



MUSC Boeing Center
for Children's Wellness

2024

Impact Report



Letter from Leadership

Dear Friends,

You know that old saying about necessity, that it's the mother of invention? What has happened with our School Wellness efforts is a perfect example. The imperative needs during the COVID-19 pandemic demanded a creative solution. Not only did schools continue participating in our School-based Wellness Initiative during and after the pandemic, but even more schools joined in.

Compared to 2019, the year before, the number of participating schools increased from 194 schools in 13 districts to 271 schools in 20 districts in 2024, reaching an additional 11,000 students. During this time, our schools have pushed boundaries, setting new records for the number of wellness strategies implemented, providing students with healthier food options, additional physical activity opportunities, and introducing new supports for student and staff mental wellness. On top of that, our schools adapted these strategies to fit the needs of their own students. For example, schools that have grown food in their school-based gardens are now planting sensory gardens, adding another benefit to getting outside in a garden.

A big driver of this innovation has been the mental health crisis exacerbated by the COVID-19 pandemic. In response, we began working closely with three districts to develop, test, and evaluate a unique framework for promoting mental health, preventing mental illness, and providing treatment that is built on the foundation of our School-based Wellness Initiative. In each district, we started by delineating community needs and assets, then brought in the best and latest interventions to build a school-centered system that coordinates existing treatment while simultaneously addressing unmet needs. This work is complex and slow but is already paying off. Even at this early stage, we can already see that schools have a heavier emphasis on prevention, that the school-centered framework is finding kids earlier and getting them into treatment, and that additional treatment options are now available in schools. In fact, we are now using this approach to address other needs, such as the prevention and treatment of childhood obesity and diabetes, conditions also increasing more rapidly since the pandemic.

All of this is only possible due to the ongoing support from our generous funders. Ultimately, this good work is for one purpose: to ensure that all our children are healthy, succeed in school, and live their very best lives.



Janice D. Key MD

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 supports schools in the adoption of proven strategies that promote optimal health and well-being for all.

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. Through several school-centered initiatives, we support schools in implementing evidence-based policy, systems, and environmental (PSE) strategies. Implementing 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 14 years ago. Our work has gradually spread from a single school district to 20 school districts across the state. Our Initiatives have also evolved to adapt to the current needs of students and school staff, expanding from strictly an obesity prevention program to supporting universal wellness. Most recently, we have expanded the scope of our work beyond universal wellness to include the coordination of supports for students with increased risks, such as mental health and diabetes.

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.



Sarah Piwinski
Director



Emma Williamson
Administrative Coordinator

Our Initiatives

School-based Wellness Initiative

The MUSC BCCW School-based Wellness Initiative provides direct support and motivation for K-12 schools and districts as they implement universal wellness strategies for all students. These strategies target improved nutrition, increased physical activity, and enhanced social emotional wellness for both 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 a custom implementation tool, the School Wellness Checklist.
 - The School Wellness Checklist (SWC) provides schools with universal evidence-based strategies that assist schools in making the policy, systems, and environmental changes required to build and sustain a culture of wellness. The SWC also serves as the scoreboard during the school year. Schools earn points for each wellness strategy they implement throughout the school year. If they meet the minimum point threshold for the year, they receive a monetary wellness award that can be used to support their continued wellness efforts.
- Training and support from a program coordinator.
 - Program coordinators provide ongoing support to districts and schools through coaching, training, and technical assistance. They guide school staff in identifying and implementing universal wellness strategies that meet the needs of their school community. Program coordinators also work to build relationships with community partners that can help schools meet their wellness goals.
- Engagement from a school-level wellness committee.
 - A school wellness committee is required to participate in this initiative. Committees are encouraged to begin each school year by creating a wellness action plan that identifies the needs of their school community. The committees are also responsible for selecting and documenting each strategy implemented.



Maclain Gutkin
Program Coordinator



Lindsay O'Neal
Program Coordinator



Chelsea LeFebvre
Program Coordinator



Amy Tourtellot
Program Coordinator

Docs Adopt Initiative

Schools participating in our School-based Wellness Initiative are also encouraged to participate in Docs Adopt. This Initiative partners health care providers such as physicians, nurse practitioners, chiropractors, dentists, and physician assistants with schools. Participating health care providers serve as wellness committee members and provide support, knowledge, and motivation to schools as they implement evidence-based wellness strategies. This relationship is essential as health care providers play a critical role in integrating primary care with public health.



Pediatric Residents participating in a school health fair



Six school districts
supported by Clemson
Rural Health & Nutrition
Agents

Our Initiatives

Promoting Positive Mental Health and Well-being

Our School-centered Wellness, Prevention, and Treatment Model was developed to expand our School-based Wellness Initiative beyond universal prevention to include coordinated, targeted mental health interventions for those students, staff, and families with a higher need. 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 includes a continuum (Tiers 1, 2, and 3) of integrated academic, social, emotional, and behavioral interventions. The goal of MTSS and the School-centered Wellness, Prevention, and Treatment Model is to create a system of care that ensures students have access to and receive the supports they need.

In the initial stage of implementing this model, the MUSC BCCW team focuses on identifying existing district and community behavioral health resources and any gaps in the available supports. We then work in close collaboration with the district and community stakeholders to address barriers and develop an effective school behavioral health system that meets the needs of the school community.

The School-centered Wellness, Prevention, and Treatment Model was piloted in Charleston County School District (CCSD) in 2021. With gratitude to the Duke Endowment and The Leon Levine Family Foundation, we expanded this model to Berkeley County School District and Dorchester School District 2. We plan to expand to one additional district in the 2024-2025 school year. Essential partners in this model include the SC Department of Mental Health and county mental health offices, 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 and district leaders.



Dr. Erin Scherder
Project Manager



Emily Eiserhardt
Program Coordinator

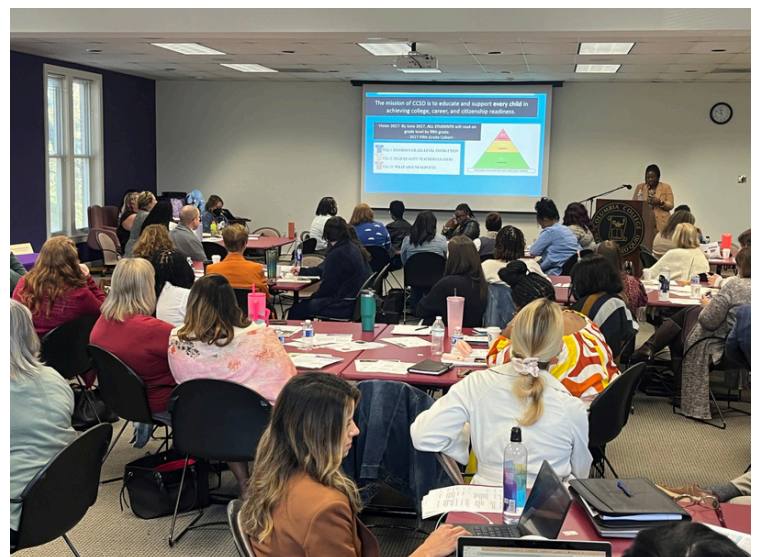


Courtney Pryor
Program Coordinator

“As a school district leader, working with MUSC’s Boeing Center for Children’s Wellness has increased our access to community mental health partnerships and strengthened relationships that support the well-being of all of our students!”
- Mental Health and Wellness Systems Coordinator



Student artwork from an art therapy session



SC School Behavioral Health Summit

Our Initiatives

Preventing and Treating Diabetes through School-based Wellness

In 2020, the BlueCross BlueShield of South Carolina Foundation provided generous support to the MUSC BCCW through Diabetes Free SC to expand our universal School-based Wellness Initiative to seven school districts. In January 2023, additional support was provided to deliver intensive, evidence-based clinical, lifestyle, nutrition, and physical activity programs to students and staff who are at risk for or living with diabetes in two school districts: Florence 1 Schools and Colleton County School District.

The MUSC BCCW team collaborated with Florence and Colleton County stakeholders to conduct a needs assessment regarding diabetes prevention and treatment services available in the community. Participants discussed needs, barriers, and opportunities for integrating wellness interventions into a school-based framework. Key recommendations to improve the health of students and staff were identified for each district (see table below) and used as the MUSC BCCW team worked with district nurses and administration to form additional diabetes prevention and treatment programs for students and staff.

In Colleton County Schools, the MUSC BCCW and the Department of Pediatric Endocrinology partnered to provide diabetes care to students through school-based telehealth. Facilitated by a MUSC Nurse Telepresenter and a school nurse, students meet over video with a variety of diabetes specialists (doctor, dietitian, diabetes educator) in lieu of a conventional in-person visit. This program is helping to eliminate barriers to care for students with diabetes.



Dr. Kathleen Head
Associate Medical
Director



Kerrie Hollifield
Project Coordinator



Jennifer Stintzi
Telehealth
Telepresenter

KEY RECOMMENDATIONS CRITICAL TO IMPROVING THE HEALTH OF STUDENTS AT RISK FOR OR LIVING WITH DIABETES WERE IDENTIFIED FOR EACH DISTRICT

1. Continued support for School Wellness Committees/program (B)
2. Engage community and administrative leaders (B)
3. Increase access to healthy resources (B)
4. Allocate/procure more funding for direct wellness services (B)
5. Prioritize and incentivize school staff involvement in wellness (B)
6. Leverage a variety of community partners for support (B)
7. Deliver whole family-inclusive programming (B)
8. Increase parental involvement (F)
9. Increase community and county-wide wellness events (B)
10. Develop a district wellness information dissemination plan (F)
11. Partner in food system advocacy (C)
12. Continue and expand support for sub-specialty care through school-based telehealth services (C)

Key:

(C) = Colleton County School District specific

(F) = Florence 1 School District specific

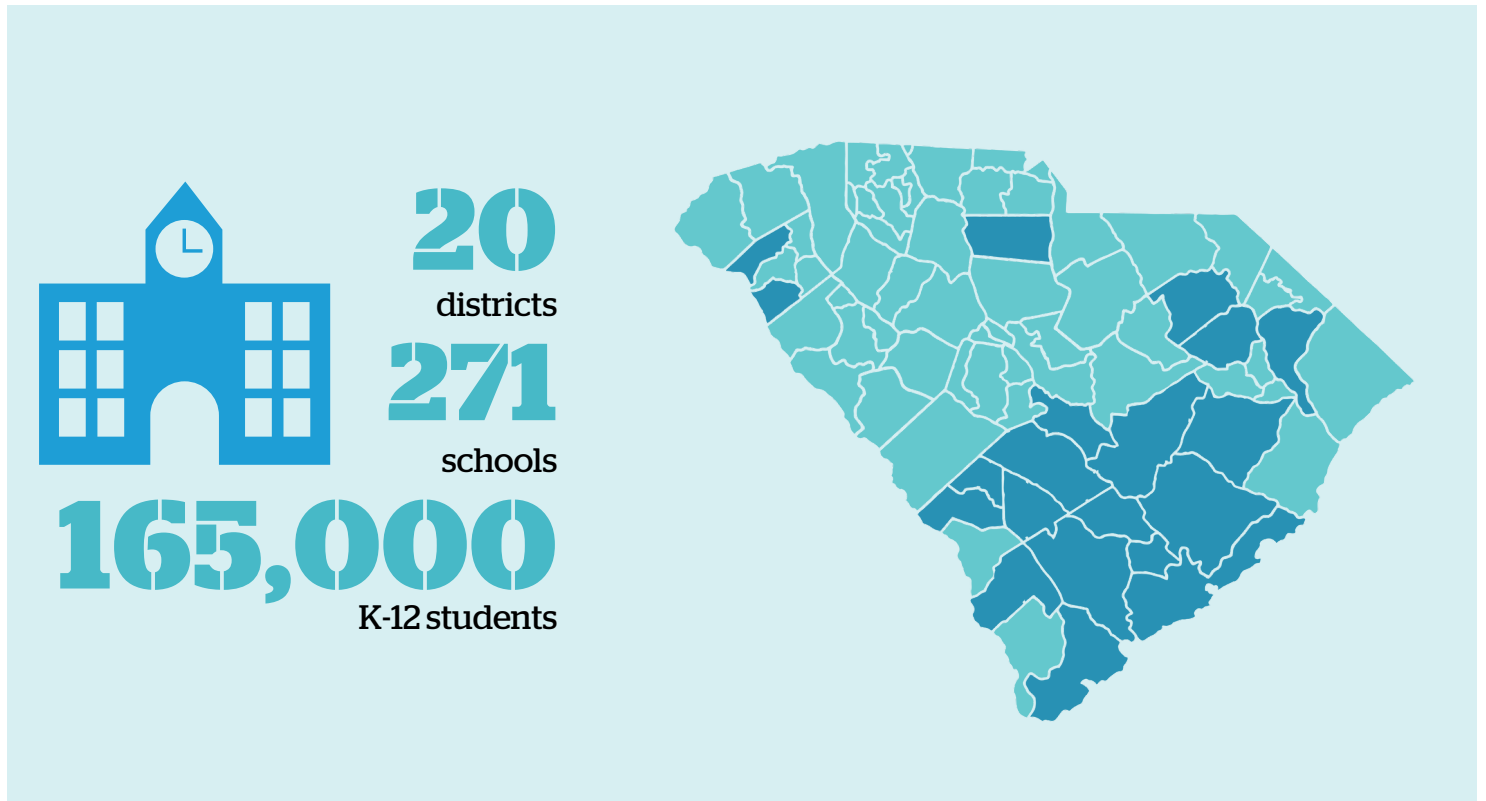
(B) = Both School Districts

“The Telehealth program has been absolutely one of the most helpful things for our family’s health needs. With this program we have had a much easier time keeping the much-needed Endocrinology appointments for diabetes management. Since we live an hour from the offices, it has always been financially challenging at times to plan for every appointment due to the distance. With Telehealth, the time needed away from work and school is far less than before. It has really helped us in so many ways.”

- Mother of a Type I Diabetic student in Colleton County Schools

By the Numbers

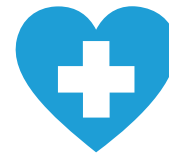
2023 - 2024 State-wide Impact



\$252K
wellness funds
awarded to schools



107
of schools applied for
a grant to support
their wellness efforts



97
adopting health
care professionals



184
schools created a
relaxing space for
students



151
of schools had food-
based gardens



119
schools increased
classroom physical
activity



155
schools had water
drinking
campaigns



119
schools used a
school-wide SEL
program



94
of schools had staff
walking/running
groups

2023-2024 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.



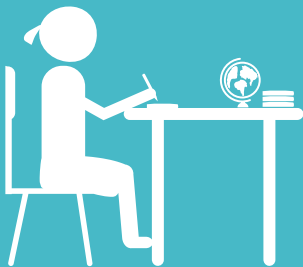
Asthma Urgent Care

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

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



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



199

students referred to MUSC School-based Telemental health



36

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

Targeted Supports - Tier 2



170

students received group art therapy in 14 schools



30

students from two schools participated in health and wellness small groups

Universal Supports - Tier 1



65

participants attended the SC School Behavioral Health Summit



18

undergraduate interns connected to SC schools to support behavioral health systems



16

secondary trauma and resiliency trainings delivered to school staff

Spotlight

Coordinated School Health Advisory Council

Florence 1 Schools is fostering a healthy school environment by establishing a Coordinated School Health Advisory Council (CSHAC) to oversee their district's local wellness policy (LWP). These policies act as a guide for the district in building an environment that promotes health, well-being, and the ability to learn for all students.

With support from MUSC BCCW Jeffery Murrie, Florence 1 Schools CSHAC President and Farm to School Coordinator, has established a gold standard approach to leading the District's CSHAC. Murrie's vision has united a wide array of stakeholders—including community partners, board members, principals, food service staff, parents, students, and district leaders. This collaborative effort, bolstered by MUSC BCCW's technical assistance, ensures that valuable knowledge is shared to meet LWP standards and develop effective and impactful wellness initiatives within the district.

Mr. Murrie states that, "the formation of the CSHAC is a vital component of our mission to bring about generational change to our students, employees, and community. With the assistance and guidance of MUSC BCCW we feel empowered to make impactful changes and not only check a box."



Dr. Kathleen Head and intern Dylan Mott serving students snack during a teaching lesson at the Farm



Jeff Murrie at The Farm at Florence 1

Pediatric Healthy Lifestyles Learning Collaborative

In March 2024, the MUSC Boeing Center for Children's Wellness partnered with the SCAAP Pediatric Healthy Lifestyles Subcommittee to launch a state-wide virtual learning collaborative. The mission of this learning collaborative is to facilitate knowledge exchange and evidence-based resource sharing to improve the prevention and treatment of obesity delivered to pediatric patients in South Carolina.

This collaborative is free to attend and is held quarterly. Healthcare professionals from all 46 counties across SC have engaged and received continuing education credits for their participation. Through their involvement in this learning collaborative, participants are making positive practice changes and improving obesity care for children.

"Managing childhood obesity is such a complex problem. Being able to hear from experts in the field across disciplines provides us with valuable tools when meeting with patients and families in the office. Moreover, hearing from pediatric practitioners across the state builds a sense of community where we can share our experiences."

--SC Pediatric Physician



43

healthcare professionals participated



62%

participants surveyed applied information learned to their practice

Spotlight

Sensory Gardens in Schools

Sensory gardens in schools provide numerous benefits, enriching students' well-being and learning experiences. These gardens are designed to engage all five senses through carefully selected plants and features such as water elements and wind chimes. The immersive experience helps reduce stress and anxiety, promotes mindfulness, and enhances emotional well-being. Sensory gardens can also be used as a therapeutic setting by providing a calming environment that can improve focus, mood, and even communication between students and providers.

With the generous support of the Samuel Freeman Charitable Trust, MUSC BCCW has assembled an advisory committee of experts from various institutions, including Clemson University, MUSC, and the Charleston County School District (CCSD). This group is creating the "School-based Sensory Garden Guide." Ten CCSD schools will be selected to receive technical assistance and supplies for piloting the utilization of the guide and integration of a sensory garden into the schools' mental health supports. The guide will be available to additional schools by the 2025-2026 academic year.



Sensory garden advisory committee



Sensory garden at Shawn Jenkins Children's Hospital

Stono Park Wellness Committee

Stono Park Elementary School, a Charleston County School District (CCSD) school located in the West Ashley area, has an all-hands-on-deck wellness committee. This committee is comprised of educators, school nurses, and a family services advocate, Traci Alter, who serves as the group's leader. The 2022-2023 school year was the first time Stono Park Elementary participated in the School-based Wellness Initiative since the 2014-2015 school year.

At the start of the 2022-2023 school year, Traci started brainstorming additional ways to engage students and staff in wellness activities. She recruited wellness committee members, and together, they worked to implement several physical activity events, such as walk-to-school days, a student fun run, and a staff wellness competition. These efforts earned the school the Rookie of the Year Award and recognition as the third highest-scoring school overall in CCSD during the 2022-2023 school year. Traci and the Stono Park Wellness Committee continued their hard work the following school year, winning the 2023-2024 Grand Prize Wellness Award as the top-scoring school in the district. In fact, they were only five points shy of beating the all-time scoring record for all CCSD schools. Traci and her committee are still not satisfied. Stono Park Elementary's goal this year is to break the district record.



Students participating in a wellness activity



Stono Park 2023-2024 Wellness Committee



Students and school staff playing pickleball

Spotlight

Telemental Health

The number of students needing mental health care exceeds the capacity of current services. To meet that need, the MUSC Center for Telehealth, a nationally recognized leader in telehealth, and the MUSC Institute of Psychiatry developed an efficient and straightforward telemental health platform that can easily be used in schools such that a student doesn't have to leave school for an appointment and parents can join from work or home. The goal of these new services is to fill gaps, not replace the existing interventions already being used in schools.

In addition to individual supports, the MUSC Telemental Health program can also provide videoconferencing services, an online learning platform, and the integration of app-based behavioral health interventions. One of the app-based interventions currently being piloted is NeuroFlow, a behavioral health application that has been used to provide evidence-based screening tools, digital behavioral health resources, and brief interventions supporting general wellness as well as symptoms of depression, anxiety, and other mental health-related disorders. MUSC BCCW and MUSC Telemental Health are currently working with three pilot districts to utilize NeuroFlow for screening and to provide brief interventions to improve early identification, treatment, and monitoring of mental health needs.



Dr. Goodyear conducting a telemental health call



6

participating public school districts



199

Students referred to school-based telemental health

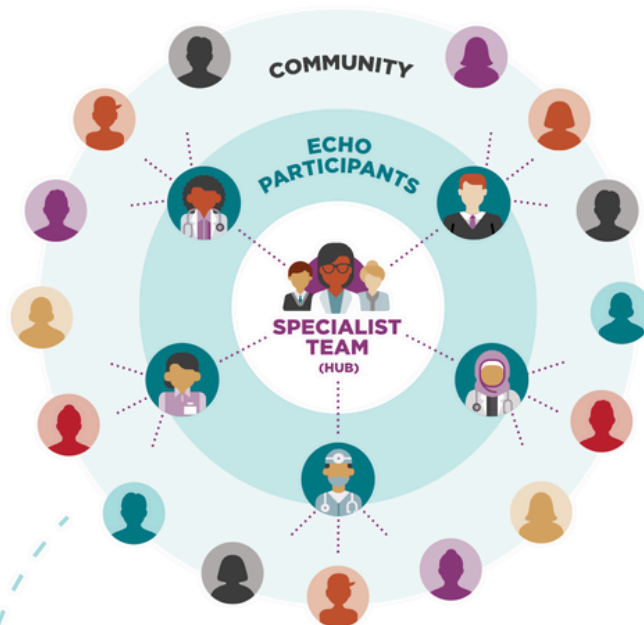
Youth Behavioral Health ECHO

The MUSC Boeing Center for Children's Wellness and the SC Department of Mental Health Youth Access to Psychiatry Program (YAP-P) launched the Youth Behavioral Health ECHO, an online learning collaborative for school staff and clinicians in 2024.

An ECHO (Extension for Community Healthcare Outcomes) is a collaborative medical education and care management model that creates an ongoing learning community where providers receive support and develop the skills they need to better support the population they care for, in this case, kids in schools.

The Youth Behavioral Health ECHO had 12 sessions that occurred from January to June 2024 and was attended by 176 participants, including school behavioral health professionals and primary care providers. Each session included a focused teaching session followed by a case presentation for group discussion about how to better support the mental and behavioral health needs of our students.

All Teach, All Learn



Supporting MUSC BCCW

Made Possible Through Support From

The Boeing Company
BlueCross BlueShield of South Carolina Foundation
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
The Duke Endowment
The Leon Levine Family Foundation
Samuel Freeman Charitable Trust
SC Department of Education
SC Department of Mental Health - YAP-P



Elementary students participating in a "taste the rainbow" activity

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.



Physical activity opportunity at a school wellness event



MUSC Boeing Center for Children's Wellness

125 Doughty St., MSC 561

Charleston, SC 29425

843-876-2039

 @MUSCBoeingCenter

 @MUSCBoeingCenter

musckids.org/boeingcenter