



PERSONNEL AND  
READINESS

UNDER SECRETARY OF DEFENSE  
4000 DEFENSE PENTAGON  
WASHINGTON, D.C. 20301-4000

JUL 17 2023

The Honorable Jack Reed  
Chairman  
Committee on Armed Services  
United States Senate  
Washington, DC 20510

Dear Mr. Chairman:

The Department's response to Senate Report 114-49, pages 157-158, accompanying S. 1376, the National Defense Authorization Act for Fiscal Year (FY) 2016, "Annual Report on Autism Care Demonstration," is enclosed. This report is based on FY 2021 claims data, and is the seventh of these annual reports.

The Autism Care Demonstration (ACD) offers applied behavior analysis (ABA) services for all TRICARE-eligible beneficiaries diagnosed with autism spectrum disorder. ABA services are not limited by the beneficiary's age, dollar amount spent, or number of services provided. The ACD began July, 25, 2014, and was originally set to expire on December 31, 2018. The Department extended the demonstration until December 31, 2028, to determine the appropriate characterization of ABA services as a medical treatment or other modality under the TRICARE program coverage requirements.

ACD participation increased 44 percent from 11,461 beneficiaries in FY 2015 to 16,467 beneficiaries in FY 2021. Program costs increased 148 percent from \$161.5 million (M) in FY 2015 to \$430.3M in FY 2021. The annual report for FY 2021 provides information on the current state of the ACD, including enrollment and costs, and lessons learned. In March 2021, the Defense Health Agency published policy updates that aim to improve the ACD beneficiary services and oversight and accountability of the program. Due to the phased implementation plan of the 2021 ACD policy update, this report does not yet have sufficient data to report on any findings or lessons learned.

Thank you for your continued strong support for the health and well-being of our Service members, civilian workforce, and families. I am sending a similar letter to the Committee on Armed Services of the House of Representatives.

Sincerely,

//signed//

Gilbert R. Cisneros, Jr.

Enclosure:  
As stated

cc:  
The Honorable Roger Wicker  
Ranking Member



UNDER SECRETARY OF DEFENSE  
4000 DEFENSE PENTAGON  
WASHINGTON, D.C. 20301-4000

PERSONNEL AND  
READINESS

JUL 17 2023

The Honorable Mike D. Rogers  
Chairman  
Committee on Armed Services  
U.S. House of Representatives  
Washington, DC 20515

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Sincerely,

//signed//

Gilbert R. Cisneros, Jr.

Enclosure:  
As stated

cc:  
The Honorable Adam Smith  
Ranking Member

# Report to the Committees on Armed Services of the Senate and the House of Representatives



## Comprehensive Autism Care Demonstration Annual Report

**In Response to:** Senate Report 114-49, Pages 157-158, Accompanying S. 1376,  
the National Defense Authorization Act for Fiscal Year 2016

The estimated cost of this report or study for the Department of Defense is approximately \$1,900 in Fiscal Years 2022. This includes \$0 in expenses and \$1,900 in DoD labor.

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# REPORT ON EFFORTS BEING CONDUCTED BY THE DEPARTMENT OF DEFENSE ON APPLIED BEHAVIOR ANALYSIS SERVICES

## INTRODUCTION

This report is in response to Senate Report 114–49, pages 157-158, accompanying S. 1376, the National Defense Authorization Act (NDAA) for Fiscal Year (FY) 2016, which requests a report to the Committees on Armed Services of the Senate and the House of Representatives on the results of the Comprehensive Autism Care Demonstration (ACD). This report is based on FY 2021 claims data, and is the seventh of these annual reports.

“The . . . annual report should include a discussion of the evidence regarding clinical improvement of children with [Autism Spectrum Disorder (ASD)] receiving [Applied Behavior Analysis (ABA)] therapy and a description of lessons learned to improve administration of the demonstration program. In the report, the Department should also identify any new legislative authorities required to improve the provision of autism services to beneficiaries with ASD.”

## BACKGROUND

TRICARE covers multiple services for beneficiaries with ASD. ABA services are covered under the ACD, but other services under the TRICARE benefit include, but are not limited to: speech and language pathology (SLP); occupational therapy (OT); physical therapy (PT); medication management; psychological testing; and psychotherapy. ABA services authorized under the ACD that address the core symptoms of ASD are not limited by the beneficiary’s age, dollar amount spent, number of years of services received, or number of sessions provided; however, ABA services must be driven by clinical necessity. Non-clinical ABA services, or ABA services not targeting the core symptoms of ASD, are not authorized under the ACD. Generally, all ABA services continue to be provided through the Private Sector Care system.

The ACD began July 25, 2014, and consolidated three previous programs.<sup>1</sup> The goal of the ACD is to strike a balance between maximizing access to care while ensuring the highest level of quality and appropriateness of services for beneficiaries. The ACD ensures consistent ABA service coverage for all TRICARE-eligible beneficiaries, including active duty family members (ADFMs) and non-active duty family members (NADFMs) diagnosed with ASD. The ACD was originally set to expire on December 31, 2018. The Department initially extended the demonstration to December 31, 2023, via a Federal Register Notice<sup>2</sup> that was published on December 11, 2017, and it was extended again to December 31, 2028 via a Federal Register Notice published August 4, 2022. The Department is obtaining additional information about which services TRICARE beneficiaries are receiving under the ACD and how to target services

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<sup>1</sup> Notice. “Comprehensive Autism Care Demonstration.” *Federal Register* 79, no. 115 (June 16, 2014) 34291-34296. [www.govinfo.gov/content/pkg/FR-2014-06-16/pdf/2014-14023.pdf](http://www.govinfo.gov/content/pkg/FR-2014-06-16/pdf/2014-14023.pdf).

<sup>2</sup> Notice. “Extension of the Comprehensive Autism Care Demonstration for TRICARE Eligible Beneficiaries Diagnosed With Autism Spectrum Disorder.” *Federal Register* 82, no. 236 (December 11, 2017) 58186-58187. [www.govinfo.gov/content/pkg/FR-2017-12-11/pdf/2017-26567.pdf](http://www.govinfo.gov/content/pkg/FR-2017-12-11/pdf/2017-26567.pdf).

providing the most benefit. The Department is collecting more comprehensive outcomes data to gain greater insight and understanding of the diagnosis of ASD in the TRICARE population.

## **DESCRIPTION OF THE ACD**

Through this reporting period, the ACD offers only ABA services for all TRICARE-eligible beneficiaries diagnosed with ASD by an approved provider. ABA services under the ACD are authorized for the purpose of ameliorating the core symptoms of ASD (deficits in social communication and restrictive, repetitive behaviors). Under the ACD, a Board Certified Behavior Analyst (BCBA), BCBA-Doctorate, or other TRICARE-authorized provider who practices within the scope of his or her State licensure or State certification, referred to as an “authorized ABA supervisor,” plans, delivers, and supervises an ABA program. The authorized ABA supervisor can deliver ABA services under either the sole provider model or tiered-delivery model.

The TRICARE Operations Manual (TOM) Chapter 18, Section 4, “Department of Defense (DoD) Comprehensive Autism Care Demonstration (ACD),” provides guidance to all TRICARE contractors on how to execute the benefit under the demonstration authority. The TOM describes: beneficiary eligibility, referral, and authorization requirements; provider eligibility requirements; outcome measure requirements; covered services and reimbursement rates; documentation requirements; exclusions; and contractor responsibilities.

The Defense Health Agency (DHA) acknowledges the ACD has been largely focused on the implementation of ABA services; however, since the ACD is a comprehensive demonstration, DHA is directing efforts toward incorporating all available medically or psychologically necessary and appropriate services for children diagnosed with ASD and supporting the family.

DHA published a comprehensive revision to the demonstration on March 23, 2021. The revision focuses on providing enhanced beneficiary and family support, incorporating all appropriate services and resources into a comprehensive plan, improving outcomes, encouraging parental involvement, and improving utilization management controls. This update also includes expanded coverage of certain Adaptive Behavior Services (ABS) for the delivery of ABA services to TRICARE-eligible beneficiaries diagnosed with ASD. These revisions will also improve the quality of, and access to, care and services, and will also improve management and accountability of both the contractors and the ABA providers. The revisions were phased in over a 270-day implementation plan. These improvements are discussed below.

## **UTILIZATION TRENDS**

The following information was generated using TRICARE private sector care claims data from the last seven FYs (FY 2015-FY 2021) for which full year data is available for the ACD. All claims data examined in this report was extracted from the Military Health System (MHS) Data Repository (MDR) on February 3, 2022, and our results are based upon data entered into the MDR by that date.

## TRICARE ACD Program Participants Per FY

At the end of FY 2021, there were 16,467 beneficiaries with a diagnosis of ASD participating in the ACD: 12,255 ADFMs and 4,212 NADFM (Table 1). This number reflects a 44 percent increase in total participants from the FY 2015 level (11,461): a 31 percent increase for ADFMs (9,178) and 80 percent increase for NADFM (2,283). Each FY number does not represent cumulative participation. Rather, each FY represents the total number of unique beneficiaries who had a claim filed during that year. As noted in each quarterly report, while several hundred referrals are submitted each month, many beneficiaries also discontinue services throughout the year.

Table 1 – Historical Number of TRICARE ADFM/NADFM ACD Program Participants per FY

Year	Number of Participants	% Growth in Participants from Prior FY
<b>ADFM Participants</b>		
FY 2015	9,178	--
FY 2016	10,321	12%
FY 2017	10,596	3%
FY 2018	11,098	5%
FY 2019	11,964	8%
FY 2020	12,143	1%
FY 2021	12,255	1%
<b>NADFM Participants</b>		
FY 2015	2,283	--
FY 2016	3,070	34%
FY 2017	3,431	12%
FY 2018	3,850	12%
FY 2019	4,037	5%
FY 2020	4,161	3%
FY 2021	4,212	1%
<b>Total Participants</b>		
FY 2015	11,461	--
FY 2016	13,391	17%
FY 2017	14,027	5%
FY 2018	14,948	7%
FY 2019	16,001	7%
FY 2020	16,304	2%
FY 2021	16,467	1%
Source: MDR Data as of February 3, 2022		

## Age Distribution of ACD Program Users for FY 2021

Table 2 presents a distribution by beneficiary age and category (ADFM and NADFM) using TRICARE ACD services during FY 2021. Across both beneficiary categories, 98.9 percent of ACD beneficiaries are younger than age 21 and 86.8 percent are age 13 and younger (see Table 2); 92 percent of ADFMs and 72.1 percent of NADFM are age 13 or younger (see



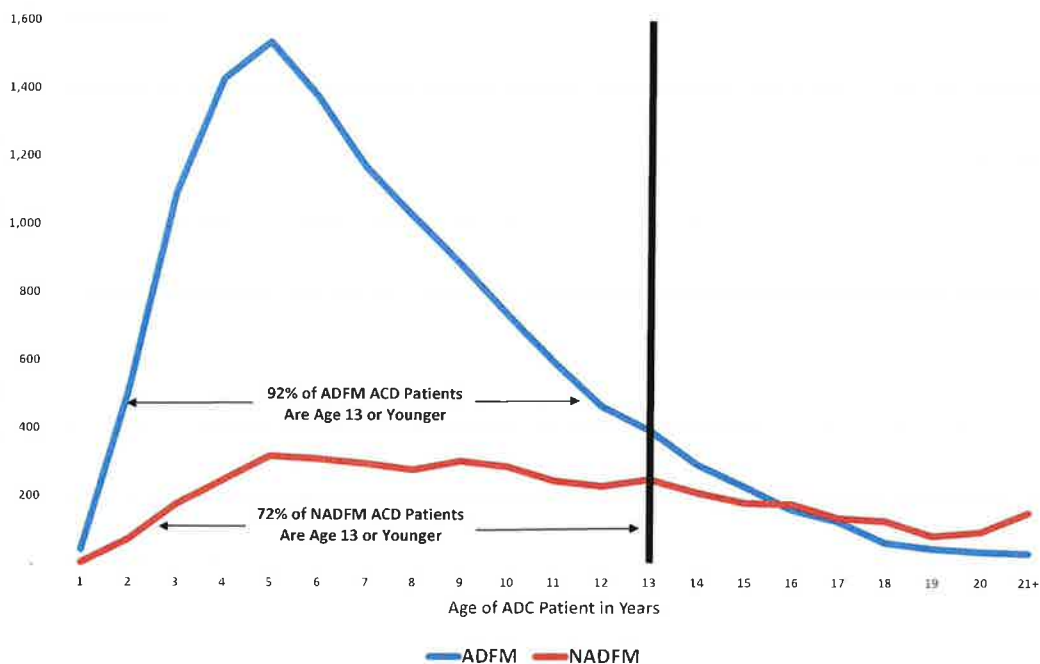
Figure 1). The median participant age is 7 years, the average age is 8.2 years, and the most common age (mode) of participating beneficiaries is 5 years. Roughly 4 out of 5 beneficiaries diagnosed with ASD participating in the ACD are male. ADFM beneficiaries tend to be younger than NADFM, with a median age of 7 years (mean of 7.4) versus 10 years (mean of 10.5) for NADFM.

Table 2 – FY 2021 Distribution of ADFM/NADFM TRICARE ACD Participants by Age

Age	Number of ACD Participants			Cumulative Percent Distribution
	ADFM	NADFM	Total	Total
1	42	5	47	0.3%
2	513	75	588	3.9%
3	1,090	177	1,267	11.6%
4	1,429	249	1,678	21.7%
5	1,537	319	1,856	33.0%
6	1,375	311	1,686	43.3%
7	1,168	297	1,465	52.1%
8	1,024	279	1,303	60.1%
9	883	305	1,188	67.3%
10	736	288	1,024	73.5%
11	597	248	845	78.6%
12	466	232	698	82.9%
13	396	251	647	86.8%
14	295	213	508	89.9%
15	230	182	412	92.4%
16	162	179	341	94.4%
17	128	138	266	96.1%
18	65	129	194	97.2%
19	48	85	133	98.1%
20	38	97	135	98.9%
21+	33	153	186	100.0%
<b>Total</b>	12,255	4,212	16,467	
Median Age	7	10	7	
Mean Age	7.4	10.5	8.2	
Mode Age	5	5	5	
% males	78%	78%	78%	

Source: MDR Data as of February 3, 2022

Figure 1 – ACD Age Distribution FY 2021



ABA Program Costs Per FY

Total Government costs for the ACD increased 166 percent from FY 2015 to FY 2021 (\$161.5 million (M) in FY 2015 and \$430.3M in FY 2021) (see Table 3). Government costs for ADFMs increased 148 percent from FY 2015 to FY 2021 (\$132.1M in FY 2015 and \$328.3M in FY 2021) and 247 percent for NADFM (\$29.4M in FY 2015 to \$102.0M in FY 2021). Of note, effective October 1, 2015, the maximum Government payment or annual cap for ABA services of \$36,000.00 was lifted, and all beneficiary cost sharing, deductibles, and enrollment fees were aligned with the TRICARE Basic Program. Effective January 1, 2019, all ABA services rendered on the same day became subject to only one copayment for ABA services per day. Additionally, all assessment services rendered within the authorized period are subject to only one copayment. These changes protect beneficiary costs when multiple ABA services are rendered per day and when assessments are conducted over a two-week period. The annual catastrophic cap protections apply to all ABA services for beneficiaries participating in the ACD.

Table 3 – Historical Government Expenditures for TRICARE ADFM/NADFM ACD Program Participants

FY	Dollars in Millions	% Growth in Dollars from Prior FY
<b>ADFM</b>		
FY 2015	\$132.1	--
FY 2016	\$185.6	41%
FY 2017	\$210.1	13%
FY 2018	\$246.9	17%
FY 2019	\$289.9	17%
FY 2020	\$306.4	6%
FY 2021	\$328.3	7%
<b>NADFM</b>		
FY 2015	\$29.4	--
FY 2016	\$46.5	58%
FY 2017	\$58.2	25%
FY 2018	\$73.4	26%
FY 2019	\$87.1	19%
FY 2020	\$92.8	6%
FY 2021	\$102.0	10%
<b>Total</b>		
FY 2015	\$161.5	--
FY 2016	\$232.1	44%
FY 2017	\$268.3	16%
FY 2018	\$320.2	19%
FY 2019	\$376.1	17%
FY 2020	\$399.1	6%
FY 2021	\$430.3	8%
Source: MDR Data as of February 3, 2022		

The average cost per participant has increased a total of 85 percent from FY 2015 to FY 2021. Average ADFM cost per ACD participant (see Table 4) increased 86 percent from \$14,393.00 in FY 2015 to \$26,789.00 in FY 2021. Average NADFM expenditures per ACD participant increased 88 percent from \$12,878.00 in FY 2015 to \$24,217.00 in FY 2021.

Table 4 – Historical Government Expenditures per Participant for TRICARE ADFM/NADFM ACD Program per FY

FY	Dollars per Participant	% Growth in Dollars from Prior FY
<b>ADFM Participant Expenditures</b>		
FY 2015	\$14,393	--
FY 2016	\$17,986	25%
FY 2017	\$19,829	10%
FY 2018	\$22,243	12%
FY 2019	\$24,154	9%
FY 2020	\$25,230	4%
FY 2021	\$26,789	6%
<b>NADFM Participant Expenditures</b>		
FY 2015	\$12,878	--
FY 2016	\$15,143	18%
FY 2017	\$16,951	12%
FY 2018	\$19,075	13%
FY 2019	\$21,584	13%
FY 2020	\$22,290	3%
FY 2021	\$24,217	9%
<b>Total Participant Expenditures</b>		
FY 2015	\$14,091	--
FY 2016	\$17,335	23%
FY 2017	\$19,125	10%
FY 2018	\$21,427	12%
FY 2019	\$23,505	10%
FY 2020	\$24,480	4%
FY 2021	\$26,131	7%
Source: MDR Data as of February 3, 2022		

Annual Expenditure Ranges in FY 2021

In the past, there was interest in the percentage of ACD participants using ABA services who were exceeding the historical \$36,000 fiscal year cap on expenditures. While the ACD no longer has annual expenditure limits, the \$36,000 cap can serve as a historical benchmark to evaluate the distribution of annual expenditures by ACD program beneficiaries.

In FY 2021, 26 percent of ACD users (4,252 of 16,467) had expenditures exceeding \$36,000, including 27 percent of ADFMs (3,261 of 12,255 users) and 24 percent of NADFM (991 of 4,212 users) (see Table 5). Beneficiaries who exceeded the \$36,000 increased by 15 percent from FY 2020 to FY 2021 (3,708 in FY 2020 to 4,252 in FY 2021). These values increased significantly from FY 2015 when 9.9 percent of ADFMs and 10.0 percent of NADFM had annual expenditures that exceeded \$36,000.00.

Table 5 – Number of ACD Participants by Annual Expenditure Ranges in FY 2021

Beneficiary Category	<\$30K	\$30-34.99K	\$35-35.99K	\$36K Exactly	\$36.01-\$99.99K	\$100K+	Total
ADFM	8,264	601	129	0	2,973	288	12,255
NADFM	3,015	166	40	0	866	125	4,212
<b>Total</b>	11,279	767	169	0	3,839	413	16,467

Source: MDR Data as of February 3, 2022

Additional analyses were conducted to examine more detailed information regarding the ACD users who exceeded \$36,000 in expenditures in FY 2021. Specifically, additional data is presented in Table 6 regarding users by age and beneficiary category. Of the 4,252 users with these large expenditures, 77 percent were ADFMs and 23 percent were NADFM. These users represented 27 percent of all ADFMs and 24 percent of NADFM in the ACD during FY 2021. While nearly 70 percent of these high expenditure users were ages 4 to 9, users in this age cohort represented only 56 percent of ACD users overall. Total paid amounts for users with expenditures exceeding \$36,000 annually amounted to \$275.8 million in FY 2021 and this represented 64 percent of total ACD paid expenditures (but only 26 percent of ACD users). While total expenditures by these high expenditure groups in combination represented 64 percent of total ACD paid expenditures across all users, this percentage rises to as high as 74 percent for children ages 4 and 5 (i.e., total ACD expenditures for 4 and 5 year-olds who are spending in excess of \$36,000 represents 74 percent of expenditures for all children ages 4 and 5 who are using the ACD). The average expenditure for all patients with expenditures of more than \$36,000 in FY 2021 does not vary a great deal by beneficiary category or age: the lowest is \$59,915 for ADFMs ages 13+ and the highest is \$71,229 for NADFM ages 6-7 averaging \$64,873 across all beneficiary categories and ages.

To further analyze ACD participants utilizing ABA services with large expenditures who exceeded \$100,000 in expenditures during FY 2021, Table 7 presents users by age and beneficiary category. Of the 413 users with these very large expenditures, ADFMs represented 70 percent, and NADFM represented 30 percent. These users represent only 3 percent of total ACD patient users. While more than 70 percent of these high expenditures were associated with children between the ages of 4 and 9, users in this age cohort represent only 56 percent of all ACD users. Total paid amounts for users with expenditures exceeding \$100,000 annually amount to \$50.5 million in FY 2021 representing about 12 percent of total ACD paid expenditures (but only 2 percent of ACD users). While total expenditures by these very high expenditure groups in combination represents nearly 12 percent of total ACD paid expenditures across all users, this percentage rises to as high as 14 percent for children age 5 (i.e., total expenditures for 5 year-olds who are spending in excess of \$100,000 represents 14 percent of expenditures for all children age 5). Based on the average expenditure for all patients with expenditures of more than \$100,000 in FY 2021, there is not a great deal of variation by beneficiary category and age: the lowest average is \$116,712 for ADFMs age 4 and the highest is \$127,654 for NADFM age 5.

Table 6 – FY 2021 ACD Users, Paid Expenditures, & Expenditures Per User for Beneficiaries with Annual Paid Expenditures Exceeding \$36,000 by Age and Beneficiary Category (Percent of Total)

Age Group	ADFM	NADFM	Total
<b>Number of ACD Users (% of Total Users)</b>			
Age 3 or Younger	316 (19.2)	48 (18.7)	364 (19.1)
Age 4	538 (37.6)	83 (33.3)	621 (37.0)
Age 5	611 (39.8)	110 (34.5)	721 (38.8)
Ages 6-7	792 (31.1)	159 (26.2)	951 (30.2)
Ages 8-9	435 (22.8)	161 (27.6)	596 (23.9)
Ages 10-12	327 (18.2)	156 (20.3)	483 (18.8)
Ages 13+	242 (17.3)	274 (19.2)	516 (18.3)
Total	3,261 (26.6)	991 (23.5)	4,252 (25.8)
<b>ACD Paid Expenditures-\$ Millions (% of Total Paid Amounts)</b>			
Age 3 or Younger	\$19.8 (57.9)	\$3.1 (62.0)	\$22.9 (58.5)
Age 4	\$36.3 (74.5)	\$5.4 (72.8)	\$41.6 (74.3)
Age 5	\$39.4 (73.9)	\$7.6 (75.2)	\$47.0 (74.1)
Ages 6-7	\$51.1 (66.5)	\$11.3 (68.4)	\$62.7 (66.8)
Ages 8-9	\$28.1 (58.6)	\$10.6 (69.8)	\$38.7 (61.3)
Ages 10-12	\$20.4 (51.9)	\$10.0 (58.3)	\$30.4 (53.8)
Ages 13+	\$14.5 (51.8)	\$18.2 (59.6)	\$32.7 (55.8)
Total	\$209.6 (63.8)	\$66.2 (64.9)	\$275.8 (64.1)
<b>Average ACD Participant Expenditures per Patient</b>			
Age 3 or Younger	\$62,592	\$64,246	\$62,810
Age 4	\$67,227	\$64,945	\$66,922
Age 5	\$64,407	\$69,148	\$65,130
Ages 6-7	\$64,877	\$71,229	\$65,939
Ages 8-9	\$64,513	\$66,050	\$64,928
Ages 10-12	\$62,245	\$64,132	\$62,854
Ages 13+	\$59,915	\$66,415	\$63,367
Total	\$64,275	\$66,844	\$64,873
Source: MDR Data as of February 3, 2022			

Table 7 – FY 2021 ACD Users, Paid Expenditures, & Expenditures Per User for Beneficiaries with Annual Paid Expenditures Exceeding \$100,000 by Age and Beneficiary Category (Percent of Total)

Age Group	ADFM	NADFM	Total
<b>Number of ACD Users (% of Total Users)</b>			
Age 3 or Younger	24 (1.5)	4 (1.6)	28 (1.5)
Age 4	58 (4.1)	10 (4.0)	68 (4.1)
Age 5	52 (3.4)	10 (3.1)	62 (3.3)
Ages 6-7	69 (2.7)	28 (4.6)	97 (3.1)
Ages 8-9	46 (2.4)	18 (3.1)	64 (2.6)
Ages 10-12	25 (1.4)	17 (2.2)	42 (1.6)
Ages 13+	14 (1.0)	38 (2.7)	52 (1.8)
Total	288 (2.4)	125 (3.0)	413 (2.5)
<b>ACD Paid Expenditures-\$ Millions (% of Total Paid Amounts)</b>			
Age 3 or Younger	\$3.0 (8.7)	\$0.5 (9.5)	\$3.4 (8.8)
Age 4	\$6.8 (13.9)	\$1.2 (15.5)	\$7.9 (14.2)
Age 5	\$6.1 (11.5)	\$1.3 (12.6)	\$7.4 (11.7)
Ages 6-7	\$8.8 (11.3)	\$3.4 (20.3)	\$12.1 (12.9)
Ages 8-9	\$5.7 (12.0)	\$2.3 (16.0)	\$8.0 (12.7)
Ages 10-12	\$2.9 (7.5)	\$2.0 (11.7)	\$4.9 (8.8)
Ages 13+	\$1.8 (6.3)	\$4.8 (15.8)	\$6.6 (11.3)
Total	\$35.1 (10.7)	\$15.4 (15.1)	\$50.5 (11.7)
<b>Average ACD Participant Expenditures per Patient</b>			
Age 3 or Younger	\$123,273	\$118,537	\$122,597
Age 4	\$116,712	\$115,102	\$116,475
Age 5	\$118,199	\$127,654	\$119,724
Ages 6-7	\$126,958	\$120,192	\$125,005
Ages 8-9	\$124,799	\$127,057	\$125,434
Ages 10-12	\$117,190	\$118,148	\$117,578
Ages 13+	\$126,659	\$127,330	\$127,149
Total	\$121,799	\$123,209	\$122,226
Source: MDR Data as of February 3, 2022			

### Potential for Future Growth

One approach to understanding the potential for growth in the ACD is to examine the proportion of current beneficiaries diagnosed with ASD who are currently receiving ABA services as a percentage of those beneficiaries diagnosed with ASD under TRICARE. To estimate the total number of beneficiaries diagnosed with ASD in a given year, a query of both direct and private sector care claims was completed to determine the number of beneficiaries ages 2 to 17 who had two or more separate claims with a diagnosis of ASD in any position (i.e., primary or secondary position).<sup>3</sup> Based on this analysis, DHA found there were 36,779 beneficiaries diagnosed with ASD in FY 2021. Therefore, 44.8 percent of TRICARE

<sup>3</sup> DHA used this operational definition of two or more claims to estimate the number of beneficiaries diagnosed with ASD. Beneficiaries with only one claim are excluded because they likely would have been diagnosed with a non-ASD diagnosis as a result of additional testing.

beneficiaries diagnosed with ASD used ABA services under the ACD during FY 2021 (see Table 8). With 55.2 percent of the total MHS population of beneficiaries diagnosed with ASD not receiving ABA services under the ACD, there is potential room for growth in this program.

Table 8 – Percent of Users Diagnosed with ASD Participating in the ACD during FY 2021

Beneficiary Category	Number of TRICARE Beneficiaries Diagnosed with ASD	Number of TRICARE ACD Program Users	Percent of TRICARE Beneficiaries Diagnosed with ASD Using the TRICARE ACD Program
ADFM	22,207	12,255	55.2%
NADFM	14,572	4,212	28.9%
Total	36,779	16,467	44.8%

Source: MDR Data as of February 3, 2022

It is also important to note that ABA utilization rates have plateaued over the years for both ADFM and NADFM (see Figures 2 and 3). Additionally, there is no expectation of equivalent utilization rates between the two groups (ADFM versus NADFM) due to demographic differences; most notable is the average age of the participants. In general, NADFMs tend to be older children, and in general, utilization of ABA services tends to decrease significantly over time as noted in Figure 1 (see above).

Figure 2 – ADFM Beneficiaries Diagnosed with ASD in FY 2021: ACD Users/Non-Users

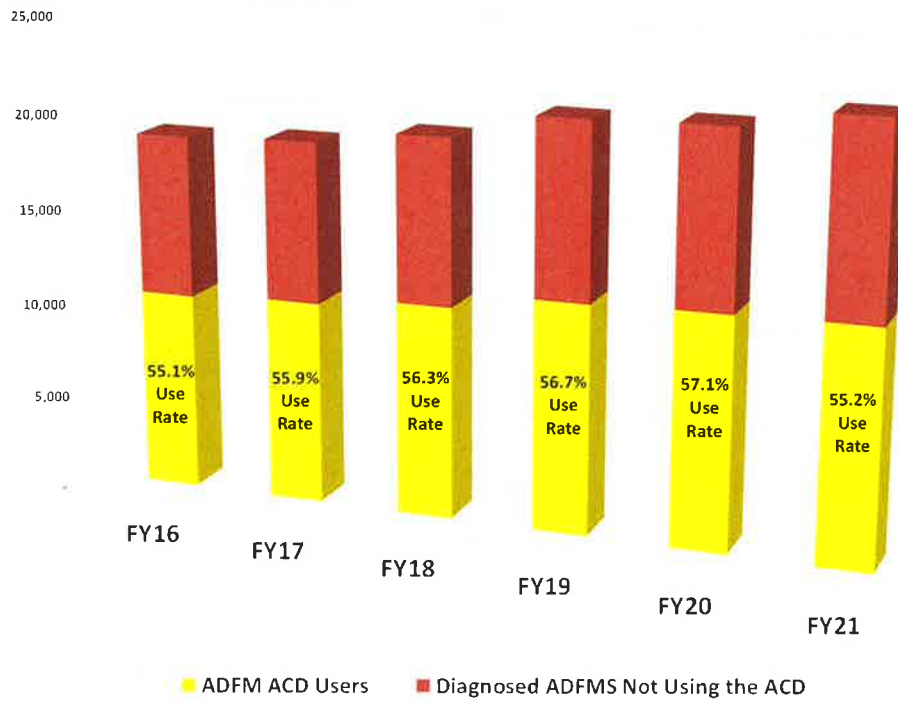
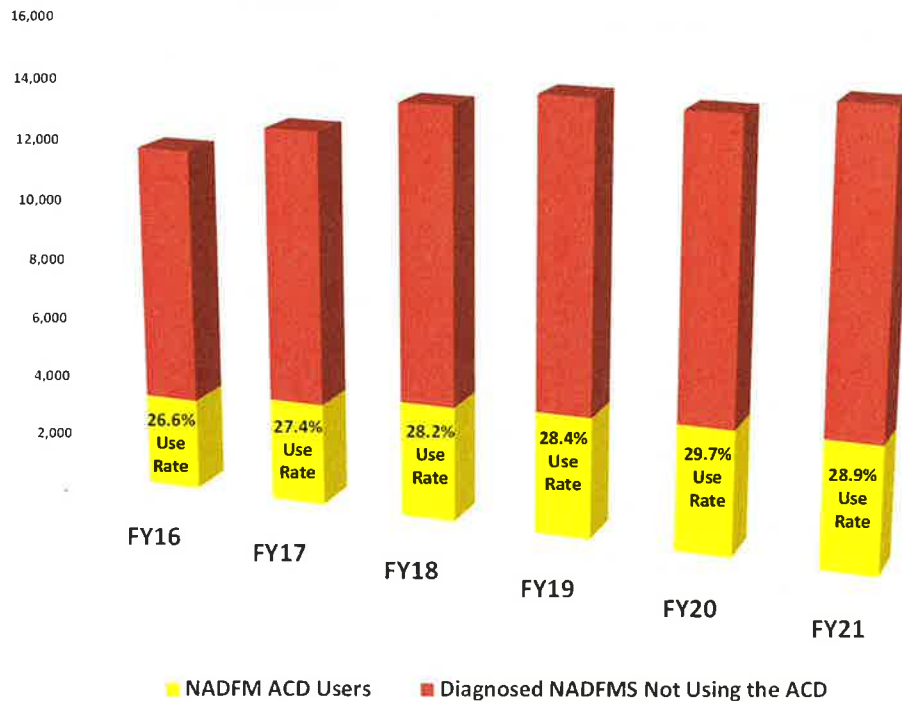




Figure 3 – NADFM Beneficiaries Diagnosed with ASD in FY 2021: Uses/Non-Users



It is unknown why 55.2 percent of the eligible TRICARE beneficiary population does not currently use ABA services. It is hypothesized that these beneficiaries may be using other clinical services (such as PT, OT, SLP, psychotherapy, or psychotropic medication), non-clinical services (such as academic supports, respite, or other community resources), school-based or private pay ABA services, have a diagnosis that does not warrant clinical ABA services, have previously used ABA services but no longer require these services, or other reasons. Therefore, it is unlikely that these rates will ever reach 100 percent utilization.

Expenditures for Physical/Speech/Occupational Therapy and Prescription Drugs

In addition to the \$430.3M in FY 2021 expenditures in the ACD, beneficiaries diagnosed with ASD participating in the demonstration also utilized relatively large amounts of TRICARE medical services for PT, SLP, and OT in both the private sector care and direct care systems. Further, beneficiaries diagnosed with ASD in the ACD also used the retail pharmacy, TRICARE Mail Order Pharmacy, and direct care pharmacy for prescription medications to treat behaviors affecting the symptoms of ASD, Attention Deficit Hyperactivity Disorder (ADHD), and related medical and mental health conditions. The 16,467 TRICARE beneficiaries who participated in the ACD during FY 2021 also utilized \$56.4M in PT, SLP, and OT services (private sector care paid amounts and direct care full cost amounts) and \$17.2M in prescription medications.

Table 9 – Historical Government Expenditures for PT/OT/SLP and Prescription Medication for TRICARE ADFM/NADFM ACD Program Participants

Year	PT/SLP/OT Services	Prescription Medications <sup>1</sup>	Total
<b>ADFM Participant Expenditures</b>			
FY 2015	\$28,028,408	\$13,852,350	\$41,880,758
FY 2016	\$31,516,590	\$12,222,371	\$43,738,961
FY 2017	\$33,203,356	\$10,427,384	\$43,630,740
FY 2018	\$37,982,102	\$11,016,239	\$48,998,341
FY 2019	\$43,826,883	\$11,987,175	\$55,814,058
FY 2020	\$44,135,875	\$11,506,138	\$55,696,013
FY 2021	\$48,328,348	\$11,558,048	\$59,886,396
<b>NADFM Participant Expenditures</b>			
FY 2015	\$3,775,274	\$4,674,041	\$8,449,315
FY 2016	\$5,018,476	\$4,297,492	\$9,315,968
FY 2017	\$5,877,184	\$4,497,166	\$10,374,350
FY 2018	\$6,783,759	\$4,483,788	\$11,267,547
FY 2019	\$7,480,698	\$4,433,609	\$11,914,307
FY 2020	\$7,131,850	\$8,850,251	\$15,982,101
FY 2021	\$8,114,327	\$5,599,808	\$13,714,135
<b>Total Participant Expenditures</b>			
FY 2015	\$31,803,682	\$18,526,391	\$50,330,073
FY 2016	\$36,535,066	\$16,519,863	\$53,054,929
FY 2017	\$39,080,540	\$14,924,550	\$54,005,090
FY 2018	\$44,765,861	\$15,500,027	\$60,265,888
FY 2019	\$51,307,581	\$16,420,784	\$67,728,365
FY 2020	\$51,267,725	\$20,410,389	\$71,678,114
FY 2021	\$56,442,675	\$17,157,856	\$73,600,531
Source: MDR Data as of February 3, 2022			
Note: Include paid Government amounts for private sector care and full costs for the direct care.			
<sup>1</sup> Includes medication for ASD, ADHD, and other types of mental health diagnoses.			

### ACD Participating ABA Providers

Under the ACD, an authorized ABA supervisor plans, delivers, and supervises an ABA program subject to approval by the contractors. Based on reports submitted by the managed care support contractors (MCSCs) as of September 31, 2021, there were 20,064 TRICARE-authorized ABA supervisors across both TRICARE regions (East and West), and there were 1,433 assistants and 61,554 behavior technicians supporting authorized ABA supervisors. This totals 83,051 certified providers delivering ABA services to TRICARE beneficiaries.

## DISCUSSION OF THE EVIDENCE REGARDING CLINICAL IMPROVEMENT OF CHILDREN DIAGNOSED WITH ASD RECEIVING ABA SERVICES

While there is limited research suggesting early behavioral and developmental interventions (based on the principles of ABA services delivered in intensive and comprehensive programs) can significantly affect the development of some children diagnosed with ASD, not all children diagnosed with ASD receiving ABA services show improvements. Two well-respected medical literature review services (external to DHA) continue to find the evidence for ABA services (Intensive Behavior Intervention) for the diagnosis of ASD is weak, noting, an overall low-quality body of evidence, mainly from poor-quality studies, suggesting that Intensive Behavior Intervention (IBI) improves intelligence or cognitive skills, visual-spatial skills, language skills, and adaptive behavior compared with baseline levels or other treatments. Nine years after the DHA’s extensive June 2013 ABA coverage review, the published reliable “evidence does not reflect any consensus as to whether the reported improvements are clinically significant; very few studies reported on the clinical significance of findings. A paucity of evidence regarding the durability of treatment following treatment cessation, as well as uncertainty regarding optimal therapy parameters, preclude firm conclusions regarding the efficacy of IBI for ASD.”<sup>4</sup> The 2020 Hayes, Inc., update reported no change in the current rating. Another study noted, “[t]he strength of the evidence in this review is limited because it mostly comes from small studies that are not of the optimum design. Due to the inclusion of nonrandomized studies, there is a high risk of bias and we rated the overall quality of evidence as ‘low’ or ‘very low’ using the GRADE system, meaning further research is very likely to have an important impact on our confidence in the estimate of effect and is likely to change the estimate.”<sup>5</sup>

The research literature available regarding ABA services predominantly consists of single-case design studies, which does not meet the criteria for “reliable evidence” under TRICARE standards.<sup>6</sup> There are still methodological concerns limiting the strength of the research such as identified characteristics of children (including symptom severity), rendering providers, and types of treatment for positive outcomes. These limitations include: “dose-response” (frequency, intensity, and duration), treatment fidelity, few studies that use a control group, few longitudinal studies that demonstrate long-term effectiveness, and no replication of similar results in well-designed studies.

Currently, there are no defined ASD treatment Standards of Care (SoC). Practice parameters have been developed by various interest groups, including the clinical report from the American Academy of Pediatrics (2020),<sup>7</sup> to guide the assessment, diagnosis, and treatment of ASD. However, research has not been able to demonstrate effective and consistent results to identify a clear SoC for the treatment of ASD. No single intervention has been proven beneficial

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<sup>4</sup> Hayes, Inc. (2019) Comparative Effectiveness Review: Intensive Behavioral Intervention for Treatment of Autism Spectrum Disorder.

<sup>5</sup> Reichow B, Hume K, Barton EE, Boyd BA. Early intensive behavioral intervention (EIBI) for young children with autism spectrum disorders (ASD). *Cochrane Database of Systematic Reviews* 2018, Issue 5. Art. No.: CD009260. DOI:10.1002/14651858.CD009260.pub3.

<sup>6</sup> Title 32, Code of Federal Regulations, part 199.2 (32 CFR 199.2) Definitions: “Reliable Evidence”.

<sup>7</sup> Hyman, S., Levy, S., and Myers, S. (2020). Identification, Evaluation, and Management of Children with Autism Spectrum Disorder, *PEDIATRICS* Volume 145, number 1.

across all core symptoms of ASD. Consensus among recognized national organizations endorses the use of a comprehensive program that includes PT, OT, SLP, as well as ABA services, all targeted at deficits in the areas of social communication, language, play skills, maladaptive function/behaviors, and ongoing parent education. Research demonstrates that ABA services produce the best results for targeted maladaptive behavior, and the strongest intervention evidence appears to be for parent training and support, noting that parental involvement is a fundamental component of effective ASD intervention.<sup>8</sup>

The Department continues to support evaluations into the nature and effectiveness of ABA services under the TRICARE program. The TOM Change 199,<sup>9</sup> implemented norm-referenced, valid, and reliable outcome measures; the data collection began on January 1, 2017. That change added three outcome measures as required under the ACD that are collecting data: the Vineland Adaptive Behavior Scale – Third Edition (Vineland-3) which is a measure of adaptive behavior functioning; the Social Responsiveness Scale, Second Edition (SRS-2) which is a measure of social impairment associated with ASD; and the Pervasive Developmental Disorder Behavior Inventory (PDDBI), which is a measure designed to assist in the assessment of various domains related to ASD. Additionally, the PDDBI is a measure designed to assess the effectiveness of treatments for children with pervasive developmental disorders, including ASD, in terms of response to interventions. The outcome measure scores are completed and submitted by eligible providers authorized under the ACD to the MCSCs. Data collected for the Vineland-3 and SRS-2 are required at baseline and every year, and the PDDBI is required at baseline and every 6 months.

### ACD Outcome Measures

The Department has published several previous reports with findings from the available records of PDDBI scores. Initial findings demonstrate that overall, a significant portion of beneficiaries experienced little to no change in symptom presentation based on parent/guardian reports. Additionally, a small percentage of beneficiaries were noted as having worsening symptoms and a similar small percentage demonstrated symptom improvement. DHA also noted that these findings should be interpreted with caution as the PDDBI is just one metric of several that are collected and reported. Caution should be used in those initial reports as there were no other factors considered in those summaries such as age, symptom severity, number of hours of services, total duration of ABA services, other services, or academic placement. While the Department continues to receive criticisms on the use and analysis of the PDDBI, DHA is confident that the data and its analyses accurately represent the ACD data.

While the FY 2020 report addressed many of the concerns presented by stakeholders, findings from that analysis continued to demonstrate that some beneficiaries showed some improvement of symptoms associated with ASD as indicated by statistical significance while other beneficiaries showed no improvement or even worsening of symptoms over the 2-year period. Although the findings had statistical significance, clinical significance is yet to be

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<sup>8</sup> National Research Council. (2001). *Educating Children with Autism*. Washington, DC: The National Academies Press. <https://doi.org/10.17226/10017>.

<sup>9</sup> <https://manuals.health.mil/pages/DisplayManualFile.aspx?Manual=TO08&Date=2016-11-29&Type=AsOf&Filename=C18S18.pdf>.

determined. Additionally, while younger children and beneficiaries with more severe symptoms make greater gains than older beneficiaries or beneficiaries with mild or no symptoms of ASD, there is still much to learn about which groups of beneficiaries are most likely to demonstrate improvements, and under what circumstances.

With the March 23, 2021, policy update, several elements of the outcome measures requirements were revised:

- Expansion of eligible providers who can complete outcomes measures without a referral from the diagnosing provider (prior authorization for BCBA's still required);
- Baseline outcome measures completed at baseline;
- The Vineland and the SRS-2 began a one-year cycle for administration;
- Submission of scores via the summary score sheet of the publishers report; and
- Enhanced MCSC data reporting requirements (e.g., respondent information and submission of additional scores).

As these requirements were phased in over the 270-day implementation plan, revisions to the outcome measures may limit reporting and findings. Additionally, a sufficient number of data points will be required prior to any analyses being conducted. Therefore, DHA is not reporting outcome measures in this report. DHA will begin reporting on a new set of data from the ACD population in the next annual report. Additionally, as clinical outcomes data becomes available, DHA will expand the analysis to include evaluation of additional measures, evaluation of additional domains, analyses of various cohorts, evaluation of the impact of parent participation on treatment outcomes, etc.

#### DHA Annual TRICARE Quality Monitoring Contract (TQMC) ACD Audit

DHA conducted the first TQMC audit of the ACD in 2016. The purpose of that study was to conduct an audit of the TRICARE ACD program that served as an analysis for the full implementation of the required annual audits. That audit provided valuable information regarding the ACD, the beneficiaries who utilize ABA services under the ACD, and the administration and compliance of the ACD as outlined in the TOM.

This current audit is a comprehensive audit of the TRICARE ACD that follows requirements stated in the TOM. This descriptive analysis provides valuable information to better understand the current state of the TRICARE ACD, incorporate improvement efforts to the ACD, and ultimately better serve the TRICARE population diagnosis with ASD.

However, it should be noted this audit is not intended to draw conclusions regarding beneficiary-level outcomes. Rather, its purpose is to examine compliance and completeness of ACD services according to the TOM and TRICARE requirements, which include but are not limited to: analyzing the recommended number of weekly hours for one-on-one services and

parental guidance; reviewing documentation of ancillary services; analyzing measurable objectives and goals that address the core deficits in the social interaction, communication, and behavior domains; reviewing documentation of specific problematic behavior targets and corresponding specific ABA services; reviewing qualifying medical diagnoses and comorbid condition information; reviewing pharmaceutical information; and reviewing school enrollment information.

The current study used clinical data obtained through audit claims data and medical records reviews on a statistically valid sample of new and continuously enrolled ACD beneficiaries during FY 2021. These combined statistics provide a broad view of the ACD, but the findings do not conclude clinical significance of treatment impact. The final representative sample included 1,029 unique beneficiaries: 201 (20.0 percent) were female and 828 (80.0 percent) were male. The mean age was eight years old. The majority of the beneficiaries were dependents of active duty Service members (ADSMs) (771, 74.9 percent), and 258 (25.1 percent) were dependents of Retiree or Guard/Reserve of ADSMs. The majority of beneficiaries (598, 58.1 percent) were engaged in treatment for one to three years.

Treatment plans were reviewed for adherence to the TOM requirements and for analysis of the quality of documentation and recommendations by authorized ABA supervisors. All records included measurable goals and objectives and were associated with social interaction, communication, and/or behavioral domains. However, many treatment plans contained goals targeting excluded services. All records included documented information for ancillary services and the number of hours for these services. The majority of reviewed records documented that the same measures were used throughout the course of treatment. However, it should be noted that many of the measures used are not norm-referenced or standardized assessment tools. This information is important as use of non-standardized, non-norm referenced tools is insufficient to note developmental change in the standard way the medical community notes improvement. While skill acquisition is noted, this information does not necessarily describe a population and symptom improvement across developmental milestones, but rather a descriptive observation of the individual. Status of school enrollment was documented for all beneficiaries; however, for those enrolled in school, approximately 20 percent of records did not document the status of an Individualized Education Program and/or an Individualized Family Support Plan. Additional notable findings from this audit include:

- 17.1 percent of audited beneficiaries have received four or more years of ABA services with 3.7 percent of beneficiaries receiving more than seven years of ABA services;
- Almost 60 percent of treatment plans documented zero to minimal (less than 30 minutes per week) of recommended parental participation;
- 8.1 percent of treatment plans reviewed recommended 21 or more hours of ABA services per week (23.3 percent recommended six to ten hours per week, 35.3 percent recommended 11 to 15 hours per week, and 19.8 percent recommended 16 to 20 hours per week of ABA services);

- 63.8 percent of treatment plans documented Functional Behavioral Assessments for maladaptive behaviors; and
- 18.8 percent of treatment plans documented educational targets that are excluded from treatment coverage.

#### Congressionally Directed Medical Research Program (CDMRP) Study

To acquire additional information on ABA services under TRICARE, DHA worked with the CDMRP to award a contract to a research group to study ABA service delivery models. The CDMRP study was awarded to a research group from the University of Rochester in September 2018. Results from the third annual report noted that this study, “Comparative Effectiveness of Early Intensive Behavioral Intervention and Adaptive ABA for Children with Autism in TRICARE,” continues to be impacted by COVID-19 and has experienced significant challenges specifically related to recruitment of eligible beneficiaries. Despite these challenges, the researchers expanded recruitment efforts, including expanding locations for participant access. Additional information is available at: <https://clinicaltrials.gov/ct2/show/study/NCT04078061>. It is anticipated that the results of the CDMRP study will not only further DHA’s understanding of the impact of ABA services delivered to ACD participants, but that findings from this study may also benefit the larger community of individuals diagnosed with ASD and their families in several ways, including, but not limited to offering more choices to families, potentially identifying response to treatment through predictive factors, and lowering cost while increasing access.

#### Independent Analysis of the ACD

Section 737 of the NDAA for FY 2022 requires the Secretary of Defense to enter into an agreement with the National Academies of Sciences, Engineering, and Medicine (“National Academies”) for the National Academies to conduct an analysis on the effectiveness of the ACD and develop recommendations for the Secretary based on such analysis. The National Academies will submit to Congress a report on the findings and make such report available on a public website. The Board on Children, Youth, and Families, in collaboration with the Board on Health Care Services of the National Academies of Sciences, Engineering, and Medicine, will conduct this analysis. The eight elements of the analysis include:

- (A) An assessment of all methods used to assist in the assessment of domains related to ASD, including a determination as to whether the Secretary is applying such methods appropriately under the demonstration project;
- (B) An assessment of the methods used under the demonstration project to measure the effectiveness of ABA in the treatment of ASD;
- (C) A review of any guidelines or industry standards of care adhered to in the provision of ABA services under the demonstration program, including a review of the effects of such adherence with respect to dose-response or health outcomes for an individual who has received such services;

- (D) A review of the health outcomes for an individual who has received ABA treatments over time;
- (E) An analysis of the increased utilization of the demonstration program by beneficiaries under the TRICARE program, to improve understanding of such utilization;
- (F) Such other analyses to measure the effectiveness of the demonstration program as may be determined appropriate by the National Academies;
- (G) An analysis on whether the incidence of autism is higher among the children of military families;
- (H) The development of a list of recommendations related to the measurement, effectiveness, and increased understanding of the demonstration program and its effect on beneficiaries under the TRICARE program.

At this time, DHA continues to work with the National Academies to execute the agreement. Once the agreement is established, the National Academies will be the lead for all future communication and engagements.

## **LESSONS LEARNED**

Since implementation of the ACD in July 2014, the Department has conducted over 25 ACD round table and provider information session events. These events were well attended, and senior Department officials listened to concerns, answered questions, and noted key issues for further analysis and action. The most recent ABA stakeholder webinars focused on the March 23, 2021 TRICARE policy updates, providing focused reviews and summaries of the revisions and how they impact beneficiaries, their families, and providers. DHA representatives have also presented at several behavior analytic annual conferences on medical records documentation and other issues related to the ACD, and have met with numerous experts in the field of autism care. DHA received constructive feedback from each event from interested stakeholders. DHA appreciates the participation of all interested parties and, through this process, gained additional insights about how to further refine and implement an optimum care delivery and reimbursement system for TRICARE beneficiaries diagnosed with ASD.

### Utilization of Family Treatment Guidance Services under the ACD

There are numerous studies across the ABA literature that have addressed the impact of parental involvement not only on clinical outcomes for their child diagnosed with ASD, but also on the overall family well-being and the impact on family stress. Research consistently shows that “parental involvement is the one invariable factor and an integral part of the success of early intervention programs for children with autism” (Ozonoff & Cathcart, 1998). This study examined the effectiveness of an in-home program for children diagnosed with ASD and found that children who received consistent parental teaching in the home, in combination with a structured early intervention program, displayed increased cognitive and developmental skills.



A 2010 study (Dillenburger, Keenan, Doherty, Byrne, & Gallagher) noted that parental involvement is important because it helps ensure that the behaviors learned generalize into the home. Additionally, while numerous studies show that families who are involved with their children greatly contribute to the success of their child's intervention program and their developmental progress, the lack of parental involvement can be detrimental to the progress of ABA services and the whole family. When parents are not involved in their child's program, it creates a "disconnect between the treatment room and what goes on in the child's home" (Bennett, 2012). Ultimately, a lack of parental involvement results in children diagnosed with ASD struggling to generalize their skills and progress across different environments. Without continuing to work on their learned skills at home, children will not achieve as much progress and could even regress (Bennett, 2012).

DHA continues to evaluate the level of participation of family engagement in their beneficiaries' treatment plans. Based on claims data, a total of 12,566 of 16,467 ACD users (76 percent) had parents or guardians who received family treatment guidance services (CPT 97156) during FY 2021. The use rate was slightly higher for ADFMs at 77 percent (9,466 of 12,255 users) versus 74 percent for NADFM's (3,100 of 4,212 users). Average family treatment guidance services use rates did not vary substantially across age categories, but DHA found they were the lowest for children age 3 and younger (67 percent), increased to the highest level at age 5 (80 percent), and then declined to 75 percent for children age 13 and older. Family treatment guidance services represented roughly 4 percent of total ACD expenditures for FY 2021 (\$15.7 million/\$430.3 million). Of significance is that, while 75 percent of ACD participant families had a claim filed for parent/family treatment guidance, the average annual hours utilized per beneficiary was 9.9 hours, which translates to less than one hour per month of parent/family engagement. Of most concern is that 24 percent of ACD participants had no parental involvement at all during FY 2021.

To address parent participation, the March 23, 2021, ACD policy now requires a minimum amount of parent engagement for all participating beneficiaries (one engagement per month over the 6-month authorization period). Additionally, future analyses will review parental involvement and its impact on clinical outcomes.

### Continuous Improvement

DHA is committed to ensuring all TRICARE-eligible beneficiaries diagnosed with ASD reach their maximum potential, and that all treatment and services provided support this goal. TRICARE continues to have one of the most robust ABA benefits nationwide, which is one component of comprehensive treatment for ASD. However, currently there are no clear guidelines or industry standards of care available with regards to "dose-response" or expected outcomes for an individual beneficiary as a result of ABA services.

Since the beginning of the ACD, DHA has made significant improvements to the program, such as increased access, implementation of recommendations in response to the Department of Defense Office of Inspector General audits, and collection and evaluation of outcomes measures. Additionally, DHA has worked with experts in the field of autism care, within and external to the MHS, including ABA providers, advocates, MHS providers,

commercial and Medicaid plans, and leading researchers to develop a comprehensive revision of the ACD.

The comprehensive update of the ACD, published March 23, 2021, evolves the program to a more beneficiary- and family-centric model. These revisions focus not only on improving the quality, value, and access to care and services for beneficiaries diagnosed with ASD and their families, but also on improving the management and accountability of both the MCSCs and the ABA providers. These revisions have been informed by a review of the data collected in the program, ongoing reviews of research evidence into the treatment of ASD, and discussions with experts in the field of autism care. These revisions focus on providing enhanced beneficiary and family support, improving outcomes, encouraging parental involvement, improving utilization management controls, and revising coverage of ABS for the delivery of ABA services to TRICARE-eligible beneficiaries diagnosed with ASD.

Department of Defense Ongoing Efforts to Eliminate Fraud, Waste, and Abuse in the ACD

The Department continues to be concerned with improper billing for ABA services and improper payments for ABA services, which undermine the integrity of the ACD program. The Program Integrity offices and the Department of Justice continue to identify ABA providers/practices in their reviews. The Department of Defense has seen an increase in the number of ABA cases being investigated. See Table 10 for the number of ABA cases by calendar year (CY).

Table 10 – Number of ABA Case Workload by CY

Calendar Year	Number of ABA Cases	Number of Leads	Number of Whistleblower Complaints
2014	-	4	1
2015	-	5	1
2016	-	14	-
2017	2	12	-
2018	2	8	-
2019	5	23	5
2020	35	108	1
2021	4	27	2
<b>Total</b>	<b>48</b>	<b>201</b>	<b>10</b>

Data reported as of February 3, 2022

This data represents the workload that the DHA Program Integrity office has had related to ABA services. It does not include any actions that may not have been referred to this office from the MCSCs. Due to the ongoing investigations, updated costs of these settlements and recoupments are not currently available. Feedback from these investigations continue to identify similar trends: services billed to TRICARE that were never rendered to a beneficiary, falsification of medical records, and falsification of non-medical care as medical care (e.g., day care, transportation).

The Department continues to evaluate the oversight and monitoring of billing and payment activities of ABA providers/practices through the contractor audit requirements. With the March 23, 2021, publication of the policy update, audit requirements were revised to increase compliance and to reduce potential fraud, waste, and abuse with more comprehensive oversight prior to treatment plan authorization, as well as improved post claims payment audits. Specifically, improvements were made to administrative and medical records reviews, as well as providing pathways for provider education and accountability for improper claims filings.

## **IMPROVING THE PROVISION OF ABA SERVICES**

There continues to be interest from TRICARE beneficiaries and their families, advocacy groups, legislators, and others, for the Department to expand coverage of ABA services. However, such TRICARE coverage expansions are not discretionary. TRICARE Basic Program benefit coverage determinations must be for items and services that are proven safe and effective based on the hierarchy of reliable evidence defined in federal regulation.<sup>10</sup>

As of now, ABA services do not meet the TRICARE hierarchy of reliable evidence standard for proven medical care. The Department continues to review the latest evidence in published literature regarding the effectiveness of ABA services for the diagnosis and treatment of ASD. At this time, no significant additions to the evidence-based literature have been published since the last annual report regarding the “dose-response” (including intensity, frequency, or duration), treatment effectiveness, most effective use of ABA with other services, use of tiered model compared to BCBAs only, benchmarks for outcomes, or anticipated/expected changes in ASD symptom presentation.

## **CONCLUSION**

The ACD provides TRICARE reimbursement for ABA services delivered to TRICARE-eligible beneficiaries diagnosed with ASD. At the end of FY 2021, there were a total of 16,467 beneficiaries with a diagnosis of ASD participating in the ACD with a cost of \$430.3M who also used an additional \$73M in other medical services. Of the total ACD participants, 4,252 beneficiaries (26 percent) exceeded the \$36,000 threshold for annual expenditures with 413 beneficiaries (3 percent) exceeding \$100,000 in annual expenditures. ACD participation by beneficiary demographics reveal that 86.8 percent of ACD participants are age 13 years and younger, that the median age is 7 years, and that roughly 4 out of 5 ACD participants are male. There were 83,051 ABA providers rendering ABA services to TRICARE beneficiaries for approximately a 5:1 ratio of ABA providers to ACD beneficiaries.

In light of the literature that states that parental involvement in ABA services is critical to the long-term outcomes, DHA conducted an analysis of the level of parent engagement in their child’s treatment plan. DHA found that based on claims data in FY 2021, 76 percent of ACD beneficiaries had parents or guardians who received family treatment guidance services. On average, these participating parents engaged in less than one hour per month of parent/family training, and the remaining 24 percent had zero engagement of parent training. This information is critical as ABA services evolve with the beneficiary’s needs and transition from one service to another. Additionally, ABA providers spend a finite amount of time with the beneficiary

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<sup>10</sup> Title 32, Code of Federal Regulations, part 199.2(b), Definition of “Reliable Evidence”.

teaching the fundamentals of behavior analysis. As skills are acquired and the principles of behavior analysis are generalized to new skills and settings, parents should implement these skills and techniques throughout the daily routine to promote generalization and skill maintenance. In the absence of consistently implementing techniques and principles, beneficiaries miss critical opportunities to expand on the learning and skill growth developed during the administration of ABA services.

The FY 2021 TQMC audit analyzed treatment plans and their compliance with the ACD policy. The audit did not draw conclusions regarding beneficiary-level outcomes, but rather evaluated treatment plan documentation as submitted by authorized ABA providers. Results showed that treatment plans generally met the requirements of the TOM. However, several notable elements were found: only eight percent of treatment plans recommended more than 20 hours of weekly ABA services, many treatment plans contained goals targeting excluded services (i.e., educational and vocational targets), and more than half of the treatment plans reviewed recommended zero to minimal parent engagement.

Two analyses, the CDMRP study and the National Academies analysis, are charged with evaluating components of ABA services: the effectiveness of traditional versus modified ABA services delivery and an independent analysis of the ACD, respectively. Each analysis will offer insight into ABA services, clinical outcomes, and valuable information regarding the ACD and its beneficiaries.

A continued concern with this program is the ongoing fraud, waste, and abuse by ABA providers and the improper billing and payments for ABA services. Government offices continue to identify improper activities by TRICARE ABA providers and practices that have resulted in restitution, settlements, and recoupments. The revisions to the manual implement improved oversight and auditing systems with the goal of reducing the number of fraud, waste, and abuse activities, and improving the integrity of the ACD.

The March 23, 2021 ACD policy update provides enhanced beneficiary and family support, improves outcomes, encourages parental involvement, and improves utilization management controls. This update includes expansion of coverage of certain ABS CPT Codes for the delivery of ABA services to TRICARE-eligible beneficiaries diagnosed with ASD. These comprehensive revisions move the program to a more beneficiary- and family-centric model. Many of the concerns identified in this report, as well as in previous reports, have been addressed in this manual revision such as improvements in data collection, clinical necessity reviews to ensure clinically necessary and appropriate ABA services are authorized and rendered, improvements in the quality of ABA services, and enhanced support for families such as the active provider placement and access to local resources and supports.

The Department is committed to ensuring all TRICARE-eligible beneficiaries diagnosed with ASD reach their maximum potential, and that all treatment and services provided support this goal. TRICARE continues to be the most robust ABA benefit nationwide, as some commercial plans still have age, dollar, and duration limits. TRICARE is leading the Nation in developing an effective ABA program model as one component of comprehensive treatment for ASD. The Department fully supports the continued research on the nature and effectiveness of ABA services, and the evolution of the field from an educational discipline toward a health care discipline.