A PRACTITIONER'S GUIDE TO IMPLEMENTING EARLY WARNING SYSTEMS

BUILDING AN EWS TEAM (CORE COMPONENT #1 OF 5)

REL Regional Educational Laboratories

Learning Series on EARLY WARNING SYSTEMS

Early warning systems (EWS) use individual student data to generate indicators of on-track status for graduation, including attendance, behavior, and course performance. States and districts across the nation use these systems to identify off-track students in middle and high school and to design and assess interventions to keep students on track to graduate. Despite the popularity of EWS, research on their implementation is sparse. The **REL Northwest** report ***A practitioner's guide to implementing early warning systems*** summarizes what is known about EWS implementation and describes how states, districts, and schools can draw on the research. This summary series describes the five core components of implementing an EWS. The first of those five components is described here.

1. **Establishing and training a team to use the EWS**
2. **Identifying accurate indicators**
3. **Designing and using reports**
4. **Mapping appropriate interventions to individual student needs**
5. **Evaluating student progress and intervention effectiveness**

Implementing an EWS effectively requires careful attention to team roles and responsibilities. Team structure, composition, leadership, goals, and community support should reflect district and school needs.

Developing the team: Before districts and schools begin to use an EWS, they must establish a dedicated team to identify off-track students, assign interventions, and monitor progress.

Defining goals and objectives: The **S.M.A.R.T.** goal framework can help the EWS team design actionable, realistic objectives and timeframes.

Determining meeting content and structures: School-level team meetings typically focus on individual students but can periodically include discussions of combined indicator and intervention data.

Providing professional development: EWS implementation often includes professional development for teachers, administrators, and other school staff so they can access and interpret the data.

Seeking support from the community: EWS teams can bolster their staff and financial resources by partnering with community organizations.

Common early warning system roles and responsibilities

Role	Responsibility
Information technology staff	Inputs data, collaborates on report structures, builds reports, updates data
School team leader	Serves as a liaison for the school with other schools and the district, ensures compliance with overall mission
District-level leader	Disseminates accomplishments and challenges, advocates for policy change at the district level
Program coordinator	Keeps track of the mapping between indicators and interventions available
School counselor	Represents the students, relays what is working on a day-to-day basis
Data coach	Teaches the team how to interpret the data, identifies appropriate professional development
Representatives from different stakeholder groups	Serve as advisors and provide insight into how the system is working for a variety of stakeholders (some systems rotate their members)

S.M.A.R.T. goals

- **S** Is the goal **specific**? What will it do? Who will carry it out?
- **M** Is the goal **measurable**? How will the team know it has been achieved?
- **A** Is the goal **achievable**?
- **R** Is the goal **relevant** to performance expectations?
- **T** Is the goal **time bound**? How often will this task be done? By when will this goal be accomplished?

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IDENTIFYING ACCURATE INDICATORS (CORE COMPONENT #2 OF 5)

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1. Establishing and training a team to use the EWS
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Identifying accurate indicators

The primary function of an EWS is to alert the school community (educators, parents, and students) when a student falls off track.

Choosing indicators: Focusing on a small set of indicators allows EWS teams to allocate their time and effort more efficiently. Student characteristics outside the school's control, such as family income, special education status, and new student status, should not be used as indicators (instead, demographic data can be used to check whether all student groups are being supported). Effective indicators are:

- Valid for the intended purpose
- Actionable by schools
- Meaningful and easily understood
- Aligned with district and school priorities

Ensuring local validity and threshold checking: The literature advises EWS teams to set thresholds for indicators using local data when possible—thresholds vary between districts and even within the same district over time. Teams can set threshold levels by beginning with recommendations from national organizations that have extensive EWS experience.

The ABCs

The literature recommends that districts start with the ABCs as their base set of indicators. The ABCs stand for:

A Attendance

Research has long shown a strong relationship between how often a student misses school and his or her probability of graduating in four years. Most students who do not regularly attend class fall behind in their coursework and consequently see their grades suffer. Poor attendance can also indicate that a student is struggling with health, family, or other issues that are distracting them from their studies.

B Behavior incidents

As few as one suspension in grade 6 may predict whether a student graduates in four years. Behavior incidents can indicate that a student is disengaged with the school environment. Suspensions often cause an additional burden on students to catch up on the material they missed.

C Course performance

Number of course failures and overall grade point average obviously correlate with a student's probability of graduating in four years. If a student fails a course, he or she will need to make up credit outside the regularly scheduled school time to stay on track. Poor course performance can also indicate disengagement at the classroom level.

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DESIGNING AND USING REPORTS (CORE COMPONENT #3 OF 5)

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1. Establishing and training a team to use the EWS
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An EWS involves (a) compiling data that identify student progress toward graduation, and (b) alerting staff when the data indicate that a student is falling off track. Designing useful reports for district and school staff is therefore a crucial part of EWS implementation.

Making reports simple but effective:

EWS teams should collaborate closely with their information technology departments (where available) to develop an easy-to-use report structure that focuses (ideally) on a handful of predictive indicators.

Establishing a process for routinely creating and using reports:

- Indicator data should be regularly updated, to ensure that the EWS team can accurately monitor and track student progress.
- EWS reports will contain personally identifiable information, which is covered by privacy laws. EWS teams should consult with legal counsel about ensuring confidentiality for EWS data and reporting.

Creating different reports for different audiences:

- School summary reports may be most helpful for administrators, who can use them to identify disproportionality in student outcomes and to determine the need for culturally responsive interventions.

- Classroom-level reports may provide more insight for teachers. These reports should not be used for evaluating teachers because such use can hinder teacher buy-in.

- Student-level reports may be useful for teachers and counselors who work with individual students. These reports could also be shared with the students and their families. Student reports should emphasize positive messaging about how the report is a tool to support students and include strategies and guidance for improvement.

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MAPPING APPROPRIATE INTERVENTIONS TO INDIVIDUAL STUDENT NEEDS (CORE COMPONENT #4 OF 5)

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1. Surveying available interventions: EWS teams should first consider adapting the initiatives and interventions in which they have already invested. Districts may find it more productive to first catalog all the interventions—the programs and policies currently in place to help students succeed in school—before adopting new strategies.

2. Mapping interventions to indicators to assess gaps in intervention supports: The next step for EWS teams is to review which indicator(s) each available intervention can best address (e.g., after school tutoring may benefit students with low course grades) and review the results of the mapping for potential gaps in available supports.

3. Assigning interventions to students: The EWS team may investigate a student's needs by talking to the student directly and conferring with the student's family and other school staff to determine appropriate interventions. The three-tiered response-to-intervention model (from p. 10 of the guide) can provide EWS teams with a useful framework for conceptualizing and managing their interventions.

TYPE OF INTERVENTION	FOCUS AND EXAMPLES OF INTERVENTIONS		
	ATTENDANCE	BEHAVIOR	COURSE PERFORMANCE
SCHOOLWIDE (all students)	• Respond to every absence • Create a culture that encourages attendance • Positive social incentives for good attendance • Data tracking by teacher teams	• Teach, model, and expect good behavior • Positive social incentives and recognition for good behavior • Data tracking by teacher teams	• Research-based instructional programs • In-classroom support to enable active and engaging teaching • Data tracking by teacher teams
TARGETED (15–20 percent of students)	• Brief daily check by adult after two or more unexcused absences in a month • Investigation and problem solving by attendance team	• Involve behavior team following two or more office referrals • Simple behavior checklist student takes from class to class, checked each day by an adult • Mentor assigned	• Elective extra-help courses—tightly linked to core curriculum—that preview upcoming lessons and fill in knowledge gaps • Targeted, reduced class size for students whose failure is rooted in social or emotional issues
INTENSIVE (5–10 percent of students)	• Sustained one-on-one attention and problem solving • Appropriate social service or community support	• In-depth behavioral assessment • Behavior contracts with family involvement • Appropriate social service or community supports	• One-on-one tutoring

Source: Mac Iver & Mac Iver, 2009 (as cited in the guide).

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EVALUATING STUDENT PROGRESS AND INTERVENTION EFFECTIVENESS (CORE COMPONENT #5 OF 5)

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To maximize the benefits of an EWS, districts and schools need to know:

- Whether a student is making progress after an intervention is put in place
- Whether an intervention is helping students improve or if new or different strategies are needed to address gaps in student supports

STEPS TO EXAMINE STUDENT PROGRESS:

1. Track key student data:
   - Interventions prescribed for the student
   - Frequency of student participation in each intervention
   - The student's performance in the indicators on which he or she was flagged
2. Review the data:
   - The team should determine how frequently it can expect updates on student progress data, in the same way it receives updates to the EWS data.
   - Examine the data over time
   - Modify intervention plan if student remains off track

Do you want to collect additional data that are not included in your EWS? Try:

- Using an Excel spreadsheet or Access database
- Consulting IT staff for other software solutions
- Identifying and using other resources

STEPS TO EXAMINE INTERVENTION EFFECTIVENESS:

1. During the planning process, identify procedures for recording student progress data.
2. Schedule time for team members and other district and school leaders to discuss data on how well interventions are improving student outcomes:
   - During EWS meetings, for example, the team can monitor and examine trends in student outcomes for each intervention strategy.
3. Review the data:
   - Use intervention data along with individual student reports to see which interventions are useful and determine whether usefulness differs by indicator.
   - Review the data as often as needed based on the specific school and district contexts and the expected rate of student improvement.

Accurate data on how students respond to interventions help internal—and external—research partners rigorously analyze program impacts.

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