Cost Study

Key Findings

November 2018

The Community Behavioral Health Association of Maryland (CBH) is building member readiness for value-based purchasing through a series of activities around data analytics. This report describes the results of the first phase of that work, completion of a standardized cost reporting tool by a pilot sample, and coming phases to build a data warehouse for CBH members.

Why Start with Cost Findings?

The first step into data analytics centered on reporting and analyzing standardized cost findings. Any meaningful data analytics of member services needs a financial underpinning, and the cost finding tool sought to establish a standardized metric of reporting costs. To support this work, CBH selected the Certified Community Behavioral Health Clinic (CCBHC) template for reporting costs. At the time of this decision, there were no CCBHC providers in Maryland,[1] but using the tool would help members prepare for CCBHC costing, and the tool offers the advantages of incorporating the critical concepts of both ***unit costs*** and ***anticipated costs***. Using this tool also aligned data definitions and findings with national CCBHC providers.

A core component of value-based purchasing is understanding the ***unit cost*** of delivering behavioral health services. Because CBH members operate in a fee-for-service models of care, few members have experience with analyzing unit costs. Unit costs capture the cost of providing any given service encompassing staff, overhead, administrative costs and other expenditure. The unit cost is the average cost of an encounter in a program; it is more comprehensive as it is assigned a set of CPT codes and does not directly crosswalk to a rate study. Developing a better understanding of the true, stand-alone cost of delivering each service line is critical to understanding and providing value-based care.

In addition, current financing models for community behavioral health services catastrophically underfund most behavioral health services. Developing a standardized method of calculating ***anticipated costs*** – like the cost of increasing salaries to $15/hour or raising clinicians' salaries in the face of a growing workforce shortage – are not included in most financial analyses. Understanding anticipated costs allows providers to better articulate and plan for the potential expansion of services to meet changing demands in need.

CBH customized the tool in several respects. Most critically, CBH added a ***wait time analysis*** to the template. Wait times are important to measure because they may demonstrate under-funding. When a provider is not funded at a capacity that meets the unit costs of services, their ability to expand and meet increasing need is severely diminished, resulting in longer wait times for services. Improving rapid access to care is vital to the ability of hospitals and commercial insurers to meet their performance standards, and vital to connect patients to the care they need. And, finally, all available surveys point to long wait times to access Medicaid-funded services and even longer times for commercially-insured care. CBH modified its cost finding tool to include reporting on participant wait times to access key services. This metric was

[1] In September 2018, SAMHSA announced that two CBH members, Cornerstone Montgomery and Mosaic Community Services, were selected as CCBHC grantees.

modeled off similar data gathered by the behavioral health association in Massachusetts and modified based on feedback from CBH's Clinical Learning Community.

How Did the Study Work?

The Public Consulting Group (PCG) was contracted to conduct the cost finding analysis. Fifteen organizations were invited to participate based on their geographic diversity, service line coverage, and interest. Thirteen of those were able to complete the study. These organizations submitted over $130 million of financial data, representing 1.5 million units of service, from the period of July 1, 2016 – June 30, 2017.

Using a customized CCBHC template, the study gathered unit costs for:

- Evaluation for adults, and for youth
- Medication management for adults, and for youth
- Therapy for adults, and for youth
- Residential rehabilitation programs (RRPs)
- Psychiatric rehabilitation programs (PRPs) for adults, by both onsite and offsite costs
- Psychiatric rehabilitation programs (PRPs) for youth, by both onsite and offsite costs
- Assertive Community Treatment (ACT)

From April to September 2018, participants worked to standardize and complete their data submissions through a series of desk reviews and group analysis. Participants whose data deviated from the mean by 20% or more were contacted for follow-up. In addition, participants gathered to review draft reports twice; by discussing variations in reported data, the group identified the need for refine standardized data definitions, then twice recalculated and resubmitted their work. Based on the size, structure, and operation models of participants, full standardization will be difficult to achieve, but the work to date on the project has built significant capacity with participants in reaching the most comparable data. There will always be room for improvement and CBH hopes to continue standardization work throughout the next phases of the project.

Key Findings

Staffing Costs

The study analyzed costs for over 1,406 staff employed by participants. The size of study participants and their subsequent staffing and workflow models impacted the range in staffing costs. The study looked at staffing by type and program, analyzing costs for program administration, psychiatric staff, counseling staff, occupational therapy and rehabilitation, non-credentialed staff and nursing staff. The staffing was further broken down under those categories to reflect licensure and education levels (bachelor's and master's). Staffing costs were also included in the program analysis to understand those costs within each service line.

Within each service line, adult on-site PRP and RRP have the lowest staffing costs (43% and 47% respectively) per unit of service and account for 50% of the total program costs in the study. The highest percent of staffing allocation costs are found in youth evaluation at 73%. Table A on page 3 details the average cost per FTE in the study and the corresponding number of FTEs reported in the study. Participant reports provided additional detail in terms of how their salary costs per position compared to their peer participants.

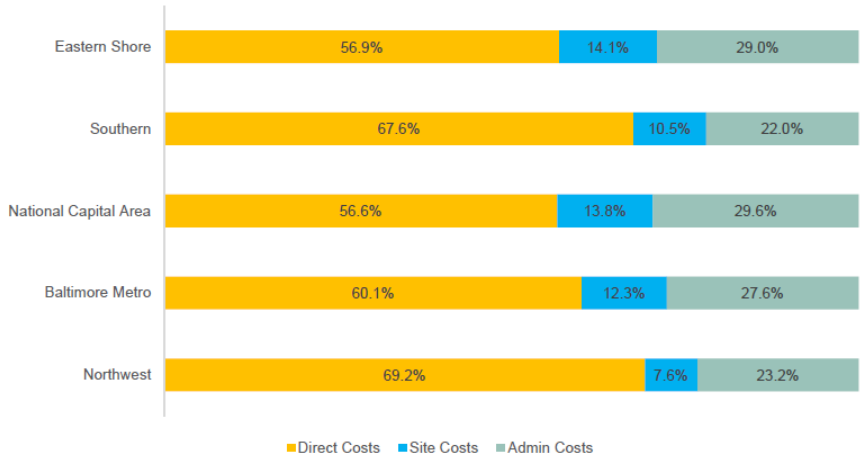
Staff Type	Avg. Cost per FTE	FTEs Reported
Program Director	$83,779	81.46
Psychiatrist	$248,524	19.23
Psychiatric nurse	$151,883	25.72
Child psychiatrist	$215,782	3.00
Substance abuse specialist	$50,301	13.50
Case manager	$38,519	27.35
Recovery coach	$32,129	0.83
Peer specialist	$35,316	9.91
Licensed clinical social worker [Master's Level]	$62,622	155.03
Clinical social worker [Bachelor's Level]	$53,558	6.10
Licensed mental health counselor [Master's Level]	$63,286	93.46
Mental health counselor [Bachelor's Level]	$42,213	43.87
Mental health professional (trained and credentialed for psychological testing) [Master's Level]	$74,809	1.25
Mental health professional (trained and credentialed for psychological testing) [Bachelor's Level]	$46,936	7.44
Licensed marriage and family therapist [Master's Level]	$66,940	2.50
Occupational therapist [Master's Level]	$94,265	1.13
Occupational therapist [Bachelor's Level]	$56,306	0.90
Interpreter or linguistic counselor	$62,732	1.00
Rehabilitation counselor	$34,676	671.91
Psychiatric rehabilitation practitioner	$45,632	61.60
Other Non-credentialed staff	$24,067	170.91
Other Less than Bachelor's level staff	$33,199	8.14

Table A: Costs per FTE

Regional Cost Breakdown

CBH's cost study grouped providers into five geographic regions following MDH definitions: Northwest, Southern, National Capital Area, Eastern Shore, and Baltimore Metro.

Staffing costs in the Northwest and Southern regions were 10% higher than other areas of the state, while site costs were 4% lower.



Wait Times

The data reported suggests that timely access to services is an issue warranting further attention. Reported data suggest significant challenges on access to services, particularly in rural areas of the state where wait times for therapy may range 4-6 months. Unfortunately, not all participants track wait times in their programs and, among those that do, there is not consistency in data definitions. Further work to standardize a reporting methodology and broaden data collection on this measure are a high priority for next steps, as described further below.

Anticipated Costs

To remain competitive in retaining a scarce workforce and to make required investments in clinical analytics and EHR interoperability, CBH members must plan to increase costs in the coming years. Anticipated costs help providers forecast concrete, measurable increases, like rising health care premiums, planned technology adoptions, and rising staff salaries. Unfortunately, most participants did not report anticipated costs in the study. Further work to develop member capacity to forecast costs for personnel, technology and other items will be a high priority, as described further below.

Unit Costs

The cost study's unit cost analysis gathered data for adults and youth across service lines for evaluation, medication management, therapy, psychiatric rehabilitation, residential rehabilitation, and Assertive Community Treatment. Because of the study, CBH can identify that the ACT and therapy start-up costs are more than twice as high in start-up years. CBH is also able to see the variations in costs per organization, accounting for the varying business models, workflows, and staffing patterns of participants. This information has generated significant conversation among participants, specifically in how they capture administrative work among clinical and licensed practitioners. CBH will harness this momentum to drive topical conversations within the association's learning communities. In the next phase of its warehouse implementation discussed below, CBH plans to overlay the unit cost analysis with performance and outcome metrics.

Lessons Learned and Next Steps

Critical lessons learned will inform the next steps with the Cost Study data and the subsequent data warehouse. This is the beginning of an ongoing process. As CBH moves into the next phase of the project attention will be given to three major lessons learned:

- Unit Costs: Further refinements in data definitions, particularly evaluation data points, need to occur now that participants have taken their first step in collecting the data. This will ensure more comparable data and holds true particularly for evaluation.
- Participation: Additional participants need to be included in the study to increase data validity. This is specifically needed for youth services and to conduct better regional analysis.
- Anticipated Costs: CBH will improve communications among participant executive teams to ensure finance, HR and technology staff actively participate in this process to develop standardized methodologies to forecast cost increases.

In the next phase of the project starting this fall, CBH will plug the cost finding data into a cloud-based data warehouse (similar to Microsoft Power BI) that provides analytic dashboards. Working with members, CBH will define and then collect additional aggregate metrics, like wait times, to further build dashboard reporting capabilities. This includes the development of a proof-of-concept to link participant's electronic health records with the data warehouse to support passive reporting of performance and outcome measures.

Additional Information

The vendor's CBH Cost Study Report is available for purchase. All provider information has been de-identified for privacy. The report is $40 for CBH members and $500 for non-members. Contact Christine Kopko for more information at 410.788.1865 or via email chris@mdcbh.org.