


# An Early Warning System (EWS) Pathway

## State Considerations

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## Objectives

- Understand the basics of an early warning system.
- Review EWS implementation pathway.
- Understand options for state implementation strategies.
- Obtain information about free EWS resources.
- Consider and identify key EWS action steps for your state.

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## What Is an EWS?

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## What Is an Early Warning System?

Early warning systems rely on readily available data housed at the school to accomplish the following:

- Predict which students are at risk of missing key educational milestones.
- Target resources to support off-track students early.
- Examine patterns and identify school climate issues.

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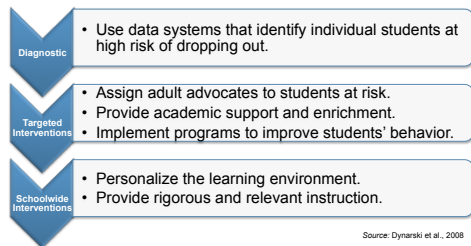
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## Dropout Prevention Research:

Institute of Education Sciences Practice Guide  
Recommendations



Source: Dynarski et al., 2008

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## EWS Theory of Action

- EWS is grounded in research because indicators and thresholds are validated.
- EWS is not another label or accountability measure.
- An outcome measure must be meaningful and actionable by adults in the system.

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## Key Terms

- **Early Warning (EW) Indicators**
  - The indicators or data used to identify students who are at risk
- **Early Warning System (EWS)**
  - A comprehensive system for identifying, supporting, and monitoring students using early warning indicators and other data
- **EWS Implementation or Early Warning Intervention and Monitoring System (EWIMS)**
  - A systemic process that draws from research on data use in schools and applies this to the context of using early warning indicators. Users are guided through a process of identifying, diagnosing, supporting, and monitoring students.

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## State-Level EWS Considerations

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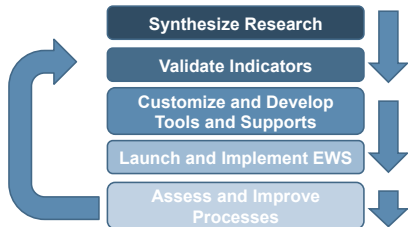
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## EWS Implementation Pathway



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## Synthesize Research

- Define measurable student outcome(s) of interest.
- Identify needs for EWS.
- Define parameters and focus of the research review.
- Clarify the audience and purpose of the research synthesis.
- Discuss implications of the research review and how they inform your goals.
- Develop a plan for moving forward.

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## Validate Indicators

- Identify key student outcome(s).
- Conduct inventory of data elements and determine availability of data.
- Define desired outcome(s).
- Develop validation model parameters.
- Decide to validate indicators or use research-based indicators.

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## Validate Indicators (Continued)

- **Benefits of Validating Indicators**
  - Based on available data that is applicable to the state context (e.g., state assessments or other data collected).
  - Increases legitimacy of the indicators if validated in your state's schools.
  - State-determined priority outcomes (e.g., reading by the end of third grade, high school graduation).
- **Challenges for Validating Indicators**
  - Validation is time and resource intensive (and ongoing).
  - There are limitations in the data elements collected.
  - Timing of data availability is critical.
  - A system is needed to share early warning indicator data with districts and schools.

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## Anatomy of an Early Warning Indicator

- **Outcome measures** are the future milestone event(s) or benchmark(s) on which students' attainment or performance is being tracked (or measured).
  - Example: high school graduation, enrollment in a two- or four-year college
- **Indicators** are validated through testing against the outcome measure and are predictive of whether a student will meet a future outcome measure. Academic indicators typically capture students' performance, behavior, and engagement, and such indicators are based on readily available data.
  - Example: course performance, attendance
- **Thresholds** are the tipping point below or above which a student is significantly less likely to meet the predefined desired outcome measure.
  - Example: Students who miss 10 percent or more school days in their first year of high school are at risk of dropping out of high school.

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## Types of Indicators

- **Monitoring indicators** are available at multiple times during a single school year.
  - Example: attendance (Students who miss 10 percent or more days of school may be at risk.)
- **Year-end indicators** are based on data from an entire school year and are available as students exit school (in the summer).
  - Example: Consortium on Chicago School Research's year-end "on-track" indicator
- **Transition indicators** are indicators that rely on one or more years of data and are available when a student enters school.
  - Example: Massachusetts' Early Warning Indicator System, Virginia's Pre-High School Index

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### The Massachusetts Early Warning Indicator System (EWIS)

Grade Level Groupings	Academic Goals (expected student outcomes for each age group)
Grades 1-3	<b>Reading by the end of third grade:</b> Reaching proficient or advanced on 3 <sup>rd</sup> grade English language arts (ELA) MCAS (Massachusetts Comprehensive Assessment System)
Grades 4-6	<b>Middle school ready:</b> Reaching proficient or advanced on 6 <sup>th</sup> grade ELA and Mathematics MCAS
Grades 7-9	<b>High school ready:</b> Passing grades on all 9 <sup>th</sup> grade courses
Grades 10-12	<b>High school graduation:</b> Meeting all local and state graduation requirements

The first three academic goals are important for reaching the final academic goal of high school graduation

For each grade level the EWIS provides a prediction of whether students are currently at low, moderate, or high risk of meeting the academic goal

(Theriault, Surr, and Bzura, 2013, p. 7)

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## Research-Based Early Warning Indicators

Common early warning indicators are based on the following:

- Attendance
- Course performance
- GPA
- Disciplinary incidents

Sources: Allensworth & Easton, 2005; Ballanz, Herzog, & Maciver, 2007; Heppen & Theriault, 2008.

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## Research-Based EW Indicators for Dropout

Indicator	Time Frame	Thresholds	
		Middle Grades	High School
<b>Incoming (transition) Indicator</b>	• Before school begins	Previous-year EWS Tool exit indicator or locally validated indicators of risk (e.g., Massachusetts EWIS)	
<b>Attendance (monitoring)</b>	• First 20 or 30 days • End of each grading period • End of year	Missed 20 percent or more of instructional time	Missed 10 percent or more of instructional time
<b>Course Performance (monitoring)</b>	• End of each grading period • End of year	Failure in an English language arts or mathematics course	Failure in one or more courses Earned 2.0 or lower GPA (on a four-point scale)
<b>Behavior (monitoring)</b>	• End of each grading period • End of year	Locally validated thresholds	
<b>End-of-Year Indicator</b>	• End of year	EWS exit indicator or locally validated indicators of risk	

Sources: Allensworth & Easton, 2005; Ballanz, Herzog, & Maciver, 2007; Heppen & Theriault, 2008.

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## Customize and Develop Tools and Supports

- Share the local context to inform tools and guidance.
- Determine the focus of supports.
- Review existing tools and supports.
- Develop an EWIMS implementation plan.

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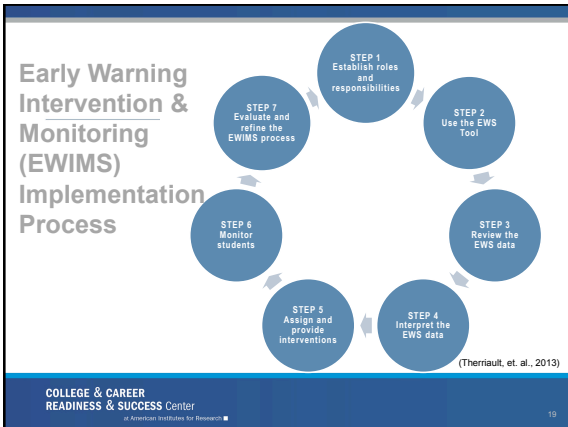
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- ## Available Resources
- EWS Implementation Guidance
    - High School EWIMS Guide  
<http://www.earlywarningsystems.org/wp-content/uploads/documents/EWSImplementationguide2013.pdf>
    - Middle Grades EWIMS Guide  
<http://www.earlywarningsystems.org/wp-content/uploads/documents/EWSMGIImplementationguide.pdf>
  - EWS Tools
    - Middle Grades (<http://www.earlywarningsystems.org/resources-tools/early-warning-system-middle-grades-tool>)
    - High School (<http://www.earlywarningsystems.org/resources-tools/early-warning-system-high-school-tool>)
  - Other Documents
    - Interventions/Supports  
[http://www.earlywarningsystems.org/wp-content/uploads/documents/NHSC\\_ApproachesToDropoutPrevention.pdf](http://www.earlywarningsystems.org/wp-content/uploads/documents/NHSC_ApproachesToDropoutPrevention.pdf)
    - English Language Learners  
[http://www.earlywarningsystems.org/wp-content/uploads/documents/UCIChicagoCCSR\\_NHSC\\_ELEWS\\_reportMay12.pdf](http://www.earlywarningsystems.org/wp-content/uploads/documents/UCIChicagoCCSR_NHSC_ELEWS_reportMay12.pdf)
    - Students With Disabilities  
<http://www.earlywarningsystems.org/wp-content/uploads/documents/NHSCCCSRSpecialEd.pdf>
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- ## Launch and Implement EWS
- Share information about the aim and scope of EWS implementation.
  - Engage stakeholders.
  - Disseminate supports.
  - Develop a plan to build capacity and support implementation.
  - Define parameters of support and guidance.
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## Types of State Implementation

- **Technical Assistance/Support.**
  - Many states provide links to the Tool and implementation guide.
  - Support is provided in the form of data analysis or learning networks.
  - Local districts and schools can decide to participate.
- **Programmatic Mandates.**
  - Grants or programs require reporting or monitoring aligned with EWS indicators.
    - Texas: Ninth-Grade Transition Grantees use the EWS High School Tool to monitor students.
- **Legislative Mandates.**
  - Virginia: Accreditation is linked to high school graduation rates.
  - California: Middle schools are held accountable for high school graduation rates.

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## State Implementation Challenges

- **Local control**
- **State and local education agency capacity to use data and support the use of data in schools**
- **Availability and allocation of resources (funding, time, and people)**
- **A state or district priority regarding dropout prevention**

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## Implementation Strategies

- **Voluntary participation (e.g., Minnesota, Massachusetts)**
  - Tools
  - Implementation guidance
  - Professional development
- **Pilot EWS in schools and districts (e.g., Virginia, California)**
  - Coalition of the willing
  - Active members and feedback
  - Continuous support
- **Integrate indicators into state, district, and school data systems (e.g., Massachusetts, Louisiana)**

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## Implementation Incentives

- Improving graduation rates is a priority.
- Entry costs are low in terms of risk and resources.
- Reporting is simplified by using the EWS Tool.
- Monitoring of school improvement is linked to the indicators at the school or district level.
  - Risk indicators are leading indicators of improvement.
  - School summary reports inform schoolwide improvement.

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## Implementation Considerations

- Connect to existing initiatives.
  - Are there initiatives that focus on data use already?
  - Are there student support efforts that EW implementation can supplement?
  - Are there districts that already implement an early warning system?
- Look inside first.

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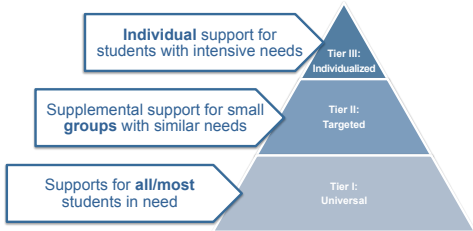
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## Making the Connection

Example: Multitiered System of Support



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## Assess and Improve Processes

- Define areas of interest for continuous improvement.
- Provide access to data and stakeholders.
- Identify parameters of an assessment or review of practices.
- Review findings and recommendations.
- Develop a plan to improve processes.
- Disseminate improvement efforts.

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## Group Discussion

- In small groups please select a recorder from your group to document the discussion. Please discuss the following questions about your state and EWS:
  1. Are you considering or implementing an early warning system? If yes, please explain the current status of EWS in your work or SEA.
  2. What are the challenges you face with regard to EWS?
  3. Was there anything from the presentations that has helped your thinking about EWS?
  4. What are you still wondering about?
- Select an individual to report out on the group discussion

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