



DEPARTMENT OF HEALTH

Larry Hogan, Governor · Boyd K. Rutherford, Lt. Governor · Robert R. Neall, Secretary

February 25, 2020

The Hon. Larry Hogan
Governor
State of Maryland
100 State Circle
Annapolis, MD 21401–1991

The Hon. Bill Ferguson
President of the Senate
Maryland General Assembly
H-107 State House
Annapolis, MD 21401–1991

The Hon. Adrienne A. Jones
Speaker of the House
Maryland General Assembly
H-101 State House
Annapolis, MD 21401–1991

Re: Health-General § 7.5–209—Report on Behavioral Health Services for Children and Young Adults

Dear Governor Hogan, President Ferguson, and Speaker Jones:

Pursuant to Maryland Health-General § 7.5–209, the Maryland Department of Health respectfully submits the first annual report on behavioral health services for children and young adults on behalf of the Behavioral Health Administration.

If you have any questions regarding this report, please contact me or my Deputy Secretary of Operations Gregg Todd at (410) 767–4557 or Gregg.todd@maryland.gov.

Sincerely,

Robert R. Neall
Secretary

Report on Behavioral Health Services for Children and Young Adults

Submitted by the Maryland Department of Health

Maryland Annotated Code
Health General Article § 7.5–209

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I. Executive Summary

In response to Maryland Annotated Code, Health-General Article § 7.5–209, the Behavioral Health Administration (BHA) analyzed FY18 data on selected behavioral health services provided to children (birth through 17 years) and young adults (18–25 years) who are eligible and receive services through the public behavioral health system (PBHS). Data on the number of children and young adults utilizing these services, the cost of these services, and the time a child or young adults is waiting for these services was the primary focus.

Based on U.S. Census Bureau data, in 2018, there were approximately two million (2,133,079) children and young adults residing in Maryland, which represents 35.3% of the State's population. Nearly 40% (836,457) of those children and young adults were eligible for PBHS services, while a total of 110,965 received services within the PBHS statewide. This group accounted for 39% of all recipients of PBHS services in FY18. A total of \$495,746,174 was expended on services provided to child and young adult recipients of PBHS services, with an average annual per child and young adult expenditure of \$4,466 per person. Expenditures for this group represented 44.8% of the total annual PBHS expenditures (\$1,105,899,515).

Inpatient Psychiatric Hospital Services: A total of 7,773 PBHS child and young adult service recipients had one or more psychiatric related hospitalizations, representing just seven percent of all child and young adult recipients of PBHS services. Inpatient hospitalizations accounted for 21% (\$106,256,851) of the total PBHS expenditures for the group and an average per child and young adult expenditure of \$13,670 per person. A total of 9,017 children and young adults were discharged from inpatient psychiatric hospitals in FY18 with an average length of stay of eight days. Of those discharged, 975 were readmitted to the same or other hospital within 30 days reflecting a 10.8% hospital 30-day readmission rate.

Psychiatric Emergency Room Services: A total of 13,041 PBHS service recipients had one or more psychiatric emergency room visits at an annual expenditure of \$15,443,656 and an average annual per child and young adult expenditure of \$1,184 per person. Children and young adults ages 13 and older accounted for 78.6% of emergency room users, while children birth through six accounted for just under three percent of service users. Emergency room users were more likely to be female (53.3%) and were relatively evenly divided between African-American (44.6%) and non-Hispanic Caucasian (45.6%) children and young adults.

Residential Treatment Centers (or RTC): Statewide, 454 children and young adults were treated in private RTCs, while 62 received treatment in the two state-operated Regional Institutes for Children and Adolescents (RICA). The annual expenditure for these services in FY18 was \$35,295,132 and reflects an average per child and young adult expenditure of \$77,743 per person. The average time waiting between referral and placement was 44 days for residential treatment centers and 55.4 days for RICAs. Once placed, the average length of stay in residential treatment centers was 243 days. A total of 310 children and young adults were discharged from residential treatment centers. Within 30 days of discharge, nine percent were readmitted to the same RTC.

Intensive Community-Based Services: Intensive community-based services include psychiatric rehabilitation program (PRP), targeted case management (TCM), respite care, and § 1915(i)

waiver services. In FY18, of the PBHS eligible children and young adults, 18,299 received PRP services, 2,325 received targeted case management services, 320 received respite services statewide, and 54 were enrolled in § 1915(i) waiver services. A total of \$72,493,668 was expended on intensive community-based services for children and young adults, averaging \$3,626 per person.

II. Introduction

This report is provided in response to the Maryland Annotated Code, Health-General Article (HG) § 7.5–209. The statute requires BHA, to provide an annual report on selected behavioral health services provided to children (birth through 17 years) and young adults (18–25 years) who are eligible and receive services through the public behavioral health system (PBHS).¹

BHA oversees the delivery of behavioral health services for children, young adults, and their families through a broad network of state and federally funded programs and services with the goal of creating an integrated and coordinated system of care that provides access to a wide array of behavioral health service options and recovery supports. These options range from ambulatory outpatient care for both mental health and substance use disorders to sub-acute and intensive inpatient treatment including long term care in psychiatric residential treatment centers and family peer support. The goal of the system of care is to respond to the changing needs of these children and young adults and their families in all aspects of their lives in a timely and effective manner.

This report provides a high level summary of the geographic and demographic distribution of child and young adult eligibility, utilization and expenditure patterns for public behavioral health services in FY18. The report focuses on a narrow but important sub-set of services within the public behavioral health service delivery system for children and young adults including psychiatric inpatient hospitalization, hospital emergency department utilization for behavioral health emergencies, residential treatment services, and a group of specialized intensive community services. This latter group includes mental health targeted case management, respite care, psychiatric rehabilitation services, and the special services offered to selected individuals under an approved Medicaid State Plan Amendment under § 1915(i) of the Social Security Act.

III. Service Eligibility and Utilization

HG § 7.5–209(b)(1) requires BHA to provide data on the number and the percentage of children and young adults that were (A) eligible for and (B) used public behavioral health services “during the reported year.”² FY18 data is referenced in this report since it is the most recent complete set of data available.

A. Population Eligible for Public Behavioral Health Services

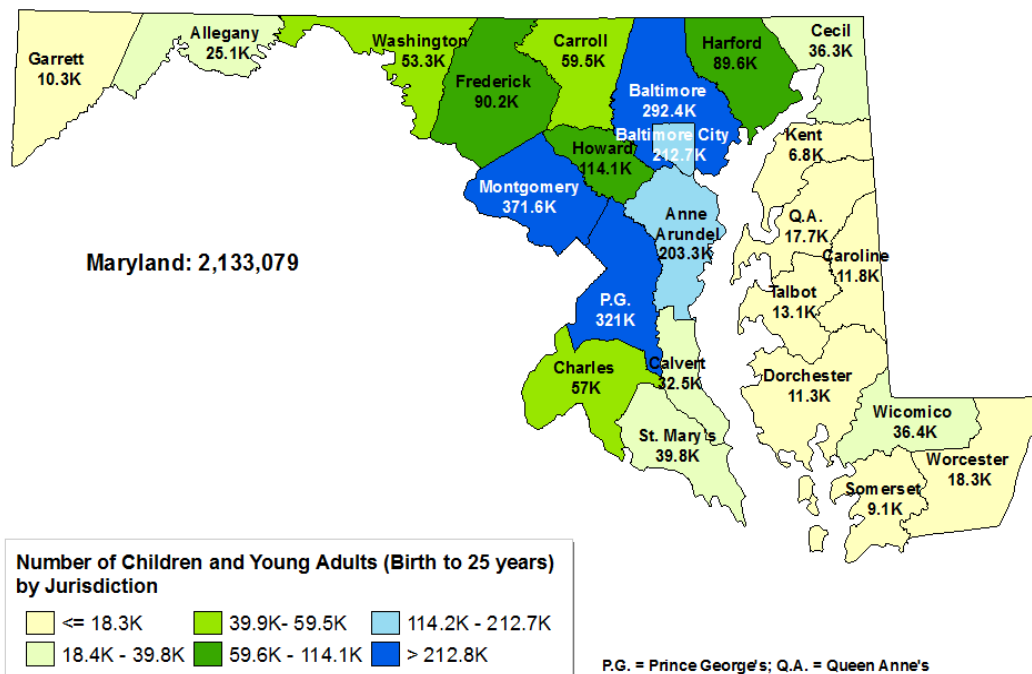
HG § 7.5–209(b)(1)(i) requests data on the number and percentage of children and young adults who were “eligible for public behavioral health services” in FY18. Any child (birth through 17 years) or young adult (18–25 years) in the State of Maryland who is determined eligible for Maryland Medical Assistance (Medicaid) or who is uninsured is eligible to receive PBHS services.

¹ HG § 7.5–209(a) requires BHA to consult with interested stakeholders. This consultation was undertaken in conjunction with the Maryland Children’s Behavioral Health Coalition. The Coalition brings together organizations representing consumers, families, advocates, service agencies, and behavioral health professionals to ensure that Maryland children with mental health and substance use disorders have access to services that meet their unique needs. The group currently has 18 affiliate member organizations.

² Beginning in 2019, the Department established working groups to improve the way behavioral health services are coordinated with somatic services through a system of care. See Appendix B.

Based on U.S. Census Bureau data, in 2018, there were more than two million (2,133,079) children and young adults residing in Maryland. As a group, those in this age range (birth through 25) make up 35.3% of the State's population. As shown in Map 1, 65.7% of the State's children and young adults reside in five jurisdictions located in the Baltimore-Washington metropolitan area, including Baltimore City and Anne Arundel, Baltimore, Montgomery, and Prince George's Counties. In contrast, more rural counties, on the eastern shore and far western Maryland had substantially lower numbers (see Map 1).

Map 1: Estimated Number of Children and Young Adults (Birth through 25 Years) by Jurisdiction



Data Source: U.S. Census Bureau, 2018. Maryland population estimates for children and youth (birth through 25 years), online at https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=DEC_10_SF1_QTP2andprodType=table; https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=PEP_2018_PEPANNRESandsrc=pt (All internet materials as last visited October 10, 2019).

Children and young adults who meet eligibility requirements for Maryland Medical Assistance (Medicaid) or who are uninsured are eligible to receive PBHS services. Of all the children and young adults who resided in the State, 39.2% (836,457) were eligible for PBHS services in FY18. African-American children and young adults made up the largest segment of those eligible at 36.5%, followed by non-Hispanic, Caucasian children and young adults who made up 22.6% of those eligible for services. Females represented 51% of eligible children and young adults while males accounted for 49% (see Appendix A, Table A1). The number and percentage of children eligible for PBHS services decreased with each age group, with children ages birth through six accounting for nearly 32% of all the eligible children across the State, followed by children ages 7–12, with 26% eligible. Young adults ages 18–21 and 22–25 accounted for the smallest proportion of eligible individuals at 12% and 11%, respectively.

The number of PBHS eligible individuals varied across the State with the largest numbers residing in the four jurisdictions with the largest populations of children and young adults. These jurisdictions, located within the Baltimore-Washington metropolitan area, included Baltimore City

and Baltimore, Montgomery, and Prince George’s Counties, and accounted for 63% of all PBHS eligible individuals (see Table 1).

Table 1: Number and Percent of Children and Young Adults Eligible for PBHS Services, FY18

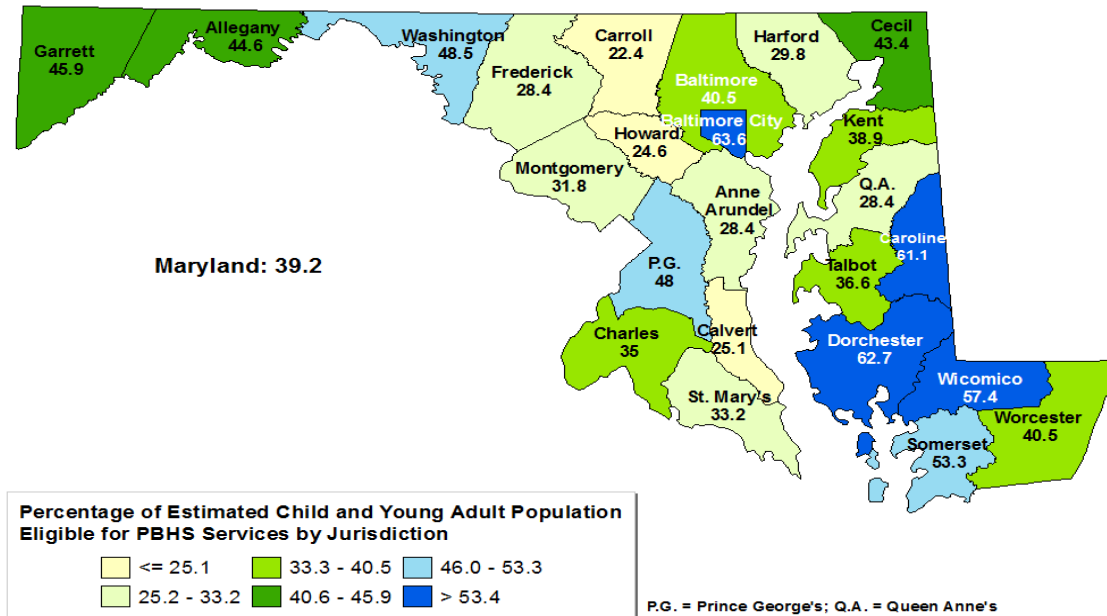
Jurisdiction	Age Group ^a										Total ^b	
	Birth to 6		7 to 12		13 to 17		18 to 21		22 to 25			
	N	%	N	%	N	%	N	%	N	%	N	%
Allegany	3,429	31%	2,685	24%	2,046	18%	1,483	13%	1,536	14%	11,179	1.3%
Anne Arundel	19,291	33%	15,496	27%	10,182	18%	6,550	11%	6,302	11%	57,821	6.9%
Baltimore City	41,252	31%	33,954	25%	24,128	18%	17,417	13%	18,473	14%	135,224	16.2%
Baltimore	38,626	33%	31,320	26%	21,259	18%	14,066	12%	13,160	11%	118,431	14.2%
Calvert	2,424	30%	2,133	26%	1,541	19%	1,027	13%	1,037	13%	8,162	1.0%
Caroline	2,289	32%	1,946	27%	1,351	19%	870	12%	725	10%	7,181	0.9%
Carroll	4,120	31%	3,480	26%	2,516	19%	1,605	12%	1,593	12%	13,314	1.6%
Cecil	4,824	31%	4,151	26%	2,985	19%	1,977	13%	1,829	12%	15,766	1.9%
Charles	6,509	33%	5,123	26%	3,467	17%	2,398	12%	2,477	12%	19,974	2.4%
Dorchester	2,124	30%	1,911	27%	1,324	19%	874	12%	849	12%	7,082	0.8%
Frederick	8,313	32%	7,003	27%	4,711	18%	2,933	11%	2,659	10%	25,619	3.1%
Garrett	1,374	29%	1,147	24%	885	19%	667	14%	651	14%	4,724	0.6%
Harford	8,222	31%	7,037	26%	5,060	19%	3,254	12%	3,154	12%	26,727	3.2%
Howard	8,581	31%	7,699	27%	5,524	20%	3,374	12%	2,862	10%	28,040	3.4%
Kent	788	30%	705	26%	520	20%	353	13%	296	11%	2,662	0.3%
Montgomery	39,249	33%	32,621	28%	22,016	19%	13,473	11%	10,906	9%	118,265	14.1%
Prince George’s	54,061	35%	40,980	27%	25,836	17%	17,202	11%	16,057	10%	154,136	18.4%
Queen Anne’s	1,507	30%	1,372	27%	979	19%	642	13%	534	11%	5,034	0.6%
Somerset	1,515	31%	1,244	26%	918	19%	568	12%	584	12%	4,829	0.6%
St. Mary’s	4,111	31%	3,510	27%	2,300	17%	1,582	12%	1,681	13%	13,184	1.6%
Talbot	1,491	31%	1,286	27%	903	19%	581	12%	510	11%	4,771	0.6%
Washington	8,272	32%	6,764	26%	4,753	18%	3,151	12%	2,917	11%	25,857	3.1%
Wicomico	6,619	32%	5,468	26%	3,923	19%	2,519	12%	2,395	11%	20,924	2.5%
Worcester	2,158	29%	1,892	26%	1,501	20%	966	13%	895	12%	7,412	0.9%
Unknown	1	1%	5	4%	37	27%	41	29%	55	40%	139	0.0%
Statewide	271,150	32%	220,932	26%	150,665	18%	99,573	12%	94,137	11%	836,457	100%

Data Source: Behavioral health services claims and eligibility data for FY18. Based on claims paid through July 31, 2019.

Note: ^aThe number and percent by age group represent the total number of children and young adults within each age group that received services in that jurisdiction and the percentage of the jurisdiction total accounted for by each age group. ^bThe total percent column represents the percentage of children and young adults receiving services in each jurisdiction, based on the statewide number of eligible individuals (N=836,457). The jurisdiction category of unknown is included to reflect counts of children and young adults whose jurisdiction of residence is unknown.

As shown in Map 2, statewide, 39% of children and young adults were eligible for PBHS services in FY18. PBHS eligibility rates for this population varied widely by jurisdiction, from a low of 22.4% in Carroll County to a high of 63.6% in Baltimore City. Three jurisdictions, including Baltimore City (63.6%), Dorchester County (62.7%), and Caroline County (61.1%), had the highest PBHS eligibility rates in the State with more than 60% of child and young adult residents eligible for public services, while Carroll (22.4%), Howard (24.6%), and Calvert (25.1%) Counties had the lowest eligibility rates. Though both Dorchester and Caroline Counties made up a small percentage of the number of eligible children and young adults overall, a large proportion of those residing in these counties were eligible for PBHS services. The geographic differences in PBHS service eligibility closely align with poverty rates across the State. Jurisdictions with the greatest proportion of children and young adults eligible to receive public services rank among the top five jurisdictions in percent of population and percent of children living below the federal poverty line, while those with the lowest eligibility rates have the lowest percent of the population living in poverty.

Map 2: Percentage of Estimated Child and Young Adult Population Eligible for PBHS Services by Jurisdiction, FY18



Data Source: Maryland medical assistance eligibility data, FY18. Total PBHS eligible children and youth is 836,457.

B. Utilization of PBHS Services

HG § 7.5–209(b)(1)(ii) requests data on the number and the percentage of children and young adults who “used a public behavioral health service, including: (1) an inpatient service; (2) an emergency room service; (3) a RTC service; and (4) an intensive public behavioral health service, including targeted or mental health case management services, respite care services, services provided under § 1915(i) of the Social Security Act, and psychiatric rehabilitation services.”

In FY18, a total of 110,965 children and young adults (13.3% of those eligible) received one or more behavioral health services within the PBHS statewide and, as a group, account 39% of all PBHS service recipients. Of those children and young adults receiving PBHS services, 31.3% were between the ages of 7–12, followed by children 13–17 who made up 26.5% of service recipients. Younger children, birth through six, were the least likely to use behavioral health services, representing 10.8% of service recipients, while 14.3% and 17.1% of service recipients were young adults ages 18–21 and 22–25 years, respectively. Additionally, Caucasian and African-American children and young adults were relatively equally represented among PBHS service users at just over 46% for both groups (see Appendix A, Table A1). Though the overall percentage of PBHS service users were similar between these groups, more African-American children and young adults birth through 21 years of age received PBHS services (43,222 versus 42,256), while more Caucasian young adults ages 22–25 (9,279 versus 8,200) received services. Service utilization was evenly distributed between males and females, with each accounting for 50% of service use, though service utilization rates were higher per 1,000 eligible males (137.3) compared to females (128.2). Male service users were more likely to be younger (birth through 12 years), while female users were older (13–25 years).

As shown in Table 2, 67% of the PBHS service recipients resided in the Baltimore-Washington metropolitan area (Baltimore City and Baltimore, Anne Arundel, Montgomery, and Prince George’s Counties). Baltimore City alone, served almost one-quarter of children and young adult service users. In contrast, counties in the mid-shore (Kent, Queen Anne’s, and Talbot Counties) and far western Maryland (Garrett County) served far fewer, with each serving less than 1,000 children and young adults in FY18. These numbers align with the overall number and percentages of eligibility as jurisdictions with more children and young adults eligible for services, generally had higher numbers of service users.

Table 2: Number and Percent of Child and Young Adult Recipients of PBHS Services, FY18

Jurisdiction	Age Group ^a												Rate Per 1,000 PBHS Eligible
	Birth to 6		7 to 12		13 to 17		18 to 21		22 to 25		Total ^b		
	N	%	N	%	N	%	N	%	N	%	N	%	
Allegany	232	10.6%	553	25.3%	537	24.6%	351	16.1%	509	23.3%	2,182	2.0%	195.2
Anne Arundel	896	10.4%	2,677	31.2%	2,218	25.8%	1,205	14.0%	1,594	18.6%	8,590	7.7%	148.6
Baltimore City	3,140	12.0%	8,718	33.3%	6,505	24.9%	3,491	13.3%	4,317	16.5%	26,171	23.6%	193.5
Baltimore	1,983	11.6%	5,630	32.9%	4,376	25.6%	2,292	13.4%	2,836	16.6%	17,117	15.4%	144.5
Calvert	143	9.8%	402	27.6%	366	25.1%	207	14.2%	341	23.4%	1,459	1.3%	178.8
Caroline	112	10.2%	354	32.3%	296	27.0%	171	15.6%	163	14.9%	1,096	1.0%	152.6
Carroll	269	11.6%	684	29.6%	619	26.8%	303	13.1%	435	18.8%	2,310	2.1%	173.5
Cecil	278	9.9%	841	30.0%	701	25.0%	424	15.1%	563	20.1%	2,807	2.5%	178.0
Charles	204	9.9%	518	25.1%	515	24.9%	359	17.4%	471	22.8%	2,067	1.9%	103.5
Dorchester	171	11.3%	514	33.9%	428	28.2%	180	11.9%	223	14.7%	1,516	1.4%	214.1
Frederick	409	10.0%	1,286	31.5%	1,161	28.4%	608	14.9%	618	15.1%	4,082	3.7%	159.3
Garrett	91	12.0%	232	30.6%	178	23.5%	109	14.4%	148	19.5%	758	0.7%	160.5
Harford	458	10.3%	1,332	29.9%	1,116	25.1%	669	15.0%	880	19.8%	4,455	4.0%	166.7
Howard	252	8.9%	786	27.6%	831	29.2%	484	17.0%	492	17.3%	2,845	2.6%	101.5
Kent	42	7.9%	171	32.2%	156	29.4%	76	14.3%	86	16.2%	531	0.5%	199.5
Montgomery	948	9.3%	3,180	31.1%	3,074	30.1%	1,504	14.7%	1,508	14.8%	10,214	9.2%	86.4
Prince George’s	1,181	10.0%	3,655	31.0%	3,383	28.7%	1,724	14.6%	1,837	15.6%	11,780	10.6%	76.4
Queen Anne’s	59	7.5%	232	29.7%	204	26.1%	135	17.3%	152	19.4%	782	0.7%	155.3
Somerset	127	11.5%	384	34.8%	291	26.4%	133	12.0%	169	15.3%	1,104	1.0%	228.6
St. Mary’s	143	8.5%	437	26.1%	386	23.0%	280	16.7%	431	25.7%	1,677	1.5%	127.2
Talbot	89	10.1%	279	31.6%	249	28.2%	138	15.6%	129	14.6%	884	0.8%	185.3
Washington	530	11.7%	1,318	29.1%	1,162	25.6%	659	14.5%	865	19.1%	4,534	4.1%	175.3
Wicomico	331	9.6%	1,009	29.2%	965	27.9%	538	15.6%	615	17.8%	3,458	3.1%	165.3
Worcester	185	11.7%	463	29.2%	476	30.1%	219	13.8%	240	15.2%	1,583	1.4%	213.6
Unknown											15	0.01%	107.9
Statewide	11,975	10.8%	34,729	31.3%	29,408	26.5%	15,834	14.3%	19,019	17.1%	110,965	100%	132.7

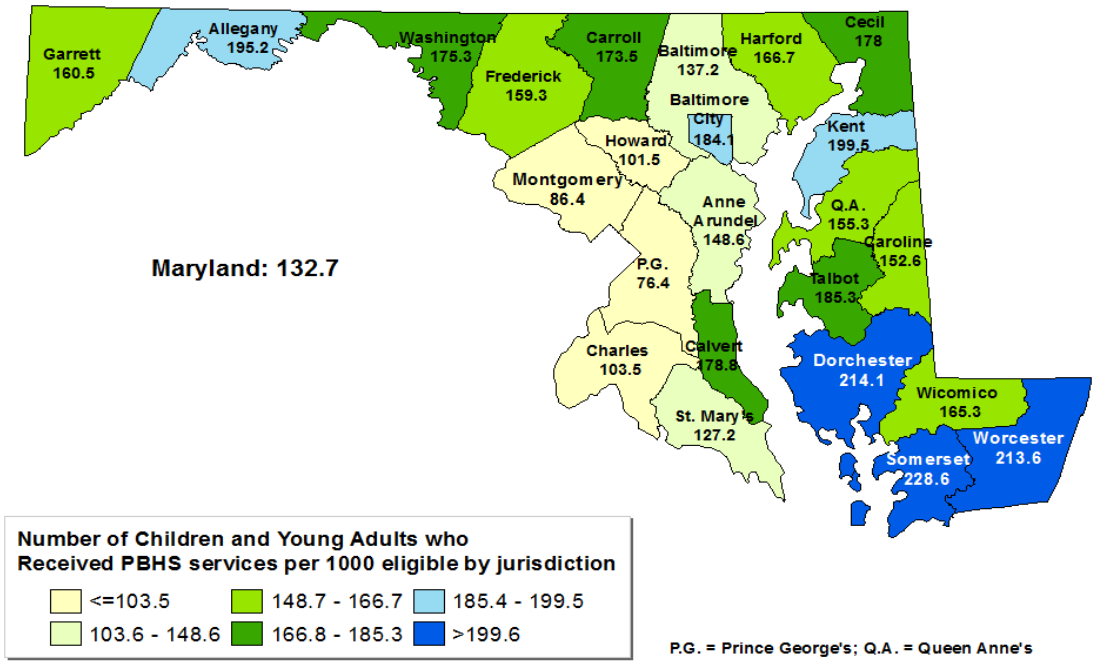
Data Source: Behavioral health services claims and eligibility data for FY18. Based on claims paid through July 31, 2019.

Note: ^aThe number and percent by age group represent the total number of children and young adults within each age group that received services in that jurisdiction and the percentage of the jurisdiction total accounted for by each age group. ^bThe total percent column represents the percentage of children and young adults receiving services in each jurisdiction, based on the statewide number of service recipients (N=110,995). Statewide and jurisdiction numbers reflect unduplicated counts of service recipients. The sum of jurisdiction counts does not equal the statewide numbers, since some service recipients may receive behavioral health services in more than one jurisdiction over a 12-month period. Cells with counts less than 10 are grayed out to protect individual privacy. The jurisdiction category of unknown is included to reflect counts of children and young adults whose jurisdiction of residence is unknown.

Statewide, 133 in every 1,000 children and young adults eligible to receive services used PBHS services in FY18. As shown in Map 3, rates of PBHS service use varied substantially across the State, ranging from a low of 76.4 per 1,000 eligible in Prince George’s County to a high of 228.6 per 1,000 eligible in Somerset County. Six jurisdictions, including Baltimore City and Allegany, Dorchester, Kent, and Worcester Counties, had PBHS service use rates that were substantially

higher than the state average of 133 per 1,000 eligible. Though more children and young adults used services in high population areas, utilization rates indicate higher rates of service use in those areas of the State with the highest proportion of children and families living below the federal poverty level.

Map 3: Behavioral Health Service Utilization Rates per 1,000 Eligible Children and Young Adults (Birth through 25 Years) by Jurisdiction, FY18



Data Source: FY18 behavioral health service claims data based on claims paid through July 31, 2019, and PBHS eligibility data, FY18.

Table 3 displays the number and percentages of children and young adult PBHS service recipients for selected behavioral health services detailed in the Maryland Annotated Code, Health-General Article (HG) § 7.5–209. Thirty-eight percent of children and young adults who were eligible, received at least one of the selected PBHS services presented in Table 3. Among those receiving services, 11.8% had a behavioral health related emergency room visit, while seven percent were hospitalized for psychiatric reasons. Residential treatment center services were utilized by 454 children and young adults, representing less than one percent of child and young adult service users in FY18. Among the intensive community-based services, psychiatric rehabilitation was the most frequently used, with 16.5% of children and young adults utilizing this service, while just two percent of service users received targeted case management services. Psychiatric rehabilitation was the most frequently used service among children in each age group from birth through 17, while young adults 18–25 years were most likely to use emergency room services. The subsections below provide a detailed breakdown of each selected PBHS service listed in Table 3.

Table 3: Number and Percent of Children and Young Adult Recipients of Selected PBHS Services, FY18

Selected PBHS Services	Age Group ^a										Total ^b	
	Birth to 6		7 to 12		13 to 17		18 to 21		22 to 25			
	N	%	N	%	N	%	N	%	N	%	N	%
Inpatient Psychiatric Hospitalization	235	3.0%	1469	19%	2,558	32.9%	1,612	20.7%	1,899	24.4%	7,773	7.0%
Psychiatric Emergency Room	354	2.7%	2,442	18.7%	4,312	33.1%	2,812	21.6%	3,121	23.9%	13,041	11.8%
Residential Treatment Center			104	23.0%	322	70.9%	24	5.3%	0	0.0%	454	0.4%
Intensive Community Based Services												
Targeted Case Management	223	9.6%	849	36.5%	747	32.1%	225	9.7%	281	12.1%	2,325	2.1%
Respite Care	18	5.6%	190	59.4%	111.00	34.7%	0	0.0%			320	0.3%
§ 1915(i) Waiver Services	0	0.0%	24	44.4%	29	53.7%			0	0.0%	54	0.05%
Psychiatric Rehabilitation	1,488	8.1%	8,181	44.7%	5,328	29.1%	1,567	8.6%	1,735	9.5%	18,299	16.5%
All PBHS Services	11,975	10.8%	34,729	31.3%	29,408	26.5%	15,834	14.3%	19,019	17.1%	110,965	100%

Data Source: Behavioral health services claims data for FY18. Based on claims paid through July 31, 2019.

Note: ^aThe number and percent by age group represent the total number of children and young adults within each age group that received a particular and the percentage accounted for by each age group. ^bThe total percent column represents the percentage of children and young adults receiving based on the statewide number of service recipients (N=110,995). All PBHS services reflect unduplicated counts of children and young adult users of all PBHS services. Cells with counts under 10 are grayed out to protect individual privacy.

1. Inpatient Psychiatric Hospital Services

Inpatient psychiatric hospital services are available to children and young adults in 29 acute care general hospitals with psychiatric units across the State and five private psychiatric hospitals. In 2018, a total of 7,773 children and young adult recipients of PBHS service had one or more psychiatric related hospitalizations, accounting for seven percent of all child and young adult service users. Individuals using this service were more likely to be older, as 45.1% of inpatient users were 18–25 years old and 32.9% were between 13–17 years of age. These age groups accounted for 78% of all inpatient service users. Children and young adults using inpatient psychiatric hospitalization services were also more likely to be female (53%) and non-Hispanic Caucasian (48%) (see Appendix A, Table A2).

Statewide, 9.3 children and young adults out of every 1,000 PBHS eligible utilized inpatient psychiatric hospital services. Females used inpatient hospital services at 9.49 per 1,000 eligible compared to a rate of 9.03 per 1,000 eligible males. Caucasian children and young adults used inpatient services at a rate of 19.7 per 1,000 compared to 11.0 per 1,000 eligible African-American children and young adults. Native Americans, who made up 2.7% of service users, had the highest utilization rate at 49.6 per 1,000 eligible, five times the state average (see Appendix A, Table A2).

As shown in Table 4, inpatient service use rates varied widely across the State, ranging from a low of 4.8 per 1,000 PBHS eligible in Prince George’s County to a high of 16.8 per 1,000 eligible in Washington County. Washington County (16.8 per 1,000), Allegany County (13.8 per 1,000), and Harford County (13.2 per 1,000) had the highest use rates, while Prince George’s (4.8 per 1,000), Kent (4.9 per 1,000), Charles (5.1 per 1,000), and Caroline (5.2 per 1,000) Counties had the lowest use rates. More than one-half (14 out of 24) of all jurisdictions had inpatient utilization rates above the state average (9.3 per 1,000).

Table 4: Number and Percent of Children and Young Adult PBHS Recipients of Inpatient Psychiatric Hospital Services, FY18

Jurisdiction	Age Group ^a										Total ^b		Rate Per 1,000 PBHS Eligible
	Birth to 6		7 to 12		13 to 17		18 to 21		22 to 25		N	%	
	N	%	N	%	N	%	N	%	N	%			
Allegany			23	14.9%	37	24.0%	40	26.0%	53	34.4%	154	2.0%	13.8
Anne Arundel			114	19.7%	175	30.2%	116	20.0%	166	28.7%	579	7.4%	10.0
Baltimore City	81	4.9%	353	21.4%	445	26.9%	342	20.7%	431	26.1%	1,652	21.3%	12.2
Baltimore	58	4.3%	313	23.0%	485	35.6%	231	17.0%	275	20.2%	1,362	17.5%	11.5
Calvert	0	0.0%	14	16.7%	34	40.5%	18	21.4%	18	21.4%	84	1.1%	10.3
Caroline	0	0.0%			17	45.9%					37	0.5%	5.2
Carroll			30	17.4%	63	36.6%	33	19.2%	42	24.4%	172	2.2%	12.9
Cecil			38	20.7%	53	28.8%	43	23.4%	42	22.8%	184	2.4%	11.7
Charles					38	37.3%	28	27.5%	26	25.5%	102	1.3%	5.1
Dorchester	0	0.0%	11	23.4%	17	36.2%			11	23.4%	47	0.6%	6.6
Frederick	15	5.1%	55	18.6%	94	31.8%	71	24.0%	61	20.6%	296	3.8%	11.6
Garrett					10	29.4%					34	0.4%	7.2
Harford			66	18.7%	126	35.7%	71	20.1%	81	22.9%	353	4.5%	13.2
Howard			49	16.7%	108	36.9%	66	22.5%	65	22.2%	293	3.8%	10.4
Kent	0	0.0%									13	0.2%	4.9
Montgomery	14	1.4%	141	14.0%	406	40.4%	214	21.3%	229	22.8%	1,004	12.9%	8.5
Prince George's			103	13.8%	235	31.4%	185	24.7%	217	29.0%	748	9.6%	4.8
Queen Anne's	0	0.0%			10	30.3%			11	33.3%	33	0.4%	6.6
Somerset	0	0.0%	11	22.0%	17	34.0%	11	22.0%	11	22.0%	50	0.6%	10.4
St. Mary's			15	13.2%	35	30.7%	25	21.9%	37	32.5%	114	1.5%	8.6
Talbot					16	44.4%					36	0.5%	7.5
Washington	13	3.0%	107	24.6%	151	34.7%	73	16.8%	91	20.9%	435	5.6%	16.8
Wicomico			26	15.8%	56	33.9%	34	20.6%	43	26.1%	165	2.1%	7.9
Worcester					14	26.9%	17	32.7%	14	26.9%	52	0.7%	7.0
Unknown	0	0.0%	0	0.0%	0	0.0%	0	0.0%					
Statewide	235	3.0%	1,469	18.9%	2,558	32.9%	1,612	20.7%	1,899	24.4%	7,773	100%	9.3

Data Source: Behavioral health services claims and eligibility data for FY18. Based on claims paid through July 31, 2019.

Note: ^aThe number and percent by age group represent the total number of children and young adults within each age group that received services in that jurisdiction and the percentage of the jurisdiction total accounted for by each age group. ^bThe total percent column represents the percentage of children and young adults receiving services in each jurisdiction, based on the statewide number of service recipients (N=7,773). Statewide and jurisdiction numbers reflect unduplicated counts of service recipients. The sum of jurisdiction counts does not equal the statewide numbers, since some service recipients may receive behavioral health services in more than one jurisdiction over a 12-month period. Counts include acute inpatient hospital services provided in general hospitals and private psychiatric facilities. Cells with counts less than 10 are grayed out to protect individual privacy. The jurisdiction category of unknown is included to reflect counts of children and young adults whose jurisdiction of residence is unknown.

2. Psychiatric Emergency Room Services

Slightly over one in every 10 (11.7%) PBHS service recipients had one or more psychiatric emergency room visits in FY18. Emergency room services were most frequently used by children ages 13–17 years (33.1%), followed by young adult’s ages 22–25 years (23.9%). Children and young adults ages 13 and older accounted for more than three-quarters (78.6%) of those using psychiatric emergency room services, while children birth through six accounted for just under three percent of service users. In examining utilization rates across age groups, young adults ages 22–25 years had the highest use rate (33.2 per 1,000), while children birth through six years of age had the lowest use rate (1.3 per 1,000). Emergency room users were more likely to be female (53.3%), but were relatively evenly divided between non-Hispanic Caucasian (45.6%) and African-American (44.6%) individuals. Female children and young adults used emergency room services at a higher rate (16.1 per 1,000 eligible) than males (15 per 1,000 eligible) while non-Hispanic Caucasian children and young adults used emergency room services at a higher rate (31.4

per 1,000 eligible versus 19.1 per 1,000 eligible) than African-American children and young adults (see Appendix A, Table A3).

As shown in Table 5, use of emergency room services varied widely across the State, with 15.6 per 1,000 PBHS eligible children and young adults utilizing emergency room services. Four jurisdictions, including Allegany (26.4 per 1,000), Dorchester (26.0 per 1,000), Washington (24.2 per 1,000), and Somerset (24.0 per 1,000) Counties, all had rates well above the state average (15.6 per 1,000), while the lowest rates were in Montgomery (11.7 per 1,000), Charles (10.0 per 1,000), and Prince George’s (7.7 per 1,000) Counties.

Table 5: Number and Percent of Children and Young Adult PBHS Recipients of Psychiatric Emergency Room Services, FY18

Jurisdiction	Age Group ^a										Total ^b		Rate Per 1,000 PBHS Eligible
	Birth to 6		7 to 12		13 to 17		18 to 21		22 to 25		N	%	
	N	%	N	%	N	%	N	%	N	%			
Allegany			47	15.9%	101	34.2%	65	22.0%	77	26.1%	295	2.3%	26.4
Anne Arundel	25	2.4%	204	19.3%	338	31.9%	200	18.9%	291	27.5%	1,058	8.1%	18.3
Baltimore City	105	3.7%	566	19.9%	780	27.5%	624	22.0%	764	26.9%	2,839	21.8%	21.0
Baltimore	58	3.0%	398	20.8%	638	33.3%	385	20.1%	437	22.8%	1,916	14.7%	16.2
Calvert			27	15.1%	71	39.7%	42	23.5%	35	19.6%	179	1.4%	21.9
Caroline			14	12.7%	44	40.0%	33	30.0%	16	14.5%	110	0.8%	15.3
Carroll			52	17.4%	119	39.9%	54	18.1%	67	22.5%	298	2.3%	22.4
Cecil			51	18.5%	76	27.6%	67	24.4%	72	26.2%	275	2.1%	17.4
Charles			23	11.5%	66	33.0%	56	28.0%	54	27.0%	200	1.5%	10.0
Dorchester			54	29.3%	63	34.2%	30	16.3%	30	16.3%	184	1.4%	26.0
Frederick	19	3.4%	118	21.2%	179	32.2%	137	24.6%	103	18.5%	556	4.3%	21.7
Garrett			14	17.5%	23	28.8%	26	32.5%	16	20.0%	80	0.6%	16.9
Harford	19	3.9%	98	20.0%	157	32.0%	107	21.8%	109	22.2%	490	3.8%	18.3
Howard	12	2.8%	77	18.1%	143	33.6%	102	23.9%	92	21.6%	426	3.3%	15.2
Kent	0	0.0%									32	0.2%	12.0
Montgomery	22	1.6%	211	15.3%	558	40.5%	300	21.8%	288	20.9%	1,379	10.6%	11.7
Prince George’s	14	1.2%	188	15.9%	386	32.7%	278	23.6%	314	26.6%	1,180	9.0%	7.7
Queen Anne’s	0	0.0%			25	40.3%	15	24.2%	19	30.6%	62	0.5%	12.3
Somerset			23	19.8%	42	36.2%	23	19.8%	25	21.6%	116	0.9%	24.0
St. Mary’s			36	15.6%	71	30.7%	50	21.6%	65	28.1%	231	1.8%	17.5
Talbot			17	15.9%	42	39.3%	27	25.2%	17	15.9%	107	0.8%	22.4
Washington	12	1.9%	130	20.8%	215	34.4%	117	18.7%	151	24.2%	625	4.8%	24.2
Wicomico	14	3.5%	76	18.9%	154	38.2%	72	17.9%	87	21.6%	403	3.1%	19.3
Worcester			24	18.8%	43	33.6%	29	22.7%	28	21.9%	128	1.0%	17.3
Unknown	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0.0
Statewide	354	2.7%	2,442	18.7%	4,312	33.1%	2,812	21.6%	3,121	23.9%	13,041	100%	15.6

Data Source: Behavioral health services claims and eligibility data for FY18. Based on claims paid through July 31, 2019.

Note: ^aThe number and percent by age group represent the total number of children and young adults within each age group that received services in that jurisdiction and the percentage of the jurisdiction total accounted for by each age group. ^bThe total percent column represents the percentage of children and young adults receiving services in each jurisdiction, based on the statewide number of service recipients (N=13,041). Statewide and jurisdiction numbers reflect unduplicated counts of service recipients. The sum of jurisdiction counts does not equal the statewide numbers, since some service recipients may receive behavioral health services in more than one jurisdiction over a 12-month period. Cells with counts less than 10 are grayed out to protect individual privacy. The jurisdiction category of unknown is included to reflect counts of children and young adults whose jurisdiction of residence is unknown.

3. Residential Treatment Centers (RTCs)

In FY18, seven residential treatment centers, including two state-operated Regional Institutes for Children and Adolescents (RICAs), provided mental health treatment services to children and young adults with serious emotional and behavioral challenges across the State. These facilities

are located in four jurisdictions: Baltimore City (3), Baltimore County (2), Frederick County (1), and Montgomery County (1).

In FY18, 454 children and young adults were treated in private RTCs with 64.8% of RTC recipients residing in Baltimore City and Baltimore County. Males were more likely to use RTC services (68.5%) and had higher utilization rates (0.8 per 1000 versus 0.3 per 1,000) compared to females. Individual service users were also more likely to be African-American (57.3%), even though utilization rates were evenly distributed between African-American and non-Hispanic Caucasian users at 0.9 per 1,000 (see Appendix, Table A4). More than two-thirds of RTC users (71%) were between the ages of 13–17 years, while less than one-quarter (24%) were 12 year or younger and 5.3% were 18 years or older.

As shown in Table 6, the statewide utilization of RTC services was relatively low at 0.50 per 1,000 eligible children and young adults. Statewide, use rates ranged from .10 per 1,000 in Carroll County to 2.8 per 1,000 in Frederick County. Four jurisdictions, including Baltimore City (1.12 per 1,000) and Baltimore (1.2 per 1,000), Caroline (1.11 per 1,000), and Frederick (2.8 per 1,000) Counties, had use rates more than twice the state average (.50 per 1,000).

In addition, 77 children and young adults received services in RICA facilities during FY18 (see note on Table 6). Of those receiving RICA services, 48% were treated in the Baltimore County facility and 52% in the Montgomery County facility. All RICA users were between the ages of 7-21 years, with approximately 90% of users' ages 13-17 years. In general, the use of RICAs was low across the state, with a utilization rate of 0.09 per 1,000 eligible child and young adult.

Table 6: Number and Percent of Children and Young Adult PBHS Recipients of Residential Treatment Services, FY18³

Jurisdiction	Age Group ^a										Total ^b		Rate Per 1,000 PBHS Eligible
	Birth to 6		7 to 12		13 to 17		18 to 21		22 to 25		N	%	
	N	%	N	%	N	%	N	%	N	%			
Allegany	0	0.0%					0	0.0%	0	0.0%			0.4
Anne Arundel	0	0.0%			22	75.9%			0	0.0%	29	6.4%	0.5
Baltimore City	0	0.0%	20	13.2%	124	81.6%			0	0.0%	152	35.5%	1.1
Baltimore			66	46.5%	72	50.7%			0	0.0%	142	31.3%	1.2
Calvert	0	0.0%							0	0.0%			0.7
Caroline	0	0.0%					0	0.0%	0	0.0%			1.1
Carroll	0	0.0%					0	0.0%	0	0.0%			0.1
Cecil									0	0.0%	14	3.1%	0.9
Charles	0	0.0%			11	78.6%			0	0.0%	14	3.1%	0.7
Dorchester	0	0.0%	0	0.0%	2	100.0%	0	0.0%	0	0.0%			0.3
Frederick					62	86.1%			0	0.0%	72	15.9%	2.8
Garrett	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0.0
Harford	0	0.0%							0	0.0%	14	3.1%	0.5
Howard	0	0.0%							0	0.0%	12	2.6%	0.4
Kent	0	0.0%	0	0.0%	2	100.0%	0	0.0%	0	0.0%			0.8
Montgomery	0	0.0%			26	70.3%			0	0.0%	37	8.1%	0.3
Prince George's	0	0.0%			27	87.1%			0	0.0%	31	6.8%	0.2
Queen Anne's	0	0.0%	0	0.0%			0	0.0%	0	0.0%			0.6
Somerset	0	0.0%	0	0.0%			0	0.0%	0	0.0%			0.2
St. Mary's	0	0.0%					0	0.0%	0	0.0%			0.7
Talbot					0	0.0%	0	0.0%	0	0.0%			0.6
Washington	0	0.0%				0.0%	0	0.0%	0	0.0%	10	2.2%	0.4
Wicomico	0	0.0%				0.0%	0	0.0%	0	0.0%			0.3
Worcester	0	0.0%				0.0%			0	0.0%			0.5
Statewide			104	22.9%	322	70.9%	24	5.3%	0	0.0%	454	100%	0.5

Data Source: Behavioral health services claims and eligibility data for FY18. Based on claims paid through July 31, 2019.

Note: ^aThe number and percent by age group represent the total number of children and young adults within each age group that received services in that jurisdiction and the percentage of the jurisdiction total accounted for by each age group. ^bThe total percent column represents the percentage of children and young adults receiving services in each jurisdiction, based on the statewide number of service recipients (N=454). Statewide and jurisdiction numbers reflect unduplicated counts of service recipients. The sum of jurisdiction counts does not equal the statewide numbers, since some service recipients may receive behavioral health services in more than one jurisdiction. Cells with counts less than 10 are grayed out to protect individual privacy. The RICA data included in this report is provided by facility and not by jurisdiction of client residence. Given the presentation of data, the RICA information is not included in this table.

³ In some instances, the jurisdiction of residence recorded is the address of the RTC, not the home of the child. For some categories of Medicaid eligibility that are used for admission to an RTC, the children and young adults are means tested as a “family of one.” This practice disregards the income and assets of the child or young adult’s parent and, unless the child or young adult has independent income and assets, grants the child or young adult Medicaid eligibility.

4. Intensive Community Based Services

The Maryland PBHS provides a number of intensive community-based service alternatives to children and young adults across the State, including (a) case management, (b) psychiatric rehabilitation, (c) § 1915(i) waiver services, and (d) respite care services among others.

a. Targeted Case Management Services (TCM)

TCM services can be provided to a child or young adult based on three levels of intensity, from Level I to Level III. Level I TCM is the least intensive case management service offered and has a maximum of 12 15-minute units (2.5 hours) of service per month. At least two of these units must be face-to-face contact with the participant. “Level II TCM” services have a maximum of 30 units per month (7.5 hours) and a minimum of four units of face-to-face contact with the participant. The most intensive case management service is Level III (Intensive) TCM. These services have a maximum of 60 units (15 hours) per month. At least six units of face-to-face contact with the participant are required.

Children and young adults in Level III TCM are also eligible for the § 1915(i) waiver program. Eligibility for § 1915(i) services are determined by an income cutoff below 150% federal poverty level (FPL). As of October 1, 2019, this rate increased to 300% FPL, which aligns with Maryland Medicaid coverage of children and young adults up to 300% FPL. Those that do not qualify for Medicaid may receive services through the TCM Plus program, which has availability for 50 non-Medicaid child and young adult users. TCM Plus services are available to children and young adults statewide. Table 7 displays the use of targeted case management services among children and young adult recipients of PBHS services in FY18.

Just over two percent (2,325) of child and young adult recipients of PBHS services utilized TCM services in FY18. Most case management recipients (78.2%) were 17 years or younger, while 21.8% were between 18–25 years. TCM recipients were also more likely to be male (55.7%) with a utilization rate of 3.2 per 1,000 and non-Hispanic Caucasian (52.8%) with a utilization rate of 6.5 per 1,000. African-American children and young adults accounted for 43.5% of users at a rate of 3.3 per 1,000 eligible (see Appendix, Table A5).

As shown in Table 7, a statewide average of 2.8 per 1,000 eligible children and young adults used TCM services in FY18. Use rates differed across the State, ranging from a low of 0.2 per 1,000 in Montgomery County to a high of 20.4 per 1,000 in Washington County. Three jurisdictions, including Washington (20.4 per 1,000), Somerset (13.0 per 1,000), and Wicomico (12.0 per 1,000), had use rates more than three times the state average (2.8 per 1,000), while Montgomery County (0.2 per 1,000), Prince George’s County (0.5 per 1,000), and Baltimore City (1.1 per 1,000) had the lowest utilization rates in the State.

Table 7: Number and Percent of Children and Young Adult PBHS Recipients of Targeted Case Management Services, FY18

Jurisdiction	Age Group ^a										Total ^b		Rate Per 1,000 PBHS Eligible
	Birth to 6		7 to 12		13 to 17		18 to 21		22 to 25		N	%	
	N	%	N	%	N	%	N	%	N	%			
Allegany	0	0.0%									27	1.2%	2.4
Anne Arundel			42	34.1%	44	35.8%	13	10.6%	19	15.4%	123	5.3%	2.1
Baltimore City	30	7.4%	159	39.4%	103	25.5%	40	9.9%	72	17.8%	404	17.4%	3.0
Baltimore	11	8.8%	49	39.2%	43	34.4%	11	8.8%	11	8.8%	125	5.4%	1.1
Calvert			13	30.2%							43	1.8%	5.3
Caroline	0	0.0%			11	68.8%			0	0.0%	16	0.7%	2.2
Carroll			20	24.4%	16	19.5%	12	14.6%	28	34.1%	82	3.5%	6.2
Cecil			26	55.3%	15	31.9%					47	2.0%	3.0
Charles	16	20.5%	36	46.2%	15	19.2%					78	3.4%	3.9
Dorchester			19	39.6%	18	37.5%					48	2.1%	6.8
Frederick	11	7.7%	43	30.1%	48	33.6%	25	17.5%	16	11.2%	143	6.2%	5.6
Garrett											22	0.9%	4.7
Harford	10	11.4%	46	52.3%	31	35.2%			0	0.0%	88	3.8%	3.3
Howard			16	42.1%	11	28.9%					38	1.6%	1.4
Kent								7.1%	0	0.0%	14	0.6%	5.3
Montgomery											25	1.1%	0.2
Prince George's			21	28.0%	28	37.3%			14	18.7%	75	3.2%	0.5
Queen Anne's	0	0.0%						20.0%	0	0.0%	10	0.4%	2.0
Somerset			22	34.9%	28	44.4%					63	2.7%	13.0
St. Mary's			34	45.9%	17	23.0%					74	3.2%	5.6
Talbot	0	0.0%			5	38.5%			0	0.0%	13	0.6%	2.7
Washington	67	12.7%	163	30.9%	162	30.7%	71	13.5%	64	12.1%	527	22.7%	20.4
Wicomico	27	10.8%	106	42.2%	110	43.8%				2.0%	251	10.8%	12.0
Worcester					17	48.6%				14.3%	35	1.5%	4.7
Unknown	0	0.0%	0	0.0%	0	0.0%	0	0.0%					7.2
Statewide	223	9.6%	849	36.5%	747	32.1%	225	9.7%	281	12.1%	2,325	100%	2.8

Data Source: Behavioral health services claims and eligibility data for FY18. Based on claims paid through July 31, 2019.

Note: ^aThe number and percent by age group represent the total number of children and young adults within each age group that received services in that jurisdiction and the percentage of the jurisdiction total accounted for by each age group. ^bThe total percent column represents the percentage of children and young adults receiving services in each jurisdiction, based on the statewide number of service recipients (N=2,325). Statewide and jurisdiction numbers reflect unduplicated counts of service recipients. The sum of jurisdiction counts does not equal the statewide numbers, since some service recipients may receive behavioral health services in more than one jurisdiction over a 12-month period. Cells with counts less than 10 are grayed out to protect individual privacy. The jurisdiction category of unknown is included to reflect counts of children and young adults whose jurisdiction of residence is unknown.

b. Respite Care Services

Respite care services are designed to provide a break to family caregivers from the stress of caring for a child with behavioral and emotional challenges. These services increase the likelihood that children and young adults will be able to remain in their homes while receiving mental health support rather than being placed in out-of-home settings. Services are provided on a short-term basis in the participant's home or in an approved community-based setting and are to be delivered in hourly, daily, and weekend increments. Table 8 displays the use of respite care services among children and young adult recipients of PBHS services in FY18.

Table 8: Number and Percent of Children and Young Adult PBHS Recipients of Respite Care Services, FY18

Jurisdiction	Age Group ^a										Total ^b		Rate Per 1,000 PBHS Eligible
	Birth to 6		7 to 12		13 to 17		18 to 21		22 to 25		N	%	
	N	%	N	%	N	%	N	%	N	%	N	%	
Allegany	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0.00
Anne Arundel							0	0.0%	0	0.0%			0.14
Baltimore City			22	61.1%			0	0.0%	0	0.0%	36	11.3%	0.27
Baltimore			15	55.6%	11	40.7%	0	0.0%	0	0.0%	27	8.4%	0.23
Calvert	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0.00
Caroline			20	71.4%			0	0.0%	0	0.0%	28	8.8%	3.90
Carroll	0	0.0%	0	0.0%			0	0.0%	0	0.0%			0.08
Cecil	0	0.0%		66.7%			0	0.0%	0	0.0%			0.20
Charles	0	0.0%		0.0%	0	0.0%	0	0.0%	0	0.0%			0.05
Dorchester	0	0.0%		80.0%		20.0%	0	0.0%	0	0.0%	10	3.1%	1.41
Frederick	0	0.0%	18	37.5%	30	62.5%	0	0.0%	0	0.0%	48	15.0%	1.87
Garrett	0	0.0%	0	0.0%	0	0.0%	0	0.0%					0.21
Harford							0	0.0%	0	0.0%	10	3.1%	0.37
Howard	0	0.0%	0	0.0%			0	0.0%	0	0.0%			0.04
Kent	0	0.0%					0	0.0%	0	0.0%			1.13
Montgomery	0	0.0%					0	0.0%	0	0.0%	10	3.1%	0.09
Prince George's	0	0.0%					0	0.0%	0	0.0%			0.01
Queen Anne's	0	0.0%					0	0.0%	0	0.0%			0.60
Somerset			20	71.4%			0	0.0%	0	0.0%	28	8.8%	5.80
St. Mary's	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0.00
Talbot							0	0.0%	0	0.0%	15	4.7%	3.14
Washington	0	0.0%					0	0.0%	0	0.0%	11	3.4%	0.43
Wicomico			53	69.7%	20	26.3%	0	0.0%	0	0.0%	76	23.8%	3.63
Worcester	0	0.0%			0	0.0%	0	0.0%	0	0.0%			0.27
Unknown	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0.00
Statewide	18	5.6%	190	59.4%	111	34.7%	0	0.0%	1	0.3%	320	100%	0.38

Data Source: Behavioral health services claims and eligibility data for FY18. Based on claims paid through July 31, 2019.

Note: ^aThe number and percent by age group represent the total number of children and young adults within each age group that received services in that jurisdiction and the percentage of the jurisdiction total accounted for by each age group. ^bThe total percent column represents the percentage of children and young adults receiving services in each jurisdiction, based on the statewide number of service recipients (N=320). Statewide and jurisdiction numbers reflect unduplicated counts of service recipients. The sum of jurisdiction counts does not equal the statewide numbers, since some service recipients may receive behavioral health services in more than one jurisdiction over a 12-month period. Cells with counts less than 10 are grayed out to protect individual privacy. The jurisdiction category of unknown is included to reflect counts of children and young adults whose jurisdiction of residence is unknown.

In FY18, 320 children and young adults received respite care services statewide, representing less than one percent (.3%) of all child and young adult PBHS service users. Over one-half (59.4%) of respite users were between the ages of 7–12, followed by children ages 13–17 (34.7%). Respite care users were also more likely to be male (60%) and African-American (49.3%), compared to Caucasian children (45.9%) and other minority populations (4.7%). Respite care rates were slightly higher in males (0.5 per 1,000 eligible versus 0.3 per 1,000 eligible) than females and in non-Hispanic Caucasian children (0.8 per 1,000 eligible versus 0.5 per 1,000 eligible) compared to African-Americans (see Appendix A, Table A6).

Respite care services were provided statewide, with more than three quarters (76%) of service recipients residing in six jurisdictions, including Wicomico (23.8%), Frederick (15%), Somerset (8.8%), Caroline (8.8%), and Baltimore (8.4%) Counties as well as Baltimore City (11.3%). During this period, no child or young adult received respite services in three jurisdictions, including Allegany, Calvert, and St. Mary's Counties.

c. § 1915(i) Waiver Services

Section 1915(i) waiver services are additional TCM Level III services provided to children and young adults who are found financially eligible. These services include intensive in-home services, mobile crisis response services, community-based respite care, family peer support, expressive and experiential behavioral health services, and customized goods and services. Table 9 displays the use of § 1915(i) waiver services among children and young adult recipients of PBHS services in FY18.

Table 9: Number and Percent of Children and Young Adult PBHS Recipients of § 1915(i) Waiver Services, FY18

Jurisdiction	Age Group ^a										Total ^b		Rate Per 1,000 PBHS Eligible
	Birth to 6		7 to 12		13 to 17		18 to 21		22 to 25		N	%	
	N	%	N	%	N	%	N	%	N	%			
Allegany	0	0.0%			0	0.0%	0	0.0%	0	0.0%			0.18
Anne Arundel	0	0.0%					0	0.0%	0	0.0%			0.07
Baltimore City	0	0.0%							0	0.0%			0.07
Baltimore	0	0.0%					0	0.0%	0	0.0%	13	24.1%	0.11
Calvert	0	0.0%					0	0.0%	0	0.0%			0.12
Caroline	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0.00
Carroll	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0.00
Cecil	0	0.0%			0	0.0%	0	0.0%	0	0.0%			0.19
Charles	0	0.0%					0	0.0%	0	0.0%			0.10
Dorchester	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0.00
Frederick	0	0.0%			0	0.0%	0	0.0%	0	0.0%			0.04
Garrett	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0.00
Harford	0	0.0%					0	0.0%	0	0.0%			0.08
Howard	0	0.0%					0	0.0%	0	0.0%			0.07
Kent	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0.00
Montgomery	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0.00
Prince George's	0	0.0%	0	0.0%			0	0.0%	0	0.0%			0.01
Queen Anne's	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0.00
Somerset	0	0.0%	0	0.0%			0	0.0%	0	0.0%			0.21
St. Mary's	0	0.0%	0	0.0%			0	0.0%	0	0.0%			0.15
Talbot	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0.00
Washington	0	0.0%					0	0.0%	0	0.0%			0.23
Wicomico	0	0.0%					0	0.0%	0	0.0%			0.38
Worcester	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0.00
Statewide	0	0.0%	24	44.4%	29	53.7%			0	0.0%	54	100%	0.07

Data Source: Behavioral health services claims and eligibility data for FY18. Based on claims paid through July 31, 2019.

Note: ^aThe number and percent by age group represent the total number of children and young adults within each age group that received services in that jurisdiction and the percentage of the jurisdiction total accounted for by each age group. ^bThe total percent column represents the percentage of children and young adults receiving services in each jurisdiction, based on the statewide number of service recipients (N=54). Statewide and jurisdiction numbers reflect unduplicated counts of service recipients. The sum of jurisdiction counts does not equal the statewide numbers, since some service recipients may receive behavioral health services in more than one jurisdiction. Cells with counts less than 10 are grayed out to protect individual privacy.

In FY18 a total of 54 children and young adults were enrolled in § 1915(i) waiver services accounting for less than one percent (0.05%) of all PBHS service recipients. Children ages 7–17 accounted for 98% of all service recipients, with children ages 7–12 accounting for 44.4% and children ages 13–17 accounting for 53.7% of § 1915(i) waiver recipients. As a group, services users were similarly distributed between males and females and between African-American and Caucasian children (see Appendix A, Table A7). Additionally, 55.5% of waiver users resided in either Baltimore County (24%), Baltimore City (15.8%), or Wicomico County (14.8%). There

were nine jurisdictions in which no children received § 1915(i) services, including Caroline, Carroll, Dorchester, Garrett, Kent, Montgomery, Queen Anne’s, Talbot, and Worcester Counties.

d. Psychiatric Rehabilitation Program Services (PRP)

Psychiatric rehabilitation program services provide rehabilitation and support services for children and young adults to aid in the development and enhancement of their independent living skills. In FY18, there were 18,299 child and young adult users of PBHS services received PRP services statewide. PRP users were more likely to be between the ages of 7–17 (73.8%), male (55.8%) and African-American (67.2%). Use rates for PRP were also higher in males (25.1 per 1,000 eligible versus 18.8 per 1,000 eligible) compared to females and in African-Americans (40.3 per 1,000 eligible versus 28.2 per 1,000 eligible) compared to non-Hispanic Caucasian children and young adults (see Appendix A, Table A8).

Nearly two-thirds (64.7%) of PRP users resided in three jurisdictions, including Baltimore City (40.7%), Baltimore County (13.5%), and Prince George’s County (10.5%). As shown in Table 10, PRP use rates varied widely across the State from 7.1 per 1,000 eligible children and young adults in Montgomery County to 55.1 per 1,000 in Baltimore City. PRP use rates in Baltimore City (55.1 per 1,000) and Somerset County (48.3 per 1,000) were more than double the state average of 21.9 per 1,000, while five jurisdictions—Montgomery (7.1 per 1,000), Charles (9.7 per 1,000), Queen Anne’s (10.1 per 1,000), Garrett (10.1 per 1,000), and Calvert (10.2 per 1,000) Counties—had utilization rates of 10 or less per 1,000 eligible.

Table 10: Number and Percent of Children and Young Adult PBHS Recipients of Psychiatric Rehabilitation Services, FY18

Jurisdiction	Age Group ^a										Total ^b		Rate Per 1,000 PBHS Eligible
	Birth to 6		7 to 12		13 to 17		18 to 21		22 to 25				
	N	%	N	%	N	%	N	%	N	%	N	%	
Allegany	38	11.4%	146	43.8%	89	26.7%	22	6.6%	38	11.4%	333	1.8%	29.79
Anne Arundel	65	6.5%	448	44.9%	278	27.9%	98	9.8%	109	10.9%	998	5.5%	17.26
Baltimore City	625	8.4%	3,289	44.2%	2,121	28.5%	658	8.8%	754	10.1%	7,447	40.7%	55.07
Baltimore	220	8.9%	1,135	46.0%	681	27.6%	198	8.0%	231	9.4%	2,465	13.5%	20.81
Calvert			26	31.3%	19	22.9%	16	19.3%	13	15.7%	83	0.5%	10.17
Caroline		8.1%	65	52.8%	30	24.4%	14	11.4%			123	0.7%	17.13
Carroll	26	10.9%	112	47.1%	67	28.2%	15	6.3%	18	7.6%	238	1.3%	17.88
Cecil	26	7.2%	211	58.4%	94	26.0%	10	2.8%	20	5.5%	361	2.0%	22.90
Charles	13	6.7%	74	38.3%	54	28.0%	27	14.0%	25	13.0%	193	1.1%	9.66
Dorchester	11	5.6%	93	47.4%	69	35.2%	15	7.7%			196	1.1%	27.68
Frederick	52	8.4%	347	55.9%	168	27.1%	22	3.5%	32	5.2%	621	3.4%	24.24
Garrett			26	54.2%			11	22.9%			48	0.3%	10.16
Harford	17	7.6%	278	45.0%	177	28.6%	49	7.9%	67	10.8%	618	3.4%	23.12
Howard	13	4.2%	104	33.9%	88	28.7%	54	17.6%	48	15.6%	307	1.7%	10.95
Kent			17	32.1%	20	37.7%					53	0.3%	19.91
Montgomery	55	6.5%	288	34.1%	268	31.8%	111	13.2%	122	14.5%	844	4.6%	7.14
Prince George's	131	6.8%	794	41.3%	660	34.3%	163	8.5%	176	9.1%	1,924	10.5%	12.48
Queen Anne's			12	23.5%	18	35.3%	11	21.6%			51	0.3%	10.13
Somerset	21	9.0%	130	55.8%	71	30.5%					233	1.3%	48.25
St. Mary's	10	5.5%	57	31.1%	46	25.1%	37	20.2%	33	18.0%	183	1.0%	13.88
Talbot			38	44.7%	25	29.4%	10	11.8%			85	0.5%	17.82
Washington	71	11.6%	344	56.2%	142	23.2%	30	4.9%	25	4.1%	612	3.3%	23.67
Wicomico	38	6.8%	251	45.1%	196	35.3%	39	7.0%	32	5.8%	556	3.0%	26.57
Worcester	23	10.5%	94	42.9%	76	34.7%	14	6.4%	12	5.5%	219	12%	29.55
Unknown	0	0.0%	0	0.0%	0	0.0%	0	0.0%					14.39
Statewide	1,488	8.1%	8,181	44.7%	5,328	29.1%	1,567	8.6%	1,735	9.5%	18,299	100%	21.88

Data Source: Behavioral health services claims and eligibility data for FY18. Based on claims paid through July 31, 2019.

Note: ^aThe number and percent by age group represent the total number of children and young adults within each age group that received services in that jurisdiction and the percentage of the jurisdiction total accounted for by each age group. ^bThe total percent column represents the percentage of children and young adults receiving services in each jurisdiction, based on the statewide number of service recipients (N=18,299). Statewide and jurisdiction numbers reflect unduplicated counts of service recipients. The sum of jurisdiction counts does not equal the statewide numbers, since some service recipients may receive behavioral health services in more than one jurisdiction over a 12-month period. Cells with counts less than 10 are grayed out to protect individual privacy. The jurisdiction category of unknown is included to reflect counts of children and young adults whose jurisdiction of residence is unknown.

IV. Expenditures and Costs

A. Expenditures: Targeted Public Behavioral Health Services

HG § 7.5–209(b)(2) requests data on the total expenditure and expenditure per child and young adult using a public behavioral health service, including: (1) an inpatient service; (2) an emergency room service; (3) an RTC service; and (4) an intensive community service.

This section summarizes the total expenditures and expenditures per child and young adult recipients of PBHS services by age and jurisdiction for targeted behavioral health services, including inpatient psychiatric hospital services, psychiatric emergency room services, residential treatment services and intensive community-based services (case management, psychiatric rehabilitation services, respite care, and § 1915(i) waiver services).

1. Inpatient Psychiatric Hospital Services

Inpatient psychiatric hospitalization services were utilized by 7,773 children and young adults and accounted for 21.4% (\$106.2 million) of the total child and young adult PBHS expenditures (\$495,746,174) in FY18 and an average per person cost of \$13,670. Males had a higher cost per person (\$14,430 versus \$12,984) than females. Among racial and ethnic groups, African-Americans accounted 46.6% of hospital expenditures (\$14,675 per person), followed by non-Hispanic Caucasian users at 43.7% (\$12,444 per person). Though Hispanic children and young adults accounted for only 2.5% of the total expenditures, they had the highest costs per person (\$23,582 per person), followed by Asian children and young adults who accounted for 4.3% of expenditures but had the second highest expenditure rate (\$16,966 per person) (see Appendix A, Table A2). As shown in Table 11a, children accounted for 61% of inpatient hospital expenditures (\$64,771,761), while young adults accounted for 39% (\$41,485,089). Children ages 7–12 had the highest per child and young adult expenditures (\$16,230 per person), while younger children birth through six (\$11,891 per person) and young adults 22–25 years of age (\$11,590 per person) had the lowest average per child and young adult expenditures.

Table 11a: Total Expenditures of Inpatient Psychiatric Services, FY18

Jurisdiction	Age Group					All Children and Young Adults
	Birth to 6	7 to 12	13 to 17	18 to 21	22 to 25	
Allegany	\$7,139	\$354,877	\$388,249	\$313,177	\$316,479	\$1,379,921
Anne Arundel	\$56,034	\$1,835,035	\$2,157,102	\$1,236,055	\$1,797,493	\$7,081,719
Baltimore City	\$884,232	\$6,053,891	\$7,007,800	\$4,907,365	\$6,443,424	\$25,296,711
Baltimore	\$795,953	\$5,043,161	\$6,482,075	\$2,829,564	\$3,173,831	\$18,324,584
Calvert	\$0	\$202,737	\$450,499	\$280,826	\$196,797	\$1,130,859
Caroline	\$0	\$241,392	\$191,162	\$80,167	\$83,775	\$596,496
Carroll	\$66,124	\$360,061	\$851,747	\$297,176	\$657,963	\$2,233,071
Cecil	\$49,639	\$620,709	\$606,598	\$397,394	\$247,135	\$1,921,476
Charles	\$188	\$159,495	\$912,148	\$346,084	\$177,927	\$1,595,843
Dorchester	\$0	\$167,602	\$334,701	\$55,151	\$106,624	\$664,078
Frederick	\$187,732	\$724,069	\$1,273,819	\$744,023	\$474,268	\$3,403,911
Garrett	\$22,888	\$61,809	\$55,553	\$98,367	\$35,750	\$274,367
Harford	\$128,372	\$920,290	\$1,780,112	\$626,506	\$788,728	\$4,244,008
Howard	\$72,410	\$949,482	\$1,890,798	\$852,777	\$750,612	\$4,516,079
Kent	\$0	\$43,241	\$29,014	\$41,391	\$2,516	\$116,162
Montgomery	\$127,714	\$2,425,148	\$4,877,170	\$2,067,091	\$2,618,218	\$12,115,342
Prince George's	\$162,007	\$1,759,795	\$4,904,569	\$2,643,516	\$1,941,220	\$11,411,106
Queen Anne's	\$0	\$39,554	\$188,258	\$96,423	\$91,072	\$415,307
Somerset	\$0	\$101,105	\$270,173	\$108,448	\$65,214	\$544,941
St. Mary's	\$24,021	\$175,451	\$255,780	\$235,549	\$360,641	\$1,051,442
Talbot	\$8,714	\$26,398	\$278,399	\$49,863	\$223,759	\$587,133
Washington	\$82,046	\$1,065,829	\$1,868,236	\$557,216	\$547,915	\$4,121,241
Wicomico	\$99,437	\$423,766	\$861,444	\$303,307	\$417,178	\$2,105,132
Worcester	\$19,831	\$86,288	\$220,688	\$307,573	\$491,184	\$1,125,564
Unknown	\$0	\$0	\$0	\$0	\$358	\$358
Statewide	\$2,794,481	\$23,841,184	\$38,136,096	\$19,475,010	\$22,010,079	\$106,256,851

Data Source: Behavioral health services claims data for FY18. Based on claims paid through July 31, 2019.

Note: The jurisdiction category of unknown is included to reflect counts of children and young adults whose jurisdiction of residence is unknown. Further study is needed to better understand the specific drivers of these cost disparities.

Annual per person expenditures for inpatient hospital services varied substantially across the State from a low of \$8,070 per person in Garrett County to a high of \$21,645 per person in Worcester County. Eight jurisdictions, including Baltimore City and Caroline, Charles, Dorchester, Howard, Prince George's, Talbot, and Worcester Counties all had annual per person expenditures above the state average of \$13,670 per person (see Table 11b).

Table 11b: Expenditures per Child and Young Adult Recipient of Inpatient Psychiatric Services, FY18

Jurisdiction	Age Group					All Children and Young Adults
	Birth to 6	7 to 12	13 to 17	18 to 21	22 to 25	
Allegany	\$7,139	\$15,429	\$10,493	\$7,829	\$5,971	\$8,961
Anne Arundel	\$7,004	\$16,097	\$12,326	\$10,656	\$10,828	\$12,231
Baltimore City	\$10,916	\$17,150	\$15,748	\$14,349	\$14,950	\$15,313
Baltimore	\$13,723	\$16,112	\$13,365	\$12,249	\$11,541	\$13,454
Calvert	\$0	\$14,481	\$13,250	\$15,601	\$10,933	\$13,463
Caroline	\$0	\$34,485	\$11,245	\$16,033	\$10,472	\$16,122
Carroll	\$16,531	\$12,002	\$13,520	\$9,005	\$15,666	\$12,983
Cecil	\$6,205	\$16,334	\$11,445	\$9,242	\$5,884	\$10,443
Charles	\$188	\$17,722	\$24,004	\$12,360	\$6,843	\$15,646
Dorchester	\$0	\$15,237	\$19,688	\$6,894	\$9,693	\$14,129
Frederick	\$12,515	\$13,165	\$13,551	\$10,479	\$7,775	\$11,500
Garrett	\$11,444	\$10,301	\$5,555	\$10,930	\$5,107	\$8,070
Harford	\$14,264	\$13,944	\$14,128	\$8,824	\$9,737	\$12,023
Howard	\$14,482	\$19,377	\$17,507	\$12,921	\$11,548	\$15,413
Kent	\$0	\$8,648	\$7,253	\$13,797	\$2,516	\$8,936
Montgomery	\$9,122	\$17,200	\$12,013	\$9,659	\$11,433	\$12,067
Prince George's	\$20,251	\$17,085	\$20,871	\$14,289	\$8,946	\$15,255
Queen Anne's	\$0	\$9,889	\$18,826	\$12,053	\$8,279	\$12,585
Somerset	\$0	\$9,191	\$15,893	\$9,859	\$5,929	\$10,899
St. Mary's	\$12,011	\$11,697	\$7,308	\$9,422	\$9,747	\$9,223
Talbot	\$8,714	\$8,799	\$17,400	\$7,123	\$24,862	\$16,309
Washington	\$6,311	\$9,961	\$12,372	\$7,633	\$6,021	\$9,474
Wicomico	\$16,573	\$16,299	\$15,383	\$8,921	\$9,702	\$12,758
Worcester	\$19,831	\$14,381	\$15,763	\$18,093	\$35,085	\$21,645
Unknown	\$0	\$0	\$0	\$0	\$358	\$358
Statewide	\$11,891	\$16,230	\$14,909	\$12,081	\$11,590	\$13,670

Data Source: Behavioral health services claims data for FY18. Based on claims paid through July 31, 2019.

Note: The jurisdiction category of unknown is included to reflect counts of children and young adults whose jurisdiction of residence is unknown. Further study is needed to better understand the specific drivers of these cost disparities.

2. Behavioral Health Emergency Room Services

In FY18, 13,041 children and young adults used emergency room services at a total cost of \$15,443,656 and an average annual per person cost of \$1,184. Psychiatric emergency room expenditures represent three percent of the overall annual behavioral health expenditure in FY18. The overall cost is evenly distributed between males and females, with each accounting for 50% of the total expenditures, however males had a higher per person cost than female service recipients (\$1,277 per person versus \$1,104 per person). African-American users accounted for 50.5% of total emergency room expenditures and a per person cost of \$1,340, followed by non-Hispanic Caucasian users who accounted for 41.5% of expenditures and a per person cost of \$1,077. Similar to inpatient hospitalizations, Hispanic children and young adults account for a small percentage of the overall cost (1.1%), but ranked the highest in per person cost (\$1,402 per person) (see Appendix A, Table A3). Emergency room expenditures were highest among young adults ages 22–25 years (\$4.6 million) and lowest among children ages 12 and younger (\$2.8 million) (see Table 12a).

Table 12a: Total Expenditures of Behavioral Health Emergency Room Service, FY18

Jurisdiction	Age Group					All Children and Young Adults
	Birth to 6	7 to 12	13 to 17	18 to 21	22 to 25	
Allegany	\$8,475	\$65,645	\$141,701	\$121,895	\$127,126	\$464,842
Anne Arundel	\$13,737	\$225,232	\$353,339	\$200,839	\$309,582	\$1,102,729
Baltimore City	\$108,935	\$661,937	\$935,511	\$1,053,920	\$1,873,199	\$4,634,599
Baltimore	\$62,659	\$385,874	\$621,767	\$462,530	\$587,934	\$2,121,032
Calvert	\$1,927	\$26,001	\$58,164	\$35,849	\$40,342	\$162,285
Caroline	\$821	\$18,126	\$45,685	\$32,916	\$17,194	\$114,741
Carroll	\$7,481	\$47,902	\$117,041	\$48,214	\$91,575	\$312,465
Cecil	\$4,717	\$36,847	\$72,979	\$75,119	\$67,119	\$256,782
Charles	\$367	\$23,342	\$75,714	\$51,439	\$52,151	\$203,014
Dorchester	\$3,175	\$54,587	\$72,045	\$19,369	\$28,343	\$177,799
Frederick	\$26,717	\$116,835	\$184,401	\$125,562	\$100,247	\$553,762
Garrett	\$1,047	\$7,975	\$16,003	\$39,073	\$13,771	\$77,869
Harford	\$11,186	\$86,258	\$175,119	\$102,675	\$145,812	\$521,243
Howard	\$6,762	\$68,886	\$136,284	\$105,994	\$111,606	\$429,533
Kent	\$0	\$6,691	\$6,456	\$9,948	\$5,097	\$28,193
Montgomery	\$14,989	\$193,979	\$504,555	\$290,935	\$305,843	\$1,310,301
Prince George's	\$21,343	\$219,214	\$461,103	\$325,316	\$336,566	\$1,363,543
Queen Anne's	\$0	\$3,851	\$22,485	\$11,894	\$26,854	\$65,084
Somerset	\$1,691	\$14,495	\$31,396	\$14,865	\$19,208	\$81,654
St. Mary's	\$7,296	\$30,170	\$72,100	\$49,607	\$83,772	\$242,945
Talbot	\$1,620	\$14,057	\$54,420	\$33,156	\$25,952	\$129,204
Washington	\$7,530	\$102,959	\$218,256	\$145,485	\$203,420	\$677,650
Wicomico	\$10,518	\$60,989	\$104,836	\$46,757	\$72,430	\$295,529
Worcester	\$2,188	\$18,250	\$30,202	\$32,701	\$33,517	\$116,859
Unknown	\$0	\$0	\$0	\$0	\$0	\$0
Statewide	\$327,273	\$2,490,104	\$4,511,563	\$3,436,056	\$4,678,660	\$15,443,656

Data Source: Behavioral health services claims data for FY18. Based on claims paid through July 31, 2019.

Note: The jurisdiction category of unknown is included to reflect counts of children and young adults whose jurisdiction of residence is unknown. Further study is needed to better understand the specific drivers of these cost disparities.

As shown in Table 12a, five jurisdictions, including Baltimore City and Baltimore, Anne Arundel, Montgomery, and Prince George’s Counties were responsible for 68% of the total emergency room expenditures statewide, with Baltimore City alone accounting for 30% (\$4.6 million) of the state total. The average per person emergency room expenditures varied substantially across the State from a low of \$704 per person in Somerset County to \$1,632 per person in Baltimore City. Three jurisdictions, including Allegany County, Baltimore City, and Talbot County, had annual per children and young adult expenditures higher than the state average of \$1,184 per person, while three jurisdictions (Kent, Somerset, and Wicomico Counties) had annual per person expenditure considerably below the state average (see Table 12b).

Table 12b: Expenditures per Child and Young Adult Recipient of Behavioral Health Emergency Room Services, FY18

Jurisdiction	Age Group					All Children and Young Adults
	Birth to 6	7 to 12	13 to 17	18 to 21	22 to 25	
Allegany	\$1,695	\$1,397	\$1,403	\$1,875	\$1,651	\$1,576
Anne Arundel	\$549	\$1,104	\$1,045	\$1,004	\$1,064	\$1,042
Baltimore City	\$1,058	\$1,170	\$1,199	\$1,689	\$2,452	\$1,632
Baltimore	\$1,099	\$970	\$975	\$1,201	\$1,345	\$1,107
Calvert	\$482	\$963	\$819	\$854	\$1,153	\$907
Caroline	\$274	\$1,295	\$1,038	\$997	\$1,075	\$1,043
Carroll	\$1,496	\$921	\$984	\$893	\$1,367	\$1,049
Cecil	\$524	\$722	\$960	\$1,121	\$932	\$934
Charles	\$367	\$1,015	\$1,147	\$919	\$966	\$1,015
Dorchester	\$529	\$1,011	\$1,144	\$646	\$945	\$966
Frederick	\$1,406	\$990	\$1,030	\$917	\$973	\$996
Garrett	\$1,047	\$570	\$696	\$1,503	\$861	\$973
Harford	\$621	\$880	\$1,115	\$960	\$1,338	\$1,064
Howard	\$563	\$895	\$953	\$1,039	\$1,213	\$1,008
Kent	\$0	\$743	\$807	\$1,244	\$728	\$881
Montgomery	\$681	\$919	\$904	\$970	\$1,062	\$950
Prince George's	\$1,525	\$1,166	\$1,195	\$1,170	\$1,072	\$1,156
Queen Anne's	\$0	\$1,284	\$899	\$793	\$1,413	\$1,050
Somerset	\$564	\$630	\$748	\$646	\$768	\$704
St. Mary's	\$811	\$838	\$1,015	\$992	\$1,289	\$1,052
Talbot	\$405	\$827	\$1,296	\$1,228	\$1,527	\$1,208
Washington	\$628	\$792	\$1,015	\$1,243	\$1,347	\$1,084
Wicomico	\$751	\$802	\$681	\$649	\$833	\$733
Worcester	\$547	\$760	\$702	\$1,128	\$1,197	\$913
Unknown	\$0	\$0	\$0	\$0	\$0	\$0
Statewide Avg.	\$925	\$1,020	\$1,046	\$1,222	\$1,499	\$1,184

Data Source: Behavioral health services claims data for FY18. Based on claims paid through July 31, 2019.

Note: The jurisdiction category of unknown is included to reflect counts of children and young adults whose jurisdiction of residence is unknown. Further study is needed to better understand the specific drivers of these cost disparities.

3. Residential Treatment Center Services

A total of 454 children and young adults used RTC services in FY18 at a total cost of \$35,295,132 (see Table 13a). Annual expenditures for RTC services represent 7.1% of the total annual behavioral health expenditures for children and young adults. While serving a relatively small number of users, this service area had the highest annual per person expenditures at \$77,743 (see Table 13b). Males accounted for 71.4% of the RTC expenditures and a per person cost of \$81,046. Females accounted for 28.6% of the expenditures and had a per person cost of \$70,558. Among racial/ethnic groups, African-American children and young adults accounted 56.8% of RTC expenditures (\$20,057,177); followed by non-Hispanic Caucasian children and young adults who accounted for 38.3% (\$13,531,445); and the highest per person cost of \$80,068 (see Appendix A, Table A4). As shown in Table 13b, the average per person expenditures were highest among children 7–12 years (\$99,520) and lowest for young adult’s ages 18–21 years (\$63,819). The average per person expenditures varied greatly across the State from \$12,303 per person in Carroll County to \$86,504 per person in Talbot County.

A total of 77 children and young adults used RICA services in FY18 at a total cost of \$8,725,785 (see note on Table 13a). Annual expenditures for these two facilities accounted for 1.8% of the total behavioral health expenditures for children and young adults. Overall, the expenditures were

slightly higher for the Baltimore City facility representing 53.8% (\$4,696,144) of RICA expenditures compared to Montgomery County at 46.2% (\$4,029,641).

Table 13a: Total Expenditures of Residential Treatment Services, FY18

Jurisdiction	Age Group					All Children and Young Adults
	Birth to 6	7 to 12	13 to 17	18 to 21	22 to 25	
Allegany	\$0	\$163,679	\$82,144	\$0	\$0	\$245,823
Anne Arundel	\$0	\$424,638	\$1,239,900	\$15,532	\$0	\$1,680,070
Baltimore City	\$0	\$552,230	\$8,208,252	\$380,853	\$0	\$9,141,335
Baltimore	\$72,150	\$6,508,191	\$3,938,252	\$46,625	\$0	\$10,565,217
Calvert	\$0	\$151,377	\$229,185	\$47,402	\$0	\$427,964
Caroline	\$0	\$99,491	\$439,846	\$0	\$0	\$539,338
Carroll	\$0	\$12,303	\$0	\$0	\$0	\$12,303
Cecil	\$32,724	\$273,334	\$611,209	\$53,004	\$0	\$970,271
Charles	\$0	\$124,647	\$686,641	\$26,626	\$0	\$837,914
Dorchester	\$0	\$0	\$49,032	\$0	\$0	\$49,032
Frederick	\$191,499	\$224,477	\$3,571,861	\$362,097	\$0	\$4,349,933
Garrett	\$0	\$0	\$0	\$0	\$0	\$0
Harford	\$0	\$354,762	\$180,700	\$28,872	\$0	\$564,334
Howard	\$0	\$123,492	\$406,061	\$74,057	\$0	\$603,609
Kent	\$0	\$0	\$114,157	\$0	\$0	\$114,157
Montgomery	\$0	\$646,037	\$960,618	\$382,352	\$0	\$1,989,007
Prince George's	\$0	\$119,030	\$1,033,899	\$73,233	\$0	\$1,226,162
Queen Anne's	\$0	\$0	\$206,647	\$0	\$0	\$206,647
Somerset	\$0	\$0	\$53,068	\$0	\$0	\$53,068
St. Mary's	\$0	\$11,233	\$548,480	\$0	\$0	\$559,713
Talbot	\$59,374	\$200,139	\$0	\$0	\$0	\$259,513
Washington	\$0	\$309,707	\$324,037	\$0	\$0	\$633,744
Wicomico	\$0	\$15,512	\$112,249	\$0	\$0	\$127,761
Worcester	\$0	\$35,838	\$61,383	\$40,994	\$0	\$138,215
Statewide	\$355,747	\$10,350,116	\$23,057,621	\$1,531,648	\$0	\$35,295,132

Data Source: Behavioral health services claims data for FY18. Based on claims paid through July 31, 2019.

Note: The RICA data included in this report is provided by facility and not by jurisdiction of client residence. Given the presentation of data, the RICA expenditure information is not included in this table.

Table 13b: Expenditures per Child and Young Adult Recipient of Residential Treatment Services, FY18

Jurisdiction	Age Group					All Children and Young Adults
	Birth to 6	7 to 12	13 to 17	18 to 21	22 to 25	
Allegany	\$0	\$81,840	\$27,381	\$0	\$0	\$49,165
Anne Arundel	\$0	\$84,928	\$56,359	\$7,766	\$0	\$57,933
Baltimore City	\$0	\$27,612	\$66,196	\$47,607	\$0	\$60,140
Baltimore	\$72,150	\$98,609	\$54,698	\$15,542	\$0	\$74,403
Calvert	\$0	\$75,688	\$76,395	\$47,402	\$0	\$71,327
Caroline	\$0	\$24,873	\$109,962	\$0	\$0	\$67,417
Carroll	\$0	\$12,303	\$0	\$0	\$0	\$12,303
Cecil	\$32,724	\$91,111	\$67,912	\$53,004	\$0	\$69,305
Charles	\$0	\$62,323	\$62,422	\$26,626	\$0	\$59,851
Dorchester	\$0	\$0	\$24,516	\$0	\$0	\$24,516
Frederick	\$191,499	\$74,826	\$57,611	\$60,349	\$0	\$60,416
Garrett	\$0	\$0	\$0	\$0	\$0	\$0
Harford	\$0	\$59,127	\$25,814	\$28,872	\$0	\$40,310
Howard	\$0	\$41,164	\$50,758	\$74,057	\$0	\$50,301
Kent	\$0	\$0	\$57,079	\$0	\$0	\$57,079
Montgomery	\$0	\$80,755	\$36,947	\$127,451	\$0	\$53,757
Prince George's	\$0	\$59,515	\$38,293	\$36,617	\$0	\$39,554
Queen Anne's	\$0	\$0	\$68,882	\$0	\$0	\$68,882
Somerset	\$0	\$0	\$53,068	\$0	\$0	\$53,068
St. Mary's	\$0	\$11,233	\$68,560	\$0	\$0	\$62,190
Talbot	\$59,374	\$100,069	\$0	\$0	\$0	\$86,504
Washington	\$0	\$103,236	\$46,291	\$0	\$0	\$63,374
Wicomico	\$0	\$15,512	\$22,450	\$0	\$0	\$21,294
Worcester	\$0	\$35,838	\$30,691	\$40,994	\$0	\$34,554
Statewide Avg.	\$88,937	\$99,520	\$71,608	\$63,819	\$0	\$77,743

Data Source: Behavioral health services claims data for FY18. Based on claims paid through July 31, 2019.

Note: Expenditures do not include state-operated RTC facilities.

4. Intensive Community-Based PBHS Services

In FY18, a total of \$72,493,668 was expended on intensive community-based services for child and young adult recipients of PBHS services representing 14.6% of the overall child and young adult behavioral health expenditures and an annual average per person expenditure of \$3,626. As shown in Table 14a, children accounted for 72.4% (\$52.5 million) of intensive community-based service expenditures. While total expenditures were lower among young adults, the average annual per person expenditures were considerably higher for young adults ages 18–21 years (\$4,933 per person) and ages 22–25 years (\$5,677 per person). Three jurisdictions, including Baltimore City and Baltimore and Prince George’s County accounted for 59.6% (\$43,191,367) of the total intensive community-based service expenditures. Baltimore City alone accounted for more than one-third (38.7%) of the statewide expenditures in this area. Average per person expenditures also varied across the State ranging from a low of \$1,907 per person in Worcester County to a high of \$5,572 per person in Queen Anne’s County (see Table 14b). The total and per person expenditures for selected intensive community-based services by type of service, age group, and jurisdiction is summarized below in Tables 14–18.

Table 14a: Total Expenditures for Recipients of Intensive Community Services (combined), FY18

Jurisdiction	Age Group					All Children and Young Adults
	Birth to 6	7 to 12	13 to 17	18 to 21	22 to 25	
Allegany	\$83,617	\$434,190	\$243,483	\$103,109	\$257,088	\$1,121,487
Anne Arundel	\$176,483	\$1,429,698	\$929,540	\$447,330	\$516,754	\$3,499,805
Baltimore City	\$1,844,254	\$11,583,100	\$7,174,818	\$3,252,289	\$4,231,076	\$28,085,538
Baltimore	\$584,031	\$3,485,457	\$2,153,905	\$974,380	\$1,378,093	\$8,575,866
Calvert	\$39,429	\$62,477	\$63,151	\$108,916	\$52,162	\$326,135
Caroline	\$19,904	\$350,298	\$166,367	\$89,466	\$39,565	\$665,601
Carroll	\$70,833	\$368,257	\$207,176	\$65,188	\$98,654	\$810,107
Cecil	\$78,798	\$660,155	\$315,468	\$89,091	\$72,868	\$1,216,379
Charles	\$51,825	\$280,510	\$181,513	\$127,615	\$112,080	\$753,543
Dorchester	\$36,856	\$408,717	\$337,012	\$119,257	\$56,436	\$958,279
Frederick	\$149,668	\$1,271,516	\$792,401	\$216,274	\$665,614	\$3,095,472
Garrett	\$5,840	\$54,918	\$34,245	\$51,193	\$26,611	\$172,807
Harford	\$137,686	\$933,553	\$581,092	\$155,021	\$573,924	\$2,381,276
Howard	\$30,331	\$267,929	\$234,555	\$492,867	\$375,237	\$1,400,917
Kent	\$3,535	\$80,125	\$68,783	\$32,125	\$82,373	\$266,941
Montgomery	\$126,381	\$753,992	\$686,804	\$871,684	\$790,572	\$3,229,433
Prince George's	\$298,033	\$2,548,952	\$1,985,413	\$703,029	\$994,535	\$6,529,963
Queen Anne's	\$2,330	\$52,542	\$63,914	\$36,617	\$173,340	\$328,743
Somerset	\$66,684	\$583,089	\$314,591	\$20,515	\$38,792	\$1,023,671
St. Mary's	\$33,308	\$183,215	\$151,990	\$239,187	\$179,894	\$787,594
Talbot	\$13,845	\$201,952	\$99,525	\$42,288	\$72,707	\$430,318
Washington	\$412,804	\$1,797,496	\$830,505	\$222,357	\$220,162	\$3,483,324
Wicomico	\$191,741	\$1,296,730	\$998,315	\$206,952	\$201,451	\$2,895,187
Worcester	\$37,271	\$180,229	\$124,419	\$54,392	\$55,706	\$452,016
Unknown	\$0	\$0	\$0	\$0	\$3,263	\$3,263
Statewide	\$4,495,485	\$29,269,097	\$18,738,987	\$8,721,142	\$11,268,957	\$72,493,668

Data Source: Behavioral health services claims data for FY18. Based on claims paid through July 31, 2019.

Note: Intensive community-based services per legislation include: case management, psychiatric rehabilitation services, respite care service, and § 1915(i) waiver services. The jurisdiction category of unknown is included to reflect counts of children and young adults whose jurisdiction of residence is unknown.

Table 14b: Expenditures per Child and Young Adult Recipient of Intensive Community Services (combined), FY18

Jurisdiction	Age Group					All Children and Young Adults
	Birth to 6	7 to 12	13 to 17	18 to 21	22 to 25	
Allegany	\$2,200	\$2,954	\$2,647	\$4,124	\$6,121	\$3,260
Anne Arundel	\$2,558	\$3,042	\$2,989	\$4,030	\$4,201	\$3,229
Baltimore City	\$2,868	\$3,440	\$3,308	\$4,741	\$5,179	\$3,656
Baltimore	\$2,562	\$2,979	\$3,008	\$4,662	\$5,742	\$3,346
Calvert	\$3,286	\$1,893	\$2,526	\$4,735	\$2,608	\$2,886
Caroline	\$1,990	\$4,799	\$4,058	\$5,964	\$9,891	\$4,655
Carroll	\$2,361	\$2,994	\$2,656	\$2,414	\$2,192	\$2,674
Cecil	\$2,814	\$2,974	\$3,123	\$6,853	\$3,470	\$3,159
Charles	\$2,073	\$2,984	\$2,631	\$4,254	\$3,502	\$3,014
Dorchester	\$2,633	\$3,856	\$4,213	\$6,625	\$4,703	\$4,166
Frederick	\$2,537	\$3,427	\$3,703	\$4,915	\$14,162	\$4,212
Garrett	\$2,920	\$1,772	\$2,283	\$4,266	\$3,802	\$2,579
Harford	\$2,334	\$2,936	\$2,950	\$3,164	\$8,566	\$3,451
Howard	\$1,685	\$2,392	\$2,469	\$8,961	\$7,505	\$4,245
Kent	\$884	\$4,006	\$2,866	\$4,016	\$10,297	\$4,171
Montgomery	\$2,298	\$2,539	\$2,471	\$7,580	\$6,325	\$3,712
Prince George's	\$2,224	\$3,159	\$2,928	\$4,135	\$5,290	\$3,303
Queen Anne's	\$2,330	\$3,284	\$3,196	\$2,817	\$19,260	\$5,572
Somerset	\$2,470	\$4,021	\$3,616	\$5,129	\$3,233	\$3,722
St. Mary's	\$1,850	\$2,349	\$2,714	\$5,695	\$4,388	\$3,351
Talbot	\$1,978	\$4,926	\$3,318	\$3,524	\$12,118	\$4,482
Washington	\$3,250	\$3,800	\$2,884	\$2,246	\$2,531	\$3,243
Wicomico	\$3,424	\$4,156	\$3,670	\$5,048	\$5,445	\$4,032
Worcester	\$1,553	\$1,877	\$1,481	\$3,200	\$3,482	\$1,907
Unknown	\$0	\$0	\$0	\$0	\$1,632	\$1,632
Statewide Avg.	\$2,708	\$3,360	\$3,194	\$4,933	\$5,677	\$3,626

Data Source: Behavioral health services claims data for FY18. Based on claims paid through July 31, 2019.

Note: Intensive community-based services per legislation include: case management, psychiatric rehabilitation services, respite care service, and § 1915(i) waiver services. The jurisdiction category of unknown is included to reflect counts of children and young adults whose jurisdiction of residence is unknown. Further study is needed to better understand the specific drivers of these cost disparities.

B. Expenditures: Selected Intensive Community-Based PBHS Services

HG § 7.5–209(b)(4) request the total expenditure and expenditure per child and young adult for four intensive community services: (1) targeted case management, (2) respite care services, (3) § 1915(i) waiver services, and (4) psychiatric rehabilitation services.

1. Targeted Case Management

In FY18, \$5 million was expended on 2,325 child and young adult recipients of PBHS services at an annual per children and young adult cost of \$2,153. Children accounted for 83.7% (\$4,189,672) of the total TCM expenditures, while young adults represented 16.3% (\$816,139) of annual expenditures (see Table 15a). As shown in Table 15b, the annual per person expenditures varied across the State ranging from \$857 in Allegany County to \$3,671 in Queen Anne's County.

Table 15a: Total Expenditures of Targeted Case Management, FY18

Jurisdiction	Age Group					All Children and Young Adults
	Birth to 6	7 to 12	13 to 17	18 to 21	22 to 25	
Allegany	\$0	\$4,852	\$7,970	\$4,459	\$5,871	\$23,152
Anne Arundel	\$9,807	\$57,878	\$54,533	\$10,772	\$13,874	\$146,865
Baltimore City	\$54,121	\$302,400	\$252,207	\$72,158	\$133,148	\$814,033
Baltimore	\$20,632	\$108,539	\$128,091	\$13,805	\$18,153	\$289,220
Calvert	\$12,369	\$17,220	\$18,386	\$13,601	\$11,641	\$73,217
Caroline	\$0	\$3,234	\$32,466	\$6,531	\$0	\$42,231
Carroll	\$16,065	\$47,208	\$31,720	\$24,205	\$50,479	\$169,677
Cecil	\$2,499	\$43,155	\$17,124	\$692	\$115	\$63,585
Charles	\$19,457	\$51,402	\$21,247	\$7,377	\$7,146	\$106,628
Dorchester	\$7,308	\$35,175	\$44,993	\$4,265	\$5,071	\$96,812
Frederick	\$15,981	\$84,609	\$83,100	\$41,219	\$36,422	\$261,331
Garrett	\$5,775	\$25,263	\$27,510	\$6,339	\$13,716	\$78,603
Harford	\$18,254	\$77,699	\$65,038	\$1,376	\$0	\$162,367
Howard	\$2,310	\$22,785	\$11,319	\$1,037	\$5,763	\$43,214
Kent	\$3,276	\$6,825	\$7,867	\$63	\$0	\$18,031
Montgomery	\$1,393	\$15,626	\$4,914	\$1,727	\$1,729	\$25,389
Prince George's	\$6,245	\$33,356	\$37,116	\$9,624	\$22,426	\$108,767
Queen Anne's	\$0	\$11,695	\$20,643	\$4,371	\$0	\$36,708
Somerset	\$13,545	\$44,969	\$77,929	\$2,766	\$5,300	\$144,508
St. Mary's	\$13,368	\$43,519	\$40,031	\$5,994	\$11,757	\$114,669
Talbot	\$0	\$12,222	\$11,781	\$912	\$0	\$24,915
Washington	\$218,526	\$531,405	\$377,988	\$118,535	\$99,354	\$1,345,807
Wicomico	\$75,159	\$345,623	\$350,771	\$4,040	\$7,607	\$783,201
Worcester	\$62	\$10,903	\$11,215	\$6,448	\$4,025	\$32,652
Unknown	\$0	\$0	\$0	\$0	\$226	\$226
Statewide	\$516,152	\$1,937,561	\$1,735,959	\$362,315	\$453,824	\$5,005,811

Data Source: Behavioral health services claims data for FY18. Based on claims paid through July 31, 2019.

Note: Intensive community-based services per legislation include: case management, psychiatric rehabilitation services, respite care service, and § 1915(i) waiver services. The jurisdiction category of unknown is included to reflect counts of children and young adults whose jurisdiction of residence is unknown. Further study is needed to better understand the specific drivers of these cost disparities.

Table 15b: Expenditures per Child and Young Adult Recipient of Targeted Case Management, FY18

Jurisdiction	Age Group					All Children and Young Adults
	Birth to 6	7 to 12	13 to 17	18 to 21	22 to 25	
Allegany	\$0	\$606	\$886	\$1,115	\$979	\$857
Anne Arundel	\$1,961	\$1,378	\$1,239	\$829	\$730	\$1,194
Baltimore City	\$1,804	\$1,902	\$2,449	\$1,804	\$1,849	\$2,015
Baltimore	\$1,876	\$2,215	\$2,979	\$1,255	\$1,650	\$2,314
Calvert	\$2,062	\$1,325	\$2,043	\$1,943	\$1,455	\$1,703
Caroline	\$0	\$809	\$2,951	\$6,531	\$0	\$2,639
Carroll	\$2,678	\$2,360	\$1,982	\$2,017	\$1,803	\$2,069
Cecil	\$1,250	\$1,660	\$1,142	\$231	\$115	\$1,353
Charles	\$1,216	\$1,428	\$1,416	\$2,459	\$893	\$1,367
Dorchester	\$2,436	\$1,851	\$2,500	\$1,066	\$1,268	\$2,017
Frederick	\$1,453	\$1,968	\$1,731	\$1,649	\$2,276	\$1,827
Garrett	\$5,775	\$4,211	\$3,057	\$3,170	\$3,429	\$3,573
Harford	\$1,825	\$1,689	\$2,098	\$1,376	\$0	\$1,845
Howard	\$385	\$1,424	\$1,029	\$519	\$1,921	\$1,137
Kent	\$1,092	\$1,365	\$1,573	\$63	\$0	\$1,288
Montgomery	\$1,393	\$1,736	\$614	\$432	\$576	\$1,016
Prince George's	\$1,561	\$1,588	\$1,326	\$1,203	\$1,602	\$1,450
Queen Anne's	\$0	\$2,924	\$5,161	\$2,185	\$0	\$3,671
Somerset	\$1,935	\$2,044	\$2,783	\$2,766	\$1,060	\$2,294
St. Mary's	\$1,485	\$1,280	\$2,355	\$1,199	\$1,306	\$1,550
Talbot	\$0	\$2,037	\$2,356	\$456	\$0	\$1,917
Washington	\$3,262	\$3,260	\$2,333	\$1,670	\$1,552	\$2,554
Wicomico	\$2,784	\$3,261	\$3,189	\$1,347	\$1,521	\$3,120
Worcester	\$62	\$1,211	\$660	\$2,149	\$805	\$933
Unknown	\$0	\$0	\$0	\$0	\$226	\$226
Statewide Avg.	\$2,315	\$2,282	\$2,324	\$1,610	\$1,615	\$2,153

Data Source: Behavioral health services claims data for FY18. Based on claims paid through July 31, 2019.

Note: Intensive community-based services per legislation include: case management, psychiatric rehabilitation services, respite care service, and § 1915(i) waiver services. The jurisdiction category of unknown is included to reflect counts of children and young adults whose jurisdiction of residence is unknown. Further study is needed to better understand the specific drivers of these cost disparities.

2. Respite Care Services

As shown in Table 16a, the total annual expenditure for respite services was just under one million dollars (\$957,460) in FY18. A total of 320 children and young adults were served with these dollars, at an average annual per person expenditure of \$2,992. Children ages 7–17 years accounted 98% (\$942,635) of the overall expenditures in this area. Average annual person expenditures were higher for older children ages 13–17 years (\$3,814 per person) compared to younger children ages 12 years and younger (\$2,733 per person).

As shown in Table 16a, children and young adults from three jurisdictions, including Caroline, Frederick, and Wicomico Counties, accounted for 54% (\$517,297) of the annual respite service expenditures. Annual per person expenditures in those jurisdictions where services were provided varied greatly across the State from a low of \$80 per person in Garrett County to a high of \$12,629 per person in Worcester County (see Table 16b). In addition to Howard County, Frederick, Montgomery, and Talbot Counties, all had annual per person expenditures well above the state average, while Cecil, Charles, Garrett, and Harford were well below the state average.

Table 16a: Total Expenditures of Respite Care Services, FY18

Jurisdiction	Age Group					All Children and Young Adults
	Birth to 6	7 to 12	13 to 17	18 to 21	22 to 25	
Allegany	\$0	\$0	\$0	\$0	\$0	\$0
Anne Arundel	\$2,353	\$4,740	\$20,323	\$0	\$0	\$27,416
Baltimore City	\$5,017	\$23,636	\$11,360	\$0	\$0	\$40,013
Baltimore	\$1,850	\$13,328	\$27,045	\$0	\$0	\$42,223
Calvert	\$0	\$0	\$0	\$0	\$0	\$0
Caroline	\$740	\$88,342	\$31,705	\$0	\$0	\$120,787
Carroll	\$0	\$0	\$703	\$0	\$0	\$703
Cecil	\$0	\$266	\$710	\$0	\$0	\$977
Charles	\$0	\$370	\$0	\$0	\$0	\$370
Dorchester	\$0	\$19,405	\$592	\$0	\$0	\$19,997
Frederick	\$0	\$68,523	\$176,973	\$0	\$0	\$245,497
Garrett	\$0	\$0	\$0	\$0	\$80	\$80
Harford	\$222	\$2,383	\$1,776	\$0	\$0	\$4,381
Howard	\$0	\$0	\$12,629	\$0	\$0	\$12,629
Kent	\$0	\$4,433	\$1,110	\$0	\$0	\$5,543
Montgomery	\$0	\$17,492	\$35,335	\$0	\$0	\$52,826
Prince George's	\$0	\$1,480	\$555	\$0	\$0	\$2,035
Queen Anne's	\$0	\$11,286	\$1,850	\$0	\$0	\$13,136
Somerset	\$2,320	\$60,982	\$16,152	\$0	\$0	\$79,454
St. Mary's	\$0	\$0	\$0	\$0	\$0	\$0
Talbot	\$1,480	\$58,281	\$19,982	\$0	\$0	\$79,744
Washington	\$0	\$37,277	\$17,558	\$0	\$0	\$54,836
Wicomico	\$762	\$103,283	\$46,968	\$0	\$0	\$151,013
Worcester	\$0	\$3,800	\$0	\$0	\$0	\$3,800
Unknown	\$0	\$0	\$0	\$0	\$0	\$0
Statewide	\$14,745	\$519,308	\$423,327	\$0	\$80	\$957,460

Data Source: Behavioral health services claims data for FY18. Based on claims paid through July 31, 2019.

Note: Intensive community-based services per legislation include: case management, psychiatric rehabilitation services, respite care service, and § 1915(i) waiver services. The jurisdiction category of unknown is included to reflect counts of children and young adults whose jurisdiction of residence is unknown. Further study is needed to better understand the specific drivers of these cost disparities.

Table 16b: Expenditures per Child and Young Adult Recipient of Respite Care Services, FY18

Jurisdiction	Age Group					All Children and Young Adults
	Birth to 6	7 to 12	13 to 17	18 to 21	22 to 25	
Allegany	\$0	\$0	\$0	\$0	\$0	\$0
Anne Arundel	\$2,353	\$2,370	\$4,065	\$0	\$0	\$3,427
Baltimore City	\$1,003	\$1,074	\$1,262	\$0	\$0	\$1,111
Baltimore	\$1,850	\$889	\$2,459	\$0	\$0	\$1,564
Calvert	\$0	\$0	\$0	\$0	\$0	\$0
Caroline	\$740	\$4,417	\$4,529	\$0	\$0	\$4,314
Carroll	\$0	\$0	\$703	\$0	\$0	\$703
Cecil	\$0	\$133	\$710	\$0	\$0	\$326
Charles	\$0	\$370	\$0	\$0	\$0	\$370
Dorchester	\$0	\$2,426	\$296	\$0	\$0	\$2,000
Frederick	\$0	\$3,807	\$5,899	\$0	\$0	\$5,115
Garrett	\$0	\$0	\$0	\$0	\$80	\$80
Harford	\$111	\$477	\$592	\$0	\$0	\$438
Howard	\$0	\$0	\$12,629	\$0	\$0	\$12,629
Kent	\$0	\$2,217	\$1,110	\$0	\$0	\$1,848
Montgomery	\$0	\$4,373	\$5,889	\$0	\$0	\$5,283
Prince George's	\$0	\$1,480	\$555	\$0	\$0	\$1,018
Queen Anne's	\$0	\$5,643	\$1,850	\$0	\$0	\$4,379
Somerset	\$773	\$3,049	\$3,230	\$0	\$0	\$2,838
St. Mary's	\$0	\$0	\$0	\$0	\$0	\$0
Talbot	\$740	\$6,476	\$4,996	\$0	\$0	\$5,316
Washington	\$0	\$4,660	\$5,853	\$0	\$0	\$4,985
Wicomico	\$254	\$1,949	\$2,348	\$0	\$0	\$1,987
Worcester	\$0	\$1,900	\$0	\$0	\$0	\$1,900
Unknown	\$0	\$0	\$0	\$0	\$0	\$0
Statewide Avg.	\$819	\$2,733	\$3,814	\$0	\$80	\$2,992

Data Source: Behavioral health services claims data for FY18. Based on claims paid through July 31, 2019.

Note: Intensive community-based services per legislation include: case management, psychiatric rehabilitation services, respite care service, and § 1915(i) waiver services. The jurisdiction category of unknown is included to reflect counts of children and young adults whose jurisdiction of residence is unknown. Further study is needed to better understand the specific drivers of these cost disparities.

3. § 1915(i) Waiver Services

Statewide, in FY18, a total of \$229,172 was expended to serve 54 children and young adults with intensive behavioral and emotional challenges at an annual per person cost of \$4,244. As shown in Table 17a, § 1915(i) waiver services provided to children ages 7–12 years accounted for more 53.6% (\$122,754) of the total waiver service expenditures. Services provided in four jurisdictions, including Baltimore City and Baltimore, Washington, and Wicomico Counties, accounted for 61.3% (\$140,427) of the overall waiver expenditures (see Table 17b). Annual per person expenditures varied substantially across the State, ranging from \$616 in Calvert County to \$9,040 in Frederick County.

Table 17a: Total Expenditures of § 1915(i) Waiver Services, FY18

Jurisdiction	Age Group					All Children and Young Adults
	Birth to 6	7 to 12	13 to 17	18 to 21	22 to 25	
Allegany	\$0	\$16,641	\$0	\$0	\$0	\$16,641
Anne Arundel	\$0	\$11,475	\$4,994	\$0	\$0	\$16,469
Baltimore City	\$0	\$9,062	\$23,627	\$1,036	\$0	\$33,724
Baltimore	\$0	\$14,367	\$14,641	\$0	\$0	\$29,008
Calvert	\$0	\$0	\$616	\$0	\$0	\$616
Caroline	\$0	\$0	\$0	\$0	\$0	\$0
Carroll	\$0	\$0	\$0	\$0	\$0	\$0
Cecil	\$0	\$15,175	\$0	\$0	\$0	\$15,175
Charles	\$0	\$2,465	\$10,478	\$0	\$0	\$12,943
Dorchester	\$0	\$0	\$0	\$0	\$0	\$0
Frederick	\$0	\$9,040	\$0	\$0	\$0	\$9,040
Garrett	\$0	\$0	\$0	\$0	\$0	\$0
Harford	\$0	\$2,876	\$1,438	\$0	\$0	\$4,314
Howard	\$0	\$822	\$1,013	\$0	\$0	\$1,835
Kent	\$0	\$0	\$0	\$0	\$0	\$0
Montgomery	\$0	\$0	\$0	\$0	\$0	\$0
Prince George's	\$0	\$0	\$1,849	\$0	\$0	\$1,849
Queen Anne's	\$0	\$0	\$0	\$0	\$0	\$0
Somerset	\$0	\$0	\$1,849	\$0	\$0	\$1,849
St. Mary's	\$0	\$0	\$8,013	\$0	\$0	\$8,013
Talbot	\$0	\$0	\$0	\$0	\$0	\$0
Washington	\$0	\$14,792	\$9,274	\$0	\$0	\$24,066
Wicomico	\$0	\$26,038	\$27,591	\$0	\$0	\$53,629
Worcester	\$0	\$0	\$0	\$0	\$0	\$0
Unknown	\$0	\$0	\$0	\$0	\$0	\$0
Statewide	\$0	\$122,754	\$105,382	\$1,036	\$0	\$229,172

Data Source: Behavioral health services claims data for FY18. Based on claims paid through July 31, 2019.

Note: Intensive community-based services per legislation include: case management, psychiatric rehabilitation services, respite care service, and § 1915(i) waiver services. The jurisdiction category of unknown is included to reflect counts of children and young adults whose jurisdiction of residence is unknown. Further study is needed to better understand the specific drivers of these cost disparities.

Table 17b: Expenditures per Child and Young Adult Recipient of § 1915(i) Waiver Services, FY18

Jurisdiction	Age Group					All Children and Young Adults
	Birth to 6	7 to 12	13 to 17	18 to 21	22 to 25	
Allegany	\$0	\$8,321	\$0	\$0	\$0	\$8,321
Anne Arundel	\$0	\$5,738	\$2,497	\$0	\$0	\$4,117
Baltimore City	\$0	\$3,021	\$4,725	\$1,036	\$0	\$3,747
Baltimore	\$0	\$2,394	\$2,092	\$0	\$0	\$2,231
Calvert	\$0	\$0	\$616	\$0	\$0	\$616
Caroline	\$0	\$0	\$0	\$0	\$0	\$0
Carroll	\$0	\$0	\$0	\$0	\$0	\$0
Cecil	\$0	\$5,058	\$0	\$0	\$0	\$5,058
Charles	\$0	\$2,465	\$10,478	\$0	\$0	\$6,472
Dorchester	\$0	\$0	\$0	\$0	\$0	\$0
Frederick	\$0	\$9,040	\$0	\$0	\$0	\$9,040
Garrett	\$0	\$0	\$0	\$0	\$0	\$0
Harford	\$0	\$2,876	\$1,438	\$0	\$0	\$2,157
Howard	\$0	\$822	\$1,013	\$0	\$0	\$917
Kent	\$0	\$0	\$0	\$0	\$0	\$0
Montgomery	\$0	\$0	\$0	\$0	\$0	\$0
Prince George's	\$0	\$0	\$1,849	\$0	\$0	\$1,849
Queen Anne's	\$0	\$0	\$0	\$0	\$0	\$0
Somerset	\$0	\$0	\$1,849	\$0	\$0	\$1,849
St. Mary's	\$0	\$0	\$4,006	\$0	\$0	\$4,006
Talbot	\$0	\$0	\$0	\$0	\$0	\$0
Washington	\$0	\$4,931	\$3,091	\$0	\$0	\$4,011
Wicomico	\$0	\$6,510	\$6,898	\$0	\$0	\$6,704
Worcester	\$0	\$0	\$0	\$0	\$0	\$0
Unknown	\$0	\$0	\$0	\$0	\$0	\$0
Statewide Avg.	\$0	\$5,115	\$3,634	\$1,036	\$0	\$4,244

Data Source: Behavioral health services claims data for FY18. Based on claims paid through July 31, 2019.

Note: Intensive community-based services per legislation include: case management, psychiatric rehabilitation services, respite care service, and § 1915(i) waiver services. The jurisdiction category of unknown is included to reflect counts of children and young adults whose jurisdiction of residence is unknown. Further study is needed to better understand the specific drivers of these cost disparities.

4. Psychiatric Rehabilitation Program Services

As shown in Table 18a, a total of \$66.3 million was expended for PRP services to serve 18,299 children and young adults at an annual cost of \$3,623 per person. Children ages 7–12 accounted for 40%, (\$26,689,473) of the PRP expenditures, while 28.9% (\$19,172,844) was expended on young adults (see Table 18a). The average annual per person expenditures were higher for young adults 18–21 years (\$5,334 per person) and 22–25 years (\$6,233 per person) compared to younger children (see Table 18b). Per person expenditures also varied across the State from \$1,898 per person in Worcester County to \$5,469 per person in Queen Anne’s County. In addition to Queen Anne’s County, 10 jurisdictions, including Baltimore City and Caroline, Dorchester, Frederick, Howard, Kent, Montgomery, and St. Mary’s Counties, all had average annual per person expenditures higher than the state average of \$3,623.

Table 18a: Total Expenditures of Psychiatric Rehabilitation Services, FY18

Jurisdiction	Age Group					All Children and Young Adults
	Birth to 6	7 to 12	13 to 17	18 to 21	22 to 25	
Allegany	\$83,617	\$412,697	\$235,513	\$98,650	\$251,217	\$1,081,694
Anne Arundel	\$164,323	\$1,355,605	\$849,691	\$436,558	\$502,880	\$3,309,056
Baltimore City	\$1,785,116	\$11,248,003	\$6,887,625	\$3,179,096	\$4,097,928	\$27,197,768
Baltimore	\$561,549	\$3,349,223	\$1,984,127	\$960,575	\$1,359,940	\$8,215,414
Calvert	\$27,060	\$45,257	\$44,149	\$95,315	\$40,520	\$252,302
Caroline	\$19,164	\$258,722	\$102,196	\$82,935	\$39,565	\$502,583
Carroll	\$54,768	\$321,049	\$174,753	\$40,983	\$48,174	\$639,727
Cecil	\$76,299	\$601,559	\$297,634	\$88,399	\$72,752	\$1,136,643
Charles	\$32,368	\$226,272	\$149,788	\$120,238	\$104,934	\$633,601
Dorchester	\$29,548	\$354,137	\$291,427	\$114,993	\$51,365	\$841,470
Frederick	\$133,687	\$1,109,344	\$532,328	\$175,055	\$629,192	\$2,579,605
Garrett	\$65	\$29,655	\$6,735	\$44,854	\$12,815	\$94,124
Harford	\$119,210	\$850,594	\$512,840	\$153,645	\$573,924	\$2,210,213
Howard	\$28,021	\$244,322	\$209,593	\$491,830	\$369,474	\$1,343,239
Kent	\$259	\$68,867	\$59,806	\$32,062	\$82,373	\$243,367
Montgomery	\$124,988	\$720,874	\$646,555	\$869,958	\$788,843	\$3,151,218
Prince George's	\$291,788	\$2,514,116	\$1,945,893	\$693,405	\$972,109	\$6,417,311
Queen Anne's	\$2,330	\$29,561	\$41,421	\$32,247	\$173,340	\$278,898
Somerset	\$50,819	\$477,138	\$218,662	\$17,749	\$33,493	\$797,860
St. Mary's	\$19,940	\$139,696	\$103,946	\$233,194	\$168,138	\$664,913
Talbot	\$12,364	\$131,449	\$67,762	\$41,376	\$72,707	\$325,659
Washington	\$194,278	\$1,214,022	\$425,685	\$103,822	\$120,808	\$2,058,615
Wicomico	\$115,819	\$821,786	\$572,984	\$202,911	\$193,844	\$1,907,344
Worcester	\$37,209	\$165,525	\$113,204	\$47,944	\$51,681	\$415,564
Unknown	\$0	\$0	\$0	\$0	\$3,037	\$3,037
Statewide	\$3,964,589	\$26,689,473	\$16,474,318	\$8,357,791	\$10,815,053	\$66,301,224

Data Source: Behavioral health services claims data for FY18. Based on claims paid through July 31, 2019.

Note: Intensive community-based services per legislation include: case management, psychiatric rehabilitation services, respite care service, and § 1915(i) waiver services. The jurisdiction category of unknown is included to reflect counts of children and young adults whose jurisdiction of residence is unknown. Further study is needed to better understand the specific drivers of these cost disparities.

Table 18b: Expenditures per Child and Young Adult Recipient of Psychiatric Rehabilitation Services, FY18

Jurisdiction	Age Group					All Children and Young Adults
	Birth to 6	7 to 12	13 to 17	18 to 21	22 to 25	
Allegany	\$2,200	\$2,827	\$2,646	\$4,484	\$6,611	\$3,248
Anne Arundel	\$2,528	\$3,026	\$3,056	\$4,455	\$4,614	\$3,316
Baltimore City	\$2,856	\$3,420	\$3,247	\$4,831	\$5,435	\$3,652
Baltimore	\$2,552	\$2,951	\$2,914	\$4,851	\$5,887	\$3,333
Calvert	\$3,007	\$1,741	\$2,324	\$5,957	\$3,117	\$3,040
Caroline	\$1,916	\$3,980	\$3,407	\$5,924	\$9,891	\$4,086
Carroll	\$2,106	\$2,867	\$2,608	\$2,732	\$2,676	\$2,688
Cecil	\$2,935	\$2,851	\$3,166	\$8,840	\$3,638	\$3,149
Charles	\$2,490	\$3,058	\$2,774	\$4,453	\$4,197	\$3,283
Dorchester	\$2,686	\$3,808	\$4,224	\$7,666	\$6,421	\$4,293
Frederick	\$2,571	\$3,197	\$3,169	\$7,957	\$19,662	\$4,154
Garrett	\$65	\$1,141	\$962	\$4,078	\$4,272	\$1,961
Harford	\$2,536	\$3,060	\$2,897	\$3,136	\$8,566	\$3,576
Howard	\$2,155	\$2,349	\$2,382	\$9,108	\$7,697	\$4,375
Kent	\$259	\$4,051	\$2,990	\$4,580	\$10,297	\$4,592
Montgomery	\$2,273	\$2,503	\$2,413	\$7,837	\$6,466	\$3,734
Prince George's	\$2,227	\$3,166	\$2,948	\$4,254	\$5,523	\$3,335
Queen Anne's	\$2,330	\$2,463	\$2,301	\$2,932	\$19,260	\$5,469
Somerset	\$2,420	\$3,670	\$3,080	\$5,916	\$4,187	\$3,424
St. Mary's	\$1,994	\$2,451	\$2,260	\$6,303	\$5,095	\$3,633
Talbot	\$2,061	\$3,459	\$2,710	\$4,138	\$12,118	\$3,831
Washington	\$2,736	\$3,529	\$2,998	\$3,461	\$4,832	\$3,364
Wicomico	\$3,048	\$3,274	\$2,923	\$5,203	\$6,058	\$3,430
Worcester	\$1,618	\$1,761	\$1,490	\$3,425	\$4,307	\$1,898
Unknown	\$0	\$0	\$0	\$0	\$1,519	\$1,519
Statewide	\$2,664	\$3,262	\$3,092	\$5,334	\$6,233	\$3,623

Data Source: Behavioral health services claims data for FY18. Based on claims paid through July 31, 2019.

Note: Intensive community-based services per legislation include: case management, psychiatric rehabilitation services, respite care service, and § 1915(i) waiver services. The jurisdiction category of unknown is included to reflect counts of children and young adults whose jurisdiction of residence is unknown. Further study is needed to better understand the specific drivers of these cost disparities.

C. Total Cost Per Child and Young Adult: All Behavioral Health Services

HG § 7.5–209(b)(3) requests data on the total cost per child or young adult for all behavioral health services provided to the child or young adult. Further study is needed to better understand the specific drivers of these cost disparities.

In FY18, a total of \$495,746,174 was expended on behavioral health services provided to 110,965 child and young adult recipients of PBHS services, at an average cost per person of \$4,466. Total expenditures for this population represent 44.8% of the total PBHS expenditures (\$1,105,899,515) for FY18. As shown in Table 19a, annual PBHS service costs were highest for children 7–12 years (\$159,514,781) accounting for 32% of the total expenditures, while per person costs were highest for children ages 13–17 years (\$5,102 per person) and lowest for children birth through six years (\$2,931 per person). Total per person expenditures varied widely across jurisdictions, ranging from a low of \$2,154 per person in Garrett County to a high of \$5,428 per person in Frederick County. Five jurisdictions, including Baltimore City and Baltimore, Frederick, Howard and Somerset Counties, had average per person expenditures above the state average of \$4,466 (see Table 19b).

Table 19a: Total Expenditures for All PBHS Behavioral Health Services, FY18

Jurisdiction	Age Group					All Children and Young Adults
	Birth to 6	7 to 12	13 to 17	18 to 21	22 to 25	
Allegany	\$403,723	\$1,900,628	\$1,637,424	\$1,024,657	\$2,004,658	\$6,971,091
Anne Arundel	\$2,105,870	\$10,707,661	\$9,393,527	\$4,407,721	\$8,032,359	\$34,647,138
Baltimore City	\$11,317,825	\$46,485,602	\$40,115,223	\$16,843,857	\$24,233,619	\$138,996,127
Baltimore	\$6,878,145	\$32,214,301	\$23,762,255	\$8,537,754	\$12,335,779	\$83,728,234
Calvert	\$256,128	\$1,064,395	\$1,423,965	\$764,924	\$1,037,717	\$4,547,128
Caroline	\$196,907	\$1,236,661	\$1,308,292	\$431,780	\$553,576	\$3,727,216
Carroll	\$654,147	\$2,301,638	\$2,761,540	\$1,140,735	\$2,648,701	\$9,506,760
Cecil	\$696,660	\$3,458,420	\$2,933,178	\$1,568,673	\$1,923,078	\$10,580,010
Charles	\$403,654	\$1,903,423	\$2,990,485	\$1,170,430	\$1,440,706	\$7,908,697
Dorchester	\$287,392	\$1,500,222	\$1,492,256	\$433,038	\$689,198	\$4,402,106
Frederick	\$1,432,072	\$5,940,569	\$8,559,757	\$2,839,899	\$3,383,414	\$22,155,711
Garrett	\$165,255	\$493,131	\$344,146	\$334,235	\$295,662	\$1,632,429
Harford	\$1,234,242	\$5,333,452	\$4,886,823	\$1,954,950	\$3,685,811	\$17,095,279
Howard	\$558,793	\$3,042,180	\$4,328,438	\$2,417,436	\$2,406,824	\$12,753,672
Kent	\$52,264	\$379,368	\$437,797	\$222,814	\$309,320	\$1,401,563
Montgomery	\$2,190,610	\$11,371,638	\$12,837,103	\$6,047,792	\$6,792,627	\$39,239,770
Prince George's	\$2,756,880	\$13,688,568	\$15,793,426	\$6,439,589	\$6,147,943	\$44,826,406
Queen Anne's	\$77,618	\$471,176	\$780,329	\$409,714	\$799,874	\$2,538,712
Somerset	\$449,448	\$2,374,093	\$1,433,508	\$348,794	\$503,090	\$5,108,934
St. Mary's	\$268,079	\$1,044,808	\$1,530,085	\$984,831	\$1,865,385	\$5,693,189
Talbot	\$226,820	\$971,776	\$868,421	\$390,898	\$603,242	\$3,061,156
Washington	\$1,290,953	\$5,634,863	\$5,151,757	\$2,029,939	\$3,318,898	\$17,426,410
Wicomico	\$971,478	\$4,812,075	\$3,994,353	\$1,253,151	\$2,164,478	\$13,195,535
Worcester	\$372,293	\$1,183,859	\$1,285,742	\$736,824	\$998,806	\$4,577,524
Unknown	\$0	\$275	\$160	\$293	\$24,651	\$25,379
Statewide	\$35,247,256	\$159,514,781	\$150,049,990	\$62,734,731	\$88,199,416	\$495,746,174

Data Source: Behavioral health services claims data for FY18. Based on claims paid through July 31, 2019.

Note: Expenditures include all PBHS behavioral health services billed through the Administrative Services Organization (Beacon Health Options), including: inpatient psychiatric hospital, emergency room, residential treatment, residential rehabilitation, crisis residential services, psychiatric rehabilitation, mobile treatment, MH outpatient, MH partial hospitalization, respite care, supported employment, § 1915(i) waiver services, SUD intensive outpatient, SUD court ordered residential, SUD opioid treatment program, SUD laboratory, SUD partial hospitalization, SUD residential (adolescent) and SUD residential pregnant women and children. The jurisdiction category of unknown is included to reflect counts of children and young adults whose jurisdiction of residence is unknown. Further study is needed to better understand the specific drivers of these cost disparities.

Table 19b: Expenditures Per Child and Young Adult for All PBHS Behavioral Health Services, FY18

Jurisdiction	Age Group					All Children and Young Adults
	Birth to 6	7 to 12	13 to 17	18 to 21	22 to 25	
Allegany	\$1,740	\$3,437	\$3,049	\$2,919	\$3,938	\$3,195
Anne Arundel	\$2,348	\$4,000	\$4,235	\$3,658	\$5,039	\$4,033
Baltimore City	\$3,586	\$5,332	\$6,167	\$4,824	\$5,614	\$5,308
Baltimore	\$3,437	\$5,722	\$5,430	\$3,725	\$4,350	\$4,886
Calvert	\$1,791	\$2,648	\$3,891	\$3,695	\$3,043	\$3,117
Caroline	\$1,758	\$3,493	\$4,420	\$2,525	\$3,396	\$3,401
Carroll	\$2,423	\$3,365	\$4,461	\$3,765	\$6,089	\$4,114
Cecil	\$2,497	\$4,112	\$4,184	\$3,700	\$3,416	\$3,768
Charles	\$1,959	\$3,675	\$5,807	\$3,260	\$3,059	\$3,822
Dorchester	\$1,661	\$2,919	\$3,487	\$2,406	\$3,091	\$2,900
Frederick	\$3,501	\$4,619	\$7,373	\$4,671	\$5,475	\$5,428
Garrett	\$1,816	\$2,126	\$1,933	\$3,066	\$1,998	\$2,154
Harford	\$2,683	\$4,004	\$4,379	\$2,922	\$4,188	\$3,836
Howard	\$2,209	\$3,870	\$5,209	\$4,995	\$4,892	\$4,481
Kent	\$1,244	\$2,219	\$2,806	\$2,932	\$3,597	\$2,639
Montgomery	\$2,306	\$3,576	\$4,176	\$4,021	\$4,504	\$3,841
Prince George's	\$2,328	\$3,745	\$4,668	\$3,735	\$3,347	\$3,804
Queen Anne's	\$1,316	\$2,031	\$3,825	\$3,035	\$5,262	\$3,246
Somerset	\$3,539	\$6,183	\$4,926	\$2,623	\$2,977	\$4,628
St. Mary's	\$1,875	\$2,391	\$3,964	\$3,517	\$4,328	\$3,395
Talbot	\$2,549	\$3,483	\$3,488	\$2,833	\$4,676	\$3,463
Washington	\$2,431	\$4,275	\$4,434	\$3,080	\$3,837	\$3,843
Wicomico	\$2,935	\$4,769	\$4,139	\$2,329	\$3,519	\$3,816
Worcester	\$2,012	\$2,557	\$2,701	\$3,364	\$4,162	\$2,892
Unknown	\$0	\$275	\$160	\$146	\$2,241	\$1,692
Statewide	\$2,931	\$4,593	\$5,102	\$3,962	\$4,637	\$4,466

Data Source: Behavioral health services claims data for FY18. Based on claims paid through July 31, 2019.

Note: Expenditures include all PBHS behavioral health services billed through the Administrative Services Organization (Beacon Health Options), including: inpatient psychiatric hospital, emergency room, residential treatment, residential rehabilitation, crisis residential services, psychiatric rehabilitation, mobile treatment, MH outpatient, MH partial hospitalization, respite care, supported employment, § 1915(i) waiver services, SUD intensive outpatient, SUD court ordered residential, SUD opioid treatment program, SUD laboratory, SUD partial hospitalization, SUD residential (adolescent) and SUD residential pregnant women and children. The jurisdiction category of unknown is included to reflect counts of children and young adults whose jurisdiction of residence is unknown. Further study is needed to better understand the specific drivers of these cost disparities.

V. Timing and Admission

A. Length of Time Pending

HG § 7.5–209(b)(5) requests data on the average length of time children and young adults spent: (1) in the hospital emergency room pending psychiatric inpatient hospitalization; and (2) waiting for placement in an RTC from the date of the referral to the date of the placement.

1. Time in Emergency Room

Data relating to time waiting in emergency rooms pending admission to a psychiatric inpatient unit was unavailable for this report. Subsequent to the codification of § 7.5–209, BHA contacted the Health Services Cost Review Commission (HSCRC) and the Maryland Hospital Association (MHA) to obtain this data. The data of interest, however, is not obtainable from the hospital data collected by the HSCRC. Further, while individual hospitals collect this information, the MHA was unable to provide the information on behalf of its members.

2. Wait Time between Referral and Placement in a Residential Treatment Bed

All residential treatment facilities were contacted in June of 2019 and requested to provide data on children and young adults who were admitted in FY18, including dates of referral and dates of placement. Data was obtained from all seven facilities, including the five RTCs⁴ and two RICAs. Table 20 summarizes data for FY18 on the amount of time children and young adult wait from referral to placement in a residential treatment bed. The average wait times are reported for the two-state operated RICAs and for the five RTCs.

Table 20: Time (In Days) between Referral and Placement in a Residential Treatment Bed, FY18

Jurisdiction	# of Facilities	Total Wait Days	# of Admissions	Avg Wait Days	Min Wait Days	Max Wait Days
Baltimore City	1	1,395	28	49.8	13	176
Baltimore County	4	9,823	223	47.4	2	182
Frederick County	1	1,984	50	32.1	7	177
Montgomery	1	1,023	24	46.6	16	107
Total	7	14,225	325	44.0	2	182

Data Source: RTC operational data for FY18.

In FY18, there were a total of 325 admissions to RTCs, including 62 admissions to the two RICAs and 263 to five RTCs. As shown in Table 20, across all RTCs, time waiting between referral and placement ranged from a low of two days to 182 days, with an average wait time of 44 days. Average wait times for placement in a RICA bed averaged 55.4 days compared to 41.5 days in the private, community RTCs.

B. 30-Day Readmissions

HG § 7.5–209(b)(6) requests data on the number of children and young adults who were readmitted for a 30-day admission at: (1) the same hospital; (2) the same RTC; or (3) any other hospital or RTC.

1. 30-Day Readmissions to Psychiatric Inpatient or Residential Treatment Facilities

Table 21 displays the number of 30-readmissions to inpatient psychiatric and residential treatment facilities summarized by age group and jurisdiction in FY18. Of the 9,327 children and young adults discharged from a psychiatric inpatient or RTC, 1,003 were readmitted to either the same RTC (28), inpatient hospital facility (441) or to any other RTC or hospital (534), reflecting a combined 30-day readmission rate of 10.8%. Thirty-day readmissions varied by age with young adults accounting for 46.3% of readmissions, while children 13–17 years and 12 years and under accounted for 32.4% and 19.7% of all 30-day readmissions, respectively. Thirty-day readmission rates varied widely across jurisdictions ranging from a low of 7.1% in Dorchester County to a high of 16.3% in Talbot County. Overall, there were a total of nine jurisdictions, including Baltimore City, Caroline, Cecil, Garrett, Howard, Montgomery, Prince George’s, Talbot, and Washington Counties, with readmission rates higher than the statewide average of 10.8%.

⁴ Community, private RTCs.

Table 21: Number of Child and Young Adult 30-Day Readmissions to Psychiatric Inpatient and Residential Treatment Facilities, FY18

Jurisdiction	Age Group															Total		
	Birth to 6			7 to 12			13 to 17			18 to 21			22 to 25			Same Hosp	Same RTC	Other Hosp or RTC
	Same Hosp	Same RTC	Other Hosp or RTC	Same Hosp	Same RTC	Other Hosp or RTC	Same Hosp	Same RTC	Other Hosp or RTC	Same Hosp	Same RTC	Other Hosp or RTC	Same Hosp	Same RTC	Other Hosp or RTC			
Allegany	0	0	0	1	0	2	1	0	2	4	0	0	5	0	2	11	0	6
Anne Arundel	0	0	0	7	0	7	9	1	9	2	0	4	7	0	12	25	1	32
Baltimore City	2	0	2	25	1	31	28	5	31	21	0	30	20	0	35	96	6	121
Baltimore	3	0	3	15	1	25	15	4	26	10	0	19	15	0	21	58	5	84
Calvert	0	0	0	1	0	2	2	0	3	1	0	1	1	0	1	5	0	6
Caroline	0	0	0	2	0	2	1	0	1	0	0	0	0	0	0	3	0	3
Carroll	0	0	0	3	0	2	4	0	3	2	0	2	2	0	3	11	0	10
Cecil	0	0	0	6	0	4	6	1	2	6	0	2	1	0	1	19	1	9
Charles	0	0	0	0	0	1	2	0	2	2	0	3	1	0	3	5	0	8
Dorchester	0	0	0	1	0	0	0	0	3	0	0	0	0	0	1	1	0	3
Frederick	1	0	0	4	0	1	4	7	7	2	1	7	3	0	4	14	8	16
Garrett	0	0	0	0	0	0	0	0	0	2	0	2	0	0	1	2	0	3
Harford	2	0	0	3	0	4	6	0	8	6	0	3	4	0	5	21	0	19
Howard	0	0	0	4	0	7	5	0	9	4	0	6	3	0	4	16	0	25
Kent	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Montgomery	0	0	0	7	0	13	25	1	25	8	0	13	16	0	27	56	1	75
Prince George's	0	0	2	6	0	3	16	2	12	13	0	24	11	0	14	46	2	55
Queen Anne's	0	0	0	0	0	0	1	0	1	0	0	1	0	0	1	1	0	3
Somerset	0	0	0	0	0	0	3	0	2	1	0	0	0	0	0	4	0	2
St. Mary's	0	0	0	1	1	0	1	0	3	0	0	2	5	0	3	7	1	7
Talbot	0	0	0	0	0	0	3	0	2	0	0	0	1	0	1	4	0	3
Washington	1	0	0	6	0	2	10	2	6	6	0	5	8	0	5	31	2	18
Wicomico	0	0	1	1	0	2	5	1	3	0	0	3	0	0	2	6	1	10
Worcester	0	0	0	0	0	0	0	0	0	3	0	3	2	0	1	5	0	4
Statewide	9	0	7	93	3	102	147	23	155	89	1	126	103	0	145	441	28	534

Data Source: FY18 behavioral health service claims data based on claims paid through July 31, 2019.

2. 30-Day Readmissions to the Same Hospital

In FY18, a total of 9,017 children and young adults were discharged from inpatient psychiatric facilities. Of those discharged, 441 or 4.9% were readmitted to the same hospital within 30 days of discharge. Four jurisdictions, including Baltimore City and Baltimore, Montgomery, and Prince George’s Counties, accounted for 58% of these readmissions. Children ages 13–17 years represented 33.3% of readmissions, while young adults ages 22–25 years accounted for 23.4 (see Table 21).

3. 30-Day Readmissions to RTCs

Statewide, a total of 310 children and young adults were discharged from RTCs in FY18. Of those discharged, 28 or nine percent were readmitted to the same RTC within 30 days of being discharged. Children ages 13–17 years accounted for 82.1% of these readmissions. Three jurisdictions, including Baltimore City, Baltimore County, and Frederick County, represented 67.9% of the children and young adults readmitted to the same RTC’s statewide (see Table 21).

C. Length of Stay

HG § 7.5–209(b)(7) requires data on the average length of stay for children and young adults at (1) an RTC and (2) a psychiatric unit at a hospital.

1. Average Length of Stay at RTCs

Statewide, in FY18, the average length of stay (ALOS) in RTCs was 243 days. As shown in Table 22, ALOS varied by age group with young adults ages 18–21 years having longer stays (305 days) compared to children birth through six years (296 days), 7–12 years (291 days), and 13–17 years, (226 days). RTC lengths of stay differed widely across the State ranging from 36 days in Dorchester County to 361 days in Caroline County. A total of eight jurisdictions had RTC average lengths of stay above the state average of 243 days.

Table 22: Average Length of Stay for Children and Young Adults in Psychiatric Inpatient and Residential Treatment Facilities, FY18

Jurisdiction	Age Group										Statewide ALOS	
	Birth to 6		7 to 12		13 to 17		18 to 21		22 to 25		Inpatient	RTC
	Inpatient	RTC	Inpatient	RTC	Inpatient	RTC	Inpatient	RTC	Inpatient	RTC		
Allegany	6	0	10	288	7	158	5	0	4	0	6	223
Anne Arundel	5	0	8	265	8	192	7	317	6	0	7	218
Baltimore City	8	0	8	235	10	258	8	346	9	0	9	262
Baltimore	9	136	11	306	9	226	7	17	7	0	9	252
Calvert	0	0	9	68	5	196	7	447	6	0	6	221
Caroline	0	0	16	435	15	138	10	0	6	0	13	361
Carroll	10	0	8	115	8	0	6	0	7	0	7	115
Cecil	10	0	11	323	12	200	4	461	4	0	8	243
Charles	0	0	11	58	10	273	6	539	4	0	7	279
Dorchester	0	0	7	0	14	36	5	0	7	0	10	36
Frederick	7	456	8	167	9	186	6	165	5	0	7	189
Garrett	9	0	7	0	5	0	6	0	4	0	6	0
Harford	10	0	9	424	9	183	6	181	5	0	7	236
Howard	7	0	10	268	12	199	7	252	7	0	9	214
Kent	0	0	12	0	8	329	7	0	2	0	9	329
Montgomery	8	0	9	505	8	241	6	420	6	0	7	285
Prince George's	12	0	8	118	11	229	7	351	5	0	8	235
Queen Anne's	0	0	14	0	13	224	5	0	6	0	9	224
Somerset	0	0	9	0	12	162	5	0	3	0	8	162
St. Mary's	4	0	10	21	4	377	6	0	5	0	5	332
Talbot	3	0	7	0	9	0	6	0	24	0	11	0
Washington	7	0	8	371	9	155	8	0	4	0	7	217
Wicomico	8	0	13	295	12	131	6	0	6	0	9	158
Worcester	15	0	10	266	11	168	7	264	12	0	10	232
Statewide ALOS	8	296	9	291	9	226	7	305	7	0	8	243

Data Source: Behavioral health services claims data for FY18. Based on claims paid through July 31, 2019.

Note: RTC ALOS includes private RTCs only. RTC ALOS in 17 out of 24 jurisdictions is based on 10 or fewer discharges and should be considered in interpreting the findings. Psychiatric inpatient hospitals include psychiatric units at general hospitals and private psychiatric treatment facilities.

2. Average Length of Stay at Psychiatric Inpatient Facilities

Statewide, in FY18, the average length of stay in acute psychiatric inpatient hospitals was eight days. As shown in Table 22, length of stays for young adults were slightly shorter (seven days) compared to that for children (eight to nine days). Inpatient hospital ALOS also varied substantially across the State ranging from a high of 13 days in Caroline County to a low of five

days in St. Mary’s County. Nine jurisdictions had ALOS’s above the state average of eight days, while 10 jurisdictions were below the statewide average.

D. Residential Treatment Centers

HG § 7.5–209(b)(8) requests data on the (1) the total number of children and young adults discharged from RTCs, and (2) the number of residents at RTCs at the end of the year who are children or young adults.

1. Psychiatric Inpatient Hospital and Residential Treatment Discharges

Table 23 displays the number of children and young adults discharged from inpatient psychiatric and RTCs summarized by age group and jurisdiction in FY18.

Table 23: Discharges from Inpatient Psychiatric and Residential Treatment Facilities, FY18

Jurisdiction	Age Group										Total	
	Birth to 6		7 to 12		13 to 17		18 to 21		22 to 25			
	Inpatient	RTC	Inpatient	RTC	Inpatient	RTC	Inpatient	RTC	Inpatient	RTC	Inpatient	RTC
Allegany	1	0	25	1	35	1	48	0	57	0	166	2
Anne Arundel	5	0	136	3	197	9	122	1	184	0	644	13
Baltimore City	58	0	380	7	488	59	408	5	502	0	1,836	71
Baltimore	50	1	303	23	486	34	278	1	311	0	1,428	59
Calvert	0	0	19	1	43	3	21	1	21	0	104	5
Caroline	0	0	14	3	20	1	7	0	9	0	50	4
Carroll	4	0	30	1	72	0	35	0	64	0	205	1
Cecil	7	0	60	1	61	7	53	1	39	0	220	9
Charles	0	0	9	1	49	7	33	1	27	0	118	9
Dorchester	0	0	13	0	22	1	8	0	12	0	55	1
Frederick	18	1	67	2	105	38	82	4	66	0	338	45
Garrett	2	0	6	0	8	0	11	0	7	0	34	0
Harford	10	0	73	2	153	6	75	1	94	0	405	9
Howard	5	0	64	1	124	6	83	1	74	0	350	8
Kent	0	0	5	0	4	2	4	0	1	0	14	2
Montgomery	10	0	159	3	449	21	260	2	308	0	1,186	26
Prince George's	8	0	104	1	286	17	238	2	237	0	873	20
Queen Anne's	0	0	3	0	12	1	12	0	12	0	39	1
Somerset	0	0	10	0	25	1	12	0	12	0	59	1
St. Mary's	3	0	14	1	42	7	28	0	46	0	133	8
Talbot	1	0	3	0	27	0	5	0	7	0	43	0
Washington	0	0	96	2	155	5	86	0	98	0	444	7
Wicomico	0	0	32	1	71	5	34	0	45	0	190	6
Worcester	0	0	8	1	16	1	30	1	28	0	83	3
Statewide	200	2	1,633	55	2,950	232	1,973	21	2,261	0	9,017	310

Data Source: Behavioral health services claims data for FY18. Based on claims paid through July 31, 2019.

Note: RTC discharges based on private RTCs only. Inpatient psychiatric hospitals include psychiatric units in general hospitals and private psychiatric hospitals.

Statewide, in FY18 there were a total of 9,327 child and young adult discharges from inpatient psychiatric hospitals (9,017) and RTCs (310) in FY18. The number of children and young adult discharges from psychiatric inpatient and RTCs are summarized by jurisdiction and by age group in Table 23. Children ages 13–17 accounted for the greatest proportion of discharges from both inpatient (32.7%) and RTC (74.8%) services respectively. The number of hospital discharges varied widely across the State with 49.4% occurring in three jurisdictions, including Baltimore

City (20.4%) and Baltimore (15.9), and Montgomery (13%) and Counties. For those discharged from RTC's, three jurisdictions accounted for 56.5% of all discharges, including Baltimore City (22.9%), Baltimore County (19%), and Frederick County (14.5%).

2. Number of Child and Young Adult RTC Residents at the End of the Year

Table 24 presents an end of year (FY18) summary of children and young adults in RTCs by age group and jurisdiction.

Table 24: Number of Children and Young Adult Residents in an RTC at the End of the Year, FY18

Jurisdiction	Age Group					Total
	Birth to 6	7 to 12	13 to 17	18 to 21	22 to 25	
Allegany	0	0		0	0	
Anne Arundel	0				0	13
Baltimore City	0		45		0	51
Baltimore	0	36	30	2	0	68
Calvert	0		0	0	0	
Caroline	0	0		0	0	
Carroll	0	0	0	0	0	0
Cecil				0	0	
Charles	0			0	0	
Dorchester	0	0		0	0	
Frederick	0	0	24	0	0	24
Garrett	0	0	0	0	0	0
Harford	0			0	0	
Howard	0		0	0	0	
Kent	0	0		0	0	
Montgomery	0			0	0	10
Prince George's	0			0	0	11
Queen Anne's	0	0	0	0	0	0
Somerset	0	0	0	0	0	0
St. Mary's	0	0		0	0	
Talbot			0	0	0	
Washington	0	0		0	0	
Wicomico	0	0	0	0	0	0
Worcester	0	0	0	0	0	0
Statewide		57	149		0	213

Data Source: Behavioral health services claims data for FY18. Based on claims paid through July 31, 2019.

Note: Cells with counts less than 10 are grayed out to protect individual privacy.

A total of 213 children and young adults were in an RTC bed as of the end of FY18 (June 30, 2018). These residents were more likely to be between the ages of 13–17 years (70%) and, reside in Baltimore City (23.9%), Baltimore County (31.9%), or Frederick County (11.3%).

VI. Summary and Conclusions

A. Overall PBHS Service Utilization and Expenditures

In FY 2018, there were over two million (2,133,079) children and young adults ages birth through 25 years in the State of Maryland. Nearly two out of every five (39.2%, 836,457) were eligible for PBHS services, of which slightly more than one in 10 (13.3%, 110,965) received one or more behavioral health services in the PBHS. The total annual cost of services for this group was \$495.7 million, or just under one-half (44.8%) of the total PBHS expenditures for the year. More

specifically, the services highlighted in this report accounted for 61% (\$302 Million) of the total PBHS child and young adult expenditure across the State.

B. High Use PBHS Services

This report focused on a few select services, including psychiatric inpatient hospitalization, emergency room services, residential treatment, targeted case management, respite care, § 1915(i) waiver services and psychiatric rehabilitation. Among these services, PRP services were used by more children and young adults (16.5%, 18,299) than any other service and had the highest utilization rates per 1,000 persons eligible at 21.9. Emergency room services (11.7%, 13,041) and inpatient hospitalization (7%, 7,773) were the second and third highest used services and ranked second and third in utilization per 1,000 eligible at 15.6 and 9.3 respectively. PRP services are among the subset of intensive community based services included in this report that are designed to provide intensive treatment and support for children and young adults. In comparison to PRP, fewer children and young adults utilized other intensive community based services such as TCM services (2%, 2,325), Respite Care (<1%, 320) or § 1915(i) Waiver services (<1%, 54). Intensive community based services enable children and young adults to remain in their homes and communities and limit more restrictive and costly services, such as emergency room and inpatient hospital care. Though one of the goals of intensive community services is to limit use of ER and inpatient services, three of the jurisdictions ranked in the top five for PRP utilization per 1,000 eligible also ranked in the top five for emergency room utilization (Allegany, Dorchester, and Somerset Counties) and two jurisdictions ranked in the top five for PRP and inpatient hospitalization (Allegany County and Baltimore City). Allegany County was the only jurisdiction to rank among the top three in utilization per 1,000 eligible for emergency room, inpatient hospitalization and PRP services.

C. High Expenditure PBHS Services

In FY18, the total cost for inpatient hospital services was \$106,256,851 accounting for one-fifth (21.4%) of the total expenditures for children and young adults, the highest annual expenditure among the services reviewed in this report, and the second highest PBHS expenditure overall behind outpatient mental health services with an annual expenditure of \$217,787,980. PRP and residential treatment center (RTC) services had the second and third highest expenditures of the remaining services at \$66,301,224 and \$35,295,132 respectively. In addition to overall expenditures, RTC services, while utilized by only 454 individuals statewide, had the highest per person expenditure (\$77,743 per person) of all the services. In comparison, inpatient hospitalization was second at \$13,670 per person and all other services had expenditures of less than \$5,000 per person.

D. PBHS Service Variability

In addition to the overall use and costs of these PBHS services, this report highlighted the variability in eligibility, service use and expenditures that differ by geographic location and demographic characteristics of children and young adults. Each service provided within the PBHS varied greatly across the State. The rates of eligibility ranged from 22.4% of children and young adults in Carroll County to 63.6% in Baltimore City, while rates of use among those eligible ranged

from 76.4 per 1,000 eligible in Prince George's County to 228.6 per 1,000 eligible in Somerset County, with a state average of 133 per 1,000 eligible. Use of PBHS services were highest in those areas of the State with generally higher poverty and public assistance rates and higher numbers of at risk children and families.

Emergency room rates ranged from 7.7 per 1,000 eligible in Prince George's County to 26.4 per 1,000 eligible in Allegany County, with a statewide rate of 15.5 per 1,000 eligible children and young adults, while inpatient hospitalization rates ranged from a low of 4.8 per 1,000 in Prince George's County to a high of 16.8 per 1,000 in Washington County, with a statewide rate of 9.3 per 1,000 eligible. More than three-quarters (78%) of child and young adult users of hospital emergency room and inpatient services were 13 years or older. Emergency room and inpatient hospital service use rates were highest for females, young adults 22–25 years, and among non-Hispanic, Caucasian individuals.

Hospital readmission rates were also assessed in this study. Readmission rates are widely used as an indicator of the quality and degree of continuity of hospital discharge and follow-up care as well as the effectiveness of the community service system to meet the service needs of individuals requiring more intensive behavioral health care. Thirty-day hospital readmission rates varied across the State from a low of 7.1% in Dorchester County to a high of 16.3% in Talbot County, with a statewide rate of 10.8%. An examination of geographic differences in service use and expenditures, revealed no consistent pattern of service use associated with lower readmission rates or use of hospital inpatient and emergency services. Older children and young adults, 13 years and older and those from minority backgrounds were more likely to be readmitted.

PRP use rates varied widely across the State from 7.1 per 1,000 eligible children and young adults in Montgomery County to 55.1 per 1,000 in Baltimore City, with a state average of 21.9 per 1,000. Use rates were also higher in males (25.1 per 1,000 eligible versus 18.8 per 1,000 eligible) compared females and in African-Americans (40.3 per 1,000 eligible versus 28.2 per 1,000 eligible) compared to non-Hispanic Caucasian users.

The results of this study highlight the need to further identify and better understand the individual, program and service system factors that account for the variation in service rates found in this study. In particular, the wide geographic variation in PRP utilization and the substantially higher use and expenditures compared to other intensive community based services such as TCM and § 1915(i) Waiver services may warrant further future examination.

APPENDIX A

Table A1: Eligibility and Utilization of PBHS Services by Race and Gender, FY18

Race/Ethnicity	Total Number Eligible for PBHS Services		Total Number Receiving PBHS Services		Rate of Utilization Per 1,000 Eligible
	N	%	N	%	
African-American	305,437	36.5%	51,422	46.3%	168.36
Asian	35,797	4.3%	2,688	2.4%	75.09
Caucasian	189,394	22.6%	51,535	46.4%	272.10
Hispanic	6,064	0.7%	712	0.6%	117.41
Native American	4,256	0.5%	1,982	1.8%	465.70
Pacific Islander	1,416	0.2%	225	0.2%	158.90
Unknown	294,093	35.2%	2,497	2.3%	8.49
Total	836,457	100%	110,965	100%	132.66
Gender					
Female	429,349	51.3%	55,054	49.6%	128.23
Male	407,108	48.7%	55,914	50.4%	137.34
Total	836,457	100%	110,965	100%	132.66

Data Source: Behavioral health services claims data for FY18. Based on claims paid through July 31, 2019.

Note: The category of unknown is included to reflect counts of children and young adults whose race/ethnicity is unknown.

Table A2: Inpatient Psychiatric Hospital Services by Race and Gender, FY18

Race/Ethnicity	Total Number Receiving Inpatient Hospital Services		Rate of Utilization Per 1,000 Eligible	Expenditures	
	N	%		Total	Per Child/Young Adult
African-American	3372	43.4%	11.0	\$49,485,121	\$14,675
Asian	269	3.5%	7.5	\$4,563,981	\$16,966
Caucasian	3733	48.0%	19.7	\$46,452,324	\$12,444
Hispanic	114	1.5%	18.8	\$2,688,393	\$23,582
Native American	211	2.7%	49.6	\$2,745,178	\$13,010
Pacific Islander	10	0.1%	7.1	\$91,250	\$9,125
Unknown	73	0.9%	0.2	\$230,604	\$3,159
Total	7773	100%	9.3	\$106,256,851	\$13,670
Gender					
Female	4078	52.5%	9.5	\$53,053,304	\$12,984
Male	3679	47.3%	9.0	\$53,203,547	\$14,430
Total	7773	100%	9.3	\$106,256,851	\$13,670

Data Source: Behavioral health services claims data for FY18. Based on claims paid through July 31, 2019.

Note: The category of unknown is included to reflect counts of children and young adults whose race/ethnicity is unknown.

Table A3: Psychiatric Emergency Room Services by Race and Gender, FY18

Race/Ethnicity	Total Number Receiving Emergency Room Services		Rate of Utilization Per 1,000 Eligible	Expenditures	
	N	%		Total	Per Child/Young Adult
African-American	5,825	44.7%	19.1	\$7,805,722	\$1,340
Asian	378	2.9%	10.6	\$398,005	\$1,053
Caucasian	5,944	45.6%	31.4	\$6,403,276	\$1,077
Hispanic	118	0.9%	19.5	\$164,015	\$1,402
Native American	273	2.1%	64.1	\$358,309	\$1,312
Pacific Islander	21	0.2%	14.8	\$14,033	\$668
Unknown	484	3.7%	1.6	\$298,204	\$619
Total	13,041	100%	15.6	\$15,443,656	\$1,184
Gender					
Female	6,951	53.3%	16.2	\$7,669,442	\$1,104
Male	6,090	46.7%	15.0	\$7,772,122	\$1,277
Total	13,041	100%	15.6	\$15,443,656	\$1,184

Data Source: Behavioral health services claims data for FY18. Based on claims paid through July 31, 2019.

Note: The category of unknown is included to reflect counts of children and young adults whose race/ethnicity is unknown.

Table A4: Residential Treatment Services by Race and Gender, FY18

Race/Ethnicity	Total Number Receiving Residential Treatment Services		Rate of Utilization Per 1,000 Eligible	Expenditures	
	N	%		Total	Per Child/Young Adult
African-American	260	57.3%	0.9	\$20,057,177	\$77,143
Asian	6	1.3%	0.2	\$445,114	\$74,186
Caucasian	169	37.2%	0.9	\$13,531,445	\$80,068
Hispanic	14	3.1%	2.3	\$828,854	\$59,204
Native American	6	1.3%	1.4	\$432,541	\$72,090
Pacific Islander	0	0.0%	0.0	\$0	\$0
Total	454	100%	0.5	\$35,295,132	\$77,743
Gender					
Female	143	31.5%	0.3	\$10,089,830	\$70,558
Male	311	68.5%	0.8	\$25,205,302	\$81,046
Total	454	100%	0.5	\$35,295,132	\$77,743

Data Source: Behavioral health services claims data for FY18. Based on claims paid through July 31, 2019.

Table A5: Targeted Case Management Services by Race and Gender, FY18

Race/Ethnicity	Total Number Receiving Targeted Case Management Services		Rate of Utilization Per 1,000 Eligible	Expenditures	
	N	%		Total	Per Child/Young Adult
African-American	1,011	43.5%	3.3	\$2,163,504	2139.965
Asian	26	1.1%	0.7	\$40,698	1565.3
Caucasian	1,228	52.8%	6.5	\$2,666,252	2171.215
Hispanic	19	0.8%	3.1	\$33,553	1765.962
Native American	38	1.6%	8.9	\$90,937	2393.087
Pacific Islander	4	0.2%	2.8	\$10,866	2716.575
Total	2,325	100%	2.8	\$5,005,811	\$2,153
Gender					
Female	1,031		2.4	\$2,069,051	\$2,007
Male	1,294	44.3%	3.2	\$2,936,760	\$2,270
Total	2,325	0.0%	2.8	\$5,005,811	\$2,153

Data Source: Behavioral health services claims data for FY18. Based on claims paid through July 31, 2019.

Table A6: Respite Care Services by Race and Gender, FY18

Race/Ethnicity	Total Number Receiving Respite Care Services		Rate of Utilization Per 1,000 Eligible	Expenditures	
	N	%		Total	Per Child/Young Adult
African-American	158	49.4%	0.5	\$382,965	\$2,424
Asian	5	1.6%	0.1	\$8,100	\$1,620
Caucasian	147	45.9%	0.8	\$532,708	\$3,624
Hispanic	3	0.9%	0.5	\$5,414	\$1,805
Native American	7	2.2%	1.6	\$28,274	\$4,039
Pacific Islander	0	0.0%	0.0	\$0	\$0
Total	320	100.0%	0.4	\$957,460	\$2,992
Gender					
Female	128	40.0%	0.3	\$394,496	\$3,082
Male	192	60.0%	0.5	\$562,964	\$2,932
Total	320	100%	0.4	\$957,460	\$2,992

Data Source: Behavioral health services claims data for FY18. Based on claims paid through July 31, 2019.

Table A7: § 1915(i) Waiver Services by Race and Gender, FY18

Race/Ethnicity	Total Number Receiving § 1915(i) Waiver Services		Rate of Utilization Per 1,000 Eligible	Expenditures	
	N	%		Total	Per Child/Young Adult
African-American	28	51.9%	0.092	\$120,925	\$4,319
Asian	1	1.9%	0.028	\$5,135	\$5,135
Caucasian	25	46.3%	0.132	\$103,113	\$4,125
Hispanic	0	0.0%	0.000	\$0	\$0
Native American	0	0.0%	0.000	\$0	\$0
Pacific Islander	0	0.0%	0.000	\$0	\$0
Total	54	100%	0.065	\$229,172	\$4,244
Gender					
Female	26	48.1%	0.061	\$103,375	\$3,976
Male	28	51.9%	0.069	\$125,797	\$4,493
Total	54	100%	0.065	\$229,172	\$4,244

Data Source: Behavioral health services claims data for FY18. Based on claims paid through July 31, 2019.

Table A8: Psychiatric Rehabilitation Services by Race and Gender, FY18

Race/Ethnicity	Total Number Receiving Psychiatric Rehabilitation Services		Rate of Utilization Per 1,000 Eligible	Expenditures	
	N	%		Total	Per Child/Young Adult
African-American	12,299	67.2%	40.27	\$45,465,050	\$3,697
Asian	252	1.4%	7.04	\$846,095	\$3,358
Caucasian	5,348	29.2%	28.24	\$18,589,122	\$3,476
Hispanic	104	0.6%	17.15	\$433,411	\$4,167
Native American	274	1.5%	64.38	\$892,381	\$3,257
Pacific Islander	25	0.1%	17.66	\$73,316	\$2,933
Unknown	4	0.0%	0.01	\$1,849	\$462
Total	18,299	100%	21.88	\$66,301,224	\$3,623
Gender					
Female	8,087	44.2%	18.84	\$3,049,518	\$3,765
Male	10,212	55.8%	25.08	\$2,780,761	\$3,956
Total	18,299	100%	21.88	\$66,301,224	\$3,623

Data Source: Behavioral health services claims data for FY18. Based on claims paid through July 31, 2019.

Note: The category of unknown is included to reflect counts of children and young adults whose race/ethnicity is unknown.

APPENDIX B

Behavioral Health System of Care

During the 2019 legislative session, House Bill 846, Senate Bill 482, Maryland Medical Assistance Program—Managed Care Organizations—Behavioral Health Services, proposed to carve in behavioral health services to the HealthChoice Program. These bills were the beginning of an important conversation to bring stakeholders together to try to improve the way behavioral health services are coordinated with somatic services in HealthChoice. In furtherance of this discussion, the Department offered a letter of information that provided the broad outlines of a system of care.

The Senate Finance and House Health and Government Operations Committees requested that Department convene and lead an interim workgroup to examine and make recommendations on how the State should provide, administer, and finance behavioral health in conjunction with the Total Cost of Care Model that increases the coordination and quality of somatic and behavioral health care for Medicaid enrollees, is cost efficient, and promotes access to care. The Committees requested a briefing of this work prior to the 2020 Session. The Department proposed to do this work during the summer and fall of 2019.

The structure of the project should be framed around the following three initiatives:

1. Behavioral Health System of Care Design
2. Behavioral Health Rate Setting (required by the 2017 Hope Act)
3. Commission to Study Mental and Behavioral Health

I. Behavioral Health System of Care Design

The Department convened multiple stakeholder groups to discuss the System of Care design over the remainder of 2019 into 2020 with representatives from the provider, advocate, consumer and legislative communities. The Steering Committee for the System of Care design includes:

- Robert Neall, Secretary of Health
- Dennis Schrader, Chief Operating Officer and Deputy Secretary for Health Care Financing
- Lisa A. Burgess, MD, Acting Deputy Secretary of Behavioral Health
- Jennifer McIlvaine, Director of Finance for Medicaid
- Tricia Roddy, Director, Office of Innovation, Research, and Development, Medicaid
- Jill Spector, Director of Medical Benefits Management, Medicaid
- Cynthia Petion, Deputy Director of Systems Management, Behavioral Health

A working group falls under the Steering Committee. The working group is designed to bring together individuals possessing relevant knowledge and skills who will act either individually or collectively to undertake assigned tasks or activities in order achieve the project's objectives. Preliminary discussions have focused on the design components key to the success of the behavioral health care delivery system, including quality integrated care management, cost management, and behavioral health provider management and network adequacy. Stakeholder discussion groups, below the working group, facilitate conversation with a broader set of stakeholders used to inform the efforts of the working group. The stakeholder discussion groups are as follows: Behavioral Health Community, Managed Care Organizations, Maryland Hospital

Association, and Parity. Each group meets approximately on a monthly basis and the discussions flow upward to the Commission to Study Mental and Behavioral Health.

II. Behavioral Health Rate Setting

In accordance with House Bill 166, Senate Bill 280, Labor and Employment—Payment of Wages—Minimum Wage (Fight for Fifteen) (Chs. 10 and 11 of the Acts of 2019), the Department is required to increase behavioral health provider rates between three and four percent annually until 2026. Additionally, House Bill 1329, Senate Bill 967, Heroin and Opioid Prevention Effort (HOPE) and Treatment Act of 2017 (Chs. 571 and 572 of the Acts of 2017), requires the Department to conduct an independent, cost-driven, rate-setting study to set community provider rates for community-based behavioral health services that includes a rate analysis and an impact study that considers the actual cost of providing community-based behavioral health services. This work should be complete by December 2019.

Following engagement with the behavioral health community, the Department has concluded that work to conduct the cost study will be substantial and require providers to engage in certain preparations to ensure reporting is comprehensive. As a result, completion of the work will require the engagement of a contractor through the State’s procurement system. The Department expects the contractor to be an expert in financial auditing and to provide technical assistance to providers to ensure that the cost reports are completed accurately. The Department is in the process of developing a Request for Information and will procure a contractor. In the interim, mandatory rate increases for community-based behavioral health providers will continue through FY26.

III. Commission to Study Mental and Behavioral Health in Maryland

The Governor signed an executive order on January 10, 2019, that created the Commission to Study Mental and Behavioral Health in Maryland. The Commission provides a forum to coordinate state agencies, local governments, and community partners to establish near-term goals, best practices, and improve the public mental health system.

The Commission’s membership includes members of the executive, legislative, and judicial branches of government, as well as public members who live in Maryland. The Commission is responsible for advising and assisting the Governor in improving access to a continuum of mental health services across the State, reviewing findings reports, conducting regional summits across the State, and submission of an interim report in June 2019 and final report in December 2019. The Commission’s final report must include recommendations for policy, regulations or legislation to improve the statewide, comprehensive crisis response system and ensure parity of resources to meet mental health needs. Discussion of the overall strategic objectives of the behavioral health system of care will derive from the Commission’s work.