

Start-Up Costs and Innovative Strategies for Funding Evidence-Based School Mental Health Programs

22nd Annual Conference on Advancing School Mental Health
Washington, D.C. October 20, 2017

SYM13

Charlotte Mecklenburg Schools

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Overview of Charlotte Mecklenburg Schools' School-Based Mental Health (SBMH) Program

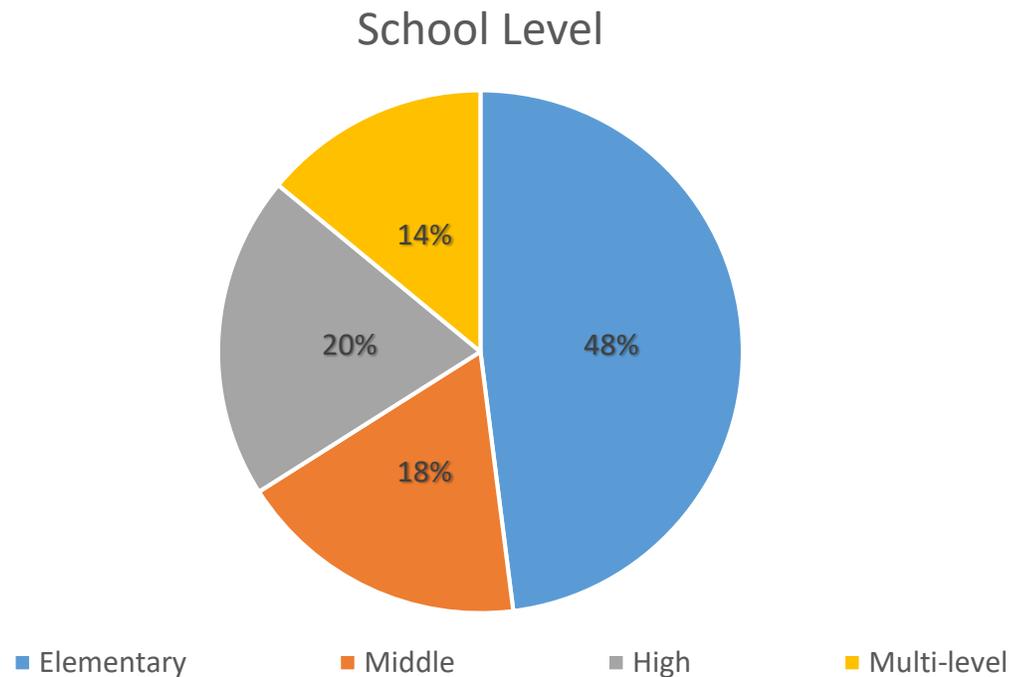
- Charlotte Mecklenburg Schools (CMS) is a growing district of 176 schools; the SBMH program is active in 114 schools (65% of schools)
- Purpose of the SBMH program is to increase availability of evidence-based mental health services to improve student's emotional well-being and enhance their ability to benefit from instruction
- SBMH program has evolved; it is now a collaborative effort between the school system, the county, seven local mental health agencies, and one grant partner

Overview of the SBMH Program

- Funding for the program comes from a combination of insurance, state, county, grant, and in-kind funds
- Mental health services supplement the work of the school-based counselors, social workers, and psychologists and expand the continuum of care
- Services provided in the SBMH program include:
 - Individual therapy
 - Group therapy
 - Psycho-educational classes
 - Screening and case management

Schools in the SBMH Program

- A majority of the 114 schools are Title 1 schools (Title 1 = 72%+ of students economically disadvantaged)
- Almost 50% of the schools in the program are elementary schools



Students in the SBMH Program

- In 2016-17, over 4,000 students were referred for SBMH services
- Over 2,400 students received SBMH services; with the highest number of students receiving individual therapy (approximately 1,800 students)
- Approximately 13% of the students who required a funding source for their services either lacked insurance or could not afford the out of pocket costs of their insurance

Program Highlights in the Past Five Years

- Significantly increased the number of schools with the program
- Added additional service providers to address growing demands
- Provided quarterly and annual data reports to the county, which helped maintain our partnership

Program Issues in the Past Five Years

- Increased referrals for students lacking insurance and lacking a social security number
- Program was struggling in non Title 1 schools which had high numbers of privately insured students and a broad range of insurances
- Some parents refused individual therapy because of stigmas about diagnoses, therapists, mental health agencies, etc.
- Awareness that some students may have benefitted from less intense services

Broad Strategies to Address Program Issues

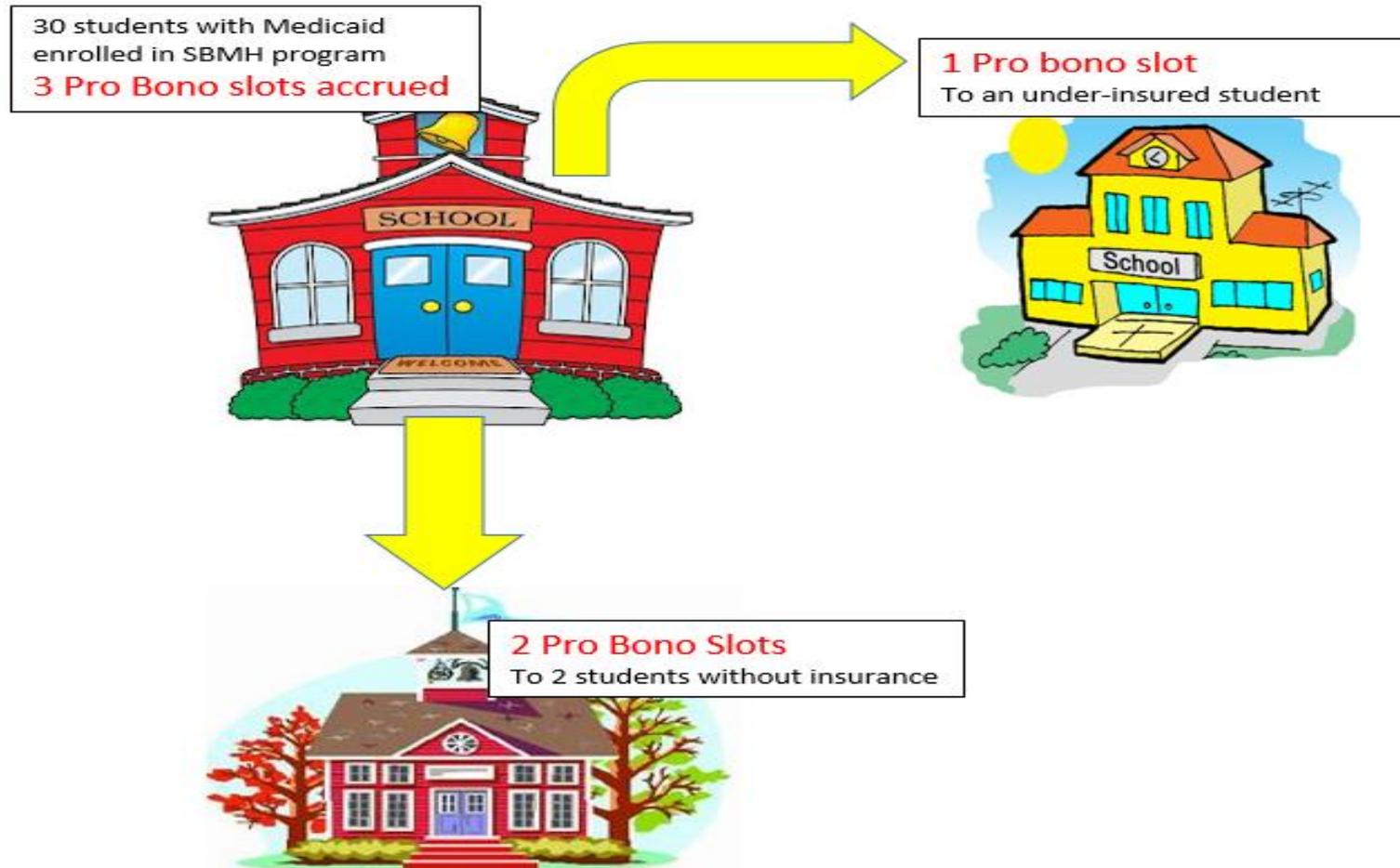
1. Increase funding streams for individual therapy
2. Acquire funding streams to offer more group therapy (provided by CMS staff and partnering agencies)
3. Broaden funding streams to offer a wider range of mental health supports (i.e., case management, screening and referral, psycho-educational classes)
4. Add support positions to provide program oversight and to reduce counselor and psychologist workload

Increase Funding Streams for Individual Therapy

Pro Bono (In-Kind) Funds

- Included a pro bono requirement in Memorandum of Understanding
- Pro bono clause: for every 10 funded students for individual therapy, the agency must agree to see 1 student for pro bono services, for up to 8 individual therapy sessions
- Pro bono slots are accrued on a district wide basis which meant students throughout the district who lacked adequate insurance coverage were able to obtain pro bono services
- 106 students received pro bono individual therapy

Pro Bono Accrual and Allocation



Increase Funding Streams for Individual Therapy

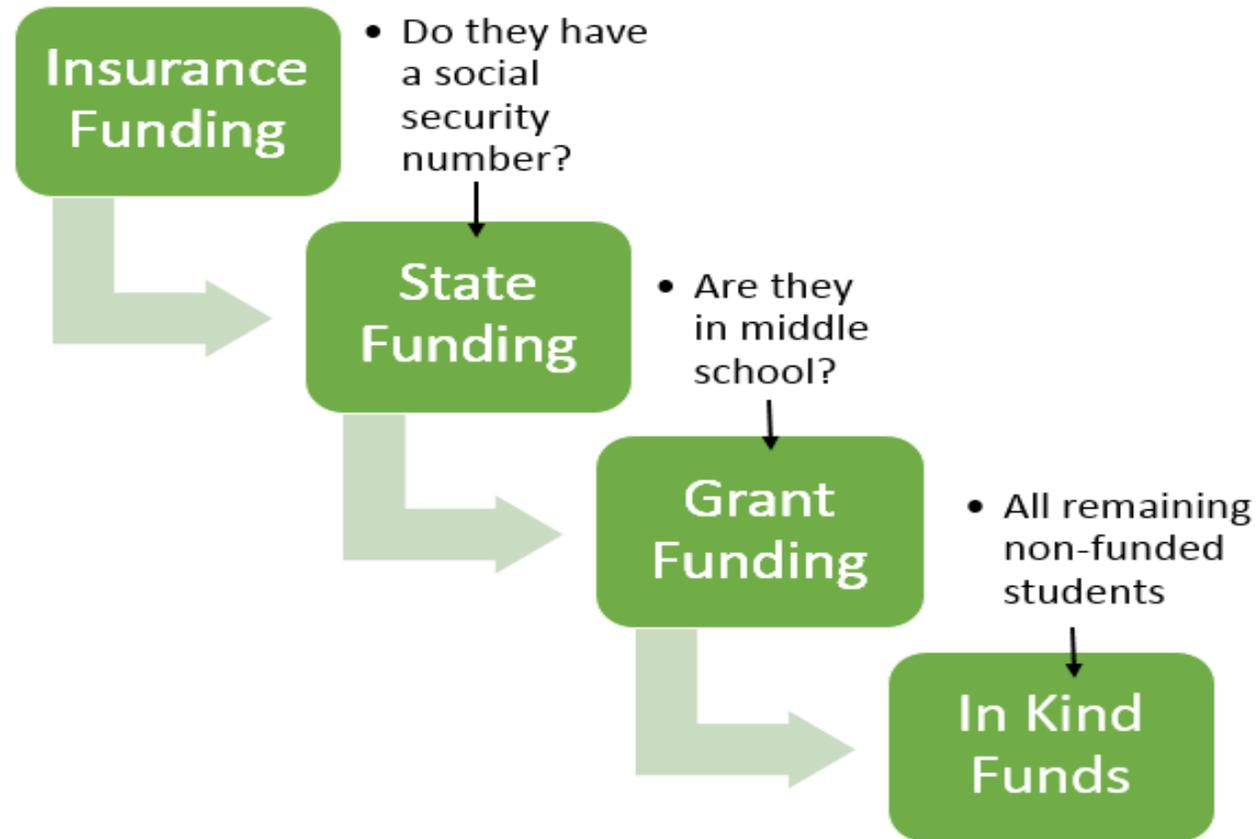
State funds

- 4 of the partnering agencies received state (IPRS) funds
- CMS advocates to MCO for partnering agencies and IPRS funding
- 48 students received individual therapy through the use of state funds

Grant funds

- CMS partnered with the Research Triangle Institute (RTI) on a Comprehensive School Safety Initiative grant through the NIJ
- A portion of funds are directed to increase access to mental health services for (middle school) students with funding challenges
- Approximately 115 students received grant funded individual therapy from partnering agencies

Funding Options for Individual Therapy



Acquire Funding Streams for Group Therapy

1. Partnered with the county to use county funds to provide groups to some specific high needs student subgroups
 - a. County allocated funds to provide counseling groups to students who had an IEP that placed them within a self contained classroom for students with Serious Emotional Disabilities
 - b. County allocated funds to provide groups to students placed in an alternative setting due to major disciplinary infractions
 - c. County allocated funds to provide psycho-educational classes to students who needed substance abuse services based on a screening conducted by a school counselor

Acquire Funding Streams for Group Therapy

2. NIJ Comprehensive School Safety grant provided training in two evidence-based group therapies for CMS employees and agency staff members in eight middle schools
 - a. SPARCS (Structured Psychotherapy for Adolescents Responding to Chronic Stress) - school counselors and social workers were trained in the SPARCS curriculum and 122 students participated in SPARCS groups
 - b. b. DBT (Dialectical Behavior Therapy) - school psychologists and agency therapists completed Behavioral Tech's DBT Intensive Training and 17 students participated in DBT groups

Offer a Wider Range of Mental Health Supports

- Expanded the supports available for alcohol/substance abuse prevention and treatment
- Partnered with the county to provide screening, case management, and referral services for students referred for an alcohol/substance concern or violation
- The county and the school system each funded three positions that conduct alcohol/substance abuse screening, referral, case management, and short term counseling
- 292 students received screenings

Add Support Positions to Provide Oversight and Reduce Workload

- Two positions that provide oversight and program management, one position is funded by the county and position is funded by the grant
- The NIJ grant also funds 8 positions that are used to reduce the workload of the counselors and psychologists in the treatment schools to allow them:
 - Time to participate in the training for the evidence-based therapies
 - Time to implement evidence-based therapies with students
 - Time to provide direct services to students other than EBTs

Acknowledgment

This project was supported by Award No. 2015-CK-BX-0010, awarded by the National Institute of Justice, Office of Justice Programs, U.S. Department of Justice. The opinions, findings, and conclusions or recommendations expressed in this publication/program/exhibition are those of the author(s) and do not necessarily reflect those of the Department of Justice.

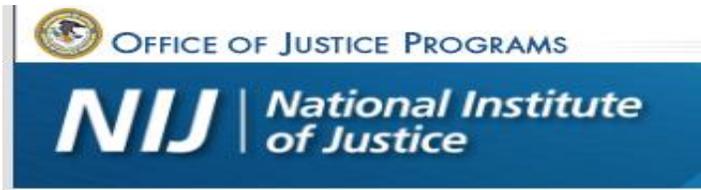
An Economic Cost Analysis of Three Levels of School-Based Mental Health Services

22nd Annual Conference on Advancing School Mental Health
Washington, DC, October 20, 2017

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Funded by the National Institute of Justice
Contract number: 2015-CK-BX-0010

School Safety and School-Based Mental Health Project

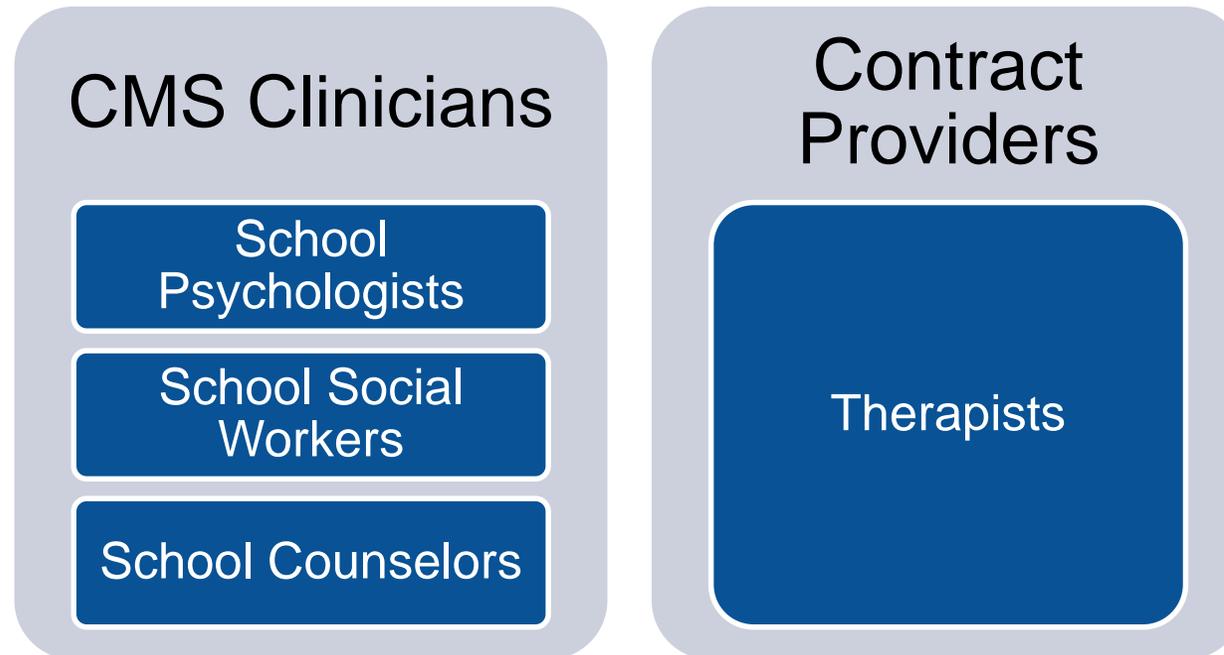


- Funded by the National Institute of Justice
 - Comprehensive School Safety Initiative 2015
 - Developing Knowledge About **What Works** to Make Schools Safe
- Conducted by RTI International
- Partnered with Charlotte-Mecklenburg Schools (CMS) Student Services Department

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Background: What Is School-Based Mental Health (SBMH)?

- Mental health services
 - Based in the schools
 - Funded by Medicaid, private insurance, state and school district funds
- Services are provided by licensed clinicians



Background: How Is SBMH Related to School Safety?

- Many discipline infractions and school safety problems are perpetrated by a small number of students (Fabelo et al., 2011)
- Addressing their needs can improve school climate for everyone

- SBMH programs
 - Enhance school climate
 - Enhance school safety
 - Significantly reduce suspensions
(Ballard, Sander, & Klimes-Dougan, 2014; Bruns, Walrath, Glass-Seigel, & Weist, 2004)
- Other positive outcomes have been suggested:
 - Academic performance
 - School attendance
(Powers, Wegmann, Blackman, & Swick, 2014)



Background: Why Economic Analysis?

- Why is economic analysis important?
 - Schools and districts have limited resources
 - Helps policy makers and administrators make decisions on how allocate scarce resources

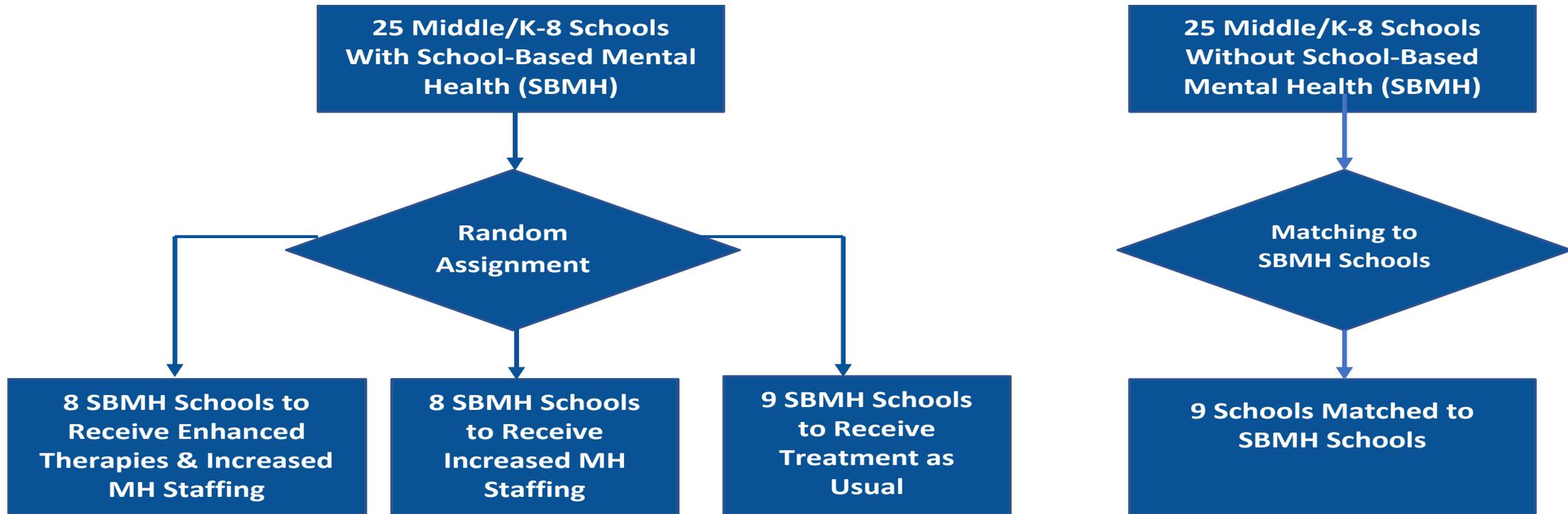


Economic Research Questions

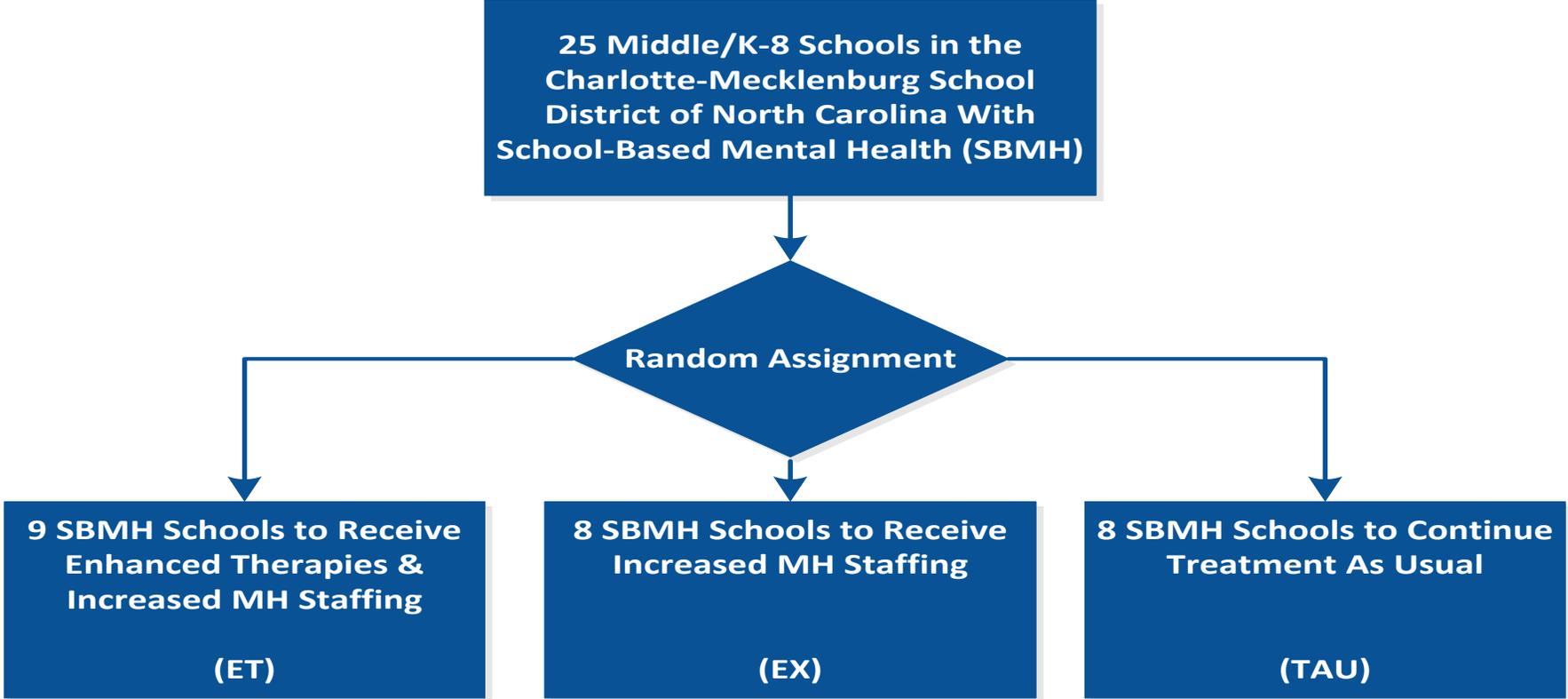
- Study aim:
 - Conduct cost-effectiveness analysis that compares three levels of SBMH:
 - TAU – Treatment As Usual
 - EX – Expanded Treatment
 - ET – Enhanced Therapies
- Research questions addressed in this presentation:
 - What are the start-up and first-year ongoing costs?
- All presented findings are preliminary

Overall Research Design

- Used stratified random sampling to randomize 25 middle schools (grades 6–8) and K–8 schools with pre-existing SBMH programs
- Used propensity score matching to select 9 matched comparison schools



Research Design – Economic Analysis



SBMH Randomization

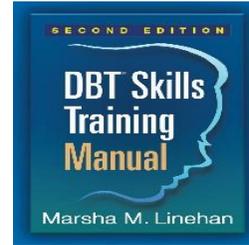
- Expanded Treatment schools received a student services facilitator and an additional day per school psychologist at those schools
- Enhanced Therapies schools received these plus training in evidence-based treatment

Condition at Randomization	TAU (n = 9)	EX (n = 8)	ET (n = 8)
Standard school counseling, school psychology, and social work	✓	✓	✓
Fund standard SBMH program for students who cannot afford	✓	✓	✓
Student services facilitator		✓	✓
Additional school psychologist day		✓	✓
Training in evidence-based treatments (SPARCS and DBT)			✓

Tier 3 Tertiary
Prevention
(Intensive)

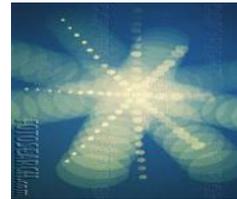
Tier 2 Secondary
Prevention
(Targeted)

Tier 1 Primary
Prevention
(Universal)



Dialectical Behavior Therapy (DBT;
Linehan, 2014)

- Suicide/self-injury
- Aggression and anger
- Emotion regulation problems



Structured Psychotherapy for
Adolescents Responding to Chronic
Stress (SPARCS)

- Trauma response
- Aggression, anger, disruptive
behavior

Cost Analysis Overview

- What is cost analysis?
 - Identifies resource use and intensity of use (quantity)
 - Identifies costs attributed to resources (price)
 - Price and quantity are used to determine the cost of programs
- Economic costs
 - Includes value of resources that may not be explicitly paid but that have an opportunity cost (e.g., donated materials, volunteer staff, office space)
- Perspective
 - Charlotte-Mecklenburg Schools



- Start-up and ongoing costs
 - Start-up: Resources and associated costs used to begin a project
 - SPARCS & DBT training (trainer cost, staff time, materials, space)
 - Initial hiring activities
 - Planning meetings
 - Initial purchase of materials
 - Ongoing: Variable depending on the number of students served, the length of time implemented, or both
 - Labor hours for school staff and associated wage rates
 - Billed amounts from community-based providers
 - Materials and space costs
 - Donated services and materials
- Data collection
 - Resource use collected via interviews and questionnaires
 - Price data collected via interviews and public data sources (e.g., Bureau of Labor Statistics)

Preliminary Results: Start-up Costs

Mean SBMH Start-Up Costs per School, by Treatment Arm (2016 \$)

	TAU (n = 9)	EX (n = 8)	ET (n = 8)
Training and related activities	NA	\$0	\$38,109
Hiring activities	NA	1,590	1,590
Meetings w/school staff & admin	NA	375	375
Materials	NA	54	2,397
Other (e.g., legal, IT)	NA	52	52
<i>Total</i>	NA	\$2,070	\$42,523

Preliminary Results: Ongoing Costs per School

Average SBMH Annual Cost Per School, by Treatment Arm (2016 \$)

	Mean	Std. Dev.	Minimum	Median	Maximum
TAU	\$229,241	\$82,714	\$106,563	\$243,132	\$353,194
EX	281,467	33,909	237,585	280,731	353,823
ET	267,875	65,162	198,281	251,605	367,697

Preliminary Results: Ongoing Costs per Student

Average SBMH Annual Cost Per Student, by Treatment Arm (2016 \$)

	Mean	Std. Dev.	Minimum	Median	Maximum
TAU	\$324	(\$153)	\$138	\$316	\$603
EX	326	(77)	208	321	453
ET	331	(64)	247	329	452

Preliminary Results: Ongoing Costs per Student

Average SBMH Annual Cost Per Student, by Treatment Arm and cost category (2016 \$)

	TAU	EX	ET
Labor	\$291	\$305	\$306
	(\$139)	(\$78)	(\$63)
Contracted	4	3	3
	(4)	(4)	(3)
Other	17	15	17
	(8)	(4)	(3)
Donated	13	2	6
	(15)	(4)	(8)
TOTAL	\$324	\$326	\$331
	(\$153)	(\$77)	(\$64)

Standard deviation in parenthesis

Discussion: Core Findings

- Start-up:
 - EX costs about \$2,000 more per school than TAU
 - ET costs about \$43,000 more per school than TAU
 - Costs are driven by SPARCS & DBT training
- Ongoing
 - EX costs about \$2 more per student than TAU
 - ET costs about \$7 more per student than TAU
 - Costs are driven by labor (social worker and student services facilitator)
 - Community-based mental health providers have little effect on costs because they mostly bill to Medicaid, private insurance

Next Steps

- Year 2 costs
 - Implementation ramp-up may be reflected in year 1 costs
 - Will collect year 2 costs after the end of the schools' fiscal year (August 2018)
- Cost per student served
 - Costs are currently presented per school and per enrolled students
 - Will obtain student-level data
- Cost-effectiveness analysis
 - Will combine cost results with outcomes to determine which treatment arm is cost-effective relative to the alternatives
 - Assesses trade-off of extra spending on an intervention arm and improving outcomes

Grant Requirements Impacting Schools Districts

Challenges for School Districts

- Changes in scope need source of funds approval first
- Budget changes may require revised budget approval
- Human Subjects requirements (may require funding agency-specific training)
- Staff turnover can negatively impact reporting requirements
- Agreement period of performance versus fiscal year requirements for schools

Reimbursement Requirements for Federally funded projects include (not limited to):

- Detailed invoicing
- Indirect rate agreements
- Assistance agreements (Grant, COA) are cost reimbursement. Work cannot begin prior to the start date and, in some cases, a separate budget approval
- Detailed invoices are needed for external service providers
- Policies and Guidance related to conferences, meetings, trainings.
- Food and beverages are almost always unallowable.

More Information

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