CLOSING THE ACHIEVEMENT GAP: THE ROLE OF NUTRITION AND WELLNESS

A presentation for
Strategy Exchange:
Nutrition for Life Long Learning

November 15, 2016
1. Minnesota Student Survey Background
2. Overview of Educational Disparities
3. Overview of Health Disparities
4. Relationships between Health and Academics
5. Linking Health and Learning
Basics of Minnesota Student Survey

- Administered by four state agencies:
  - Education
  - Health
  - Human Services
  - Public Safety
- Conducted every three years since 1989
- Census design, rather than random sample—everyone invited.
- Voluntary and anonymous
- Three age-appropriate versions of the 2016 survey
District participation increased slightly in 2016 after several years of decline.
More than two-thirds of enrolled students in grades 5, 8, 9 and 11 participated.

<table>
<thead>
<tr>
<th>Grade-level</th>
<th>Number of students</th>
<th>Percent of enrollment</th>
</tr>
</thead>
<tbody>
<tr>
<td>5th grade</td>
<td>41,865</td>
<td>66%</td>
</tr>
<tr>
<td>8th grade</td>
<td>44,983</td>
<td>73%</td>
</tr>
<tr>
<td>9th grade</td>
<td>45,309</td>
<td>71%</td>
</tr>
<tr>
<td>11th grade</td>
<td>36,576</td>
<td>61%</td>
</tr>
<tr>
<td>Total</td>
<td>168,733</td>
<td>68%</td>
</tr>
</tbody>
</table>

- Alternative Schools/ALCs (n=2,696 students)
- Juvenile Correctional Facilities (n=217 students)
EDUCATIONAL DISPARITIES
There are large disparities in math proficiency by race/ethnicity.

- White, 68%
- Asian, 59%
- Hispanic/Latino, 37%
- American Indian, 36%
- Black, 32%

Percentage math proficiency (Grade 8)

2013 2014 2015 2016
There are large disparities in chronic absenteeism by race/ethnicity.
There are large disparities in chronic absenteeism by economic status.
There are large disparities in disciplinary actions by race/ethnicity.

Percentage of K-12 students
HEALTH DISPARITIES
Overweight or Obese

Grade 8, 9 and 11 students:

- How tall are you? (feet and inches)
- About how much do you weight? (pounds)

BMI calculated by height, weight, sex, and age.
Overweight = 85th to 94th percentile
Obese = 95th percentile or higher
There is little difference in overweight or obese status across grades.

- Grade 8: 23%
- Grade 9: 24%
- Grade 11: 25%
American Indian and Hispanic/Latino students showed a sharp increase in overweight/obese status in 2016.
Free or reduced price lunch students are much more likely to be overweight or obese.
Grade 5, 8, 9 and 11 students:

During the last 7 days, on how many days were you **physically active** for a total of AT LEAST 60 MINUTES PER DAY? (Add up all the time you spent in any kind of physical activity that increased your heart rate and made you breathe hard some of the time.)

- 0 days
- 1 day
- 2 days
- 3 days
- 4 days
- 5 days
- 6 days
- 7 days
Grade 11 students are the least likely to be physically active.

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage physically active 60+ minutes on 5 or more days in last week</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grade 5</td>
<td>49%</td>
</tr>
<tr>
<td>Grade 8</td>
<td>52%</td>
</tr>
<tr>
<td>Grade 9</td>
<td>52%</td>
</tr>
<tr>
<td>Grade 11</td>
<td>41%</td>
</tr>
</tbody>
</table>
The largest gap in physical activity is between White and Asian students.
Free or reduced price lunch students are less likely to be physically active.

- Free or Reduced Price Lunch: 39% in 2013, 40% in 2016
- Not Free or Reduced Price Lunch: 50% in 2013, 52% in 2016
Fruit / Vegetable Consumption

Grade 5, 8, 9 and 11 students:
During the last 7 days, how many times did you...

- Eat **fruit**? *(Do not count fruit juice.)*
- Eat green salad, potatoes, carrots or other **vegetables**? *(Do not count French fries, fried potatoes or potato chips.)*

- I did NOT eat or drink this  
- 1 to 3 times in last 7 days  
- 4 to 6 times in the last 7 days  
- 1 time per day  
- 2 times per day  
- 3 times per day  
- 4 or more times per day)
Students are less likely to eat fruit or vegetables each day as they get older.

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percent who ate fruit or vegetable at least one time per day in last week</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grade 5</td>
<td>59%</td>
</tr>
<tr>
<td>Grade 8</td>
<td>54%</td>
</tr>
<tr>
<td>Grade 9</td>
<td>54%</td>
</tr>
<tr>
<td>Grade 11</td>
<td>51%</td>
</tr>
</tbody>
</table>
American Indian students were the least likely to eat fruit or vegetables each day.
Free or reduced price lunch students were less likely to eat fruit and vegetables.

Year of MSS Administration

2013

2016

Not Free or Reduced Price Lunch, 57%

Free or Reduced Price Lunch, 49%

Percent who ate fruit or vegetable at least one time per day in last week

48% Free or Reduced Price Lunch, 57%
Grade 5, 8, 9 and 11 students:
During the last 30 days, have you had to skip meals because your family did not have enough money to buy food?
Most students in Minnesota are food secure.

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage food secure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grade 5</td>
<td>96%</td>
</tr>
<tr>
<td>Grade 8</td>
<td>96%</td>
</tr>
<tr>
<td>Grade 9</td>
<td>96%</td>
</tr>
<tr>
<td>Grade 11</td>
<td>96%</td>
</tr>
</tbody>
</table>
While food security is high overall, there are disparities between racial/ethnic groups.

- White: 97%
- American Indian: 90%
- Hispanic/Latino & Black: 92%
- Asian: 94%
- Multiple Race: 93%
- Asian: 94%
- White: 97%

Percentage food secure, Year of MSS Administration:

- 2013: 89%
- 2016: 97%
Nine out of ten free or reduced price lunch students are not food secure.
HEALTH INDEX
### Health Index Items

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Definitions of having the health asset</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>BMI</td>
<td>Body mass index of less than the 85th percentile</td>
<td>76.0%</td>
</tr>
<tr>
<td>Physical activity</td>
<td>At least 60 minutes of physical activity per day for at least five of last seven days</td>
<td>50.2%</td>
</tr>
<tr>
<td>Fruit</td>
<td>Consumed at least one fruit per day in the last week</td>
<td>46.8%</td>
</tr>
<tr>
<td>Vegetables</td>
<td>Consumed at least one vegetable per day in the last week</td>
<td>40.3%</td>
</tr>
<tr>
<td>Sugar-sweetened beverages</td>
<td>Did not consume sugar drinks on previous day</td>
<td>23.7%</td>
</tr>
<tr>
<td>Food security</td>
<td>Did not skip meals in last 30 days because family did not have enough money to buy food</td>
<td>95.7%</td>
</tr>
</tbody>
</table>

*Grade 5 students are not included in this analysis.*

*Only students who responded to all six items were included in the analysis (n=107,665).*
About four out of ten students have four or more of the health assets.
American Indian, Hispanic/Latino and Black students are the least likely to have four or more health assets.
Free or reduced price lunch students are much less likely to have four or more health assets.
As the number of health assets increases, the likelihood of reporting “mostly As” increases.
As the number of health assets increases, the likelihood of staying home sick decreases.

<table>
<thead>
<tr>
<th>Number of Health Assets</th>
<th>Percentage who stayed home sick at least once in last month</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zero</td>
<td>62%</td>
</tr>
<tr>
<td>One</td>
<td>50%</td>
</tr>
<tr>
<td>Two</td>
<td>47%</td>
</tr>
<tr>
<td>Three</td>
<td>42%</td>
</tr>
<tr>
<td>Four</td>
<td>41%</td>
</tr>
<tr>
<td>Five</td>
<td>38%</td>
</tr>
<tr>
<td>Six</td>
<td>34%</td>
</tr>
</tbody>
</table>
As the number of health assets increases, the likelihood of being sent to the office for discipline decreases.

<table>
<thead>
<tr>
<th>Number of health assets</th>
<th>Percentage who were sent to office for discipline at least once in the last month</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zero</td>
<td>18%</td>
</tr>
<tr>
<td>One</td>
<td>12%</td>
</tr>
<tr>
<td>Two</td>
<td>10%</td>
</tr>
<tr>
<td>Three</td>
<td>9%</td>
</tr>
<tr>
<td>Four</td>
<td>7%</td>
</tr>
<tr>
<td>Five</td>
<td>5%</td>
</tr>
<tr>
<td>Six</td>
<td>3%</td>
</tr>
</tbody>
</table>
LINKING HEALTH & LEARNING
Minnesota Data Reflection

Does creating healthier schools mean getting kids to
“There is no more important work— as parents and as a society— than helping our young people succeed. And the twin priorities that are the foundation of their success, their health and their education are inextricably linked”

-Deputy Secretary Mary K. Wakefield
U.S. Health and Human Services
Whole Child Approach

- Whole School, Whole Community, Whole Child (WSCC) model
- The need for alignment, integration, and collaboration between education and health
- Intended to increase health outcomes and academic success
• Statewide Health Improvement Program (SHIP)
• 87 Counties in MN
• 41 Grantees
• 350+ Independent School Districts
Healthy Eating In Schools

- Farm to School
- School based Agriculture
- Healthy Snacks/Beverages During the School Day
- Healthy Snacks/Beverages in OST
- Smarter Lunchroom Initiatives
Active Schools

Physical Education

Active Classrooms

Active Recess

Before/After Physical Activity

Safe Routes to School
SHIP in Schools: Active Schools
Interim Partner Site Counts, April 2016

- Quality PE: 166
- Active Recess: 195
- Active Classrooms: 209
- Before & After School Physical Activity Opportunities: 104
- Safe Routes to School: 254
- Beginning Engagement: 200
- Other Active Schools: 1
Let’s Make Wellness Work for all Schools

Thank you for your commitment to ensuring Minnesota schools provide quality wellness policies and programs to help students become healthier, educated learners. In 2010, the Healthy, Hunger-Free Kids Act (HHFKA) was enacted to improve child nutrition. Since then, research has shown that HHFKA has positively impacted the nutritional quality of school meals and that comprehensive district wellness policies are making a difference in children’s health. A University of Minnesota study is showing that when schools have policies and practices that emphasize healthy food and restrict junk food and sugary drinks, students benefit by:

- Drinking less soda and sports drinks.
- Eating more fruits and vegetables.
- Weighing less.

Through the Minnesota Team Nutrition grant provided by the U.S. Department of Agriculture, training and technical assistance is made available for school nutrition professionals to both strengthen district wellness policies and build broad support for creating healthy school environments. This School Wellness Toolkit supports these efforts by outlining the essential steps for developing a robust wellness policy and highlighting effective wellness policy tactics from schools across Minnesota.

Schools continue to be a primary place for students to learn and practice healthy eating and physical activity. The focus on the school setting is also part of a larger effort by the Minnesota Department of Health through the Statewide Health Improvement Program (SHIP) to improve the health of all Minnesotans by making the places where they study, work, live and play more conducive to supporting healthy lifestyles.

We invite you to join this ongoing effort to provide Minnesota’s children and families with the supports they need to thrive and succeed in life.

Best of health,

Brenda Cassellius, Ed.D.
Commissioner of Education

Edward Shingleton, M.D., M.P.H.
Commissioner of Health

Minnesotan Department of Education

Minnesotan Department of Health
The healthy path to student success

Visualize: Pick the full of healthy 幼

Healthy students are better learners:
- Other research shows that when students are physically active and consume more fruits and vegetables, they:
  - Perform better on tests
  - Have lower rates of obesity
  - Have higher grades
  - Have more positive attitudes toward school

Strong policy keeps health in the mix:
- Schools with strict and consistent policies have:
  - Higher rates of fruit and vegetable consumption
  - Higher rates of physical activity

Customize your school's policy:
- Use the "Policy Toolkit" to create a policy that works for your school.

Engage: Families, teachers, and students:
- Schools that encourage families to eat healthy foods and be physically active are more likely to have healthy students.

Inverse perspectives build better policy:
- When a school's health council has a diverse membership (teachers, parents, and students), they:
  - Are more likely to adopt policies
  - Are more likely to see results

Scope research shows that schools that encourage families to eat healthy foods and be physically active are more likely to have healthy students.

Healthy choices everyday:
- Schools that provide healthy food and encourage physical activity are more likely to have healthy students.
- Schools that have strict and consistent policies are more likely to have healthy students.
- Schools that are designed to be healthy are more likely to have healthy students.

Action: Policy into practice:
- Use the "Policy Toolkit" to create a policy that works for your school.

Promote healthy meals:
- When schools serve meals that are healthy, students are more likely to choose healthy meals.

Make marketing work for you:
- When schools use marketing strategies to promote healthy foods, students are more likely to choose healthy meals.

Connect with partners:
- Minnesota's Health and Education Agencies support local actions through policy resources, student and school-level data, and community outreach.

Valuable guides to support you:
- Use the "Policy Toolkit" to create a policy that works for your school.
- Use the "Policy Toolkit" to create a policy that works for your school.

http://www.healthdisparities.umn.edu/research-studies/project-scope
MN Research

http://www.healthdisparities.umn.edu/research-studies/project-breakfast
World's Best Workforce Summary Due

Under Minnesota Statutes, section 120B.11, school districts are to develop a World’s Best Workforce (WBWF) Annual Report and report summary for each school year. This summary should document the WBWF student achievement goals that were established last year, the strategies and initiatives that the district engaged in to meet the goals, and the subsequent progress made in those goals by the end of the school year. Districts will post their reports on the district website, and submit the summary report to MDE each year.

A template format for districts to use to create their report summary was developed by MDE. The goal was to keep the summary brief and simple.

All districts should use the summary report template.

What is the World’s Best Workforce?
The World’s Best Workforce bill was passed in 2013 to ensure every school district in the state is making strides to increase student performance. Each district must develop a plan that addresses the following five goals:

- All children are ready for school.
- All third-graders can read at grade level.
- All racial and economic achievement gaps between students are closed.
- All students are ready for career and college.
- All students graduate from high school.
Contact Information

- Terri Swartout
  - Terri.Swartout@state.mn.us
  - 651-582-8377

- Lisa Burton
  - Lisa.Burton@state.mn.us
  - 651-582-8488