



# Strategies in Addressing Program Evaluation Challenges for a District-Wide Comprehensive Behavioral Health Model

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# Agenda

- Introduction to Boston's Comprehensive Behavioral Health Model (CBHM)
- Background and Need for Evaluation Focus
- Development of CBHM's Evaluation Plan
  - Research Team & Tasks
  - Logic Model
  - Data Sources
  - Indicators
  - Evaluation vs. Research Questions
- District Level Data-based Decision Making
- Conclusions
- Discussion



# INTRODUCTION TO CBHM IMPLEMENTATION



# Boston Public Schools (BPS) Context

- First public school system in the US (1647)
- >120 schools
  - 80 Elementary
  - 9 Middle
  - 31 Secondary



# Boston Public Schools Context

- Diverse neighborhoods
- 54,312 students
  - 30% English Language Learners
  - >100 languages spoken

Race	% of District
African American	33.6
Asian	8.5
Hispanic	40.9
Native American	0.3
White	13.8
Native Hawaiian, Pacific Islander	0.2
Multi-Race, Non-Hispanic	2.7

(MDESE, 2015)

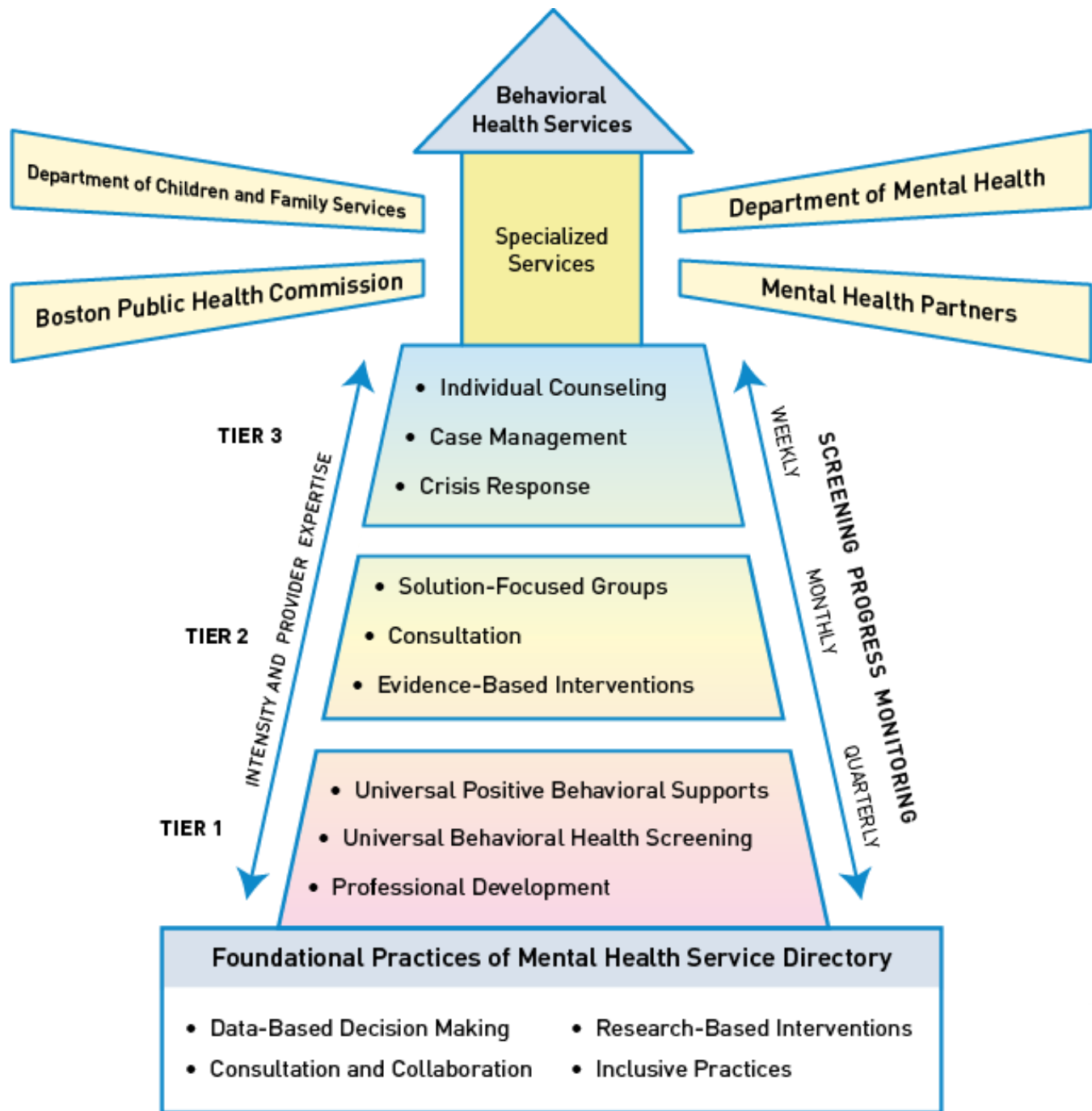


# Boston Public Schools Context

- Need for services
  - 1 in 5 students with disabilities (MDESE, 2015)
  - 1 in 4 Boston children have experienced at least 1 adverse childhood event (BPHC, 2013)
- Limited resources
  - 57 school psychologists for >120 schools
  - 35% of schools have limited or no behavioral health partners (<.5 FTE)



# Comprehensive Behavioral Health Model



# CBHM Implementation

- **Launch:** 2012-2013 school year
- 10 schools per year
- **Current:** 40 schools
- Executive Work Group Formation



# CBHM EVALUATION

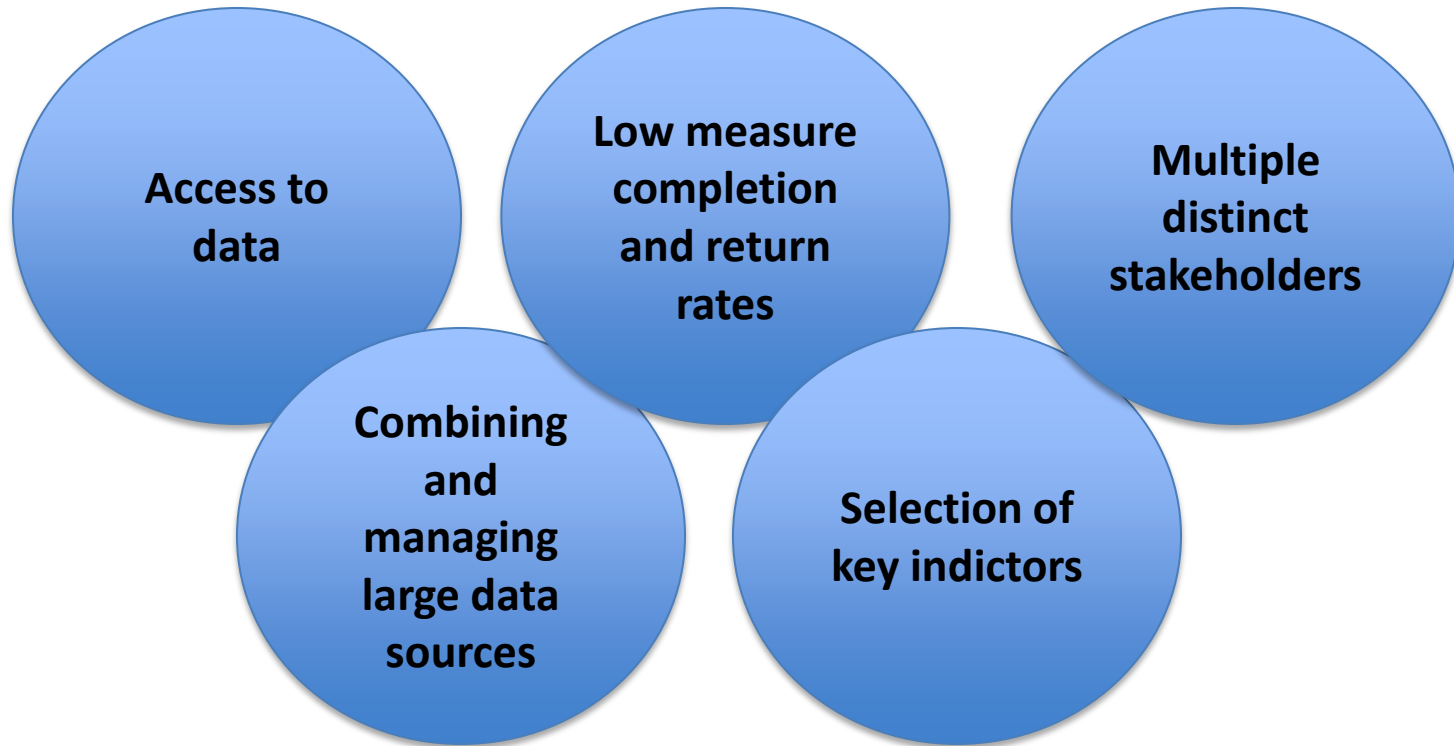


# School-Based Behavioral Health Evaluation

- Historically, limited evaluation efforts
- Consistently identified as an area in need of critical attention



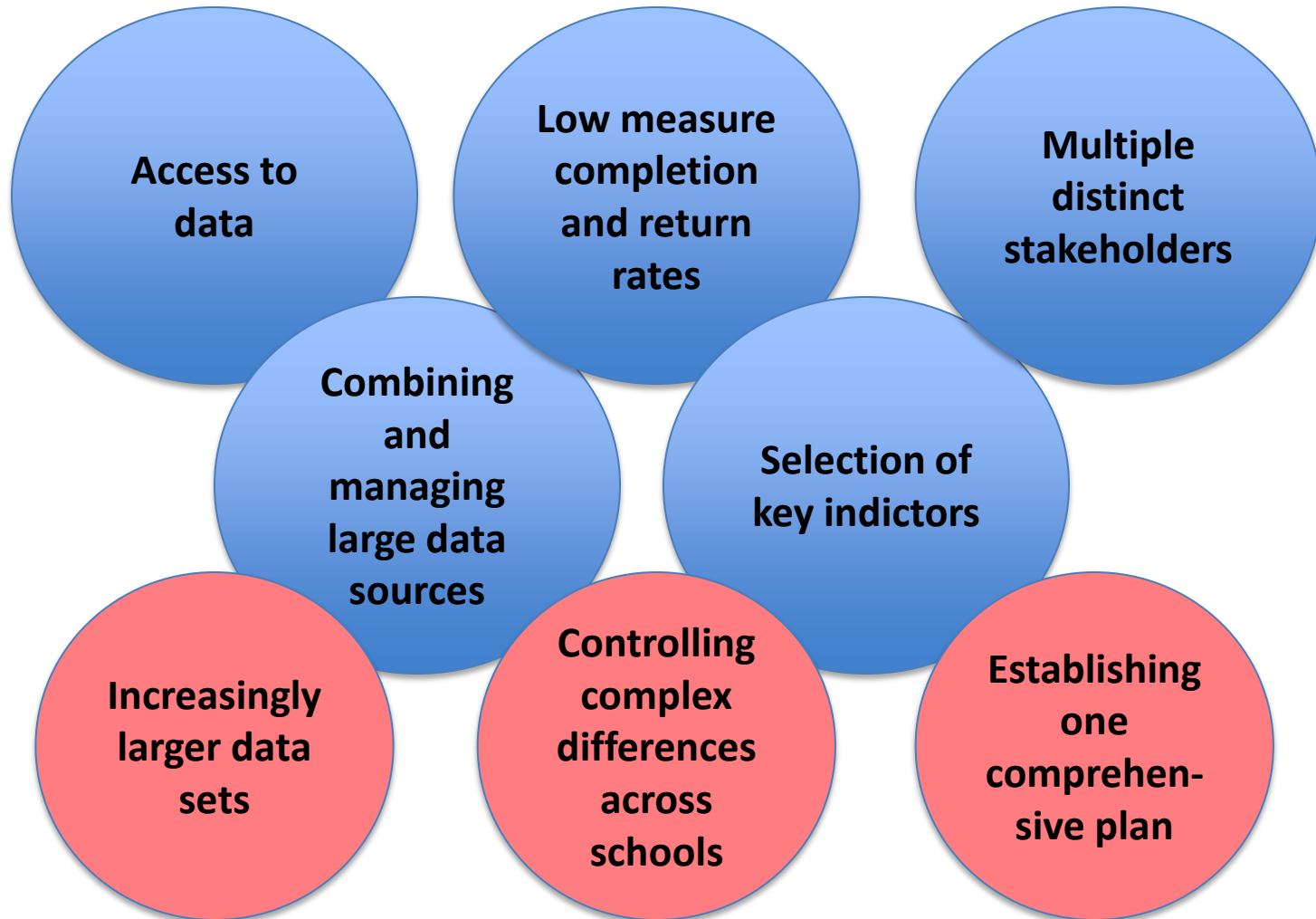
# School-Based Behavioral Health Evaluation Challenges



(Nabors, 2003)

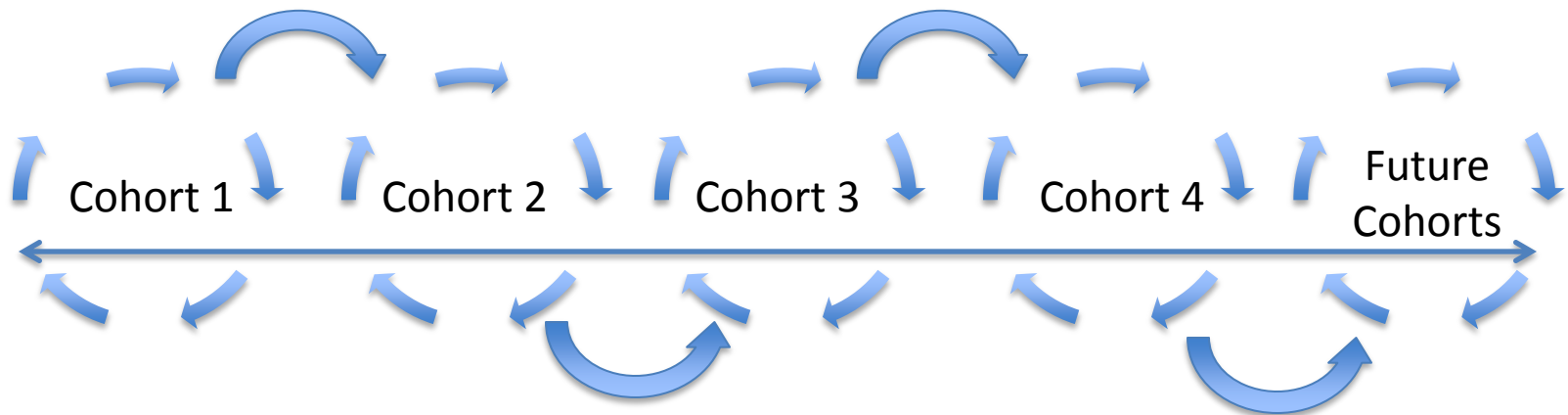


# School-Based Behavioral Health Evaluation Challenges: District Models

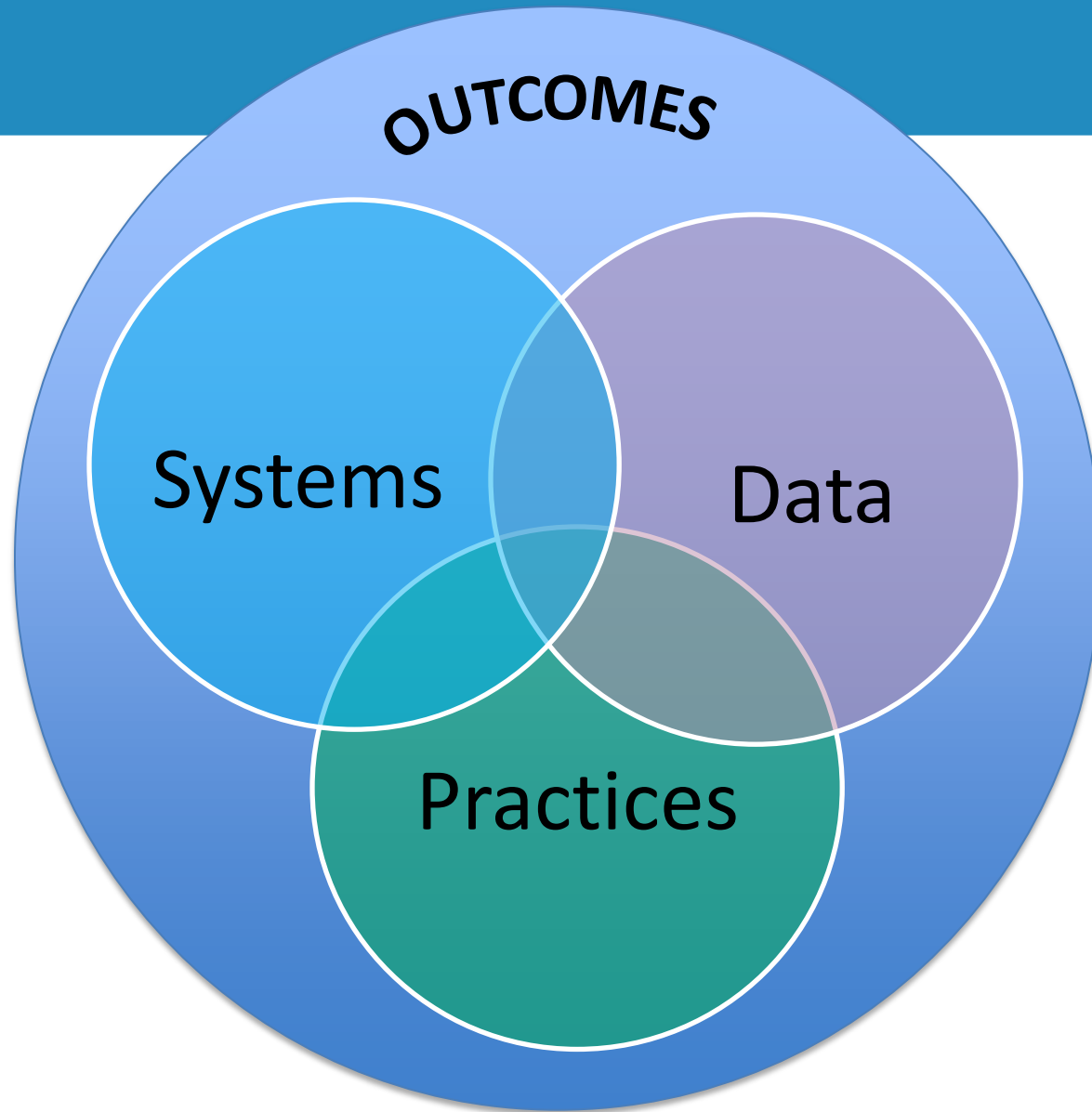


# Evaluation Goals

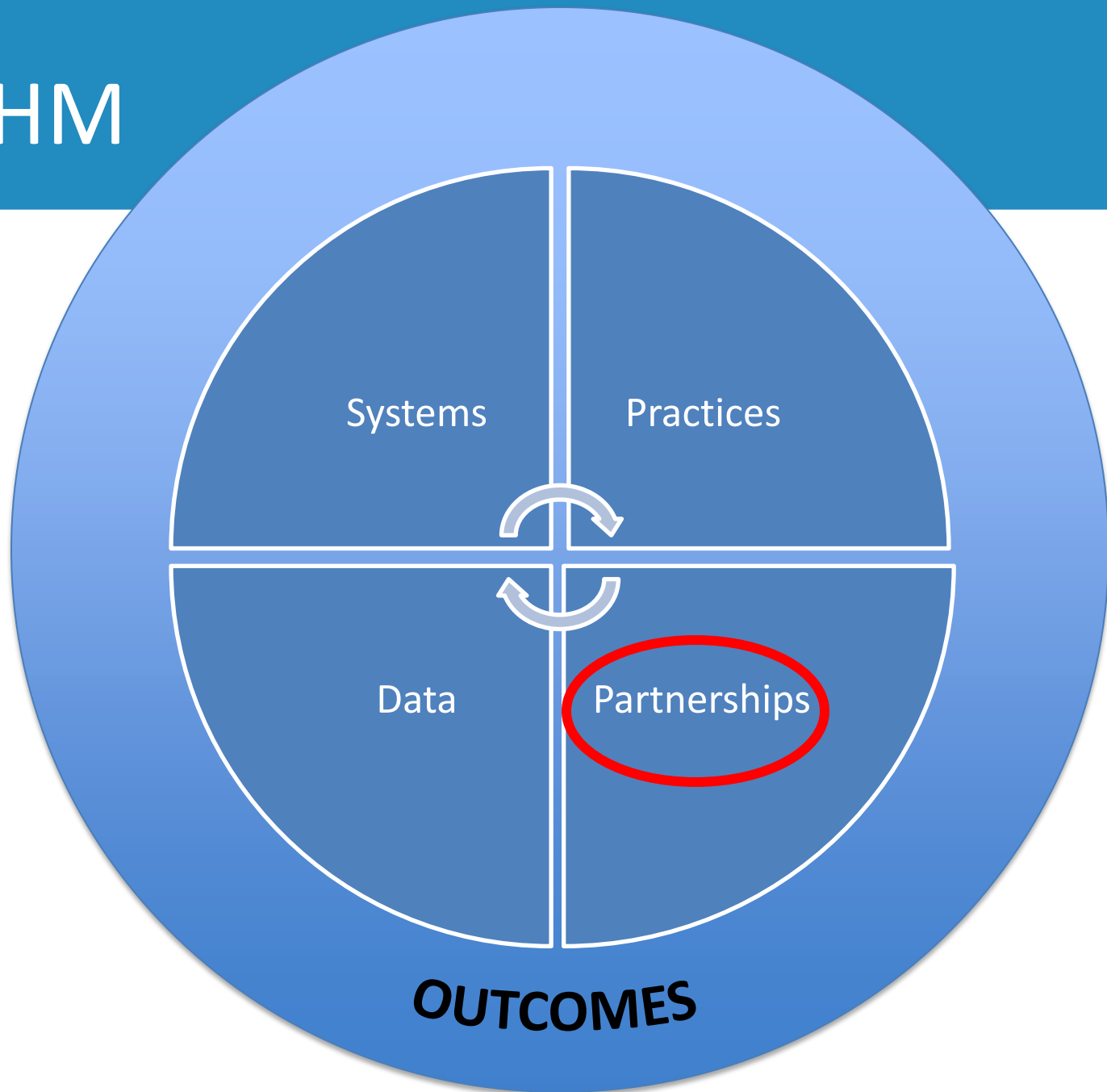
- Accountability
- Quality assurance and improvement
- Data-based decision making

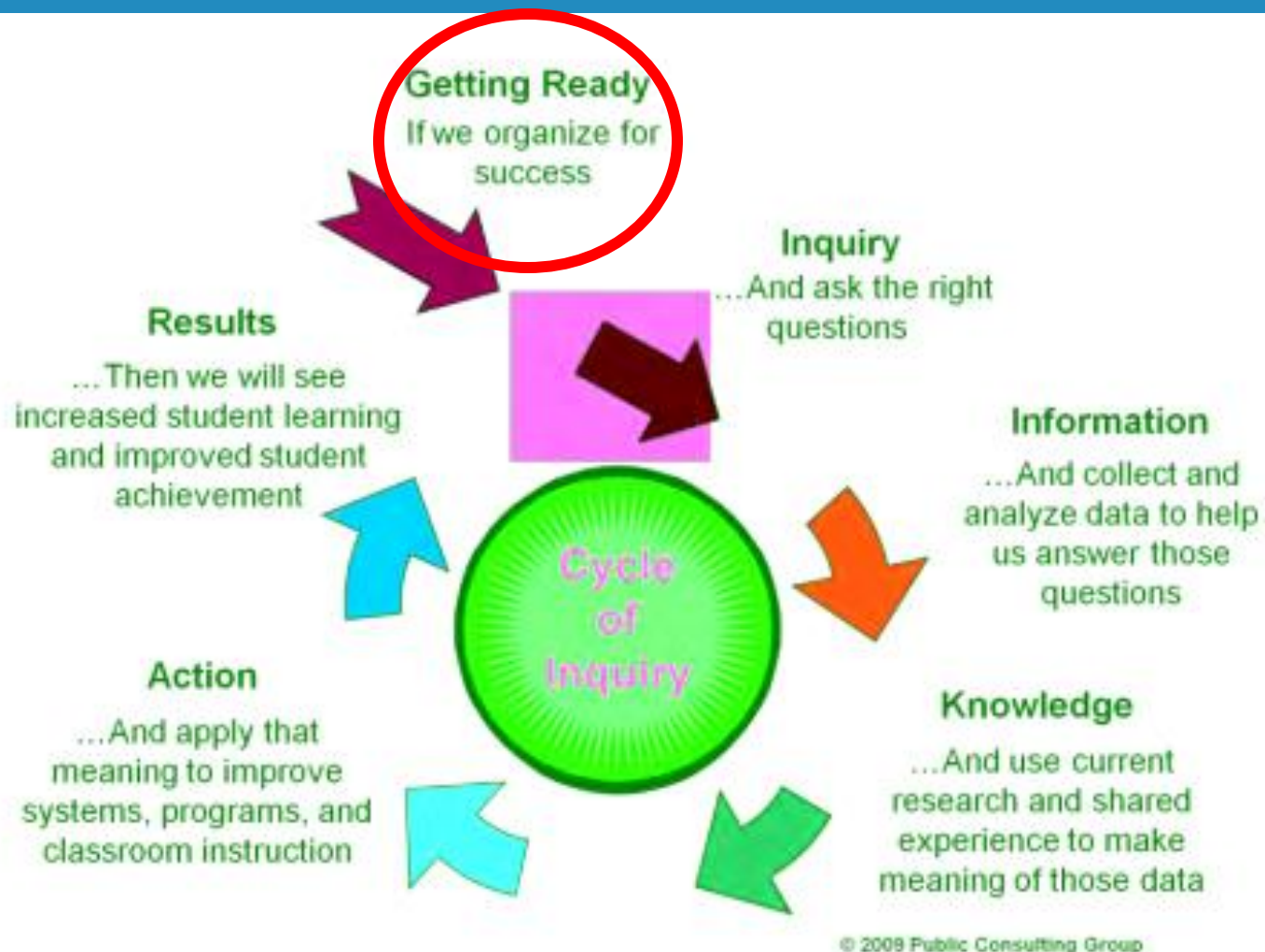


# MTSS



# CBHM





More info: Geier, Smith, & Tornow (2012)



# CBHM

## Executive Work Group

Implementation

Communications

Research

Family  
Engagement

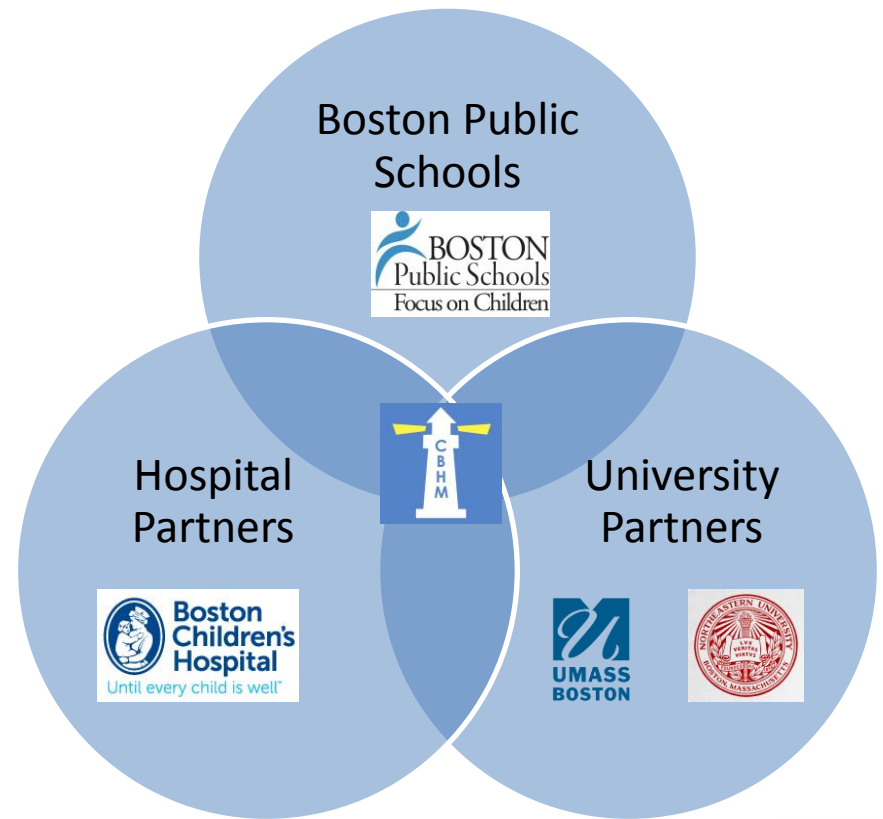
Partners



# CBHM Research Committee: Organization

## WHO?

The CBHM Research Committee consists of representatives from multiple agencies and various disciplines



# CBHM Research Committee: Organization

## WHAT?



# CBHM Research Committee: Organization

## WHEN?

Data

- **Lead:** BPS & UMass Practicum Student Team
- Weekly

Evaluation

- **Lead:** BPS & BCH Evaluation Team
- Every other month

Research

- All Partners
- Every other month





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# Logic Models

- Provide a map for a program or initiative
- Clarify:
  - A program's destination
  - The pathways to that destination
  - Markers along the pathways
- Explicitly present:
  - Assumed theories of change/action
  - Assumptions about resources at a program's disposal



(Shakman & Rodriguez, 2015)



# Logic Models

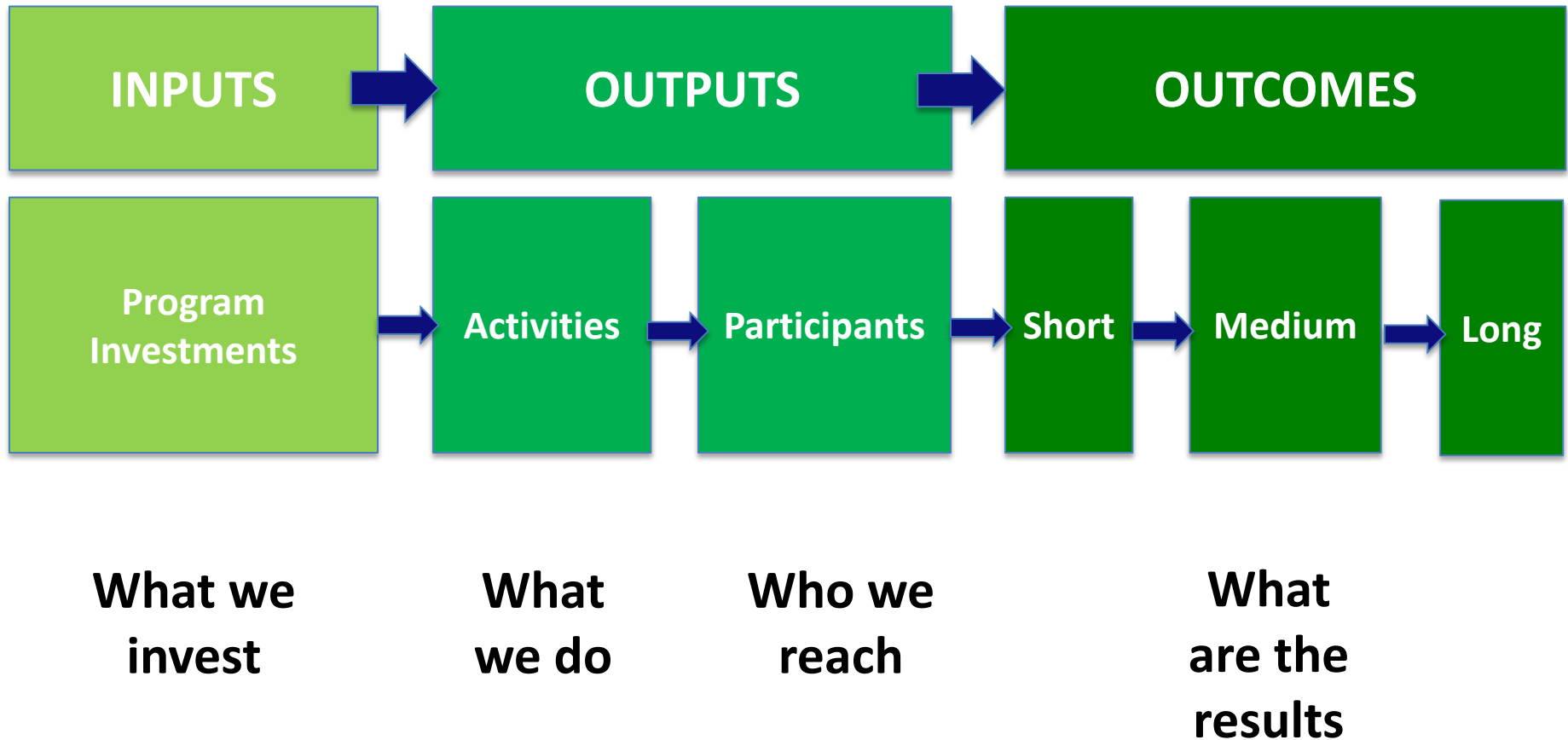
- Benefits:
  - Accountability for what matters
  - Common language
- Integrate:
  - Planning
  - Implementation
  - Evaluation
  - Reporting



# Logic Models



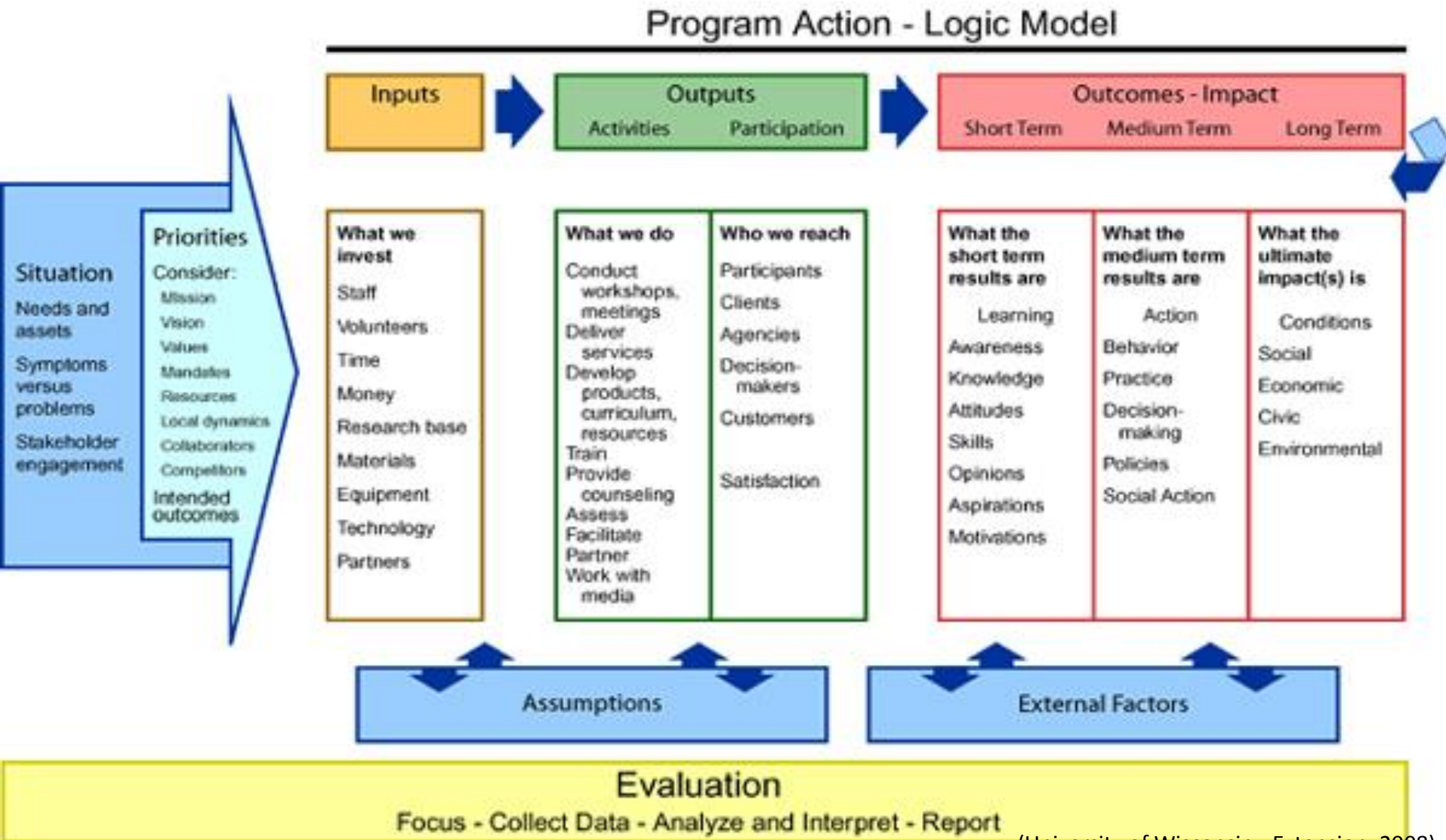
# Logic Models



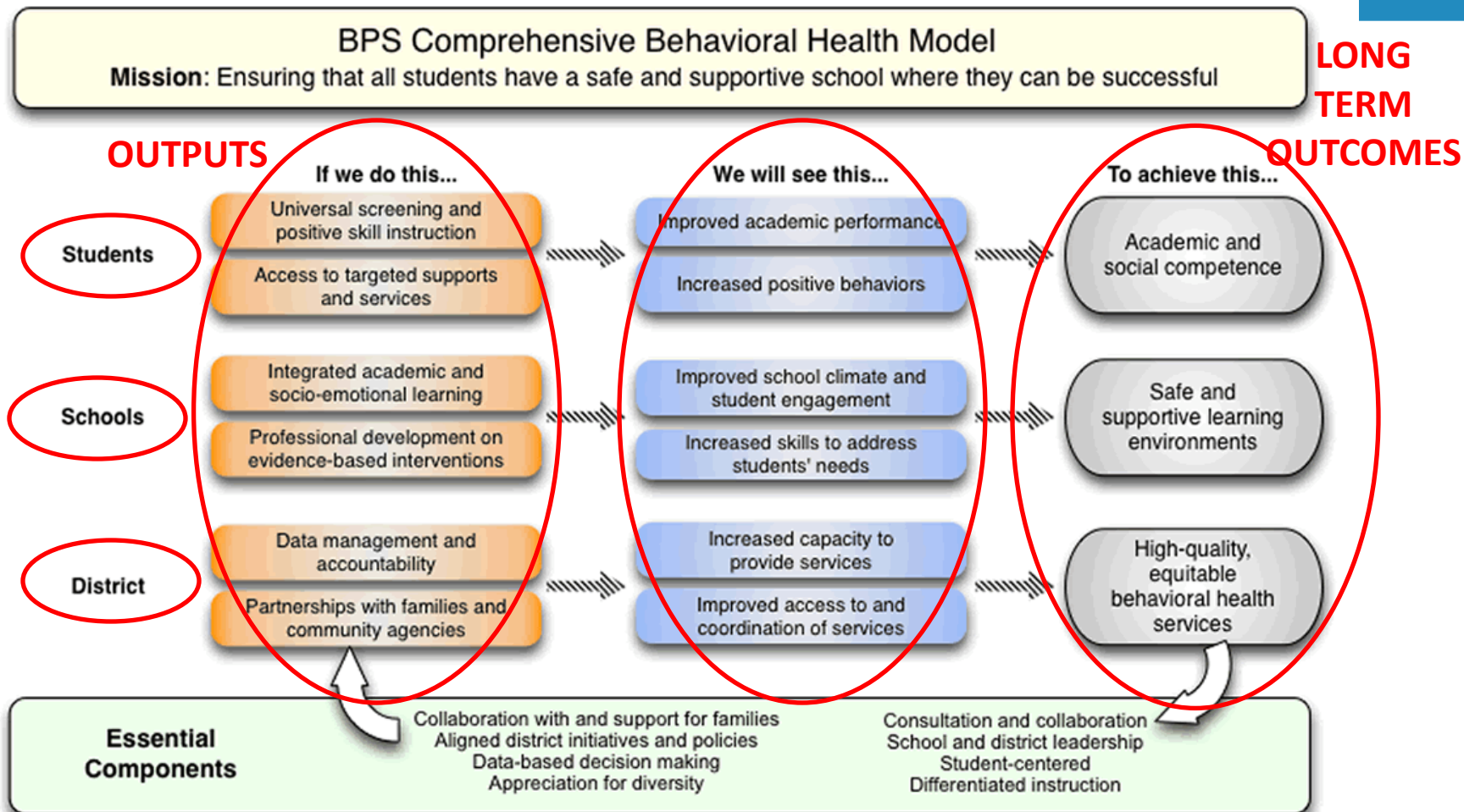
(University of Wisconsin - Extension, 2008)



# Logic Models



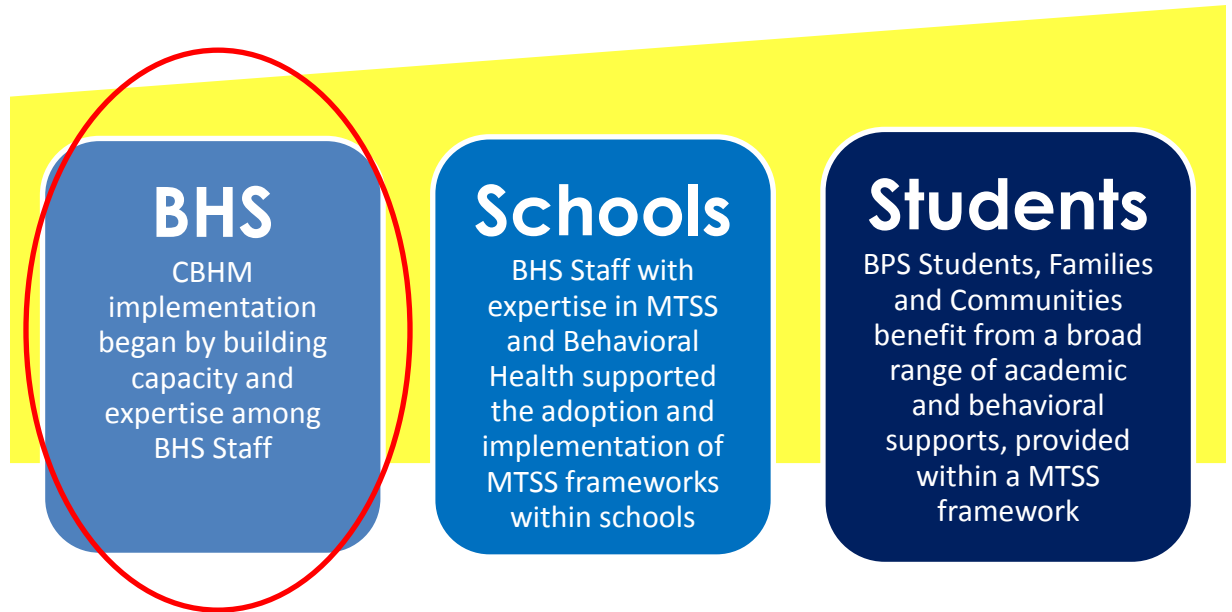
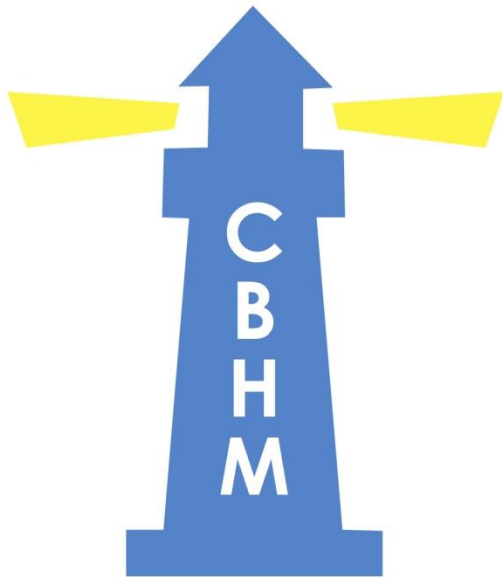
# CBHM Logic Model: Theory



*Guided by Massachusetts Department of Elementary and Secondary Education's Behavioral Health Framework*

**Theory of Change:** Integrating behavioral health services into schools will create safe and supportive learning environments that optimize academic outcomes for all students.

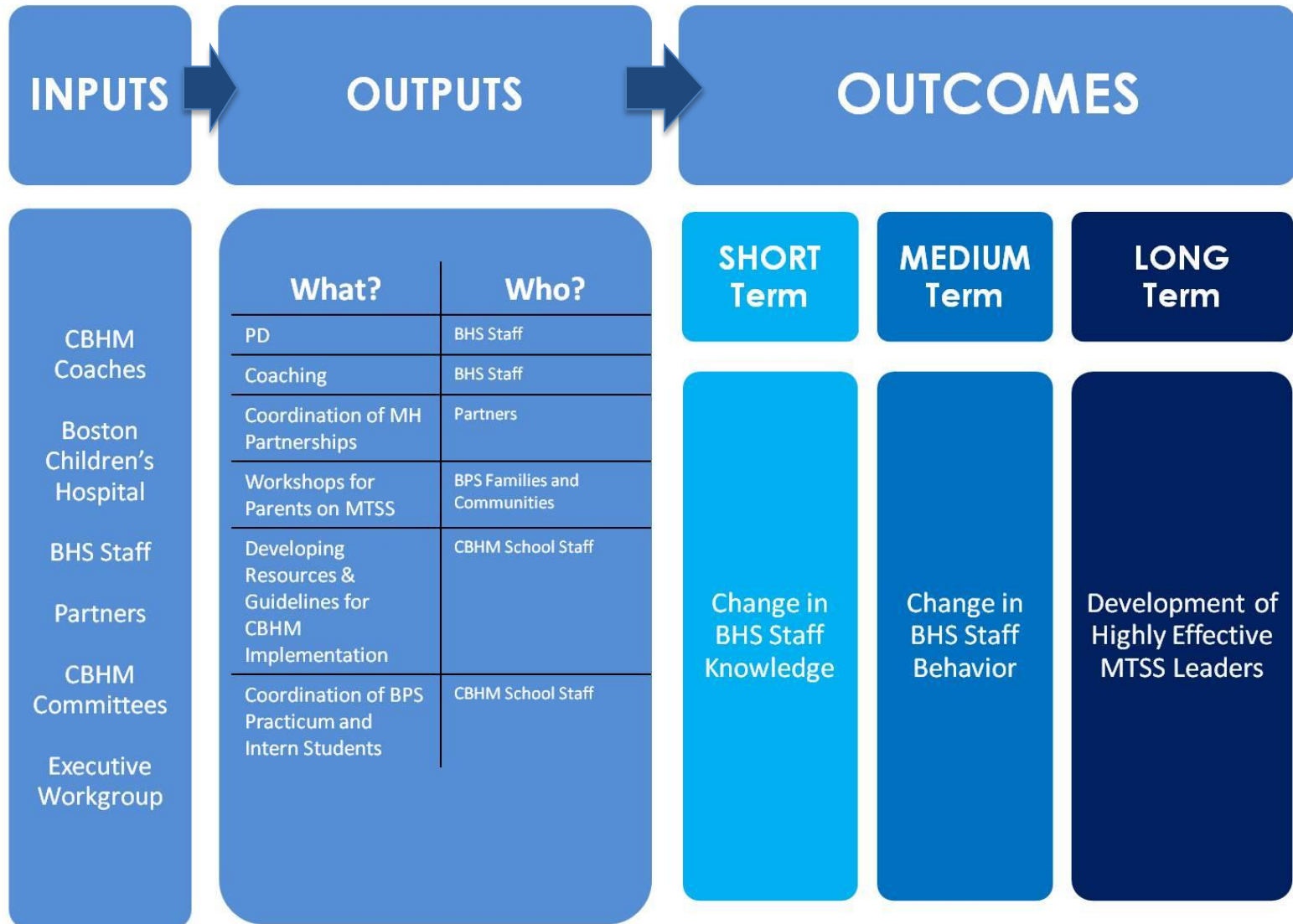


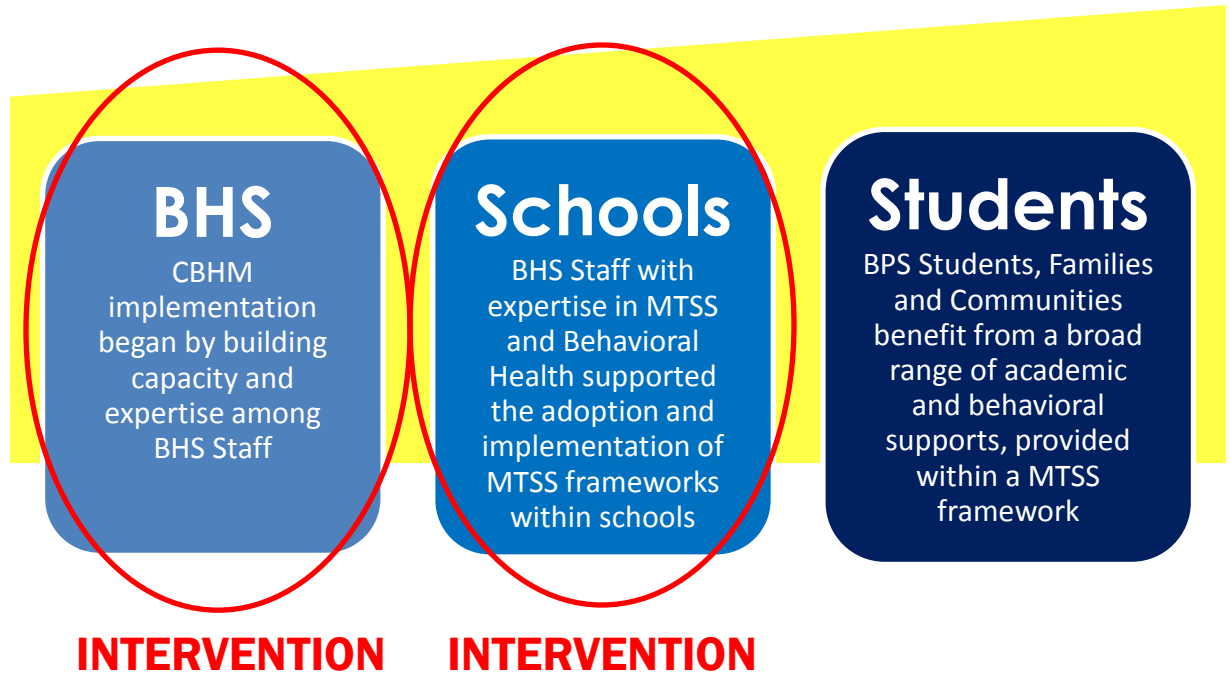
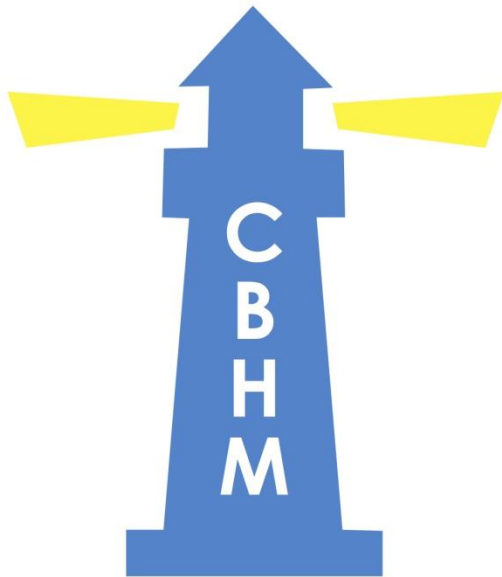


**INTERVENTION**

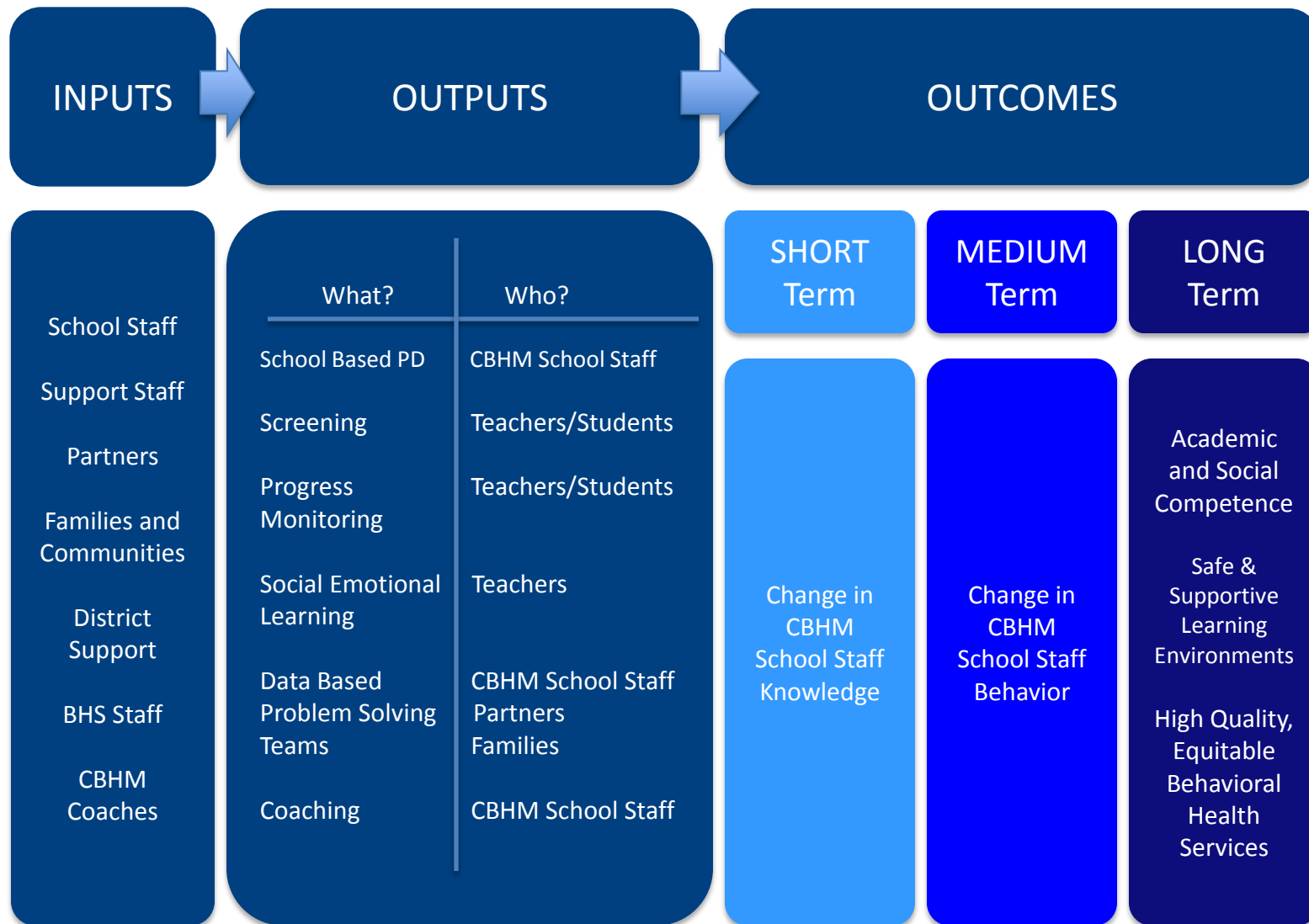


# CBHM: District Evaluation





# CBHM: School Evaluation



# Evaluation Questions



## PROCESS QUESTIONS

How many students, parents, teachers are being reached?

## FIDELITY QUESTIONS

Are CBHM activities being implemented as outlined in CBHM schools?  
Which portions of CBHM are being implemented with least & greatest fidelity?



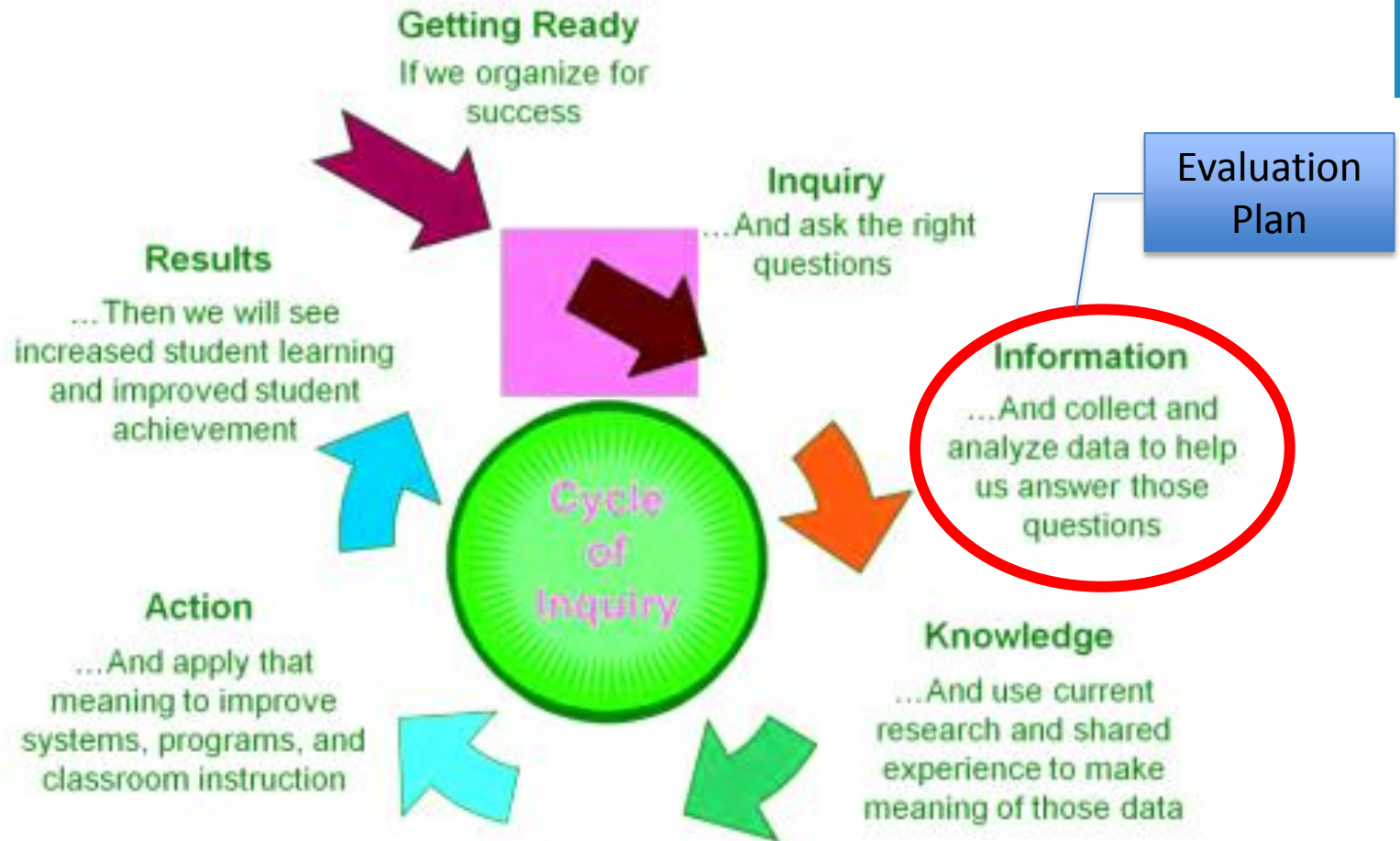
## OUTCOMES QUESTIONS

Are BPS behavioral health staff demonstrating increased knowledge and changes in their behaviors at their schools?

Are staff in CBHM schools demonstrating increased knowledge and changes in behaviors consistent with CBHM?

Are students in CBHM schools demonstrating improvements in academic and social competence?





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# Evaluation Plan Considerations

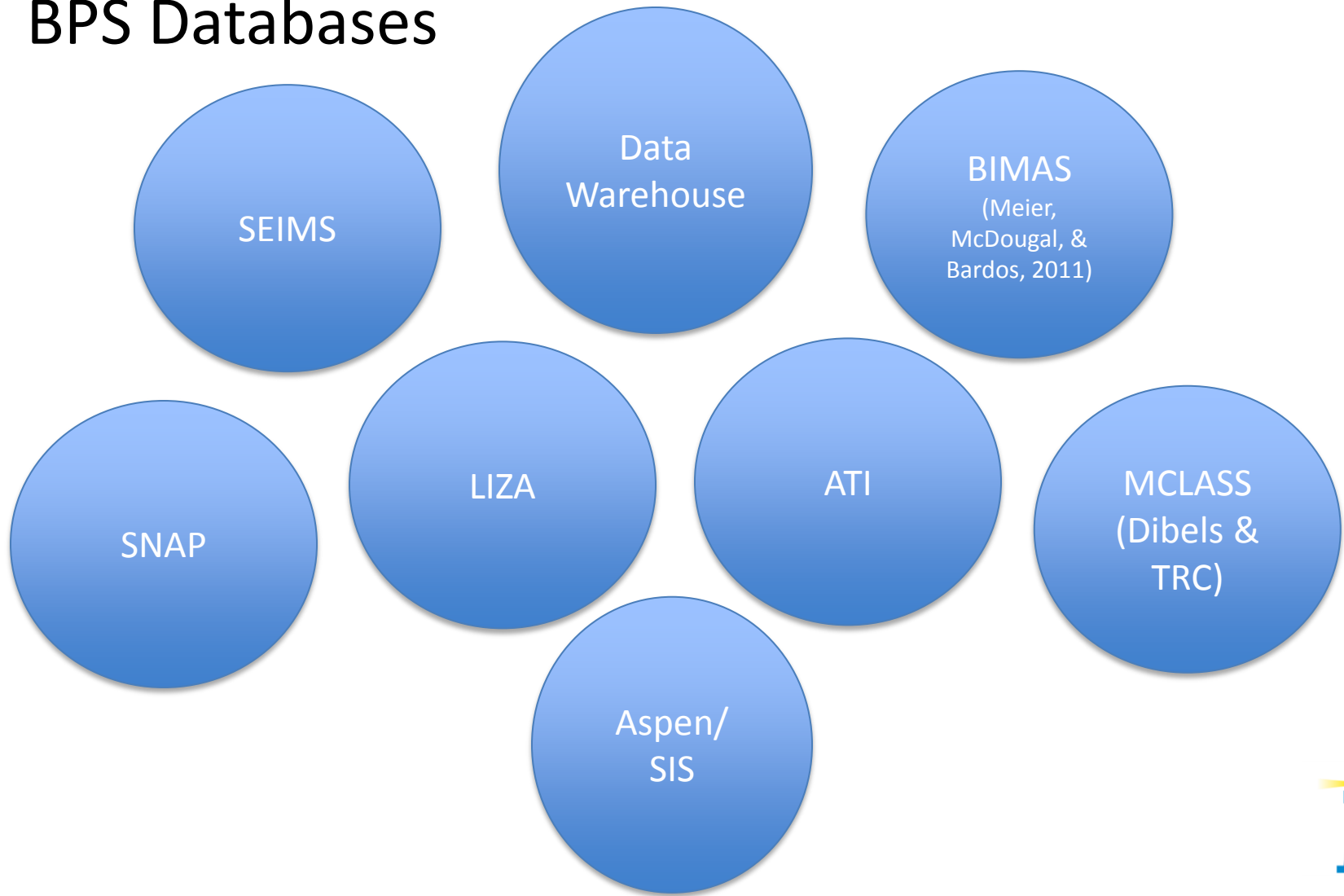
What are our indicators for each of our outputs and outcomes?

What data sources inform each of these outputs and outcomes?



# Evaluation Plan: Data Sources

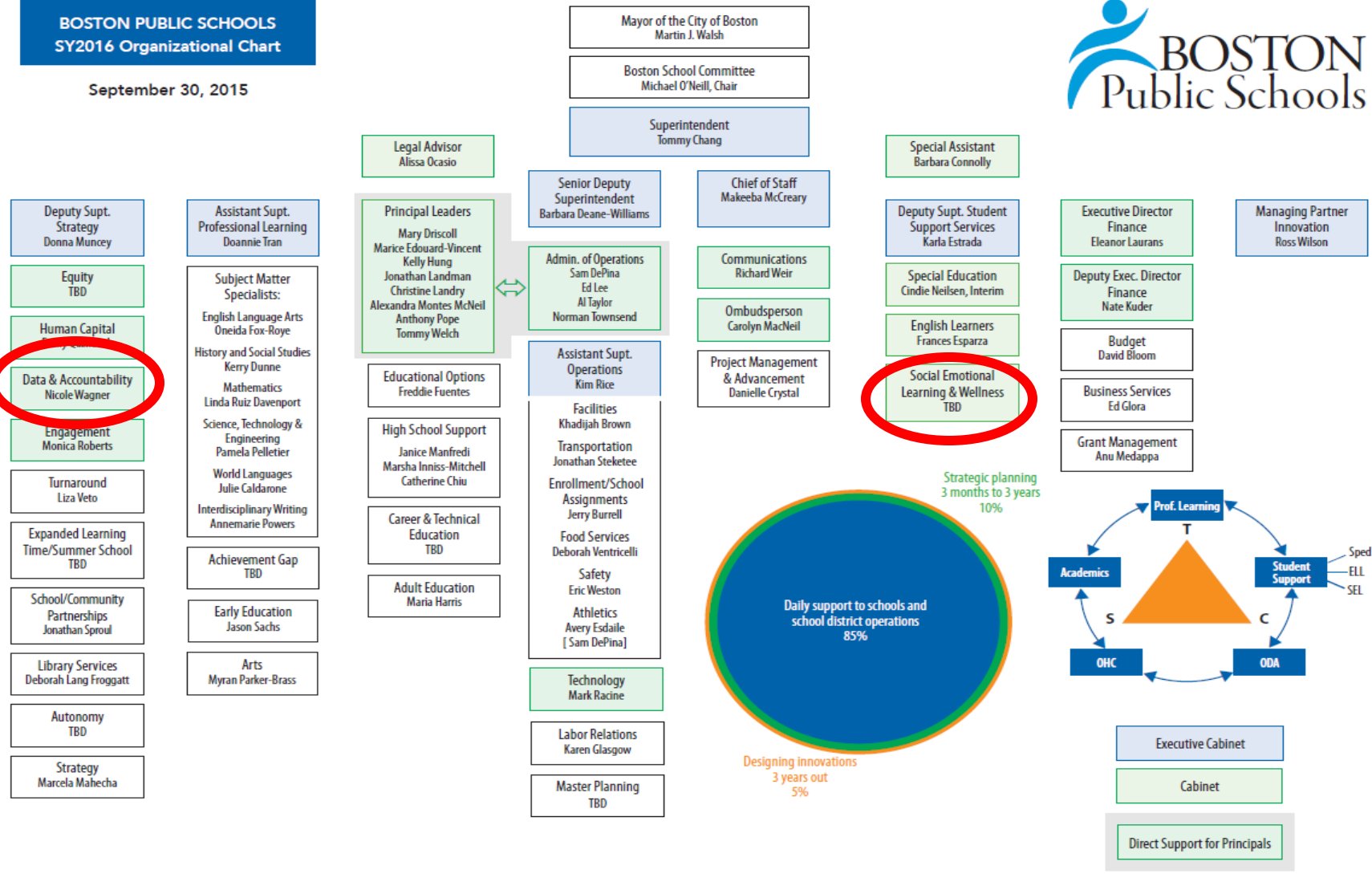
- BPS Databases



# Navigating Access to District Databases

## BOSTON PUBLIC SCHOOLS SY2016 Organizational Chart

September 30, 2015



# Evaluation Plan: Data Sources

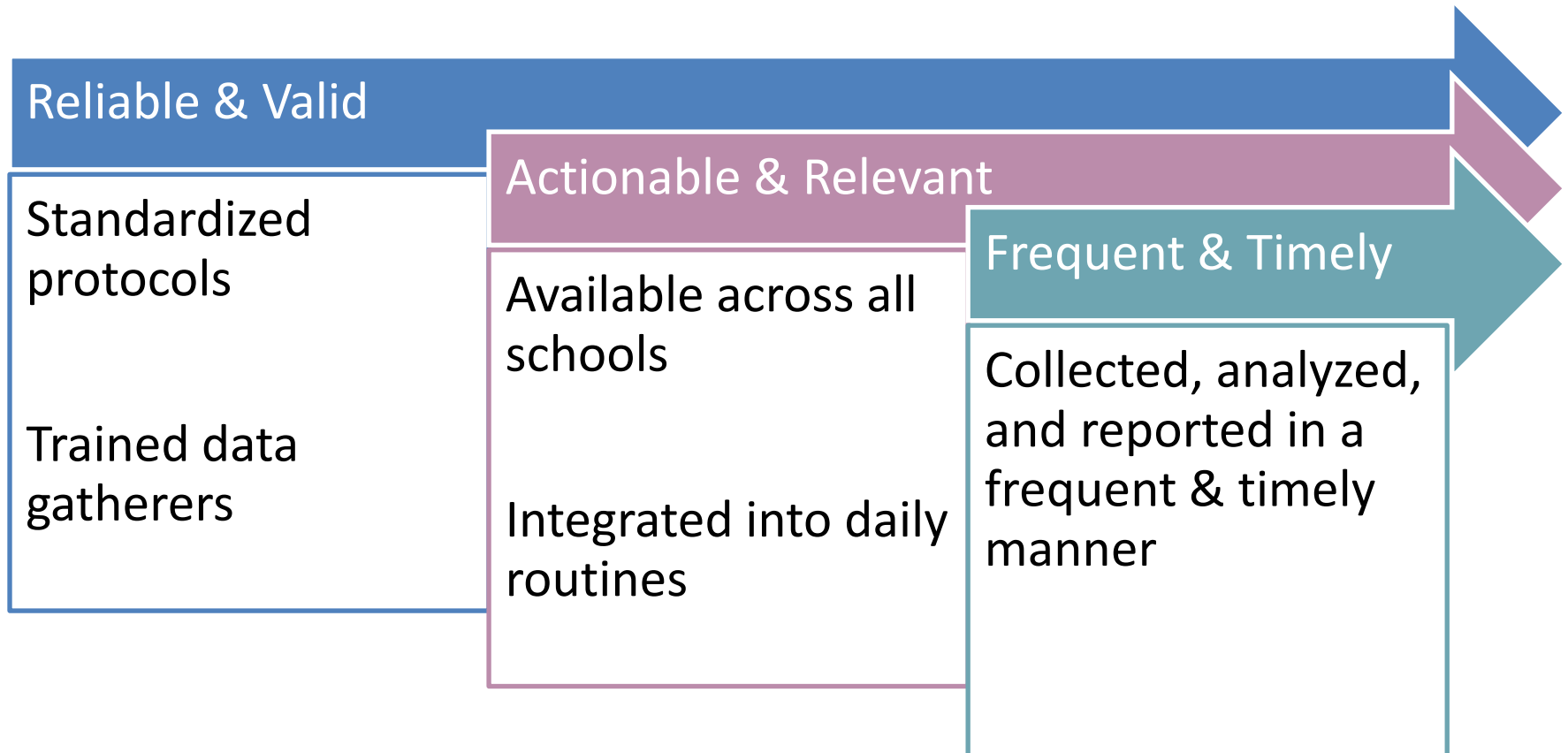
- BHS Data Sources



Where do we even begin?



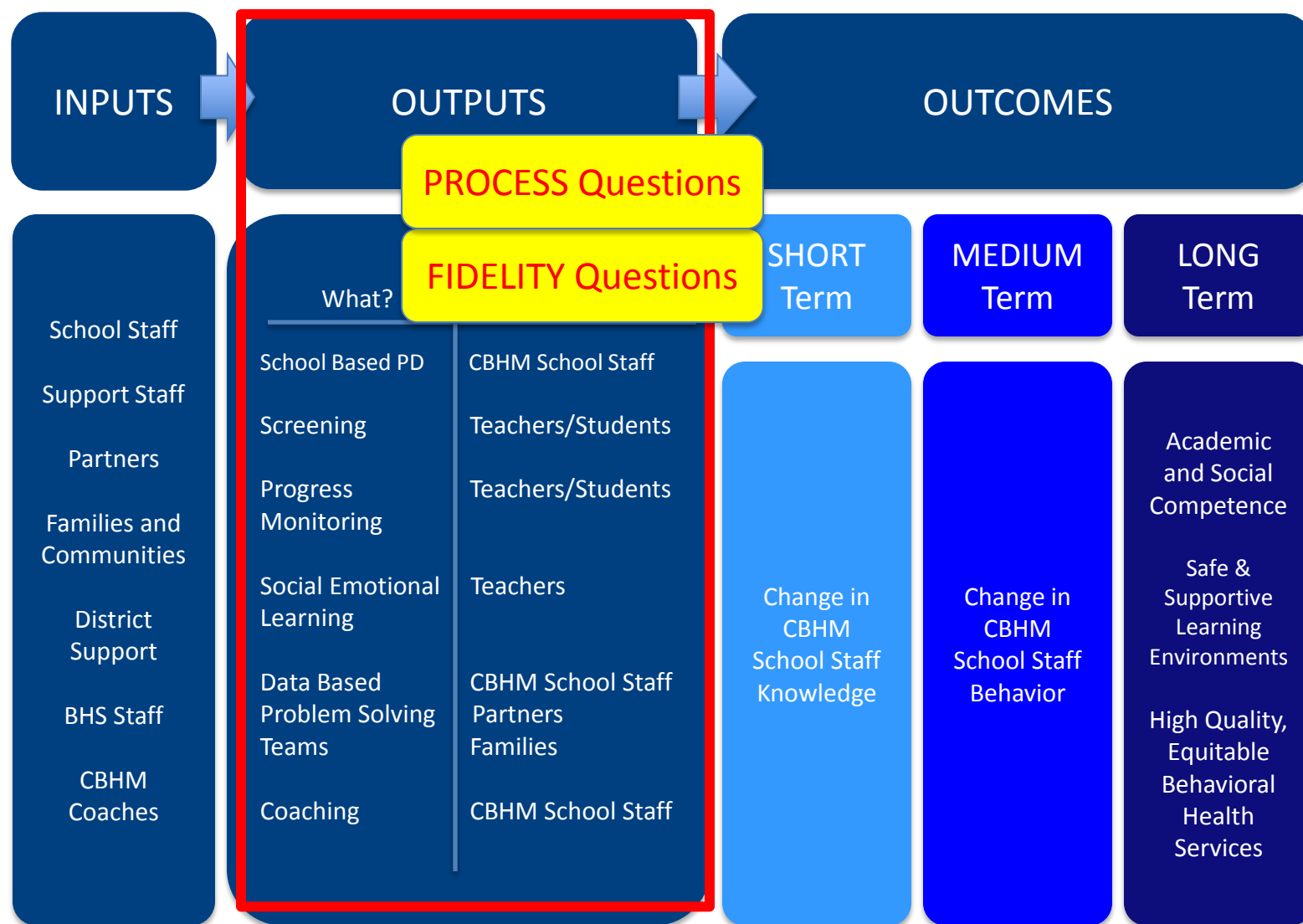
# Data Source Best Practices



From Ward (2015)



# Identifying Indicators



# Organizing Data Sources into an Evaluation Plan: School Level Outputs

Output	Indicator	Source	Aim for CBHM Fidelity	Timeline for Data Entry Update	Do I Have Access?	Where is Data Located? (File Name & Person w/Access)	Action Steps
<b>Universal Screening</b>	% of students BIMAS screened	BIMAS	>80% of students	UA 1 – 10/1 - 12/15  UA 2 – 3/1 - 5/15	Yes	“BIMAS Data Inventory” in Research folder <b>(All Research Team)</b>	<input type="checkbox"/> Enter data into database <b>(Amy)</b> <del><input type="checkbox"/> Amy access to BIMAS data <b>(Jill)</b></del> <input type="checkbox"/> Update BIMAS Data Inventory document monthly <b>(Amy)</b>

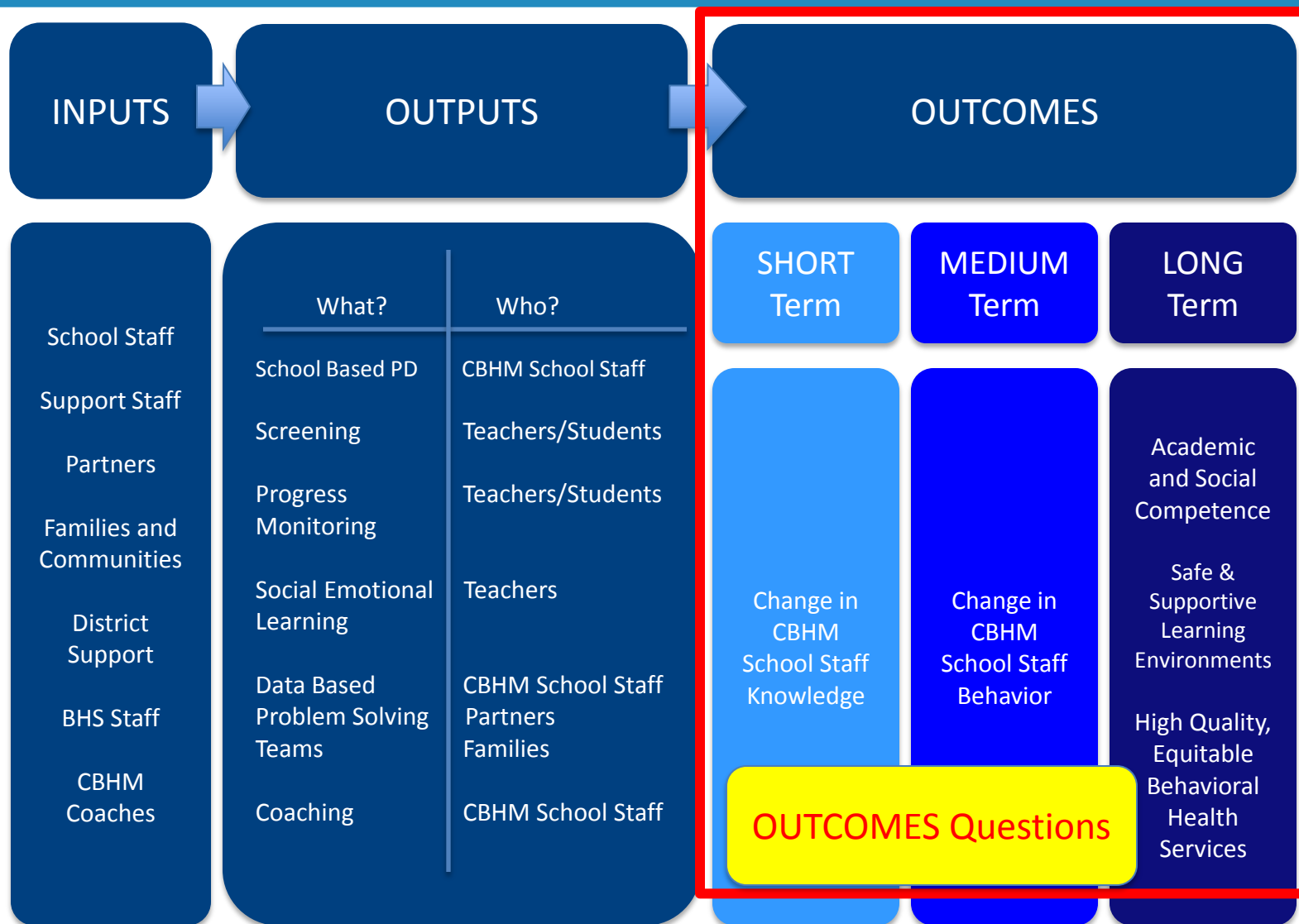


# Organizing Data Sources into an Evaluation Plan: District Level Outputs

Output	Indicator	Source	Aim for CBHM Fidelity	Timeline for Data Entry Update	Do I Have Access?	Where is Data Located? (File Name & Person w/Access)	Action Steps
<b>Data Management and Accountability</b>	% of schools using BIMAS universal screening (>80% screened)	BIMAS	100% of CBHM schools	UA 1 – 10/1 - 12/15  UA 2 – 3/1 - 5/15	Yes	“BIMAS Data Inventory” in Research folder <b>(All Research Team)</b>	<input type="checkbox"/> Enter data into database <b>(Amy)</b> <input type="checkbox"/> <del>Amy access to BIMAS data (Jill)</del> <input type="checkbox"/> Update BIMAS Data Inventory document monthly <b>(Amy)</b>



# Identifying Indicators



# Identifying Indicators

## OUTCOMES (SCHOOL LEVEL)

### SHORT TERM

*Increased staff knowledge of social emotional development & behavioral health*

*Increased staff knowledge of best practices in addressing student behavioral health needs*

*Increased confidence in addressing student behavioral health needs*

### MEDIUM TERM

*Integrated academic and social-emotional learning*

*Data-based decision-making*

*Targeted supports and services*

*Community partnerships*

### LONG TERM

*Improved student academic performance*

*Increased positive behaviors*

*Improved school climate*

*Improved student academic engagement*

*Increased school capacity to provide services*

*Improved access to services*



# Identifying Indicators

## OUTCOMES

### SHORT TERM

*Increased staff knowledge of social emotional development & behavioral health*

*Increased staff knowledge of best practices in addressing student behavioral health needs*

*Increased confidence in addressing student behavioral health needs*

PD Evaluations

### MEDIUM TERM

*Integrated academic and social-emotional learning*

*Data-based decision-making*

*Targeted supports and services*

*Community partnerships*

Tiered Fidelity Inventory  
Monthly Clinician Reports  
Partnership Report

### LONG TERM

*Improved student academic performance*

MCAS

*Increased positive behaviors*

BIMAS

*Improved school climate*

School Climate Survey

*Improved student academic engagement*

Attendance

*Increased school capacity to provide services*

*Improved access to services*

FTEs; Monthlies



# Organizing Data Sources into an Evaluation Plan: School Level Outcomes

Outcome	Indicator	Source	Aim for CBHM Fidelity	Timeline for Data Entry Update	Do I Have Access?	Where is Data Located? (File Name & Person w/Access)	Action Steps
Increased staff knowledge	% of school staff agreeing with satisfaction survey items	PD Satisfaction Surveys	>80%	After workshops	No	BHS Files (BHS Staff)	<input type="checkbox"/> Obtain data for quarterly reports



If I'd known they wanted me to  
use all this info - I would never  
have asked for it!

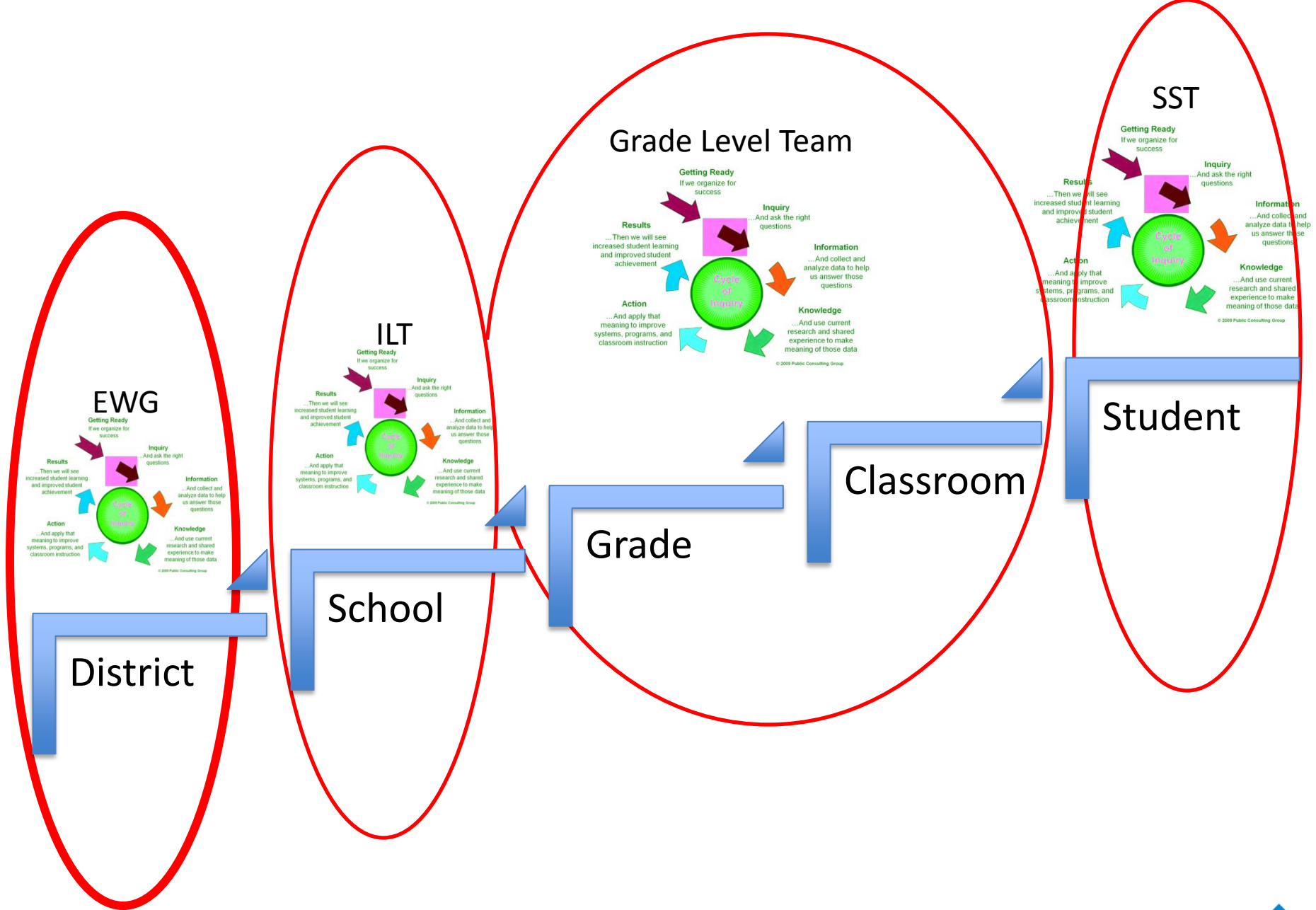




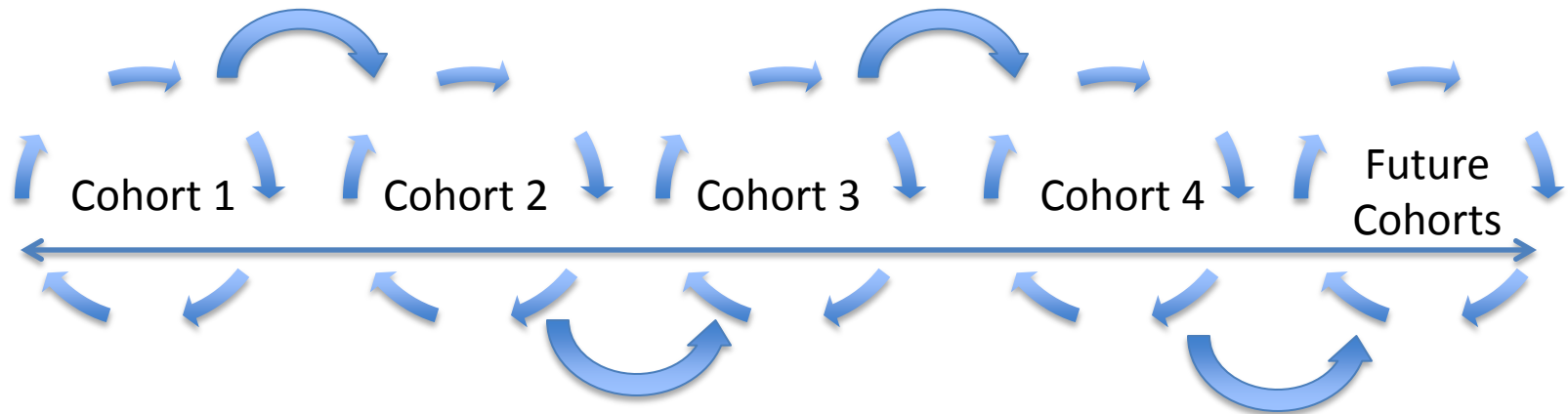
Regular Review of Data with Research Committee

Regular Review of Data with Research Committee





# District Level Data-Based Decision Making



# Data Review

MONTHLY	QUARTERLY	ANNUALLY
<ul style="list-style-type: none"><li>• Thermometer of clinical activities</li></ul>	<ul style="list-style-type: none"><li>• Report of key outputs and outcomes to EWG</li></ul>	<ul style="list-style-type: none"><li>• Report of overall outputs and outcomes to EWG &amp; stakeholders</li></ul>



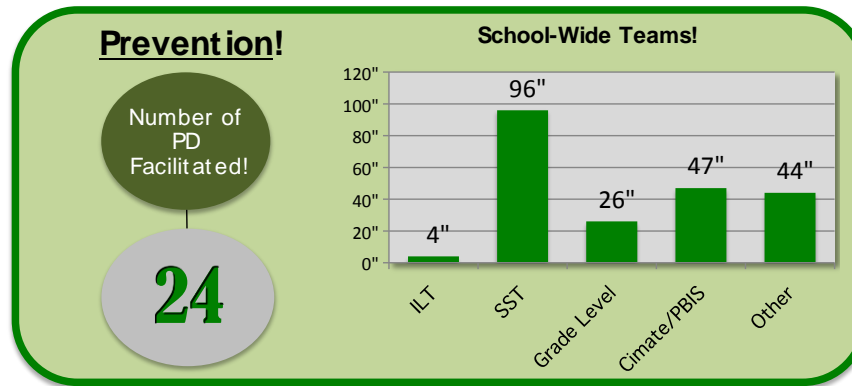
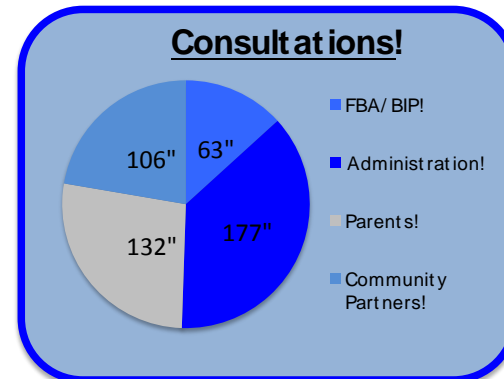
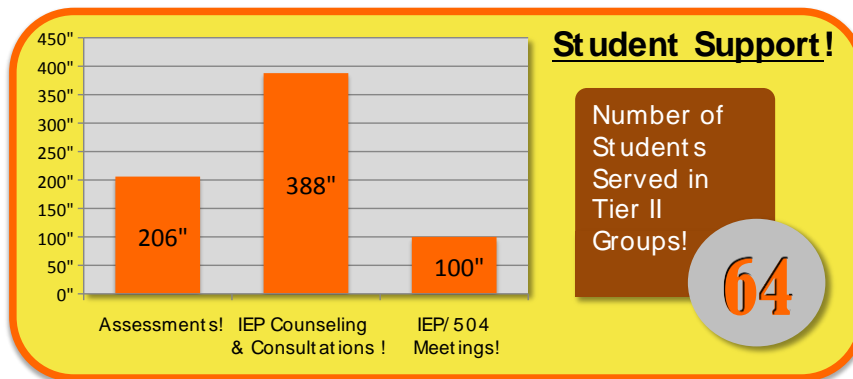
# Data Review: Monthly Thermometer



## Behavioral Health Services Monthly Report: September 2015

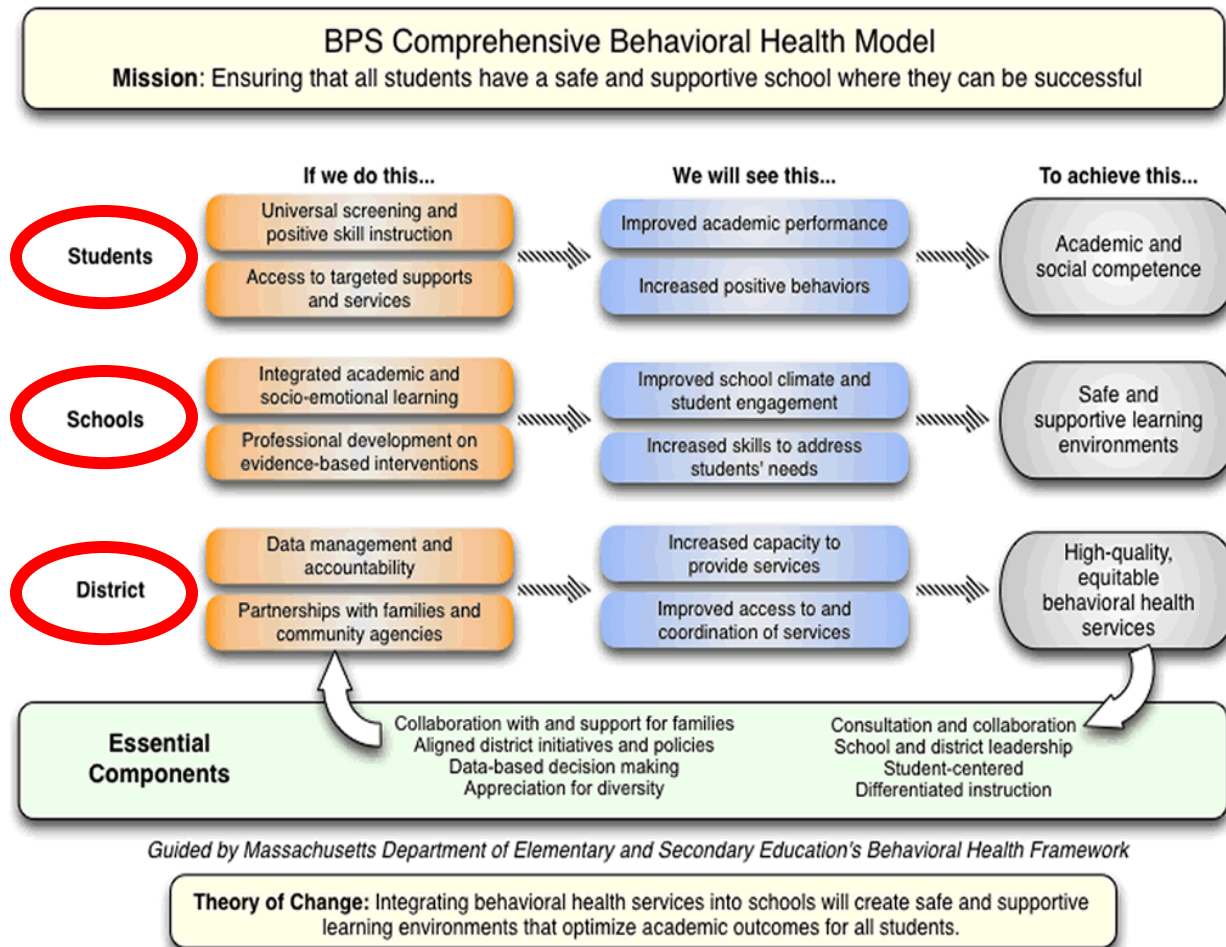
Boston Public Schools

\*For this report, data is based on only School Psychologists (FTE=54)



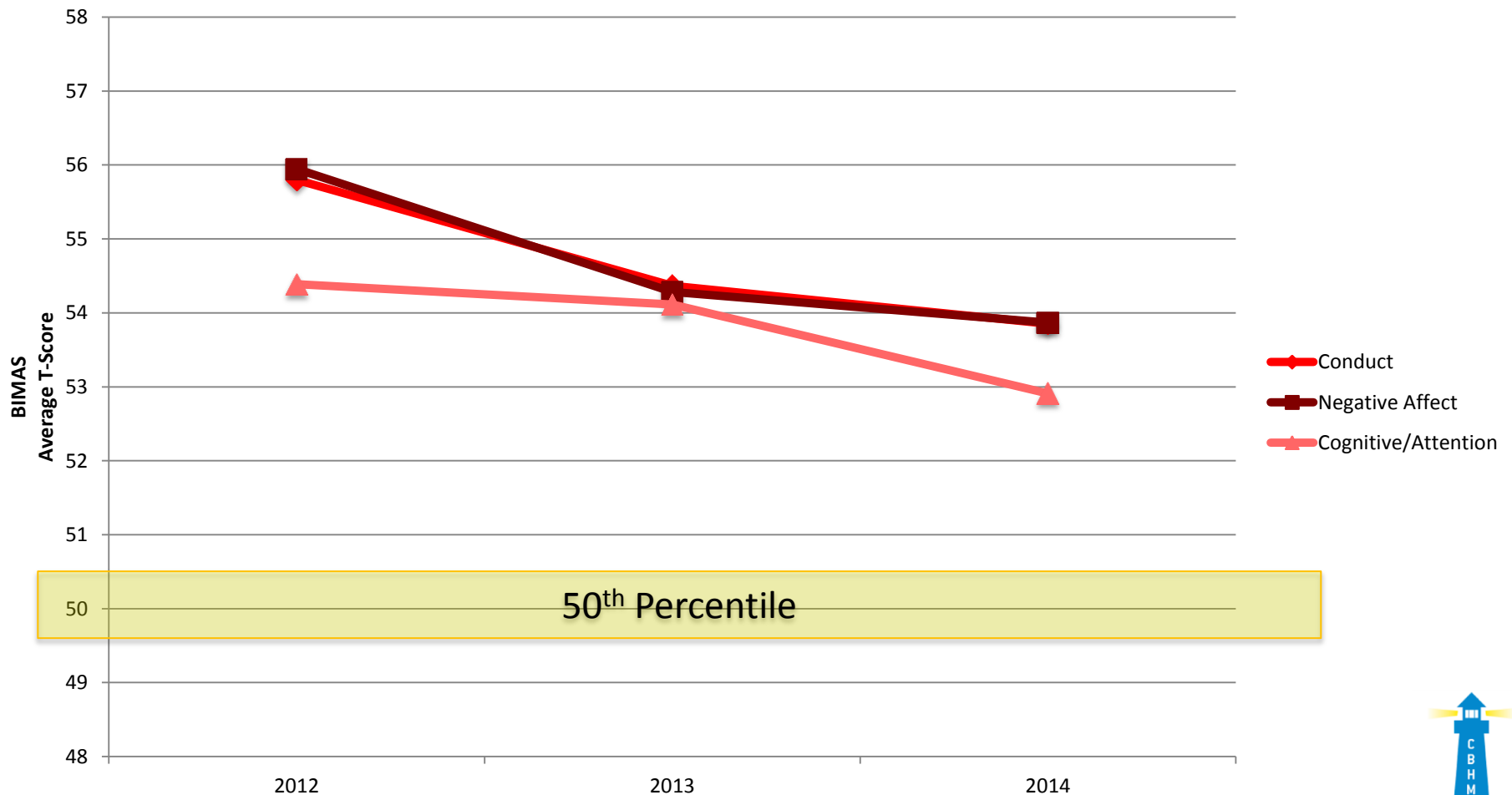
# Data Review: Annual Report

- Reporting at 3 levels:



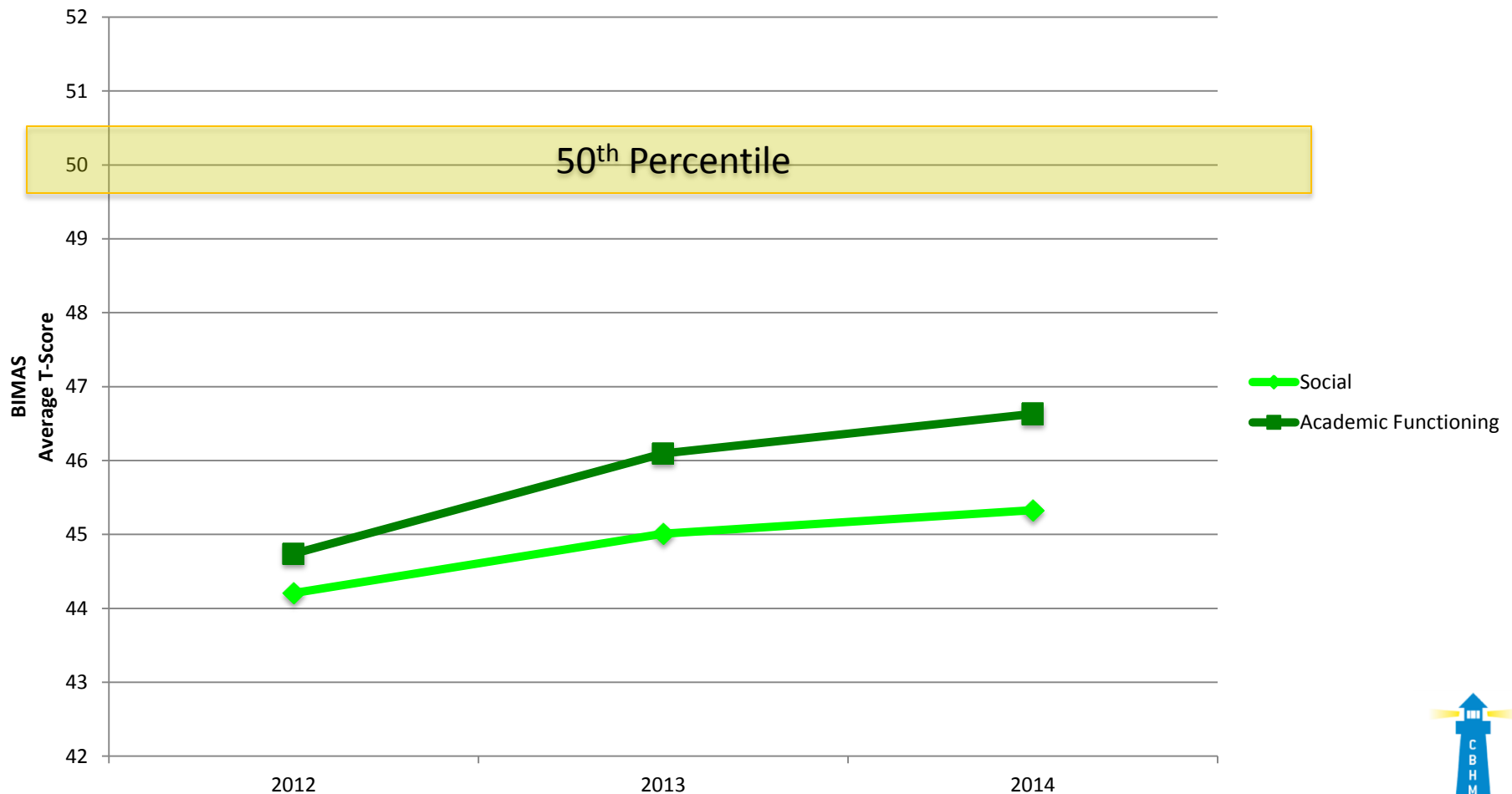
# CBHM **STUDENT** Outcomes

## Cohort 1: Decrease in Problem Behaviors



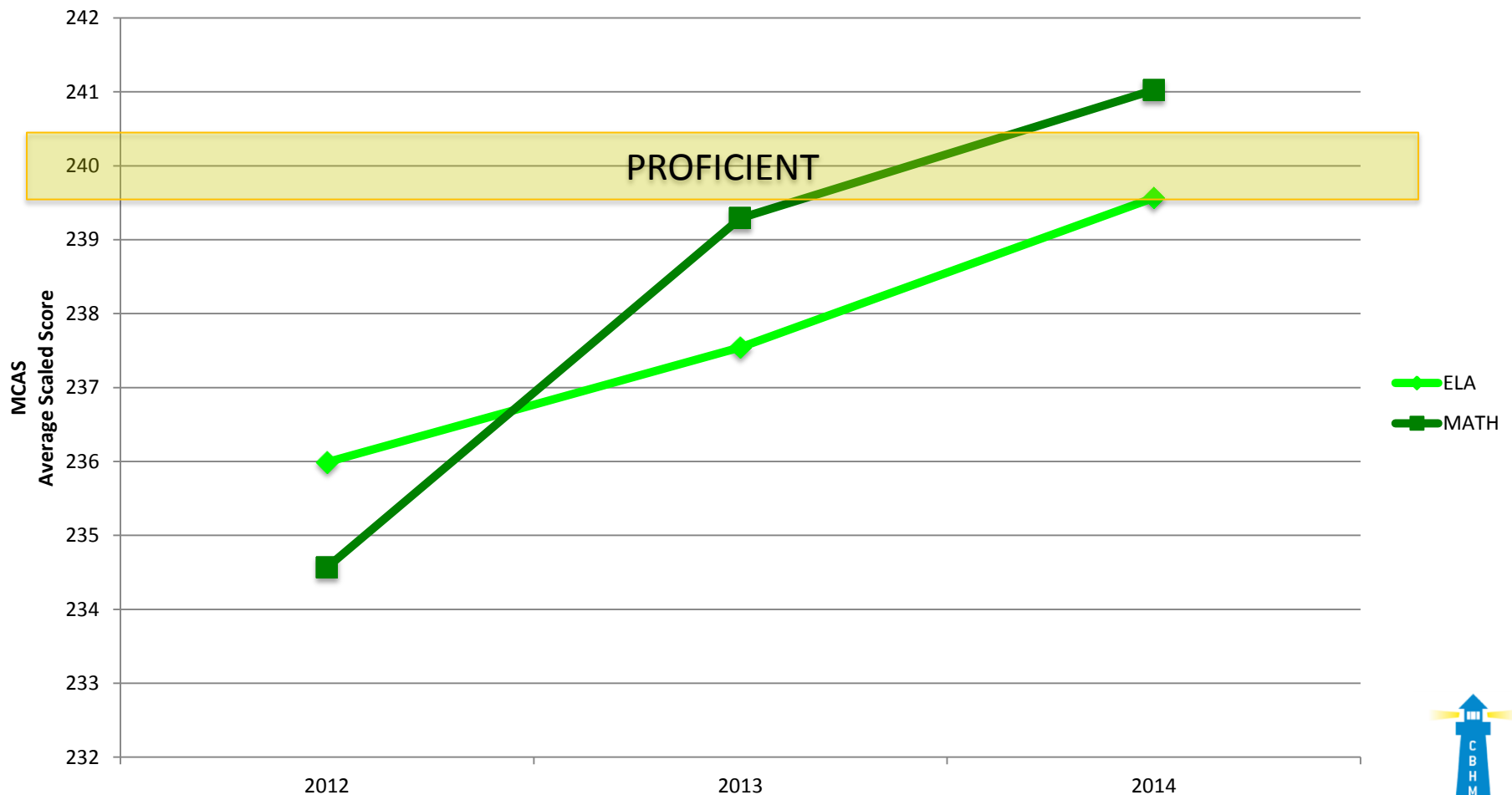
# CBHM **STUDENT** Outcomes

## Cohort 1: Increase in Positive Behaviors



# CBHM **STUDENT** Outcomes

## Cohort 1: Increase in Academic Outcomes



# CBHM **STUDENT** Outcomes

- Compared Fall 2013 with Fall 2014
- All CBHM Students with data available for both screenings (n=738)

## Findings:



**Statistically Significant** increase in average BIMAS Social Scale T-Score ( $p < .01$ )



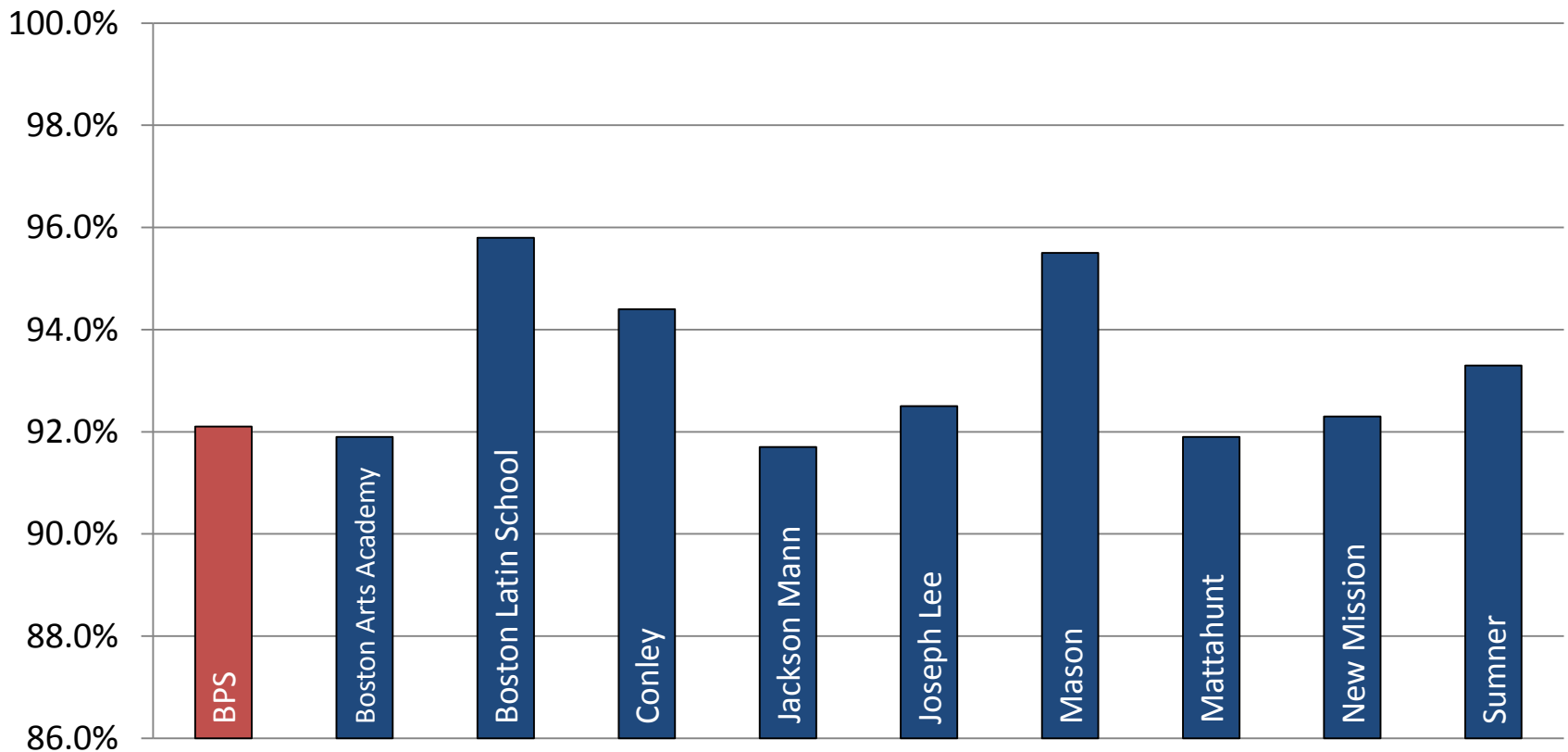
**Nearly significant** decrease in average BIMAS Conduct Scale T-Score ( $p = .063$ )



# CBHM SCHOOL Outcomes

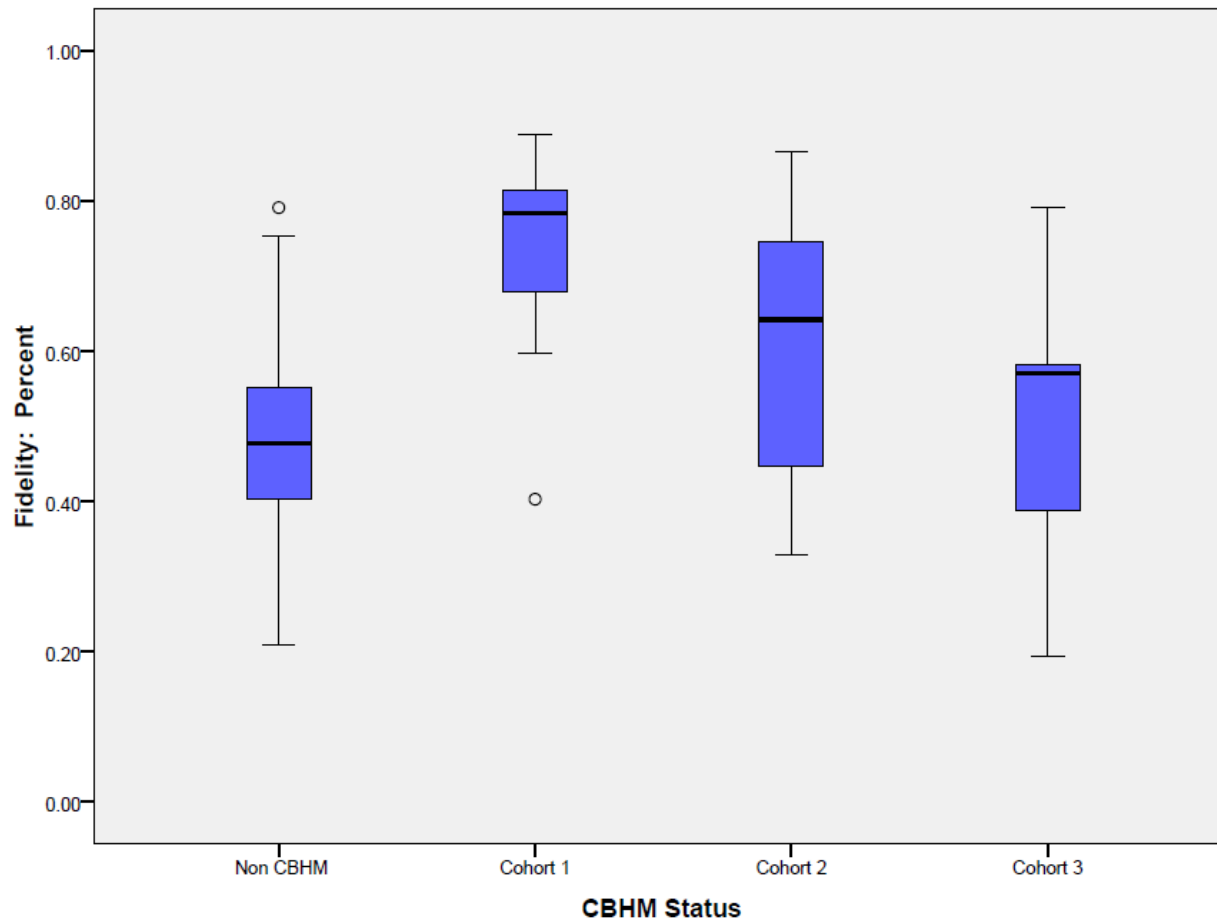
## Cohort I: Attendance Rates at CBHM Schools Compared to District

Source: DESE, SY 13-14



# CBHM SCHOOL Outcomes

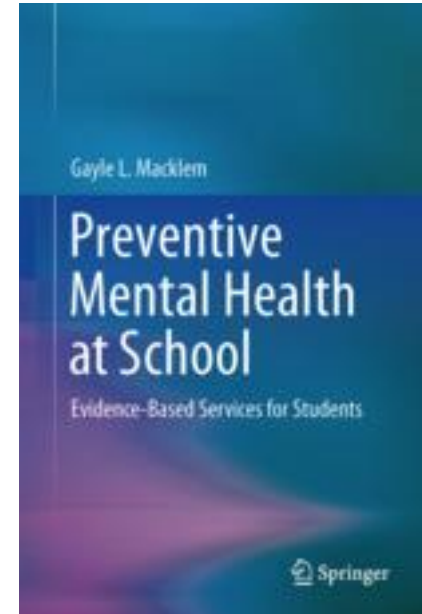
## CBHM Implementation Fidelity: SY 2013-14 *(Fidelity For Now)*



# CBHM **DISTRICT** Outcomes

## SCHOLARLY PURSUITS:

- Book Chapter
- Articles
- Professional Presentations
- Journal Articles
- Grant Submissions
- TV Interviews



# Examples: District Level Data-Based Decision Making

- Data Retreats
  - August & October 2014
  - Review of annual report data
  - Lack of clarity surrounding what might be prompting improved outcomes
- Need for more consistent fidelity data
  - **End of 2014-15:** Use of SWPBIS Tiered Fidelity Inventory (Algozzine et al., 2014) introduced

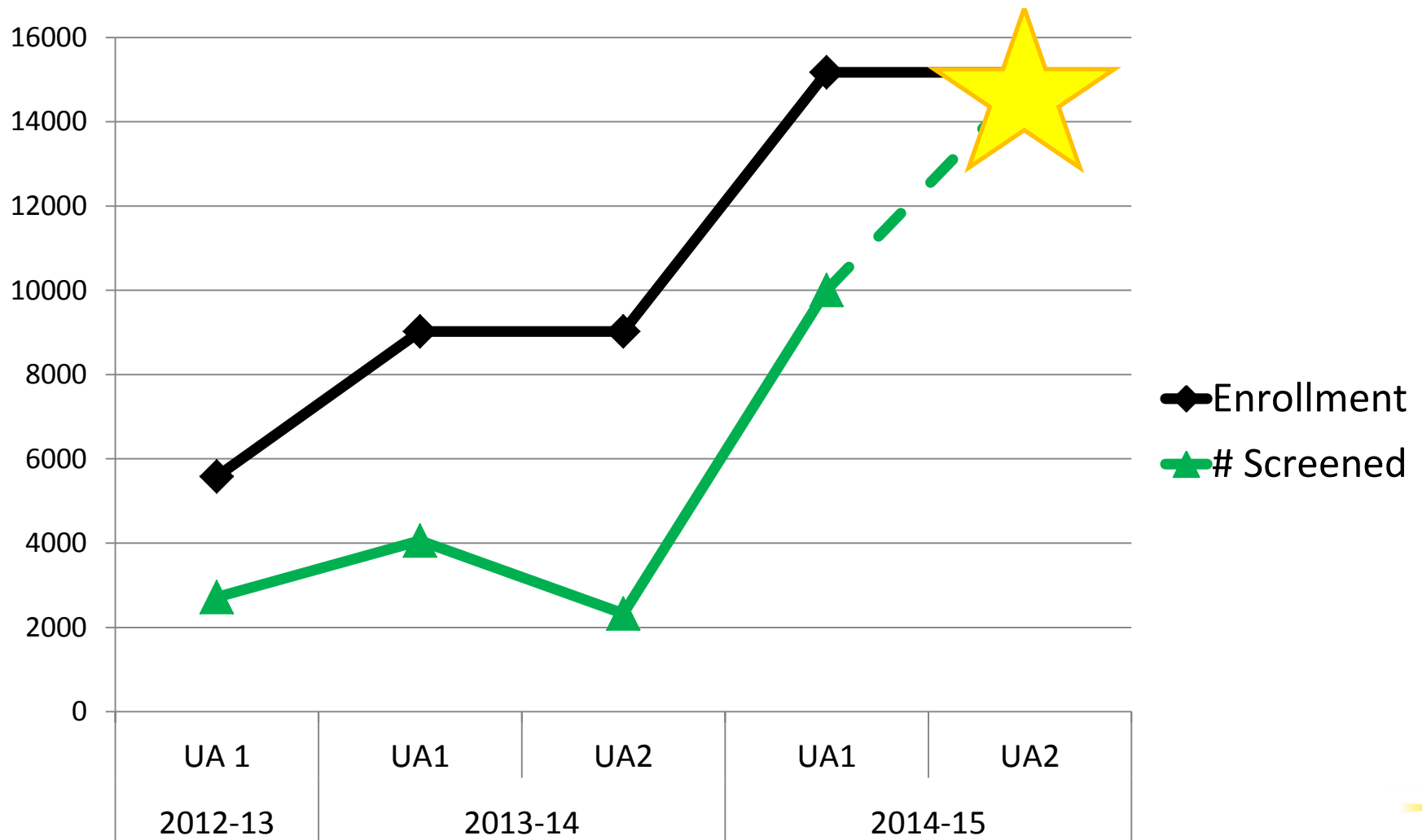


# Examples: District Level Data-Based Decision Making

- April 2015 Quarterly Report Review
  - Screening data
  - Remains low despite significant increases in #
  - Pattern of drop off in the spring
- How can we help improve screening completion rates?
- Research question:
  - What is getting in the way of screening completion?
- Further exploration into this question to come



# BIMAS Completion Rates



# Conclusions: Successful Strategies and Tools



Network,  
network,  
network.

*Community  
Partnerships  
Data Accountability  
Office*



Organize  
and  
delegate.

*Data  
Evaluation  
Research*



Write it  
down.

*Evaluation Plan  
Evaluation Timeline  
Report Templates  
Research Procedures*



Share  
your data.

*Frequency of Sharing  
Data*



*Sustainability*

McIntosh et al. 2014

- CBHM Research Committee
- CBHM Executive Work Group
- UMass Boston Practicum Students
- Boston Children's Hospital Evaluation Team
- Behavioral Health Services Staff at Boston Public Schools
- CBHM School staff, students, and families



# Questions? Comments?



# Questions? Comments? Contact...

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- Jill Snyder  
[jsnyder2@bostonpublicschools.org](mailto:jsnyder2@bostonpublicschools.org)



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