DEPARTMENT OF HEALTH

Adolescent Mental Health in 2022

ARE MINNESOTA YOUTH THRIVING?

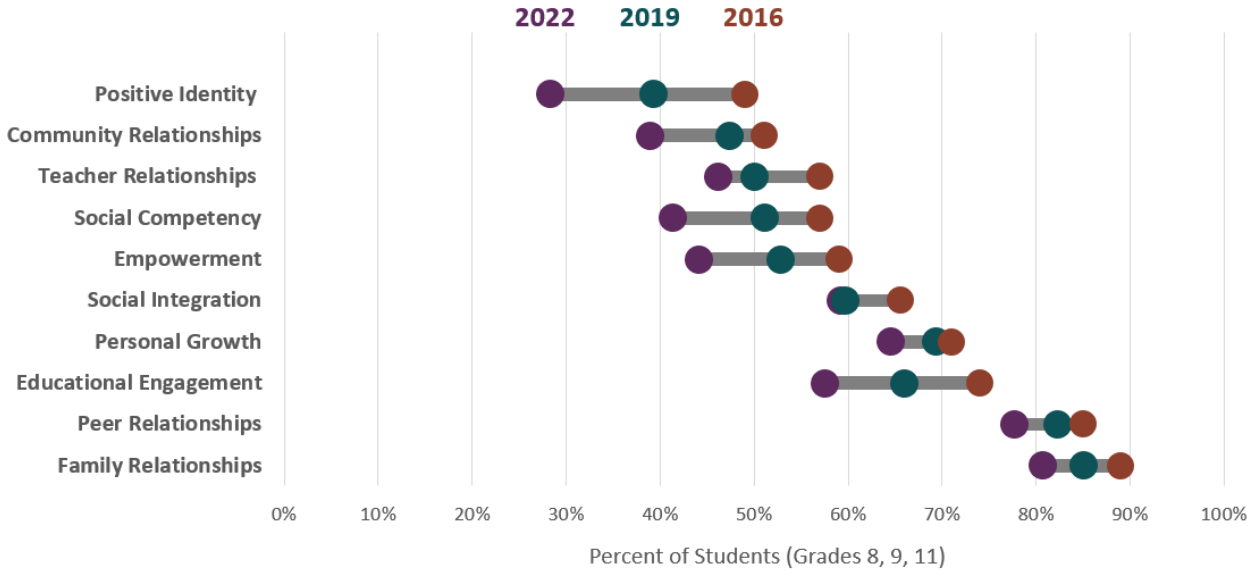
Summary

Minnesota consistently ranks among the healthiest states for children and adolescents. In many reports displaying data overtime shows that youth today have healthier behaviors than they did 25 years ago.[1] Data from Minnesota Student Survey shows that more youth today than ever before report wearing seatbelts, and fewer report that they smoke cigarettes, consume alcohol, take drugs, have sex, and do these things in combination.

Despite reductions in risky behaviors, there has been large increases in female students of reporting long-term mental health, behavioral, or emotional problems (6 months or longer). There also has been an increase in males but less significantly. At the same time mental well-being, factors that help youth with resilience, has been consistently decreasing since 2016 (see Figure 1). Marginalized youth, such as those experiencing economic hardship, non-cis gender, LGBTQIA+, and youth of color report lower levels of positive mental well-being.

Mental health encompasses more than purely the absence of mental illness.

Figure 1. The proportion of students reporting each mental well-being component dropped from **2016** to **2019** and again from **2019** to **2022.**



Data Source: Minnesota Student Survey, 2016, 2019, and 2022

Both adversity and mental well-being shape outcomes. Resilience, or the ability to bounce back after a significant stressor, can ease the potentially lifelong effects of trauma. Health outcomes improve when youth report higher mental well-being, despite any trauma they have experienced. However, most Minnesota youth who have high number of traumatic experiences are not finding sufficient opportunities to build mental well-being that will equip them to thrive.

Background

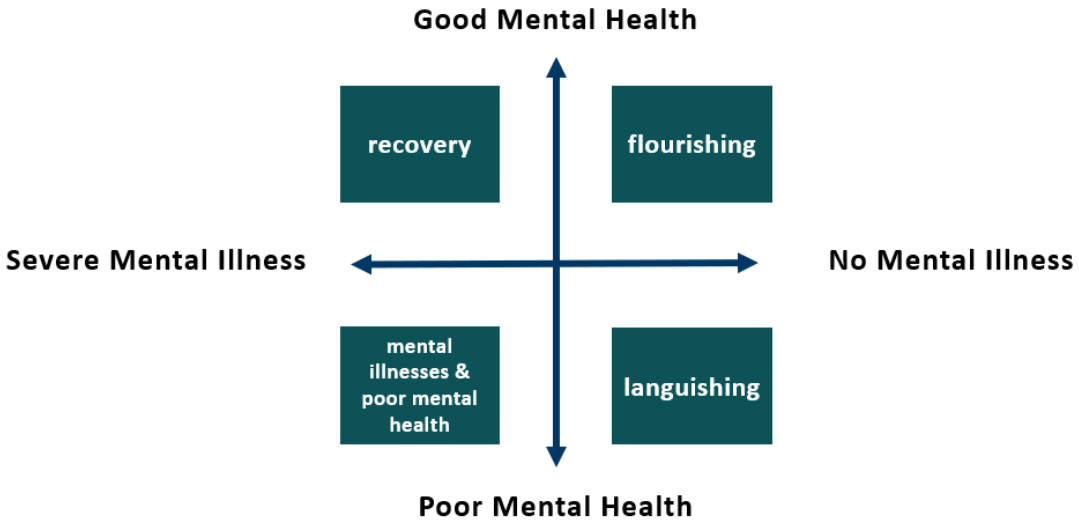
Mental health and mental illness are multifaceted and interconnected topics that are commonly misunderstood.

Mental Health is "a state of well-being in which the individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his or her community."[2] Most people think about mental illness when they hear "mental health". For clarification, many use the term "mental well-being" or "flourishing" instead.

Mental Illness encompasses any health condition that includes emotional, thinking, and/or behavioral change and may be associated with distress and/or issues with functioning in social, work, or family activities.[3]

Mental health and mental well-being encompass more than purely the absence of mental illness. Figure 2 shows the distinction and intersectionality between mental health and mental illness. Two continua are present in this model: one includes the presence or absence of mental health, and the other includes the presence or absence of mental illness.[4] Individuals with severe mental illness can have good mental health, and those with no mental illness can have poor mental health. Mental health outcomes thus fall on a continuum from languishing all the way to flourishing.[5] Flourishing is the optimal outcome and can be a protective factor for improving mental well-being and decreasing poor health outcomes.

Figure 2. Mental health encompasses more than purely the absence of mental illness.



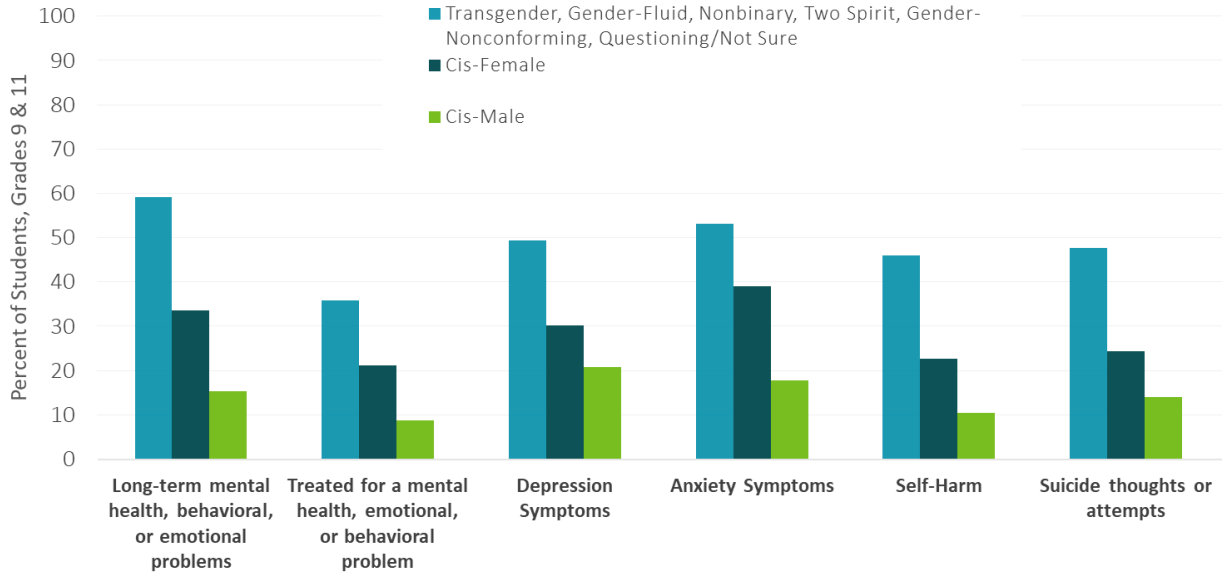
Source: https://www.health.state.mn.us/communities/mentalhealth/index.html#Example1

Mental illness

Close to half (46.4%) of Americans will have a DSM-IV diagnosable disorder in their life, with many symptoms beginning in childhood and adolescence.[6] Half of all diagnosable cases occur before age 14, and three out of four cases occur by 24 years of age.[6] Multiple mental illness measures collected in the Minnesota Student Survey have seen large increases in students reporting in adolescents specifically has increased in the past few years. Females have seen a 10-percentage point increase from 2016 to 2022. Rates among females (sex as assigned at birth) have consistently reported higher levels of long-term

mental health, behavioral, or emotional problems than males, 37% vs 16% respectively. Figure 2 shows the percentage of 9 and 11 grade Minnesota students reporting long-term mental health, behavioral, or emotional problems by gender identity in 2022. This figure demonstrates the stark difference between the rates of long-term mental health, behavioral, and emotional problems among female and male students.

Figure 3. There are large inequities by gender identity in experiencing mental illness.



Data Source: Minnesota Student Survey, 2022

Public health approach to measuring mental well-being

Mental well-being is more than the absence of illness. Mental well-being is about having fulfilling relationships, utilizing strengths, contributing to community and being resilient, which is the ability to bounce back after setbacks. Mental well-being is a core ingredient for success in school, work, health, and community life. Measuring mental well-being is a critical step towards addressing it.

Figure 4. Public health approach to measuring mental well-being.

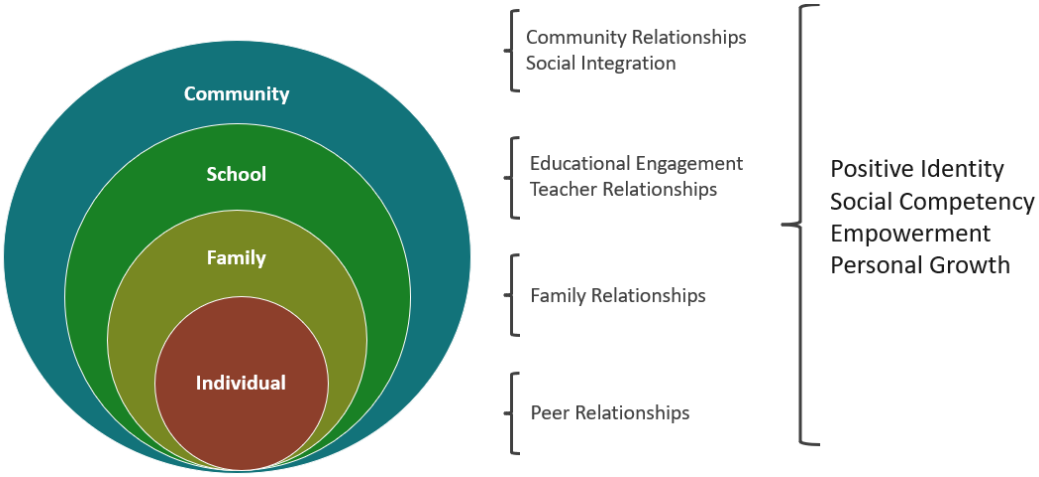


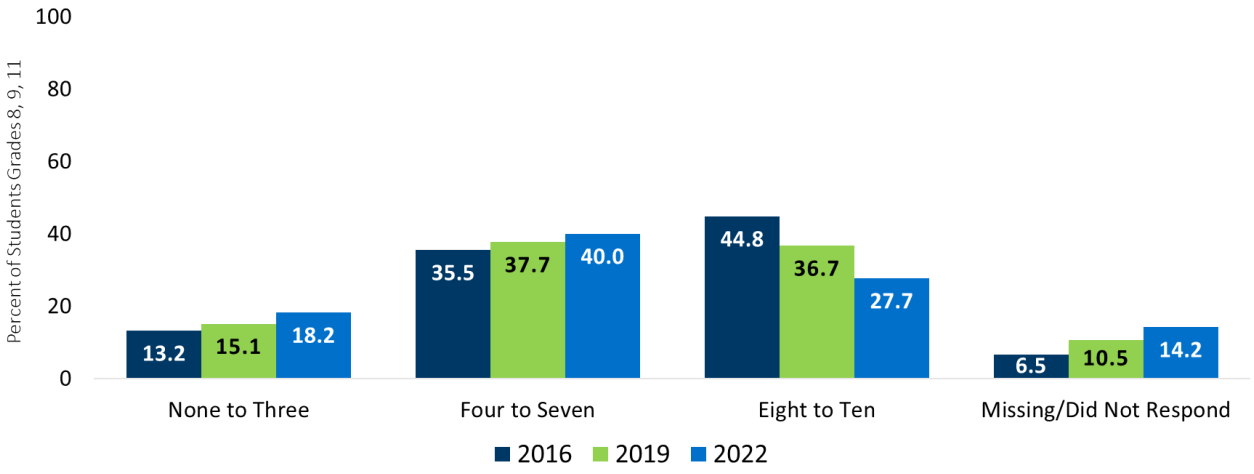
Figure 4 displays a public health approach to mental well-being. Like the ecological model of health, which emphasizes the environmental and societal contexts and how they influence health behaviors, this model emphasizes the multiple levels of our lived experience that impacts mental well-being. Looking at health and well-being through these models helps guide the development of more wholistic interventions towards improving mental well-being. To understand the current state of mental well-being in youth and track the impact of interventions we need to measure mental well-being.

The Minnesota Student Survey encompasses ten components of mental well-being, including positive identity, social competency, personal growth, empowerment, social integration, educational engagement, and positive family, community, teacher, and peer relationships. (See Data Biography and Definitions for definitions of each mental well-being component). With so many factors that make-up mental well-being it is difficult to succinctly answer questions about population mental well-being with existing data, especially when examining the intersectionality of Minnesota's youth. There are multiple composite measures of mental well-being proposed in the research.[7] Minnesota Student Survey questions do not mirror any single validated mental well-being assessment tool, but the data includes many components of mental well-being captured in these measures. One method to assess overall mental well-being, or whether Minnesota youth are thriving, is a simple cumulative score of the ten mental well-being components captured in the Minnesota Student Survey. Mental well-being is measured in Minnesota Student Survey by combining multiple components of well-being to create an overall well-being score.

Analysis on this single mental well-being measure showed:

- Less than half of Minnesota youth have eight to ten components;
- 40% have four to seven components; and
- 15% have fewer than three components of mental well-being.

Figure 5. There have been large decreases in the proportion of youth reporting high positive mental well-being (8 to 10 components).



Data Source: Minnesota Student Survey, 2016, 2019, and 2022

Mental well-being is associated with reduced risk of injury, chronic disease, substance use and misuse, delinquency, and truancy.[5,8] Minnesota Student Survey data indicates that mental well-being also an important factor for health indicators such as: suicidal thoughts, self-injury, early sexual intercourse, alcohol consumption, and overall health status.

Inequities in mental well-being

Minnesota acknowledges that systemic racism and generational structural (social, economic, political, and environmental) inequities result in poor health outcomes. These inequities have a greater influence on health outcomes than individual choices or one's ability to access health care, and not all communities are impacted the same way. All people living in Minnesota benefit when we reduce health disparities and advance racial equity.

Mental well-being varies across many key demographics as listed below. Our team has analyzed these statistics for more specific subpopulations than included here. If you would like to see any specific data, please contact us.

Severe Economic Hardship: Youth experiencing economic hardship report much lower rates of mental well-being. For example, 26% of those experiencing hardship report social competency versus 49% of those not experiencing hardship, and 32% versus 52% report empowerment, respectively.

Sexuality and Gender Identity: Youth who identify as LGBTQIA+ have notably lower levels of mental well-being than non-LGBTQIA+ students. About 12% of LGBTQIA+ youth report positive identity versus 33% of non-LGBTQIA+ youth, and 28% versus 49% report empowerment, respectively.

Sex (as assigned at birth): Female youth are much less likely to experience most mental well-being components, including 22% of females versus 35% of males reporting positive identity. Exceptions to this include females reporting higher educational engagement, social integration, and social competency.

Grade: Mental well-being is highest in grade 8 and lowest in high school. For around half of the measures, mental well-being is lowest in grade 9. The rest of the measures show that mental well-being is lowest in grade 11.

Region: There are few differences between the 7-county Twin Cities metro and greater Minnesota areas across all mental well-being components. When comparing all Minnesota regions, it was found that Northeast Minnesota fared worse in most components. More youth in the metro also reported teacher relationships, social competency, and educational engagement when compared to the rest of Minnesota.

Race and Ethnicity: The largest disparities in mental well-being components by race and ethnicity include social integration, social competency, empowerment, and peer relationships. White youth report the highest mental well-being across most components, except for teacher relationships and educational engagement, which are higher among Asian American youth. Table 1 displays the frequency of each mental well-being component by race/ethnicity. Hawaiian or Pacific Islander youth experience every mental well-being component by more than 10 percentage points fewer than the state average.

When examining the overall mental well-being score American Indian, Hispanic or Latino/a and Hawaiian or Pacific Islander youth all experience high mental well-being (8-10 components) at a rate 10 percentage points less than the state average. We also see differences when we examine within these large race/ethnicity categories. For examples when looking at Asian American youth, the percent reporting high mental well-being ranges from 47 percent of Asian Indians to 17 percent of Karen youth. About half of the Asian American youth report high mental well-being below the state average and the other half report high mental well-being above the state average.

Table 1. There are disparities in the proportion of youth reporting each mental well-being component when examined across race/ethnicities.

	American Indian	Asian American	African or African American	Eastern or North African	Hispanic or Latino/a	Multiple Races	Hawaiian or Pacific Islander	White
Positive Identity	19	25	27	20	26	22	18*	31
Community Relationships	30	41	35	32	33	32	28*	42
Teacher Relationships	38	54	40	45	44	40	34*	48
Social Competency	20*	42	32*	27*	38	34*	22*	46
Empowerment	28*	41	36*	33*	40	37*	32*	48
Social Integration	49*	52*	46*	39*	47*	56	49*	65
Personal Growth	53*	61	56*	53*	62	60	53*	69
Educational Engagement	43*	69	58	56	58	52	46*	58
Peer Relationships	66*	76	66*	68*	70*	73	69	82
Family Relationships	70*	79	68*	73	75	76	71*	85
High Positive Mental Well-Being (8-10 components)	13*	27	21	22	16*	20	12*	32

*Indicates a percentage point difference of 10 or more when compared to state average.

Data Source: Minnesota Student Survey, 2022

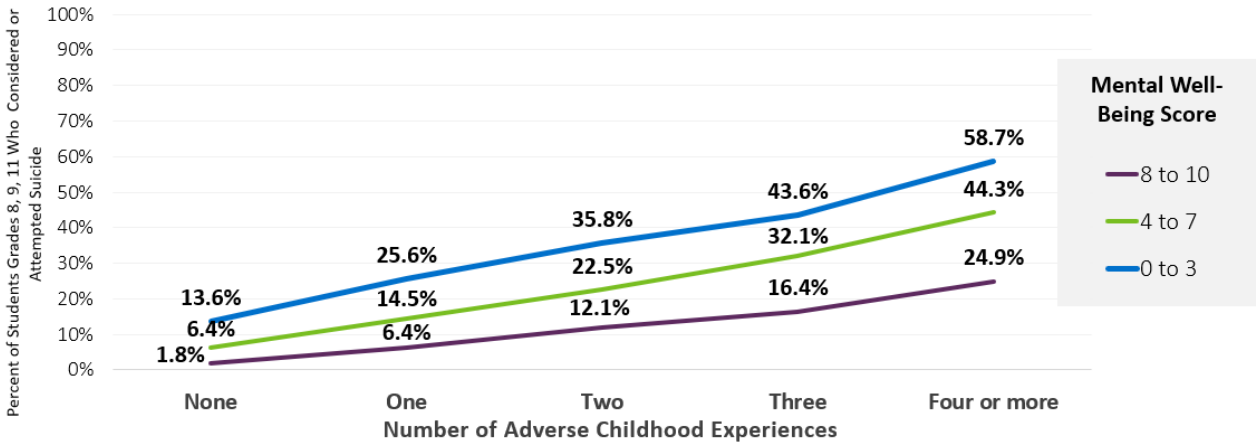
The effect of trauma on mental well-being

Trauma can have a large impact on mental well-being in youth, and close to half of all children in the United States are exposed to experiences that are potentially traumatic.[9] Children in Minnesota had the lowest rate of exposure to one or more adverse childhood experiences at 38.1% when compared to all other states.[9] High mental well-being and resiliency skills, often found in relationships and resources in communities, can alleviate the effects of trauma over the life course. Minnesota data demonstrates that most of the youth who have a high number of traumatic experiences, commonly known as adverse childhood experiences (ACEs), are not receiving the support they need to improve their mental well-being and resiliency and reduce the negative lifelong impacts from trauma. Across all mental well-being components as the number of ACEs increase the number of students reporting mental well-being decreases.

Mental well-being components provide somewhat of a protective effect against trauma in youth, regardless of ACE score. Figure 5 demonstrates how a greater ACE score increases the risk of considering or attempting suicide, but it also exhibits how a greater mental well-being score protects against this. Youth with a mental well-being score of eight to 10 had a much lower risk of considering or attempting suicide than those with a lower ACE score. Students with a high ACE score of four or more and a high mental well-being score of eight to 10 had almost double the risk of considering or attempting suicide in

the past year compared to youth with an ACE score of zero and a low mental well-being score of zero to three.

Figure 6. Youth with a high positive mental well-being score and four or more adverse childhood experiences had a similar risk of considering or attempting suicide than youth with low positive mental well-being and one adverse childhood experience.



Data Source: Minnesota Student Survey, 2022

Mental well-being is important for all Minnesota youth in improving health outcomes but is especially so for youth who have experienced or are currently experiencing childhood trauma, given the increased risk for poor health outcomes.

Data biography and definitions

Data sources and methods

Data for this analysis comes from Minnesota Student Survey. The Minnesota Student Survey, an anonymous survey conducted every three years, is a major source of information about the thoughts and experiences of Minnesota's young people. Since 1989, the Minnesota Student Survey has been administered every three years to students in regular public elementary and secondary schools, charter schools, and tribal schools. All public-school districts in Minnesota are invited to participate in the survey. Different versions of the survey are used depending on grade level. For this report only 8, 9, and 11 graders were included in the analysis and in some cases only 9 and 11 graders were included in analysis (i.e., LGBTQIA+/sexuality, gender identity, etc.). Results reported here are for regular public schools, including charter schools. For our analysis missing responses are included but not always shown. That means percents are taken from the pool of all students who complete the survey. Not just of those that answered the questions. In 2022, 70 percent of school districts participated in the survey for at least one grade level.

To support equity in data science we aim to draw conclusion carefully, ensuring that the data supports them; build a data biography to understand the background and purpose of the dataset; be transparent in methodology; make sure to describe results in the context of the project and the characteristics of the participants that provided input; and address structural constructs.

Definitions

Positive Identity is about understanding or defining who you are, what you care about, your interests, goals, and values, and how you fit in the world. There are many aspects to positive identity, but it consistently involves self-esteem, future orientation, and self-determination or ability to make decisions about your life. This component of mental well-being is based on student responses to 6 questions about positive identity.

Social Competency captures environmental mastery, emotional stability, and autonomy or the ability to manage daily life responsibilities, emotions, and relationships independently. This component of mental well-being is based on student responses to eight questions on environmental mastery and emotional stability.

Empowerment captures the opportunities the youth feel they have, to develop self-determination, test their skills, make decisions, and develop self-esteem. This component of mental well-being is based on student responses to three questions about feeling valued, included in decisions, and given useful responsibilities.

Social Integration is about youth's participation in activities that may generate a sense of belonging to a community - that you share similar interests or values with a set of people and have a shared set of experiences. This component of mental well-being is based on student responses to six questions about participation in out of school activities.

Personal Growth captures feelings that youth have something important to contribute to society, and the opportunity to grow from those experiences, through family, school, or extracurricular opportunities. This component of mental well-being is based on student responses to 4 questions about personal growth experiences outside of regular school day.

Educational Engagement is about the youth's identity as a student. It also includes, to greater or lesser degrees, concepts including curiosity and interest in things, the youth's sense of direction and meaning in life. This component of mental well-being is based on student responses to six questions about engagement at school.

Community Relationships captures the student's perspective on support and responsiveness of adults in their community. This component of mental well-being is based on student feelings that one or more adults in the community cares about them quite a bit or very much.

Teacher Relationships captures the student's perspective on teacher support and responsiveness (listening, fairness, caring). This component of mental well-being is based on student responses to 5 questions about how students feel about adults and teachers in the school from the Minnesota Student Survey.

Peer Relationships captures the student's perspective on forming trusting, caring relationships with peers. This component of mental well-being is based on two questions that gather student's feelings on peer relationships including that friends care about them quite a bit or very much or they develop trusting relationships with peers often or very often.

Family Relationships captures the student's perspective on support and love of parents or other adult relatives This component of mental well-being is based on students feeling that one or more parents or other adult relatives cares about them quite a bit or very much.

Economic Hardship means students who have experienced homelessness in the past 12 months or have had to skip meals in the past 30 days because the family did not have enough money to buy food.

Adverse Childhood Experiences (ACEs) are measured as the total score of adverse childhood experiences, each worth one point – having all ACEs would equal eight. ACEs include:

- Mental Illness in house - living with anyone who is depressed or has any other mental health issue.
- Parents or guardians have ever been in jail or prison.
- Sexual abuse - any adult, other person outside of the family, or older or stronger member of your family have ever touched you or had you touch them sexually.
- Alcohol misuse in house - living with anyone who drinks too much alcohol.
- Drug misuse in house - living with anyone who uses illegal drugs or abuses prescription drugs.
- Emotional abuse - parent or other adult in home regularly swears, insults or put them down.

- Physical abuse - parent or another adult in household has hit, beat, kicked, or physically hurt them.
- Domestic violence - parents or other adults in home has slapped, hit, kicked, punched, or beat each other up.

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