# USING DATA TO DRIVE DECISIONS

Data-driven decisions are a necessity in this era of accountability and high-stakes testing. It simply isn't good enough to implement health and wellness efforts because "we just know we're making a difference" without having data to support our claims. For school health efforts to take their rightful place alongside reading, writing, and math, it's imperative that we show results. In this **Travel Guide**, we'll talk about what data-driven decisions are all about, give you a chance to take a simple test to see if you're on track with your current data collection efforts, discuss how important it is to develop a long-term plan for data collection, and provide samples of effective data collection efforts. Finally, we'll provide additional resources focused on data.
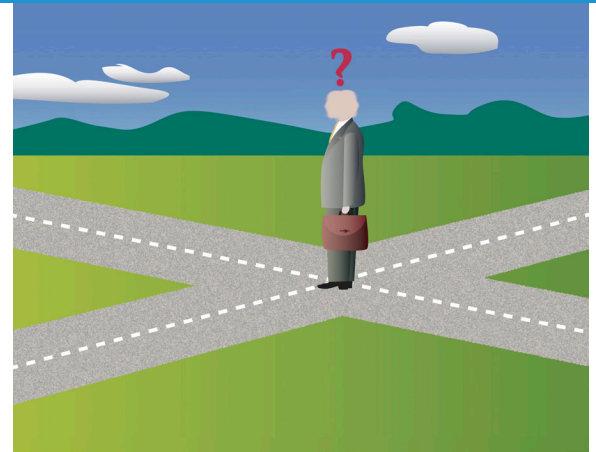
> " *Knowledge is power, and there's nothing more powerful than data to help district and school leaders develop a solid blueprint with measurable results for continuous improvement. (Messelt, 2004)* "

Data-driven Decisions—Fueling Up

In its most basic form, data-driven decisions are about:

- Collecting appropriate data
- Analyzing the data in a meaningful fashion
- Getting the data into the hands of the people who need it
- Using the data to increase school efficiencies and improve student achievement
- Communicating data-driven decisions to key stakeholders

(Messelt, 2004)

If you've done a good job writing your School Health Improvement Plan, it includes a plan for data collection efforts that provides evidence that you've met your objective. As you've matured as a team, your School Health Improvement Plans have likely become more focused on impacting staff or student behavior. You've interpreted the data accurately and your school has adopted changes as a result of what you've learned. You've shared your findings with your team members, administrators, students, and community members. Ideally, your school health team has embarked upon a continuous improvement process in which data collection plays an integral part.

Initial School Health Improvement Plan Development

In Mile Marker 4 of the School Level Roadmap, it's suggested that first-year teams and teams that have encountered lots of turnover complete the *School Health Index*. This assessment provides teams an opportunity to identify strengths and weaknesses in each of the ten components of Whole School, Whole Community Whole Child (WSCC). If your team completed another assessment,

that's okay too. The point is that your team has taken the time to assess how well you're doing against some standard of best practice. Once the team has completed the assessment, instructions are given to identify top priority actions, determine if the priority actions are both important and feasible, research best practices related to the high priority areas, and write a School Health Improvement Plan.

STOP **Look at your most recent School Health Improvement Plan and answer these questions:**

Our School Health Improvement Plan was based on results of the School Health Index or another assessment (e.g., Healthy School Champions Score Card)	YES or NO
Our School Health Improvement Plan objective was directly related to a Best Practice (refer to Sample Best Practices p. 11 in Roadmap)	YES or NO
Our objective was SMART	YES or NO

- ❏ Specific
- ❏ Measurable
  - Do you have measurable results?
  - Did you share the results with stakeholders?
  - Did you implement a change as a result of your findings?
- ❏ Attainable
- ❏ Relevant
- ❏ Time-phased

If you answered no or aren't sure how to answer any of these questions, detour back to Mile Marker 4 of the School Level Roadmap and recommit your efforts to writing your next School Health Improvement Plan following the steps outlined in the School-level Mile Markers 4, 5, and 6.

> *Using data makes setting school health goals deliberate and worthwhile and helps guarantee that precious resources won't be wasted.*

Developing a Long-range Plan

If your team hasn't spent time thinking about what you want to achieve over time, now's the time to start the process. Teams often start by asking the question, "What is it we're trying to accomplish as a school health team?" This translates into an overall goal statement.

Examples of school health team goals:

- Improve student achievement
- Assure that students are healthy and ready to learn
- Implement policies that will impact the health behavior of our staff and/or students.
- Influence student health behaviors

By working together as a team to write a goal statement, you greatly reduce the chances that your School Health Improvement Plan will be based on passion. You commit yourselves to research-based ideas that link health and academics, put policy in place, or improve student or staff health behaviors. You're starting to make real change and you're gaining clout in your school.

Once the team has agreed on a goal statement, use it to guide the development of your SMART objectives.

Here's where data collection comes into play. Quality data collection efforts are dependent on a well-written objective. If your objective is vague or not measurable it's virtually impossible to know if you've accomplished anything.

It's a bit like Alice in Wonderland when she asked the Cheshire Cat for directions:

"Would you tell me, please, which way I ought to go from here?"

"That depends a good deal on where you want to get to," said the Cat.

"I don't much care where—" said Alice.

"Then it doesn't matter which way you go," said the Cat.

(Lewis Carroll, Alice's Adventures in Wonderland)

Sample Objectives and Corresponding Data Collection Activities

Below are three samples of SMART objectives with corresponding data collection activities for each. Generally speaking, data are collected to get a baseline and then again after a plan has been implemented.

Sample 1
SMART Objective (desired change):
By December 1, 2014, the school will increase daily breakfast participation from its current average of 60 students to 120 students.

Data to collect that will indicate the objective has been achieved:

- Daily average number of students who participate in the school's breakfast program during the week of September 8, 2014.
- Daily average number of students who participate in the school's breakfast program during the first week in December 1, 2014.

Sample 2
SMART Objective (desired change):
By May 15, 2015, 50% of teachers will implement a minimum of 30 minutes of instruction per week in the district-approved curriculum.

Data to collect that will indicate the objective has been achieved:

- # of teachers currently implementing some portion of the district-approved curriculum.
- # of teachers implementing a minimum of 30 minutes of instruction per week in the district approved curriculum as of May 15, 2015.

Sample 3
SMART Objective (desired change):
By May 15, 2015, the state health standards will be infused into the health education curriculum with 85% of 9th graders proficient or advanced based on the standards and local assessments.

Data to collect that will indicate the objective has been achieved:

- Documentation that 100% of health education standards are aligned with the health education curriculum.
- Documentation that assessments in all health content areas have been developed.
- Percent of students proficient or advanced on May 15, 2015.

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Sample School Health Improvement Plan

Quality data collection begins with a well-written objective. Data collection activities are specific to the objective and are highlighted in both the data section and as activities in the School Health Improvement Plan (see below).

Healthy Schools Successful Students: School Health Improvement Plan	Date:
School Name: Happy Kids Elementary	District Name: Very Fine SD
Co-leader Names:	Principal's Name:

SMART Objective (desired change):
By December 1, 2014, 75% of classroom teachers at Happy Kids Elementary will implement physical activity breaks in their classrooms at least three times per week.

What data will you collect that will indicate the objective has been achieved?
Data Specific to Objective
- # of classroom teachers currently implementing physical activity breaks in the classroom
- # of days per week classroom teachers are currently implementing physical activity breaks in the classroom
- # of teachers implementing physical activity breaks in the classroom at least three times per week on or before December 1, 2014

Action steps to achieve SMART Objective	Timeline (By When)	Person(s) Responsible	Budget Needed	Action Step Completed
Meet with team to discuss proposed School Health Improvement Plan and assign responsibilities for completing various tasks	9/9/14	Co-leaders	none	
Purchase three copies of *The Kinesthetic Classroom: Teaching and Learning Through Movement* (Lengel & Kuczala)	9/9/14	Librarian	$90	
Develop a survey asking the first two questions described in the data section above	9/16/14	PE Teacher, District Health and Wellness Coordinator	none	
Implement the survey to gather baseline data at September 23 weekly staff meeting	9/23/14	Co-leaders	none	
Develop one hour in-service	9/29/14	PE Teacher and two other Wellness Team members (In-service Team)	none	
Conduct hour-long in-service to fellow teachers utilizing *The Kinesthetic Classroom: Teaching and Learning Through Movement*	9/30/14	In-service Team	$25 for snacks	
Provide brain break example as warm-up activity at weekly staff meetings during the month of October	10/28/14	In-service Team	none	
Conduct post-test survey at November staff meeting	11/25/14	PE Teacher, District Health and Wellness Coordinator	none	
Tabulate results	12/2/14	Parent Team Member	none	
Share results with Wellness Team and consider possible next steps (i.e., new School Health Improvement Plan)	12/16/14	Co-leaders	none	
Share results with school accountability committee	12/18/14	Co-leaders	none	

NOTE: Green highlighted cells indicate data collection activities in the School Health Improvement Plan.

Using the Data to Make a Difference

Data-driven decisions go far beyond collecting appropriate data to measure your School Health Improvement Plan. To be most effective, teams must:

- Analyze the data in a meaningful fashion
- Get the data into the hands of the people who need it
- Use the data to increase school efficiencies and improve student achievement
- Communicate data-driven decisions to key stakeholders

(Messelt, 2004)

Analyze the data
It's possible that you will need help to analyze your data. If your objective is simple (e.g., complete a task, implement a new program), you may have the skill on your team to analyze the data. If, however, your objective is a bit more complex, you may require the services of an evaluator. If this is the case, bring the person on board as you write your objective. Consider engaging your district evaluation team or those in charge of writing your Unified Improvement Plan to guide evaluation.

Get the data into the hands of people who need it/ Communicate data-driven decisions to key stakeholders
As soon as you begin implementing the School Health Improvement Plan, you will begin to interpret the data you collect. A standard question you should discuss at each team meeting is "How are we doing in terms of completing our objective?" In other words, "What are we learning?" Learnings should be shared with administrators, staff, community members, and others who might be impacted. Share the data in success stories. Write the success stories throughout the year, not just when applying for funds. Examples of success stories can be found on the website of the Colorado Education Initiative (formerly the Colorado Legacy Foundation):

www.coloradoedinitiative.org/resources/healthy-schools-best-practices-guides/

Use the data to increase school efficiencies and improve student achievement
Discuss the implications of the findings with your team and with others who will be impacted. Once dialogue has begun, you're on the road to creating change. Change might come in the form of a new policy on healthy snacks in the classroom or the implementation of a new research-based standards-based health education curriculum. Using the data to make future decisions saves valuable resources and ensures continuous improvement.

Looking Beyond the School Health Improvement Plan

You'll know data are really driving your decision-making when you can connect your school health efforts to academic achievement or show meaningful change in student and/or staff behavior.

To do that, school teams will need to look beyond checking the boxes that indicate they've completed the School Health Improvement Plan. One strategy for putting a longer-term plan in place is the use of action research. Action research is a collaborative activity among colleagues searching for ways to improve instruction or increase academic achievement, or to determine a solution to a problem such as childhood obesity, asthma management, or mental health issues (Ferrance, 2000).

There are four basic themes to action research: empowerment of participants, collaborations through participation, acquisition of knowledge, and social change. For it to be successful, teams routinely consider data on the health of a school community.

School Data
The amount of data available to review in a school is enormous. Flowers and Carpenter (2009) outlined several types of available school data. A partial list includes:

Instructional Practices

- Standardized test results
- Attendance rates
- Discipline rates
- Curriculum materials
- Lesson plans
- Examples of student work
- Student self-assessments

School Climate

- Safety data
- Climate survey results (homegrown or commercial)
- Dropout rates

Parent Involvement

- Parent attendance rates at activities
- PTA and PTO meeting minutes
- Parent survey results

Leadership and Professional Development

- Leadership team meeting minutes
- Professional development calendar
- Budgets
- Type of certification
- Years of teaching experience
- Turnover rates of teachers and staff

Looking at numerous pieces of data together (e.g., demographics, achievement, absenteeism, climate) helps schools form hypotheses to decide how best to use the information.

The action research model (below) shows how data should play a central role in the development of any school health improvement plan.

From Eileen Ferrance (2000), Action Research Cycle, Themes in education: Action research, fig. 2. Retrieved from www.alliance.brown.edu/pubs/themes_ed/act_research.pdf

A Colorado Example

Here's an example of how one Colorado school district utilized Colorado middle school weighted data from the Youth Risk Behavior Survey (YRBS) to track changes in alcohol, tobacco, and other drug use over time. Various research-based programs were implemented over the course of seven years. Though it's not possible to say that school health efforts caused these positive changes, the data produce accountability and give school health its rightful place alongside more traditional academic areas.

Partial list of data collected for seven years:

Healthy Kids Colorado: ATOD Use in Previous 30 Days									
	2005	2006	2007	2008	2009	2010	2011	2012	% change
Alcohol	55%	43%	44%	48%	38%	26%	25%	20%	-52.73%
Cigarettes	26%	19%	15%	20%	18%	15%	10%	8%	-42.31%
Chew	15%	22%	9%	8%	5%	3%	0%	2%	-80.00%
Marijuana	21%	19%	13%	18%	16%	9%	11%	8%	-57.14%
Overall ATOD use	29%	26%	20%	24%	19%	13%	12%	10%	-54.70%

(Caldon-Ruggles, 2013)

Caldon-Ruggles (2013) outlines the following steps to utilize data to build program relevance, impact, and sustainability:

1. **Identify what data you have available to you.**
   - School Information System
   - Behavior Referrals
   - Informal Surveys
   - Free surveys
   - Climate Survey
   - Pre/Post Tests
   - Healthy Kids Colorado Survey
   - County/State data
   - Observations
2. **Analyze this data for needs/gaps.**
   - Input into Excel spreadsheet.
3. **Create measurable objectives using the data for a baseline measurement.**
4. **Implement an intervention.**
5. **Measure using the same method used for the baseline data.**
6. **SHARE YOUR RESULTS!**
   - Be your own best champion!

TRAVEL LOG: DATA COLLECTION

Our goal statement:

Our SMART objective:

Objective check: the objective is SMART

_____ Specific

_____ Measurable

_____ Attainable

_____ Relevant

_____ Time-phased

Data we are going to collect to indicate that our objective has been achieved:

Data collection points are included in the activities section of our School Health Improvement Plan.   YES   NO

RESOURCES: DATA-DRIVEN DECISIONS

This section lists additional resources related to data-driven decisions.

1. **Utilizing the Healthy School Champions Score Card as an assessment tool**

   In addition to applying for the Healthy School Champions Recognition Program sponsored by the Colorado Education Initiative, many seasoned teams have started to utilize the Healthy School Champions Score Card to assess their school health programs. In addition to helping schools identify strengths and weaknesses of health and safety policies and programs, it provides schools an opportunity to monitor progress over time.

   - Part 1 of the assessment can be completed in approximately one hour

   - Schools can assess proficiency in each of the ten components of *Whole School, Whole Community, Whole Child*

   - Proficiency areas are all best practices

   One elementary school co-leader said it this way: "It's like an independent study of the best practices in each of the eight components. Once the assessment is complete, it's easy to translate a weakness into a School Health Improvement Plan objective."

   Sample Nutrition Assessment questions from the Healthy School Champions Score Card:

Do classroom celebrations offer non-food and nutritious food options and provide education to parents?	Fully in place	Partially in place	Not in place
Does your school incorporate innovative practices to increase student participation in the School Breakfast Program (i.e., hallway kiosks, education)?	Fully in place	Partially in place	Not in place
Does your school allow students to have adequate time to eat lunch, that is, at least 20 minutes of SEATED time (excluding recess and time standing in line)?	Fully in place	Partially in place	Not in place

2. **Utilizing National, State, and County Health Data**

   State and county health data and, in some cases, health data specific to school districts are readily available and provide a wealth of information. These data are essential in answering big questions about student risk behaviors and protective factors. Colorado middle and high school weighted data are available through OMNI Institute at collaboration.omni.org/sites/hkc/Data%20Tables%20and%20Results/Forms/Front%20Page.aspx or through the Centers for Disease Control and Prevention at www.cdc.gov/healthyyouth/yrbs/overall.htm

   In addition to the semi-annual state-sponsored Healthy Kids Colorado data collection effort, a randomized study of health risks and protective factors in middle school and high school students, districts may contract with OMNI to complete the Healthy Kids Colorado Survey as a district initiative.

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