Improving School Health: How social, emotional, and mental health supports in schools impact students

Advancing School Mental Health Conference
October 19, 2017

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OBJECTIVES

1. Connect student health and academics
2. Learn about relevant health assessments in Colorado
3. Understand the Colorado context for school behavioral health
4. Explore associations in school behavioral health practices
5. Identify relevant data sources available in your area
6. Q&A
School Health Overview

Connecting health and learning
Healthy Students are better learners.

Leverage Best & Promising Practices:
- Highlight and disseminate Colorado success stories.
- Publish School Health Best Practices Guide and other resources.
- Convene teams of educators to create comprehensive health and physical education sample units.
- Provide professional development on implementation of best practices.

Translate Health & Education Policies:
- Break down policy and provide support for implementation.
- Aid schools/districts to include health into accountability systems.

Promote Data, Accountability Systems:
- Convene cross-sector state agencies and education stakeholders.
- Aid school districts in creating community-level partnerships.
- Recognize Colorado schools with the Healthy School Champions Recognition award.

CEI HEALTH AND WELLNESS WORK

www.coloradoedinitiative.org

The Colorado Education Initiative
The intersection between health and education
Healthy Students are Better Learners!

“No matter how well teachers are prepared to teach, no matter what accountability measures are put in place, no matter what governing structures are established for schools, educational progress and closing the achievement gap will be profoundly limited if students are not motivated and able to learn.”

- Charles Basch, Professor at Teacher’s College, Columbia University
Healthy students have...

- Increased Learning readiness
- Increased School engagement
- Increased Academic performance

- Decreased Absenteeism
- Decreased Behavior issues
- Decreased Truancy
<table>
<thead>
<tr>
<th><strong>PURPOSE OF SMART SOURCE</strong></th>
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<tbody>
<tr>
<td>Serve as an inventory for schools to assess health policy and practice</td>
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<tr>
<td>Reduce burden on schools by streamlining multiple school health surveys into one tool</td>
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<td>Improve the quality of school health policy and practice data</td>
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<td>Increase the number of schools assessing health and wellness</td>
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<td>Inform improvements in school health efforts</td>
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COMPREHENSIVE MEASUREMENT

1. General Health Policies & Practices
2. Nutrition
3. Physical Education & Physical Activity
4. Health Education
5. Health Services
6. Counseling, Psychological, and Social Services
7. Healthy and Safe School Environment
8. Family, Community, and Student Involvement
9. Staff Health Promotion
10. Local Wellness Policy
2013
• Reviewed relevant tools and compiled indicators
• Engaged school health experts on what Smart Source should measure
• Identified items and refined to meet needs of schools

2014
• Developed tool and methodology
• Conducted think-aloud interviews with schools
• Completed first pilot in 77 schools

2015
• Built report template and sent reports to schools
• Refined and streamlined tool and reports
• Completed second pilot in 451 schools

2016
• Developed automatic reporting process
• Made final refinements to tool and reports
• Released aggregate data via executive summary and data tables

2017
• Completed validity and reliability study
• Developed sample for statewide administration
• To conduct largest administration during the 2017-18 school year
DATA AVAILABLE

School-level Data

District-level Data

Regional-level Data

State-level Data

School Health Policies and Practices
CONNECTION BETWEEN TWO SURVEYS

- Joint Smart Source & Healthy Kids Colorado Survey (HKCS) administration
  - Schools benefit from using both sets of data
  - Minimize confusion between two efforts
  - Data collected during same cross section of time
  - “Off year” can be used for planning & implementation

Smart Source (school-level tool) + HKCS (student-level tool) = Complete Picture of School Health
CO’s only comprehensive survey on the health and well-being of young people in Colorado.

HKCS is aligned with the CDC’s Youth Risk Behavior Survey (YRBS) and has been conducted on a two-year cycle in CO since 1991.

Supported by Colorado Departments of Education, Public Health & Environment, Human Services, and Safety.

Administered to randomly selected middle and high schools and classrooms every odd year in grades 6-12.
<table>
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<tr>
<th>HKCS MEASURES</th>
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<tbody>
<tr>
<td><strong>Protective Factors</strong></td>
</tr>
</tbody>
</table>
| • Trusted adults  
  • School climate  
  • Community involvement |
| **Health Behaviors** |
| • Alcohol, tobacco, and substance use  
  • Safety and violence  
  • Nutrition and fitness  
  • Sexual health (high school only) |
| **Social-Emotional Indicators** |
| • Depression  
  • Suicide  
  • Bullying |
Private: School/District Level

Public: State/HSR Level
School Behavioral Health

Trends in Colorado
• Positive Behavior Support Framework
  – Model for systematic implementation of best practices
  – Prevention-based multi-tiered systems of supports (MTSS)

• CO Framework for School Behavioral Health Services
  – Co-created by content experts and school/district personnel
  – Expands on PBS with systems of care principals
  – Highlights foundational best practices that support all tiers
• Students with diagnosed behavioral health issues miss three times as many school days as those without behavioral health challenges.

• Students who use drugs or alcohol are three times more likely to drop out of school.

• Students who receive social and emotional learning (SEL) instruction have academic achievement scores an average of 11 percentage points higher than students who did not participate in SEL programs.
Assessment of all students (e.g., universal screening) to identify social, emotional, and behavioral health needs

School-wide approach (e.g., PBIS) or program (e.g., BrainWise) to support social and emotional learning of all students

Figure 4.1: Practices to support social, emotional, and behavioral health of all students (i.e., Tier 1)

Elementary | Secondary | Combined
--- | --- | ---
18% | 24% | 16%
72% | 72% | 62%
93%

Female | Male | Total
--- | --- | ---
33.1% | 21.3% | 27.2%
39.9% | 19.2% | 29.5%

Figure 4.2: Secondary students feeling sad or hopeless for two or more weeks in the past 12 months

Middle School | High School
--- | ---
33.1% | 39.9%
21.3% | 19.2%
27.2% | 29.5%

BEHAVIORAL HEALTH DATA
• Students who perceive school to be physically or emotionally unsafe often choose to avoid school altogether.

• Youths who are bullies or are victims of bullies are more likely to miss school.

• The best predictors of class attendance were:
  – Whether the student trusted their teacher
  – Perceived the teacher to care about them
Figure 6.1: Policies/practices to promote positive school climate

- **Written policy prohibiting harassment and bullying (including cyberbullying)**:
  - Elementary: 81%
  - Secondary: 92%
  - Combined: 74%

- **Conduct trainings for school staff about how to respond to harassment and bullying**:
  - Elementary: 53%
  - Secondary: 65%
  - Combined: 65%

- **Student-led club that creates a safe and welcoming environment and includes gender and sexually diverse students and staff**:
  - Elementary: 36%
  - Secondary: 81%
  - Combined: 29%

Figure 5.2: Safety and bullying among secondary students

- **Students who feel safe at school**: 91.1%
- **Bullied on school property (in the past 12 months)**: 20.1%
- **Bullied on school property (ever)**: 47.5%
- **Missed school due to safety concerns (in past 30 days)**: 5.5%
School/community collaboration & secondary prevention

Testing associations across Smart Source data
BACKGROUND

• <50% of youth with mental health needs receive treatment
  – Of those that do, 80% receive care in a school setting
  – Schools = critical mental health provider

![Image](https://via.placeholder.com/150)

“Given schools’ unique ability to access large numbers of children, they are most commonly identified as the best place to provide supports to promote the universal mental health of children” (CASEL 2008, p. 1).1

• Tier 2 programs meet the needs of select students at risk for behavioral health disorders
  – Examples: AVID, Check & Connect, Check In/Check Out, HEARTS
  – Of all tiers, Tier 2 is the **least studied** and **most difficult** to implement in schools
• Collaboration with CMHCs shown to improve student outcomes
  – Community providers aid schools in expanding existing services
  – CO Framework promotes community-based serves as delivery model

*Research question:* Does collaboration between schools and CMHCs increase the likelihood of Tier 2 implementation while accounting for other factors potentially associated with the implementation of Tier 2 programs?
METHODS

Data Collection
1. Smart Source administered once per school during fall 2015
2. Team of school staff encouraged to complete collectively
3. Submissions collected using online platform

Independent variable: School collaboration with CMHCs
Dependent variable: School implementation of Tier 2 programs

Analyses
1. Sample t-test and Chi-square tests to explore differences across schools
2. Bivariate correlations to determine covariates
3. Linear regression of IV & DV, controlling for covariates: significance set at p<.001
### Table 1.1: 2015-16 Smart Source Participation

<table>
<thead>
<tr>
<th>State</th>
<th>Metro</th>
<th>North Central</th>
<th>Northeast</th>
<th>Northwest</th>
<th>Pikes Peak</th>
<th>Southeast</th>
<th>Southwest</th>
<th>West Central</th>
<th>Unaffiliated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elementary</td>
<td>226</td>
<td>70</td>
<td>50</td>
<td>6</td>
<td>14</td>
<td>65</td>
<td>5</td>
<td>13</td>
<td>2</td>
</tr>
<tr>
<td>Secondary</td>
<td>175</td>
<td>48</td>
<td>25</td>
<td>7</td>
<td>13</td>
<td>46</td>
<td>5</td>
<td>21</td>
<td>7</td>
</tr>
<tr>
<td>Combined²</td>
<td>50</td>
<td>17</td>
<td>6</td>
<td>1</td>
<td>4</td>
<td>12</td>
<td>2</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>451</td>
<td>135</td>
<td>81</td>
<td>14</td>
<td>31</td>
<td>123</td>
<td>12</td>
<td>38</td>
<td>10</td>
</tr>
</tbody>
</table>

25% of all Colorado schools

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1. Regions are defined by the Colorado Department of Education. For more information, please visit: [www.cde.state.co.us/cdeedserv](http://www.cde.state.co.us/cdeedserv)
2. Combined schools have at least one elementary (K-5) and one secondary (6-12) grade.
SAMPLE VS. OVERALL STATE

<table>
<thead>
<tr>
<th>Number of Schools</th>
<th>Free or Reduced Price Lunch</th>
<th>School Size</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SAMPLE (n=451)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elementary: 226 (50%)</td>
<td>Mean: 45%</td>
<td>Mean: 508 students</td>
</tr>
<tr>
<td>Secondary: 175 (39%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Combined: 50 (11%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>STATE (n=1793)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elementary: 884 (48%)</td>
<td>Mean: 45%</td>
<td>Mean: 496 students</td>
</tr>
<tr>
<td>Secondary: 672 (36%)</td>
<td></td>
<td></td>
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<tr>
<td>Combined: 237 (13%)</td>
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FINDINGS

1. **Schools that are more likely to collaborate with CMHC:**
   - Located in small districts and outlying cities or towns
   - Higher rates of FRL eligibility and truancy
   - Secondary level, versus elementary and combined

2. **Covariates correlated with implementing Tier 2 programs (DV):**
   - School-wide approach to SEL (Tier 1)
   - In-school therapeutic services (Tier 3)
   - Referrals to services outside of school
   - Wellness team
   - School counselor availability

3. **Collaboration with a CMHC was positively associated with implementation of Tier 2 programs**
   - OR = 2.23
   - 95% CI: 1.36, 3.66
• Schools collaborating with a CMHC are more than twice as likely to implement Tier 2 programs as those that did not

• CMHCs may assist or inform schools in implementation of Tier 2 programs
  – Direct vs. indirect role

• Results suggest school/CMHC collaboration as a potential:
  – Important best practice for comprehensive school mental health
  – Strategy to narrow research-to-practice gap around Tier 2 implementation
The impact of social, emotional, and mental health supports in schools on students

Testing associations between Smart Source and Healthy Kids Colorado data
Study hypothesis: Schools that report greater presence and quality of counseling, psychological, and social services will be associated with improved self-reported student mental health outcomes.

Indicators for school-level predictors
1. Staff training
2. Programming
3. Screening
4. Other procedures

Indicators for student-level outcomes
1. Mental health
2. School climate
3. School connectedness
METHODS

Data Collection

• Smart Source administered to schools in 2015-16
• HKCS administered to students in 2015-16
• Merged school records that participated in both Smart Source and HKCS

Analysis (led by CU Anschutz)

• Descriptive statistics
• Bivariate tests of association (Chi-square)
• Multivariable regression analysis (significance set at p<.05)
**STUDY SAMPLE**

**Smart Source**
- Total schools with secondary grades in sample: 275

**HKCS**
- Total high schools in sample: 153

**Overlap**
- 49 high schools
- 10,816 students
1. Presence of a school psychologist: protective for suicide attempts

2. Schools where staff are trained to identify students in crises: more likely to have students report they have an adult to go to for help

3. Schools where staff are trained to support students in crises: more likely to have students report they feel safe at school
4. Universal screenings: protective for bullying

5. Providing in school supports for students was positively associated with:
   • students reporting they feel safe at school
   • students reporting teachers care about them

6. Collaborating with a community mental health center was:
   • protective against skipping school
   • positively associated with students reporting teachers care about them
**Conclusion:** School policies and practices related to mental health and school climate seem to have an impact on student suicide attempts, bullying, feeling safe at school, and positive relationships with adults.

**Limitations**
- Overlap in schools is relatively small & did not include middle schools
- Surveys have different questions, respondents, formats, etc.
- Conducted with pilot tool – revised items in Smart Source sections are more specific

**Future Directions**
- Conduct these analyses in 2017-18 (there will be larger sample of schools)
- Explore literature about research in possible associations
Activity

Exploring data at your fingertips
### POSSIBLE DATA SOURCES

<table>
<thead>
<tr>
<th>Student-Level Data</th>
<th>Staff-Level Data</th>
<th>School-Level Data</th>
<th>State/County Data</th>
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</thead>
<tbody>
<tr>
<td>• Health Surveys (e.g., HKCS)</td>
<td>• Tell Survey</td>
<td>• Health Policy and Practice Assessments (e.g., Smart Source, School Health Index)</td>
<td>• Child Health Survey (state)</td>
</tr>
<tr>
<td>• Climate Surveys</td>
<td>• Teacher Perception Survey</td>
<td>• Graduation Rates</td>
<td>• Physical health</td>
</tr>
<tr>
<td>• Student Perception Surveys</td>
<td>• FTE Count (e.g., Nurse, Counselors)</td>
<td>• Mobility Rates</td>
<td>• Mental &amp; behavioral health</td>
</tr>
<tr>
<td>• Non-cognitive/SES Surveys</td>
<td></td>
<td>• FRL Rates</td>
<td>• Kids Count (state &amp; county)</td>
</tr>
<tr>
<td>• Attendance Data</td>
<td></td>
<td>• Nursing Visits</td>
<td>• Child health</td>
</tr>
<tr>
<td>• Discipline Data</td>
<td></td>
<td></td>
<td>• Education</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Economic status</td>
</tr>
<tr>
<td></td>
<td></td>
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<td>• Smart Source</td>
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<td>• Healthy Kids Colorado Survey</td>
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HOW TO USE HEALTH DATA

- Identify Needs
- Make the Case for Resources
- Initiate Policy or Practice Change
- Communicate about School Health Programs and Garner Support
- Evaluate Effectiveness of Policies and Practices
Q&A
Thank You!

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