



MUSC Boeing Center  
for Children's Wellness

**2022**

Impact Report



# Letter from the Director

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

Last year was unprecedented; except for the fact that I have now said that for the past three years. Three long years of the COVID pandemic, worldwide unrest, and financial strain have hit home. In 2021, we began to see the impact these events have had on our children and adolescents, resulting in such an increase in mental health problems that national experts declared a state of emergency. Our School-based Wellness Initiative was created 15 years ago from another urgent community problem, childhood obesity, and since then has been improved annually to address changing needs. In that spirit, last year we quickly pivoted to add school-centered mental health prevention and treatment on the solid foundation of our wellness work. This was only possible because of the generous support from our long-time funders as well as new donors who were drawn to this need. No one can do this work in isolation. We are fortunate to be part of a community that truly cares. Thank you.

In the midst of many roadblocks and increased pressure to close recent academic gaps, our schools continue to do amazing work. The fact that 19 districts and 204 schools participated in our School-based Wellness Initiative during the 2021 - 2022 school year speaks to their commitment to improving the health and wellbeing of our students. Like us, our schools believe that healthy kids are better learners and that by focusing on school-based wellness we will improve academic outcomes.

Our pilot to add mental health supports in Charleston County began last fall with many community listening sessions followed by collaboration with district leaders to develop a school-centered framework. We are using a Multitiered System of Supports to coordinate services, programs, and strategies to fill gaps and address needs, strengthening and not duplicating existing efforts. Of course, this has not been easy and we continue to refine this effort. However, much was done even during this first year including providing all 49,000 students with universal support (such as our School-based Wellness Initiative and screening for mental health needs), 692 students with additional supports (such as Art Therapy groups in elementary schools), and 220 students with individual services (such as Trauma Focused Cognitive Behavioral Therapy both at school and by telehealth). You can read more details about our School-Centered Wellness, Prevention, and Treatment Model, on page 3.

Many things have changed since the Boeing Company first supported our efforts to reduce childhood obesity 12 years ago. We have gradually spread from a single district to many districts across the state. This past year, we extended beyond universal wellness by adding coordinated tiered support for mental health needs. During these adjustments our mission remains the same, improving the health and wellness of our children by reaching them where they are, in school. By keeping schools at the center of our work we are able to reach all children, therefore overcoming health disparities.

Remember an important underlying public health principal, educational attainment is the most modifiable factor contributing to health disparity. It's a powerful bidirectional relationship; healthy students are better learners and people who go farther in school are healthier throughout their life. With support from our community and the work of our partnering schools, we are achieving our vision, a South Carolina where all children are healthy, succeed in school, and thrive in life.

With gratitude,



Janice D. Key, MD



# 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.



*Burke High School students participating in the schools Mental Health Awareness Week*

## What We Do

Since 2010, the MUSC Boeing Center for Children's Wellness (BCCW) has supported schools in the implementation of evidence-based policy, system, and environmental strategies at the population level targeting improved nutrition, increased physical activity, enhanced social emotional wellness for both students and staff. Our School-based Wellness Initiative is based on the Social Ecological Model framework using the Whole School, Whole Community, Whole Child model and has been demonstrated to be a feasible and effective implementation method. The Initiative is designed to engage the school community in creating a healthy learning environment through support from an MUSC BCCW program coordinator, an active school wellness committee, and the utilization of a custom implementation tool, the School Wellness Checklist©.

Ongoing evaluation of our Initiative has demonstrated schools that participate have healthier trends in student weights, decreased emergency visits for students with asthma and improved educational outcomes (attendance, suspensions, and high school graduation). We are particularly interested in equitable participation and have assured that Title 1 schools (that enroll many children living in poverty) attain the same level of participation, educational, and health outcomes as do non-Title 1 schools.

# About Us

## School-Centered Wellness, Prevention, and Treatment Model

Our community generated Initiative is unique because it adjusts to meet current needs and update best practices. In the past, iterative modifications to the Initiative were made yearly based on school input, changes in guidelines for school nutrition, and new evidence-based strategies in pediatric wellness.

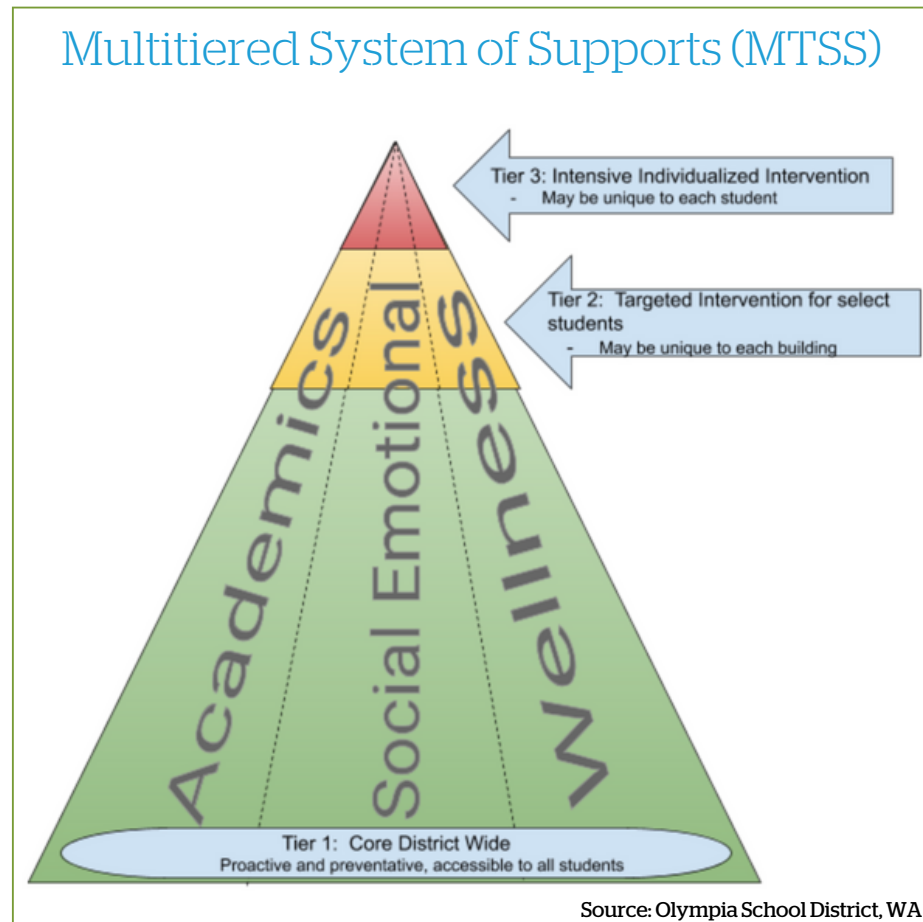
In 2021, we launched a new model for our Initiative, expanding beyond public health and universal prevention programming to include coordinated, targeted mental and behavioral health treatment services for at-risk or affected children. This school-centered wellness, prevention, and treatment model utilizes an existing school framework, the Multitiered System of Supports (MTSS).

MTSS is an evidence-based framework that integrates academic and behavioral interventions in varying intensities (tiers): Tier 1, universal for all students; Tier 2 at-risk for some students; and Tier 3, high-risk for a few students. This approach anchors prevention and treatment in schools, synergizing efforts and maximizing benefits for individual students and the school community.

When beginning the model, the MUSC BCCW team works with community stakeholders to create a resource map. This includes schools, agencies, organizations, and providers who are working within the mental and behavioral

health field. Through this process we document their unique perspectives concerning the mental health crisis, unmet needs, opportunities to synergize, and methods for communication and coordination using the school as the hub.

The resource map along with district needs then guide the selection of interventions addressing all three MTSS tiers. For example, MTSS mental health supports could include resiliency interventions (Tier 1), MUSC Art Therapy groups (Tier 2), and Trauma-focused Cognitive Behavioral Therapy (Tier 3).

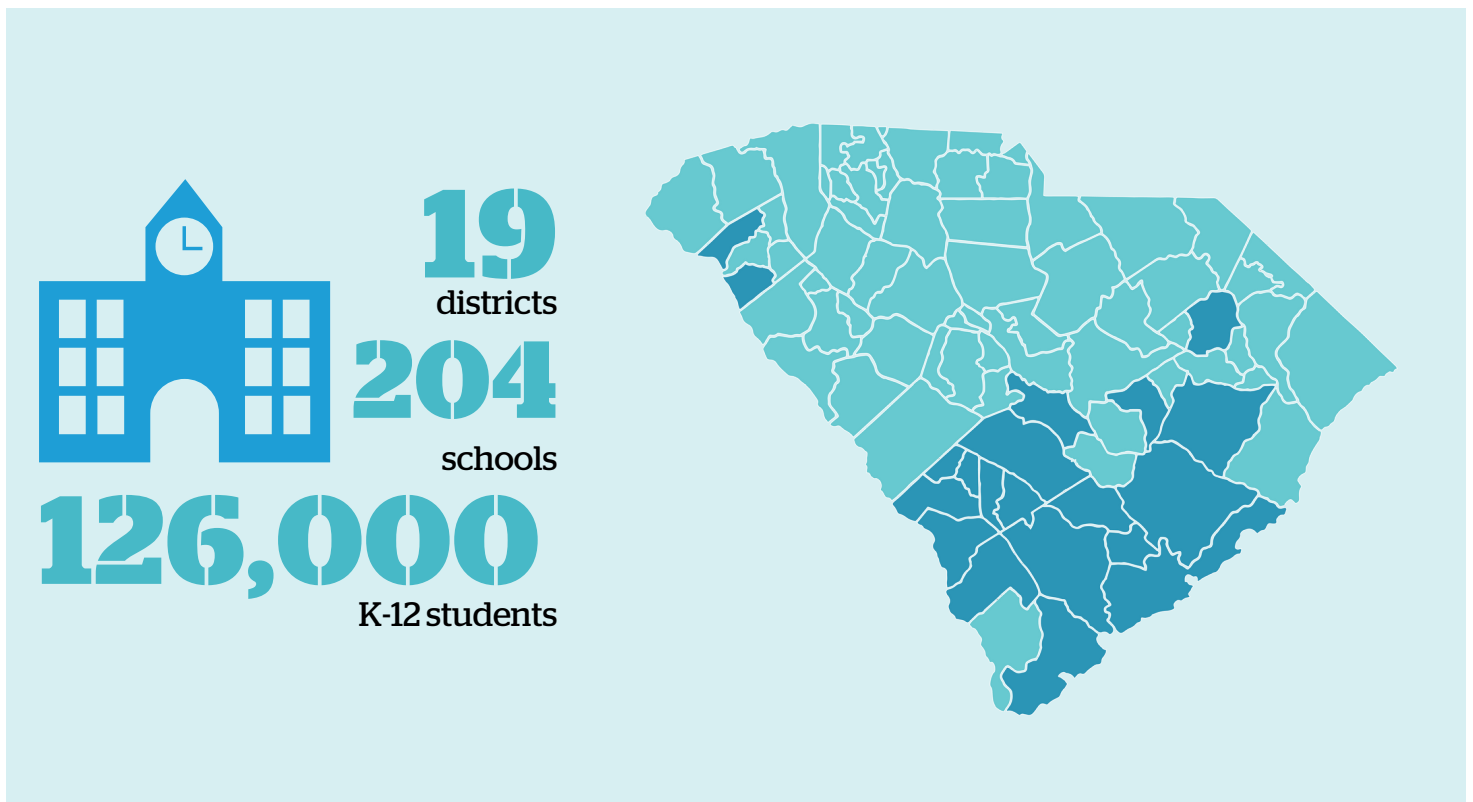


*"It is our hypothesis that universal wellness strategies remain the foundation upon which treatment is most effective," says MUSC BCCW Director Dr. Janice Key.*

Our goal for the school-centered wellness, prevention, and treatment model is to leverage our established relationships with schools, communities, and organizations by transforming the MUSC BCCW into a hub, bringing outside resources into schools for all areas of Wellness. This model will allow us to reach all students and staff while also adding targeted prevention and treatment strategies for those most at-risk.

# By the Numbers

2021 - 2022 impact across schools state-wide



**67%**

of schools had community partners



**\$168K**

wellness funds awarded to schools



**46**

schools served and promoted locally grown produce



**61%**

of schools had food-based gardens



**30%**

of schools participated in community physical activity events



**81**

schools used gardens to teach about nutrition



**149**

schools had staff wellness programming



**108**

schools increased classroom physical activity



**100**

adopting health care professionals

# Outcomes

Our impact 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.



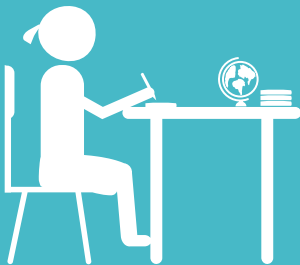
## Asthma Urgent Care

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<sup>©</sup>, 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.

# Art Therapy

## Group Therapy

During the 2021-2022 school year MUSC BCCW partnered with the MUSC Arts in Healing Department to address the increased mental health needs among students in Charleston County School District by providing group art therapy sessions. For six-weeks a small group of similarly aged students met weekly with a certified art therapist. During each session participants focused on a specific theme or therapeutic goal using art materials to provide opportunities for student to:

- increase socialization
- increase self-esteem
- build communication skills
- help identify and explore thoughts and feelings
- explore new ways to cope



This art therapy directive asked students to create a dual self-portrait that includes half of their portrait depicting their outer-self or "what other people see" and the other half depicts their inner-self or "what people don't see or know". The goal of the session was to increase self-awareness and how to process negative emotions in a more self-compassionate way. This student utilized the directive to process anxiety, depression, and identity.



**180**

participating  
students

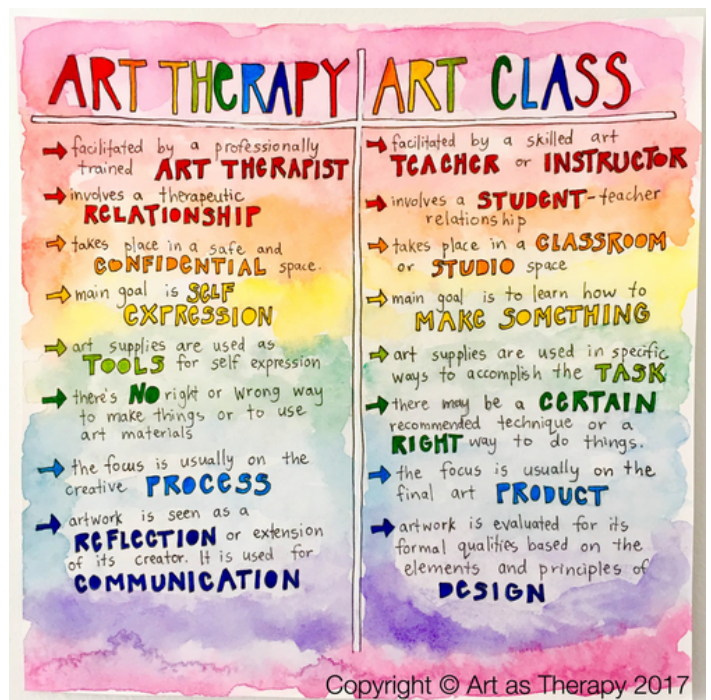


**9**

participating  
schools

In schools, the intent of an art class is to develop knowledge and skills. With specific respect to producing art, the emphasis is more on what is produced and not the process of creating the work. In contrast, the intent of art therapy is treatment. Art therapy focuses on the individual and uses the act of creating art as a therapeutic process. Art therapy, which is facilitated by a registered art therapist, is focused on addressing goals using specific art interventions in efforts to help address personal factors that may be impeding a student's learning, social skills, and general functioning.

When words are hard to find, art therapy can create opportunities for participants to bring further meaning and insight by exploring various media alongside therapeutic goals in a safe and supportive way. In the school settings, children and adolescents participate in art therapy with the goals to develop a stronger sense of identity, self-esteem, self-awareness, self-confidence, and emotional resilience.



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# High School Walking Groups

## The importance of movement and mental health

There are many benefits to increased opportunities for physical activity during the school day, but schools often face barriers to implementing activities outside of the scheduled physical education time. Both Battery Creek High School and Cross High School have found ways to increase both student and staff physical activity opportunities during the school day.

Battery Creek High School formed a walking group in the fall of 2020 giving students and staff the opportunity to move before the start of the school day. A key component to this group is that it is open to the entire school community. Students, teachers, and staff gather to walk the loop in front of the school before classes begin. Mackenzie, a member of the Battery Creek student wellness committee, said, "The walking group is a refreshing way to start the day. It creates community in the morning and helps us wake our bodies to start our day off right." The walking group has become so popular that the school wellness committee added incentives for participating. Participants use a punch card to track their activity and can earn a dress down day or receive a wellness t-shirt. Madison, a Battery Creek High School Senior, stated, "While the incentives are nice just walking in the morning gets your blood flowing and brain going." Another benefit to the walking group is the opportunity for students to engage with school counselors, teachers, or with peers they may not otherwise spend time with during the school day.

**"The walking group has been beneficial for students. It has had a positive impact on mental health and academic productivity. It helps students get their energy out and get their mind flowing for the day"**  
- Justine Hardy, Health Science teacher



Cross HS students walking the track



Cross HS's FitBit Winner



Battery Creek HS students walking the front loop

The walking group at Cross High School started in the fall of 2021, amid the Covid-19 pandemic, when Principal, Alicia Pressley noticed there was not a great space for students to practice social distancing and take a break from the school day. Upon this realization, the school wellness club, led by Robert Seay, Social Studies teacher, and LTC Ben Lipari, JROTC instructor and coach, established a walking initiative, also known as Laps at Lunch. The group is open to all students and takes place daily during the lunch period on the school track. After students finish eating their lunch, they have the freedom to walk the track while socializing with friends and getting some physical activity.

During the 2021-2022 school year, 30 students participated in the program. Students tracked their laps and reported how many they completed. Quarterly Mr. Seay and LTC Lipari recognized the walker who completed the most laps. At the end of the school year the 15 students who completed the most laps throughout the year were recognized with a special lunch and entered a raffle for a Fitbit. According to LTC Lipari, the Laps at Lunch program has had a great impact on students' physical and emotional wellness. He said, "Students want to walk after lunch and are motivated apart from the incentives we offer." Principal Alicia Pressley and the school administration have greatly supported the school wellness program which includes the Laps at Lunch, and other programs to improve student and faculty wellness, and Cross High School hopes to continue the program for many years to come.



42

participating schools  
have walk/run  
groups for students



90

participating schools  
have walk/run  
groups for staff



# Supporting the MUSC BCCW

Initiatives Made Possible Through Support From:

The Boeing Company  
BlueCross BlueShield of South Carolina Foundation  
Medical University of South Carolina  
Pottstown Area Health and Wellness Foundation  
Samuel Freeman Charitable Trust  
SC Department of Education  
Stony Point Foundation

## Giving to the Initiative

The 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](https://givenow.musckids.org/donate).

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





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