

## MINNESOTA EARLY INDICATOR AND RESPONSE SYSTEM (MEIRS) IMPLEMENTATION GUIDE

For use with the Minnesota Early Indicator and Response System Tool



October, 2013  
Acknowledgement

The contents of this implementation manual are modeled on and adapted from the work of the National High School Center.

Therriault, S. B., Heppen, J., O'Cummings, M., Fryer, L. and Johnson, A., (2010). *Early Warning System Implementation Guide*. Washington, DC: National High School Center.

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# MINNESOTA EARLY INDICATOR AND RESPONSE SYSTEM (MEIRS) IMPLEMENTATION GUIDE

## OVERVIEW

Providing supports to our students who are showing signs of disengaging from school is critical to increasing Minnesota's graduation rates. The Minnesota Department of Education (MDE) has developed a screening tool to assist educators in tracking and supporting student progress toward graduation from high school in four years. The Minnesota Early Indicator and Response System (MEIRS) is a tool that can be used to provide a snapshot of students in grade six and grade nine who are at increased risk of not completing high school in four years. Using validated research-based variables associated with dropping out of school (such as attendance, multiple enrollments, state accountability test scores and suspension/expulsion), supports can be developed and targeted to students who may need additional assistance to stay on track for graduation.

The aim of the guide and the tool is to support school and district efforts to systematically identify students who are showing signs of struggling in school (an early indicator of risk), match these students with appropriate interventions, and monitor their progress during those interventions. This manual describes a seven-step process that draws from the research on data-driven decision making and is adapted from the work of the National High School Center (Therriault, S. B., Heppen, J., O'Cummings, M., Fryer, L. and Johnson, A., (2010). *Early Warning System Implementation Guide*. Washington, DC: National High School Center.) [Access the National High School Center's Early Warning System High School Tool](http://www.betterhighschools.org?EWS_tool.asp), ([http://www.betterhighschools.org?EWS\\_tool.asp](http://www.betterhighschools.org?EWS_tool.asp)).

## THE IMPORTANCE OF SUPPORTING STUDENTS

The high school dropout problem has been called a national crisis. According to the National Center for Education Statistics (Stillwell, 2010), only 74.9 percent of public high school students graduate with a diploma. The problem is particularly severe among students of color, English language learners (ELLs), students of poverty, and students with disabilities (Greene & Winters, 2005; Rooney et al., 2006; Stillwell, 2010).

The intent of MEIRS is to identify students who may be at risk of not completing high school in four years – as early as grade six and provide them with support so that they can get back on track and graduate with a diploma. Informed by research about the academic and behavioral predictors of dropping out (Allensworth & Easton, 2005, 2007), such early warning systems are a promising approach to effective dropout prevention (Dynarski et al., 2008). An early warning system uses readily available data to systematically identify students who are at risk; identified students then can be matched with appropriate interventions to help them get on track for graduation (Heppen & Therriault, 2008; Jerald, 2006; Kennelly & Monrad, 2007; Neild, Balfanz, & Herzog, 2007; Pinkus, 2008).

## **How Is Minnesota Doing?**

In Minnesota, reports from the graduating class of 2012 show that more than 15,000 students did not graduate from their high school in four years; and overall the graduation rate only reached 77 percent. The achievement and opportunity gaps between white students and students of color are some of the largest in the nation, and graduation rates for some youth are dismally low (e.g., Hispanic, Black, American Indian, Free and Reduced Price Lunch; 50 percent, 49 percent, 42 percent, 58 percent respectively). [More information about Minnesota's Graduation Rates](#).

## **What Are Potential Benefits of Early Indicator and Response Systems?**

Early indicator and response systems, sometimes referred to as early warning systems, use key information to identify individual students at high risk of dropping out of school (Princiotta & Reyna, 2009). Research suggests that students who eventually drop out of high school exhibit strong predictive indicators of dropping out, such as low rates of attendance, behavior infractions, and course failure. These indicators may be used to predict high school graduation as early as the start of middle school (Balfanz, Bridgeland, Moore, & Fox, 2010).

Early indicator and response systems may be used to identify individual students at risk of dropping out and to identify common risk factors in particular schools. Using the information from these systems, educators can provide students at risk of dropping out with the extra supports they need to succeed in school. Additionally, early indicator and response systems limit the costs of dropout prevention by enabling schools and districts to target assistance to students likely to drop out (Princiotta & Reyna, 2009).

## **What Are the Key Variables that Are Linked to Dropping Out of School?**

Researchers agree that student absences, grade retention, low academic achievement, and behavioral problems are strong indicators for dropping out of high school (Dynarski et al., 2008). Early indicator and response systems can be based on data routinely collected at the school and district levels such as attendance, behavior, course achievement and student age and grade (Princiotta & Reyna, 2009).

The Minnesota Department of Education systematically collects data at regular intervals from schools and districts, using a variety of tools, including the Minnesota Automated Reporting Student System (MARSS); Disciplinary Incident Reporting System (DIRS) and the results of statewide accountability tests such as MCA-II, MCA-III, MOD-III, MTAS, MTAS-III and MTELL. Using the data that MDE already collects, staff with expertise in data and statistical analysis conducted a study of students in grades 3 through 12 that attended a public school in the state of Minnesota and who were expected to graduate in 2011 (74,424 students).

Using this retrospective cohort of students (with a graduation year of 2011), MDE was able to validate the extent to which data could be used to accurately predict students who graduated or did not complete high school in four years. After analysis, the selected variables proved to be strongly associated with not completing school in four years using the Minnesota cohort. This information is not to be used as a measure of student or school performance or quality; rather, the study confirms the use of these variables as early indicators of student disengagement and can be used to more efficiently target resources to support students who may need additional attention in order to stay on track for graduation.

## Definitions of MEIRS Variables

The key variables used in the calculations to screen for students in grade six and grade nine at risk of not completing school in four years are listed and defined below.

**Table 1.** Definitions of MEIRS Variables Used to Screen for Students At Risk of Not Completing School In Four Years

<b>Variable</b>	<b>For Students Starting Grade 6</b>	<b>For Students Starting Grade 9</b>
Does Not Meet Proficiency on Mathematics State Accountability Test	The student received a “1” or a “D” (does not meet proficiency) on the mathematics state accountability test in either 3 <sup>rd</sup> or 5 <sup>th</sup> grade	The student received a “1” or a “D” (does not meet proficiency) on the mathematics state accountability test in 8 <sup>th</sup> grade
Does Not Meet Proficiency on Reading State Accountability Test	The student (based on person number) received a “1” or a “D” (does not meet proficiency) on the state reading accountability test in either 3 <sup>rd</sup> or 5 <sup>th</sup> grade	The student (based on person number) received a “1” or a “D” (does not meet proficiency) on the state reading accountability test in either 8 <sup>th</sup> grade
Multiple Enrollments (does not include students with dual enrollment)	The student attended more than one school in the same fiscal year for the same grade in 3 <sup>rd</sup> -5 <sup>th</sup> grades	The student attended more than one school in the same fiscal year for the same grade in 6 <sup>th</sup> -8 <sup>th</sup> grades
Suspension/Expulsion	The student was suspended (in school or out), expelled or excluded at least once in 3 <sup>rd</sup> -5 <sup>th</sup> grades	The student was suspended (in school or out), expelled, or excluded at least once in 6 <sup>th</sup> -8 <sup>th</sup> grades
Under 85 percent Attendance	The average of the proportion of NCLB average daily attendance days/ NCLB daily membership days for the number of fiscal years the student was enrolled in 3 <sup>rd</sup> -5 <sup>th</sup> grades	The average of the proportion of NCLB average daily attendance days/ NCLB daily membership days for the number of fiscal years the student was enrolled in 6 <sup>th</sup> -8 <sup>th</sup> grades
<b>Demographics</b>	<b>For Students Starting Grade 6</b>	<b>For Students Starting Grade 9</b>
English Learner	The student was identified as LEP anytime in their 3 <sup>rd</sup> -5 <sup>th</sup> grade enrollment records	The student was identified as LEP anytime in their 6 <sup>th</sup> -8 <sup>th</sup> grade enrollment records
Free and Reduced Price Lunch	The student was identified as receiving free/reduced price lunch anytime in their 3 <sup>rd</sup> -5 <sup>th</sup> grade enrollment records	The student was identified as receiving free/reduced price lunch anytime in their 6 <sup>th</sup> -8 <sup>th</sup> grade enrollment records
Special Education Status	The student was identified as receiving special education services anytime in their 3 <sup>rd</sup> -5 <sup>th</sup> grade enrollment records	The student was identified as receiving special education services anytime in their 6 <sup>th</sup> -8 <sup>th</sup> grade enrollment records
Migrant	The student was identified as a migrant anytime in their 3 <sup>rd</sup> -5 <sup>th</sup> grade enrollment records	The student was identified as a migrant anytime in their 6 <sup>th</sup> -8 <sup>th</sup> grade enrollment records
Homeless	Not Available	The student was identified as experiencing homelessness anytime in their 6 <sup>th</sup> -8 <sup>th</sup> grade enrollment records

Note: All information on variables was gathered from Minnesota Automated Reporting Student System (MARSS) except for suspension/expulsion, which was gathered from the Disciplinary Incident Reporting System (DIRS), and the following accountability test variables which came from MDE’s Assessment data.

State Accountability Test Scores could include: MCA-II, MCA-III, MOD-III, MTAS, MTAS-III and MTELL.  
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## **Providing Effective Supports to Engage Children and Youth in School**

Once students are identified as being at risk of dropping out, teachers, counselors, and community partners can intervene with targeted dropout prevention strategies (Princiotta & Reyna, 2009). It is important to remember that students who are identified as having one or more risk factor are not destined to drop out of school – and they may in fact graduate in four years without receiving additional supports. Some of the students may graduate in five or six years. However, the students with risk factors are at greater risk of not graduating from high school in four years time and are likely to require some additional supports that are targeted to their needs in order to increase their chances of success.

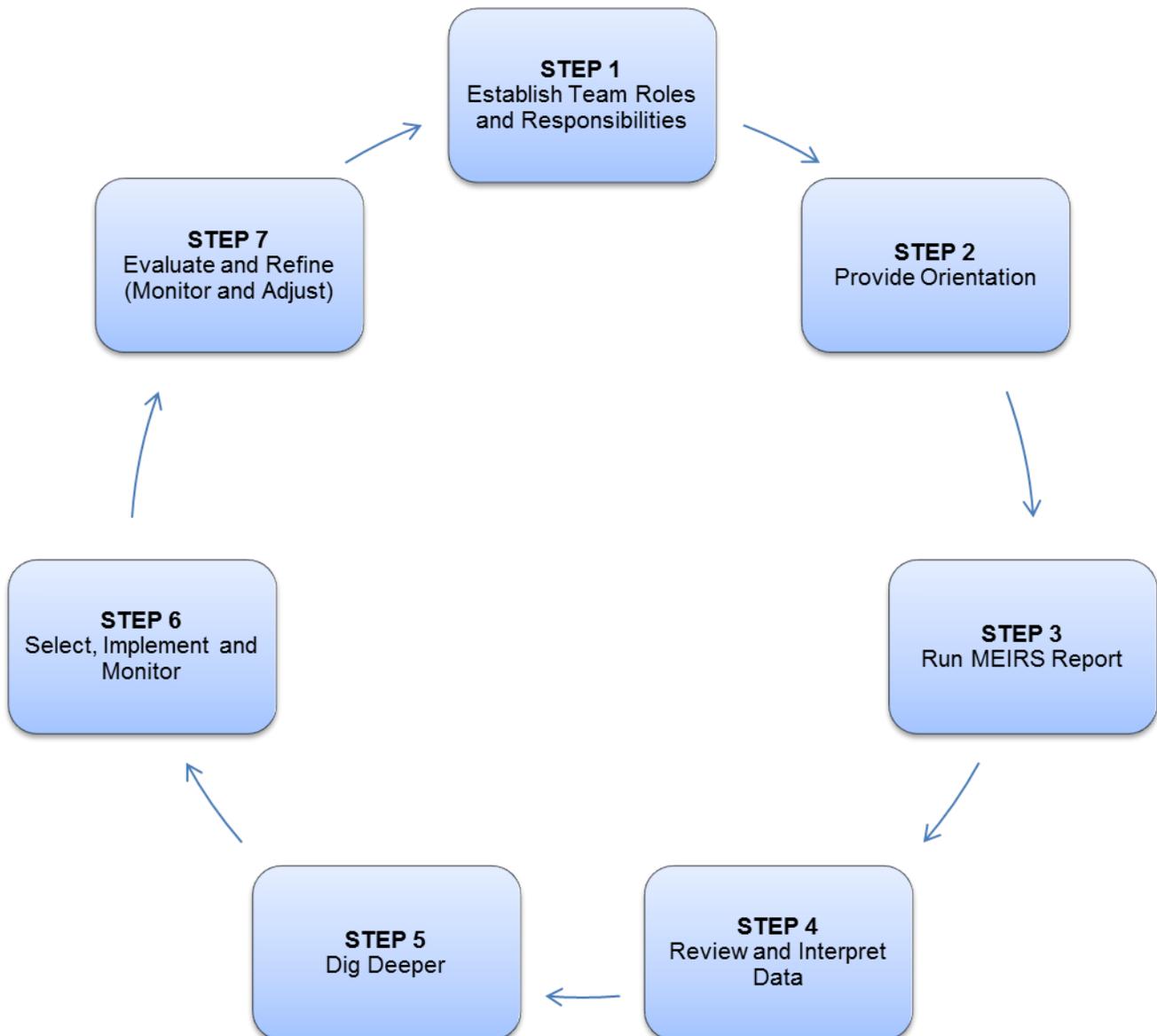
The supports that students receive will vary by individual or for groups of students. Matching interventions and supports to student needs will require a team problem solving process after initial review of the data. Staff will be required to dig deeper to ascertain the root cause that is linked to the overt indicator. For example, if a student has high numbers of absences, it will be important to determine if the student is missing school due to illness, issues associated with bullying, academic difficulty and avoidance or other responsibilities outside of school (e.g., caretaking younger siblings). In each of these cases, the support that is required varies according to the scenario.

In some situations, students may require one-on-one counseling to address their problems. Interventions also could be targeted at the group level. For example, if several students exhibit risk factors related to low academic performance in a particular content area, catch-up or remedial courses could be offered. Interventions also may be provided at a school- or community-wide level to create conditions that help prevent students from becoming at risk. (Jerald, 2006). The effectiveness of an early indicator and response system lies in the ability of the school or district to use the data collected to provide supports to the students who exhibit high risk factors for dropping out.

## SEVEN-STEP MEIRS IMPLEMENTATION CYCLE OVERVIEW

The seven steps in this guide are described as distinct processes, but each step is part of an entire system or cycle. Figure 1. Seven Step MEIRS Implementation Cycle illustrates the cycle. In addition to identifying students, this process guides users in making informed decisions on the basis of these indicators and other relevant information. Again, this process is modeled on the process established by the National High School Center at the American Institutes for Research (see Therriault, S. B., Heppen, J., O’Cummings, M., Fryer, L. and Johnson, A., (2010). *Early Warning System Implementation Guide*. Washington, DC: National High School Center).

**Figure 1.** Seven Step MEIRS Implementation Cycle



## ORGANIZATION OF THIS GUIDE

The guide contains a separate section for each of the seven steps. However, because this is a continuous improvement process, the steps may need to be revisited, and oftentimes the steps will overlap with each other. The information that is provided primarily focuses on guiding efforts at the school level to support individual or small groups of students.

## PREREQUISITE: ATTEND MDE SPONSORED TRAINING

The MEIRS Implementation Guide should be used as a reference for school staff after they have received training on the MEIRS tool. It is anticipated that small teams from schools or districts will attend the training. Talking points are included in this guide for those who have received MDE training to provide information to other staff at schools or districts who will also be involved in using the tool and determining and implementing supports for students.

MDE is pleased to be able to offer a *Minnesota Early Indicator and Response System (MEIRS) Training* periodically for the district and school personnel who have been designated by their superintendents to have access to the data such as principals, school psychologists, counselors, school nurses and/or other staff who will use the data to plan interventions. Date and locations of trainings can be accessed at the MDE Website [Date and locations of trainings](#). A team of at least three staff - who plan to be involved in reviewing, analyzing and using the data to match interventions to student needs - is encouraged to attend.

The training provides information about:

- The screening process used to identify students as being at risk;
- The process to access the district data;
- Using the data to identify and engage students in school and learning; and
- Using the data to match appropriate supports to student needs.

**NOTE:** Access to the MEIRS secured site will be provided to one district staff designee upon successful completion of the training and receipt of the authorization form from the superintendent.

[Access the MEIRS Authorization Form](#) (<http://education.state.mn.us> > Student Success > Dropout Prevention/At-Risk Students > Minnesota Early Indicator and Response System (MEIRS))

Contact Jacqui McKenzie at 651-582-8852 or [jacqui.mckenzie@state.mn.us](mailto:jacqui.mckenzie@state.mn.us) for registration questions.

Contact Cammy Lehr at 651-582-8563 or [cammy.lehr@state.mn.us](mailto:cammy.lehr@state.mn.us) for training content questions.

# SEVEN-STEP MEIRS IMPLEMENTATION CYCLE

## STEP 1 – ESTABLISH TEAM ROLES AND RESPONSIBILITIES

A diverse MEIRS team is essential to the success of this process. This section focuses on team composition within the school.

### ***Who Should Be on the Team?***

The MEIRS team may be established as a new team or may build on or be integrated into existing teams (e.g., school improvement team, response to intervention team, student support team). **It is not necessary to create an entirely new team for this work**, but an existing team that takes on the responsibility to use the tool for dropout prevention efforts should include a broad representation of staff within the school (e.g., principals, teachers, district administrators, specialists). The team should include members who have the authority to make decisions about staff and students and who know a diverse array of students. Although it is good to rotate and engage more staff in the process over time, some individuals may continue to serve on the team over time to ensure continuity and consistency.

### ***How Often Should the Team Meet?***

The MEIRS team should meet regularly – at least monthly. The content of the initial meeting will focus on providing information about MEIRS through an orientation or staff development session. Initial meetings will also include review of the MEIRS report that is generated by MDE. Subsequent meetings will focus on matching interventions to student needs, monitoring student progress, monitoring the extent to which interventions and supports are being implemented as intended and making mid-course corrections as needed.

### ***What Is the Purpose of the Team?***

The focus of MEIRS team meetings is to review and discuss the information available in the tool, first at a group level - reviewing the report that has been generated by MDE. The team will also want to review the list of students who have been identified as having one or more risk factors that increase their likelihood of not completing high school in four years. The team considers interventions for groups of students or individual students and then continues to monitor the success of those students using indicators that are linked to progress (e.g., formative academic assessment, course completion, attendance, behavior referrals etc.). Closely monitoring students who have been assigned supports will help to ensure that the assigned interventions are adequately implemented and supporting students as intended. Continuous monitoring of students who display indicators of risk will improve the team's ability to match appropriate interventions to these students and will allow mid-course corrections if a particular student does not seem to improve after being assigned to an intervention.

## **What Are Key Roles and Responsibilities of MEIRS Teams?**

As part of their implementation of the seven-step process, the MEIRS team should do the following to ensure effective functioning of the team and effective communication.

1. **Conduct team meetings that are well organized and documented.** An agenda for each meeting should be prepared at the end of the prior meeting, and routine agenda items might include a review of the data, actions taken for individual or groups of students, a review of previous meeting's action items (ongoing or completed), new action items, and communication with staff and leadership. A note taker should be assigned for each meeting and include action items assigned to specified individuals to accomplish. Last, agenda and meeting notes should be kept on file to provide a record of the team's work.
2. **Communicate with individuals and groups outside of the team.** Information on flagged students, intervention effectiveness, and team-identified needs to support students should be routinely reported to school leadership. Teachers should receive regular updates about students in their classes who are displaying indicators of risk as well as information about supports available to them to work with these students. Last, students and their parents should be kept informed of their risk status and the plans to ensure that they are able to get back on track for graduation. The team should encourage meetings to share information routinely about student progress and the early warning symptoms of risk. Of critical note, the team should share the knowledge of students' risk with sensitivity, ensuring that identification is used to prompt action and support, not to give labels that carry stigma.
3. **Solicit feedback from stakeholders.** Feedback from administrators, teachers, staff, students, and parents can help the team uncover underlying causes for students displaying indicators of risk. This information may help the team match students to appropriate interventions and supports.
4. **Monitor progress.** The team monitors progress as it strives to improve educational outcomes for students during a single school year and over the course of multiple school years. The team should be responsible for presenting progress reports to key stakeholders, including principals, staff, district leadership, local board of education, and parents.

## **STEP 2 – PROVIDE ORIENTATION**

The initial meeting will focus on providing information about MEIRS through an orientation or staff development session. Staff who attended the MEIRS training offered at MDE should provide the training to the school staff – especially those who will be on the school level MEIRS team. Providing team members with information about the process as outlined in this guide will increase the likelihood that MEIRS will be used and implemented as intended. This in turn, will increase the likelihood that intended outcomes will occur for the students who are supported. Adequate time to implement the MEIRS process is critical. Whether the work is the responsibility of a new team or incorporated into the responsibilities of an existing school team, it is vital that the process of identifying students using early indicators of disengagement, providing necessary supports and monitoring student outcomes is a main priority of the designated team.

## **An explanation of MEIRS for initial introductions:**

*Providing supports to our students who are showing signs of disengaging from school is critical to increase Minnesota's graduation rates. MDE has recently developed a tool to assist schools in tracking student progress toward graduation and providing additional supports to increase the number of students who graduate on time. The Minnesota Early Indicator and Response System (MEIRS) can provide a snapshot of students in grade six and grade nine who are at increased risk of not completing high school in four years. Using validated, research-based variables associated with dropping out that are documented in MARSS (such as attendance, multiple enrollments, state accountability test scores and suspension/expulsion), supports can be developed and targeted to students who may need additional assistance to stay on track for graduation. Many states are developing early warning systems and many of Minnesota's schools and districts utilize this type of information already. But now, a report is generated and available in Minnesota to nearly every school that serves students in grade 6 and 9 and can be used to assist staff in providing supports early on before students disengage or drop out of school. It is hoped that this tool serves as a catalyst for schools to begin or continue to track indicators that are associated with graduation. Tracking students at a local level on a more frequent basis will provide much richer information – but this tool can be used to start the conversation and stimulate action. Several of our staff attended a training session and we are now able to access the secure report. A team will be used to review the report and generate next steps for increasing the likelihood that more of our students will graduate from high school and be prepared for career and postsecondary success.*

Additional tools included in Appendix A to assist with the orientation include:

1. Early Indicator and Response System Overview
2. MEIRS Frequently Asked Questions

## **STEP 3 – RUN MEIRS REPORT**

To run the MEIRS report, a designee who has attended the MDE MEIRS training must be selected by the superintendent and an authorization form must be completed. Once the authorization form is received, the designee will receive permission to access the secure MEIRS report available at on the [Data Reports and Analytics web page](#).

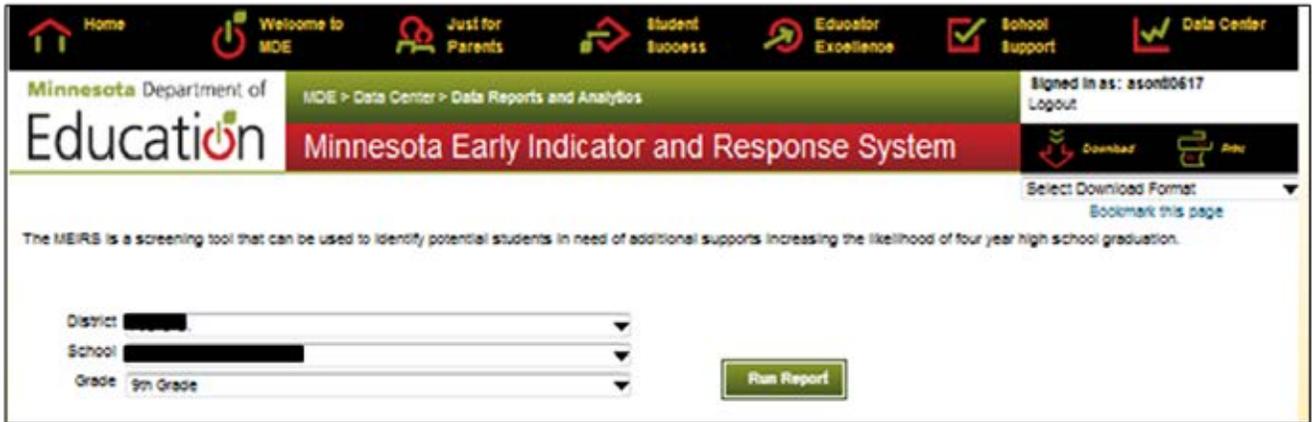
Information about registering to attend the training and accessing the Authorization form are available on the [MEIRS web page](#).

## **STEP 4 – REVIEW AND INTERPRET DATA**

In Step 4, the data presented on the MEIRS report are reviewed to identify students at risk for dropping out and to understand patterns in student engagement. This is a critical step when using any type of early warning data, although the focus here is on information that can be gathered from the MEIRS report.

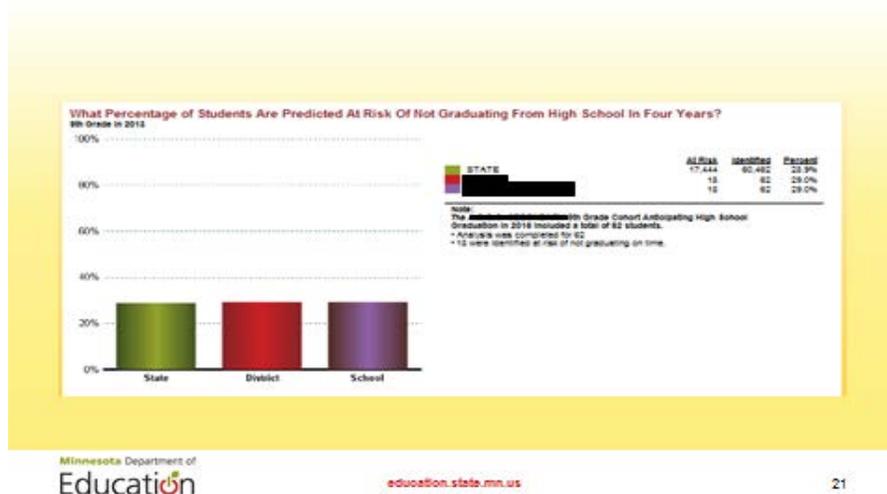
The MEIRS report yields a lot of information. Step three guides users to break down the information into manageable pieces that can be sorted, organized, and prioritized so that the team can take action. Arranging the data in manageable ways allows team members to identify which students show symptoms of risk and to develop questions that may lead the MEIRS team to further investigate the underlying causes for students' symptoms of risk.

The MEIRS Secure Report includes information at the school and district level for the grade level chosen. The following screen shot below shows the section that lists the district, school and grade level that is being viewed. It is important to note that “the MEIRS is a screening tool that can be used to identify potential students in need of additional supports increasing the likelihood of four year high school graduation.”



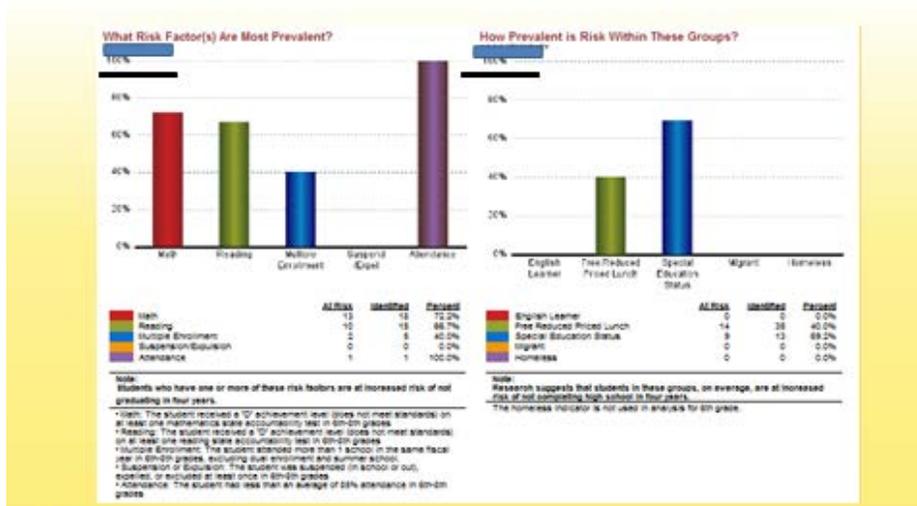
The second screen shot of the secure report shows a comparison of the percentage of students predicted at risk of not graduating from high school in four years at the state, district and school level. When the report is open, users can move their cursor on the histogram and the percentage and number of students will appear for each category. In addition, a chart at the right of the screen shows the number of students in the selected grade level (grade six or nine) at the state, district and school level and also shows the number of students who are considered at risk based on statistical analysis using key risk factors. The text also includes the anticipated year of graduation for the students and shows the number of students for whom the analysis was completed.

## MEIRS Secure Report (2)



The third screen shot shows the risk factors were most prevalent. The number “identified” is the number of students in the overall grade level that met the risk criteria in each selected category (e.g., math, reading, multiple enrollment, suspension/expulsion, attendance) and the number “at risk” is the number of students who were categorized as being at risk of not graduating from high school in four years. For example, 18 of the 62 students did not meet the math standards on at least one mathematics state accountability test in 6<sup>th</sup>-8<sup>th</sup> grades; but only 13 of those students were categorized as being at risk of not graduating in four years. It should also be noted that “students who have none or more of these risk factors are at increased risk of not graduating in four years.” The definition of each risk factor is also provided. In addition, data is disaggregated for student groups including English Learner, Free and Reduced Price Lunch, Special Education Status and Migrant and Homeless.

### MEIRS Secure Report (3)



After reviewing and becoming familiar with all of the pieces of information contained in the report at a high level, members of the MEIRS team can begin to examine the information that can be gathered from the MEIRS at a deeper level. The report allows the team to review summary information on the number and percentage of students in the grade who are flagged (for any reason) and who are flagged for particular indicators.

Team members can use the worksheet in Appendix A: Understanding the Data: Key Questions to answer key questions that will help in analyzing risk of the data that is included on the report. On the basis of this initial review of the data, the team discusses and strategizes ways to prioritize student needs. It is important to look at the numbers and percentages of students in each category in order to determine priorities for addressing needs.

After reviewing the data at an aggregate level from the initial MEIRS report that is generated, the team can also access a list of students who have been flagged as being at risk of not graduating in four years from high school. Each student is listed along with the factors that place the student at risk. This list allows the MEIRS team to organize and sort at-risk students into groups that are based on the indicators on which they are flagged (e.g., flagged for attendance, flagged for course performance, flagged for both).

Team members may also access a list of students who were enrolled at the October 1 child count date, but who did not have information or data on all of the required variables necessary for determining risk. These students may or may not be at risk, and the team may want to gather and review data on these students in order to determine level of concern and potential need for supports.

## **STEP 5 – DIG DEEPER**

It is important to acknowledge that the indicators of risk are merely signs of deeper and likely more complex problems related to student disengagement with school and academic failure. This step builds on the review of MEIRS data conducted in Step 4 by encouraging the team to look more closely at the characteristics of flagged students. To do this, teams must examine additional data that are not provided by the MEIRS report but are available in other information data systems or from individuals who interact with these students. For example, for students who are flagged for poor reading or math scores, the team may need an assessment of literacy problems by the students' English/language arts teachers. The team should gather data from a variety of sources. As previously mentioned, these sources may include classroom teachers or other adults in the school who interact with flagged students.

This list also allows team members to dig more deeply into the data and discuss the extent to which these students that are flagged are already receiving supports, no longer attending the school, are inaccurately identified, or identified by are not at risk. For example, it is possible that a student may be on the list of student identified at risk based on low attendance rates and high mobility. However, it is possible that this student is doing well academically, and the attendance rates are low due to travel associated with a theatre group the student is a part of that requires practice and performances during the school day. After group discussion, it becomes clear that this student is keeping up with school work, has good grades and has strong parental support for staying in and completing school. The team can decide that this student is not currently at risk and does not need any additional supports at this time.

Additionally, the team should consider conducting one-on-one meetings with individual students, their parents, or both. More detailed student reports and plans can be designed expressly for this purpose. These meetings can shed light on the reasons students are displaying indicators of risk and may be opportunities to engage students and the adults who interact with them in providing additional supports.

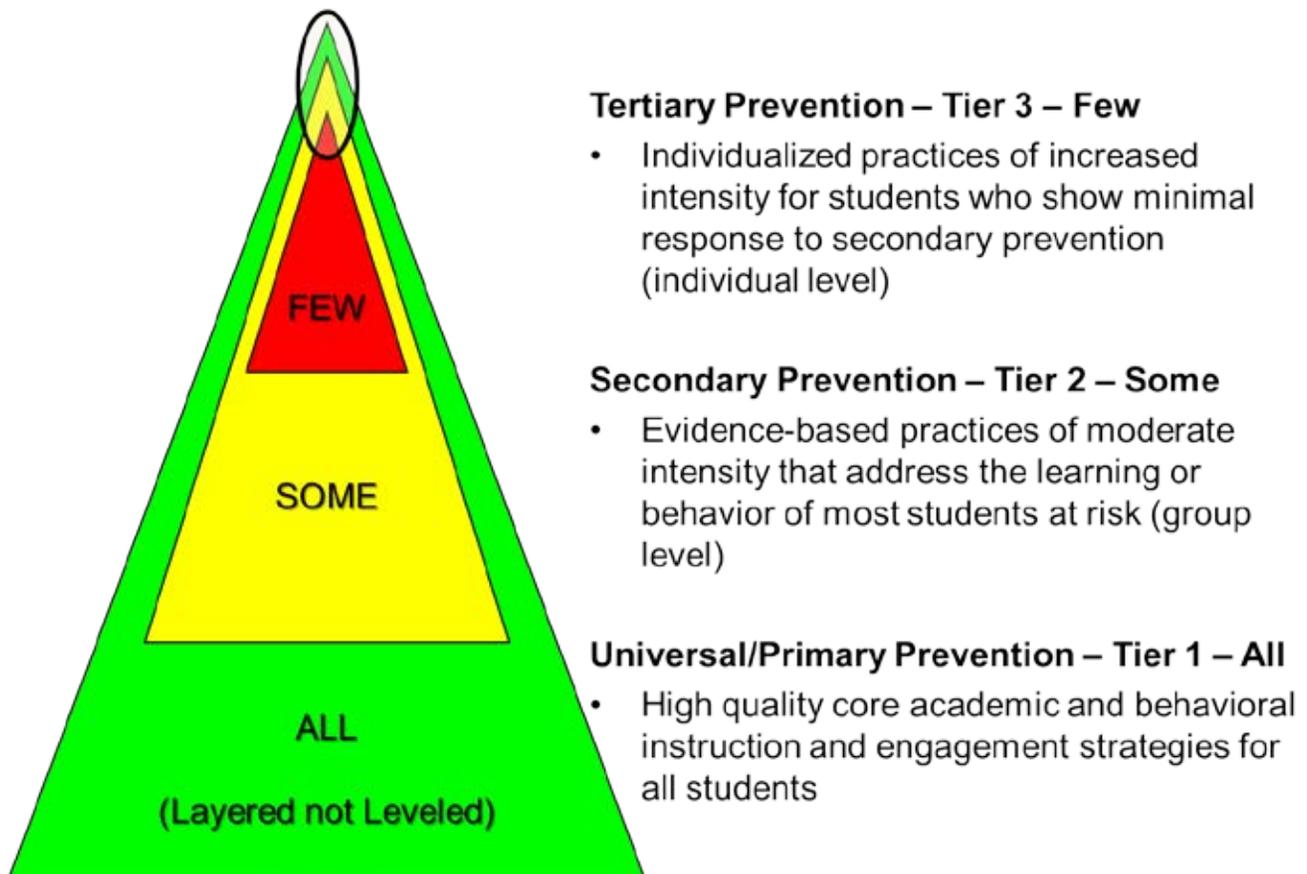
Most important, the information gathered during Step 5 improves the team's understanding about why students are displaying indicators of risk. After gathering additional information, the team openly discusses any previously held assumptions about individual or groups of students and move them aside, in place of factual evidence of underlying causes of poor performance. It is likely that the team will come up with new ideas as the underlying cause(s) for why students show signs of risk. On the basis of these investigations, the team should be able to identify some common and individual needs among students and prepare to identify and implement appropriate intervention strategies (Step 6) and monitor students' responses to these interventions.

## STEP 6 – SELECT, IMPLEMENT AND MONITOR INTERVENTIONS

This section includes information about making informed decisions about the allocation of available resources and strategies to support students identified as at risk of not completing high school in four years as indicated by the MEIRS data. This step provides guidance on ways to systemically provide support for identified students, using a tiered approach. During this step the MEIRS team matches individual students to specific interventions after having gathered information about (1) potential root causes for individual flagged students and (2) the available dropout prevention and academic and behavioral support programs in the school, district, and community.

In many schools and districts, engagement strategies, resources and supports for students who disengaging or at risk of dropout prevention are available but they may not be systematically applied, or their use is may not be well coordinated. To introduce a more systemic approach, schools and districts are increasingly organizing specific strategies or programs into tiers that are based on the intensity of the interventions. Generally, the models have a two- or three-tiered intervention system in which Tier I interventions are applied to all students in the school, Tier II interventions are moderately intensive and applied to small groups of students with common needs (sometimes individual students), and Tier III interventions are the most intensive and are provided to individual students with the highest level of need. Figure 2 shows a graphical depiction of an example three-tiered model. Such a model can be used for instructional and behavioral interventions, as well as for dropout prevention interventions, which are the focus in the next sections.

**Figure 2. MEIRS Three-Tiered Model**



In general, when schools are using a tiered approach, all students have access to Tier I interventions. For example, all students should have a sense of belonging and feel safe in their school. This can be developed through the intentional creation of a positive school climate. Students who have been identified as being at risk of not completing high school in four years are considered for Tier II or Tier III supports, or both, based on the assessment of the MEIRS team.

To match student needs to interventions, the MEIRS team will need to understand the interventions and supports that are available and the needs the interventions address. Creating an inventory of existing interventions available to students in the school, district, and community will provide the team with a resource on which to base decisions about matching students to specific interventions. When conducting an inventory of existing interventions and student supports available in the district and school, the team should consider the following important questions:

1. What are the features of the available interventions and supports? What strategies do they include? Which focus on student engagement and attendance problems? Which focus on academic problems?
2. What other needs do the interventions intend to address? What are the characteristics of the students who seem best suited to these interventions?
3. Are the interventions known to be effective? What is the evidence? What additional evidence is needed?
4. Are any of the students who have been identified as at risk participating in these interventions? For how long have these students been participating? What is the intensity of the intervention? Is the intervention being implemented as designed (fidelity of implementation)? What indicators of success, or lack of success, are documented in student records?

The *Student Support and Intervention Mapping* Tool, included in Appendix A, is an example of a resource that supports the development of an inventory of interventions and supports. Next, the team should review the information about the needs of students, based on the team's work in Steps 3 and 4, to match students to appropriate interventions. The team can use the Student Support and Intervention Mapping template to document the specific programs to which individual and groups of students have been assigned (by date). To ensure the chosen supports are appropriate and effective, the team will continually monitor 1) the extent to which the support or intervention is being implemented as intended and 2) individual student response to the intervention. This data must be reviewed on a regular basis and depending on the information collected, implementation of the intervention may need to be revised as needed.

Additionally, during the matching process, the team may identify gaps in the available interventions for specific group or individual student needs. This may be an opportunity to discuss these needs with school and district leaders. This process relies heavily on data collected during earlier steps to inform action, but MEIRS team members are ultimately charged with using their expertise and professional judgment to recommend specific student interventions.

## **STEP 7 – EVALUATE AND REFINE (MONITOR AND ADJUST)**

The MEIRS team should reflect on the MEIRS implementation process at least annually. The team should discuss what has worked, what may need to be modified, and what may need to be replaced or eliminated.

In this step, the team reflects on the MEIRS process and identifies successes and challenges. As part of this step, the team makes recommendations for improving the process. Finally, the current team plus other school and district leadership identify new team members and ensure that they are trained to use the MEIRS Tool and that they understand the implementation process.

Step 7 also includes a review and analysis of the risk indicators to determine the extent to which they are accurately predicting students who are at risk of not completing high school. For some schools in Minnesota, the indicators that are included in MEIRS may not differentiate well between students who are engaged in school and do well and those that are at risk of dropping out. For example, if there are high numbers and percentages of students in your school who are flagged for low attendance, but many of those students are doing well in terms of passing classes, accumulating credits and passing state accountability tests, further investigation into attendance as a valid predictor in the local context may be warranted. This will require additional examination including generating hypotheses to determine why attendance is not a factor – and to determine the protective factor that mitigates low rates of attendance as a risk factor.

The MEIRS was initially developed using a retrospective cohort of students whose anticipated graduation rate was 2011. The predictive variables associated with not completing school in four years may change over time and may vary according to local context. It is critical to review data over multiple years and follow students who have been flagged as being at risk in contrast to those who have not been identified to determine the test the predictive power of the MEIRS indicators. If analysis shows that the MEIRS system is not very predictive in the local context, modification of the indicators or the thresholds/benchmarks may be warranted.

## **SUMMARY**

The seven-step MEIRS implementation cycle provides an organizing framework for schools to use in implementing an early warning system for dropout prevention and engaging students who are at risk of not completing high school in four years. The steps guide users in examining indicator data for students, matching them to appropriate interventions, and monitoring progress. Each step specifies the roles for personnel at the school level to create and maintain organized and coordinated approaches to dropout prevention. Using the framework serves individuals in schools by guiding the development of a comprehensive and systematic dropout prevention process that can help keep students in school, support efforts to identify the most promising interventions in specific schools, and, ultimately, raise graduation rates.

## RESOURCES

Balfanz, R. (2009). [Putting middle grades students on the graduation path \(Policy and Practice Brief\)](#). Baltimore: Johns Hopkins University, Everyone Graduates Center. ([http://www.amle.org/portals/0/pdf/research/Research\\_from\\_the\\_Field/Policy\\_Brief\\_Balfanz.pdf](http://www.amle.org/portals/0/pdf/research/Research_from_the_Field/Policy_Brief_Balfanz.pdf))

Dynarski, M., Clarke, L., Cobb, B., Finn, J., Rumberger, R., & Smink, J. (2008). [Dropout prevention: A practice guide](#) (NCEE 2008-4025). Washington, DC: U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance. ([http://ies.ed.gov/ncee/wwc/pdf/practice\\_guides/dp\\_pg\\_090308.pdf](http://ies.ed.gov/ncee/wwc/pdf/practice_guides/dp_pg_090308.pdf))

Greene, J. P., & Winters, M. A. (2005). [Public high school graduation and college-readiness rates: 1991-2001](#) (Education Working Paper No. 8). New York: Manhattan Institute for Policy Research. ([http://www.manhattan-institute.org/pdf/ewp\\_08.pdf](http://www.manhattan-institute.org/pdf/ewp_08.pdf))

Heppen, J. B., & Therriault, S. B. (2008), [Developing early warning systems to identify potential high school dropouts \(issue Brief\)](#). Washington, DC: National High School Center at AIR. ([http://www.dropoutprevention.org/sites/default/files/NationalHighSchoolCenterIssueBrief\\_20101109.pdf](http://www.dropoutprevention.org/sites/default/files/NationalHighSchoolCenterIssueBrief_20101109.pdf))

Jerald, C. D. (2006), [Identifying potential dropouts: Key lessons for building an early warning data system](#). Washington, DC: Achieve & jobs for the Future. (<http://www.jff.org/sites/default/files/IdentifyingPotentialDropouts.pdf>)

Kennelly, L., & Monrad, M. (2007). [Approaches to dropout prevention: Heeding early warning signs with appropriate interventions](#). Washington, DC: National High School Center at AIR. ([http://www.betterhighschools.org/pubs/usergd\\_dr.asp](http://www.betterhighschools.org/pubs/usergd_dr.asp))

National High School Center. (2008). [Technical assistance response on dropout prevention](#), Washington, DC: Author. (<http://www.betterhighschools.org/docs/NHSCDropoutTAResponse2.pdf>)

Neild, R. C., Balfanz, R., & Herzog, L. (2007). An early warning system. *Educational Leadership* 65(2), 28-33.

**For additional information about early warning systems and dropout prevention, please see the following National High School Center resources.**

The resource [Developing Early Warning Systems to Identify Potential High School Dropouts](#) discusses the factors that help predict the probability that individual students will eventually drop out of high school prior to graduating and includes step-by-step instructions for building an early warning system. ([http://www.betterhighschools.org/pubs/ews\\_guide.asp](http://www.betterhighschools.org/pubs/ews_guide.asp))

The report [Approaches to Dropout Prevention: Heeding Early Warning Signs With Appropriate Interventions](#) outlines steps that schools can take to identify at-risk students and provide the necessary support systems and relevant interventions to assist students in obtaining a high school diploma. ([http://www.betterhighschools.com/docs/NHSC\\_ApproachesToDropoutPrevention.pdf](http://www.betterhighschools.com/docs/NHSC_ApproachesToDropoutPrevention.pdf))

Developed by the National High School Center at the American Institutes for Research, the [Early Warning System \(EWS\) Tool v2.0](#) is a free, downloadable, Excel-based tool designed to allow users to identify and monitor students who show early warning signs that they are at risk for dropping out of high school. This tool will assist users in monitoring the progress of students over the course of the school

year (as early as the first 20 or 30 days of school and after every grading period). The tool relies on readily available student-level data (attendance, course failures, grade point average [GPA], and credit accumulation) that may be imported or entered into the Excel-based tool. As these data are entered, the tool automatically calculates indicators that are predictive of whether students will graduate or drop out. (<http://www.betterhighschools.org>)

## RELATED WEBSITES

[Alliance for Excellent Education web site](#) includes information about the dropout crisis, solutions and an section on “what you can do”

[Data Quality Campaign web site](#) includes state level data from early childhood, K–12, postsecondary, and workforce systems to make decisions that ensure every student graduates high school prepared for success in college and the workplace.

[National High School Center web site](#) includes resources, news and links to information about early warning systems and their use.

## REFERENCES

Balfanz, R., Bridgeland, J. M., Moore, L. A., & Fox, J. H. (2010). Building a grad nation: Progress and challenge in ending the high school dropout epidemic. Baltimore, MD: Everyone Graduates Center; Washington, DC: America’s Promise Alliance.

Dynarski, M., Clarke, L., Cobb, B., Finn, J., Rumberger, R., & Smith, J. (2008). Dropout prevention (NCEE 2008–4025). Washington, DC: National Center for Education Evaluation and Regional Assistance.

Jerald, C. D. (2006). Identifying potential dropouts: Key lessons for building an early warning data system. Washington, DC: Achieve.

Princiotta, D., & Reyna, R. (2009). Achieving graduation for all: A governor’s guide to dropout prevention and recovery. Washington, DC: National Governors Association Center for Best Practices.

## **APPENDIX A. SUPPORTING DOCUMENTS**

Understanding the MEIRS Report: Key Questions

Digging Deeper: Questions to Guide Understanding the Data

Guiding Questions for Selecting, Implementing and Monitoring Interventions

NHSC. Tool 1: Action Planning Tool

NHSC. Tool 2: Student Support and Intervention Mapping

Early Indicator and Response System Overview

MEIRS Frequently Asked Questions

## Understanding the MEIRS Report: Key Questions

Based on the MEIRS report that has been generated, review the data with your team and respond to the following questions.

Question	Response
How many students were included in the analysis (approximately what percentage of total students in the grade of interest)?	
How does the district information about the percentage of students predicted at risk compare to the state and school information?	
What is the anticipated year of graduation for this group of students?	
Based on the histogram showing the risk factors – which might be most important to concentrate on? Why?	
Based on the histogram showing the various student groups, which groups might need increased supports for graduation? Why?	
Are the students predicted at risk destined not to graduate from school?	
How do I know whether students have more than one risk factor?	
What will my next steps be to “dig deeper?”	
Brainstorm potential supports that could be provided that are linked to the data.	
What are key take-aways?	
Are there any surprises in the data?	
What additional questions do you have?	

## Digging Deeper: Questions to Guide Understanding the Data

### At the Student Level

1. Which students have multiple flags/risk factors? Which students are flagged with one risk factor?
2. What are the reasons for absence among students who are flagged? Are there any patterns in reasons for absence among students who are flagged for attendance?
3. Which students have had behavioral referrals or suspensions?
4. What other information do you need to understand the characteristics of students who have been flagged? (e.g., how many credits do they have, failing grades? special education status, English language learner status, prior achievement)?
5. For a student who is flagged for not meeting proficiency on a State Accountability Test, is it in the area of mathematics or reading? What might be the underlying causes for the low performance?
6. What other information do you need to understand the characteristics of students who did not meet proficiency on a State Accountability Test? (e.g., special education status, English language learner status, prior achievement, grades)?
7. Is it possible to group students by common needs in the presence of common risk factors?
8. What are the most prominent needs that are based on your analysis of the data?
9. Can more information be gathered in a non-threatening manner from students about the reasons they are exhibiting behaviors causing them to be off track for graduation (e.g., students find classes disengaging; students have responsibilities at home causing them to be absent)?

### At the School Level

1. What are the profiles of students being flagged and for what? Are there patterns? How might the school serve these students better?
2. How might school policies (e.g., attendance, discipline, credit accumulation) be affecting students who are flagged (e.g., consequences come along with a high number of absences)? Are attendance policies at the school causing students to automatically fail a course with a certain number of absences?

### Longer-Term Questions

1. What additional stakeholders should be included in discussions (e.g., community members, law enforcement representatives, court representatives, human services representatives, business representatives, local policymakers, parents, teachers, students, guidance counselors, central office staff) regarding how to systematically address the prevalence of risk factors displayed by students in the school? How will they be engaged? How will buy-in be promoted? What results can each audience achieve?
2. What additional data are important for identifying underlying causes? What further information is necessary to get an even better picture? What types of information were difficult to obtain? How could that information be made more accessible?
3. For students who do drop out, what were the reasons or underlying causes? Does the district have the capacity and resources needed to locate and survey or interview some of these students?

Questions adapted from Therriault, S. B., Heppen, J., O'Cummings, M., Fryer, L. and Johnson, A., (2010). *Early Warning System Implementation Guide*. Washington, DC: National High School Center.

# Guiding Questions for Selecting, Implementing and Monitoring Interventions

## Short-Term Questions

1. What interventions are available to support students' needs?
2. What interventions are currently implemented in the school and district? How successful do they seem to be for keeping students in school?
3. What type of ongoing support is provided to implement interventions with fidelity?
4. What structures (as opposed to specific programs) currently exist to support students who are off track for graduation (e.g., flexible scheduling, credit recovery, behavior support, attendance and truancy interventions)?
5. Do trends in the data identify the immediate need for particular types of interventions (e.g., attendance monitors, graduation coaches, professional development for teachers on instructional strategies, ninth-grade transition supports, and opportunities for extended learning beyond the school day)?
6. If a tiered model is not already in place, is it possible to provide supports that are tiered by intensity on the basis of student need? Are there other ways to coordinate services and prioritize the allocation of resources?
7. Do the demographic characteristics (e.g., disability, economically disadvantaged status, English language learner status) of the students identified as at risk inform intervention decisions? Should they?

## Longer-Term Questions

1. Which interventions appear to be most successful at helping flagged students get back on track?
2. Do trends in the data consistently identify the need for similar types of interventions?
3. How will you communicate the results of this work to critical stakeholders (e.g., parents and students, teachers, administrators, community, educators outside your district, state Department of Education)?
4. How will you identify promising interventions to address unmet dropout prevention needs (e.g., attend conferences, purchase intervention, ask/visit other schools/ districts, study teams, review literature, seek help from regional or state agencies)?

Questions adapted from Therriault, S. B., Heppen, J., O'Cummings, M., Fryer, L. and Johnson, A., (2010). *Early Warning System Implementation Guide*. Washington, DC: National High School Center.

# NHSC TOOL 1: ACTION PLANNING TOOL

Directions: The school or district team can use this tool to begin planning and implementing a system to identify students who may be at risk of dropping out of high school later.

SCHOOL/DISTRICT: \_\_\_\_\_ DATE: \_\_\_\_\_

STEP	WHAT DO YOU HAVE IN PLACE?	WHAT DO YOU NEED?	WHAT ARE YOUR NEXT STEPS?
<b>1. Provide Team Roles and Responsibility</b>			
<b>2. Provide Orientation</b>			
<b>3. Run MEIRS Report</b>			
<b>4. Review and Interpret Data</b>			
<b>5. Dig Deeper</b>			
<b>6. Select, Implement and Monitor Interventions</b>			
<b>7. Evaluate and Refine (Monitor and Adjust)</b>			

Tool adapted from Therriault, S. B., Heppen, J., O’Cummings, M., Fryer, L. and Johnson, A., (2010). *Early Warning System Implementation Guide*. Washington, DC: National High School Center.



# Early Indicator and Response System Overview

## Identifying Students Who Are Disengaging From School and Providing Supports

### What Is an Early Indicator and Response System?

Early indicator and response systems, sometimes referred to as early warning systems, use academic and attendance information to identify individual students at high risk of dropping out of school (Princiotta & Reyna, 2009). Research suggests that students who eventually drop out of high school exhibit strong predictive indicators of dropping out, such as infrequent attendance, behavior infractions, and course failure. These indicators may be used to predict high school graduation as early as the start of middle school (Balfanz, Bridgeland, Moore, & Fox, 2010).

### Why Are Early Indicator and Response Systems Important?

Early indicator and response systems may be used to identify individual students at risk of dropping out and to identify common risk factors in particular schools. Using the information from these systems, educators can provide students at risk of dropping out with the extra supports they need to succeed in school. Additionally, early indicator and response systems limit the costs of dropout prevention by enabling schools and districts to target assistance to students likely to drop out (Princiotta & Reyna, 2009). The cost of building an accurate early indicator and response system may be relatively small compared with the cost of providing unfocused interventions or reforms meant to increase overall graduation rates (Jerald, 2006).

### Minnesota Early Indicator and Response System (MEIRS) Project

The Minnesota Department of Education has developed a screening tool to assist educators in tracking and supporting student progress toward graduation from high school in four years.

The purpose of an early indicator and response system is to:

1. Screen for students who are at risk of not completing high school in four years.
2. Facilitate student success by using the data to match appropriate supports to student needs. These supports may include systemic responses as well as individual interventions.

### What Are Best Practices in Early Indicator and Response Systems?

Researchers agree that student absences, grade retention, low academic achievement, and behavioral problems are strong indicators for dropping out (Dynarski et al., 2008). Early indicator and response systems can be based on data routinely collected at the school and district levels such as attendance, behavior, course achievement, and student age and grade (Princiotta & Reyna, 2009). Early indicator and response system data need to be regularly updated and easily accessible. To use the system effectively, teachers and counselors need timely data that are easy to interpret (Princiotta & Reyna, 2009).

After building an early indicator and response system, schools and districts can take the information from data to action by offering supports for students. Once students are identified as being at risk of dropping out, teachers, counselors, and community partners can intervene with targeted dropout prevention strategies (Princiotta & Reyna, 2009). In some situations, students may require one-on-one counseling to address their problems. Interventions also could be targeted at the group level. For example, if several students exhibit risk factors related to low academic performance in a particular content area, catch-up courses could be offered. Interventions also may be provided at a school- or communitywide level, to create conditions that help prevent students from developing risk factors in the first place (Jerald, 2006). The effectiveness of an early indicator and response system lies in the ability of the school or district to use the data collected to provide supports to the students who exhibit high risk factors for dropping out.

## **MEIRS Frequently Asked Questions**

### **Minnesota Early Indicator and Response System (MEIRS) Screening and Supports for Students Who Are Disengaging From School**

#### **What is an early indicator and response system?**

Early indicator and response systems, sometimes referred to as early warning systems, use academic, behavior and attendance information to identify individual students at high risk of dropping out of school. The effectiveness of an early indicator and response system lies in the ability of the school or district to use the data collected to provide supports to the students who exhibit high risk factors for dropping out.

#### **What are the key variables linked to dropping out of school?**

Research suggests that students who eventually drop out of high school exhibit strong predictive indicators of dropping out, such as infrequent attendance, behavior infractions, and course failure. These indicators may be used to predict high school graduation as early as the start of middle school.

#### **Why are early indicator and response systems important?**

Early indicator and response systems may be used to identify individual students at risk of dropping out and to identify common risk factors in particular schools. Using the information from these systems, educators can provide students at risk of dropping out with the extra supports they need to succeed in school.

#### **What is the purpose of the Minnesota Early Indicator and Response System?**

This tool can assist staff at the school, district, and state level to target assistance to students who are at risk of not graduating from high school in four years. The MEIRS is intended to assist with providing focused supports and interventions for these students and ultimately increase graduation rates.

#### **If students are screened as being at risk of not graduating from high school in four years, what happens?**

Schools and districts can take the information from data to action by offering and implementing effective supports for students. Once students are identified as being at risk of dropping out, teachers, counselors, and community partners can intervene with targeted student engagement and dropout prevention strategies.

#### **What are some of the interventions and supports that are effective in decreasing dropout and increasing school completion?**

In some situations, students may require one-on-one counseling to address their problems. Interventions also could be targeted at the group level. For example, if several students exhibit risk factors related to low academic performance in a particular content area, catch-up or credit recovery courses could be offered. Interventions also may be provided at a school- or communitywide level, to create conditions that help students successfully complete school prepared for postsecondary options and career opportunities.