A Center Policy Brief

Moving Beyond the Three Tier Intervention Pyramid Toward a Comprehensive Framework for Student and Learning Supports

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Abstract

Introduction into federal policy of response to intervention (RTI) and positive behavior intervention and supports (PBIS) led to widespread adoption and adaptation of the three tier intervention pyramid. As originally presented, the pyramid highlights three different levels of intervention and suggests the percent of students at each level. While the focus on levels has made a positive contribution, the pyramid is a one dimensional intervention framework. Continuing overemphasis on the pyramid is limiting development of the type of comprehensive intervention framework that policy and practice analyses indicate are needed to guide schools in developing a comprehensive, multifaceted, and cohesive system of student and learning supports.

This brief underscores the limitations of the pyramid as an intervention framework and illustrates a mulitdimensional intervention framework and the type of expanded school improvement policy that can foster development and implementation of a comprehensive and coherent system.

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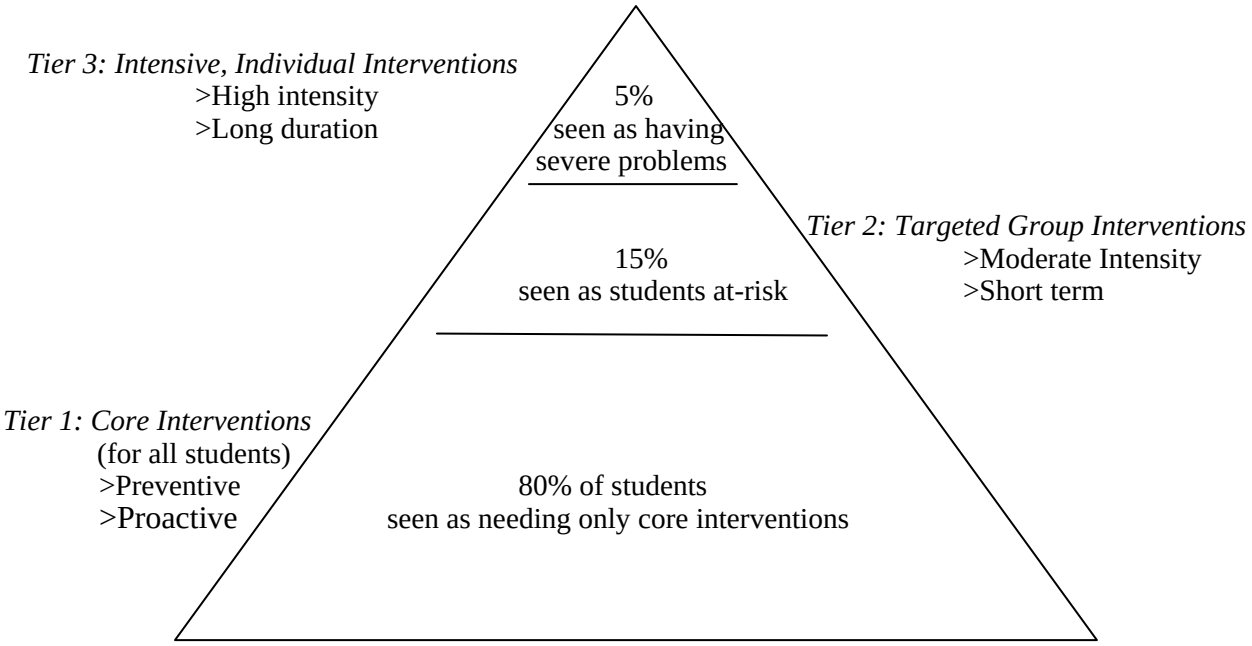
Moving Beyond the Three Tier Intervention Pyramid
Toward a Comprehensive Framework for Student and Learning Supports

Introduction into federal policy of response to intervention (RTI) and positive behavior intervention and supports (PBIS) led to widespread adoption and adaptation of the three tier intervention pyramid (Bender, 2009). As originally presented, the pyramid highlights three different levels of intervention and suggests the percent of students at each level. While the focus on levels has made a positive contribution, the pyramid is a one dimensional intervention framework and, as such, is an inadequate guide for developing a comprehensive system of student and learning supports.

The Three Tier Pyramid and Prevailing Policy

There have been many versions and adaptations of the pyramid. Exhibit 1 illustrates the most basic way it was diagrammed and discussed at the outset (Marston, 2003).

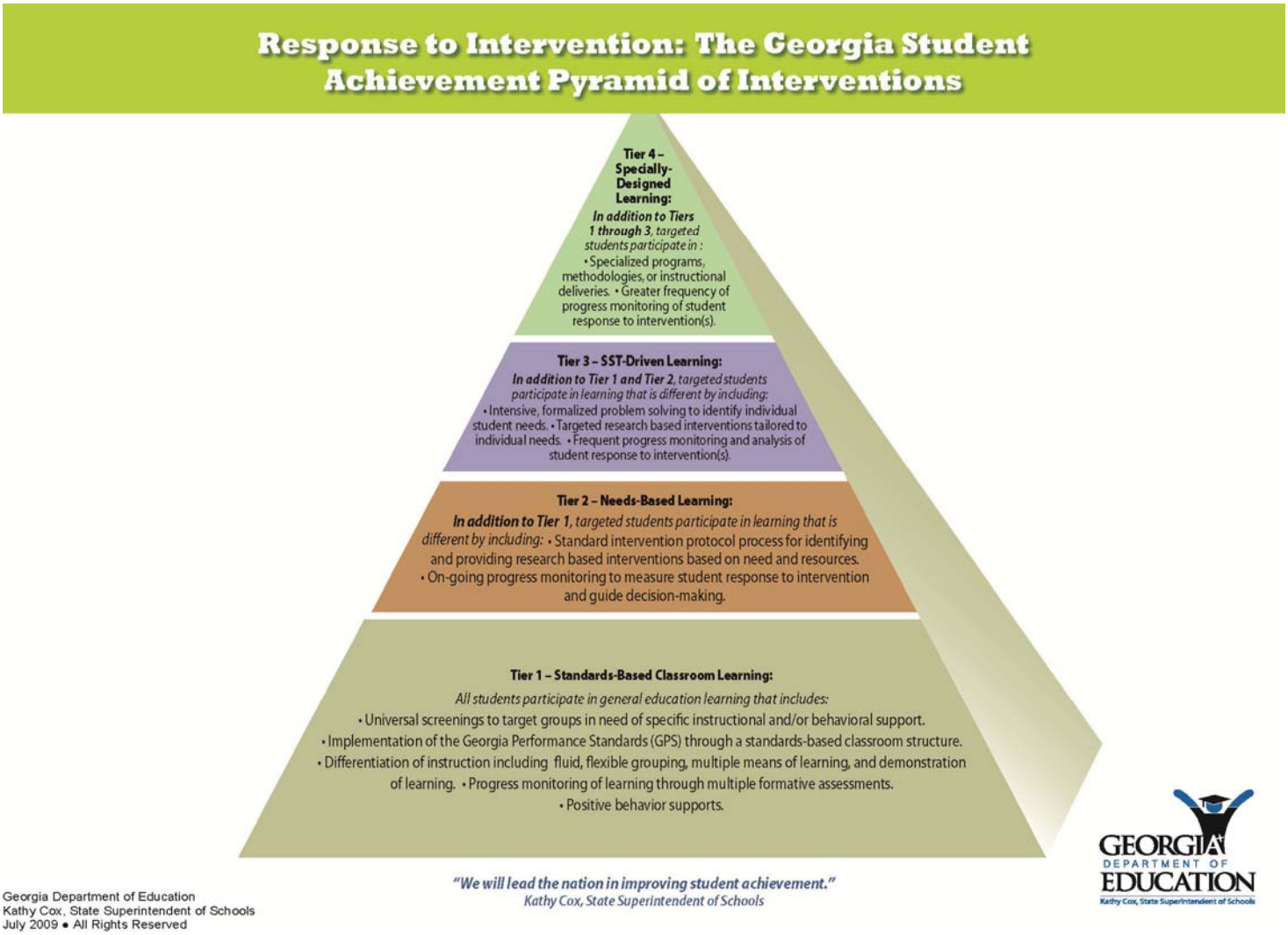
Exhibit 1
The Three Tier Pyramid as a Outline of Levels of Intervention Intensity



As can be seen, this formulation provides a simple way of emphasizing the levels of intervention students may need. The tiers are described as varying in intensity. The 5% and 15% figures reflect an estimate of how many might require more than core interventions under optimal conditions.

The pyramid's appeal rests in its simplicity -- so do its limitations. Its main contribution to policy and practice has been to underscore differences in levels of intervention, with special emphasis on a tiered delivery system for special education. As federal policy has expanded RTI and PBIS into schoolwide practices, reference to multiple tiers of intervention has appeared in state and local education agency schoolwide policy formulations. In some cases, the number of tiers has been expanded. For example, see Exhibit 2 for the Georgia Department of Education's pyramid (https://www.georgiastandards.org/Resources/Pages/Tools/ResponsetoIntervention(RTI).aspx).

Exhibit 2



While still focusing on three tiers, others have turned the pyramid into a cone and differentiated academic and behavioral concerns. Other formulations have emphasized levels in terms of universal, selective, and indicated interventions or primary, secondary, and tertiary prevention.

Another policy-oriented adaptation of the pyramid is found in the 2009 document from the U.S. Department of Education discussing how funds designated for compensatory and special education may be used in implementing RTI. Specifically, the focus is on the Elementary and Secondary Education Act's Title I schoolwide and targeted assistance programs and Title III which assists students who have limited English proficiency and the Individuals with Disabilities Education Act's Coordinated Early Intervention Services (CEIS). In this adaptation, the pyramid is described as a *triangle* and is used to illustrate when funds from the three sources can and cannot be used for levels ranging from "core instruction" through to "increasingly intensive instructional interventions." What is striking in this document is the absence of designated tiers and specific percentages of students. Instead, RTI is described simply as a multi-level framework and "four core components" are delineated (e.g., core instruction for all students, universal screening to identify students who are struggling, increasingly intensive research-based interventions for students who need extra help, and progress monitoring). Also, a triangle within the triangle is used to show that services for students with IEPs are appropriate at each level and that a student may be receiving services at several levels. Finally, it is stressed that as the interventions become increasingly intense, the number of students involved declines. (Note: The pyramid formulation also is used in the public health literature – see the Appendix to this brief.)

Efforts to Move Beyond the Pyramid

In the years since the pyramid's introduction, it has been widely acknowledged that focusing simply on levels of intervention, while essential, is insufficient. Three basic concerns about the pyramid formulation are that it mainly stresses levels of intensity, does not address the problem of systematically connecting interventions that fall into and across each level, and does not address the need to connect school and community interventions. Moreover, the stated percentages too often have been taken as factual data, when the reality is that some schools have many more students who need a range of student and learning supports. Rather than true data, the percentages only represent a recognition that an effective continuum of interventions can substantially reduce the number of students needing more than core instruction.

Few will argue against the notion that conceptualizing levels of intervention is a good starting point for framing the nature and scope of interventions needed to ensure all students have an equal opportunity to succeed at school. However, as the above concerns indicate, the pyramid is not the best way to depict this facet of intervention efforts.

An example of another way to conceive the levels is in terms of what they aim to do and as an interrelated continuum of subsystems. For instance, over many years our work has stressed overlapping levels conceived as a continuum of interrelated and overlapping intervention subsystems focused on (1) promoting development and preventing problems, (2) responding to problems as early-after-onset as feasible, and (3) treating severe, pervasive, and chronic problems (Adelman & Taylor, 1994, 2006a,b, 2010). Each subsystem is seen as needing to link school and community interventions in ways that integrate, coordinate, and weave resources together.

Moving beyond the pyramid also involves the pressing matter of *coalescing* the laundry list of fragmented programs and services designed to promote healthy development and address barriers to learning and teaching. This requires a formulation to guide organizing programs and services into a circumscribed set of arenas reflecting the *content purpose* of the activity.

In sum, it is evident that the three tiered pyramid has contributed to understanding that intervention is a multi-level enterprise. It also is evident that the overemphasis on the pyramid has limited formulation of the type of intervention framework that policy and practice analyses indicate is needed to guide schools in developing a comprehensive, multifaceted, and cohesive system of student and learning supports (Center for Mental Health in Schools, 2005).

Toward a Comprehensive Intervention Framework for Enabling All Students to Have an Equal Opportunity for Success at School

Over the years our intervention research has included a focus on developing an *intervention framework* for a comprehensive approach to addressing barriers to learning and teaching and re-engaging disconnected students. Subsequently, our policy analyses led to formulation of an *expanded policy framework* for ending the marginalization of work designed to develop such a comprehensive approach and integrate it fully into school improvement efforts (Center for Mental Health in Schools, 2008a). We offer a brief overview of these frameworks below.

Intervention Framework

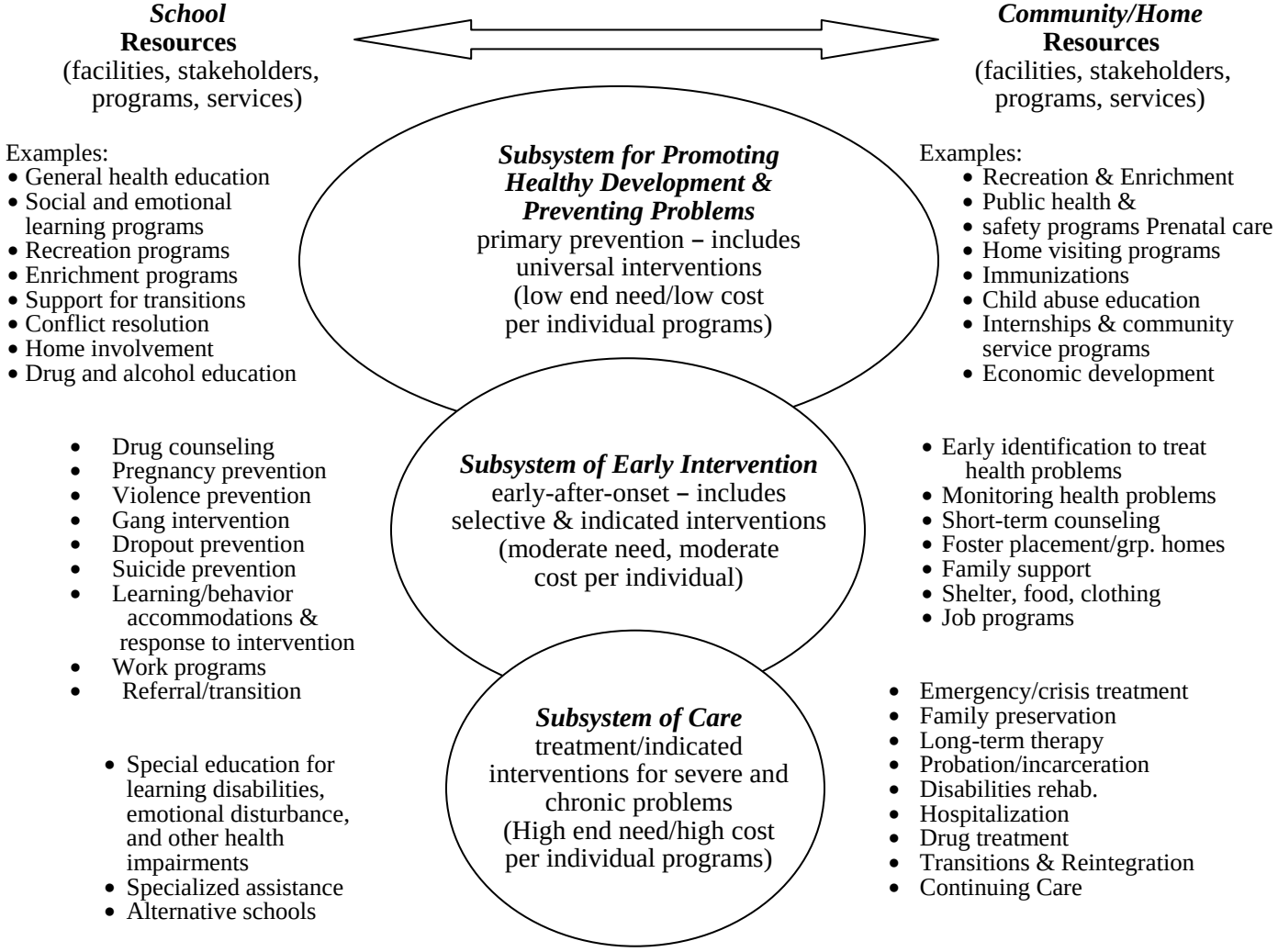
The evolving intervention framework generated by our Center's research (a) conceptualizes levels of intervention as a full continuum of integrated intervention *subsystems* and emphasizes the importance of weaving together school-community-home resources and (b) organizes programs and services into a circumscribed set of arenas reflecting the *content purpose* of the activity. In keeping with public education and public health perspectives, the intervention framework encompasses efforts to enable academic, social, emotional, and physical development and to address behavior, learning, and emotional problems in the classroom and schoolwide at every school and in every community.

Levels as a continuum of subsystems. As one facet of establishing, over time, a comprehensive, multifaceted, cohesive approach, we conceive a continuum of interventions that strives to

- promote healthy development and prevent problems
- intervene early to address problems as soon after onset as is feasible
- assist with chronic and severe problems.

As graphically illustrated in Exhibit 3, (a) each level represents a subsystem, (b) the three subsystems overlap, and (c) all three require integration into an overall system that encompasses school and community resources.

Exhibit 3
Integrated Continuum of Intervention Subsystems*



The three subsystems taper from top to bottom to indicate the view that if the top is well designed and implemented, the numbers needing early intervention are reduced; and if the subsystem for early intervention is well designed and implemented, fewer students will need "deep-end" interventions.

Arenas of activity. Focusing only on a continuum of intervention is insufficient. For example, "mapping" done with respect to three levels of intervention does not do enough to escape the trend to generate laundry lists of programs and services at each level. Thus, in addition to the continuum, it is necessary to organize programs and services into a circumscribed set of arenas reflecting the *content purpose* of the activity. Our work emphasizes six arenas encompassing interventions to:

- *Enhance regular classroom strategies to enable learning* (e.g., improving instruction for students who have become disengaged from learning at school and for those with mild-moderate learning and behavior problems; includes a focus on prevention, early intervening, and use of strategies such as response to intervention)
- *Support transitions* (i.e., assisting students and families as they negotiate school and grade changes and many other transitions)
- *Increase home and school connections and engagement*
- *Respond to, and where feasible, prevent crises*
- *Increase community involvement and support* (outreach to develop greater community involvement and support, including enhanced use of volunteers)
- *Facilitate student and family access to effective services and special assistance* as needed

Some version of the six basic arenas has held-up over the last decade in a variety of venues across the country (see *Where's it Happening* -- http://smhp.psych.ucla.edu/summit2002/nind7.htm).

As illustrated in Exhibit 4, the *continuum* and six *content arenas* can be formed into an intervention framework for a comprehensive system of learning supports. Such a framework can guide and unify school improvement planning for developing the system. The matrix provides a unifying framework for mapping what is in place and analyzing gaps. Overtime, this type of mapping and analyses are needed at the school level, for a family of schools (e.g., a feeder pattern of schools), at the district level, community-wide, and at regional, state, and national levels.

Exhibit 4
Framework for a Comprehensive System of Student and Learning Supports

Integrated Intervention *Continuum*

Arenas of Intervention *Content*	Subsystem for Promoting Healthy Development & Preventing Problems	Subsystem for Early Intervention	Subsystem of Care
In Classroom			
Support for Transitions			
Crisis response/prevention			
Home involvement			
Community engagement			
Student & Family Assistance			

Continuum + Content = An Enabling Component

In our work, we operationalize a comprehensive system of learning supports as an *Enabling* or *Learning Supports Component* (see Exhibit 5). This helps to coalesce and enhance programs with the aim of ensuring all students have an equal opportunity to succeed at school. A critical matter is defining what the entire school must do to enable *all* students to learn and *all* teachers to teach effectively. School-wide approaches are especially important where large numbers of students are affected and at any school that is not yet paying adequate attention to equity and diversity concerns.

As indicated in the Exhibit, an enabling component involves first addressing interfering factors *and then* (re-)engaging students in classroom instruction. The reality is that interventions that do not include an emphasis on ensuring students are engaged meaningfully in classroom learning generally are insufficient in sustaining, over time, student involvement, good behavior, and effective learning at school.

In essence, beginning in the classroom with differentiated classroom practices and by ensuring school-wide learning supports, an Enabling or Learning Supports Component

- addresses barriers through a broader view of "basics" and through effective accommodation of individual differences and disabilities
- enhances the focus on motivational considerations with a special emphasis on intrinsic motivation as it relates to individual readiness and ongoing involvement and with the intent of fostering intrinsic motivation as a basic outcome
- adds remediation, treatment, and rehabilitation as necessary, but only as necessary.

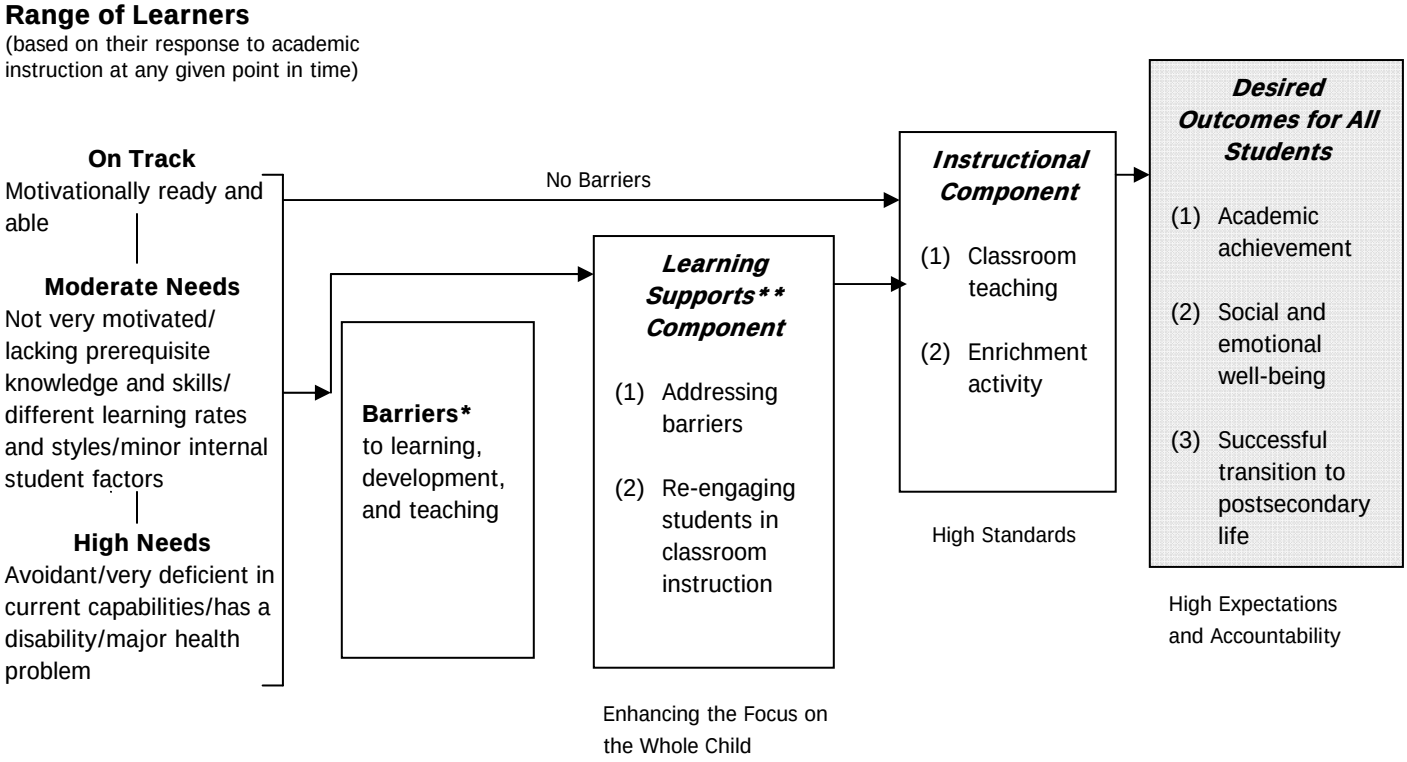
External and internal barriers to learning pose some of the most pervasive and entrenched challenges to educators across the country, particularly in chronically low performing schools. Failure to directly address these barriers ensures that (a) too many children and youth will continue to struggle in school, and (b) teachers will continue to divert precious instructional time to dealing with behavior and other problems that can interfere with classroom engagement for all students. Despite this state of affairs, the need to systemically lower or eliminate barriers to learning and teaching is given only marginal attention in formulating policies and programs to improve schools. An expanded policy framework for school improvement is needed to end the marginalization.

Policy Framework

To date, federal policy addresses two components as primary and essential to school reform. One emphasizes core curriculum and instructional practices; the other addresses governance and operations of schools. Research has clarified the need for a third component that directly and comprehensively focuses on (a) addressing barriers to learning and teaching and (b) re-engaging students who have become disconnected from classroom instruction (Center for Mental Health in Schools, 2005). In most school districts today, the student and learning supports necessary to accomplish the school's mission are treated as a marginal facet of school improvement efforts. Typically, these interventions are provided by a range of school employed personnel (e.g., school counselors, psychologists, social workers, nurses, etc.) and sometimes by community-based providers who collocate on campuses. However, because of the long-standing marginalization of student and learning supports, the resources and leadership dedicated to supporting such work continues to be fragmented, often with costly redundancy and counterproductive competition for sparse resources, and always producing too-limited outcomes.

Exhibit 5

A Learning Supports Component to Address Barriers and Re-Engage Students in Classroom Instruction



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*Examples of Conditions That Can Increase Barriers to Learning

Environmental Conditions			Person Conditions
Neighborhood	**Family**	**School and Peers**	**Internal Student Factors**
▪ High poverty ▪ High rates of crime, drug use, violence, gang activity ▪ High unemployment, abandoned/floundering businesses ▪ Disorganized community ▪ High mobility ▪ Lack of positive youth development opportunities	▪ Domestic conflicts, abuse, distress, grief, loss ▪ Unemployment, poverty, and homelessness ▪ Immigrant and/or minority status ▪ Family physical or mental health illness ▪ Poor medical or dental care ▪ Inadequate child care ▪ Substance abuse	▪ Poor quality schools, high teacher turnover ▪ High rates of bullying and harassment ▪ Minimal offerings and low involvement in extracurricular activities ▪ Frequent student–teacher conflicts ▪ Poor school climate, negative peer models ▪ Many disengaged students and families	▪ Neurodevelopmental delay ▪ Physical illness ▪ Mental disorders ▪ Disabilities ▪ Inadequate nutrition and healthcare ▪ Learning, behavior, and emotional problems that arise from negative environmental conditions exacerbate existing internal factors

**Learning supports are defined as the resources, strategies, and practices that provide physical, social, emotional, and intellectual supports to enable all students to have an equal opportunity for success at school by directly addressing barriers to learning and teaching and by reengaging disconnected students.

The type of learning supports component illustrated in Exhibit 5 can coalesce the fragmented interventions generated by current school policy if it is conceived and enacted as a primary and essential third component of school improvement (see Exhibit 6). Such a component is intended to facilitate development of a comprehensive and cohesive system of learning supports that is fully integrated with instruction and management (Exhibit 6B) and that fully integrates student and learning supports, such as RTI, PBIS, social-emotional learning beyond curricular approaches, home engagement, school-community collaboration, and more. From a policy and practice perspective, a comprehensive system of student and learning supports is essential to school improvement.

Where Does RTI and PBIS Fit In

A question frequently asked of our Center is: *Where does some specific initiative, such as RTI and PBIS, fit into a comprehensive system of student and learning supports?* (Center for Mental Health in Schools, 2008b).With reference to the matrix in Exhibit 4, well-conceived approaches to RTI and PBIS fit into every cell. And, from our perspective, most such initiatives not only fit, they provide an opportunity to move forward in fully integrating a comprehensive system of supports into school improvement policy and practice.

It is necessary, however, to understand that there is considerable variability in how RTI and PBIS are currently operationalized across the country. The tendency in some places is to proceed as if more and better instruction and more positive social control related to undesired behavior is all that is needed. Clearly, good instruction and positive ways of dealing with behavior problems are necessary, but often are insufficient. From various reports, it seems clear that RTI and PBIS frequently are not conceived or implemented in ways that (1) address major barriers to learning and teaching *and also* (2) re-engage disconnected students in actively pursuing classroom instruction.

If RTI is treated simply as a way to provide more and better instruction and PBIS focuses only on positively addressing undesired behavior, the interventions are unlikely to be effective over the long-run for a great many students. However, if RTI and PBIS are understood as part and parcel of a comprehensive system of classroom and school-wide student and learning supports, schools will be in a better position not only to address problems effectively early after their onset, but will prevent many from occurring.

Implied in all this is that staff are designated specifically to work on ensuring (1) development of an optimal learning environment in classrooms and schoolwide, (2) classroom teachers are learning how to implement "well-designed early intervention" in the classroom, and (3) support staff are learning how to play a role, often directly in the classroom, to expand intervention strategies as necessary.

Concluding Comments

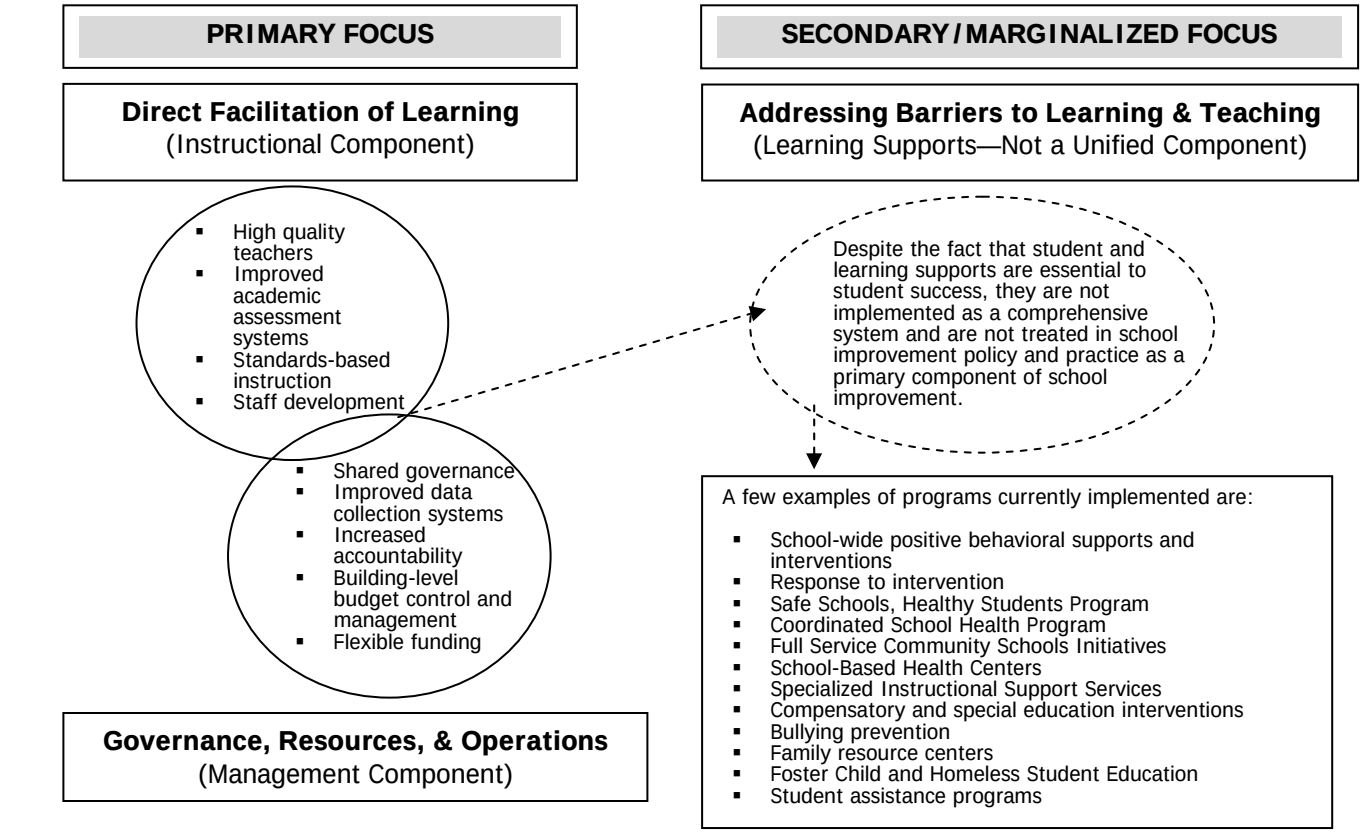
For much of the last decade, the three tiered pyramid has made a contribution in enhancing appreciation that intervention is a multi-level enterprise. At this point, a continuing overemphasis on the pyramid is limiting development of the type of comprehensive intervention framework that policy and practice analyses indicate are needed to guide schools in developing a comprehensive, multifaceted, and cohesive system of student and learning supports.

Addressing barriers to learning and teaching and reengaging disconnected students is a school improvement imperative. Developing and implementing a comprehensive, multifaceted, and cohesive system of learning supports is the next evolutionary stage in meeting this imperative. It is the missing component in efforts to close the achievement gap, enhance school safety, reduce dropout rates, shut down the pipeline from schools to prisons, and promote well-being and social justice.

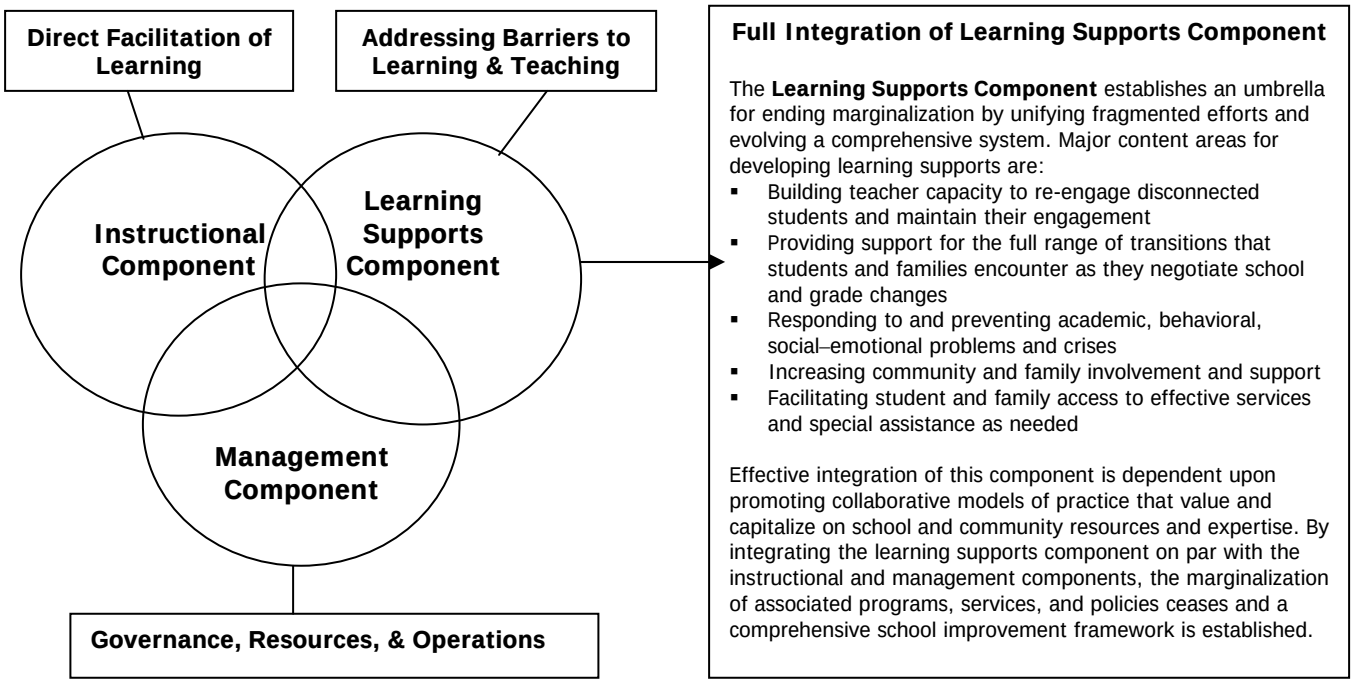
Exhibit 6

Moving From a Two- to a Three-Component Framework for Improving Schools

A. Current School Improvement Framework



B. Needed: Policies to Establish an Umbrella for School Improvement Planning Related to Addressing Barriers to Learning and Promoting Healthy Development



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Marston, D. (2003). Comments on three papers addressing the question: "How many tiers are needed within RTI to achieve acceptable prevention outcomes and to achieve acceptable patterns of LD identification?" Paper presented at the NRCLD Responsiveness to Intervention Symposium, Kansas City, MO. http://www.nrcld.org/symposium2003/marston/index.html

U.S. Department of Education (2009*). Implementing RTI using Title I, Title III, and CEIS funds: Key issues for decision-makers*. Washington, DC: Author. http://www2.ed.gov/programs/titleiparta/rtifiles/rti.pdf

*The Center has compiled a variety of resources, including a toolkit, to provide ready access to a set of resources for developing a comprehensive system of student/learning supports. See http://smhp.psych.ucla.edu/summit2002/resourceaids.htm

Among the many resources in the toolkit is a set of self-study surveys related to developing a comprehensive system of student/learning supports. One of these is a survey of "systems" designed to help determine the degree to which a comprehensive system is being developed. (Directly accessible at http://smhp.psych.ucla.edu/pdfdocs/Surveys/Set1.pdf)

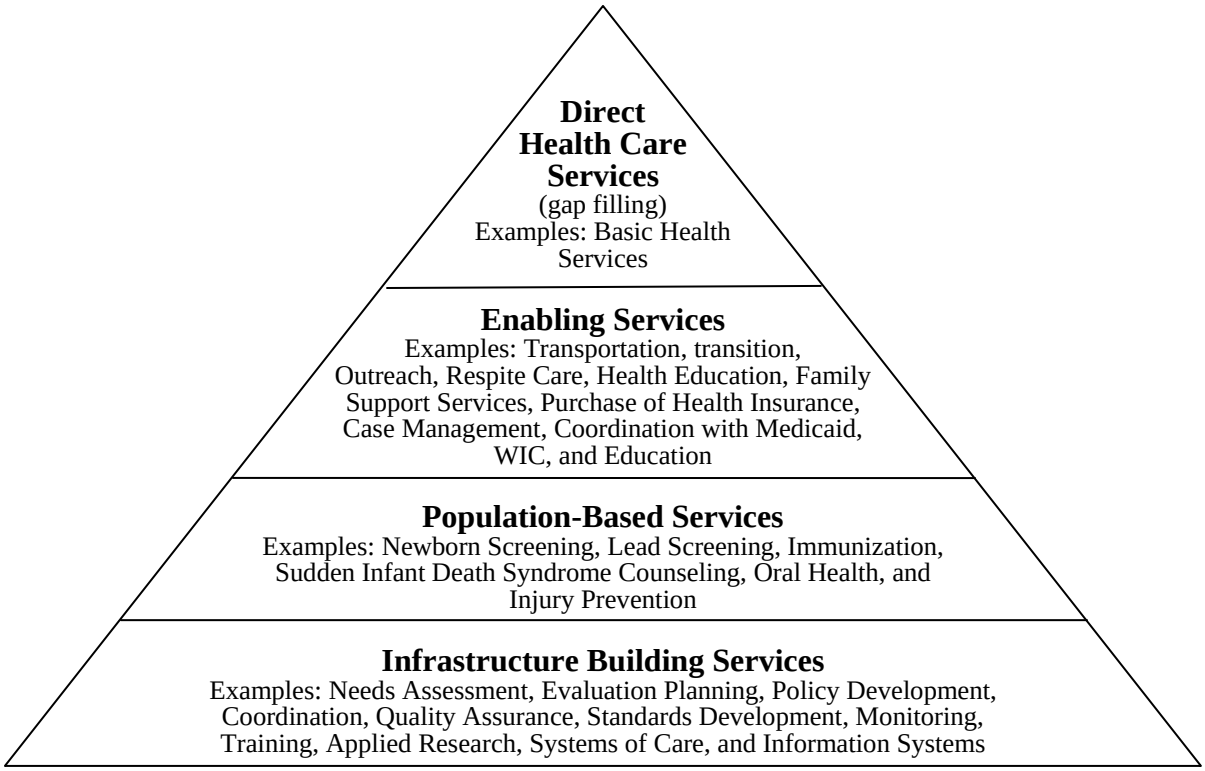
Appendix

The Pyramid as Used in the Public Health Field

Below are two examples of how a pyramid of interventions is used in the public health arena.

In a 2010 article, Thomas Frieden proposed *The Health Impact Pyramid* as a framework for public health action. He states that "a 5-tier pyramid best describes the impact of different types of public health interventions and provides a framework to improve health. At the base of this pyramid, indicating interventions with the greatest potential impact, are efforts to address socioeconomic determinants of health. In ascending order are interventions that change the context to make individuals' default decisions healthy, clinical interventions that require limited contact but confer long-term protection, ongoing direct clinical care, and health education and counseling." He stresses that "interventions focusing on lower levels of the pyramid tend to be more effective because they reach broader segments of society and require less individual effort. Implementing interventions at each of the levels can achieve the maximum possible sustained public health benefit" (see Thomas R. Frieden (2010), A Framework for Public Health Action: The Health Impact Pyramid. *American Journal of Public Health, 100*, 590-595).

For many years, the Department of Health and Human Services has promoted the Maternal and Child Health Bureau's Pyramid of Health Services. That pyramid is illustrated below:



From: U.S. Department of Health and Human Services (2008). *State MCH-Medicaid Coordination: A Review of Title V and Title XIX Interagency Agreements* (2nd Ed). U.S. Department of Health and Human Services (HHS), Health Resources and Services Administration (HRSA), Maternal and Child Health Bureau (MCHB). http://mchb.hrsa.gov/iaa/default.htm