Maryland
DEPARTMENT OF HEALTH
Larry Hogan, Governor · Boyd K. Rutherford, Lt. Governor · Robert R. Neall, Secretary

November 26, 2019

The Honorable Nancy J. King
Chair
Senate Budget and Taxation Committee
3 West Miller Senate Office Bldg.
Annapolis, MD 21401-1991

The Honorable Maggie McIntosh
Chair
House Appropriations Committee
121 House Office Bldg.
Annapolis, MD 21401-1991

Re: 2019 Joint Chairmen's Report (p. 113) – Report on the Baltimore City Capitation Project

Dear Chairs King and McIntosh:

Pursuant to language set forth in the 2019 Joint Chairmen's report (p. 113), the Maryland Department of Health is required to:

> *report to the budget committees on the possibility of expanding the Baltimore City Capitation Project. The report shall be submitted by October 1, 2019, and the budget committees shall have 45 days to review and comment. Funds restricted pending the receipt of a report may not be transferred by budget amendment or otherwise to any other purpose and shall revert to the General Fund if the report is not submitted to the budget committees.*
> .

If you have questions about this report, or would like additional information, please contact me or my Chief of Staff Tom Andrews at (410) 767-0136 or thomas.andrews@maryland.gov.

Sincerely,

Robert R. Neall
Secretary

EXECUTIVE SUMMARY

The Baltimore City Capitation Project (the Capitation Program) provides intensive, 24 hours a day, seven days a week wrap-around services to individuals with serious and persistent mental illness (SPMI), including housing supports. The goal of the Capitation Program is to ensure these individuals receive sufficient community-based care either to be discharged from a State hospital or to avoid the need for long-term care in an institutional setting. The Maryland Department of Health (the Department) established the Baltimore City Capitation Program (the Capitation Program) in 1994. Operated by Behavioral Health Systems of Baltimore (BHSB), the Capitation Program originally served approximately 350 Baltimore City residents diagnosed with a major mental illness who were high cost users of mental health services. The Department continues to operate the Capitation Program today, serving approximately 294 individuals annually.

BHSB currently contracts with two vendors to provide services (Program Providers): Chesapeake Connections, which is a part of Mosaic Community Services, and Creative Alternatives, part of Johns Hopkins Bayview Medical Center. Chesapeake Connections has 166 patient slots and Creative Alternatives has 188 patient slots. Both Program Providers cited challenges in retaining staff as being one of the reasons leading to difficulty in achieving full capacity.

Generally, Capitation Program participants overall have a lower total average cost per year compared to those that would be potentially eligible if the Capitation Program were expanded to include additional sites. It is difficult to determine whether these lower results are due to better management or to the mix of the population served under the Capitation Program. For instance, breaking out the participants based on the costs of the hospital services, 91 percent of the enrolled participants were considered either non- or low users of inpatient services while only 40 percent of the potentially eligible fell into the non- or low users of inpatient services categories. Additionally, the average annual expenditures per user for more recent program participants may actually be associated with an increase in average annual expenditures per user. Given the potential mix of the potentially eligible participants, one capitation rate for all participants probably is not cost-effective or feasible. Finally, further investigation is required to assess the population for whom the Capitation Program is most cost-effective and whether eligibility criteria should be adjusted to target a more specific population, e.g., only moderate or high inpatient users. It is also clear in our review that not all providers would be able to assume the financial risk associated with capitation.

Any planned expansion of the Capitation Program should be designed to be either cost-neutral or result in cost-savings to the State. Before moving forward with any expansion, the Department recommends spending more time on the following:

(1) Monitoring changes in service utilization by individuals who recently enrolled in the Capitation Program over the next year.
(2) Analyzing the appropriate population who should be targeted under the Program. This may require modifying the eligibility criteria.

(3) Analyzing the capitation rates paid to providers based on the targeted population. Targeting a mix of low users and high users will most likely require varying capitation rates to incentivize providers to treat both populations.
(4) Determining how many providers could assume a risk-based payment structure. Not all providers would be able to handle risk associated with treating individuals targeted by the Capitation Program. Additionally, some may not have the capacity to handle individuals in the 'high users' category who have very complex behavioral health needs that may include previous criminal convictions. Based on the targeted population group and the number of potential new providers, the Department can determine which regions of the State would be appropriate to consider for a potential expansion.
(5) Determining what, if any, state-only costs are needed to wrap-around the Medicaid payments. Tracking state-only costs, including the cost of room and board and ancillary services, at an individual-level is a key component to assessing the fiscal impact of the Capitation Program.

I. Introduction

Pursuant to the requirements of the 2019 Joint Chairmen's Report (p. 113), the Department of Health respectfully submits this report, which addresses a review of the Baltimore Capitation Program and outcomes, an assessment of which services are covered under Medicaid, and an analysis of the fiscal impact to expand the Capitation Program statewide.

II. Overview and History of the Baltimore City Capitation Program

The Maryland Department of Health (the Department) established the Baltimore City Capitation Program (the Capitation Program) in 1994. The Capitation Program originally served approximately 350 Baltimore City residents diagnosed with a major mental illness who were high cost users of mental health services. The goals of the Program are to prevent emergency department utilization, lower the total cost of care, and avert homelessness. Behavioral Health Systems of Baltimore (BHSB) operates the Capitation Program through two vendors. The Department continues to operate the Capitation Program today.

A. Eligibility Requirements

To be eligible for the Capitation Program an individual must:

- Receive services through Medicaid or be uninsured,
- Be a Baltimore City resident or be willing to reside in Baltimore City,
- Have a primary diagnosis of a major mental disorder causing significant impairment in psychosocial functioning, with one of the following ICD diagnostic codes:
    - 295.00-295.99,
    - 296.00-297.1,
    - 301.20-301.22, or
    - 301.83; and
- Meet at least one of the following:
    - Currently inpatient in a state psychiatric hospital for at least six (6) consecutive months; or
    - Admitted to a psychiatric hospital at least four (4) times within the past two (2) years; or
    - Admitted to an emergency room for treatment of a psychiatric condition at least seven (7) times within the past two (2) years.

Additionally, the Program Providers have the discretion to evaluate potential participants and may deny admittance if the individual (1) has a somatic illness or an injury which necessitates 24-hour hospital or nursing home level of care; (2) is clinically inappropriate for discharge because the client is dangerous or is subject to a court order limiting community placement; or (3) is unable to give informed consent for treatment (unless the individual has a legally appointed guardian who consents on their behalf). Forensically involved individuals, including sex

offenders, for whom no other community placement exists, are notably more likely to be served by the Capitation Providers.

B. Program Providers

BHSB oversees the Capitation Program. BHSB works with two vendors who are responsible for delivery of services (Program Providers): Chesapeake Connections, which is a part of Mosaic Community Services, and Creative Alternatives, part of Johns Hopkins Bayview Medical Center. Chesapeake Connections has 166 patient slots and Creative Alternatives has 188 patient slots. Periodic challenges recruiting and retaining staff have prevented Program Providers from consistently filling all of the allotted slots.

Program Providers must comply with certain standards including:

- Maintaining proper employee certifications and ensuring psychiatrists treating the enrollees are eligible for certification or certified by the American Board of Psychiatry,
- Taking reasonable measures to ensure that any housing provider who receives funding from the Capitation Program meet all applicable local, state, and federal requirements,
- Meeting performance requirements for visitation rates and other metrics, and
- Ensuring all medications dispensed, administered, monitored, or otherwise handled by Capitation staff are handled in accordance with state and federal regulations.

The Capitation Program uses the Capitation Data (CAPDAT) database to input data monthly to ensure regulatory compliance. The Department has access to CAPDAT and utilizes the quarterly quality reports from the database to evaluate the Capitation Program.

C. Capitation Program Covered Services

The Baltimore City Capitation Program provides intensive, wrap-around services to individuals with a serious and persistent mental illness (SPMI). Capitation Program staff is available on-call, 24 hours per day, seven days per week. A collaborative, multidisciplinary team is responsible for delivery of community-based services, which are intensive and use assertive outreach, treatment, and support to assist a participant to maintain a community residence. Caseloads are small and average eight to ten participants per clinician. The duration, frequency, and intensity of services provided are individualized and determined through collaboration between the enrolled participant and the treatment team.

The Capitation Program is responsible for providing, managing, and paying for certain behavioral health services for enrollees as well as select support services. Covered behavioral health services include:

- Initial and ongoing mental health assessment and evaluation;
- Mental health outpatient treatment, partial hospitalizations, intensive outpatient services;
- Psychiatric rehabilitation program services;

- Psychiatric emergency department (ED) and inpatient (IP) treatment;[1]
- Crisis, residential crisis, and respite services;
- Medication management;
- Individual and Group therapy;
- Family support services;
- Case management;
- Harm reduction model;
- Peer recovery specialist;
- Community integration;
- Medication monitoring;
- Court reporting;
- Transportation to Court and other appointments;
- Multidisciplinary team approach;
- Diabetes support;
- Supported employment services and skills development; and
- Residential support services.

Program Providers must also ensure:

- Each enrollee is seen as frequently as needed during the month and no less than four different dates per month,
- Each enrollee is seen at least once in his/her own home or place of residence per month,
- Collaboration with the enrollee to document a plan of service that details the individual's goals, and
- High risk enrollees receive extra services and monitoring as necessary.

The cost of specialty mental health services is covered under the capitation payment. Other services and benefits covered by Medicaid fall outside the capitation rate, including substance use disorder services, somatic services, and pharmacy benefits. Non-capitated services are available to Medicaid participants through either their HealthChoice managed care organization (MCO) or on a fee-for-service (FFS) basis, depending on the participant's eligibility group. However, Program Providers must provide linkage to initial and ongoing somatic, dental and vision care. Program Providers must also ensure enrollees receive the medications and other medical supplies needed for their care.

Not all services currently provided by the Capitation Program would be covered by a Medicaid expansion. Enrolled participants currently may receive security deposit/rental assistance, certain supported employment services, room and board, residential support services, and transportation for purposes other than transit to a medical appointment. Other services not reimbursable by Medicaid include certain community engagement support (such as membership to a local YMCA

[1] Capitation pays for all psychiatric ED and IP costs not otherwise covered by Medicare while individuals are enrolled in the Capitation Program. When an enrolled participant reaches 30 consecutive days of psychiatric IP care, they are then usually disenrolled from the Capitation Program. They are eligible for re-enrollment when able to return to outpatient care.

and tuition assistance). In many instances, the participant's income helps offset the cost of room and board. Generally, this income is Social Security Disability Insurance (SSDI). In addition, approximately 10 percent of participants are employed and working between 10 to 18 hours per week; these earnings are also used to offset expenses that are not Medicaid-reimbursable. It is difficult to determine how these expenditures are targeted on an individual basis. CMS approval would be required to cover case management services, including housing placement assistance.

D. Capitation Rates and Payment Process

The Capitation Program is a partially capitated program. The Department makes monthly capitation payments through its behavioral health administrative services organization (ASO) to the Program Providers. BHSB is responsible for notifying the ASO when individuals are enrolled or disenrolled from the Program.

When the Program was first established, monthly capitation rates were tiered according to the Program participant's risk-level. Today, only two rates are used. The monthly capitation rate for Medicaid participants and uninsured individuals enrolled in the Capitation Program is $2,410 and $2,259 per month for clients who also have Medicare coverage.

To be eligible to receive a capitation payment, the Program Providers must submit claims for processing to the ASO. Participants in the Program are flagged by the ASO and other services covered by the Capitation Program they receive in the Public Mental Health System (PMHS) are not eligible for separate reimbursement. Providers are required to submit claims for services that are eligible for reimbursement from third party sources, such as Medicare.

BHSB makes funds available up to a maximum of $10,000 per fiscal year to subsidize services to partially active clients. Partially active status is reserved for clients with protracted admissions to facilities such as nursing homes and rehabilitation centers who need additional follow-up following disenrollment and/or who may potentially re-enroll in the program. Services to partially active clients must be requested, approved by BHSB, and billed for payment.

The BHSB also provides state-funded incentive payments to Program Providers on an annual basis not to exceed a total of $100,000. As part of its oversight role, BHSB is responsible for ensuring continuous quality improvement. To qualify for incentives, each provider proposes improvements in their existing program which are then approved by BHSB. There are additional performance measures identified by BHSB that are included in the incentive payment. Examples include keeping slots filled throughout the year, prioritizing facilitating discharges from state hospitals, and assisting consumers in obtaining competitive employment.

III. Current Baltimore Capitation Program Enrollment Analysis of the Medicaid Participants

For Medicaid enrolled participants, enrollment in the Capitation Program remained stable from FY 2017 through FY 2019, with 325 Medicaid participants enrolled in the Capitation Program across both Program Sites in FY 2019 (Table 1). In FY 2019, most participants were either enrolled in HealthChoice (143 participants) or were dually eligible, meaning they were enrolled in both Medicaid and Medicare (165 participants in FY 2019). For enrolled participants by Program Site, please see Appendix B.

Table 1: Number and Percent of Medicaid Participants Enrolled in the Baltimore City Capitation Program, by Coverage Type FY 2017 - FY 2019

FY 2017							FY 2018							FY 2019						
Number of Participants							Number of Participants							Number of Participants						
Dually Eligible		HealthChoice		FFS		Total	Dually Eligible		HealthChoice		FFS		Total	Dually Eligible		HealthChoice		FFS		Total
#	%	#	%	#	%		#	%	#	%	#	%		#	%	#	%	#	%	
168	51.2%	146	44.5%	14	4.3%	**328**	162	49.5%	148	45.3%	17	10.3%	**327**	165	50.3%	143	43.6%	17	5.2%	**325**

IV. Data Analysis

The Department compared the expenditures of the current Capitation Program participants enrolled in Medicaid to a comparison group made up of Medicaid participants who meet the clinical criteria for the Capitation Program. Analyses were completed to assess the difference in overall average costs per user, differences in costs between the two cohorts by inpatient utilization level, and changes in average expenditures per user before and after enrollment in the Capitation Program. Results of these analyses are inconclusive with respect to the potential for the Capitation Program to result in cost-savings. Further analysis is required to better understand how individuals' expenditures, relative risk levels, and hospital utilization change following enrollment in the Capitation Program. Additional time must be dedicated to understanding the appropriate population to target under this Program to ensure quality outcomes.

A. Potentially Eligible Comparison Group

To develop a comparison group, the Department assessed the individuals who might be eligible for the Capitation Program if services were expanded statewide. Specifically, the Department looked at Medicaid participants (1) admitted to a psychiatric hospital at least four times within the past two years, or (2) admitted to an emergency department (ED) for treatment of a psychiatric condition at least seven times within the past two years. In FY 2019, there were 2,338 individuals potentially eligible for the Capitation Program (see

Appendix A). Approximately 92 percent of them were enrolled in HealthChoice in FY 2019; the remaining 7 percent were served in the FFS program (2 percent were dually eligible). The three counties with the highest number of individuals who would be potentially eligible in FY 2019 were Baltimore City (790 individuals), Baltimore County (293 individuals), and Montgomery County (261 individuals).

B. Overall Average Cost Comparison

The Department looked at the fiscal impact for both Capitation Program sites and the potentially eligible population. In FY 2019, the average Medicaid expenditure for a potentially eligible participant was approximately $73,000 (see Table 2). A total of $170.7 million was spent in FY 2019. The highest spending category in FY 2019 was fee-for-service (FFS) behavioral health services, with an average cost per participant of approximately $47,000.

Table 2: Average Medicaid Expenditures for Potentially Eligible Baltimore City Capitation Program Participants, FY 2017 - FY 2019

Expenditure Type	FY 2017			FY 2018			FY 2019		
	Total	Users	Average Cost per User	Total	Users	Average Cost per User	Total	Users	Average Cost per User
FFS Behavioral Health Services	$115,132,543.95	2,809	$40,987.02	$115,877,010.07	2,652	$43,694.20	$108,262,511.12	2,317	$46,725.30
FFS Behavioral Health Pharmacy	$7,991,900.06	2,665	$2,998.84	$7,712,318.05	2,513	$3,068.97	$7,383,786.57	2,215	$3,333.54
FFS Somatic Claims	$19,109,822.52	2,181	$8,761.95	$19,147,660.91	2,111	$9,070.42	$16,239,543.56	1,907	$8,515.75
Total FFS Payments	*$142,234,266.53*	*2,826*	*$50,330.60*	*$142,736,989.03*	*2,668*	*$53,499.62*	*$131,885,841.25*	*2,323*	*$56,773.93*
MCO Capitation Payments	$29,711,134.53	2,618	$11,348.79	$30,538,714.53	2,479	$12,318.97	$28,092,199.30	2,172	$12,933.79
State Only IMD Payments	$15,836,194.35	679	$23,322.82	$14,177,527.69	693	$20,458.19	$10,740,469.07	497	$21,610.60
Total[2]	**$187,781,595.41**	**2,833**	**$66,283.66**	**$187,453,231.25**	**2,676**	**$70,049.79**	**$170,718,509.62**	**2,328**	**$73,332.69**

In FY 2019, the average cost per user for participants enrolled in Chesapeake Connections and Creative Alternatives were $45,000 and $43,000 respectively (see Tables 3 and 4). Across the two programs, $13.5 million was spent on enrolled program participants.

[2] Please note that an enrolled participant and a potentially eligible individual may receive services both through the MCO capitation rate and through fee-for-service; the total users is the unique number of total users. Therefore, the users' column will not add up to a total sum.

Overall, the highest spending per person average category for Chesapeake Connections and Creative Alternatives was for state institute of mental disease (IMD) for a small number of participants in FY 2019.

Table 3: Average Medicaid Expenditures for Baltimore City Capitation Program Chesapeake Connections Participants FY 2017 - FY 2019[3]

Expenditure Type	FY 2017			FY 2018			FY 2019		
	Total	Users	Average Cost per User	Total	Users	Average Cost per User	Total	Users	Average Cost per User
FFS Behavioral Health Services	$3,382,471.98	123	$27,499.77	$3,501,708.58	123	$28,469.18	$3,290,609.51	123	$26,752.92
FFS Behavioral Health Pharmacy	$1,063,126.11	91	$11,682.70	$1,009,516.32	80	$12,618.95	$1,115,850.45	89	$12,537.65
FFS Somatic Claims	$798,369.45	97	$8,230.61	$649,100.69	99	$6,556.57	$549,194.13	99	$5,547.42
Total FFS Payments	*$5,243,967.54*	*139*	*$37,726.39*	*$5,160,325.59*	*139*	*$37,124.64*	*$4,955,654.09*	*140*	*$35,397.53*
MCO Capitation Payments	*	*	$16,184.41	*	*	$17,890.27	*	*	$16,008.08
State Only IMD Payments	*	*	$41,898.81	*	*	$3,754.14	*	*	$35,493.16
Total	**$6,622,518.33**	**139**	**$47,644.02**	**$6,495,467.96**	**139**	**$46,729.99**	**$6,310,763.70**	**140**	**$45,076.88**

Table 4: Average Medicaid Expenditures for Baltimore City Capitation Program Creative Alternatives Participants FY 2017 - FY 2019[3]

Expenditure Type	FY 2017			FY 2018			FY 2019		
	Total	Users	Average Cost per User	Total	Users	Average Cost per User	Total	Users	Average Cost per User
FFS Behavioral Health Services	$4,923,855.16	162	$30,394.17	$4,915,011.93	161	$30,528.02	$4,368,810.68	158	$27,650.70
FFS Behavioral Health Pharmacy	$436,868.05	90	$4,854.09	$491,059.42	92	$5,337.60	$503,943.23	93	$5,418.74
FFS Somatic Claims	$992,353.80	135	$7,350.77	$992,632.33	135	$7,352.83	$1,128,159.95	135	$8,356.74

[3] Cells with 10 or fewer people are suppressed to maintain privacy and are marked with an asterisk. Related total costs are also masked. Where a table may contain only one row with 10 or fewer people, a second row of data is also suppressed to prevent reverse calculation of small cell sizes. In tables where two or more rows must be suppressed, additional rows may also need to be suppressed to prevent reverse calculation of the rows with small cell sizes.

Expenditure Type	FY 2017			FY 2018			FY 2019		
	Total	Users	Average Cost per User	Total	Users	Average Cost per User	Total	Users	Average Cost per User
Total FFS Payments	*$6,353,077.01*	*170*	*$37,371.04*	*$6,398,703.68*	*169*	*$37,862.15*	*$6,000,913.86*	*168*	*$35,719.73*
MCO Capitation Payments	*	*	$15,008.12	*	*	$15,304.76	*	*	$14,449.95
State Only IMD Payments	*	*	$35,062.94	*	*	$27,863.68	*	*	$51,636.49
Total	**$7,568,866.84**	**170**	**$44,522.75**	**$7,620,338.47**	**169**	**$45,090.76**	**$7,202,383.21**	**168**	**$42,871.33**

Overall, both Creative Alternatives and Chesapeake Connections had a lower average cost per participant than the potentially eligible group. The highest average cost per user categories varied across the two groups, with enrolled participants having higher average cost in state only IMD payments and potentially eligible having higher average FFS behavioral health services.

C. Cost Comparison Considering Enrollment Mix

In addition to looking at the overall average costs of the potentially eligible and enrolled participants, the Department divided the potentially eligible and the currently enrolled participants into four groups based on their inpatient usage rates: (1) non-users; (2) low users; (3) moderate users; and (4) high users. The Department broke out the populations based on their hospital expenditures for FY 2018. Based on these categories the populations break out across the potentially eligible and program participants as follows:

Table 5: Percentage of Individuals with Hospital Utilization, by category, for FY 2018

	Potentially Eligible	Current Participants
Non-User	12%	82%
Low User	28%	9%
Moderate User	29%	3%
High User	31%	6%

One of the goals of the Capitation Program is to improve management of hospital usage. The level of hospital utilization varied greatly between individuals potentially eligible for the Capitation Program and currently enrolled participants. Ninety-one percent of current participants fall into the non- or low user categories, compared to only 40 percent of the potentially eligible. Given these differences, simply comparing overall average expenditures for currently enrolled participants (Table 3 and 4) against the potentially eligible

comparison group (Table 2) creates a skewed analysis that is not sufficient to assess the potential for cost-savings through enrollment in the Capitation Program.

Additionally, due to limited data availability, Tables 2 through 4 and 6 through 9 do not account for state-only costs used to support currently enrolled participants. This data is not readily available on an individual level. As such, the analyses should be reviewed with caution because they may undercount actual costs.

One data point that is more readily comparable between the group of potentially eligible individuals and currently enrolled participants is utilization of IMD services. When expenditures are broken out by Inpatient Service utilization category, Capitation Program enrollment was associated with lower average State-only IMD Payments (see Tables 6 through 9). Higher average costs within the Creative Alternatives high user cohort is attributable to the small sample size.

i. Non-Users of Inpatient Services

For non-users of inpatient services in FY 2018, Chesapeake Connections had an average cost per user of $44,000 (see Table 6). Creative Alternatives had a slightly lower average cost of $40,000. Potentially eligible participants had the highest average cost among non-users of inpatient services at approximately $47,000 in FY 2018. It is important to note that a higher number of potentially eligible individuals are eligible and receiving services under HealthChoice (roughly 91 percent). In addition, the average cost per user for MCO capitation payments are lower for potentially eligible individuals. The lower MCO capitation rate may mean the individuals are less complex based on risk-score and age. MCO capitation rates are also adjusted regionally with higher rates paid for individuals residing in Baltimore City and certain areas of the state. This suggests there are variations even within this category that need additional analysis.

Table 6: Average Medicaid Expenditures for Non-Users of Inpatient Services, FY 2018[3]

Expenditure Type	Chesapeake Connections			Creative Alternatives			Potentially Eligible Individuals		
	Total	Users	Average Cost per User	Total	Users	Average Cost per User	Total	Users	Average Cost per User
FFS Payments	$3,953,809.17	118	$33,506.86	$4,360,736.86	135	$32,301.75	$8,535,783.32	321	$26,591.23
MCO Capitation Payments	*	*	$18,366.16	*	*	$14,871.55	$3,887,958.33	293	$13,269.48
State-only IMD Payments	*	*	$3,879.64	*	*	$0.00	$3,003,022.81	114	$26,342.31
Total	**$5,188,221.30**	**118**	**$43,967.98**	**$5,372,002.43**	**135**	**$39,792.61**	**$15,426,764.46**	**329**	**$46,889.86**

ii. Low Users of Inpatient Services

For low users of inpatient services, Chesapeake Connections and Creative Alternatives had similar average cost per user, with Chesapeake Connections having an average of $32,000 and Creative Alternatives having an average of $33,000 (see Table 7). Potentially eligible individuals had a higher average cost per user, costing approximately $46,000.

Table 7: Average Medicaid Expenditures for Low Users of Inpatient Services, FY 2018[3]

Expenditure Type	Chesapeake Connections			Creative Alternatives			Potentially Eligible Individuals		
	Total	Users	Average Cost per User	Total	Users	Average Cost per User	Total	Users	Average Cost per User
FFS Payments	$323,494.52	11	$29,408.59	$534,878.91	16	$33,429.93	$21,820,618.40	746	$29,250.16
MCO Capitation Payments	*	*	$8,837.89	*	*	$0.00	$9,356,871.08	709	$13,197.28
State-only IMD Payments	*	*	$0.00	*	*	$0.00	$3,130,461.72	187	$16,740.44
Total	**$350,008.18**	**11**	**$31,818.93**	**$534,878.91**	**16**	**$33,429.93**	**$34,307,951.20**	**746**	**$45,989.21**

iii. Moderate Users of Inpatient Services

Moderate inpatient users had varying average costs. Chesapeake Connections had the highest average cost at approximately $66,000 (see Table 8). Creative Alternatives, on the other hand, had the lower per user average cost of $41,000. The potentially eligible individuals averaged $62,000 dollars per moderate user.

Table 8: Average Medicaid Expenditures for Moderate Users of Inpatient Services, FY 2018[3]

Expenditure Type	Chesapeake Connections			Creative Alternatives			Potentially Eligible Individuals		
	Total	Users	Average Cost per User	Total	Users	Average Cost per User	Total	Users	Average Cost per User
FFS Payments	*	*	$65,673.22	*	*	$33,657.28	$35,041,281.81	777	$45,098.17
MCO Capitation Payments	*	*	$0.00	*	*	$34,925.22	$9,013,536.76	737	$12,230.04

Expenditure Type	Chesapeake Connections			Creative Alternatives			Potentially Eligible Individuals		
	Total	Users	Average Cost per User	Total	Users	Average Cost per User	Total	Users	Average Cost per User
State-only IMD Payments	*	*	$0.00	*	*	$0.00	$3,926,614.68	217	$18,095.00
Total	*	*	**$65,673.22**	*	*	**$40,642.32**	**$47,981,433.25**	**777**	**$61,752.17**

iv. High Users of Inpatient Services

High users of inpatient services had similar average costs per user amongst those enrolled in the Capitation Program, with Chesapeake Connections and Creative Alternatives both having an average of $116,000 per user in FY 2018 (see Table 9). During the same fiscal year, potentially eligible individuals had an average cost per user of approximately $109,000.

Table 9: Average Medicaid Expenditures for High Users of Inpatient Services, FY 2018[3]

Expenditure Type	Chesapeake Connections			Creative Alternatives			Potentially Eligible Individuals		
	Total	Users	Average Cost per User	Total	Users	Average Cost per User	Total	Users	Average Cost per User
FFS Payments	*	*	$103,388.17	$1,334,801.51	13	$102,677.04	$77,339,305.50	824	$93,858.38
MCO Capitation Payments	*	*	$16,708.45	*	*	$16,397.81	$8,280,348.36	740	$11,189.66
State-only IMD Payments	*	*	$3,691.39	*	*	$27,863.68	$4,117,428.48	178	$23,131.62
Total	*	*	**$115,757.60**	**$1,510,245.51**	**13**	**$116,172.73**	**$89,737,082.34**	**824**	**$108,904.23**

Further analysis is required to better understand how individuals' service costs, relative risk levels, and hospital utilization change following enrollment in the Capitation Program. The range of average costs between the four inpatient utilization categories within the potentially eligible group is between approximately $46,000 and $109,000. This is a fairly wide range and suggests more time needs to be devoted to understanding the appropriate population to target under this Program to ensure quality outcomes. This may require changing the eligibility criteria.

D. Changes in Costs Pre- and Post-Capitation Program Enrollment

Finally, the Department completed a preliminary assessment of the change in average annual Medicaid expenditures per user for individuals recently enrolled in the Capitation Program. The Department assessed two different cohorts for each Program Site: individuals newly enrolled in FY 2018 (Tables 10 and 11) and those newly enrolled in FY 2019 (Tables 12 and 13). Data for FY 2019 should be interpreted with caution, as it is not yet complete since providers have up to 12 months to submit FFS claims. Additionally, due to limited data availability, Tables 10 through 13 do not account for state-only costs used to support currently enrolled participants. This data is not readily available on an individual level. As such, the analyses should be reviewed with caution because they may undercount actual costs.

For both the FY 2018 and FY 2019 newly enrolled cohorts, average Medicaid expenditures per user increased following enrollment in the Capitation Program. The average cost per user prior to enrollment suggests that these individuals are primarily low users of hospital services and may not be the optimal target population to achieve cost savings. Further assessment is required to understand these utilization trends over the course of long-term enrollment in the Capitation Program and to determine if results vary based on the enrolled participant's eligibility category (HealthChoice, FFS, or dual eligible).

Table 10. Average Medicaid Expenditures for Baltimore City Capitation Program Creative Alternatives Participants During and After Enrollment, FY 2018

Expenditure Type	Year Prior to Enrollment: FY 2017	Enrollment Year: FY 2018
	Average Cost per User	Average Cost per User
FFS Behavioral Health Services	$50,074.95	$49,401.53
FFS Behavioral Health Pharmacy	$3,970.59	$4,895.08
FFS Somatic Claims	$5,546.57	$3,700.88
Total FFS Payments	*$48,396.21*	*$55,794.99*
MCO Capitation Payments	$9,496.72	$10,335.29
State-only expenditures for private IMD hospital costs *	$33,281.34	$27,863.68
Average Total Cost per User	**$57,652.39**	**$63,527.20**

Table 11. Average Medicaid Expenditures for Baltimore City Capitation Program Chesapeake Connections Participants During and After Enrollment, FY 2018

Expenditure Type	Year Prior to Enrollment: FY 2017	Enrollment Year: FY 2018
	Average Cost per User	Average Cost per User
FFS Behavioral Health Services	$28,497.42	$30,857.42
FFS Behavioral Health Pharmacy	$2,900.75	$7,580.16
FFS Somatic Claims	$3,671.55	$782.09
Total FFS Payments	$30,563.04	$36,279.35

Expenditure Type	Year Prior to Enrollment: FY 2017	Enrollment Year: FY 2018
	Average Cost per User	Average Cost per User
MCO Capitation Payments	$6,774.58	$6,618.13
State-only expenditures for private IMD hospital costs *	$17,129.65	$4,466.55
Average Total Cost per User	**$32,830.88**	**$41,387.63**

Table 12. Average Medicaid Expenditures for Baltimore City Capitation Program Creative Alternatives Participants During and After Enrollment, FY 2019

Expenditure Type	Year Prior to Enrollment: FY 2018	Enrollment Year: FY 2019
	Average Cost per User	Average Cost per User
FFS Behavioral Health Services	$49,328.42	$33,208.09
FFS Behavioral Health Pharmacy	$1,751.41	$2,834.00
FFS Somatic Claims	$7,137.18	$9,930.62
Total FFS Payments	$46,626.83	$41,482.21
MCO Capitation Payments	$14,799.38	$10,531.57
State-only expenditures for private IMD hospital costs *	$48,058.90	$51,636.49
Average Total Cost per User	**$50,817.29**	**$51,467.07**

Table 13. Average Medicaid Expenditures for Baltimore City Capitation Program Chesapeake Connections Participants During and After Enrollment, FY 2019

Expenditure Type	Year Prior to Enrollment: FY 2018	Enrollment Year: FY 2019
	Average Cost per User	Average Cost per User
FFS Behavioral Health Services	$29,531.78	$18,596.08
FFS Behavioral Health Pharmacy	$1,169.62	$2,890.01
FFS Somatic Claims	$2,759.86	$10,065.44
Total FFS Payments	$27,229.47	$27,318.31
MCO Capitation Payments	$9,990.22	$6,687.54
State-only expenditures for private IMD hospital costs *	$24,910.68	$35,493.16
Average Total Cost per User	**$33,320.50**	**$37,692.20**

V. Conclusions and Recommendations

While enrolled participants had lower average costs compared to potentially eligible participants, this did not remain consistent when the cost data was broken out into tiers based on inpatient utilization or when newly enrolled participants' average expenditures per user were assessed. The lack of consistency demonstrates that the Capitation Program may not be a cost-effective intervention for all of its participants. Additionally, the data suggests that the Capitation Program is not economical in serving the individuals with the highest need (high users of inpatient services) or the recently enrolled to the Program whose costs appear to increase following enrollment. These results imply that eligibility criteria may need to be adjusted to target a more appropriate population. Given the broad range of individuals who would be eligible to enroll if the Capitation Program were extended, further investigation is needed. Further study of changes in services utilization by recently enrolled participants following enrollment in the Capitation Program would provide insight into the impact of the Program. Monitoring individuals newly enrolled in the Program over a period of time, e.g., the next year, would help the Department refine Program eligibility criteria to ensure a population likely to achieve both quality outcomes and potential cost-savings is targeted.

Any planned expansion of the Capitation Program should be designed to be either cost-neutral or result in cost-savings to the State. Before moving forward with any expansion, the Department recommends spending more time on the following:

(1) Monitoring changes in service utilization by individuals who recently enrolled in the Capitation Program over the next year.
(2) Analyzing the appropriate population who should be targeted under the Program. This may require modifying the eligibility criteria.
(3) Analyzing the capitation rates paid to providers based on the targeted population. Targeting a mix of low users and high users will most likely require varying capitation rates to incentivize providers to treat both populations.
(4) Determining how many providers could assume a risk-based payment structure. Not all providers would be able to handle risk associated with treating individuals targeted by the Capitation Program. Additionally, some may not have the capacity to handle individuals in the 'high users' category who have very complex behavioral health needs that may include previous criminal convictions. Based on the targeted population group and the number of potential new providers, the Department can determine which regions of the State would be appropriate to consider for a potential expansion.
(5) Determining what, if any, State-only costs are needed to wrap-around the Medicaid payments. Tracking State-only costs, including the cost of room and board and ancillary services, at an individual-level is a key component to assessing the fiscal impact of the Capitation Program.

Appendix A: Number and Percent of Medicaid Participants Eligible for Baltimore City Capitation Program by County and Payer, FY 2017 - FY 2019

	FY 2017							FY 2018							FY 2019						
	Number of Participants							Number of Participants							Number of Participants						
County	**Dually Eligible**		**HealthChoice**		**FFS**		**Total**	**Dually Eligible**		**HealthChoice**		**FFS**		**Total**	**Dually Eligible**		**HealthChoice**		**FFS**		**Total**
	#	%	#	%	#	%		#	%	#	%	#	%		#	%	#	%	#	%	
Allegany	*	*	71	90.8%	*	*	**76**	*	*	49	89.1%	*	*	**55**	*	*	40	95.2%	*	*	**42**
Anne Arundel	*	*	181	94.7%	*	*	**190**	*	*	172	91.5%	*	*	**188**	*	*	158	94.6%	*	*	**167**
Baltimore City	18	2.0%	828	90.3%	72	7.8%	**924**	17	1.9%	808	90.1%	72	8.0%	**897**	12	1.5%	708	89.6%	70	8.9%	**790**
Baltimore County	*	*	321	90.4%	25	6.8%	**365**	*	*	302	91.5%	22	6.7%	**330**	*	*	270	92.2%	17	5.8%	**293**
Calvert	*	*	20	83.3%	*	*	**24**	*	*	22	91.7%	*	*	**24**	*	*	21	100.0%	*	*	**21**
Caroline	*	*	11	*	*	*	**11**	*	*	11	84.6%	*	*	**13**	*	*	12	92.3%	*	*	**13**
Carroll	*	*	64	92.6%	*	*	**68**	*	*	60	93.8%	*	*	**64**	*	*	47	92.2%	*	*	**51**
Cecil	*	*	45	93.9%	*	*	**49**	*	*	40	95.2%	*	*	**42**	*	*	32	97.0%	*	*	**33**
Charles	*	*	35	91.9%	*	*	**37**	*	*	26	89.7%	*	*	**29**	*	*	26	92.9%	*	*	**28**
Dorchester	*	*	21	85.7%	*	*	**28**	*	*	17	100.0%	*	*	**17**	*	*	18	94.7%	*	*	**19**
Frederick	*	*	80	89.5%	*	*	**95**	*	*	86	91.5%	*	*	**94**	*	*	66	91.7%	*	*	**72**
Garrett	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Harford	*	*	84	96.7%	*	*	**90**	*	*	80	94.1%	*	*	**85**	*	*	58	96.7%	*	*	**60**
Howard	*	*	65	89.3%	*	*	**75**	*	*	61	91.0%	*	*	**67**	*	*	69	93.2%	*	*	**74**
Kent	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Montgomery	19	6.0%	270	85.0%	29	9.1%	**319**	19	6.6%	253	87.2%	18	6.2%	**290**	*	*	241	92.3%	16	6.1%	**261**
Out of State	*	*	16	94.1%	*	*	**17**	*	*	17	89.5%	*	*	**19**	*	*	*	*	*	*	*
Prince George's	*	*	184	89.5%	18	8.6%	**210**	*	*	191	88.4%	20	9.3%	**216**	*	*	180	92.8%	*	*	**194**
Queen Anne's	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Somerset	*	*	12	75.0%	*	*	**16**	*	*	18	100.0%	*	*	**18**	*	*	*	*	*	*	**15**
St. Mary's	*	*	42	91.1%	*	*	**45**	*	*	41	89.1%	*	*	**46**	*	*	32	88.9%	*	*	**36**
Talbot	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Washington	*	*	111	91.2%	*	*	**113**	*	*	93	93.0%	*	*	**100**	*	*	74	98.7%	*	*	**75**
Wicomico	*	*	48	87.8%	*	*	**49**	*	*	35	87.5%	*	*	**40**	*	*	42	84.0%	*	*	**50**
Worcester	*	*	17	94.4%	*	*	**18**	*	*	23	100.0%	*	*	**23**	*	*	17	100.0%	*	*	**17**
Total	**88**	**3.1%**	**2,548**	**90.1%**	**193**	**6.8%**	**2,842**	**81**	**3.0%**	**2,435**	**90.6%**	**172**	**6.4%**	**2,688**	**44**	**1.9%**	**2,146**	**91.8%**	**148**	**6.3%**	**2,338**

Appendix B: Number and Percent of Medicaid Participants Enrolled by Program Site, FY 2017 – FY 2019

Table 1: Number and Percent of Medicaid Participants Enrolled at Chesapeake Connections Baltimore City Capitation Program by Payer, FY 2017 - FY 2019

FY 2017							FY 2018							FY 2019						
Number of Participants							Number of Participants							Number of Participants						
Dually Eligible		HealthChoice		FFS		Total	Dually Eligible		HealthChoice		FFS		Total	Dually Eligible		HealthChoice		FFS		Total
#	%	#	%	#	%		#	%	#	%	#	%		#	%	#	%	#	%	
*	*	73	49.3%	*	*	**148**	*	*	73	49.3%	*	*	**148**	68	*	73	49.0%	*	*	**149**

Table 2: Number and Percent of Medicaid Participants Enrolled at Creative Alternatives Baltimore City Capitation Program, by County and Payer, FY 2017 - FY 2019

FY 2017							FY 2018							FY 2019						
Number of Participants							Number of Participants							Number of Participants						
Dually Eligible		HealthChoice		FFS		Total	Dually Eligible		HealthChoice		FFS		Total	Dually Eligible		HealthChoice		FFS		Total
#	%	#	%	#	%		#	%	#	%	#	%		#	%	#	%	#	%	
98	54.4%	*	*	*	*	**180**	92	51.4%	75	41.9%	12	6.7%	**179**	97	54.2%	71	39.7%	11	6.1%	**179**