Data-Driven Decision-Making and Strategic Action Planning

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WILDER RESEARCH
Introductions
Goal

- Help Minnesota nonprofits learn strategies to:
  - Define what data they want to collect
  - Improve their data management and quality
  - Understand and use their data effectively
  - Communicate their story using data
Agenda

1. Introduction to Wilder Research
2. What is data-driven decision making?
3. Organizational readiness for data-driven decision making
4. Strategies Minnesota nonprofits use to support data-driven decision making
Wilder Research – a division of Wilder Foundation

- **Mission:** To strengthen organizations and communities through research
- **We help state and local agencies, schools, nonprofits, foundations, health systems, etc.:**
  - Better understand community trends
  - Identify needs and solutions at the policy, community, and program level
  - Measure program effectiveness
  - Increasing public awareness of issues
What is DDDM?

Data-driven decision-making is an ongoing process of collecting and analyzing different types of data and using that data to guide decisions for improving programs and policies that ultimately lead to better outcomes.
Organizational preparedness for DDDM

- Leadership commitment
- Common understanding
- Staff buy-in
- Learning and trusting culture
- Time and structure
Define what data you want to collect
Defining what data to collect

- Logic models
- Team based inquiry
A logic model illustrates your program theory

- IF the activity/program is provided THEN what should be the result (impact) for participants?
- What ACTIVITIES need to happen, and in what INTENSITY and DURATION, for participants to experience the desired OUTCOME?
- What EVIDENCE do you have that this activity/program will lead to the desired result?
# Elements of a logic model

**Purpose statement:** What we do, for whom, and for what purpose/benefit?

<table>
<thead>
<tr>
<th>Inputs</th>
<th>Activities</th>
<th>Outputs</th>
<th>Short-term outcomes</th>
<th>Intermediate outcomes</th>
<th>Long-term outcome/Overall Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resources Funding</td>
<td>Offered.. # % $</td>
<td></td>
<td>Changes in awareness, knowledge, attitude, skill, appreciation, motivation, opinions, aspirations</td>
<td>Changes in behaviors or practices</td>
<td>Change in organizations, communities, systems or society</td>
</tr>
</tbody>
</table>
Example: Citizens League

- Capitol Pathways program evaluation
  - Participant survey
  - Supervisor survey
  - Alumni survey
  - Host site interviews
Team based inquiry

- Collaborative process to bring consensus around evaluation priorities
- Separate from or in addition to logic model
- Use team based inquiry to
  - Brainstorm questions of interest to you and your colleagues
  - Identify importance and usefulness of answers
  - Identify appropriate data sources
  - Prioritize questions
# Prioritizing Evaluation Questions

Fill in the table below for each of the broad inquiry questions that you and your team have brainstormed. Based on how useful, actionable, and feasible each question is, determine whether it is a high, medium, or low priority for evaluation. From here an evaluation plan and evaluation tool(s) can be developed.

<table>
<thead>
<tr>
<th>Inquiry question</th>
<th>Why is this question important to your team?</th>
<th>What changes might you be able to make if you answered this question?</th>
<th>What types of information would you need to answer this question and what is the best method to collect it?</th>
<th>How high of a priority is this question? (H=high, M=medium, L=low)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Example: What are the needs in the community we are serving?</td>
<td>Verify our assumptions of the needs of the community</td>
<td>Allows our organization to better prioritize our intervention strategies</td>
<td>Interviews &amp; Focus Groups with community members</td>
<td>H M L</td>
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</tbody>
</table>

Improve your data management and quality
Critical steps to ensure quality data

1. Select appropriate data collection tools
2. Develop a data collection plan, including a timeline and roles and responsibilities
3. Collect the information
4. Process the information (data entry) and clean up the data
5. Don’t forget about quality control!
## PBIS Fast Facts

<table>
<thead>
<tr>
<th>Region</th>
<th>Total # of schools</th>
<th># of schools that are in or have completed PBIS cohort training</th>
<th>% of schools that are in or have completed PBIS cohort training</th>
<th># of PBIS cohort schools that completed a TFI last school year</th>
<th>% of PBIS cohort schools that completed a TFI last school year</th>
<th># of PBIS cohort schools that completed a TFI this school year</th>
<th>% of PBIS cohort schools that completed a TFI this school year</th>
<th># of non-cohort schools that completed a TFI last school year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metro</td>
<td>908</td>
<td>307</td>
<td>33.8%</td>
<td>142</td>
<td>46.3%</td>
<td>159</td>
<td>51.8%</td>
<td>38</td>
</tr>
<tr>
<td>North</td>
<td>640</td>
<td>203</td>
<td>31.7%</td>
<td>89</td>
<td>43.8%</td>
<td>90</td>
<td>44.3%</td>
<td>5</td>
</tr>
<tr>
<td>South</td>
<td>489</td>
<td>179</td>
<td>36.6%</td>
<td>78</td>
<td>43.6%</td>
<td>54</td>
<td>30.2%</td>
<td>26</td>
</tr>
<tr>
<td><strong>TOT</strong></td>
<td><strong>2,037</strong></td>
<td><strong>689</strong></td>
<td><strong>309</strong></td>
<td><strong>303</strong></td>
<td><strong>44.8%</strong></td>
<td><strong>303</strong></td>
<td><strong>44.0%</strong></td>
<td><strong>69</strong></td>
</tr>
</tbody>
</table>

## PBIS Fast Facts - Statewide

<table>
<thead>
<tr>
<th>Region</th>
<th>Total # of schools</th>
<th># of schools that are in or have completed PBIS cohort training</th>
<th>% of schools that are in or have completed PBIS cohort training</th>
<th># of PBIS cohort schools that completed a TFI last school year</th>
<th>% of PBIS cohort schools that completed a TFI last school year</th>
<th># of PBIS cohort schools that completed a TFI this school year</th>
<th>% of PBIS cohort schools that completed a TFI this school year</th>
<th># of non-cohort schools that completed a TFI last school year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Statewide</td>
<td>2,037</td>
<td>689</td>
<td>33.8%</td>
<td>309</td>
<td>44.8%</td>
<td>303</td>
<td>44.0%</td>
<td>69</td>
</tr>
</tbody>
</table>
## PBIS Region
- Metro
- North
- South

## In Selected Group
- No

## PBIS Cohort (Year)
- Cohort 1 (2005-2007)
- Cohort 2 (2006-2008)
- Cohort 3 (2007-2009)
- Cohort 4 (2008-2010)
- Cohort 5 (2009-2011)
- Cohort 6 (2010-2012)
- Cohort 7 (2011-2013)
- Cohort 8 (2012-2014)
- Cohort 10 (2014-2016)
- Cohort 12 (2016-2018)
- Cohort 13 (2017-2019)
- Cohort 14 (2018-2020) (blank)

### All Schools 60 Schools

<table>
<thead>
<tr>
<th>PBIS Region</th>
<th>PBIS Cohort (Year)</th>
<th>District Name</th>
<th>School Name</th>
<th>Behavioral System</th>
<th>Date of Last Engagement</th>
<th>Type of Last Engagement</th>
<th># of TFIs</th>
<th># of SAS</th>
<th>Most Recent ODR</th>
</tr>
</thead>
<tbody>
<tr>
<td>South</td>
<td>Cohort 13 (2017-2019)</td>
<td>Adrian Public School District</td>
<td>Adrian Middle</td>
<td>SWIS</td>
<td>03-13-2019</td>
<td>TFI</td>
<td>7</td>
<td>1</td>
<td>2017-2018</td>
</tr>
</tbody>
</table>
Positive Behavior Interventions & Supports (PBIS)  
School At-A-Glance Report for Schools in Training  
School Name: Butterfield Elementary  
Date of report: 6/4/2019

School Information
School Name | Butterfield Elementary  
District | Butterfield Public School District  
Region | South
Grades served | PC-8
PBIS Training Cohort | Cohort 13 (2017-2019)
Date of most recent engagement with PBIS Fidelity data | 5/29/2019
Type of most recent engagement | TFI

Training attendance
Your school PBIS team has attended 9 out of 9 days of training.
Your school administrator has attended 9 out of 9 days of training.

Tiered Fidelity Inventory (TFI)
The Tiered Fidelity Inventory (TFI) examines how schools are implementing across all three tiers of PBIS. The table below contains information about Butterfield Elementary’s four most recent TFI assessments. The table shows the date of the assessment, the overall Tier 1 score, and the scores on the three Tier 1 subscales: teams, implementation, and evaluation. The table also shows the Tier 1 benchmark scores, which represent the score that MDE expects a school to be achieving based on the point during training (i.e., year and season) at which they completed the assessment.

1. Recent Tier 1 TFI scores for Butterfield Elementary

<table>
<thead>
<tr>
<th>Date of Assessment</th>
<th>Season</th>
<th>Tier 1 score</th>
<th>Tier 1 Benchmark</th>
<th>Schools</th>
<th>Implementation</th>
<th>Evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td>5/29/2019</td>
<td>4 End of Year</td>
<td>70%</td>
<td>75%</td>
<td>75%</td>
<td>72%</td>
<td>63%</td>
</tr>
<tr>
<td>11/7/2018</td>
<td>2 Winter</td>
<td>67%</td>
<td>70%</td>
<td>75%</td>
<td>75%</td>
<td>72%</td>
</tr>
<tr>
<td>8/1/2018</td>
<td>1 Fall</td>
<td>70%</td>
<td>65%</td>
<td>50%</td>
<td>56%</td>
<td>75%</td>
</tr>
<tr>
<td>6/19/2018</td>
<td>4 End of Year</td>
<td>63%</td>
<td>60%</td>
<td>75%</td>
<td>33%</td>
<td>50%</td>
</tr>
</tbody>
</table>

Self-Assessment Survey (SAS)
The Self-Assessment Survey (SAS) examines the status and need for improvement of four behavior support systems: school-wide, non-classroom, classroom, and individual students. Below is the date and score for Butterfield Elementary’s most recent SAS – only the “school-wide: in place” score is shown. This score reflects the percentage of school staff who believe PBIS school-wide systems involving all students, all staff, and all settings are “in place.” School teams are expected to complete the SAS two times in their first training year and one time in their second year.

2. Recent SAS [school-wide in place] score for Butterfield Elementary

| Date of Last SAS | 11/6/2018  
| School-wide “in place” score | 49.67  
| # of SAS in 2018-19 | 1

Office Discipline Referrals (ODRs)
Behavior data, such as office discipline referral (ODR) data, is used for improving school-wide behavior support. When schools go through PBIS training, they are expected to have an established behavior data system in place by winter of their first training year.
Butterfield Elementary’s current ODR data system: SWIS

The table below shows the percent of students receiving 0-1, 2-5, and 6+ major referrals and major or minor referrals (“all referrals”) in the most recent full school year. It also shows the rate per day per 100 students for major referrals and minor referrals. In 2017-2018, Butterfield Elementary’s enrollment was 208 students and the school year was 173 days.

3. Office discipline referrals for Butterfield Elementary in 2017-2018

<table>
<thead>
<tr>
<th># of incidents</th>
<th>0-1</th>
<th>2-5</th>
<th>6+</th>
<th>Rate per day per 100 students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Major Referrals</td>
<td>30.4%</td>
<td>6.3%</td>
<td>N/A</td>
<td>0.41</td>
</tr>
<tr>
<td>Minor Referrals</td>
<td>N/A</td>
<td>N/A</td>
<td>10.6%</td>
<td>0.63</td>
</tr>
<tr>
<td>All Referrals</td>
<td>75.5%</td>
<td>12.9%</td>
<td>N/A</td>
<td></td>
</tr>
</tbody>
</table>

Figure 4 compares the percentage of students at your school receiving 0-1, 2-5, and 6+ major referrals in 2017-2018 with the most recent average for your cohort.


Note: Academic year of data for your school may not match academic year of average for your cohort depending on availability of data.
Understand and use data effectively
What does “data literacy” mean?

- Ability to…
  - Read,
  - Understand,
  - Communicate about data.

- Discuss person next to you:
  - How well does your organization do with these things? Is your organization better at some of these things than others? If so, what?
  - How “data literate” are colleagues in your organization?
What is...participatory data analysis?

- Convening stakeholders (users, participants, staff, community members, etc.) into the process of analyzing and interpreting the data in order to determine meaning

- Purpose
  - Participatory methods help to bring in multiple perspectives, opinions, and voices
  - Build trust and create buy-in among stakeholders
  - Demonstrates commitment to using results/data
Positive Behavior Interventions and Supports (PBIS)

- How can we better use the data that we have to support school teams?

- Can we connect our implementation fidelity data (TFIs) with training usefulness data?
  - Started by creating “training profiles” of school teams and viewing all of the data we had side by side
  - Included training survey data, TFI data, training attendance, and data system information for each school team
Quadrant Analysis: What is it?

- Helps to **categorize** data that have **common qualities** in order to **use it** and **make meaning or sense from it**

- Is a form of **participatory data analysis**

PBIS Quadrant Analysis: Goals

- Participants **work together:**
  - First to **generate potential steps**, and
  - Then **categorize** each school by level of training satisfaction/engagement and level of implementation fidelity scores
  - Result: **Customize support for schools in each quadrant/category**

**SOURCE:** http://www.publicprofit.net/Dabbling-In-The-Data
Quadrant Analysis: Preparation and Analysis

- A goal, topic, or decision that needs to be discussed by your group
- Data that can be easily dichotomized: ex. high/low, most/least-type categories
  - Examine your data and decide what goes on the X and Y axes of your quadrant ahead of time

```
<table>
<thead>
<tr>
<th>TRAINING USEFULNESS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>HIGH FIDELITY /</td>
</tr>
<tr>
<td>LESS USEFUL</td>
</tr>
<tr>
<td>LOW FIDELITY /</td>
</tr>
<tr>
<td>LESS USEFUL</td>
</tr>
</tbody>
</table>
```

(typically a low number of schools in this quadrant)
Example: East Metro Pulse

- Saint Paul and Minnesota Foundations
- Data parties
  - Storytelling through data
- HOLD for data party photo
Communicate your story using data
Sort and analyze the information

- Organize your information effectively
- Analyze and identify key findings
- Interpret results
- Consider implications
- Make recommendations and implement changes
When interpreting results be sure to...

- Involve stakeholders
- Consider significance of findings
- Beware of data inconsistencies
- View the data in context
- Consider using participatory data analysis
- Let the data (not your preconceived ideas) drive the identification of key findings and the meaning of these findings
What do your results mean?

- Are there emerging patterns/themes?
- What is surprising?
- What is consistent with other data?
- Are your findings significant?
- Do the results suggest potential program improvements?
- Do the results lead to new questions?
- When should this evaluation be repeated?
Use and share the information

- How should you share your evaluation results?
  - Who needs to know what you learned?
  - What is the best way to tell them the story?
  - Are there multiple ways to share the information?

  • Formal reports
  • Executive summary
  • Infographics
  • Dashboards
  • Narrative stories

  • PowerPoint
  • Live presentation
  • Website
  • Social Media/Webinar
Keep in mind…

- Tailor your reporting to your audience
  - And remember that all audiences prefer short, clear, and visually appealing reporting!
- Feel free to combine data sources and your informed opinion
  - Be very clear about your sources
Infographics

**Status of HIV/AIDS in Minnesota, 2017**

**INCIDENCE, PREVALENCE, AND DEATHS, 1996 – 2017**

1. HIV diagnoses
2. People living with HIV
3. Deaths of people with HIV

```
295
284
3,051
8,789
75
```

1. The number of new HIV diagnoses has remained relatively stable, around 300 cases per year.
2. The number of people living with HIV is growing because people with HIV are living longer and healthier lives.
3. Highly Active Antiretroviral Therapy (HAART) was introduced in 1996, which led to a large drop in deaths between 1996 and 1997.

**PREVALENCE BY COUNTY OF RESIDENCE, 2017**

Although HIV infection is more common in communities with higher population densities and greater poverty, there are people living with HIV or AIDS in 95% of counties in Minnesota.

The majority (83%) of Minnesotans with HIV/AIDS reside in the seven-county metropolitan area surrounding the Twin Cities of Minneapolis and St. Paul.

**RACIAL DISPARITIES IN HIV PREVALENCE, 2017**

There are large racial and ethnic disparities in the prevalence of HIV/AIDS.

The rate of HIV/AIDS is highest among black African-born Minnesotans. The black African-born population experiences HIV/AIDS at more than 13 times the rate of the white, non-Hispanic population.

<table>
<thead>
<tr>
<th>Race/Ethnicity</th>
<th>Cases</th>
<th>%</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>White, non-Hispanic</td>
<td>4,119</td>
<td>47%</td>
<td>93.4</td>
</tr>
<tr>
<td>Black, non African-born</td>
<td>1,885</td>
<td>21%</td>
<td>1,155.5</td>
</tr>
<tr>
<td>Black, African-born</td>
<td>1,368</td>
<td>16%</td>
<td>1,268.1</td>
</tr>
<tr>
<td>Hispanic</td>
<td>185</td>
<td>10%</td>
<td>340.4</td>
</tr>
<tr>
<td>American Indian</td>
<td>113</td>
<td>1%</td>
<td>203.2</td>
</tr>
<tr>
<td>Asian/Pacific Islander</td>
<td>191</td>
<td>2%</td>
<td>88</td>
</tr>
<tr>
<td>Other</td>
<td>249</td>
<td>3%</td>
<td>X</td>
</tr>
<tr>
<td>Total</td>
<td>8,777</td>
<td>100%</td>
<td>165.4</td>
</tr>
</tbody>
</table>

**MINNESOTA HIV CONTINUUM OF CARE, 2016**

8,297 people

- **Are living with diagnosed HIV.**
  - 1,100 Living with undiagnosed HIV.

  Of those who were diagnosed in 2015,
  - 83% were linked to care within 30 days.
  - 5,872/8,297

  Of those living with HIV at the end of 2016,
  - 71% were retained in care.
  - 5,253/8,297

  - 63% were virally suppressed.

  Of those who were retained in care were virally suppressed.

Data sources:
Thank you!

www.wilderresearch.org
www.mncompass.org