



# The Hilltop Institute

*analysis to advance the health of vulnerable populations*

## Medicaid Long-Term Services and Supports in Maryland:

FY 2011 to FY 2014  
Volume 1

The Autism Waiver  
A Chart Book

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*Prepared for  
Maryland Department of Health and Mental Hygiene*



**UMBC**  
AN HONORS UNIVERSITY IN MARYLAND

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# **Chapter 1. Maryland Medicaid Long-Term Services and Supports Overview**

## Chapter 1. Maryland Medicaid Long-Term Services and Supports Overview

The *Medicaid Long-Term Services and Supports in Maryland Chart Book, Volume 1, The Autism Waiver*, is the first in a series of three that explores service utilization and expenditures for Medicaid-funded long-term services and supports in Maryland. Volume 2 explores service utilization and expenditures for Maryland Medicaid's Brain Injury Waiver. Volume 3 provides information on the state's Medicaid Model Waiver.

This chart book provides information about Maryland Medicaid participants who received services through the Autism Waiver in fiscal years (FYs) 2011 through 2014. The Autism Waiver, which became effective July 1, 2001, provides community-based services to individuals from the age of 1 year through the end of the school year in which they turn 21 years old. The waiver enables individuals with Autism Spectrum Disorder and who meet an institutional level of care (Intermediate Care Facility for Individuals with Intellectual Disabilities, or ICF-ID) to be supported in their own homes, community-based settings, or school-based settings. The waiver is authorized under §1915(c) of the Social Security Act and approved by the federal Centers for Medicare and Medicaid Services. It is operated by the Maryland State Department of Education with oversight by Maryland's Medicaid Program.

Services covered under the Autism Waiver include adult life planning, family training, family leave, intensive individual support services, respite care, therapeutic integration, residential habilitation, and environmental accessibility adaptations. Waiver participants receive full Medicaid benefits and are entitled to receive other services under the Maryland Medicaid State Plan. The number of authorized Autism Waiver slots increased from 900 in FY 2013 to 1,000 in FY 2014.

In FY 2014, the Autism Waiver served a total of 1,017 participants, with Medicaid expenditures totaling \$43.8 million, including both state and federal spending. Due to the high demand for Autism Waiver services and a defined number of available waiver slots, Marylanders wishing to receive waiver services must place their names on the Autism Waiver Registry List of Interested Families (registry list). As slots become available, invitations to apply are sent to interested families as their names approach the top of the list.

## Chapter 1. Maryland Medicaid Long-Term Services and Supports Overview continued

### Key Findings

This chart book summarizes demographic, service utilization, and expenditure data for the Autism Waiver for FYs 2011 through 2014. The data are presented through a series of figures that illustrate trends in Autism Waiver utilization with accompanying narrative text.

Notable trends in the data include the following:

- As a result of the increased number of authorized Autism Waiver slots, the waiver served a total of 1,017 participants in FY 2014, 108 more than in FY 2013.
- FY 2014 Autism Waiver participants tend to be White and male. Ninety-nine percent were aged 11 or older.
- The largest percentage (24%) of Autism Waiver participants resided in Montgomery County. Twelve Maryland counties had fewer than ten participants each.
- The average length of stay in the Autism Waiver for FY 2014 was 5 years and 0 months—slightly less than in previous years.
- Total Medicaid expenditures for Autism Waiver participants increased nearly 9 percent from \$40.2 million in FY 2013 to \$43.8 million in FY 2014. Seventy-two percent (\$31.5 million) of these expenditures were for the provision of waiver services.
- FY 2014 average annual total Medicaid expenditures for Autism Waiver participants were \$43,036—a decrease of 2.8% from the previous year.
- Intensive individual support services accounted for the largest percentage (44%) of FY 2014 total Medicaid expenditures for Autism participants and 60% of expenditures for waiver services.
- Intensive individual support services was the most widely used (94% of participants) service in FY 2014. Also widely used were respite care services (83% of participants) and family training (82% of participants).
- The least-used service was intensive family leave; only 13 participants used this service in FY 2014.
- At \$113,423, intensive residential habilitation service had the highest average per person cost of the waiver services.
- There were slight regional variations in the types of waiver services used by waiver participants.
- Fifty-seven FY 2014 Autism Waiver participants aged 21 years and older transitioned to the Community Pathways Waiver in FY 2015.
- At \$4.7 million in FY 2014, Medicaid capitation payments continuously make up the largest proportion of non-waiver services.
- The average FY 2014 residential habilitation user was 15 years old the first time he or she used this service.
- In the year prior to their first use, FY 2014 residential habilitation users utilized intensive individual support services more than any other service.

# Chapter 1. Maryland Medicaid Long-Term Services and Supports Overview continued

## Chart Book Organization

The data in this chart book are presented in two sections.

- **Waiver Participants:** This section includes data on the number of Autism Waiver participants with breakdowns by age, race, gender, county of residence, average length of stay, and reason for leaving the waiver. It also contains data on the number of individuals on the Autism Waiver Registry List of Interested Families, which is a list of individuals interested in receiving waiver services.
- **Medicaid Expenditures and Service Utilization:** This section provides data on expenditures for waiver, non-waiver, and pharmacy services used by participants in the Autism Waiver program. It also contains regional waiver service use and expenditures, as well as per member per month (PMPM) expenditures by participant length of stay in the waiver.

## Data Sources

The information in this chart book was derived from the following data sources:

- **Maryland Department of Health and Mental Hygiene (DHMH) Medicaid Management Information System (MMIS2):** This system contains data for all individuals enrolled in Maryland Medicaid during the relevant fiscal year, including Medicaid eligibility category and fee-for-service claims. All MMIS2 data are warehoused and processed monthly by The Hilltop Institute.
- **DHMH Decision Support System (DSS):** This system, developed by The Hilltop Institute, informs state decision making by providing comprehensive information on Medicaid eligibility, managed care provider enrollment, acute care services and expenditures, and capitation payments.
- **DHMH Long-Term Care and Waiver Services:** This includes the Autism Waiver Registry List of Interested Families.

# Chapter 2.

## Autism Waiver Participants

## Chapter 2. Autism Waiver Participants

### Autism Waiver Participant Demographics

As a result of the FY 2014 increase in the number of waiver slots from 900 to 1,000, the number of individuals served in the waiver increased from 909 in FY 2013 to 1,017 in FY 2014 (Figure 1).

The Autism Waiver population continues to age as a result of the low turnover rate among its participants. In FY 2014, over half (51%) of all participants were aged 16 to 21 and 48% were aged 11 to 15 (Figure 2). There were no waiver participants under the age of 6 in the last four reporting periods. In each of the four reporting periods, male Autism Waiver participants outnumbered females by a ratio of nearly four to one (Figure 3). In FY 2014, almost half (49%) of all Autism Waiver participants were White (Figure 4).

In FY 2014, the largest number of waiver participants resided in Montgomery County. The majority of the counties were home to fewer than 50 participants each (Figure 5).

Autism Waiver participants are being enrolled into the waiver at older ages, likely due to the length of time on the registry list. In the past 4 study periods there were no newly enrolled participants under the age of 6.

In FY 2011, one third (33%) of all newly enrolled participants were aged 6 to 10; however, this percentage decreased to 6% by FY 2014. In FY 2014, 66% of newly enrolled participants were aged 11 to 15 and 28% were aged 16 to 21 (Figure 6).

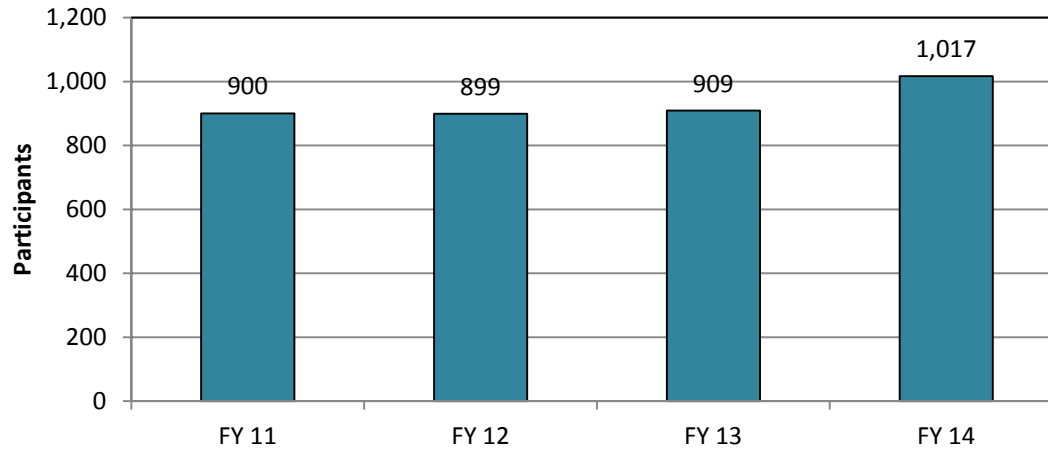
The average length of stay for current Autism Waiver participants was 5 years and 0 months in FY 2014 (Figure 7). Over half of the participants who were disenrolled in FY 2014 were aged 22 or older (Figure 8).

### Autism Waiver Registry List of Interested Families

The number of Marylanders on the registry list as of June 30, 2014 was 3,390 (Figure 9). Geographically, Montgomery County had the highest concentration of registrants (668), followed by Baltimore County (563) and Prince George's County (512) (Figure 11). Nearly half of the registrants on the list were aged 0 to 5 at the time of registration. As of June 30, 2014, 45% of those registrants are now aged 6 to 10 and make up the largest proportion of the registry (Figure 10).

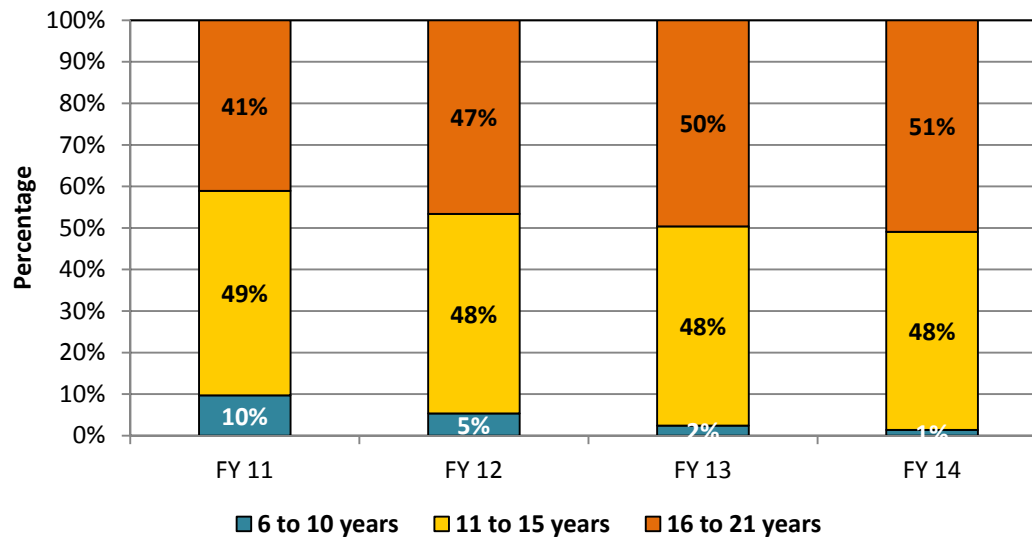


**Figure 1. Unduplicated Number of Autism Waiver Participants**



Source: DSS

**Figure 2. Autism Waiver Participants, by Age Group**



**Note:** There was a small number of FY 2011 and FY 2014 waiver participants over the age of 21. This number is not recorded due to HIPAA regulations.

Source: DSS

The number of Autism Waiver participants increased 11% from 909 in FY 2013 to 1,017 in FY 2014, reflecting the increase in the number of authorized Autism Waiver slots.

As a result of the low turnover rates among Autism Waiver participants, the waiver population is aging. Over half (51%) of the FY 2014 waiver participants were aged 16 to 21, up from 41% in FY 2011. As Figure 2 shows, there have been no waiver participants aged 1 to 5 in the past 4 years.

The average age of Autism Waiver participants in FY 2014 was 16 years and 2 months. The average age of newly enrolled participants was 14 years and 5 months. Participants who disenrolled from the waiver in FY 2014 were, on average, 19½ years old.

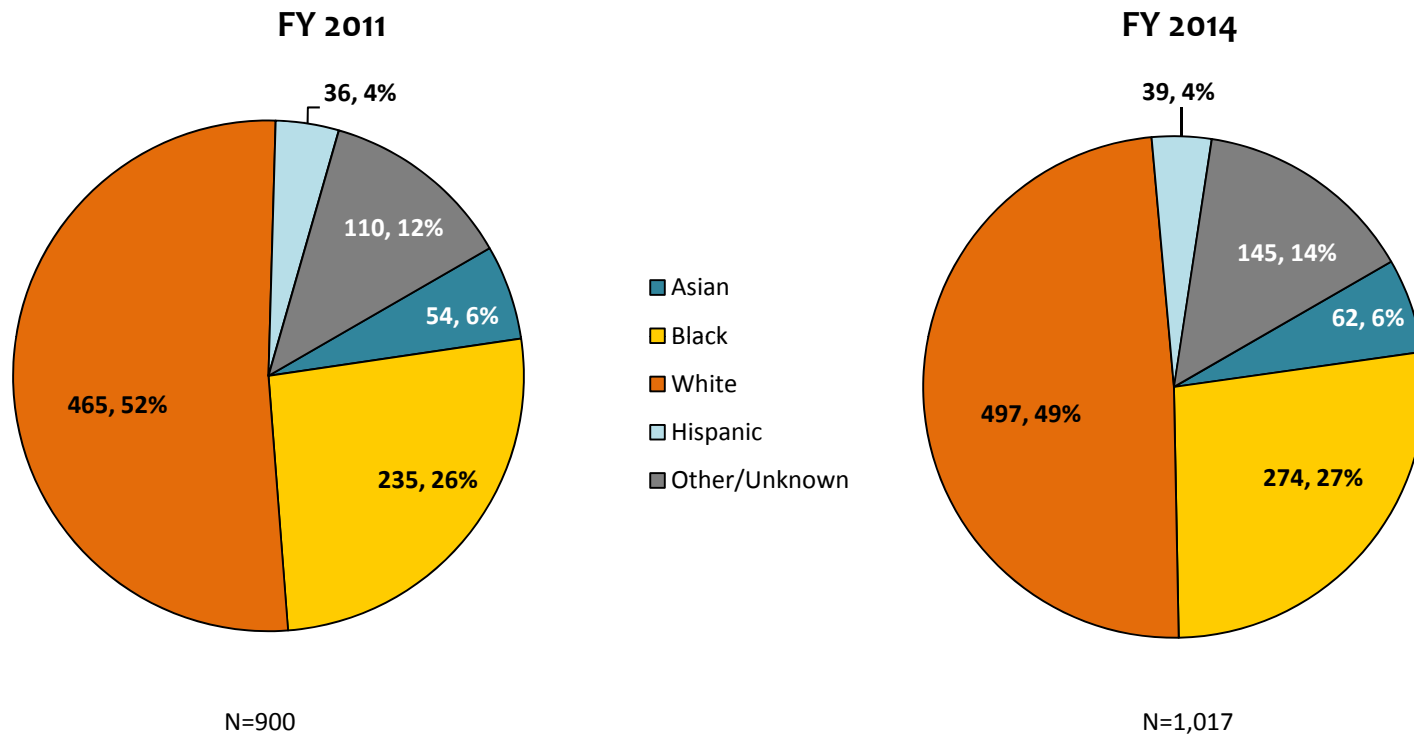
**Figure 3. Autism Waiver Participants, by Gender**

Gender	FY 11	FY 12	FY 13	FY 14
Female	190	190	192	209
Male	710	709	717	808
<b>Total</b>	<b>900</b>	<b>899</b>	<b>909</b>	<b>1,017</b>

Source: DSS

As noted in earlier versions of this chart book, male Autism Waiver participants continue to outnumber female participants. The ratio of male to female participants was nearly four to one in each of the current reporting periods.

**Figure 4. Autism Waiver Participants, by Race, FY 2011 and FY 2014**

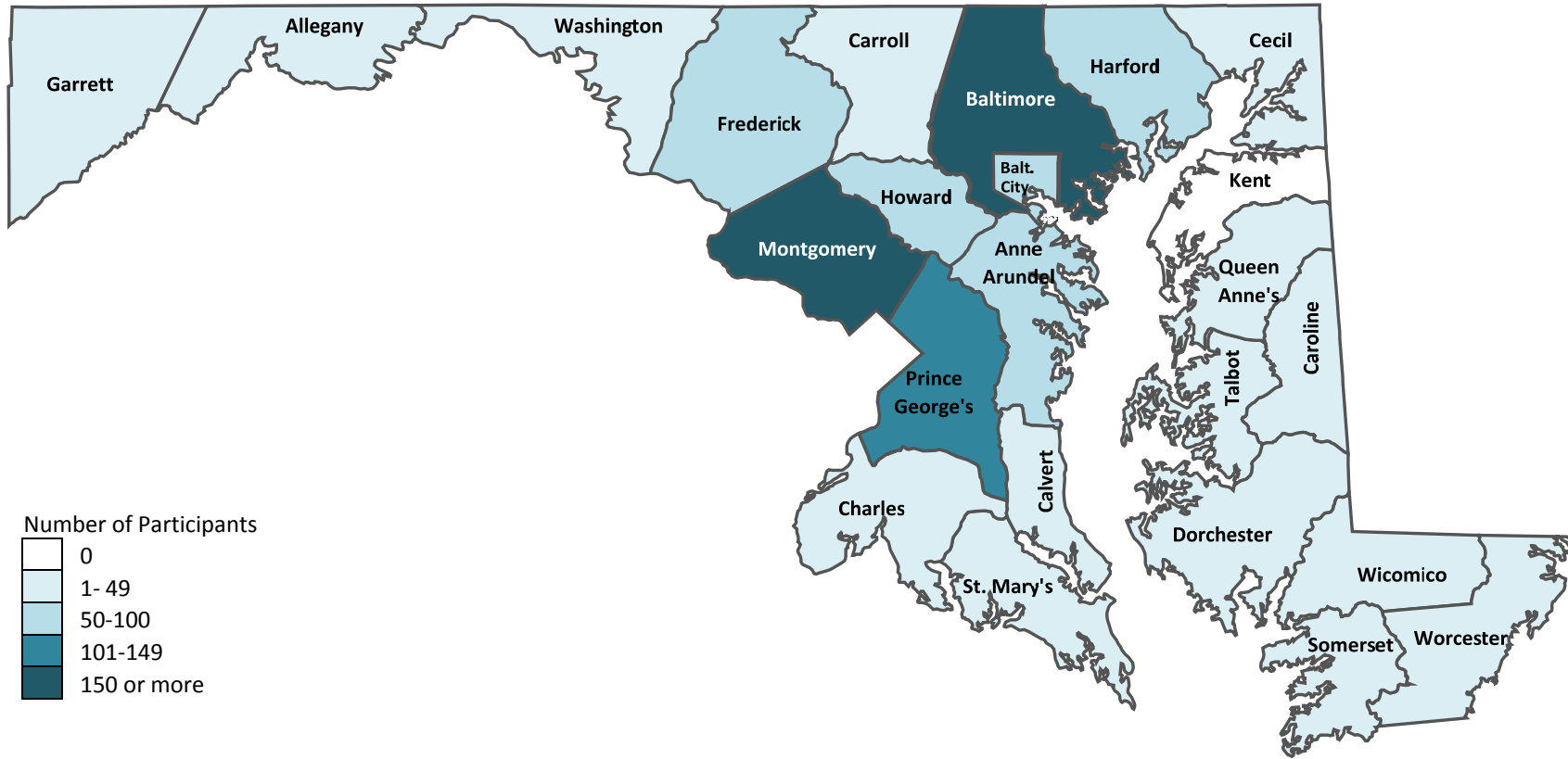


The racial distribution of Autism Waiver participants has remained relatively the same since FY 2011. Whites (49% in FY 2014) continue to make up the largest percentage of Autism Waiver participants.

**Note:** “Other” includes Hispanic and Native American participants. The two groups were combined due to the small number of participants.

**Source:** DSS

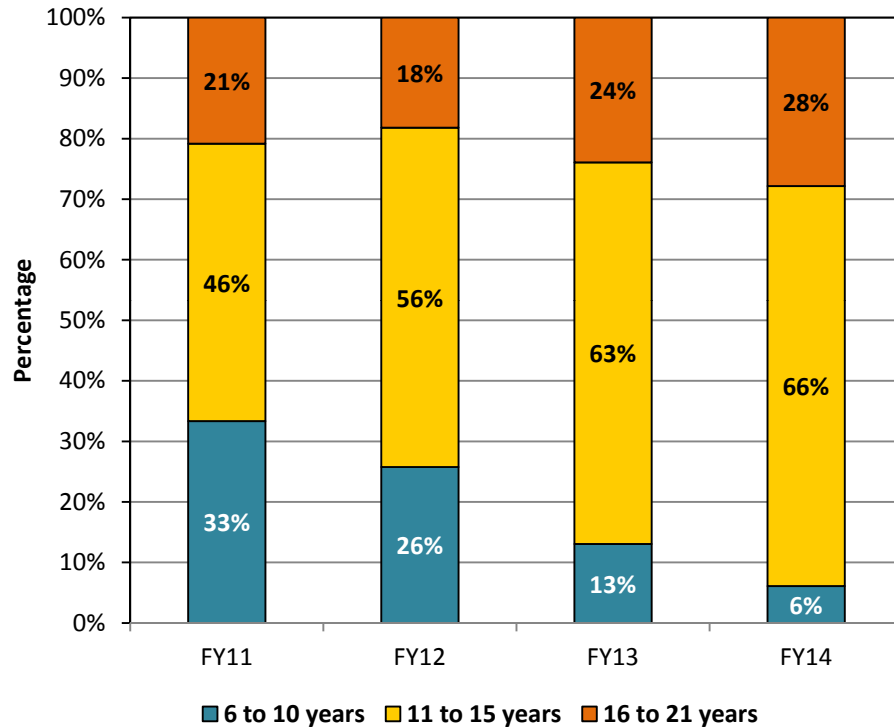
**Figure 5. Number of Autism Waiver Participants, by County, FY 2014**



In FY 2014, the largest number of Autism Waiver participants resided in Montgomery and Baltimore Counties. Fifteen counties had fewer than 50 participants; of these counties, 12 had fewer than 10 participants. No participants resided in Kent County.

Source: DSS

**Figure 6. Autism Waiver New Enrollees, by Age Group**

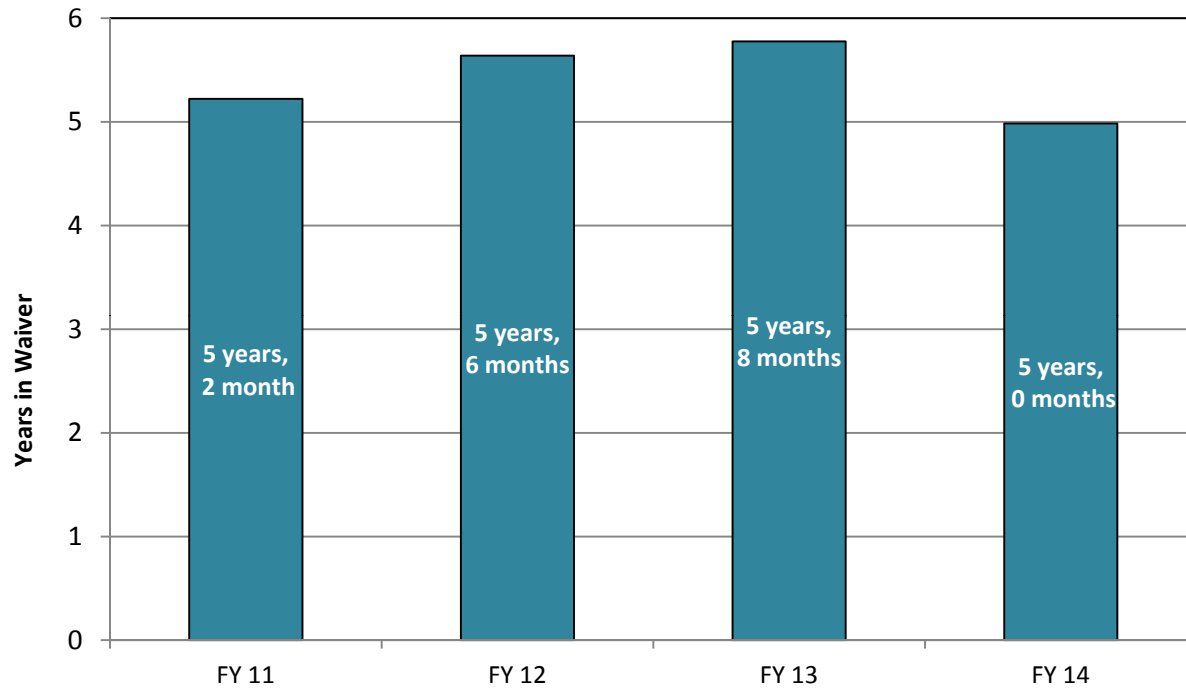


Source: DSS

Newly enrolled Autism Waiver participants are being enrolled in the waiver at older ages. This is likely due to the length of time—generally 7 or 8 years—spent on the registry list before being enrolled in the waiver.

In FY 2014, 66% of all new enrollees were aged 11 to 15, compared to 46% in FY 2011. There were no new enrollees under the age of 6 during this four-year reporting period.

**Figure 7. Average Length of Stay in the Autism Waiver, in Years, for Current Participants**



The average length of stay for Autism Waiver participants decreased slightly, from over 5½ years in FY 2013 to 5 years and 0 months in FY 2014. This is likely due to the significant increase in the number of new enrollees resulting from the FY 2014 increase in waiver slots.

**Note:** Participants enrolled in the Autism Waiver in each fiscal year were identified using each participant’s last Medicaid Autism Waiver eligibility span. Individual participant lengths of stay were calculated from the beginning date of the participant’s last Autism Waiver eligibility span to the last day of each fiscal year (June 30). The lengths of stay for persons still in the waiver on June 30 in a given year were totaled and averaged to obtain the average length of stay for all participants in the waiver on June 30 of that fiscal year.

Source: MMIS2

**Figure 8. Autism Waiver Participant Disenrollment, by Age Group\***

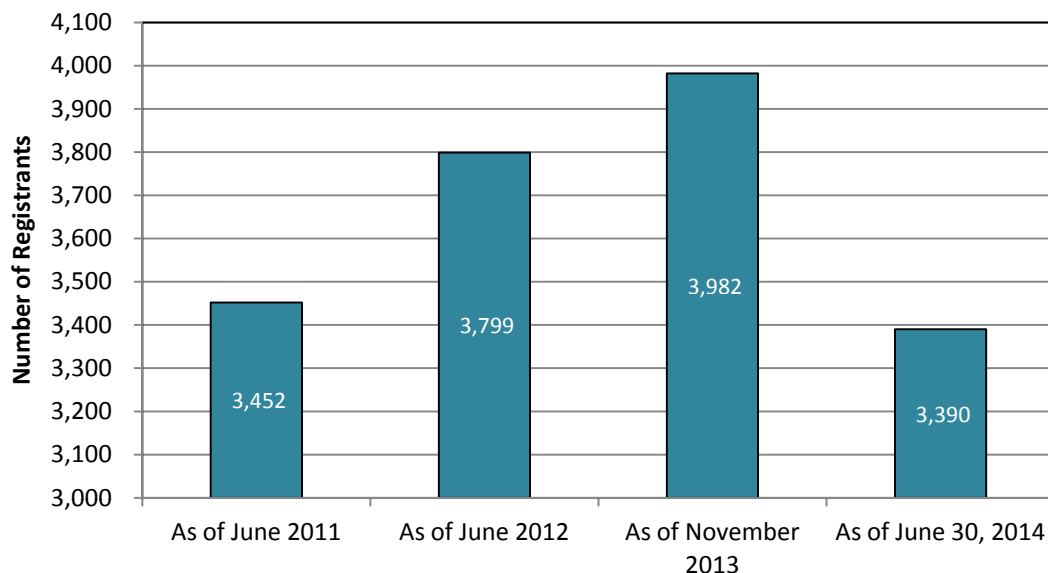
Age Group	FY11		FY12		FY13		FY14	
	Participants	Percentage	Participants	Percentage	Participants	Percentage	Participants	Percentage
6 to 15	13	23%	23	32%	13	19%	*	*
16 to 21	17	30%	22	30%	24	34%	44	*
22+	27	47%	28	38%	33	47%	72	*
<b>Total</b>	<b>57</b>	<b>100%</b>	<b>73</b>	<b>100%</b>	<b>70</b>	<b>100%</b>	<b>*</b>	<b>*</b>

**Note:** Participants with no available age were excluded from this analysis.  
 \*Due to HIPPA requirements, cells with ten or fewer participants are redacted to prevent inadvertent disclosure.

Source: DSS

Of the Autism Waiver participants with reported ages who were disenrolled from the waiver in FY 2014, over half were disenrolled due to “aging out” of the waiver.

**Figure 9. Number of Individuals on the Autism Waiver Registry List**



Source: DSS

As of June 30, 2014, there were 3,390 individuals on the registry list.

Figure 10 shows the age distribution of individuals on the registry list at the time of registration and as of June 30, 2014. Nearly half of all registrants were aged 5 or younger at the time they were placed on the list.

**Figure 10. Number of Individuals on the Autism Waiver Registry List, by Age Group**

Age Group	Time of Registration		As of June 30, 2014	
	Number	Percentage	Number	Percentage
0 to 5	1,658	49%	697	21%
6 to 10	1,161	34%	1,531	45%
11 to 15	517	15%	873	26%
16 to 21	48	1%	283	8%
<b>Total *</b>	<b>3,384</b>	<b>100%</b>	<b>3,384</b>	<b>100%</b>

\*The ages of some individuals on the registry were unavailable.  
Source: DHMH Long-Term Care and Waiver Services

On average, individuals have been on the registry list for 2 2/3 years; some have been on the list less than 1 year and others as long as 6 years.



**Figure 11. Number of Individuals on the Autism Waiver Registry List, by County\***

County	Number on the Registry	Percentage
Allegany	18	0.5%
Anne Arundel	244	7.2%
Baltimore City	333	9.9%
Baltimore County	563	16.7%
Calvert	38	1.1%
Caroline	*	*
Carroll	96	2.8%
Cecil	39	1.2%
Charles	58	1.7%
Dorchester	15	0.4%
Frederick	201	6.0%
Garrett	*	*
Harford	179	5.3%
Howard	210	6.2%
Kent	*	*
Montgomery	668	19.8%
Prince Georges	512	15.2%
Queen Anne's	15	0.4%
Somerset	*	*
St. Mary's	34	1.0%
Talbot	*	*
Washington	72	2.1%
Wicomico	40	1.2%
Worcester	17	0.5%
<b>Total</b>	<b>3,378</b>	<b>100.0%</b>

Of the 3,390 individuals on the registry list, 3,378 indicated a county of residence. Montgomery, Baltimore, and Prince George's Counties had the largest percentage of individuals on the registry list.

**Note:** Registrants on list as of June 30, 2014. Registrants with no county listed or listed as "out of state" were excluded from this analysis.

\*Due to HIPAA requirements, counties with ten or fewer registrants have been redacted to prevent inadvertent disclosure.

**Source:** DHMH Long-Term Care and Waiver Services

# **Chapter 3. Autism Waiver Medicaid Expenditures and Service Utilization**

## Chapter 3. Autism Waiver Medicaid Expenditures and Service Utilization

Total Medicaid expenditures for Autism Waiver participants increased 8.8% from \$40.2 million in FY 2013 to \$43.8 million in FY 2014. Waiver expenditures accounted for 72% of the total Autism Waiver expenditures in FY 2013 and FY 2014 and 73% in FY 2011 and FY 2012 (Figure 12).

Average annual per person Medicaid expenditures for Autism Waiver participants continue to decrease, falling from \$46,458 in FY 2011 to \$43,036 in FY 2014 (Figure 13).

### Service Utilization

Overall, intensive individual support services, therapeutic integration, and intensive residential habilitation were the most costly of the Autism Waiver services used in FY 2014.

The number of Intensive individual support service users increased in each of the four fiscal years. In FY 2014, 961 (94%) of the waiver participants utilized this service, at a cost of \$19.0 million and an average annual per person cost of \$19,808 (Figure 15).

In FY 2014, the number of Autism Waiver participants receiving intensive residential habilitation services was 33, a slight increase from the previous year. At an average cost of \$113,423 per person, this was the most costly per person service provided (Figure 15). The second most widely used service was respite care, with 844 (83% of) waiver participants using this service in FY 2014. Total expenditures

for this service were \$3 million, with an average annual per person expenditure of \$3,526 (Figure 15).

Intensive family leave was the least-used service in FY 2014; only 13 participants used this service, at a total cost of \$70,226 (Figure 15).

Waiver service utilization and expenditures were also analyzed by region. All regions spent the highest proportion of their waiver service dollars on intensive individual support services and also had the highest percentage of waiver participants using this service (Figures 16 and 17). There was great variation in regional spending for the remaining waiver services (e.g., for regular therapeutic integration, Western Maryland spent 22.5% but the Eastern Shore only spent 2.4%) (Figure 16).

The FY 2014 PMPM expenditures on waiver services generally increased the longer a participant was enrolled in the waiver (Figure 18).

Fifty-seven FY 2014 Autism Waiver participants aged 21 years and older transitioned to the Community Pathways Waiver in FY 2015 (Figures 19 and 20).

The average age of first residential habilitation use was 15 years for FY 2014 users (Figure 23). Intensive individual support services were utilized the most in the year prior to this population's first use of residential habilitation (Figures 23 and 24).

## Chapter 3. Autism Waiver Medicaid Expenditures and Service Utilization continued

### Non-Waiver Expenditures

Non-waiver Medicaid expenditures decreased in each of the prior three reporting periods before increasing to \$12.2 million in FY 2014. At \$4.7 million, Medicaid capitation payments—fixed monthly amounts paid to managed care organizations (MCOs) to provide services to Medicaid beneficiaries who are enrolled in the Maryland HealthChoice program—were the costliest of the FY 2014 non-waiver services (Figure 21). Waiver coordination services and medications received from a source other than a pharmacy (i.e., inpatient hospitalization, clinic) were the second and third most costly FY 2014 non-waiver services.

Total Medicaid expenditures for waiver coordination services (initial and ongoing assessments and reassessments) increased from \$1.7 million in FY 2013 to \$1.9 million in FY 2014. FY 2014 expenditures for ongoing assessments totaled \$1.6 million, or 84% of coordination expenditures, and 98% of the participants received this service (Figure 22).

**Figure 12. Medicaid Expenditures for Autism Waiver Participants, by Expenditure Category**

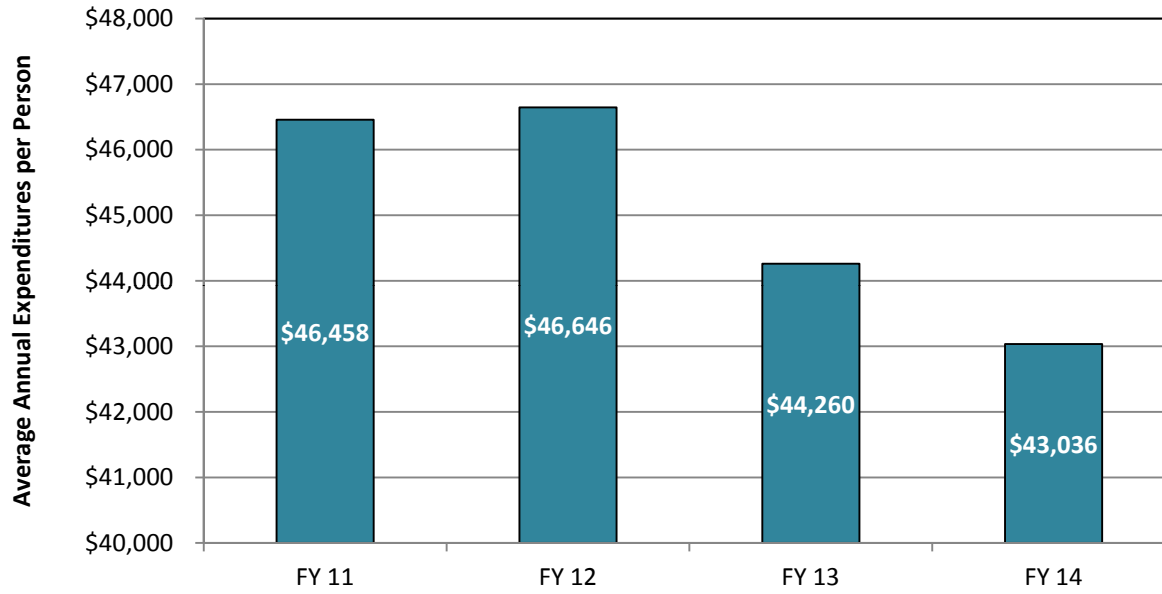
	FY 11	Percentage	FY 12	Percentage	FY 13	Percentage	FY 14	Percentage
<b>Waiver Expenditures</b>	\$30,404,911	73%	\$30,771,310	73%	\$29,106,648	72%	\$31,520,781	72%
<b>Non-Waiver Expenditures</b>	\$11,406,927	27%	\$11,163,799	27%	\$11,125,699	28%	\$12,246,397	28%
<b>Total Expenditures</b>	<b>\$41,811,838</b>	<b>100%</b>	<b>\$41,935,109</b>	<b>100%</b>	<b>\$40,232,348</b>	<b>100%</b>	<b>\$43,767,178</b>	<b>100%</b>

**Note:** Does not include administrative costs.

**Source:** DSS

FY 2014 total Medicaid expenditures for Autism Waiver participants increased 8.8% from the previous year. Medicaid expenditures for waiver services, which composed 72% of the total Autism Waiver expenditures, were \$31.5 million in FY 2014.

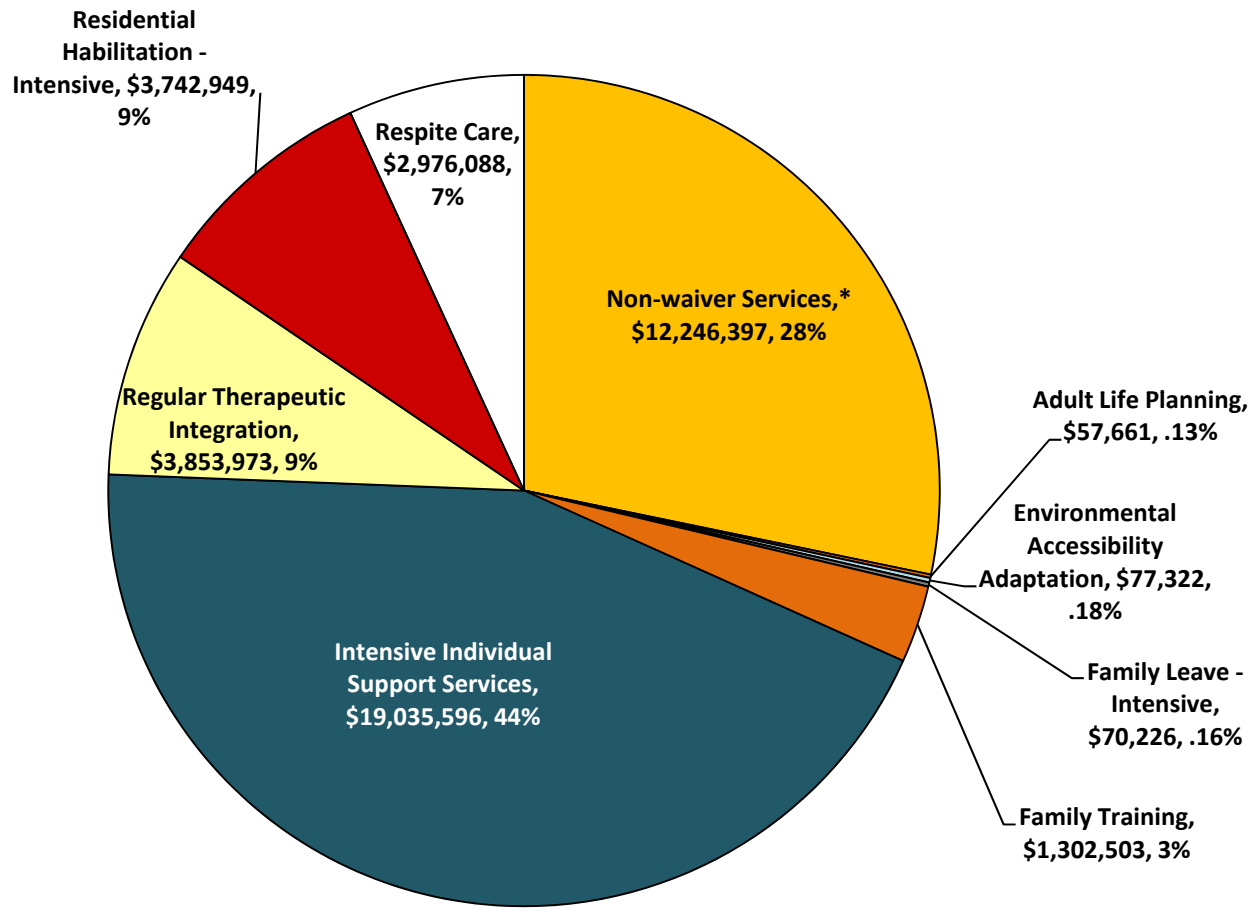
**Figure 13. Average Annual Medicaid Expenditures per Person for Autism Waiver Participants**



FY 2014 average annual per person total Medicaid expenditures were \$3,422 less than in FY 2011.

Source: DSS

**Figure 14. Distribution of Total Medicaid Expenditures for Autism Waiver Participants, FY 2014**



At \$19 million in FY 2014, intensive individual support services accounted for the largest percentage of Medicaid waiver expenditures. Together, intensive family leave, environmental adaptations, family training, and adult life planning services totaled less than 4% of the waiver expenditures.

\* Includes pharmacy expenditures.

**Note:** May not total 100% due to rounding.

**Source:** DSS

**Figure 15. Use of Waiver Services by Autism Waiver Participants, FY 2011 – FY 2014**

Service	FY 11			FY 12			FY 13			FY 14		
	Costs	Users	Average Cost Per Person	Costs	Users	Average Cost Per Person	Costs	Users	Average Cost Per Person	Costs	Users	Average Cost Per Person
Adult Life Planning	\$25,602	52	\$492	\$51,515	82	\$628	\$64,909	111	\$585	\$57,661	104	\$554
Environmental Accessibility Adaptation	\$64,217	66	\$973	\$46,065	46	\$1,001	\$59,380	54	\$1,100	\$77,322	66	\$1,172
Family Leave - Intensive	\$33,794	*	*	\$38,018	*	*	\$8,448	*	*	\$70,226	13	\$5,402
Family Training	\$1,274,375	738	\$1,727	\$1,343,693	731	\$1,838	\$1,221,886	745	\$1,640	\$1,302,503	838	\$1,554
Intensive Individual Support Services	\$18,771,375	850	\$22,084	\$18,909,950	856	\$22,091	\$18,181,777	858	\$21,191	\$19,035,596	961	\$19,808
Therapeutic Integration	\$3,867,117	406	\$9,525	\$4,032,660	417	\$9,671	\$3,558,214	417	\$8,533	\$3,853,973	450	\$8,564
Residential Habilitation - Intensive	\$3,576,478	31	\$115,370	\$3,362,532	*	*	\$3,107,800	25	\$124,312	\$3,742,949	33	\$113,423
Respite Care	\$2,786,537	770	\$3,619	\$2,972,867	767	\$3,876	\$2,902,234	783	\$3,707	\$2,976,088	844	\$3,526

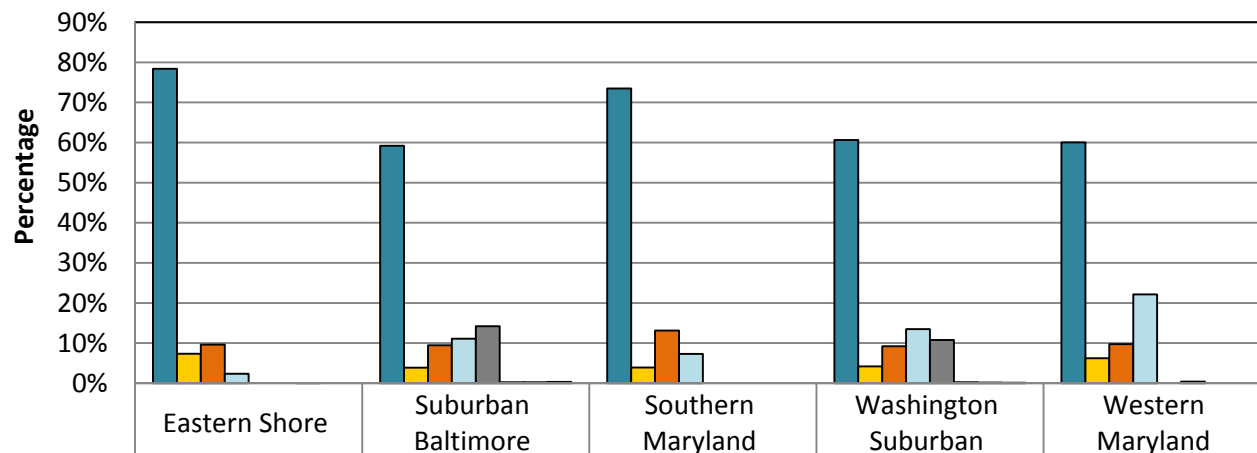
\* Due to HIPAA requirements, cells with ten or fewer participants have been redacted to prevent inadvertent disclosure.

Source: DSS

While intensive individual support (IISS) services was the most costly waiver expenditure in FY 2014, annual per person per year expenditures for intensive residential rehabilitation were nearly six times those for IISS users.



**Figure 16. Regional Autism Waiver Service Expenditure Percentages, FY 2014**



	Eastern Shore	Suburban Baltimore	Southern Maryland	Washington Suburban	Western Maryland
Intensive Individual Support Services	78.4%	59.2%	73.5%	60.6%	60.0%
Family Training	7.3%	3.9%	3.9%	4.2%	6.2%
Respite	9.6%	9.5%	13.1%	9.2%	9.8%
Regular Therapeutic Integration	2.4%	11.1%	7.3%	13.5%	22.2%
Intensive Residential Habilitation	0.0%	14.2%	0.0%	10.8%	0.0%
Environmental Accessibility Adaptations	0.0%	0.3%	0.0%	0.3%	0.4%
Adult Life Planning	0.0%	0.2%	0.0%	0.2%	0.0%
Intensive Family Leave	0.0%	0.3%	0.0%	0.1%	0.0%

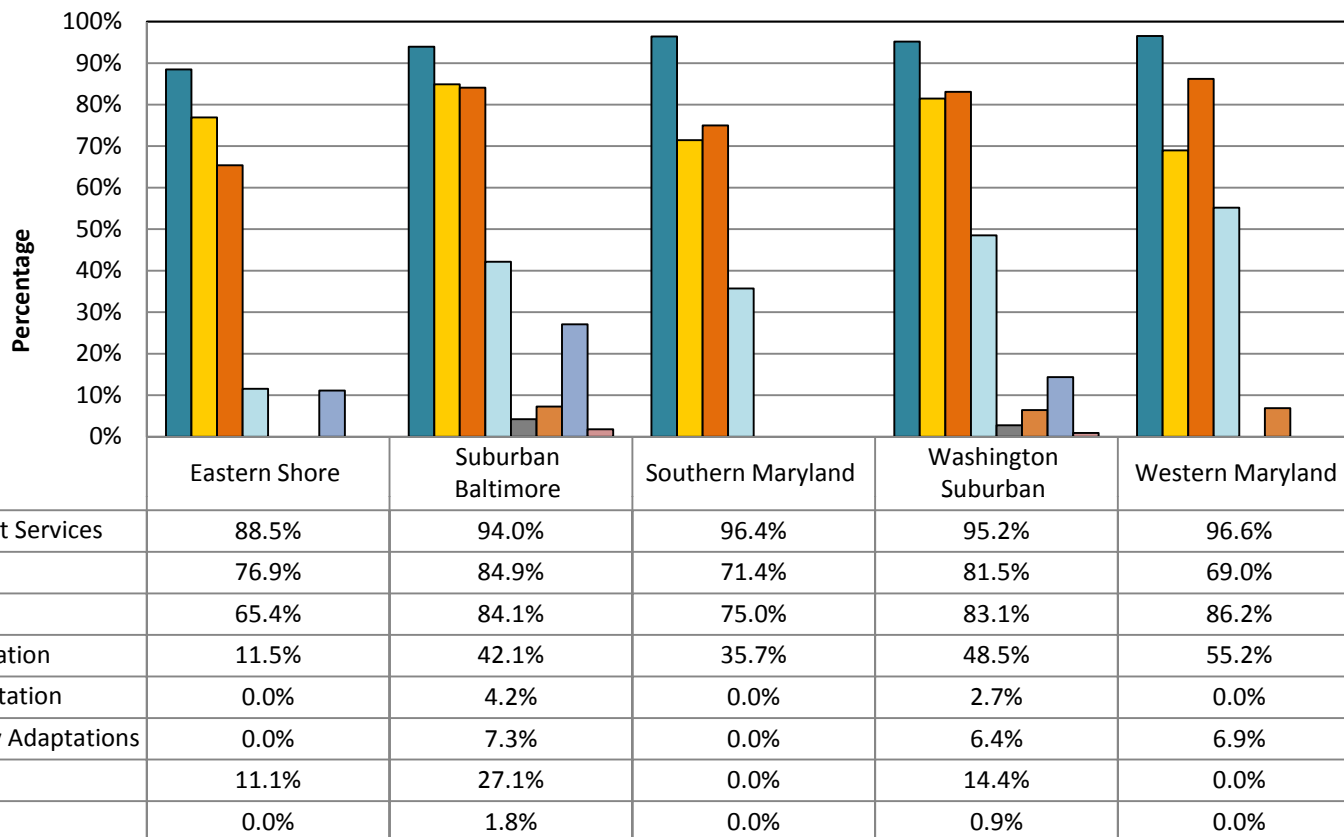
\*Numbers have been rounded to the nearest tenth. Please note the Eastern Shore's expenditures on Adult Life Planning is 0.02% - this does not show due to rounding.

Regions: **Eastern Shore:** Caroline County, Cecil County, Dorchester County, Kent County, Queen Anne's County, Somerset County, Talbot County, Wicomico County, Worcester County; **Suburban Baltimore:** Anne Arundel County, Baltimore County, Baltimore City, Carroll County, Harford County, Howard County; **Southern Maryland:** Charles County, Calvert County, St. Mary's County; **Washington Suburban:** Montgomery County, Prince George's County, Frederick County; **Western Maryland:** Allegany County, Garrett County, Washington County.

Source: DSS

All regions spent the largest proportion of waiver service dollars on intensive individual support services. After that, there is variation from region to region on waiver service expenditures. For example, Western Maryland spent 22.2% on regular therapeutic integration, while the Eastern Shore spent 2.4%. The Eastern Shore, Southern Maryland, and Western Maryland each spent zero dollars on one more waiver services.

**Figure 17. Regional Participant Waiver Service Use, FY 2014**



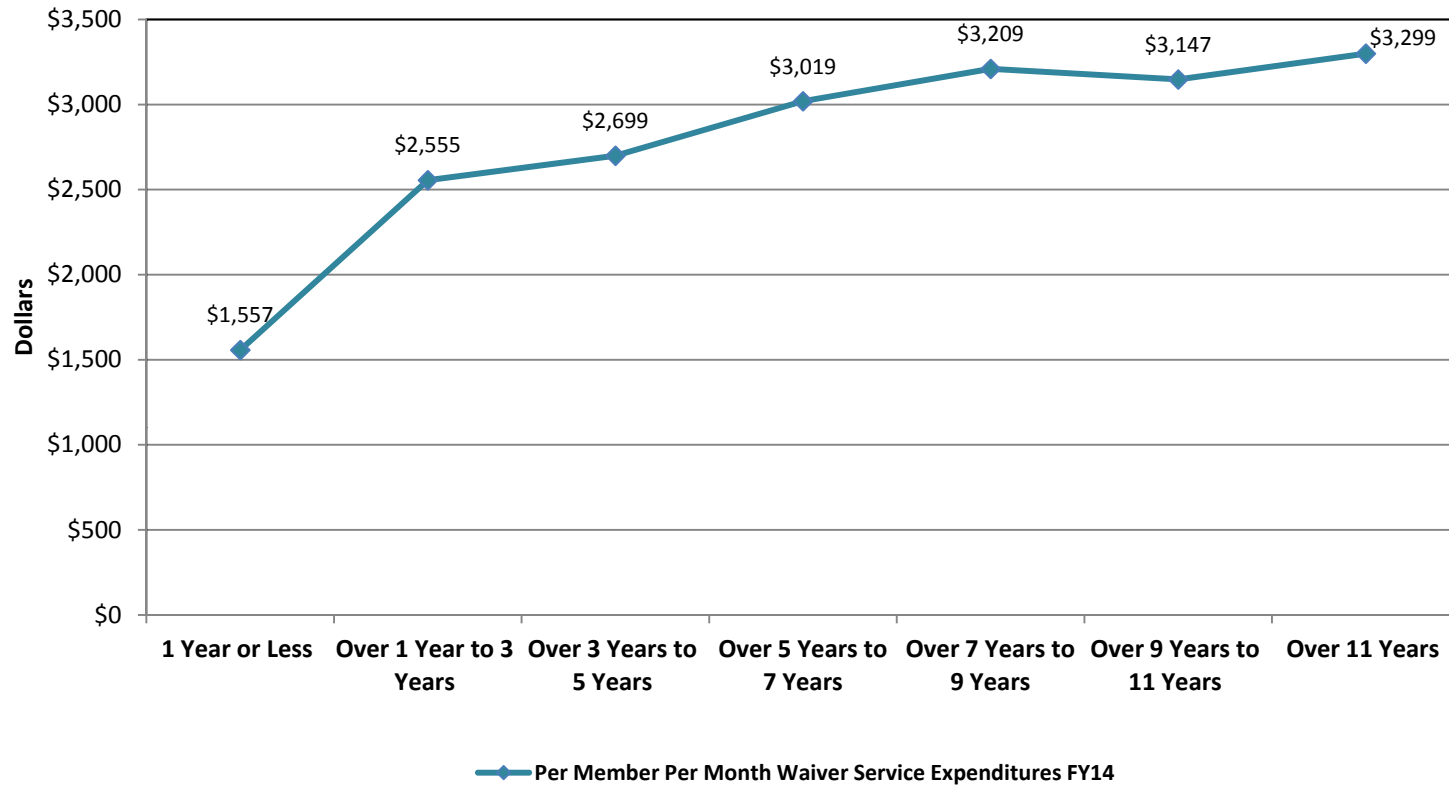
\*The percentage of Adult Life Planning participants is based on participants 16 and older in each region.

Regions: **Eastern Shore:** Caroline County, Cecil County, Dorchester County, Kent County, Queen Anne’s County, Somerset County, Talbot County, Wicomico County, Worcester County; **Suburban Baltimore:** Anne Arundel County, Baltimore County, Baltimore City, Carroll County, Harford County, Howard County; **Southern Maryland:** Charles County, Calvert County, St. Mary’s County; **Washington Suburban:** Montgomery County, Prince George’s County, Frederick County; **Western Maryland:** Allegany County, Garrett County, Washington County.

Source: DSS.

Intensive individual support services was used by the highest proportion of participants in all regions. Family training was the second-most-used service by participants in the Eastern Shore and Suburban Baltimore regions, while respite was the second-most-used service by participants in Southern Maryland, Washington Suburban, and Western Maryland regions. Western Maryland had the highest percentage of participants using regular therapeutic integration (55.2%), while the Eastern Shore had the lowest percentage of participants using this service (11.5%).

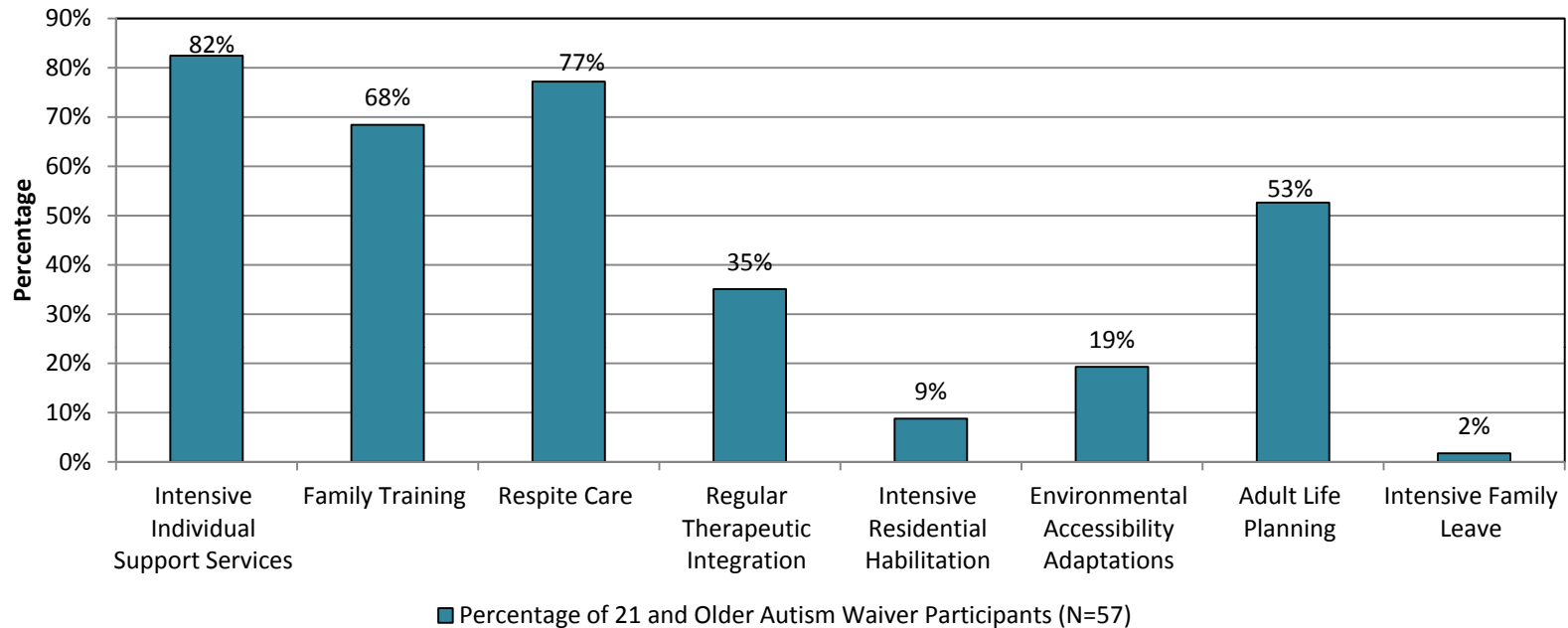
Figure 18. PMPM Waiver Service Expenditures, by Number of Years in Waiver, FY 2014



Source: MMIS

PMPM waiver service expenditures in FY 2014 show an increase the longer a participant has been receiving services in the waiver. Participants who had been in the waiver for 1 year or less had the lowest PMPM.

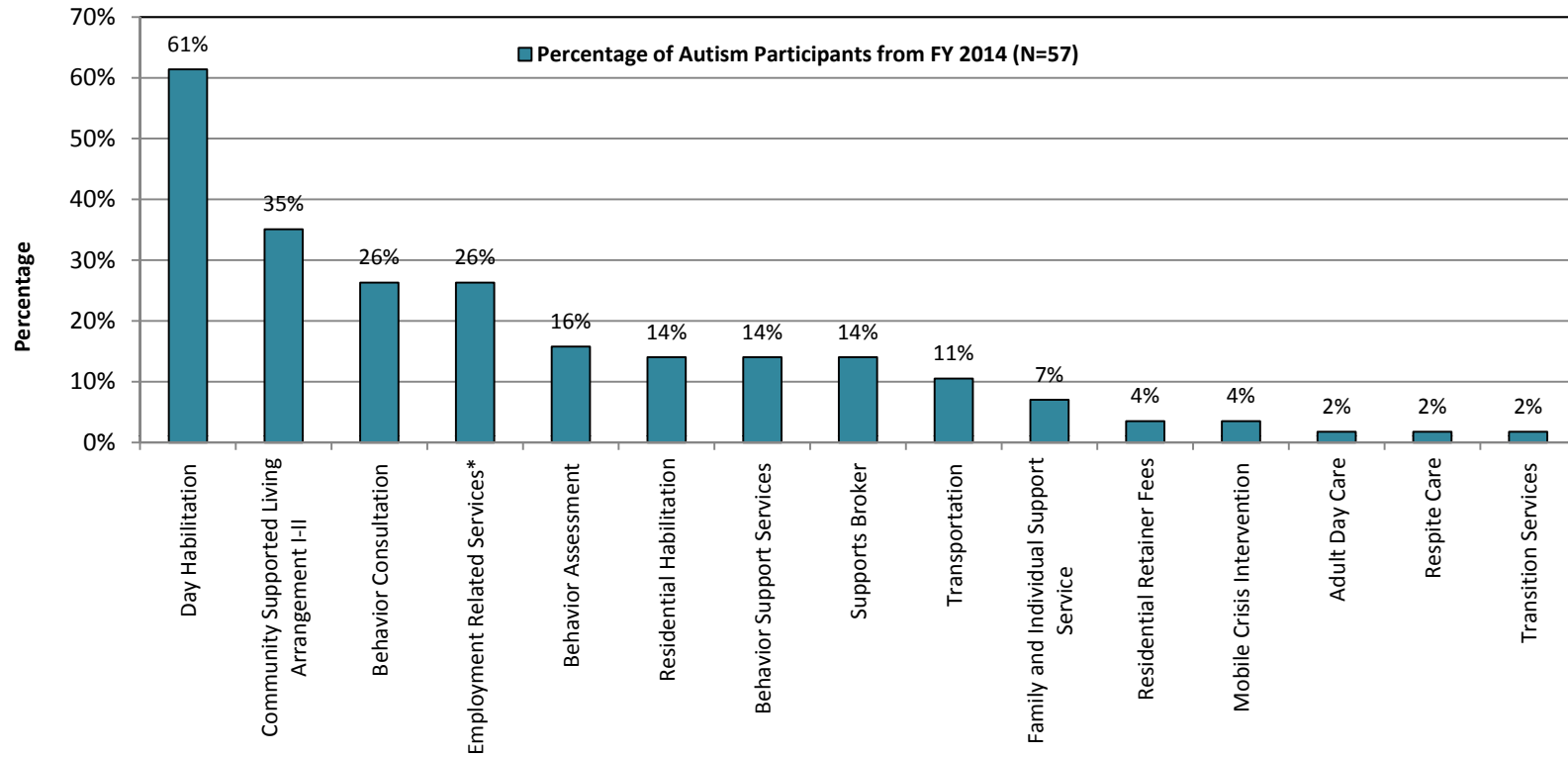
**Figure 19. Service Utilization for Autism Waiver Participants Aged 21 and Older, FY 2014**



Source: MMIS

Service use among participants aged 21 years and older was examined to understand the services older Autism Waiver participants utilized prior to aging out of the waiver. For participants who used intensive individual support services (82% of the waiver participants aged 21 and older), FY 2014 total expenditures for these services was \$2.1 million. The next figure examines this population’s service utilization during their first year in the Community Pathways Waiver.

**Figure 20. Former Autism Waiver Participants<sup>1</sup> Service Usage in FY 2015 in the Community Pathways Waiver**



<sup>1</sup>These are the same participants who were 21 or older during FY 2014 and received Autism Waiver Services that year.

\*Employment-Related Services includes Supported Employment and Community Learning Services.

Source: MMIS

Fifty-seven Autism Waiver participants aged 21 and older who utilized services during FY 2014 transferred to the Community Pathways Waiver in FY 2015. Figure 19 illustrated the services used during this group’s last year in the Autism Waiver. Figure 20 examines the services used by this same group during their first year in the Community Pathways Waiver. Sixty-one percent of these participants utilized day habilitation services, followed by Community Supported Living Arrangements I and II at 35 percent. Both employment-related services and behavior consultations were utilized by 26 percent of this cohort. The combined expenditures for these waiver services for this group in FY 2015 were \$2.8 million.

**Figure 21. Medicaid Non-Waiver Expenditures for Autism Waiver Participants**

Service Category	FY 11	FY 12	FY 13	FY 14
Dental	\$104,518	\$119,053	\$95,602	\$120,517
DME/DMS	\$72,346	\$90,359	\$56,415	\$71,571
Emergency Room	\$2,148	\$1,887	\$4,371	\$2,994
EPSDT Therapeutic Nursery	\$94,892	\$70,563	\$46,145	\$88,733
Home Health/Personal Care	\$132,807	\$119,787	\$185,376	\$224,576
IEP/IFSP School Health Related	\$804,650	\$737,525	\$818,500	\$923,075
Inpatient	\$452,575	\$501,595	\$602,442	\$379,324
MCO Capitation Payments*	\$4,727,862	\$4,513,745	\$4,242,279	\$4,696,483
Medicare Crossover	\$874	\$7,296	\$4,717	\$3,729
Medications**	\$1,470,034	\$1,464,334	\$1,463,359	\$1,728,934
Mental Health	\$3,273	\$8,001	\$9,420	\$11,793
Other***	\$61,166	\$62,467	\$104,496	\$153,309
Outpatient	\$549,805	\$579,258	\$591,005	\$626,885
Pharmacy	\$1,181,290	\$1,232,042	\$1,187,038	\$1,347,162
Transportation	\$63,788	\$61,363	\$56,388	\$46,138
Waiver Coordination	\$1,684,900	\$1,594,525	\$1,658,150	\$1,821,175
<b>Total</b>	<b>\$11,406,927</b>	<b>\$11,163,799</b>	<b>\$11,125,699</b>	<b>\$12,246,397</b>

FY 2014 non-waiver expenditures for Autism Waiver participants totaled \$12.2 million. In keeping with past trends, MCO capitation payments, waiver coordination services, medications, and pharmacy services were the most costly of the non-waiver services in each of the study years.

\* “MCO capitation payments” are fixed monthly amounts paid to MCOs to provide services to enrolled Medicaid participants. Capitation payments are based on actuarial projections of medical utilization. MCOs are required to provide all covered, medically necessary Medicaid services within that capitated amount.

\*\* Medications received from a source other than a pharmacy (i.e., inpatient hospitalization, clinic).

\*\*\* “Other” includes Medicaid non-waiver services other than those listed above and those provided under the waiver that are paid by Medicaid on behalf of Medicaid waiver participants.

Source: DSS

**Figure 22. Use of Medicaid Waiver Service Coordination Expenditures for Autism Waiver Participants**

Autism Waiver Service Coordination												
	FY 11	Users	Average Per Person	FY 12	Users	Average Per Person	FY 13	Users	Average Per Person	FY 14	Users	Average Per Person
Initial Assessment	\$19,500	39	\$500	\$16,500	33	\$500	\$26,500	53	\$500	\$43,500	159	\$274
Ongoing Assessment	\$1,433,850	885	\$1,620	\$1,353,900	885	\$1,530	\$1,418,250	886	\$1,601	\$1,629,450	997	\$1,634
Reassessment	\$231,550	701	\$330	\$224,125	694	\$323	\$213,400	711	\$300	\$259,600	749	\$347
<b>Total</b>	<b>\$1,684,900</b>			<b>\$1,594,525</b>			<b>\$1,658,150</b>			<b>\$1,932,550</b>		

Source: DSS

Waiver coordination services were provided at a total cost of \$1.9 million in FY 2014. Monthly ongoing assessment services were provided to 98% of the FY 2014 waiver participants and accounted for 84% of all waiver service coordination expenditures.

**Figure 23. Summary Statistics for Residential Habilitation Users, FY 2014**

Age/Time in Waiver at First Residential Habilitation Service	Age/Time in Years
Age at first residential habilitation service	
Average age	15
Minimum age	8
Maximum age	20
Time in waiver at first residential habilitation service	
Average number of years	6
Minimum number of years	.02
Maximum number of years	12

**Note:** The first year of residential habilitation use varies for these FY 2014 users.

**Source:** MMIS

FY 2014 residential habilitation users first started receiving residential habilitation services at an average age of 15 years. The youngest of a first-time residential habilitation user was 8 years, while the oldest first-time user was 20 years.

The average time in the Autism Waiver prior to receiving residential habilitation services was 6 years. The shortest time a participant was in the waiver prior to receiving residential habilitation was .02 years, or 9 days, while the longest time was 12 years.



**Figure 24. Service Use in the Year Prior to First Residential Habilitation Use, FY 2014<sup>1</sup>**

Service	Number of Users	Average Units of Service Per User Per Day	Total Units of Service Per Year
Adult Life Planning	*	*	*
Environmental Accessibility Adaptation	*	*	*
Family Training	24	2	721
Intensive Individual Support Services	30	8	38,823
Regular Therapeutic Integration	17	7	12,599
Respite Care	21	8	7,546

<sup>1</sup>Three Community Pathways Waiver services were utilized by a small number of Autism Waiver participants. Not shown due to HIPPA cell size requirements.

\*Due to HIPPA requirements, cells with ten or fewer participants are redacted to prevent inadvertent disclosure.

**Note:** The first year of residential habilitation use varies for these FY 2014 users.

**Source:** MMIS

Six Autism Waiver services were utilized by FY 2014 residential habilitation users in the year prior to their first residential habilitation use (this year varies by participant). Intensive individual support services (IISS) were used by the highest number of participants (30) in the year prior to receiving residential habilitation services.

**Figure 25. Expenditures for Services Used in the Year Prior to First Residential Habilitation Use, FY 2014<sup>1</sup>**

Service	Service Expenditure for Year	Per Member Per Year Service Expenditure
Adult Life Planning	\$1,684	\$421
Environmental Accessibility Adaptation	*	*
Family Training	\$50,096	\$2,087
Intensive Individual Support Services	\$624,582	\$20,819
Regular Therapeutic Integration	\$148,835	\$8,755
Respite Care	\$117,956	\$5,617

<sup>1</sup>Three Community Pathways Waiver services were utilized by a small number of Autism Waiver participants. Not shown due to HIPPA cell size requirements.

\*Due to HIPPA requirements, cells with ten or fewer participants are redacted to prevent inadvertent disclosure.

**Note:** The first year of residential habilitation use varies for these FY 2014 users.

**Source:** MMIS

At \$624,582, IISS had the highest expenditures of the services used prior to an FY 2014 residential habilitation user's first residential habilitation use.

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## **The Hilltop Institute**

University of Maryland, Baltimore County  
Sondheim Hall, 3rd Floor  
1000 Hilltop Circle  
Baltimore, MD 21250

[www.hilltopinstitute.org](http://www.hilltopinstitute.org)