



The YPI Evaluation Newsletter



Central New York Rural Safe Schools/Healthy Students Initiative

A Report from the Independent Evaluator

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The Central NY Rural Safe Schools/Healthy Students Project in Year 3: Mental Health Issues of Students

The Central NY Rural Safe Schools/Healthy Students Project includes a broad array of mental health prevention and intervention programs. Second Step, a prevention program which promotes self-regulation skills, was implemented to varying extents in all participating elementary and middle schools in Year 3. Resilience Project, a targeted early intervention that addresses anxiety and self-control issues, serves children from Kindergarten to third grade in the project's five elementary schools.¹ Finally, there are three versions of the MOST model, which provides multi-disciplinary assessment, evidenced-based counseling, and comprehensive services planning in targeted schools. The three MOST programs include: Pre-K MOST, which provides services in early childhood centers in all five districts; CREST MOST, which serves elementary school children in five buildings; and Secondary MOST, which serves students in all ten of the SS/HS Initiative's middle and high schools.

In each year of the SS/HS Initiative, students in 4th-12th grade reported on their emotional well-being in end-of-year surveys. They were asked how frequently they experience each of six mental health indicators: (i) intense sadness; (ii) irritability; (iii) feelings of hopelessness; (iv) changes in eating habits; (v) disrupted sleeping patterns; and (vi) difficulties concentrating on school work.² High school students (9th-12th grade) were also asked about the extent to which they have suicidal thoughts and inclinations.

¹ Beginning next year, Resilience will not be offered in one elementary school.

² Student surveys were approved by an Institutional Review Board (IRB) and are confidential and anonymous. Parents and caregivers are notified before administration of the surveys and can review surveys to decide if they do not want their child to participate. Surveys are administered by school staff, who use a survey administration script also reviewed and approved by the IRB. The script reminds students that they do not have to answer any survey questions if they do not want to.

These survey questions are *general* indicators of problems and dysfunctions related to the mental health areas of anxiety, depression, and/or problems regulating feelings. None of these questions, whether analyzed individually or together, constitute a mental health diagnosis.

Instructional staff are also asked to report on whether they have noticed outward signs of mental health issues in their students, including: (i) sadness; (ii) irritability; (iii) feelings of hopelessness; and (iv) difficulties concentrating. These data help YPI to determine the extent to which student self-assessments of their emotional well-being are being observed by school staff.

Student Perspectives on their Emotional Well-Being

From Year 1 to 3, there were very slight declines in 4th-12th grade student reports of acute sadness and irritability, and a more marked reduction in reports of disrupted sleeping patterns (Tables MH.1 and MH.2). The other three indicators of emotional well-being did not change. This combination of stability and improvement in the mental health of students is surprising given the context. Both interview data and county-level statistics reveal that since 2009, levels of domestic and family violence in Cayuga County have increased, and adult substance abuse has become increasingly common. At the same time, the ongoing economic challenges in Central New York have further decreased access to social and emotional supports for both children and adults.

	Felt Irritable or In a Bad Mood				Felt Very Sad				Had Difficulty Concentrating					
	<i>Never</i>	<i>Once or Twice</i>	<i>Several Times</i>	<i>Often</i>	<i>Never</i>	<i>Once or Twice</i>	<i>Several Times</i>	<i>Often</i>	<i>Never</i>	<i>Once or Twice</i>	<i>Several Times</i>	<i>Often</i>		
Year 1	17%	44%	26%	14%	Year 1	28%	47%	15%	9%	Year 1	31%	36%	17%	17%
Year 2	18%	43%	25%	14%	Year 2	29%	46%	15%	10%	Year 2	32%	35%	16%	17%
Year 3	19%	42%	25%	14%	Year 3	31%	45%	14%	10%	Year 3	32%	35%	16%	17%

- ❖ Of all the indicators, students reported the most problems with irritability. From Year 1 to 3, over 80% of students indicated they were irritable at least once in the past month, with four in ten experiencing the feeling frequently (i.e. “several times” or “often”).
- ❖ After irritability, the three most common mental health issues reported during all three project years were: acute sadness; difficulty concentrating on schoolwork; and disrupted sleep patterns. More than six in ten students reported problems in these two areas at least once or twice in the past month.

KEY FINDING:

There was a marked decline in students who experienced problems with disrupted sleep patterns and slight declines in levels of irritability and acute sadness. Nonetheless, nearly 60% of students experienced problems at least once a month in four areas: irritability, acute sadness, difficulty concentrating, and disrupted sleeping patterns.

- ❖ In four of the six mental health areas explored in the survey, students experienced problems frequently (“several times” or “often” in the past month) at the same rate during all three years of the SS/HS Initiative: irritability (39-40% of students); difficulty concentrating (33-34%); acute sadness (24-25%); and feelings of hopelessness about the future (16-17%).
- ❖ There was a substantial decline in the percentage of students who frequently experienced disrupted sleeping patterns in the past month, decreasing from 34% in Year 1 to 30% in Year 3. The percentage of students who reported frequent changes in their eating habits increased from 21% in Year 1 to 24% in Year 3.

Table MH.2: Percentage of Students (Grades 4-12) Who, During the Past 30 Days ...

	Slept Considerably More or Less				Ate Considerably More or Less				Felt Hopeless About the Future					
	<i>Never</i>	<i>Once or Twice</i>	<i>Several Times</i>	<i>Often</i>	<i>Never</i>	<i>Once or Twice</i>	<i>Several Times</i>	<i>Often</i>	<i>Never</i>	<i>Once or Twice</i>	<i>Several Times</i>	<i>Often</i>		
Year 1	36%	30%	17%	17%	Year 1	51%	27%	11%	10%	Year 1	62%	22%	8%	8%
Year 2	37%	31%	16%	16%	Year 2	50%	29%	11%	11%	Year 2	62%	22%	8%	9%
Year 3	40%	30%	14%	16%	Year 3	52%	24%	12%	12%	Year 3	62%	22%	8%	8%

- ❖ The two mental health issues least frequently reported were changes in eating habits and feelings of hopelessness. Approximately half of 4th-12th grade students surveyed reported disrupted patterns of eating, and fewer than four in ten students experienced feelings of hopelessness in the last month (Table MH.2).

KEY FINDING:

Over the course of the SS/HS Initiative, fewer students reported frequent disruptions to sleep patterns, while more students experienced frequent changes in their eating habits. For all other mental health indicators, there were no changes in the extent to which students experienced problems frequently.

Differences by Gender. During all three years of the SS/HS Initiative, there have been clear differences in the emotional well-being of male and female students. For all 6 mental health indicators, more female students than males reported experiencing symptoms at least once in the past month.

- ❖ In four of these indicators, female students also reported experiencing symptoms more frequently (“several times” or “often” in the past month) than males: irritability; acute sadness; disrupted sleeping; and changed patterns of eating. For example, during Year 3, 42% of females were frequently irritable, compared to 36% of males; 31% of females were very sad “several times” or “often” in the past 30 days, compared to 18% of males.
- ❖ In Year 3, approximately the same percentage of male and female students reported frequent problems concentrating in the past month (33-34%) and frequent feelings of hopelessness (15-17%) (**Appendix C.1**).

KEY FINDING:

During all three years of the Initiative and for all six mental health indicators, more female students than males reported experiencing mental health symptoms at least once in the past month. For four indicators, more females experienced them “several times” or “often.”

Differences by Race/Ethnicity. During Years 1 and 2, students of color³ reported experiencing mental health issues more frequently than white students across all six mental health indicators. In Year 3, however, these differences diminished to such an extent that there was no marked difference by race/ethnicity for five of the six mental health indicators. This was a result of rather striking improvements in the emotional well-being of students of color, who, more than white students, experienced problems less frequently in the following areas, as compared to Year 1: irritability; acute sadness, difficulty concentrating, disrupted sleep patterns, and changing eating habits (**App. C.2**).

- ❖ Students of color experienced problems more frequently than white students during all three years of the Initiative in one area – feelings of hopelessness. In Year 3, for example, 45% of students of color reported feelings of hopelessness at least once in the past 30 days (compared to 38% of white students).

KEY FINDING:

During the third year of the Initiative, in contrast to prior years, there were no substantial differences in the emotional well-being of students of color and white students in five of six indicators.

³ Students of color are those students who identify themselves as belonging to one of the following racial/ethnic groups: Asian American; Black/African American; Hawaiian/Pacific Islander; Multi-racial; Native American; or Other.

Differences by Grade Level. During all three years of the SS/HS Initiative, older students reported more frequent experiences of mental health issues for three of the six mental health indicators: irritability; feeling hopeless, and difficulty concentrating. For these indicators, the percentage of students reporting mental health problems increased with each grade grouping: 4-5, 6-8, 9-12 (**App. C.3**).

Perspectives of Instructional Staff on the Emotional Well-Being of Their Students

In all three years of the SS/HS Initiative, instructional staff reported substantially lower levels of mental health problems than students. For each grade grouping in all three project years, instructional staff reported perceiving substantially lower levels of irritability, sadness, difficulty concentrating on schoolwork, and feelings of hopelessness about the future among their students than the students themselves reported (**Table MH.3, App. C.3 and C.4**).

Student Felt Irritable or In a Bad Mood at Least Once		Student Felt Very Sad at Least Once			Student Had Difficulty Concentrating at Least Once			
	<i>Students</i>	<i>Instructional Staff</i>		<i>Students</i>	<i>Instructional Staff</i>		<i>Students</i>	<i>Instructional Staff</i>
6 th -8 th Grade	84%	21%	6 th -8 th Grade	71%	12%	6 th -8 th Grade	64%	41%
9 th -12 th Grade	86%	17%	9 th -12 th Grade	69%	7%	9 th -12 th Grade	74%	28%

After observing declines in the emotional well-being of their students from Year 1 to 2, instructional staff in Year 3 reported improvements in three of four areas surveyed: irritability; acute sadness; and difficulty concentrating. For these three mental health indicators, instructional staff reported slightly lower levels of problems in Year 3 than in Year 1 (**App. C.4**).

- ❖ There were no noteworthy changes in staff reports about student feelings of hopelessness. Staff rarely reported observing, during all three years of the project, that students experienced such feelings. While 38% of students each year reported feelings of hopelessness at least once in the past month, staff noted such distress in only 6-7% of their students.

KEY FINDING: **Instructional staff reported far lower levels of emotional issues among their students than students themselves reported. From Year 2 to 3, staff noted significant improvement in the areas of irritability, sadness, and the ability to concentrate.**

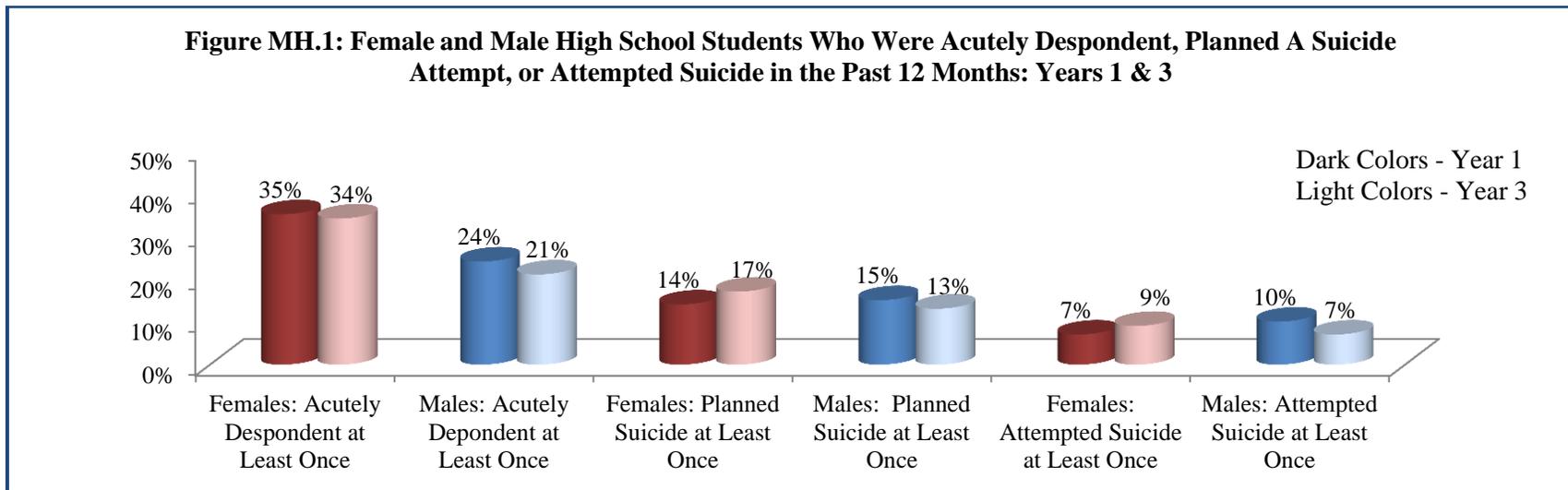
During the course of the Initiative, instructional staff at different grade levels have not reported noteworthy differences in the emotional well-being of students by grade level. Instructional staff reports, unlike student reports, do not reveal a steady increase in

levels of irritability, feelings of hopelessness, and difficulty concentrating as students progressed from elementary through secondary school (**App. C.3** and **C.4**).

High School Student Perspectives on Feelings of Despondency and Suicide

In their surveys, high school students reported on the extent to which they felt acutely despondent⁴ or were contemplating suicide during the past 12 months. During all three years of the Initiative:

- ❖ 28-29% of students felt *acutely despondent* at least once in the past year, and 9-10% felt that way at least 4 times;
- ❖ Approximately 15% of students *planned a suicide attempt* once in the last year, while 5% did so at least 4 times; and
- ❖ 8% of students *attempted suicide* at least once in the past twelve months, half of whom attempted at least 4 times (**App. C.5**).



Differences by Gender. The gender differences noted above in the emotional well-being of students in grades 4-12 (page 4) are evident in high school students’ reports of despondency and suicidality. Throughout the project, more female students than males reported feeling acutely sad and hopeless at least once during the past year. While the percentage of males who experienced this distress declined from 24% in Year 1 to 21% in Year 3, rates among females shifted only nominally, from 35% to 34%.

- ❖ Over the course of the project, *more* females and *fewer* males planned at least one suicide or attempted one (**Figure MH.2**).

⁴ To gauge *despondency*, students were asked how many times in the past 12 months, they felt “so sad or hopeless almost every day for two weeks or more in a row that [they] stopped doing some usual activities.”

KEY FINDING:

In all three years of the Initiative, more female than male students felt acutely despondent at least once per year. Levels of suicidality increased among female students and declined among males.

Differences by Race/Ethnicity. In each year of the SS/HS Initiative, high school students of color reported higher levels of despondency and suicidality than white students. However, students of color, and not white students, reported lower levels of these acute mental health problems over time, so that by Year 3, the differences between students of color and white students in this critical area had diminished substantially (**App. C.6**).

- ❖ Reports of acute despondency at least once in the past year declined from 43% in Year 1 to 35% in Year 3 among students of color. In comparison, each year 27% of white students reported feeling that way at least once.
 - ❖ Reports of *frequent* feelings (4 or more times in a year) of acute despondency among students of color declined from 21% to 13%; among white students it remained at 8-9% in Years 1 to 3.
- ❖ Fewer students of color planned a suicide attempt in the past year, down from 35% in Year 1 to 23% in Year 3. By contrast, suicide attempts among white students increased from 12% to 14%.
 - ❖ *Frequent* (4 or more times a year) plans for suicide declined from 18% to 10% of students of color; among white students it was 3-4% in Years 1 to 3.
- ❖ In Year 1, 27% of students of color reported that they attempted suicide at least once in the past 12 months, and in Year 3, 18% did so. By contrast, 6-7% of white students reported that they attempted suicide in each year of the Initiative (**App. C.6**).

KEY FINDING:

Significantly fewer students of color reported feelings of acute despondency and suicidality in Year 3 as compared to Year 1. However, in all three years of the Initiative, white students were significantly less likely than students of color to report these acute mental health issues.

Differences by School District. From Year 1 to 3, high school students in Districts V, X, and Y reported significant decreases in their levels of despondency and suicidality. By contrast, students in District W reported significant increases. In District Z, levels of despondency and suicidality did not change appreciably during the three years of the Initiative (**App. C.7**).

Aggregate Mental Health Variable, Implementation Quality, and Program Effect

There are significant differences in the extent to which mental health issues occur in SS/HS Initiative buildings. It is important to

know whether this variation is affected by the building's Implementation Quality (IQ). In other words, are schools with higher levels of implementation of SS/HS Initiative programs likely to see lower levels of mental health problems among students?

This analysis of the relationship between IQ and program effects at the building level uses only student data; there are too few responses from instructional staff to permit statistical analysis at the school level. YPI developed an aggregate indicator, a **Mental Health** composite variable, which combines student reports about the extent to which they experienced the six indicators of emotional well-being in the past month (acute sadness; irritability; feelings of hopelessness about the future; disrupted eating patterns; disrupted sleeping patterns; and difficulty concentrating on schoolwork).

The Mental Health composite variable was correlated with Implementation Quality (IQ) levels for the participating buildings during Year 3 of the Initiative (the 2011-12 school year). Spearman's rank correlation coefficient was $-.495$, indicating a *strong, negative relationship* between the level of implementation of SS/HS programs in a building and the extent to which students experienced mental health problems (statistical significance of $p < .036$). In other words, the greater the IQ, the lower the level of mental health problems in a building.

KEY FINDING: **During Year 3 of the SS/HS Initiative, higher levels of implementation of the project's evidence-based programs were strongly associated with lower levels of mental health problems experienced by students.**

At the building level, this has important ramifications. Buildings with higher levels of mental health problems are also buildings where students report lower levels of safety and orderliness (Spearman rank correlation coefficient of $-.904$, $p < .001$)⁵ and poor levels of student-teacher relationships (Spear rank correlation coefficient of $-.815$, $p < .001$).⁶

Furthermore, there are strong and positive correlations at the building level between the **Mental Health** composite variable and:

- ❖ The average number of school days missed because of truancy (Spearman coefficient of $.750$, $p < .001$);
- ❖ The average number of days that students received In-School Suspensions (Spearman coefficient of $.719$, $p < .002$); and
- ❖ The average number of times that students are sent to the principal's office for discipline (Spearman coefficient of $.842$, $p < .001$).

⁵ A correlation of the Mental Health composite variable and the Safe and Orderly Environment composite variable, which includes: student perceptions of how discipline is maintained in their school, student perceptions of school safety, and the extent to which students in a building report engaging in disruptive behavior.

⁶ A correlation of the Mental Health composite variable and the Student-Teacher Relationships composite variable, which includes the extent to which students believe that: there are opportunities to interact one-on-one with teachers, their opinions matter, and mutual respect exists between students and teachers.