence 1

By the Numbers

2022 - 2023 State-wide Impact



75%

of schools had community partners



\$249K

wellness funds awarded to schools



85

adopting health care professionals



117

schools used a school-wide SEL program



59%

of schools had food-based gardens



125

schools increased classroom physical activity



57%

schools had water drinking campaigns



81

schools used a bullying prevention program



35%

of schools had staff walking/running groups

2022-2023 Year End Wellness Awards



Wellness awards earned by top-scoring schools throughout participating school districts

Outcomes

School-based Wellness Impacts on Health and Education



Obesity

Between 2014-2019, the average student BMI significantly decreased in participating schools, while the average BMI of students in non-participating schools significantly increased.

A child who attended a school that earned a higher number of points was at least 12% less likely to be categorized as overweight or obese.



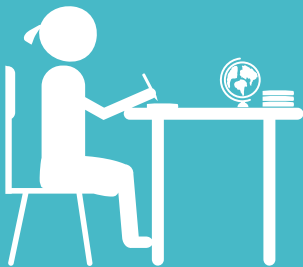
Asthma Urgent Care

There are 12% fewer asthma related urgent care visits or hospitalizations among Charleston County students attending participating schools compared to those who are not.



Graduation Rate

For every 50 points a school earns on the School Wellness Checklist, there is a 1.5 percentage point increase in high school graduation rate.



Attendance, Suspensions, and Expulsions

Schools who have participated longer in the Initiative had higher student attendance and lower suspensions/expulsions rates. Every four years of participation is associated with a 0.5% increase in attendance rate and a 0.77% decrease in suspension/expulsion rate.



School Type

All of the above outcomes were similar regardless of type of school (elementary, middle, or high) or resource level of the school community (Title I or non-Title I). This suggests that the Initiative is successful in creating a culture of wellness for a diverse group of schools.

Outcomes

Mental Health Prevention and Treatment Impacts



Integration of effective mental and behavioral health interventions



Increases access to supports through public-private partnerships



Positively impacts the wellness of students, staff, and their families



School-centered Wellness, Prevention, and Treatment Model

Intensive Supports - Tier 3



100%

school MTSS teams refer students to appropriate mental health supports



79

students in four of highest need schools received trauma-focused therapy

Targeted Supports - Tier 2



360

students received group art therapy in 19 schools



23

schools utilize Telehealth to meet the health and wellness needs of students

Universal Supports - Tier 1



75

school staff participated in an interactive virtual learning cohort



95%

schools have an active MTSS team



5

secondary trauma and resiliency trainings provided to all school staff

Love Yourself

Student-led Mental Health Prevention Campaign

Mental health disorders among children have worsened significantly in the past few years, with unmet mental health needs reaching insurmountable rates. In 2021 children's mental health was declared a national emergency. Experts recommended implementing community-based systems of care that connect families to school-based mental health interventions, including the development of Cchool-Centered Resiliency, Prevention, and treatment programs.

Anna Gorritti, a teacher at Stratford High School in Berkeley County School District, has made it her mission to support peer-led mental health prevention efforts in her school. This community-generated peer-led project began in 2022 when Ms. Gorritti sat down with a group of students to discuss their current stressors. Many students reported that they felt a need for additional mental health supports. Anna sourced training from the National Alliance on Mental Illness to increase her knowledge of prevention strategies. She then developed a mental health awareness campaign called 'Love Yourself.' The goal of the campaign is to create a positive school climate that emphasizes the mental health and wellness of all.

This peer-led mental health prevention strategy includes an emphasis on building a school community that accepts and affirms all students, with a large focus on community celebrations. Examples of activities include games, relationship-building activities, and celebrations of individual students within the school. During the campaign, each day focuses on a different activity: 'Picture Yourself' with a photo booth, 'Celebrate Yourself' with karaoke, music, and dancing, and 'Treat Yourself' with a snack and positive notes to yourself or others. Also, with support from students, teachers lead classroom discussions about mental health, wellness, and ways to build resiliency.

During the 2022-23 school year Stratford High School hosted two 'Love Yourself' campaigns to continue to build a positive school climate. The Love Yourself campaign is a phenomenal example of a universal wellness strategy. Students who participated in the campaign found it so valuable that they along with Ms. Gorritti presented the campaign at state-level conferences and supported other local schools and districts with implementation.



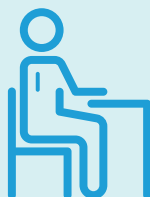
Students locating countries on a world map



Student posing in front of poster where students shared positive affirmations and encouraging words



Students playing a matching game to connect countries with their capital cities



2499

participating high school students



5

community building activities in each campaign

The Farm at Florence 1

Expanding Farm-to-School Programming

Established in 2023, The Farm at Florence 1 Schools (F1S) has already impacted the lives of students and school staff by providing the knowledge to empower participants in making educated and informed food choices in a fun and engaging way. The Farm includes raised garden beds, a greenhouse with hydroponic systems, row crops, and a state-of-the-art teaching kitchen where community partners, such as Clemson 4-H, can implement programming for students. Once students enter the gate at the Farm, they are immersed in a hands-on learning field study experience where they participate in cooking demonstrations, gardening, and taste test lessons.

During each Field Study, through collaboration with F1S Culinary Department, students are served a healthy, gourmet-inspired lunch, plated on fine dinnerware, and free of charge. MUSC BCCW is looking forward to collaborating with the Farm at F1S as part of a new three-year grant, received through the BlueCross BlueShield of SC Foundation and the Diabetes Free SC Initiative. Funding from this grant will allow for expanded opportunities within F1S for those students who are at risk for or who are living with diabetes to help them build and sustain healthier lifestyles.



The Farm at Florence 1 Schools teaching kitchen and classroom space



Students participating in a culinary lesson

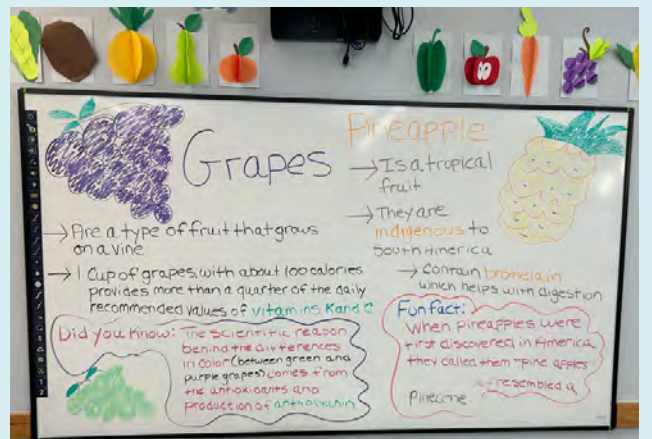
Jeff Murrie, F1S Farm-to-School Coordinator states,

“The Farm provides our students with a safe, non-judgmental environment to experience new foods that are both nutritious and appealing to the senses.” During their farm field experience, “students are given new opportunities they never imagined possible.”

Local Wellness Policy (LWP)

For the last seven years, MUSC BCCW has collaborated with the SC Department of Education as part of an inter-agency Technical Assistance Team that supports district-level wellness committees in compliance with the USDA Healthy, Hunger-Free Kids Act of 2010. Through this team, MUSC BCCW provides training and technical assistance to schools and school districts as they carry out their plans that aim to provide healthy school environments.

In 2021, MUSC BCCW expanded its support to several non-traditional school sites across the state, such as St. Anthony of Padua Catholic School in Greenville, SC. The team at St. Anthony had a goal during the 2022-23 SY of making healthy choices the easy choice for students by creating nutrition education displays in the school cafeteria.



Whiteboard in St. Anthony of Padua Catholic School cafeteria

Supporting MUSC BCCW

Initiatives Made Possible Through Support From

The Boeing Company
BlueCross BlueShield of South Carolina Foundation
The Duke Endowment
Charleston County School District
Cooper River Bridge Run
Covelli Enterprises
Healthy Me-Healthy SC
Medical University of South Carolina
Pottstown Area Health and Wellness Foundation
Samuel Freeman Charitable Trust
SC Department of Education

Giving to the Initiative

MUSC BCCW relies on grants, donations, and sponsorships to carry out its mission of creating healthy learning environments in schools across South Carolina.

To support our Initiative, donations can be mailed to us or made online at:

givenow.musckids.org/donate.

Be sure to select "other" when making your donation and enter MUSC BCCW to designate your gift.





MUSC Boeing Center for Children's Wellness

125 Doughty St., MSC 561

Charleston, SC 29425

843-876-2039



@MUSCBoeingCenter



@MUSCBoeingCenter

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