New Hampshire's Multi–Tiered System of Supports for Behavioral Health & Wellness

Summary of Evaluation Outcomes

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STUDENT WELLNESS

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NH's Multi-Tiered System of Supports for Behavioral Health & Wellness

Students face myriad social, emotional, and behavioral challenges that undermine academic achievement. Children's needs for mental health care are largely unmet; between 14 to 20% of children and adolescents (aged 8-15) experience a mental, emotional, or behavioral disorder each year but only about half of these children receive treatment. Without treatment, children with mental health disorders are at greater risk of negative outcomes such as dropping out of school, substance use, risky sexual behavior, violence, and more severe mental health difficulties.[1,2] Addressing students' social, emotional, and mental health needs leads to improved student outcomes.[3] As a result, schools are challenged to support the mental health needs of students while promoting academic achievement.

The Multi-Tiered System of Supports for Behavioral Health and Wellness (MTSS-B) model was designed to promote the behavioral health of New Hampshire (NH) public school students. MTSS-B blends research-based school mental health practices and social-emotional learning with Positive Behavioral Interventions and Supports (PBIS; see http://www.pbis.org). PBIS teaches school-wide behavior expectations at the universal level (Tier 1), offers targeted group support for at-risk students (Tier 2), and provides intensive, individual services for the highest-need students (Tier 3). MTSS-B is currently being implemented in nine NH school districts.

The NH Department of Education's (NHDOE) Bureau of Student Wellness (BSW), housed within the Bureau of Special Education, serves as the primary driver of the MTSS-B model and provides oversight, guidance, and support to NH districts involved in behavioral health-related projects and programs across the state. Under the MTSS-B umbrella, BSW works with stakeholders toward the promotion of optimal social, emotional, and educational outcomes for children, focusing on areas such as early learning, mental health, youth and family engagement, and school climate.

The challenges and rewards of high fidelity MTSS-B implementation

High fidelity MTSS-B implementation is associated with reduced student problem behavior and attrition, enhanced behavioral health, attendance, and academic achievement, and enhanced school climate. Fidelity has to do with intervention integrity – the degree to which a practice is implemented in a way that is faithful to the guiding model. Implementers tend to unwittingly "drift" from an intervention model in the absence of fidelity assessment.[4]

High-fidelity implementation of MTSS-B requires considerable investment of resources and is dependent on key implementation drivers including training; ongoing coaching; monitoring, evaluation, and data-based decision-making; system-level administrative support, and reliable funding and human resource capacity.[5] In NH, barriers to MTSS-B implementation have included

NH MTSS-B: Essential Components
Shared leadership, Data-based problem solving & decision making, Layered continuum of supports for all students, Evidence-based behavioral health assessment and intervention, Universal screening and progress monitoring, Social-emotional learning, Family, school, and community partnering

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Schools often use office discipline referral (ODR) rates as a leading indicator of student behavior and school climate. ODRs are linked with student aggression, drug use, defiance, behavior disorders, and delinquency.[6] Research suggests that MTSS–B is associated with reduced ODR rates, but only when implemented with fidelity.[7] Emerging cost analyses indicate that every $1.00 invested in high fidelity PBIS results in fiscal savings of $104.90.[8]

Data from several NH school districts are highly consistent with this scholarly evidence. The graphic below, from one NH school district where high–fidelity MTSS–B implementation has been a major focus, provides a striking illustration. The green lines reflect MTSS–B Tier 1 fidelity over time; a score of 70% is considered high fidelity.[9] The blue lines represent the incidence of ODRs over the same time period. In each school, the lines are mirror images; as MTSS–B fidelity increases, ODRs decrease, and vice versa. High–fidelity MTSS–B leverages ODRs and other school outcomes.
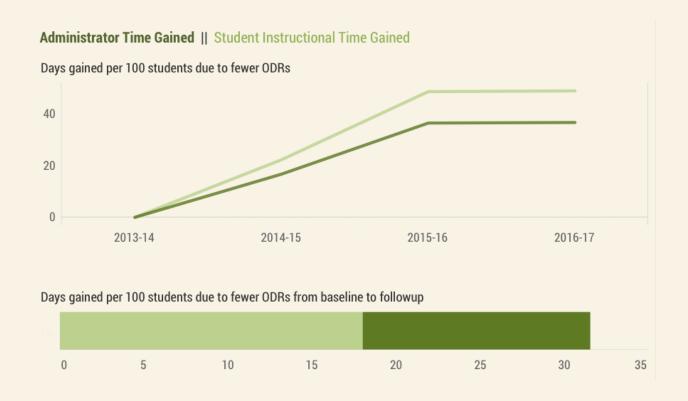
MTSS-B Tier 1 fidelity score || Average ODRs per 100 students

Benefits of High Fidelity MTSS–B
As fidelity to MTSS–B improves, student problem behaviors decrease. Other benefits: improved attendance, attrition, and academic achievement; enhanced behavioral health; fiscal and time savings.

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Reducing the incidence of problem behaviors and ODRs through high-fidelity MTSS-B increases educational and administrative time in schools. All students, including the disruptive student, lose instructional time when a teacher handles problem behaviors. Based on established estimates,[10] the chart below shows the total amount of administrator and student instructional time gained through reductions in ODRs per 100 students over time in one NH school district,

aggregated across all schools. The top charts show that time savings went up rapidly in the first year of MTSS-B implementation (2014-15) and have been sustained. In total across all schools, the school district has saved about 357 student days and 268 administrator days since implementation of MTSS-B in 2013-2014. Data from other school districts with less robust MTSS-B implementation show similar, if less dramatic, patterns.

Administrator Time Gained || Student Instructional Time Gained

Days gained per 100 students due to fewer ODRs

Days gained per 100 students due to fewer ODRs from baseline to followup

Student instructional time gained
Fewer ODRs = Increased instructional and administrator time. One school district has saved about 357 school days for students and 268 days for administrators since 2013-2014.

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Social-emotional learning from the earliest ages

NH MTSS-B integrates social-emotional learning (SEL) curriculum into schools. SEL promotes the healthy development and academic achievement of students.[11] When teachers integrate SEL with academic information, student understanding of the subject matter improves and problem behaviors decrease. SEL programming improves test scores while decreasing emotional distress, disruptive behavior, and substance use.[12] Students who participate in SEL programs fare better than their peers – up to 18 years later – in terms of social, emotional, and mental health.[13]
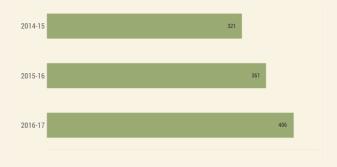
NH MTSS-B prepares early childhood educators to support student SEL from the earliest ages, beginning in preschool settings. The focus to date has been on staff professional development in early childhood SEL, training in "pyramid" multi-tiered systems of support in preschools, and implementation of universal social-emotional screening in preschool and kindergarten settings. Through universal screening, districts seek to identify incoming kindergarteners who are in need of support in development of social-emotional competencies.

NH school districts have increasingly adopted the Ages & Stages Questionnaire: Social-Emotional (ASQ:SE)[14], an evidence-based SEL screening measure for children aged 0 to 60 months. Districts provide training to support ASQ:SE administration among area preschools and

Benefits of social-emotional learning
Increased academic achievement
Decreased problem behaviors
Reduced emotional distress
Decreased substance use
Impacts are long-term

kindergarten settings. They use a wide variety of strategies to increase screening, including training local early child care centers in the use of ASQ:SE, administering the tool during home visits, at Family Center sites, and during regularly scheduled district screening events. As a result, the number of incoming kindergarteners screened for SEL has increased by 26% since baseline among three NH school districts implementing MTSS-B.

Number of SEL screenings conducted since MTSS-B implementation across three NH districts

Year	Screenings
2014-15	321
2015-16	361
2016-17	406

Early childhood social-emotional screenings have increased by 26% across three NH MTSS-B districts since 2014-2015

Screening is a necessary – but not sufficient – foundation for supporting student SEL. Solid referral pathways will also need to be developed to ensure that young children who are flagged get the SEL supports they need. Further, to create effective and lasting practice change in early childhood settings, professional development in early childhood "pyramid" multi-tiered approaches will need to be accompanied by ongoing coaching and performance monitoring, requiring significant financial and human resources.
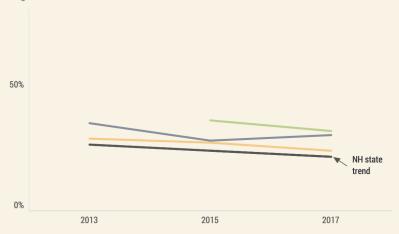
Prevention of risky behaviors

MTSS-B seeks to reduce risk factors for substance use and other risky behaviors. At the state level, the BSW has developed infrastructure and tools and opened up new opportunities around prevention with the Regional Public Health Networks. MTSS-B schools implement evidence-based interventions that target established risk and protector factors. Some districts are implementing Project SUCCESS, a promising student assistance program developed to support healthy living and undermine substance misuse among students. Districts have also contracted with Licensed Alcohol and Drug Counselors to provide treatment for student substance misuse.

Data from the Youth Risk Behavior Surveillance System (YRBSS) indicate that illicit use of most substances is trending down. For example, the percentage of high school students reporting past 30-day alcohol has decreased both nationally and in NH, with an average drop of about 3% every two years since 2007.[15] Data from NH MTSS-B districts closely mirrors the national trend. Reduced substance use is clearly welcome news, though it is not clear what forces are contributing to this trend. Districts might increase their coordination and collaboration with community entities such as Regional Public Health Networks, local prevention coalitions, and public safety organizations to magnify the reach and impact of their efforts in this area.

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Percent of students who reported consuming/using **alcohol** in the past 30 days (GPRA 4)
Target = at or below NH state trend

NH state trend

Student substance use trending down
Local MTSS-B school substance use rates parallel NH state downward trend.

NH's Multi-Tiered System of Supports for Behavioral Health & Wellness

Increasing access to mental health services and supports

Children's needs for mental health care are largely unmet; between 14 to 20% of children and adolescents experience a mental, emotional, or behavioral disorder each year, and only about half of these children receive treatment. Without treatment, children with mental health disorders are at greater risk of negative outcomes such as substance use, risky sexual behavior, violence, and more severe mental health difficulties.[16] The school dropout rate for students with severe emotional and behavioral needs is approximately twice that of other students.[17]

NH's MTSS-B emphasizes school-based universal promotion, prevention, and early-intervention services to support student mental health and well-being. School mental health programs overcome logistical barriers to care and decrease help-seeking stigma, which results in dramatic improvements in access to care.[18] In fact, 70 to 80% of children and adolescents who receive mental health services access them in a school setting.[19]

NH MTSS-B favors complementary strategies to improve mental health access. An "internal" strategy is to expand school-based mental health services, including placement of a district-employed social workers and development of Tier 2 (targeted intervention) groups in schools. This internal strategy can dramatically improve school based mental health access rates.
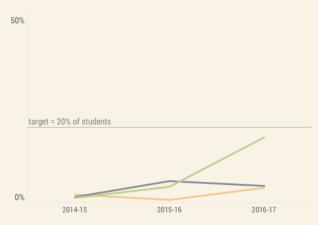
An "external" strategy is to increase access to community-based mental health services through facilitated referral pathways. Passive referrals (distributing brochures, lists/phone numbers of providers) from schools to community-based mental health often fail; only about 50% of

those referred schedule an appointment, with attendance at the first appointment even lower, at 30 to 47%. Active, facilitated referrals (e.g., staff completing forms with families, making calls or appointments, assisting with transportation, helping families understand and communicate the reason for referral) are much more successful. One study observed double-digit improvements in referral success rates when schools followed-up with families and providers after a referral.[20,21,22]

One NH school district, highlighted below, has invested heavily in developing – and tracking – active referrals to their local Community Mental Health Center partner. This external strategy is reflected better success with their referrals to community mental health.

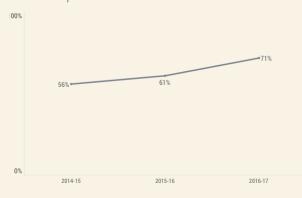### *Percent of students receiving school-based mental health services*
District 1 ‖ District 2 ‖ District 3

Improving mental health services for students
"Internal" strategies boost school-based mental health services through placement of district-employed clinicians

Percent of successful community mental health referrals in one NH school district

Facilitated referrals link students & families to community mental health
Facilitated referral pathways, in which schools actively help remove barriers to services, increase the success rate of referrals to community mental health providers.

Full implementation of MTSS-B likely requires both internal (school-based) and external (community mental health referral-based) mental health access strategies. Beyond access, the next step is to ensure that both internal and external mental health services are high quality – evidence-based and implemented with fidelity. High quality services require training, administrative support, ongoing coaching/supervision, and performance monitoring.

MTSS-B: The take home

Local data from participating districts, against a backdrop of scholarly evidence, suggest that those NH schools implementing MTSS-B with fidelity achieve high-leverage outcomes and better support the behavioral health needs of students. Where MTSS-B excels, student problem behaviors decrease. This has important implications for prevention of potential downstream problems such as substance misuse, aggression and other problem behaviors, mental health concerns, attendance and discipline problems, and ultimately, school failure.

It takes considerable resource and effort to implement the MTSS-B framework with fidelity. Building the human capacity necessary for full adoption of the model within a school, and even more so across an entire district or state, is crucial. A guiding, evidence-based state-level model, on-the-ground training and staffing, administrative buy-in and support, and ongoing, quality coaching are essential components of the effort. Where these ingredients are in place, students are better positioned to succeed.

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