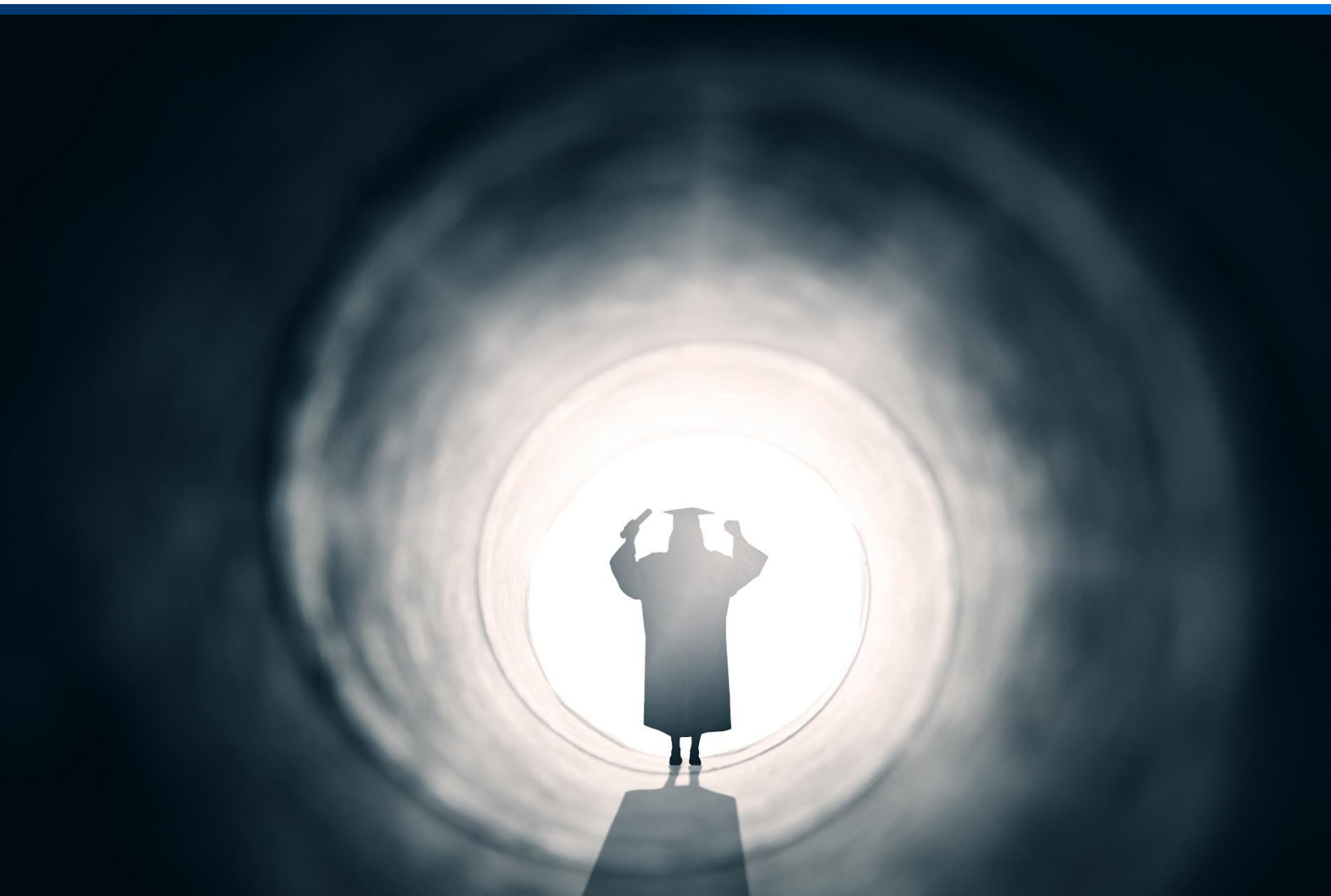


Early Warning Intervention and Monitoring System Implementation Guide

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Acknowledgments

2008 Edition: Susan Bowles Therriault, Mindee O’Cummings, Jessica Heppen, and Laura Yerhot

2013 Edition: Jenny Scala

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Overview

This **Early Warning Intervention and Monitoring System (EWIMS)** Implementation Guide is a supporting document for schools and districts that are implementing an early warning system (EWS). An EWS is a platform that uses local, historical student data; research-based **early warning indicators**; and **predictive analytics** to accurately identify students who are in danger of not achieving key educational milestones, such as on-time graduation. Yet, schools and districts need more than an **early warning data tool** to identify students who are showing signs of being in danger of not graduating. EWIMS is an **evidence-based** process for identifying and monitoring students who are likely to drop out of school (Faria et al., 2017). It is important to emphasize that students are not identified based on their demographics (e.g., race/ethnicity, gender, status as an English learner) or other unchangeable factors (e.g., students with disability, socioeconomic status, member of a single-parent household). Rather, students are identified for demonstrating one or more mutable early warning indicators (e.g., attendance rate, inappropriate behaviors, or poor course performance). With this guide, schools and districts can establish and implement the EWIMS process in their schools to help students succeed in and graduate from high school on time.

This guide describes the setup and use of the EWIMS process based on data-driven decision-making research (see, for example, Bernhardt, 2004, and Love, 2000). The aim of this guide is to support school and district efforts to systematically identify students who are showing signs of being off track in school (an early indicator of risk for achieving key educational milestones like on-time graduation), match these students with appropriate **interventions**, and monitor students' progress within those interventions.

The EWIMS process has seven steps:

1. Establish roles and responsibilities within the EWIMS team.
2. Use an early warning data tool.
3. Review early warning data.
4. Interpret early warning data.
5. Assign and provide interventions.
6. Monitor students and interventions.
7. Evaluate and refine the EWIMS process.

Throughout this implementation guide, you may be unfamiliar with a variety of terms that appear. Terms appear in boldface when first introduced. See [Appendix A. EWIMS Glossary](#) for definitions of these terms.



Making the Case for EWIMS

“I woke up this morning and decided that I don’t want to graduate from high school.” Although a student could conceivably pronounce this, it is far more likely that a student shows signs of disengagement long before dropping out, such as a decreased interest in school and a reduction in attendance across time (Balfanz, 2009). Researchers have identified key early warning indicators that can reliably and accurately identify youth who are most susceptible to academic failure and dropping out of high school. In fact, students exhibit clear signs as early as middle school. Balfanz (2009) found that sixth graders in Philadelphia who failed mathematics or English language arts (ELA), attended school less than 80% of the time, or received unsatisfactory behavior grades in a core course had only a 10%–20% chance of on-time graduation. More recently, Allensworth, Gwynne, de la Torre, and Moore (2014) found that middle grade attendance and grade point average were the best indicators for identifying students in danger of failing ninth grade, earning low grades in high school, and not remaining on track in high school.

As a continuous improvement process based on research to address barriers to graduation, EWIMS provides a way for educators to organize and readily use available EWS data to systematically identify students who are in danger of not meeting key academic milestones. Through the EWIMS process, students who meet or exceed attendance, behavior, or course performance indicator thresholds can then be matched with appropriate interventions to help them get back on track for graduation (Heppen & Therriault, 2008; Jerald, 2006; Kennelly & Monrad, 2007; Neild, Balfanz, & Herzog, 2007; Pinkus, 2008; Rumberger et al., 2017).

Data-based decision making itself is not a new concept in education, but what sets EWIMS apart from other processes? As a systemic and systematic approach, EWIMS allows educators to organize schoolwide efforts by identifying students who are showing signs of disengagement, supporting these students by assigning appropriate interventions, and monitoring their progress within the intervention. EWIMS improves educators’ opportunity to optimize the use of an EWS (Allensworth & Easton, 2005, 2007; Dynarski et al., 2008) because it requires educator collaboration to turn data into actionable information.

Evidence Base

The What Works Clearinghouse's (WWC's) *Preventing Dropout in Secondary Schools* practice guide (Rumberger et al., 2017) recommends monitoring the progress of all students and proactively intervening when students show early signs of risk because of attendance, behavioral, or academic problems. The EWIMS process provides a systematic and schoolwide approach for educators to implement this practice. Through EWIMS, educators identify students who are showing symptoms of risk, support students by assigning interventions, and monitor their progress in interventions.

A 2017 randomized controlled trial demonstrated strong evidence that the EWIMS process could improve student outcomes by helping students get back on track for graduation in Grades 9 and 10 (Faria et al., 2017). In the study, 73 high schools were randomly assigned to implement EWIMS during the 2014–15 school year. After 1 year of implementation, schools that implemented EWIMS reduced the percentages of students with chronic absences and course failures in experimental schools compared with schools that did not implement EWIMS (control schools). These results are encouraging because chronic absence and course failure are two key early warning indicators that students are in danger of not graduating on time. The study provided rigorous evidence that using a comprehensive EWS approach can reduce the percentage of students displaying key indicators of risk (Faria et al., 2017).

Early Warning Indicator Thresholds

Researchers have identified key early warning indicators, based on readily available data, in high school and the middle grades that can reliably and accurately identify youth who are most prone to academic failure (Allensworth & Easton, 2007). For example, Balfanz (2009) found that sixth graders in Philadelphia who had failing grades in mathematics or ELA, attended school less than 80% of the time, or received unsatisfactory behavior grades in a core course had only a 10%–20% chance of on-time graduation. Furthermore, fewer than one in four students with at least one of these early warning indicators graduated from high school within 5 years. Based on this finding and similar research findings, a set of attendance and academic indicators and **thresholds** have become generally accepted—at least as a good starting point—to establish a basic EWS. Table 1 provides an overview of these early warning indicators supported by research for middle and high school grades.

Table 1. Overview of Early Warning Indicators and Thresholds for Middle and High School

Early warning indicator	Grade range	Threshold
Attendance		
Days absent	6–9	More than nine per quarter; more than 36 per year ^a
Instructional time lost	9–12	10% or more ^b
Behavior		
Behavior (e.g., referrals, suspensions, behavior grades)	9–12	Locally determined ^b
Office referrals	6–9	More than two per quarter; more than six per year ^a
Suspensions	6–9	More than one per quarter; more than two per year ^a
Course performance		
Grade point average	9–12	2.0 or lower on a 4.0 scale ^b
Course failures (any course)	9–12	One or more ^b
Course failures (ELA and mathematics)	6–8	One or more ^b
Course failure in any core course (English, mathematics, science, and social studies)	9–12	One or more ^b
On-track indicator	9	Credit deficient for promotion to 10th grade AND one or more failures in core courses ^c

^aInformation obtained from Johns Hopkins University (2012). Although John Hopkins University identified these thresholds for office referrals and suspensions, in our experience, these indicators are the most difficult to identify thresholds for because student discipline policies vary widely by district and by school. For this reason, the American Institutes for Research (AIR) recommends that these indicators be locally validated. ^bInformation obtained from Therriault, O’Cummings, Heppen, Yerhot, and Scala (2013). ^cInformation obtained from Allensworth and Easton (2005).

Although Table 1 summarizes commonly used early warning indicator thresholds, research has demonstrated that local validation and context are important when determining early warning indicators. A 2016 study found that the most accurate indicator thresholds of students being off track for high school graduation varied across three Ohio districts (Stuit et al., 2016). Other publications, including Li, Scala, Gerdeman, and Blumenthal (2016) have noted the importance of local validation. Because not all schools have validated their own data, many districts or schools start their EWS initiative using the early warning indicators described in Table 1. With more time and resources, districts may find value in determining **locally validated indicators** to ensure that their local data (and therefore context) reflect at what point students are identified as being in danger of not meeting key educational milestones.

Local validation is particularly important for behavioral data, including office referrals, detentions, and suspensions. Because student discipline policies and data collection vary widely by district and by school, these indicators are the most challenging to accurately identify thresholds for. For this reason, AIR recommends that behavioral indicators be locally validated.

Additional Educational Milestones

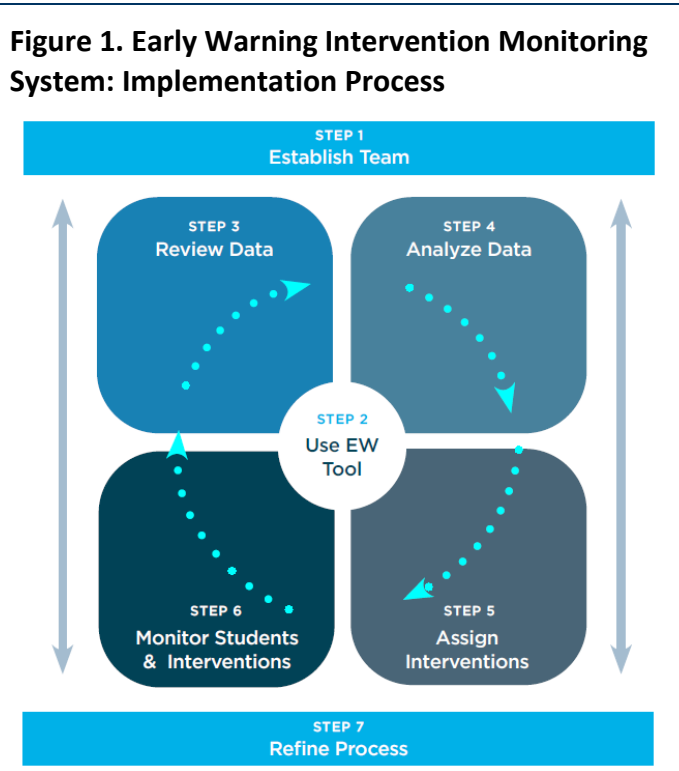
AIR’s original EWS work focused on supporting on-time high school graduation. As this work has grown and expanded, we now see early warning indicators, along with the EWIMS process, as a method to ensure that students are on track for meeting a variety of key educational milestones. For example, in Massachusetts, early warning indicators were attached to specific educational milestones, including reading by the end of third grade, middle school readiness, high school readiness, and high school graduation. AIR also examined early warning indicators to identify students’ postsecondary readiness and support districts with large numbers of English learners to determine the readiness of students to succeed in the general education environment and the efficacy of programs to prepare students for these general education environments.

The Seven-Step EWIMS Implementation Process

We describe the seven steps in this guide as distinct processes, but each step is part of an entire system. Figure 1 illustrates this system, which guides users in making informed decisions based on early warning indicators and other relevant information.

The EWIMS Cycle

EWIMS is an EWS approach that offers schools a systemic strategy to identify, diagnose, monitor, and continually improve strategies that lead to improved graduation rates for students. The EWIMS cycle is an evidence-based approach for schoolwide implementation of data-based, tiered intervention frameworks (such as



response to intervention [RTI] or multitiered systems of support [MTSS]). The purposive design of EWIMS adapts to the specific context of a school (e.g., small schools, large schools) and integrates into existing school improvement and student support mechanisms. Undergirding the complete process is an emphasis on continuous improvement; the school will want to evaluate and refine the process across time to better meet their needs.

The EWIMS Mini-Cycle

The mini-cycle is composed of Steps 3, 4, 5, and 6 of the EWIMS cycle, or those steps where the EWIMS team will be examining student data, assigning students to interventions, and monitoring student progress within those interventions. The majority of EWIMS team meetings will be dedicated to going through the mini-cycle, and the team will complete several mini-cycles throughout the school year.

How to Use this Guide

In each section, the guide briefly describes each EWIMS step, identifies the key activities and anticipated outputs, provides guiding questions to support implementation, and provides actions for a district to support school teams. The guiding questions focus on short-term implementation, with [long-term guiding questions in Appendix D](#). The short-term guiding questions are for EWIMS team members as they examine student data for individual students and groups of students during monthly meetings. The long-term guiding questions focus on systemic issues and strategies to improve school and district outcomes and are likely examined one or two times per school year. Thus, we anticipate that new EWIMS users will first focus on the short-term questions and will be ready to delve into the long-term questions after their first year of implementation.

Users do not need to read this guide from beginning to end. Instead, this guide is a resource for consultation throughout the EWIMS seven-step process on an as-needed basis. For instance, when the team is beginning to examine EWS data after the first grading period closes, team members will want to review Step 3 of the guide. Team members can use this document to learn more about upcoming steps, review and revisit previous steps, or answer any questions they may have.

Getting Started With EWIMS

Effective long-term implementation and sustainability of EWIMS requires focused and intentional efforts at the beginning. We recommend five specific actions for the initial setup of

EWIMS: (a) establish an EWIMS team composed of the right staff, (b) determine your school's readiness to implement EWIMS, (c) participate in professional development on the EWIMS process and selected EWS Tool, (d) catalogue the interventions available at your school by creating a complete intervention inventory, and (e) prepare the **EWS Tool** so that the team is ready to review students who are identified at the start of the school year. Descriptions of these five actions follow.

Establishing an EWIMS Team

The EWIMS team must have a broad representation of staff. This representation includes having staff with broad variety of roles (e.g., principal, vice principal, teachers, specialists, **interventionists**) and strands of diversity that reflect your student body (e.g., staff with the same racial, cultural, religious, and linguistic backgrounds as students). In addition, district support and leadership are critical to the successful implementation and sustainability of this process, particularly in terms of directing resources and removing barriers. District representation and participation in EWIMS teams is essential; ideally, a district representative should participate on each school-based EWIMS team. However, there may be more specific meetings in which it is important for a district representative to participate. The EWIMS team should include personnel who have the authority to make decisions about staff and students, who know a diverse assortment of students, and have members with a diverse set of knowledge and skills, including the following:

- Technical skills in using the EWS Tool
- Knowledge of students who are receiving special services
- Positive behavior interventions and supports (PBIS)/MTSS
- Evidence-based interventions
- Knowledge of students' cultural and linguistic backgrounds

The following key factors will ensure the success of the EWIMS team:

- Whether the EWIMS process is the responsibility of a new team or incorporated into the responsibilities of an existing team, it is vital that the EWIMS work be a priority of the designated team.
- The EWIMS team must receive professional development on EWIMS implementation and the use of the EWS Tool.

- The EWIMS team must have adequate time to implement the EWIMS process, including time to meet at least monthly to discuss the needs of students and provide them with supports.
- Finally, the EWIMS team must be using an EWS Tool with predictive analytics to identify students who are more likely to not graduate on time.

For additional factors that impact successful implementation, see [STEP 1: Establish Roles and Responsibilities](#).

Responsibilities of the EWIMS Team

The EWIMS team is responsible for the following activities, which ensure that students are identified and provided with support:

- Identify individual students and groups of students displaying indicators of risk.
- Assign individual students or groups of students to appropriate interventions or supports aligned with their specific needs.
- Communicate intervention plans to students' teachers, interventionists, and parents/guardians in ways that protect student confidentiality.
- Monitor students' progress in the assigned intervention to ensure that students are making progress or whether they need a different intervention.

EWIMS Readiness

We know that implementing a new initiative can be challenging. One way to proactively prepare for EWIMS is to consider how ready your school and staff are to implement a new initiative prior to adoption and implementation. Readiness to implement takes into consideration multiple factors, including an accurate understanding of the requirements of the initiative, the fit within your organization and culture (e.g., needs of your students, current initiatives within your building) staff's motivation and willingness to implement, staff's capacity including skills and knowledge, and organizational capacity to create an environment for successful implementation (Metz & Louison, 2019). Many publications and resources discuss how to get ready to implement, including the [National Implementation Research Network's Hexagon Tool](#) and the [Wandersman Center's Readiness Framework](#).

Participate in Professional Development and Ongoing Coaching

The EWIMS team must participate in professional development on EWIMS to gain an understanding of the seven-step process for identifying, supporting, and monitoring students

demonstrating symptoms of risk to get them back on track for graduating high school. Professional development prepares the team to use the selected EWS Tool, interpret and understand EWS data, and understand the variety of interventions available at the school (which all team members may not be familiar with) and their use in the EWIMS process.

AIR provides in-person and virtual training options. We recommend that the entire EWIMS team participate in the training so that everyone has a consistent understanding of the roles, responsibilities, and activities they will be engaging in during the school year. We also know that a one-time professional development session is not enough to support schools in this ongoing process. We use an adaptive coaching model customized to the unique needs of each school; at a minimum, coaching includes a monthly call to plan for upcoming EWIMS meetings, review action items, and answer questions. Differentiated coaching supports support each school, and these supports are strategically released to the EWIMS team across time to build local capacity and support long-term sustainability.

Cataloguing Student Interventions

To implement EWIMS, the team must be aware of the supports and interventions that are available to students who are not meeting expectations. Before assigning individual students or groups of students to interventions, the EWIMS team should complete [Tool 2: Student Support and Intervention Mapping \(Appendix B\)](#). By creating a catalogue of interventions, including information such as the availability of the intervention (e.g., the number of students who can be served at one time, resource limits) and important details for assigning students to that intervention (e.g., the focus of the intervention, the evidence base), the EWIMS team will gain a comprehensive understanding of the interventions that are available and how those interventions meet student needs.

Preparing to Use Your Data Tool

The EWS Tool allows users to identify and monitor students showing symptoms of risk throughout the school year using research-based early warning indicators, or [locally validated indicators](#) (see Table 1). An EWS Tool has many functions to facilitate data-driven decision making to help students. Although the exact functions vary by tool, they generally allow users to do the following:

- Customize the tool settings to reflect the local context (e.g., number of grading periods, race and disability categories, and other classifications).

- Integrate locally validated indicators of risk (and thresholds) to identify students who may need support.¹
- Identify students who need support using locally defined behavior indicators (e.g., suspensions, behavior grades).
- Assign and monitor students’ progress in interventions across time.
- Produce dashboards, including student-, school-, and district-level data summaries.

To successfully use an EWS Tool, each EWIMS team needs the following: (a) access to the selected EWS Tool or the generated reports/data visualizations, (b) one or more trained staff members who are knowledgeable about the EWS Tool data displays and features, (c) a mechanism for data to be imported and updated regularly, (d) a process to ensure that data are reviewed regularly, and (e) a plan to ensure adherence to appropriate confidentiality requirements when developing reports and sharing information (including internal and external stakeholder groups). This process will ensure that the data in the tool are current so that the EWIMS team can access the necessary data visualizations.

Time Frame

Aligned with the academic calendar, the EWIMS implementation process is implemented during the school year. Specific steps occur at defined periods, many recurring or continuous, so that the process of reviewing early warning data and identifying appropriate support strategies and interventions is timely and responsive to individual student needs. In the longer term, the process allows ongoing evaluation and revision across academic years to ensure that the EWIMS achieves maximum efficiency and efficacy in the local context. Table 2 provides an example of an EWIMS implementation process during a single school year.

Table 2. Example Schedule for Implementing an Early Warning Intervention Monitoring System

Schedule	Process (correlated to steps in this guide)
Before the start of	<ul style="list-style-type: none"> • Form/designate an EWIMS team and establish meeting norms (Step 1).

¹Please see [Step 7](#) for a more thorough discussion of locally validated indicators.

Schedule	Process (correlated to steps in this guide)
	<ul style="list-style-type: none"> • Review and interpret student needs based on data from the previous year (Steps 3 and 4). • Identify interventions for incoming students based on the identified needs (Step 5).
At the beginning of the school year	<ul style="list-style-type: none"> • Reconvene the EWIMS team (Step 1). • Verify student information, especially enrollment status, and update student roster to reflect new enrollees, transfers in and out, and other classifications (Step 2). • Review the previous year’s data, including any additional information that is helpful for interpreting student needs (Steps 3 and 4). • Identify and implement student interventions or supports based on incoming risk indicator information, if available (Step 5).
After the first 20 or 30 days of the school year	<ul style="list-style-type: none"> • Update the student roster to reflect new enrollees, transfers in and out, and other classifications (Step 2). • Import students’ absences, if needed (Step 2). • Review and interpret student- and school-level reports (Steps 3 and 4). • Identify and implement student interventions (Step 5). • Monitor students’ initial responses to interventions in which they are participating (Step 6). • Revise students’ intervention assignments, as needed (Steps 5 and 6).
After each grading period	<ul style="list-style-type: none"> • Update the student roster to reflect new enrollees, transfers in and out, and other classifications (Step 2). • Import students’ absences, course failures, and behavior information (Step 2). • Review and interpret student- and school-level reports (Steps 3 and 4). • Identify and implement student interventions (Step 5). • Monitor students’ responses to interventions in which they are participating (Step 6). • Revise students’ intervention assignments, as needed (Steps 5 and 6).
At the end of the school year	<ul style="list-style-type: none"> • Update the student roster to reflect new enrollees, transfers in and out, and other classifications (Step 2). • Import or enter students’ absences, course failures, and behavior information (Step 2). • Review and interpret student- and school-level data (Steps 3 and 4). • Monitor students’ responses to existing interventions in which they are participating (Step 6). • Revise students’ intervention assignments for summer and the next academic year (Steps 5 and 6). • Evaluate the EWIMS process, using student- and school-level reports, and revise as necessary (Step 7).



STEP 1: Establish Roles and Responsibilities

During Step 1, school leaders and district staff will establish the EWIMS team. The EWIMS responsibilities may be incorporated into an existing team, and we have worked with schools that have taken this approach by integrating EWIMS into teams such as the MTSS team, the student support team, the school improvement team, or the school leadership team. For this guide, we will reference the EWIMS team for ease in describing the seven-step process.

The key activities for Step 1 are as follows:

- Establish an EWIMS team, including roles, responsibilities, and integration or collaboration with other teams (see the [Getting Started With EWIMS](#) section).
- Conduct or review professional learning to prepare the team for the EWIMS process (see the [Getting Started With EWIMS](#) section).
- Establish a team meeting schedule for the year that allows for monthly meetings at a minimum, common meeting routines, and expectations.
- Establish communication and feedback methods between the EWIMS team and school staff.
- Catalogue all available supports and interventions (see the [Getting Started With EWIMS](#) section).

Anticipated Outputs of Step 1

1. An established EWIMS team with identified roles and responsibilities that allow the team to review student data in the EWS Tool and make timely decisions
2. All EWIMS team members trained on the EWIMS process, with a clear understanding of the seven steps and how the cycle evolves during the school year
3. A meeting calendar with dedicated time for the EWIMS team to meet at least once per month to review student data
4. Established common meeting routines and expectations that allow the EWIMS team to be efficient and productive
5. Established communication and feedback methods that inform all stakeholders at the school about the EWIMS process so that they can provide input or feedback, where applicable
6. An intervention catalogue that allows the EWIMS team to know what interventions are available, assign appropriate interventions to students, and identify gaps in available interventions

Revisit Step 1 throughout the school year to ensure that the composition of the EWIMS team and the meeting frequency meets the school's needs. As the year progresses, you may realize that the composition of the team needs adjustment to ensure that the team has knowledge of students' cultural and linguistic backgrounds and is capable of making timely and appropriate decisions based on student data. You also may realize that the team needs to meet more or less frequently based on the number of students who are identified, their needs, and available interventions.

Key Activities

Establish an EWIMS team and Participate in Professional Learning on the EWIMS Process

If your school has not yet established an EWIMS team, please see more information about this in the [Getting Started With EWIMS](#) section. If you have an EWIMS team already, ensure that the team has members who have (a) the authority to make decisions, (b) the expertise to access and analyze student data, and (c) knowledge of diverse student populations plus available interventions and resources. The EWIMS team should determine the roles that will help them be efficient and effective. Individuals can then take responsibility for filling these roles, which may include the following:

- **Facilitator.** The facilitator guides the group through the agenda while making sure that everyone has an opportunity to participate. The facilitator may ask questions for group processing, summarize major points of conversation, encourage team members to be open and share ideas, make connections between ideas, confirm decisions made, and assign responsibility for next steps.
- **Timekeeper.** The timekeeper monitors the time and provides regular updates to make the group aware of where they are in terms of time. This person will ensure that all students who have been preidentified for discussion are reviewed during the scheduled meeting, which includes checking in with the group to see if they can work within the allotted time or if additional time is needed.
- **Scribe.** The scribe is responsible for recording the group's ideas, decisions, and recommendations.
- **Presenter.** The presenter is the person leading the current topic. The presenter may change as the team discusses different students displaying early warning indicators of risk.

Prior to beginning the EWIMS process, the EWIMS team should review content from any professional development sessions that were held previously (for more information about this, see the [Getting Started With EWIMS](#) section). Reviewing the professional development content will help the EWIMS team members refamiliarize themselves with the seven-step process, their roles and responsibilities as team members, and what the cycle will look like during the school year as well as identify questions for clarification from their EWIMS coach.

Establish a Team Meeting Schedule for the Year, Common Meeting Routines, and Expectations

The EWIMS team should meet regularly, at least monthly, throughout the year—ideally twice a month. In terms of the meeting schedule and timing, at least one meeting to review student needs should be held (a) before the start of school, (b) after the first 20 or 30 days of school, and (c) shortly after the end of each grading period.

During the first meeting (which should occur prior to the start of the school year), the team will collaboratively establish common meeting agreements and routines that will guide all EWIMS meetings. The EWIMS team will brainstorm and determine their shared expectations together, such as the following:

- Prior to each meeting, all team members will review the next steps from the previous meeting to ensure the completion of team assignments.
- Each team member will review student data ahead of time and come prepared with questions.
- Team members will be present and active participants during EWIMS meetings.
- All team members will work to establish a respectful, supportive atmosphere that encourages diverse perspectives.
- Individual perspectives can be expressed, team members will assume good intentions of their colleagues, and team members will ask clarifying questions.
- Differences in perspective will not be classified as resolved until everyone on the team, and who will be affected (e.g., the student's other teachers), understands the reasoning.
- At the end of each meeting, each EWIMS team member will leave with commitments for action to be completed prior to the next meeting.
- Expect to adjust processes throughout the year to better address the needs of team members.

Throughout the remainder of the year, reviewing and discussing the information available in your EWS Tool is essential to each meeting. The meeting(s) convened prior to, or at the start of, the new school year should focus on identifying incoming students with indicators of risk and discussing applicable intervention strategies. During the school year, the EWIMS team meets at least monthly and sometimes more frequently, which will allow the team to develop a consistent routine, discuss issues as they arise, monitor students' progress, and reflect on the team's processes throughout the year. At the end of the school year, the EWIMS team meets to discuss ways to improve support for students showing symptoms of risk and the operation of the EWIMS team (Step 7).

Establish Communication and Feedback Methods Between the EWIMS Team and Other School Staff

Because the EWIMS team consists of a small number of staff compared with the entire school, it is important that clear communication methods exist for keeping all staff informed of the team's work. Communication will be especially important for staff who will be making changes to their teaching practices because of the team's decisions. For example, the team may decide that a student should receive a particular intervention; before assigning the student, the team may need to communicate with the student's guidance counselor, to determine availability within the student's schedule, and the interventionist, to determine if there are available openings during this time. To ensure that all stakeholders are informed and implement interventions as intended by the EWIMS team, consider the following questions:

- What communication structures already exist in the school? Could any of these include information about the work conducted by the EWIMS team?
- How will the EWIMS team communicate with and gather feedback and input from staff external to the team about students who are struggling, intervention plans, feedback on student progress, and the team's general communication with staff?
- Should we invite other staff to participate in an EWIMS team meeting? How will you coordinate with those staff members?

Catalogue All Available Interventions

If the EWIMS team has not yet cataloged the interventions and supports available at the school, see the [Getting Started With EWIMS](#) section and [Tool 2: Student Support and Intervention Mapping](#) (Appendix B). This catalogue should document every support and intervention available at the school and district, as well as information that will assist the team in determining if an intervention is appropriate based on students' needs (e.g., the focus of the intervention, the evidence base, the number of students who can be served at one time, the number of students currently assigned). The EWIMS team will need to update the intervention catalogue throughout the year whenever an intervention is added or removed.

The District's Role in Step 1

It is critical that the EWIMS team consists of staff who have the authority to make decisions, expertise to access and analyze data, and diverse knowledge of students plus available interventions and resources. District involvement could look quite different depending on the size of the district. For instance, in midsize or smaller districts, a district representative may participate in EWIMS team meetings once a quarter to think about trends across schools.

In larger districts, there may be a district EWIMS team in addition to school-specific teams, where school EWIMS representatives meet with district staff on a regular basis.

There may be times when it is appropriate for a member of the district to attend school-level EWIMS meetings. For example, if there are groups of students whose needs are not currently met by the interventions available at the school, this may influence how resources (including intervention programs) are allocated. If changes are needed, districts need to consider how resources are allocated to make sure that they are allocated equitably across schools. A district representative also can help the EWIMS team identify available resources or supports within the district that school staff may not be aware of.

Guiding Questions for Step 1

1. What type of professional development does the EWIMS team need for training and support?
2. What school and district stakeholders should be on the EWIMS team (e.g., district administrators, principal, counselors, teachers, support staff, technology specialists)? Can the EWIMS process be carried out by an existing team? Should there be more than one team?
3. If integrating EWIMS into an existing team, how will you ensure that the team has sufficient time to complete EWIMS implementation and responsibilities? What needs to change within the existing team to embed EWIMS?
4. Who will be responsible for the EWS Tool?
5. Does the EWIMS team have sufficient authority to make decisions about students and interventions based on early warning data?
6. How frequently should the EWIMS team meet? How much time should the team meet for? What are the team roles and meeting norms?
7. How will the EWIMS team communicate with the rest of the school and how will the EWIMS team receive input from the rest of the school?
8. Who will be responsible for reaching out to students and/or students' families?
9. What additional resources does the team need (e.g., access to student records, professional development)? What constraints do you have that may impact the team meetings?
10. Do you have a list of all available interventions in the school, organized by focus area and tiered level of support? How will you continue to update this list?



STEP 2: Use an Early Warning Data Tool

During Step 2, the EWIMS team uses the EWS Tool to identify students in danger of not graduating high school on time. A robust EWS Tool uses readily available student data and validated early warning indicators to identify students who are more likely to miss key educational milestones so that they can be matched with appropriate supports and interventions. Districts or schools may develop their own EWS Tool or identify and use a vendor-developed tool.

The key activities for Step 2 are as follows:

- Use and navigate the EWS Tool.
- Identify a school- or district-technology specialist who will regularly load and review student data into the EWS Tool.
- Provide access rights within the EWS Tool to appropriate staff.
- Access data summaries and/or visualizations.

Anticipated Outputs of Step 2

1. An understanding of the basic features of the selected EWS Tool and early warning indicator reports by all team members
2. A designated individual who is responsible for regularly uploading student data so that the EWS Tool remains current
3. An updated EWS Tool with the latest student data
4. Data summaries and/or visualizations are provided to EWIMS team members in advance of each meeting

Key Activities

As a result of the following key activities, the EWIMS team will be able to navigate and use the EWS Tool to identify students in danger of not graduating on time.

Use and Navigate the EWS Tool

For the EWIMS team to use the EWS Tool to properly identify and support students who display indicators of risk, all team members will need to receive training on how to navigate the EWS Tool. Many EWS Tool vendors provide support to help train staff on how to use their tool. Regardless of the vendor used, training topics should include how to (a) upload student data, if needed; (b) run reports or data visualizations to identify students displaying symptoms of risk; (c) assign students to interventions within the tool; (d) monitor student progress to determine if an intervention is working or if additional supports are needed; and (e) examine groups of students by early warning indicator, grade level, and demographic information, in addition to individual students. It is important to reiterate that students are not identified for showing indicators of risk due to their race/ethnicity or other demographic information; rather, students are identified by demonstrating one or more mutable early warning indicators. The EWIMS team

will want to subsequently examine students that have been identified by race/ethnicity, English learner status, and students with disability in order to see if there are broader trends, such as whether a disproportionate percentage of students who are English learners have been identified for showing symptoms of risk. The district can assist in coordinating this training for participating schools across the district, for greater resource efficiency (see [The District's Role in Step 2](#) section).

Designate an Individual Responsible for Student Data

So that student data are usable by the EWIMS team, the data within the EWS Tool must be up-to-date. Therefore, someone at the school or district should be the data lead, responsible for reviewing the data within the tool to ensure that it is current and troubleshoot any issues that may arise. The frequency of data review will vary by tool, but at a minimum, will include reviewing available data for incoming ninth graders and students new to the school. This process should include uploading students' previous intervention plans, if available. Depending on the tool, attendance data may need to be uploaded within the first 20 or 30 days, as well as after the close of each grading period. Similarly, some tools may require uploading of the final grades at the end of each grading period. Other tools will not require direct data uploading because this process occurs automatically from the school's student information system. In this case, review the data regularly (monthly for attendance data, after each grading period for academic performance data) to ensure currency and accuracy. The quality of data in the EWS Tool directly impacts the decisions made by the EWIMS team, so this is a vital role!

Provide and Maintain Access Rights

To protect student information, the EWS Tool should grant access rights. Specifically, teachers should have access to data only for the students within their classrooms; they do not need access to data for every student in the building. Similarly, interventionists should have access rights to data for the students they are servicing, not other students at the school. An exception to this rule is the EWIMS team and school administration. These groups should have access to data for all students within the school so that they can examine data to identify broader trends within specific student populations, grade levels, subject areas, or across the entire school. Being thoughtful about the access that different stakeholders will need within the EWS Tool will allow everyone to review the data they need to make decisions.

Access Student Data and Data Visualizations

Prior to every EWIMS team meeting, a designated individual will need to ensure that the team has the necessary data summaries or visualizations for the students or groups of students that will be discussed. All team members should have access to these visualizations prior to the

meeting so that they have time to review them before the meeting. The visualizations needed will vary depending on which step of the EWIMS cycle the team is currently in and the time of year, but they may include the following:

- **Data visualizations for each early warning indicator after each grading period.** These visualizations will identify the percentage of students at various risk levels so that the EWIMS team can examine trends across time.
- **Individual student-level data summaries.** For students displaying indicators of risk, individual student-level summaries will provide the EWIMS team with a snapshot of which early warning indicator(s) the students have been identified for as well as any interventions that are in place or have been tried previously. These summaries will be useful when the team identifies students who need additional support.

During each EWIMS meeting, the team will review data summaries and visualizations (Step 3) to identify next steps.

The District’s Role in Step 2

The district can do the following to support the use of the EWS Tool:

- The number of EWS Tool vendors continues to expand. To ensure that the selected tool meets the needs of the district and schools, the district can research potential EWS Tools. While looking into different products, ask vendors about the research base that determines the risk predictions. Ask for multiple demonstrations to learn about the technical support and professional development offerings included with the purchase.
- If the district has not already done so, select a tool for districtwide use. Having one EWS Tool districtwide can help leverage resources and reduce wait-time for students who may move between schools within the district.

Guiding Questions for Step 2
1. Who will be responsible for ensuring the EWS Tool integrates and uploads current data from the school’s student information system? If the EWS Tool does not have this functionality, who will upload the data manually?
2. What databases house the student data needed for the tool? How will the EWIMS team get access to those databases?
3. Who will develop reports for the EWIMS team?
4. How frequently will early warning indicators be reviewed?
5. Who will provide reports to other stakeholders (e.g., teachers, interventionists)?
6. With whom will you share data from the tool? How will you protect student confidentiality, as required by district, state, and federal policies?
7. What key features or data displays should EWIMS team members understand and be able to navigate within the tool?

- For schools that decide to use an EWS Tool that is not implemented districtwide, the district can still have a supporting role. In this case, the district can assist with data entry, provide professional development, and help build the EWIMS team’s capacity in using the tool they have selected.
- Provide professional development and time for team members to learn how to navigate and maximize the capabilities of the tool.



STEP 3: Reviewing Early Warning Data

Early warning data are reviewed in Step 3 to identify students who are displaying symptoms of risk. During Step 3, the team begins to look at data to understand patterns across early warning indicators, including attendance, behavior, student engagement, and course performance within the school.

The key activities for Step 3 are as follows:

- Review data on students who are identified.
- Explore patterns in student-level data, student groups, and school-level data.
- Identify additional data or information needed to answer additional questions.

Revisit Step 3 regularly—any time new data are available throughout the school year for both short- and long-term trends.

Key Activities

Review EWS Data

The EWS Tool can yield a great deal of information. Step 3 helps users break down this information into manageable pieces that the EWIMS team can sort, organize, and prioritize for taking action. Arranging the data in manageable ways allows the team to identify students who show symptoms of risk (i.e., flagged) and develop questions to further investigate the underlying causes for students' symptoms of risk (see [Step 4](#)). To review early warning data, team members begin by examining which individual students are (and are not) identified for attendance, behavior, and course performance indicators of risk. It is important to understand that early warning indicators differ from student demographics and designations (e.g., special education, English learners, late enrollment). Student demographics and designations are not predictive of student success or graduation and are not early warning indicators.

Based on this initial data review, the team strategizes ways to prioritize student needs. The EWIMS team can then organize and sort students who are showing similar symptoms of risk into groups based on the early warning indicators for which they are identified (i.e., attendance, behavior, course performance, or any combination).

Anticipated Outputs of Step 3

1. Identification of individual students who show signs of risk for dropping out of high school
2. An understanding of patterns across groups of students and time, which allows the EWIMS team to begin to consider the allocation of student support or dropout-prevention resources to students who are flagged
3. ***In preparation for Step 4:*** Identification of the type of additional information that will be needed to better understand possible underlying reasons that specific students were flagged for specific early warning indicators
4. ***In preparation for Step 4:*** Assignment of responsibilities to gather additional information and data on specific students and student characteristics

Explore Data Patterns

The EWIMS team may want to sort student characteristics to look at group patterns and see whether larger issues need to be addressed. For example, are English learners or students with disabilities displaying more indicators of risk than the general education population? If so, the team will want to engage in a deeper analysis of the groups of students affected to determine the root cause and put in place additional supports for these students.

Identify Additional Information Needed

Although the EWS Tool yields a great deal of information, the EWIMS team will need to collect supplemental data to assign students to interventions and supports (Step 4). While reviewing early warning indicators, the team should document additional data sources needed to make decisions about next steps. Data could include speaking with the student, his/her family, and his/her teachers but also may include student work samples, **progress monitoring** data, observations, and other information (see [Table 3](#) in Step 4). Prior to the next EWIMS meeting, assign specific team members the task of gathering these data sources and sharing them with the team so that everyone has a chance to review and come prepared to discuss.

The District's Role in Step 3

Information from the EWS Tool has immediate implications for staff and students in the school; at the district level, however, there is an opportunity to examine these data for a whole school, across schools (e.g., multiple high schools), or the whole district. For example, in the first grading period, are students who are identified coming from a specific feeder middle school? The information from the EWS Tool can illuminate trends in students' indicators of risk for further exploration. In addition, this information may influence the allocation of resources or the implementation of policies and strategies to focus on issues that are particular to students within the district. The district also can help the EWIMS team review longitudinal data to clarify whether there are trends across grades or among groups of students who are showing symptoms of risk.

Guiding Questions for Step 3

1. What do you notice about your data—which students are showing symptoms of risk and for which early warning indicators?
2. What are the most prevalent early warning indicators among the students who are identified?
3. Do students who are showing symptoms of risk early in the school year continue to be identified later in the year? Are they identified for the same or different reasons?
4. What are the demographic characteristics (e.g., disability, disadvantaged status, English learner status) of students who are identified and not identified?
5. What are key features or data displays that EWIMS team members should understand and be able to navigate within the tool?



STEP 4: Interpret Early Warning Data

During Step 4, the EWIMS team engages in a deeper analysis of students and groups of students who were identified as showing symptoms of risk (Step 3) to identify root causes and inform decisions about appropriate supports and interventions ([Step 5](#)). The EWIMS team builds on the review of the early warning data conducted in Step 3 by examining more closely the characteristics of students who have been identified. As a part of this process, teams examine additional data that may not be included in the EWS Tool, such as student work samples; behavioral observations; and conversations with the student, his/her family, or individuals who interact regularly with the student (see [Gather Supplemental Data](#) section for additional information) These conversations can shed light on the reasons that a student or groups of students are displaying indicators of risk. By gathering data from a variety of sources, the team will be better able to determine appropriate supports and interventions (Step 5).

The key activities for Step 4 are as follows:

- Identify and gather supplemental data for students displaying symptoms of risk.
- Interpret data to *hypothesize* about the root causes for the student or group of students identified.

Anticipated Outputs for Step 4

1. A better understanding of reasons that individual students and groups of students are being identified
2. Identification of individual and common needs among groups of students

Regularly revisit Step 4 whenever new students are displaying indicators of risk or when previously identified students are not responding to the intervention(s) put in place by the EWIMS team.

Key Activities

Gather Supplemental Data

The EWS Tool will identify students who display indicators of risk, but that information by itself will not be enough to assign students to interventions. To properly determine the underlying reasons why a student or a group of students is identified, the EWIMS team will need to collect additional supplemental data. The types of data will vary but may include the following:

- Annual assessment data
- Benchmark data
- Conversations with the student and student's family

- Diagnostic data
- English learner status and individualized education program (IEP) status
- Middle school academic data (e.g., course failures)
- Prior course performance
- Social-emotional learning or school climate data
- Student observations
- Student work samples
- Teacher/additional staff conversations

Additional information on these data sources, including what information can be learned, is in Table 3.

Table 3. Supplemental Data Types

Data type	What data will tell you
Annual state assessment data	Although annual state assessment data will not be available for students in all grades, including these data (where applicable) can provide the EWIMS team with a student’s scores and achievement levels in each tested subject and how that student performed compared with students across the state. These data can identify areas where a student is succeeding and areas where a student needs additional support. It also is helpful to compare the student’s results to the previous administration, if those data are available.
Benchmark or formative data	If your school administers a regular formative or benchmark assessment, and these results are not integrated into the EWS Tool, examining a student’s results can provide the EWIMS team with information on how the student is performing compared with his/her peers, standards that the student has mastered, and standards that need to be retaught.
Conversations with the student	Having conversations with the student provides the EWIMS team with important qualitative data about what the student is thinking/feeling during instruction, if any external factors are impacting the student at school, and more.
Conversations with the student’s family	Having conversations with the student’s family will provide the EWIMS team with important qualitative data about any external supports the student may already be receiving, external factors that may be impacting the student at school, if the student is displaying similar behaviors at home, and more.

Data type	What data will tell you
Diagnostic data	Diagnostic data can help the EWIMS team better understand a student’s specific skill needs and strengths or environmental events that predict a student’s problem behavior. Diagnostic data can be collected through formal (e.g., standardized tools through publishers) and informal (e.g., error analysis of progress monitoring data, review of student work samples) approaches. For students with behavioral incidents, diagnostic assessment occurs through functional behavioral assessment and more informal measures such as checklists to identify the function of the behavior.
English learner status and IEP	The EWIMS team should know if a student has an IEP or is an English learner. For students with IEPs, the team should be familiar with each student’s plan and examine each student’s measurable goals. For English learner students, the team should examine results from the most recent ACCESS test to understand the student’s proficiency levels in the domains of listening, speaking, reading, and writing.
Middle school academic data	A student’s middle school academic performance, such as course failures, state assessment results, and previous intervention plans, can provide the EWIMS team with valuable information about the student’s strengths and foundational gaps that may need to be addressed.
Prior course performance	A student’s prior course performance can provide the EWIMS team with valuable information on the sequence of courses that the student has taken and how the student did academically in prior courses. Because many courses build on one another in content, knowing the sequence of courses can be particularly important to determine any foundational or skill gaps.
Social-emotional learning or school climate data	If your school collects social-emotional learning or school climate survey data that can be deidentified, these data can provide you with valuable information about a student’s experiences with school staff and peers, level of classroom engagement, feelings of social connection, growth mindset, perceptions of school safety, and more. The information that is available will vary by survey measure.
Student observations	Observing a student working in the classroom can provide the EWIMS team with valuable information about the student’s progress, understanding, attitude, level of engagement, cooperation, strengths, and challenges.
Student work samples	A formative analysis of student work (e.g., end-of-unit assessments, exit tickets) will provide the EWIMS team with information about the student’s understanding of concepts and skills.
Teacher/additional staff conversations	Interviewing the student’s teachers will provide the EWIMS team with information about the student’s strengths/challenges, previous interventions, supports, or scaffolds that the teacher put in place, individual student plans, behavior, and the level of engagement across subjects. You can compare results across teachers to see if trends emerge. Also, teachers from cultural and linguistic backgrounds similar to that of the student should be included in EWIMS team conversations.

Interpret Data to Hypothesize the Root Cause

After gathering and triangulating supplemental data, the team should discuss individuals or groups of students to generate a hypothesis about root causes for the student or students identified. Based on these investigations, the team should be able to identify some common and individual needs among students, prepare to identify and implement appropriate intervention strategies ([Step 5](#)), and monitor students' responses to these interventions ([Step 6](#)). The meeting to hypothesize underlying causes and student needs will take more time than a typical EWIMS meeting. It is critical to designate an appropriate amount of time to discuss findings and determine potential causes for a student or a group of students displaying symptoms of risk. During this time, the EWIMS team should follow a meeting structure to minimize off-topic conversations or discussions that do not address potential solutions.

Root-Cause Analysis and EWIMS

Although early warning indicators alert you to a symptom of a problem, a root cause is your best hypothesis about the underlying cause (or causes) that must be addressed to solve the problem or prevent the issue from re-occurring. Conducting root-cause analysis in EWIMS provides the process and tools to bridge from exploring patterns in student-, group-, and school-level data (in Step 3) to matching students to specific supports and interventions (in Step 5) so that the selected intervention matches the student's need. Root-cause analysis helps us understand "why" a student (or students) are displaying indicators of being at-risk and to determine which of those potential causes is the most to address the indicator. Understanding that a student (or a group of students) has been identified by an early warning indicator is not enough to ensure the assigned intervention will meet their need. Conducting a root-cause analysis helps you understand why that early warning indicator was not met so that the underlying cause can be addressed.

For example, the EWIMS team at a high school identified a pattern of increased course failures for freshman biology across all teachers compared with prior years. To better understand what was happening, team members spoke with the biology teachers. They learned that there were no significant changes to the scope and sequence, curriculum, or grading of student assignments that could account for the course failures. After collecting additional supplemental data, the team realized that the recent change in the high school science sequence meant that some prerequisite biology standards were not taught prior to students entering biology. If the EWIMS team did not conduct this root-cause analysis, they likely would have assigned students to biology tutoring or another Tier 2 academic support, but that additional support would have become an annual requirement for students in biology. The result of the root-cause analysis meant that the biology teachers added foundational content that students needed to be

successful. The EWIMS team revisited this a year later and noted that the number of students failing biology was significantly lower than the prior year. With schools often challenged by limited resources, including staffing capacity, determining how to efficiently address root causes is an important function of the EWIMS team.

The District’s Role in Step 4

Interpreting the early warning indicators requires access to student information beyond the data housed in the EWS Tool. School leaders and district administrators can support these efforts by developing policies that give EWIMS team members access to information so that they are able to make informed decisions about student needs. This access may require the availability of students’ records prior to the current grade, including middle grade school attendance, behavioral information, and other data that can help EWIMS teams better understand their students who are flagged.

Guiding Questions for Step 4

1. Are there data patterns among the groups of students who are identified for any specific indicator(s) of risk? For example, among groups of students, are certain classes missed or are grades lower in certain subjects? For individual students, is there a day or time of day when the student is absent?
2. How might the conditions or policies at the school affect students who are showing symptoms of risk? Are there attendance, grading, or behavior policies that disproportionately identify certain students?
3. Looking across multiple grades, are students failing certain courses, flagged at specific grade levels, or both? What changes could improve outcomes for students in these course(s) or grade(s)?
4. What are the strengths of each student or a group of students? Are students engaged in school (cross-check with other information, such as teacher and counselor reports)?
5. Can more information be gathered from students about the reasons they are exhibiting symptoms of risk (e.g., students do not find classes engaging, students have responsibilities at home causing them to be absent)?
6. Based on your analyses, is there anyone who is not currently on the EWIMS team who needs to be included (e.g., previous teachers, parents, guidance counselors, curricular and instructional personnel)?
7. What are the most prominent needs at the school and district levels that emerge from the data analysis? How will you prioritize these needs?



STEP 5: Assign and Provide Interventions

During Step 5, the EWIMS team assigns and provides interventions and research-based strategies to students who are showing symptoms of risk. Interventions are evidence-based programs that target the specific skills or content gaps of students. Interventions can target academics, behavior, social-emotional skills, or attendance challenges. Many schools also use evidence-based strategies to create their own interventions, such as schema-based instruction to support students experiencing difficulty with word problems. Strategies are not packaged into formal programs like interventions but should still use practices supported by research. Whether your school uses an intervention or a strategy, knowing the evidence base (and if the research was conducted with a similar student population to yours) can be important in terms of the results achieved. To research the evidence base of interventions currently used at your school, see [Appendix C](#).

In Step 5, the EWIMS team builds on the data collected in Step 4 and uses that data to systematically provide support to identified students using a tiered approach. As part of this process, the EWIMS team considers the underlying root causes for students showing symptoms of risk and assigns students to appropriate—and available—academic and/or behavioral interventions. The EWIMS team also considers whether current interventions and supports meet the needs of students displaying indicators of risk.

The key activities for Step 5 are as follows:

- Complete or update the intervention catalogue (see [Tool 2: Student Support and Intervention Catalogue Mapping](#) (Appendix B)).
- Assign students to specific supports and interventions based on need.
- Develop and communicate the intervention plan to all relevant stakeholders.

Anticipated Outputs for Step 5

1. A complete intervention catalogue that allows the EWIMS team to know what interventions are available, assign appropriate interventions to students, and identify gaps in available interventions
2. Assign designated students who are showing symptoms of risk to supports and interventions based on student needs identified in Steps 3 and 4 (documented for each individual student in the EWS Tool)

Step 5 is revisited during each EWIMS team meeting. During this time, the team will examine both new students displaying early warning indicators of risk as well as students previously assigned to interventions who are not responding to the support put in place by the EWIMS team (Step 6).

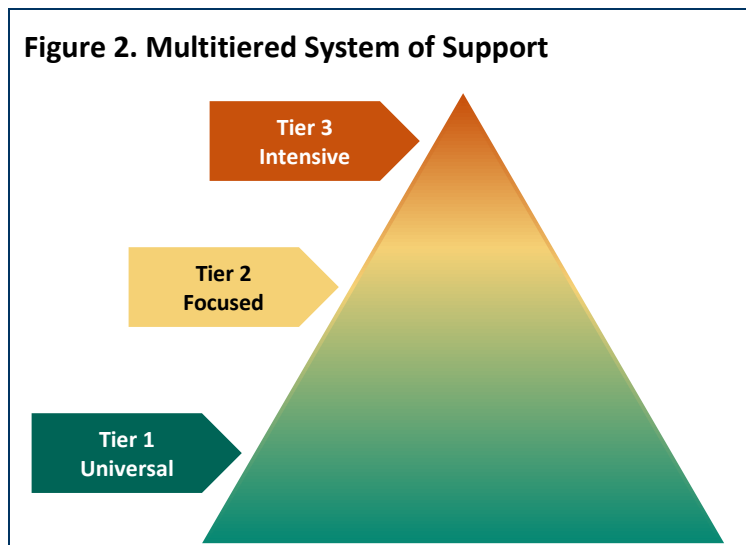
Key Activities

Complete and Maintain Intervention Catalogue

If your school has not yet catalogued all the interventions available, please see more information about this in the [Getting Started With EWIMS](#) section. In addition, [Tool 2: Student Support and Intervention Mapping \(Appendix B\)](#) guides the development of a catalogue of interventions. If you have a catalogue, review it now to ensure that it is current; interventions may change during the school year. Now that the team has a better understanding of student needs from Steps 3 and 4, consider if gaps exist in the available supports and interventions for groups of students or individual students. If there are students whose needs are not currently being addressed, the EWIMS team will want to collaborate with the district to explore additional options. After updating the catalogue, enter all interventions into the EWS Tool. This will allow users to search for interventions using any of the defined criteria and assign appropriate interventions to students.

Assign and Provide Interventions

Schools and districts increasingly organize specific strategies or supports into tiers based on the intensity of the interventions. Generally, these models have a three-tiered intervention system. As displayed in Figure 2, EWIMS uses a similar approach: Tier 1 interventions are applied to all students in a grade level or subject area (universal), Tier 2 interventions are moderately intensive and are targeted to small groups of students with common needs (focused), and Tier 3 interventions are the most intensive and are applied to a small subset of individual students with the highest level of need (intensive). It is important to note that although interventions or supports are tiered by the level of intensiveness, the tiers do not describe students in similar terms (i.e., there are no Tier 3 students, only students who need a Tier 3 support to address a specific skill deficit). Further, students who require more intensive supports do not necessarily need them in all subjects or skill areas; universal supports may address most of their need, with Tier 2 or 3 supports needed for a specific skill or skills.



The EWS Tool may have the capacity for the EWIMS team to monitor and adjust students' assignments to supports and interventions in the intervention catalogue, as well as monitor their movements through tiers ([Step 6](#)). In general, the EWS Tool assumes that in schools using a tiered approach, all students have access to Tier 1 interventions. In cases where the EWIMS team identifies more than 80% of students for a specific indicator of risk within a common grade, subject area, or subgroup, the team might want to consider adding additional interventions within Tier 1 to help all students.² Otherwise, students who are identified are then eligible for Tier 2 or Tier 3 interventions, or both, based on the EWIMS team assessment. Because the EWIMS process helps identify students early, student needs may be met by other, less intensive types of supports.

Within the EWS Tool, the EWIMS team will be able to assign students to one or more interventions based on their individual needs. After assigning a student to an intervention, the EWIMS team should discuss what success will look like. Creating a measurable goal for student growth will help the team know if the student is making adequate progress. A good goal should include the following components: the target skill, the measure for collecting the data, and the time frame for achieving the goal. Establishing the student's goal at the time of intervention assignment will help with monitoring the student's progress and informing adjustments as needed in Step 6.

Although the process relies heavily on data collected during Steps 3 and 4 to inform action, ultimately, the team members are charged with using their professional judgment to recommend specific student supports and interventions. To ensure that each placement is appropriate and effective, the team continually monitors individual student response to assigned interventions ([Step 6](#)) and, when needed, revises student placement after revisiting Steps 3 and 4.

Develop and Communicate the Intervention Plan

If your school has not yet created a communication plan, please see the [Step 1 communications section](#). Because the EWIMS team consists of a small number of staff compared with the entire school, it is important that there are clear communication methods for keeping staff informed of the team's decisions, especially staff who work directly with the students.

² For example, if 80% or more of students are failing the same mathematics course, the team will need to engage in a root-cause analysis process ([Step 4](#)) to identify the underlying cause. Although there could be many causes, one worthy of consideration is the prerequisite coursework needed to be successful. Are students expected to have mastered certain standards, which they may not have had access to previously? If so, a broader change to the progression of courses across the school may be needed.

In Step 6, communication is particularly important for the following reasons:

- **To ensure space or availability of support for the students in the intervention selected by the EWIMS team.** Before assigning a student to an intervention, the intervention provider (who may be the interventionist, a special education or English as a second language teacher, a guidance counselor) must confirm that there is space to add another student. Some intervention programs have limits on the number of students who can participate at one time. If the intervention does not currently have availability, the EWIMS team will need to reexamine the intervention catalogue to see what other supports may be available. If multiple students require the same intervention that does not have availability, the EWIMS team may need to coordinate with school leadership and the district to see if other available resources can address this need. Inviting the intervention provider to the EWIMS meeting will make this process more efficient.
- **To ensure that the student’s teachers are aware that the student is participating in the intervention (if appropriate).** Once the EWIMS team has confirmed the availability of and assigned an intervention, the student’s teachers must be informed of the assigned interventions. Depending on the intervention, teachers may need to make changes to their own instruction to meet the student’s needs or reinforce strategies. For example, students may require more frequent check-ins, more practice opportunities to master the content, more explicit connections between the intervention and general education content, or added behavioral strategies to help them address self-regulation and motivation. However, there may be instances when sharing a student’s intervention with all staff is not appropriate, such as in the case of counseling. Having a clearly established communication plan will help the EWIMS team make these determinations and ensure that all relevant staff receive updates.
- **To ensure that the EWIMS team receives feedback from relevant staff with connections to the student.** Communication between the EWIMS team and other school staff is not just top-down; the EWIMS team needs to gather feedback from students’ teachers and interventionists on an ongoing basis. Once an intervention has been assigned and is being implemented, the EWIMS team should check in with staff to understand how the student is progressing and determine if a modification or a new intervention is needed (Step 6).

The District’s Role in Step 5

The perspective of the district allows longer term solutions and strategies beyond the school level. To support EWIMS teams in identifying appropriate interventions, the district can do the following:

- Identify common needs of students across multiple schools.
- Create coherence across elementary, middle, and high schools for tiered intervention supports.
- Provide solutions for gaps in available interventions and supports.
- Allocate resources to identified needs of individual schools.
- Support interventions to improve student readiness for high school (e.g., elementary and middle school interventions, summer bridge programs).

Districts also play a role in facilitating the use of promising support and intervention programs. Through work with and as a part of EWIMS teams, district personnel can play key roles in identifying promising student supports and interventions, as well as in sharing effective support and intervention practices among schools.

Guiding Questions for Step 5

1. What interventions are currently implemented in the school and district? How successful do they seem to be at keeping students in school or getting them on track? What type of ongoing assistance is available to implement supports and interventions with fidelity?
2. What structures (e.g., flexible scheduling) currently exist to support students participating in interventions?
3. What trends in the data identify the immediate need for specific types of interventions (e.g., attendance monitors, professional development for teachers on evidence-based instructional strategies, opportunities for extended learning beyond the school day)? Would any groups of students benefit from participating in a similar intervention?
4. What level of support (Tier 1, 2, or 3) is needed? How do interventions and supports provide a continuum of increasing intensity based on student needs? What additional approaches can be used to coordinate services and prioritize the allocation of resources?
5. Do the characteristics (e.g., disability, economically disadvantaged status, English learner status) of the students identified inform intervention decisions? Are there other ways to inform intervention decisions?
6. How are decisions about interventions and students assigned to interventions communicated to other school staff?



STEP 6: Monitor Students and Interventions

During Step 6, the EWIMS team will monitor the progress of students who are identified to see if the assigned intervention is helping them get back on track. For example, do students have improved attendance, are students showing fewer inappropriate behaviors, or are students passing more classes after participating in the intervention? In this step, the EWIMS team reviews data to monitor student progress and intervention implementation to evaluate the impact of interventions.

The key activities for Step 6 are as follows:

- Determine the fidelity of intervention delivery.
- Create a progress monitoring plan.
- Check on the intervention plan with appropriate stakeholders, including students' parents/guardians.
- Monitor if students are making progress and getting back on track.
- Determine an intervention's effectiveness and whether any change is needed.

Anticipated Outputs for Step 6

1. Knowledge of how to examine intervention fidelity to ensure the program is implemented as intended
2. Creation of progress monitoring plans for students
3. Communication with appropriate stakeholders about student needs, the impact of existing interventions, and the need for additional interventions, if applicable
4. Knowledge of how to measure individual student progress and make decisions about continuing, reassigning, or terminating interventions for students who are identified
5. Knowledge about the general effectiveness of interventions, based on progress monitoring data

Step 6 is a regular part of the EWIMS team's routine and should appear as a regular item on the agenda. During this time, the team revisits students who have been identified to ensure that interventions are implemented with fidelity and are working for students (e.g., students are showing signs of meeting their goals). If it is determined that a student is not responding to the intervention, the EWIMS team revisits Steps 4 and 5 to determine changes to improve support for students.

Key Activities

Determine Intervention Fidelity

To know whether an intervention is having the desired impact, the EWIMS team must first determine how the intervention should be delivered and if it is possible to deliver the intervention with fidelity given the school's current resources (e.g., scheduling, staffing). In

other words, the EWIMS team must determine the level of implementation fidelity. Formal intervention programs already have elements of fidelity defined, and some programs may have fidelity tools to help educators ensure that they are implementing with fidelity and quality. As teams think about fidelity, it is important to consider multiple components that may impact intervention delivery, including duration, adherence, quality of delivery, program specificity, and student engagement (Dane & Schneider, 1998; Gresham, Gansle, Noelle, Cohen, & Rosenblum, 1993; National Center on Intensive Intervention, 2019; O'Donnell, 2008).

Elements of Fidelity

1. **Duration:** Is the student receiving the intervention for the correct length of time according to research? How often does the student receive the intervention? Did any factors prevent the student from receiving the intervention as intended?
2. **Adherence:** Is the interventionist implementing all components of the intervention, in the way intended based on research?
3. **Quality of Delivery:** How well is the intervention being delivered? Are good teaching practices used (e.g., is the teacher engaged and animated in delivery)?
4. **Program Specificity:** Is the intervention well defined? Does the intervention differ from other interventions we have in place at the school?
5. **Student Engagement:** Is the student engaged and involved in the intervention?

The EWIMS team must first determine if an intervention is being implemented as designed before deciding whether the intervention is working for students. For example, a student was assigned to an intervention for 30 minutes three times per week; however, a series of snowstorms resulted in multiple school closures, so the student received the intervention only once per week for approximately 1 month. Because weather is beyond the school's control, the EWIMS team should take this contextual information into account when determining next steps for this student. As another example, some students were assigned to a small-group intervention. One student was demonstrating inappropriate behavior, often joking with other students, engaging in off-task discussions, and disrupting the class. When this happened, the interventionist had to stop teaching to redirect the student, which took anywhere from a few minutes to nearly half the period. In this instance, all students were impacted because they were not receiving the full intervention. If this situation becomes a pattern across time, it could negatively impact all students in the small group. In both examples, the cause of students' nonresponse to the intervention could be that the intervention is not a match for their needs or an intervention not implemented consistently. Examining fidelity will allow the EWIMS team to make informed, data-based decisions about next steps for individual students and overall interventions.

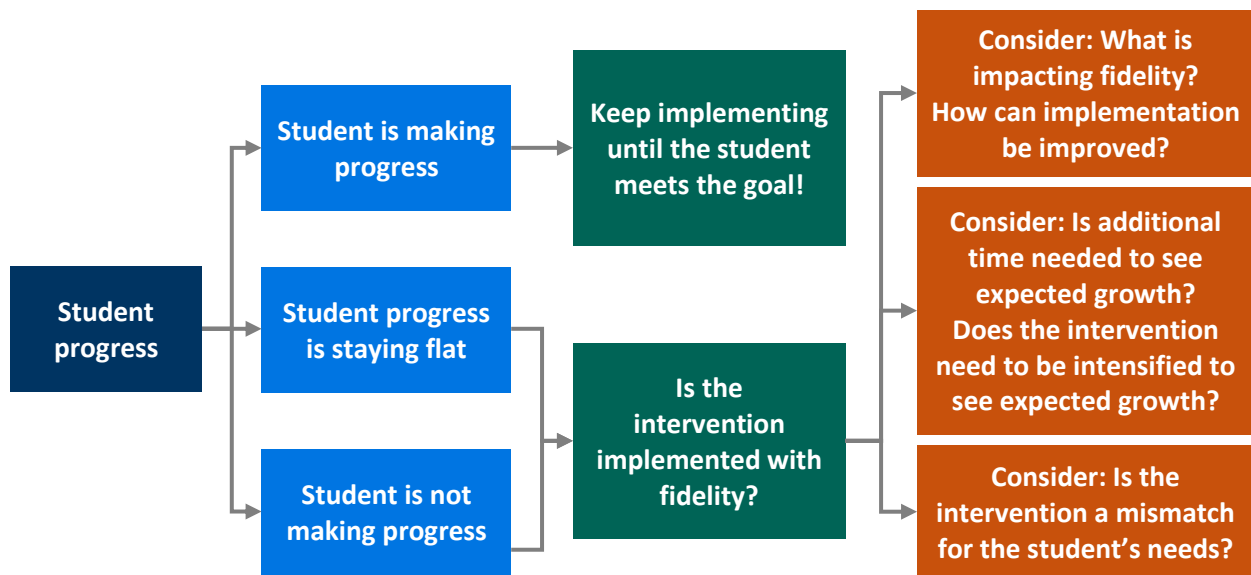
Create a Progress Monitoring Plan

As mentioned in Step 5, once a student is assigned to an intervention, the EWIMS team should create a progress monitoring plan to evaluate the student’s progress within the intervention. First, the team should write a clear, measurable student goal that is the basis for assessing progress. The goal should clearly state the skill targeted by the intervention, determine the measure for collecting data, and the time frame for achieving the goal. Some intervention programs include a progress monitoring instrument for this purpose, so examine the materials included in the intervention kit. Once the tool is determined, the team should decide how frequently the tool will be administered. Most standard progress monitoring tools have guidelines on the frequency of tool administration. Students should be involved in the process of self-monitoring their progress toward meeting their goal, an important metacognitive skill. Lastly, the team should decide when to reconvene to examine the student’s progress. Growth takes time, so don’t rush this process!

Monitor Student Progress

When monitoring student progress, the EWIMS team is examining students who were previously identified and assigned to an intervention to determine if they are back on track in terms of attendance, behavior, or course performance. This analysis is important because schools have finite resources, and they want to make sure that they are using these resources as efficiently as possible. The EWIMS team will evaluate student progress using the progress monitoring plan that was created. Figure 3 walks you through a decision tree that outlines considerations for the EWIMS team based on a student’s progress within an intervention.

Figure 3. Progress Monitoring Decision-Making Tree



If a student is making progress within the intervention, then continue the intervention until the student meets the goal determined at the start of the intervention. Once the student meets the established goal, remove the student from the intervention to accommodate another student. The EWIMS team should continue to monitor this student closely in case he/she again begins to show indicators of risk so that the team can intervene quickly. If the student is not making progress, the team should determine if the intervention is being implemented with fidelity. The team also should consider how the student can have an active role in monitoring his/her progress and what supports the student will need to take on that ownership.

As described earlier, if the intervention is not implemented with fidelity, it will be difficult to determine next steps. The team should examine the five elements of fidelity, speak with the interventionist, and examine any notes included in the student's intervention plan (this may be within the EWS Tool, if the tool you are using has this functionality). The team should reflect on the following questions:

- Which elements of fidelity are currently missing?
- Why are these elements currently missing? Is there a pattern where these elements are consistently absent?
- What supports are needed to help implement the intervention with fidelity? (For example, is more time needed? Is more training or coaching needed to support the interventionist in improving implementation?)

If the intervention is implemented with fidelity, the team can reflect on other questions to address implementation before making changes to the intervention plan. These questions include the following:

- Has the intervention been implemented for sufficient time to see an intended impact? It is possible that not been enough time has elapsed for a student to show progress within the intervention.
- Do some elements of the intervention need to be intensified for the student? For example, does the student need more time within the intervention or more opportunities for practice and to receive feedback?
- Return to the [root-cause analysis completed in Step 4](#). Does the assigned intervention address the root cause of the student's struggles? Could there be a different root cause that should be considered?
- Is the intervention the right match to address the student's needs? If the EWIMS team is considering a different root cause, the intervention may require change.

Based on the answers to these questions, the EWIMS team may decide to give the student more time within the intervention, work with the interventionist to make changes to implementation, or change the intervention that the student is receiving. Both the student and the student's family should be involved in planning and revisions, which can provide them with an opportunity to better understand and invest in the intervention process. Regardless of the decision made, the team will need to communicate these changes to the interventionist and other stakeholders, as appropriate. The team also will need to continue monitoring the student's progress to determine if the changes are having the desired impact. If the student begins to make progress, continue implementing these changes. If the student is not making progress, return to the decision-making tree (Figure 3) and go through the process again. Sometimes you must go through the process multiple times to find the right solution.

Communicate Intervention Status

As part of the monitoring process, the EWIMS team, or assigned members of the team, regularly check in with intervention providers. These conversations help the EWIMS team determine the level of fidelity. Although some elements of fidelity are more easily documented (e.g., duration), other elements (e.g., student engagement) are better addressed through conversations with the intervention provider and student, observations of the intervention, or self-reflection by the interventionist. See the [Student Intervention Implementation Log \(Appendix C\)](#) for a quick self-reflection log that the interventionist can complete on a weekly basis to gather information about these elements of fidelity.

In addition, the EWIMS team or a designated individual must communicate with the parents or guardians about the student's progress in the intervention. This communication is particularly important if the intervention does not seem to be having the desired impact or if changes to the intervention are made.

Determine Overall Intervention Effectiveness and Adjust

Across time, the EWIMS team will examine the effectiveness of the available interventions at the school for meeting student needs. All interventions should be based on research, but there may be several reasons why your data indicate that an intervention is not effective for your students. For example, the intervention may have been studied using a different student population than the population of your school.³ By examining the effectiveness of each intervention more broadly, the EWIMS team will improve its understanding of which

³ For help with determining the evidence base on specific interventions, see the National Center on Intensive Intervention's Academics and Behavioral Interventions Tools Chart at <https://intensiveintervention.org/about-charts-resources> or the WWC at <https://ies.ed.gov/ncee/wwc/>.

interventions address specific student needs, which can then be used to strengthen the process of matching students to interventions.

The team also may consider whether changes need to be made to the school's available interventions ([Step 7](#)). For example, are existing student needs not addressed by the interventions currently available? If so, what is the area of need: is it academic, behavioral, social-emotional/whole child, or attendance related? Then, the team should conduct a search and develop a list of potential interventions and strategies that may address the need, pairing the list with information on the population of students originally studied and the associated costs (e.g., resources, funding, staff time) of implementing the intervention or strategy. For resources on research-based interventions, see [Tool 3: Identifying New Interventions \(Appendix B\)](#). After the team shares the need and potential solutions with leadership and staff, appropriate intervention(s) can be purchased and implemented. New interventions should be added to [Tool 2: Student Support and Intervention Mapping \(Appendix B\)](#) so that the team can more readily assign students to new interventions.

The District's Role in Step 6

Although monitoring of individual students occurs at the school level, the district plays a unique key role in using monitoring data to determine resources more broadly. For example, the district can allocate resources to help school teams examine intervention fidelity and student progress. The district also can examine data across all schools to determine if a specific intervention works well for certain student populations. If so, the district may consider leveraging resources to expand student access to the intervention (e.g., have more staff trained in implementing the intervention). In cases where an intervention or support does not seem to be working, the district can help the EWIMS team determine whether it is a fidelity-of-implementation issue or whether, even with high fidelity of implementation, students are not benefiting sufficiently from the intervention and therefore a different intervention is needed. Further, districts can allocate resources based on student and school needs.

Guiding Questions for Step 6

1. How will you determine if the intervention was delivered as intended?
2. Are there problems with how the intervention is being implemented?
3. How will you determine if students are making sufficient progress?
 - a. What is the plan for monitoring student progress in the intervention?
 - b. What data will you collect?
 - c. Who will collect data?
4. Are students who are participating in interventions showing improvement? Are there patterns among the students showing improvement versus students who are not improving?
5. Are students who are participating in interventions continuing to display indicators of risk? If the students are indicating risk, then consider the following:
 - a. Are additional data needed to identify a better fit between the intervention and student needs? As interventions are implemented, do new student needs arise?
 - b. Are resources sufficient to implement supports and interventions? If not, how might you identify additional resources for the short term?
 - c. How do interventions need to be modified or replaced?



STEP 7: Evaluate and Refine the EWIMS Process

During Step 7, the EWIMS team reflects on the EWIMS implementation process during the school year. The team discusses what worked well, what needs to be modified, and what needs to be replaced or eliminated. Each decision is supported by data and evidence and documented for improved implementation the following year. At the end of the school year, the current EWIMS team, in collaboration with school and district leadership, should identify new members for the team moving forward. Identifying new team members early will allow for them to receive training on using the EWS Tool and the implementation process during the summer.

The key activities for Step 7 are as follows:

- Review implementation of the EWIMS process holistically.
- Establish recommendations for improving the EWIMS process moving forward.
- Establish the EWIMS team for next year, including roles, responsibilities, and integration with other teams.

Anticipated Outputs for Step 7

1. A shared understanding of the EWIMS process implementation strengths and challenges
2. Clear recommendations for improving the EWIMS process
3. An established EWIMS team for the following school year, consisting of diverse team members with a clear understanding of the process and their roles

At a minimum, complete Step 7 annually, but it can be revisited throughout the school year to inform a cycle of continuous improvement.

Key Activities

Review EWIMS Process Implementation

At least annually, the EWIMS team meets to discuss implementation of the EWIMS process. During this time, discuss each step of the EWIMS implementation. For each step, the conversation includes three questions:

- What went well?
- What areas need to be improved or modified?
- What should be replaced or eliminated?

For example, in reviewing Step 1, the team reviews the composition of the team and discusses if any changes should be made for next year (e.g., Were important voices or perspectives missing from the EWIMS team this year?). The team also might discuss how communication

between the EWIMS team and other stakeholders went this year, including systems and structures that worked well and how to further strengthen communication moving forward. To inform this conversation, the EWIMS team may want to gather input from other stakeholders about their perspectives on the EWIMS process. For example, the team may want to administer a survey to the entire staff, the students, and the parents/guardians of students who were involved in the EWIMS process.

Establish Recommendations for Moving Forward

Once the team has discussed what went well and areas of improvement, the team should come to a consensus on recommendations for moving forward. It is important that this conversation is well documented. Once everyone returns to school in the fall, the team should revisit the recommendations agreed on during the summer to ensure that they remain appropriate. Team decisions will vary by implementation step and depend on school needs but may include modifying the team meeting process for greater efficiency, changing the composition of the team to ensure that different roles and cultural and linguistic backgrounds are represented, expanding the availability of effective interventions by training more staff, adding an intervention to address student needs, eliminating an ineffective intervention, and many more.

Plan the EWIMS Team for Next Year

Where possible, it is best for EWIMS team members to continue in their role for the following year. However, during the review process, the team may discuss some necessary changes to the team's composition. This discussion will be especially relevant if any staff turnover occurs within the team. When reviewing team composition, make sure that the team for next year will consist of members who have (a) the authority to make decisions, (b) expertise in analyzing student data, and (c) knowledge of diverse students plus available interventions and resources at the school.

If new staff join the EWIMS team, make sure that they receive training during the summer on equitable practices, navigating and using the EWS Tool and the EWIMS implementation process. This way, all team members will be ready to review incoming student data when the team first convenes in the fall.

The District's Role in Step 7

District administrators may be better able to effectively resolve certain issues or challenges compared with staff at the school level. For example, a district may decide to take responsibility for ensuring that the school-level EWS Tool is populated with student data in a timely manner. A district team member also may assist in planning professional development opportunities to

increase the effectiveness of implementation efforts of staff and teachers who need more training on the EWIMS process districtwide, allowing for greater efficiency.

Guiding Questions for Step 7

The guiding questions for Step 7 encourage EWIMS teams to reflect on the six previous steps.

STEP 1—Establish Roles and Responsibilities

1. Who will continue to be on the EWIMS team? (Note: Some individuals should overlap from year to year to ensure continuity across time.) Who will leave? Provide the rationale for your responses.
2. Which other stakeholder groups need to be on the EWIMS team? Provide the rationale for your response.
3. What were the biggest challenges the team faced? What were the biggest successes?
4. What advice do you have for future EWIMS teams when considering the successes and challenges that EWIMS team members experienced and addressed?
5. What made the team’s job easier (and what made it harder than necessary)? What changes could make the team’s job even easier?

STEP 2—Use an Early Warning Data Tool

1. How would you improve use of the tool?

STEP 3—Review Early Warning Data

1. How would you improve the tool’s reports and their use?

STEP 4—Interpret Early Warning Data

1. What additional data were important for identifying underlying causes for students displaying symptoms of risk?
2. What advice would you give to someone who is new to analyzing the data?
3. Were there any unintended (negative or positive) consequences for students or staff because of the type of information that came from the EWS Tool? Note the consequences and provide the contextual backdrop for them.
4. Did you learn any new strategies that supported the interpretation of the early warning data?

STEP 5—Assign and Provide Interventions

1. What existing strategies ensured that students got back on track or were headed in that direction?
2. Did your analysis of the early warning data and your interpretation techniques allow you to match students to appropriate interventions? Why?

STEP 6—Monitor Students and Interventions

1. How did existing supports and interventions for students who were displaying symptoms of risk help students get back on track or headed in that direction? Were any strategies better suited for groups of students (based on their needs)?
2. Which strategies are still needed to support students as they get back on track for graduation?

Conclusion

The seven-step EWIMS implementation process provides an organizing framework for schools and districts to use in implementing an EWS. These steps guide users in examining early warning indicators for students who are at risk of not being promoted to the next grade or not graduating from high school, matching them to appropriate supports and interventions, and monitoring their progress. Each step specifies the roles for personnel at both the school and district levels to create and maintain organized and coordinated approaches to getting students back on track for graduation. Guiding questions for each step allow users to focus on a range of short- and long-term needs, help users examine the needs of specific students, and help EWIMS teams identify and then improve underlying systemic school and district issues to keep students on track for promotion to the next grade and graduation. Using the framework serves individuals in schools and districts by guiding the development of a comprehensive and systematic process that increases the numbers of students engaged and progressing in high school; supporting efforts to identify the most promising interventions specific to schools and districts; and, ultimately, raising graduation rates in schools and districts.

For additional information about EWS and dropout prevention, please see the following resources:

- [*Developing Early Warning Systems to Identify Potential High School Dropouts*](#): This issue brief discusses mutable factors to identify students displaying symptoms of risk for eventually dropping out of high school before graduating. It includes step-by-step instructions for building an EWS.
- [*Approaches to Dropout Prevention: Heeding Early Warning Signs With Appropriate Interventions*](#): This report outlines steps that schools can take to identify students displaying symptoms of risk being off track and provide the necessary support systems and relevant interventions to assist students in obtaining high school diplomas. Further, the report discusses the use of early warning data systems to assign interventions for groups and individual students, offers a variety of best-practice approaches undertaken by high-performing high schools, and presents effective programs that are currently implemented to address the dropout problem.

- [Getting Students on Track for Graduation: Impacts of the Early Warning Intervention and Monitoring System After One Year](#): This research study report provides an evidence base for EWIMS. From the [official description](#): “This report provides rigorous, initial evidence that even with limited implementation during the first year of adoption, use of a comprehensive EWS such as EWIMS can reduce the percentage of students who are chronically absent or who fail one or more courses. These short-term results are promising because chronic absence and course failures in grades 9 and 10 are two key indicators that students are off track for graduation.”



References

- Allensworth, E. M., & Easton, J. Q. (2005). *The on-track indicator as a predictor of high school graduation*. Chicago, IL: University of Chicago, Consortium on Chicago School Research. Retrieved from <https://consortium.uchicago.edu/sites/default/files/2018-10/p78.pdf>
- Allensworth, E. M., & Easton, J. Q. (2007). *What matters for staying on-track and graduating in Chicago public high schools: A close look at course grades, failures, and attendance in the freshman year*. Chicago, IL: University of Chicago, Consortium on Chicago School Research. Retrieved from <https://consortium.uchicago.edu/publications/what-matters-staying-track-and-graduating-chicago-public-schools>
- Allensworth, E., Gwynne, J. A., de la Torre, M., & Moore, P. T. (2014). *Looking forward to high school and college: Middle grade indicators of readiness in Chicago public schools*. Chicago, IL: University of Chicago, Consortium on Chicago School Research. Retrieved from <https://consortium.uchicago.edu/publications/looking-forward-high-school-and-college-middle-grade-indicators-readiness-chicago>
- Balfanz, R. (2009). *Putting middle grades students on the graduation path: A policy and practice brief*. Baltimore, MD: Johns Hopkins University, Everyone Graduates Center. Retrieved from https://www.amle.org/portals/0/pdf/articles/policy_brief_balfanz.pdf
- Bernhardt, V. L. (2004). *Data analysis for continuous school improvement* (2nd ed.). Larchmont, NY: Eye on Education.
- Dane, A. V., & Schneider, B. H. (1998). Program integrity in primary and early secondary prevention: Are implementation effects out of control? *Clinical Psychology Review*, 18, 23–45.
- Dynarski, M., Clarke, L., Cobb, B., Finn, J., Rumberger, R., & Smink, J. (2008). *Dropout prevention* (NCEE 2008-4025). Washington, DC: U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance. Retrieved from https://ies.ed.gov/ncee/wwc/Docs/PracticeGuide/dp_pg_090308.pdf
- Faria, A.-M., Sorensen, N., Heppen, J., Bowdon, J., Taylor, S., Eisner, R., & Foster, S. (2017). *Getting students on track for graduation: Impacts of the Early Warning Intervention and Monitoring System after one year* (REL 2017–272). Washington, DC: U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance, Regional Educational Laboratory Midwest. Retrieved from https://ies.ed.gov/ncee/edlabs/regions/midwest/pdf/REL_2017272.pdf

- Gresham, F. M., Gansle, K. A., Noell, G. H., Cohen, S., & Rosenblum, S. (1993). Treatment integrity of school-based behavioral intervention studies: 1980–1990. *School Psychology Review, 22*, 245–272.
- Heppen, J. B., & Therriault, S. B. (2008). *Developing early warning systems to identify potential high school dropouts* (Issue Brief). Washington, DC: American Institutes for Research, National High School Center. Retrieved from <https://files.eric.ed.gov/fulltext/ED521558.pdf>
- Jerald, C. D. (2006). *Identifying potential dropouts: Key lessons for building an early warning data system*. Washington, DC: Achieve & Jobs for the Future. Retrieved from <https://www.achieve.org/files/Identifying-Potential-Dropouts.pdf>
- Johns Hopkins University. (2012). *Using data to keep all students on track to graduation: Team playbook*. Baltimore, MD: Johns Hopkins University, School of Education, Center for Social Organization of Schools. Retrieved from http://new.every1graduates.org/wp-content/uploads/2012/11/Team_Playbook.pdf
- Kennelly, L., & Monrad, M. (2007). *Approaches to dropout prevention: Heeding early warning signs with appropriate interventions*. Washington, DC: American Institutes for Research, National High School Center. Retrieved from <http://files.eric.ed.gov/fulltext/ED499009.pdf>
- Li, Y., Scala, J., Gerdeman, D., & Blumenthal, D. (2016). *District guide for creating indicators for early warning systems*. San Francisco, CA: Regional Educational Laboratory West at WestEd. Retrieved from <https://www.air.org/sites/default/files/downloads/report/District-Guide-for-Creating-Indicators-for-Early-Warning-Systems-2016.pdf>
- Love, N. (2000). *Using data, getting results: Collaborative inquiry for school-based mathematics and science reform*. Cambridge, MA: Regional Alliance for Mathematics and Science Reform at TERC.
- Metz, A., & Louison, L. (2019). *The hexagon tool: Exploring content*. Chapel Hill: University of North Carolina at Chapel Hill, National Implementation Research Network, Frank Porter Graham Childhood Development Institute.
- National Center on Intensive Intervention. (2019). *Considerations for effective implementation: 5 elements of fidelity*. Washington, DC: Author. Retrieved from <https://intensiveintervention.org/resource/five-elements-fidelity>

- Neild, R. C., Balfanz, R., & Herzog, L. (2007). An early warning system. *Educational Leadership*, 65(2), 28–33.
- O'Donnell, C. L. (2008). Defining, conceptualizing, and measuring fidelity of implementation and its relationship to outcomes in K–12 curriculum intervention research. *Review of Educational Research*, 78(1), 33–84.
- Pinkus, L. (2008). *Using early-warning data to improve graduation rates: Closing cracks in the education system* (Policy Brief). Washington, DC: Alliance for Excellent Education. Retrieved from <https://all4ed.org/wp-content/uploads/EWI.pdf>
- Rumberger, R., Addis, H., Allensworth, E., Balfanz, R., Bruch, J., Dillon, E., . . . Tuttle, C. (2017). *Preventing dropout in secondary schools* (NCEE 2017-4028). Washington, DC: U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance. Retrieved from https://ies.ed.gov/ncee/wwc/Docs/PracticeGuide/wwc_dropout_092617.pdf
- Stuit, D., O'Cummings, M., Norbury, H., Heppen, J., Dhillion, S., Lindsay, J., & Zhu, B. (2016). *Identifying early warning indicators in three Ohio school districts* (REL 2016–118). Washington, DC: U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance, Regional Educational Laboratory Midwest. Retrieved from https://ies.ed.gov/ncee/edlabs/regions/midwest/pdf/REL_2016118.pdf
- Therriault, S. B., O'Cummings, M., Heppen, J., Yerhot, L., & Scala, J. (2013). *High school early warning intervention monitoring system implementation guide: For use with the National High School Center's early warning system high school tool*. Washington, DC: American Institutes for Research, National High School Center. Retrieved from <https://www.air.org/sites/default/files/High-School-Early-Warning-Intervention-Implementation-Guide-March-2013.pdf>

Appendices

[Appendix A. EWIMS Glossary](#)

[Appendix B. Supporting Documents](#)

- Tool 1: EWIMS Action Planning Tool
- Tool 2: Student Support and Intervention Mapping
- Tool 3: Identifying New Interventions

[Appendix C. Student Intervention Implementation Log](#)

[Appendix D. Long-Term Guiding Questions](#)

Appendix A. EWIMS Glossary

Term	Definition
Early warning indicator	Early warning indicators predict educational attainment (e.g., high school graduation) well in advance of the outcome. They identify students in need of intervention, systematically guide school improvement, and hold schools accountable for students' outcomes. EWS data tools may vary in the exact indicators used but generally include, at a minimum, chronic absence, course performance, grade point average, behavioral problems, and off-track indicators.
Early Warning Intervention and Monitoring System (EWIMS)	EWIMS is an AIR-created systematic approach that uses data to (a) identify students who are in danger of not graduating on time, (b) assign students who are showing symptoms of risk to interventions, and (c) monitor students' response to the intervention(s). It is a seven-step process supported with an EWS data tool.
Early Warning System (EWS) Tool	A platform that uses local, historical student data and research-based predictive analytics to accurately predict students in danger of missing key educational milestones so that educators can intervene early and get students back on track.
Evidence based	Practices, policies, or recommendations that are supported by studies that meet WWC design standards with or without reservations.
Intervention	A strategy that targets specific skill or content gaps of students who are struggling. Interventions can target academics, behavior, social-emotional skills, or attendance. Formal interventions could be programs; many schools use strategies as interventions. Knowing the evidence base of the strategy or more formal interventions (and if the research was conducted with a similar student population to yours) can be important in terms of the results achieved.
Interventionist	An individual within a school who provides supplemental (Tier 2) or intensive (Tier 3) intervention supports to students who are struggling in either a small-group or one-on-one setting. An intervention may be academic, behavioral, or social-emotional, depending on each student's specific needs.
Locally validated indicators	Early warning indicators can vary in their predictive power across different grade levels and districts. Your EWS Tool should include indicators that most accurately predict the risk of not graduating high school using your own data. If you are interested in learning more about validating your own indicators, see https://www.air.org/resource/district-guide-creating-indicators-early-warning-systems .
Predictive analytics	EWS Tools may employ high-impact algorithms to create a predictive model based on your district's historical data and research-based indicators to accurately identify students who are in danger of not graduating on time.

Term	Definition
Progress monitoring	A component of an MTSS to assess responsiveness to the intervention. This process includes developing a progress monitoring plan that outlines a progress monitoring tool, a student goal, and the frequency of data collection and review. During delivery of the intervention, educators should collect and graph progress monitoring data and evaluate these data against the student’s goal to determine if the student is making sufficient progress. For more information, see https://intensiveintervention.org/intensive-intervention/progress-monitor .
Threshold	Each early warning indicator has a threshold that must be exceeded for a student to be considered in danger of not graduating high school on time. These indicators and thresholds have been validated through research.

Appendix B. Supporting Documents

- [Tool 1: EWIMS Action Planning Tool \(Used in Steps 1 and 7\)](#)
- [Tool 2: Student Support and Intervention Mapping \(Used in Steps 1, 5, and 6\)](#)
- [Tool 3: Identifying New Interventions \(Used in Steps 5 and 7\)](#)

Tool 1: EWIMS Action Planning Tool (Used in Steps 1 and 7)

Directions: The school or district EWIMS team can use this tool to begin planning and implementing an EWS to identify middle school students who may be in danger 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? (assign individuals to be responsible for these actions)
1. Establish roles and responsibilities			
2. Use an early warning data tool			
3. Review early warning data			
4. Interpret early warning data			
5. Assign and provide interventions			
6. Monitor students and interventions			
7. Evaluate and refine the EWIMS process			

Tool 2: Student Support and Intervention Mapping (Used in Steps 1, 5, and 6)

Directions: Complete the following matrices to catalog interventions and supports. Include the availability (e.g., the number of students who can be served at one time, resource limits) and details (e.g., the focus of the intervention, the evidence base).

	TIER I	Availability	Details	TIER II	Availability	Details	TIER III	Availability	Details
Attendance	<i>ex. automatic calls</i>	<i>100% students</i>	<i>Robocalls sent daily at 10 a.m. to all absent students and their families</i>	<i>Peer wake-up calls</i>	<i>100 students per 2 weeks</i>	<i>Student council members (10) can be assigned up to 10 students to text each morning for 2 weeks</i>	<i>Parent conference</i>	<i>As needed</i>	<i>Dean will set up parent attendance conference</i>
Behavior	<i>ex. schoolwide expectations from PBIS</i>	<i>100% students</i>	<i>Students can earn PBIS points and qualify for weekly raffles and monthly assemblies</i>	<i>Lunch group</i>	<i>40 students per 6 week session</i>	<i>Each school social worker (2) runs 2 groups of 10 students for 6 week sessions</i>	<i>Referral to in-school or out of school counseling</i>	<i>In-school: 20 Out-of-school: unlimited</i>	<i>See school counselor</i>
Course performance	<i>ex. study hall with math teacher</i>	<i>30 students</i>	<i>Available from 3:30 to 4:30 p.m. in Room 307</i>	<i>Tutoring</i>	<i>5 aides available</i>	<i>1:1 tutoring in math or ELA with aides</i>	<i>Individualized online math program</i>	<i>100 licenses</i>	<i>Math teachers can refer students to dean</i>

Tool 3: Identifying New Interventions (Used in Steps 5 and 7)

The following resources are free. They present information about academic, behavioral, social-emotional, and attendance intervention programs, including target student populations, evidence that supports the use of a specific intervention, and how to implement.

- [National Center on Intensive Intervention Academic Intervention Tools Chart](#). This tools chart reviews studies about academic intervention programs, rating the technical rigor of study quality, study results, intensity, and additional research.
- [National Center on Intensive Intervention Behavioral Intervention Tools Chart](#). This tools chart reviews studies about behavioral intervention programs, rating the technical rigor of study quality, study results, intensity, and additional research.
- [WWC](#). The WWC has created intervention reports and practice guides that summarize the results of WWC reviews.
- [Evidence for the Every Student Succeeds Act \(ESSA\)](#). This website provides current and reliable information on intervention programs that meet ESSA evidence standards in reading, mathematics, social-emotional learning, attendance, science, and writing for K–12 programs.
- [Evidence Based Intervention \(EBI\) Network](#). The EBI Network provides guidance in the selection and implementation of EBI in classrooms.

Appendix C. Student Intervention Implementation Log

The intervention log is available here:

[https://intensiveintervention.org/sites/default/files/DBI Weekly Log 508.pdf](https://intensiveintervention.org/sites/default/files/DBI_Weekly_Log_508.pdf).

Appendix D. Long-Term Guiding Questions

Step 1

- What are the key goals of the EWIMS team? How are they measured?
- What are the most significant challenges facing the EWIMS team? How will the team address those challenges?
- What are the important lessons learned? How will these lessons inform future work?
- What, if any, additional resources are needed?
- What types of professional development for team members or broader school staff should be planned to continue to build the capacity of the EWIMS team and other key support staff?

Step 2

- Which types of reports from the EWS Tool are most useful for informing school and district policy decisions?
- If not already connected, how can you streamline the data entry and import process or connect it to existing data systems?
- If not already connected, how can the process of assigning interventions be connected to the existing EWS Tool?
- How can you use data from multiple years to validate local risk indicators, evaluate the impact of existing interventions, and identify persistent school- or district-level challenges?

Step 3

- Do students who were identified for displaying symptoms of risk in a previous school year continue to be identified in the current school year? If the answer is “yes,” are they identified for the same or different reasons?
- Do students who are identified for displaying symptoms of risk early in the school year continue to be identified later in the year? If so, are they identified for the same or different reasons?
- Do the number and percentage of students who are identified for any indicator and for each different indicator change from year to year?

Step 4

- Are there any additional stakeholders (e.g., community members, wraparound service providers, law enforcement representatives, court representatives, human services representatives, business representatives, local policymakers, parents, teachers, students, guidance counselors, central office staff) who should be included in the long-term discussions about the way to address systematically the prevalence of risk factors displayed by students in the school? How will these stakeholders be engaged? How will buy-in be promoted? How will you ensure student confidentiality?
- What can the EWIMS team do to ensure that it can easily obtain additional data that are important for identifying underlying root causes? What further information is necessary to get a better picture? What types of information are difficult to obtain? How can you make that information more accessible?
- For students who do not graduate, what were the reasons or underlying root causes? What resources would the district need to locate and survey or interview some of these students?
- Reflecting on your data and EWIMS experiences, do any social justice inequities need to be addressed? If so, how will you address those?

Step 5

- Which supports and interventions appear to be the most successful at helping students who are displaying symptoms of risk to get back on track? How do you know that those approaches are most successful?
- How will you identify promising supports and interventions to address unmet student needs (e.g., attend conferences, purchase interventions, ask or visit other schools and districts, form study teams, review literature, seek help from regional or state agencies)?
- Do trends in the data consistently identify the need for similar types of supports and interventions? How will school and district staff be included as part of the EWIMS efforts? How will you communicate this information to them? How will they be involved in decision making, implementation, and monitoring?
- What school and district policies need to be in place to improve the implementation of support and intervention strategies?
- What resources (e.g., time, materials, personnel, funding) are necessary to support interventions? What resources are available to support the identified students? If the

available resources are not sufficient, how will you obtain additional resources (e.g., cost sharing across programs, grants, other funding sources)? How will you distribute the resources among groups and individual students based on their needs?

- What, if any, organizational or structural changes are needed in the school or district to support students?
- How will you communicate the results of this work to critical stakeholders (e.g., parents and students, teachers, administrators, communities, educators outside your district, the state department of education)?
- How will students and parents be included as part of the EWIMS efforts? How will you communicate this information to them?
- How will you celebrate the successes of the program and individual students?
- Looking back at your data, should any Tier 1 supports (or universal supports) to help a broader group of students be implemented?
- Across several years, do trends in the data consistently identify the need for similar types of interventions? Do school or district policies and strategies exist that may address these needs?

Step 6

- What interventions seem to get students back on track consistently? Are those interventions available equitably across the district?
- Across several years, how effective are the existing interventions for improving outcomes for students who are assigned to them? Are some interventions better for addressing the needs of students with certain types of risk indicators or other underlying issues?
- Which interventions do not seem to work for students? How might these interventions be improved? Should these interventions be eliminated?
- How will you communicate the results of this work to critical stakeholders (e.g., parents, students, teachers, administrators, community members, educators outside your district, the state department of education)?
- What schoolwide policies need to be in place to improve the implementation of student support and intervention strategies?

- Are sufficient resources available to implement supports and interventions now that you have an efficient process for identifying needs? If not, how might you identify additional resources for the long term?
- Do you think the school or district needs any organizational or structural changes to support students? If so, what change(s) do you recommend?

Step 7

- What policies, organizational systems, or approaches at the school and district levels facilitate more effective supports and interventions?
- By looking at multiple years of data for the same class(es) or cohort(s) of students across time, how does the school or district validate the early warning indicators of risk?
- How many or what percentage of students who were not identified wound up not graduating with their cohort or dropping out?
- How many or what percentage of students who were identified graduated on time?
- Do the percentages show any trends within the district or in an individual school? If trends are apparent, do the trends continue across time?
- Do the early warning data and the EWIMS process reveal systemic problems in the district or school (e.g., risk factors that are prevalent from year to year, schools with persistent problems, groups of students who are consistently identified)?
- Are there any social justice implications from the EWIMS work?
- Are there lessons learned that the EWIMS team should communicate with broader audiences, including school staff, students and families, and community organizations?



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