Early Warning Indicator System

Supporting K-12 educators in the identification, support, and monitoring of at-risk students

Supporting Rapid Intervention

A rise in data availability gives educators the opportunity to tailor instructional practices and interventions to student needs and invest resources in areas where students require the most support. Massachusetts developed the Early Warning Indicator System (EWIS), which synthesizes the wealth of student data available in the state, including assessment scores, attendance rates, course grades, and other measures to support educators in identifying struggling students. EWIS allows educators to influence a student's academic trajectory by supporting early intervention for students in need.

Years of research on academic risk factors led to the selection of variables that combine to assess each student's risk of missing an upcoming academic milestone. Each milestone, ranging from 3rd grade reading proficiency to passing all 9th grade courses, is positively associated with the overarching goal of high school graduation. For example, students who do not pass the third grade state assessment are 3.7 times less likely to graduate from high school. Each milestone is also relevant and actionable to the educators working in each grade level to support appropriate interventions. By measuring risk beginning in first grade and identifying students early, educators have the opportunity to match supports with student needs in order to prepare each student for success.

Grade Levels	Academic Milestone
1-3	3rd Grade Reading Proficiency
4-6	6th Grade Reading & Math Proficiency
7-9	Passing Grades in 9th Grade Courses
10-12	High School Graduation

EWIS milestones are relevant and actionable to each associated grade level.

"We have done a complete 180 degree turn in how we are using data this year…we see student status, their progress, and adjust student supports right now instead of waiting until after kids have dropped out or repeated a grade"

-EWIS user

EWIS Risk Levels

Absent interventions

90% 90% of low risk students reach their upcoming academic milestone

60% 60% of moderate risk students reach their upcoming academic milestone

25% 25% of high risk students reach their upcoming academic milestone

District Profile: Malden Public Schools

Ten miles outside of Boston, Malden Public Schools (MPS) is a diverse, urban district serving 6,500 students in 7 schools.

The student-centered approach to dropout prevention and college and career readiness at Malden Public Schools requires educators to consider a range of factors that affect progress when developing improvement plans for struggling students. MPS leverages EWIS data to address students' risk factors before they become problematic and to ensure consistency of support as students move between grades. In Malden, EWIS has been particularly helpful in facilitating the transition from 8th grade to high school. Educators use EWIS data to identify high risk students and initiate meetings between middle and high school staff to address academic and social-emotional issues. By using EWIS data to proactively create student support plans, MPS educators ensure that no student slips between the cracks as they move through Malden schools.

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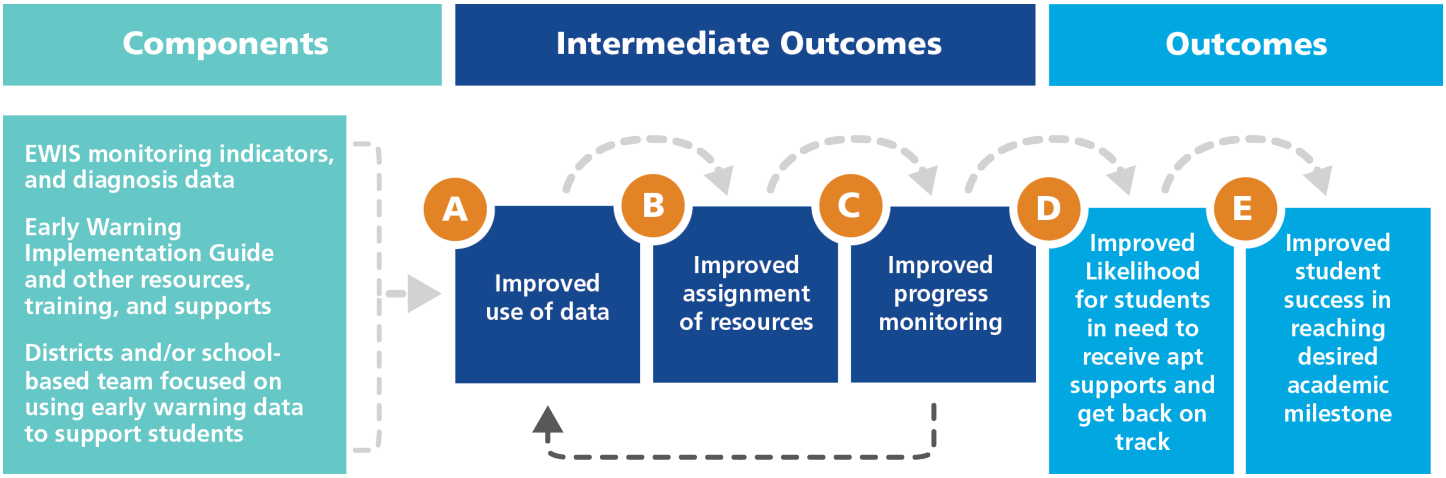
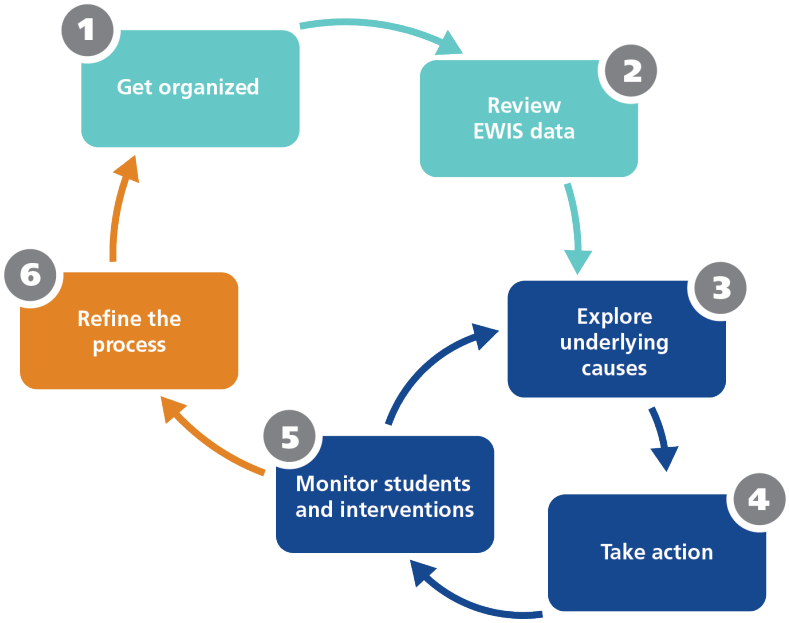
Theory of Change

Use of early warning data supports educators in developing a prevention-based model for student support. Instead of labeling at-risk students, the data is designed to drive action, allowing educators to address challenges early and effectively. A key component of the EWIS theory of change is tasking a new or existing school or district team to review and use early warning data to support students. By matching interventions with student needs and continually monitoring student progress, educators can support students in overcoming the academic, social-emotional, or environmental factors that place them at risk. The Massachusetts Early Warning Implementation Guide provides a variety of tools and examples from the field to help districts and schools use EWIS data effectively.



Turning Data into Action

Effective use of early warning data begins with asking the right questions. After identifying students in need of support, educators are tasked with exploring the underlying factors that lead to academic risk. Engaging in pattern analysis enables teachers and administrators to determine academic, environmental, and social-emotional factors that influence learning in order to develop effective interventions. School-based teams may use EWIS data to develop individual student interventions, as well as identify gaps in universal (i.e., Tier 1) practices. By assisting in the prevention, early intervention, and monitoring of academic challenges, EWIS data supports educators in directing every student towards academic success.



Summer/ beginning of school year

Repeat throughout school year

End of school year/ summer

Accessing EWIS Reports

Each Massachusetts district has access to EWIS reports in the late summer, allowing educators to monitor struggling students and identify interventions as soon as the school year begins. Student-level and aggregate EWIS reports are available on Edwin Analytics: https://gateway.edu.state.ma.us/. Contact your district's directory administrator to request access to Edwin Analytics.

For More Information

Visit http://www.doe.mass.edu/edwin/analytics/ewis.html to access the Early Warning Implementation Guide, view EWIS video overviews, and learn more about EWIS Risk Model Development.