MTSS, DATA-BASED DECISION MAKING & the BIMAS-2

What is MTSS?	**Multi-Tiered Systems of Support (MTSS)** is a model for integrating student supports across academic, social-emotional, and behavioral realms. While these models often differ by implementation site, common components would include a preventative focus, a team-based-systematic approach, universal screening, evidence-based practices, tiered interventions of increasing intensity, student progress monitoring, and at the core of all this – **Data-Based Decision Making.**
What is data-based decision making within MTSS?	**Data-Based Decision Making** is a process for continually refining and improving a model program based on the outcomes achieved. Data-based decision making requires assessments that can be used for **universal screening** - to determine students' level of risk, and for **progress monitoring** - to determine whether students are responding to an approach or intervention. **Program Evaluation** is the third component of data-based decision making and uses screening and progress monitoring data to assess the impact of programs across time. For example, implementing Tier 1 SEL program should reduce the numbers of at risk students identified on universal behavioral screenings over time while progress monitoring data would be used to assess the outcomes of students receiving Tier 2 intervention services.
What are important considerations when selecting a screening and progress monitoring assessment?	▸ **They have to be technically adequate.** Screening and progress monitoring assessments used in MTSS need to have known validity and reliability for these purposes. Screening assessments need to correctly and consistently identify students at risk for common difficulties while progress monitoring assessments need to be sensitive to short term changes in students' functioning. ▸ **They have to be brief and repeatable.** While diagnostic measures are often lengthy and time-consuming, screening and progress monitoring assessments need to be brief and able to be repeated over time. ▸ **The assessments should demonstrate utility for use in the schools.** MTSS measures for behavior should; a) assess both common difficulties as well as adaptive strengths, b) be useful for both screening and progress monitoring across student populations and programs, and c) be able to collect ratings from key stakeholders like teachers, parents, and students.

Behavior
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Monitoring
Assessment
System- 2

What is the BIMAS2?

▸ The **Behavior Intervention Monitoring and Assessment System2 (BIMAS2)** is a brief and repeatable on-line measure developed and standardized for universal screening and progress monitoring with school aged youth.

▸ The **BIMAS-2** looks at both common behavioral concerns (conduct, negative affect, cognitive/attention) as well as adaptive behaviors (social/communication, academic functioning).

▸ The **BIMAS-2** has multiple rating forms for parents, teachers, students, and clinicians

▸ The **BIMAS-2** also offers a flex assessment option to create brief 1-5 item assessments tailored to individual students or intervention programs with customizable monitoring plans.

How can the BIMAS-2 be used for data-based decision making?

▸ The **BIMAS-2** can be used for preK-12 universal screenings to identify students at risk for common concerns or low adaptive skill. Across time these universal screening results can be used to evaluate effects of tier 1 programs (e.g., SEL) on reducing student risk or improving adaptive skills.

▸ The **BIMAS-2** can also be used for progress monitoring assessing either the response of individual students to intervention or the response of groups of students to a given intervention program. The standard BIMAS will compute a standardized magnitude of change (using a relative change index RCI) while flex assessments can be used more informally to illustrate improvements.

▸ Both universal assessments and progress monitoring results can be used for program evaluation to assess student response to a variety of programs and interventions across the 3 Tiers of school based MTSS.

What is SEL?	▸ **Social and Emotional Learning (SEL)** is the process through which children and adults acquire and effectively apply the knowledge, attitudes, and skills necessary to understand and manage emotions, set and achieve positive goals, feel and show empathy for others, establish and maintain positive relationships, and make responsible decisions (CASEL, 2011).

▸ **SEL** competencies that are important for student success include:

- Self-Awareness
- Self-Management
- Responsible Decision-Making
- Social Awareness
- Social Relationships

How can schools support students' SEL?	▸ **SEL programming fosters students' social-emotional development** through establishing safe, caring learning environments involving peer and family initiatives, improving classroom management and teaching practices, and whole-school community building activities,

▸ **The CASEL recommends that schools promote SEL through comprehensive, systemic school wide approaches to SEL.** This approach is consistent with a multi-tiered system of support framework. Schools may choose from a variety of strategies, including building positive behavioral interventions and supports, direct instruction in social and emotional skills, classroom routines and structures which build community, or a combination of these approaches.

How does SEL instruction influence student outcomes?	▸ Students' development of strong SEL skills increases the likelihood of academic & behavioral success throughout their education.

▸ These competencies are believed to provide a foundation for improved student adjustment and academic performance resulting in an increase in positive social behaviors, fewer conduct problems, less emotional distress, improved test scores and grades.

▸ SEL programming has also been shown to positively impact student college and career trajectories

BIMAS2

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How does the BIMAS2 measure SEL?

▸ How is SEL measured? Research reviews have examined the impact of SEL programming across an array of student outcomes including: academic performance, antisocial and aggressive behavior, depressive symptoms, drug use, mental health problem behaviors, and positive youth development.

▸ Specifically, the BIMA-2 measures these common outcomes as follows:

BIMAS-2 Composites	SEL Outcome Assessed
Concern Scales	**Concerns Assessed**
Conduct	Anti-social/aggressive behaviors, drug use, mental health problems
Negative Affect	Depressive/ anxious symptoms, suicidal thoughts, mental health problems
Cognitive/Attention	Inattention, atypical thought, mental health problems
Adaptive Scales	**Adaptive Behaviors Assessed**
Social/Communication	Sharing, expressing one's self, friendship, positive youth development
Academic Functioning	Academic development, responsibility, organization/planning, positive youth development

How does the BIMAS2 assess student outcomes across important settings?

The BIMAS2 has developed measurement forms to collect data across settings from multiple informants. The BIMAS-2 Standard has forms available for teachers, parents, clinicians, and a self-version for students 12 and over. The BIMAS flex can be used to customize assessments with any of these raters at any age to track the development of key social competencies and/or important developmental outcomes.
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What are Early Warning Systems (EWS) ?	▸ **Early Warning Systems (EWS)** have been developed to identify students at risk for not completing high school. Research has identified attendance, behavior, and course performance — the "**ABCs**" — as useful predictors of high school completion (Bruce et al. 2011). EWS are currently utilized in 31 states to predict which students are "on/ off track" for high school graduation.
Pros and cons of Early Warning Systems (EWS)	▸ **EWS pros.** Use of Early warning Systems encourage educators to utilize data to identify and intervene with students at risk for not completing school. Further, the data utilized-attendance, office referrals, and grades- are convenient and commonly collected in the schools. Lastly, research has supported the use of the ABCs at the secondary level to identify students "on track" for school completion.
	▸ **EWS Cons.** EWS data relates to school completion but doesn't inform school teams as to why students are struggling or what to do about it. EWS indicators are also not really early. Students referred to the office, not attending school, and failing classes in high school are already evidencing substantial difficulties. There is no also no convincing research supporting the use of EWS in elementary schools. Since the key to successful intervention is early identification the use of EWS in isolation is inadequate for informing preventative MTSS programs in the schools.
EWS Summary	▸ **In Sum**. EWS are increasingly being used by high schools across the country and research has indicated that these systems can be useful predictors of students "on-track" for school completion. However, due to a lack of evidence at the elementary level and the inability of EWS data to inform student intervention efforts these systems should be used in conjunction with validated academic and behavioral health screening and monitoring measures.

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EWS Fact Sheet 2018

How does the BIMAS2 relate to Early Warning System indicators?

BIMAS-2 Composites		EWS indicator
Concern Scales	**Concerns Assessed**	**School Data**
Conduct	Anti-social/aggressive behaviors, drug use, mental health problems	Office referrals, bullying, suspensions, bus/ café referral, grades, attendance
Negative Affect	Depressive/ anxious symptoms, suicidal thoughts, mental health problems	Attendance, nurse visits, grades
Cognitive/Attention	Inattention, atypical thought, mental health problems	Grades, office referrals, attendance
Adaptive Scales	**Adaptive Behaviors Assessed**	**School Data**
Social	Sharing, expressing one's self, friendship, positive youth development	Grades, attendance, friends, school clubs/ sports
Academic Functioning	Academic development, responsibility, organization/planning, positive youth development	Grades, attendance, school clubs/ sports, honors/ awards.

▸ The **BIMAS2** is a validated emotional-behavioral health measure for use in pre-k to grade 12 with scales that directly relate to EWS data. The BIMAS advantage includes use: preventative to screen students' for risk, by school teams to select effective interventions based on student need, and to monitor student progress. Used in conjunction, the BIMAS2 and EWS indicators can provide schools powerful information for evaluating and improving student outcomes.

▸ The **BIMAS2** can collect data across multiple settings with forms for teachers, students, parents, & clinicians. It can be used and even customized to screen and monitor the development of key social competencies, emotional-behavioral health, and school outcomes from Pre-K through graduation.

Trauma

What is Trauma?

For many children, trauma exposure is a common and chronic experience. Chronic trauma exposure during childhood significantly increases the risk for emotional/behavioral disorders and academic failure. Common trauma experienced by children and youth include physical or sexual abuse, neglect, domestic violence, gun violence, and loss of a parent or loved one.

Adverse Childhood Event (ACES)

What are ACES?

Adverse Childhood Event (ACES) is the term used to describe all types of trauma experiences that occur to students under the age of 18. These events can include all types of neglect, abuse, and loss. The Kaiser study included over 17,000 students beginning in the mid 90's and concluded that roughly 13% of children encounter 4 or more ACES.

How does ACES impact students?

ACES are strongly linked to negative outcomes for kids and schools, including:

- Academic Failure & School Dropout
- Behavioral Difficulties
- Physical & Mental Illnesses
- School to Prison Pipeline
- Substance Abuse & Opioid Addiction
- Unhealthy Relationships.
- Risk Taking Behaviors
- Suicide

How can we support students who experience trauma?

- Students are **resilient**. Many students who experience trauma go on to do wonderful things!
- **Early identification** of student risk is the key to improving student outcomes. Schools don't need to know every single trauma that every single student experienced in order to help. In fact, most estimates of trauma prevalence are inaccurate due to stigma associated with discussing traumatic events. Universal screening for behavioral concerns - which could be the result of a variety of factors including trauma - allow schools to best coordinate student supports and services.

BIMAS2
Behavior Intervention Monitoring Assessment System

How does BIMA-2 help school districts better serve this population?

The **BIMA-2** allows for the early detection of students' social, emotional and behavioral challenges. Universal screening using the BIMAS2 allows schools to identify students in need of supports early, so that students can quickly access the services and supports they need. In addition, BIMAS is also developed to monitor students' progress over time. BONUS: Unlike other measures, the BIMAS is developed to be sensitive to change over time so that intervention effects are accurately assessed.