Behavioral Health Needs of Children involved with the Department of Child Safety: Psychotropic Prescribing Update

May 27, 2016

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Executive Summary

The emotional and behavioral health needs of children in foster care are, appropriately, topics of national interest. Nearly half of children entering foster care have significant emotional and behavioral health conditions. The high needs of children in foster care necessitate the availability of comprehensive services, as well as mechanisms to assure oversight of the services delivered, particularly psychotropic medication prescribing. This report updates a previous analysis conducted in response to a federal Government Accountability Office (GAO) report. The GAO report, published in 2011 and comparing 2008 rates of psychotropic prescribing for children in foster care to the general Medicaid child population in selected states, used a complex methodology to determine that psychotropic medications were prescribed at rates over two to four times higher for children in foster care compared to the general Medicaid population. In 2012, AHCCCS conducted an analysis using 2008 prescribing data comparable to the GAO report that demonstrated children in foster care were 4.4 times more likely to be on psychotropic medication compared to the general Medicaid child population.

As noted, the GAO report compares two populations: children in foster care versus all children in Medicaid that are not in foster care. AHCCCS supports a holistic view of psychotropic prescribing trends among the foster care population that includes this comparison. However, it must be noted that only 1 in 15 children in Medicaid that are not in foster care use behavioral health services. In contrast, 2 in 3 foster care children in Medicaid receive behavioral health services. Understandably, behavioral health penetration is much higher among children in foster care due to the trauma experienced within the home that necessitated the removal, as well as the trauma of the removal itself. Hence, while this comparison should be conducted, it is a comparison of two dissimilar populations. In future reports, AHCCCS will add a comparison of psychotropic prescribing in the foster care population versus the Medicaid child population utilizing behavioral health services, which offers a more like comparison.

This report updates the Arizona-specific analysis of the GAO Report using 2013 psychotropic prescribing data. The 2013 data shows a decrease in the overall ratio of the rate of prescribing, with children in foster care 4.1 times more likely to be on psychotropic medication compared to the general Medicaid child population. The complexity of this type of analysis requires a level of review that can take more than a year to complete. The length of the research and analysis effort coupled with the lag time in obtaining a complete set of encounter data prevents more current data from being used for this analysis. AHCCCCS, however, is committed to an ongoing reporting of psychotropic medication prescribing in the foster care population. As such, the data reported here will be updated on an ongoing basis.

While there was a decrease in the overall ratio of the rate of prescribing from 2008 to 2013, these rates still indicate close monitoring and analysis are warranted. An understanding of psychotropic prescribing within the population of children in foster care is needed. To that end, this report examines prescribing trends by medication category for children in foster care for 2008 and compared these findings to 2012, 2013, and 2014.

The table below provides summary data regarding the analysis of prescribing trends within the foster child population. The percentage of children in foster care receiving psychotropic medications decreased by 26% from 2008 to 2014, from 20.3% to 14.9% respectively. The percentage of children in foster care receiving antipsychotic medication decreased by 43%, from 10.9% to 6.2%. The percentage of children receiving prescription in each of the other categories of medication declined, except for the percentage of children receiving ADHD medication, which remained the same.

Percentage of Children in Foster Care Receiving Psychotropic Medications, by Category

	2008	2014
Total Psychotropics	**20.3%**	**14.9%**
Antipsychotics	10.9%	6.2%
Antidepressants	7.5%	5.0%
ADHD	10.3%	10.3%
Mood Stabilizers (Lithium Only)	1.8%	1.2%
Mood Stabilizers (Lithium and Anticonvulsants)	3.6%	3.5%
Anxiolytics	0.8%	0.6%

As noted above, these analyses require ongoing monitoring. There have been actions already taken by ADHS/DBHS such as establishing best practice guidelines and prior authorization for psychotropic prescribing for young children. In addition, the report outlines future opportunities for improvement such as regular monitoring of psychotropic medication prescribing by behavioral health contractors, chart reviews for children in foster care on 4 or more psychotropic medications and a strengthened partnership with the Department of Child Safety (DCS).

Introduction

Nearly half of children entering foster care have significant emotional and behavioral health conditions.[1] It is well recognized that children in foster care experience trauma due to 1) maltreatment and/or neglect; 2) the actual removal process itself; and 3) being separated from their families, from their schools, from their friends, and from their community. Children in foster care face tremendous ongoing emotional stress and often demonstrate what they need through behaviors adults find troubling. How they are cared for directly contributes to placement stability and disruptions. A 2005 national study utilizing Medicaid claims data demonstrated that the most common behavioral health conditions identified for children in foster care are mood, anxiety and conduct disorders; the penetration rate for behavioral health services for children in foster care in this study was 32%.[2]

There have been national practice standards developed to address the unique behavioral health needs of children in foster care, including the recommended timeframes for initial and ongoing assessment, the type of psychosocial interventions that have been shown to be effective, and the factors which must be considered prior to prescribing psychotropic medication.[3,4,5] Factors contributing to appropriate psychotropic prescribing include increased access to health insurance and to behavioral health assessment while in foster care.[5] Factors contributing to potentially inappropriate prescribing include insufficient information for clinicians to properly assess, limited access to effective and specifically targeted psychosocial interventions, unrealistic hope that a psychotropic medication will stabilize a complex psychosocial situation, and responding to behavioral crises.[5]

In recent years, there has been increasing federal and state oversight of the psychotropic prescribing to children in foster care to ensure psychotropic medications are used appropriately and safely. The Federal Government Accountability Office (GAO) released a report in December 2011 comparing rates of psychotropic prescribing for children in foster care age 0-17 compared to the general Medicaid child population age 0-17 for calendar year 2008 for Florida, Maryland, Massachusetts, Michigan, Oregon, and Texas.[6] Results indicate that psychotropic medications were prescribed at over two to four times higher for children in foster care compared to the general Medicaid population. In 2012, we evaluated Arizona's prescribing patterns for 2008, which demonstrated that children in foster care are 4.4 times more likely to be on psychotropic medication compared to the general Medicaid child population. In 2015, we updated the analysis to review 2013 psychotropic prescribing data. The complexity of this type of analysis requires a level of review that can take more than a year to complete. The length of the research and analysis effort coupled with the lag time in obtaining a complete set of encounter data prevents more current data from being used for this analysis. AHCCCCS, however, is committed to an ongoing reporting of psychotropic medication prescribing in the foster care population. As such, the data reported here will be updated on an ongoing basis. As an additional layer of review to address limitations identified by utilizing the GAO methodology for monitoring psychotropic prescribing for children in foster care, AHCCCS also evaluated Arizona psychotropic prescribing trends by medication category for 2008 and compared these findings to 2012, 2013, and 2014 psychotropic prescribing for children in foster care to identify trends and opportunities for improvement.

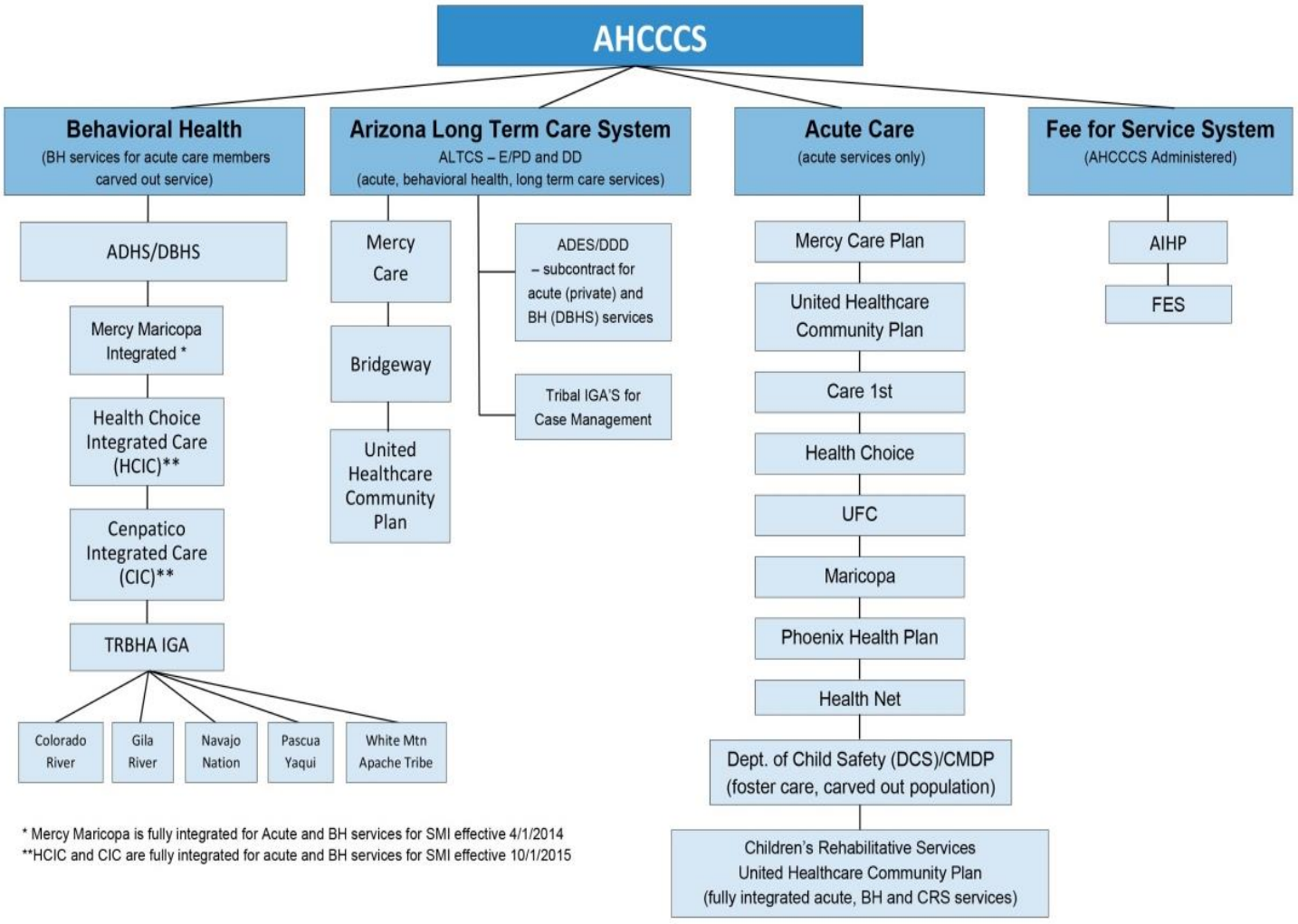
I. Current Healthcare Delivery System for Children in Foster Care in Arizona

Arizona's Medicaid agency, AHCCCS, uses federal, state, county, and provider assessed funds to provide health care coverage to the state's acute and long-term care Medicaid populations and low-income families. Since 1982, when it became the first statewide Medicaid managed care system in the nation,

AHCCCS has operated under a federal Research and Demonstration 1115 Waiver, which allows for the operation of a total managed care model.

Chart 1 provides a high level overview of how the AHCCCS system is structured and identifies contractors as of May 2016. The current model of delivery of healthcare services to children in foster care is "carved-out" as behavioral health services are delivered through the Arizona Department of Health Services' Division of Behavioral Health Services (ADHS/DBHS) through Regional Behavioral Health Authorities (RBHAs) whereas physical health services are delivered through the Department of Child Safety, Comprehensive Medical and Dental Program (DCS/CMDP). Additionally, children in foster care who have a chronic and disabling medical condition that qualifies for Children's Rehabilitative Services (CRS) are served by the CRS managed care organization (MCO) for CRS-related conditions and behavioral health services and CMDP for acute care services. Children in foster care who qualify for Arizona Long Term Care Services (ALTCS) due to a physical disability are served by the ALTCS contractor for all long term, acute, and behavioral health needs. Children in foster care who qualify for ALTCS due to a developmental disability are served by the Arizona Department of Economic Security, Division of Developmental Disabilities (ADES/DDD) for their long term care needs and DDD's subcontractors for behavioral health services (ADHS/DBHS) and for acute care services (currently, three acute MCOs).

Chart 1: Medicaid Delivery System in Arizona



In March 2015, ADHS/DBHS began activities to merge with AHCCCS for administrative simplification purposes. Following the completion of administrative simplification on July 1, 2016, the RBHAs will be directly contracted with AHCCCS.

As described in Table 1, the total child Medicaid population enrolled in CMDP for 30 or more days grew 50% between 2008 and 2014. This report will be updated with 2015 data and ongoing.

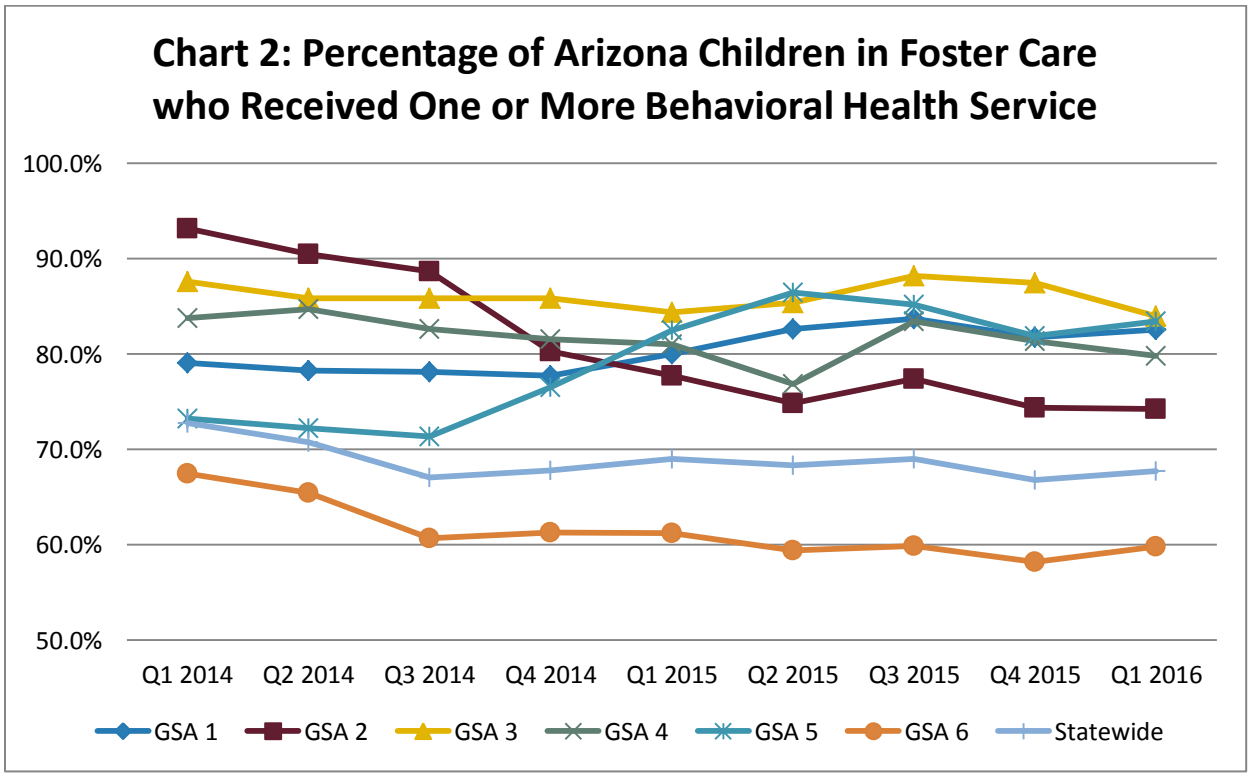
Table 1: Total CMDP Enrollment* by Calendar Year

2008	2012	2013	2014
15,081	19,065	21,212	22,590

*Member must have been enrolled for a minimum of 30 days

II. Behavioral Health Services for Children in Foster Care in Arizona

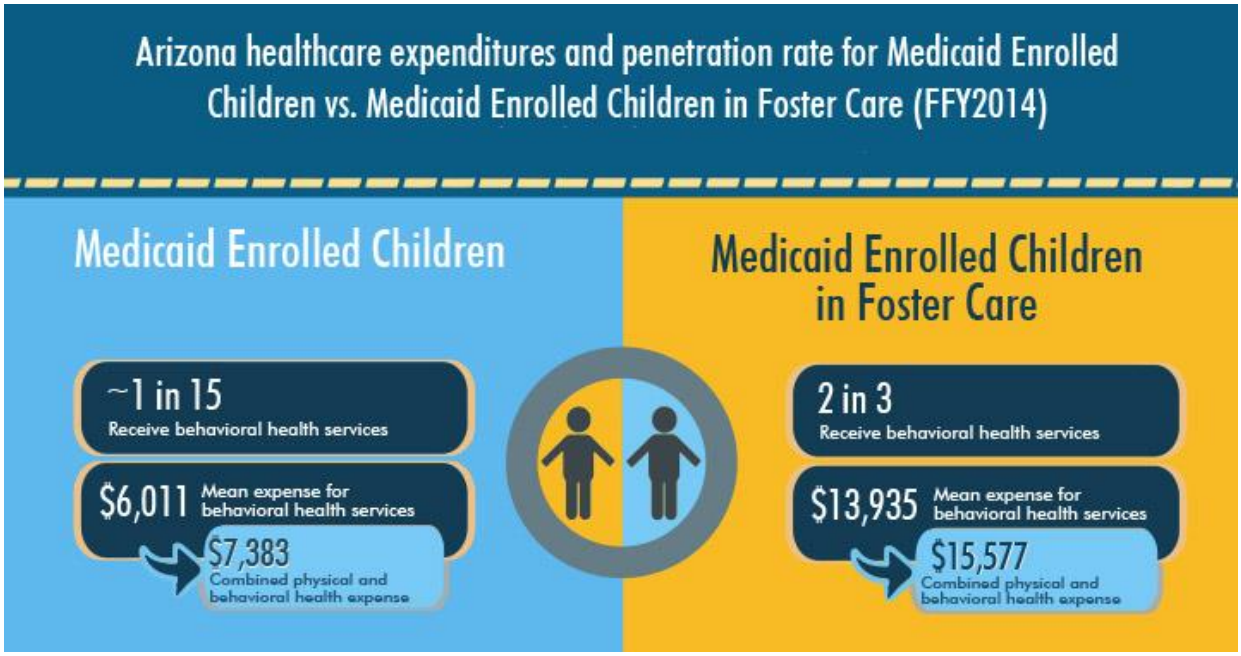
Referrals from DCS for behavioral health services are initiated through a DCS rapid response service request at the time of a child's removal from their home. If the child has already established care with a behavioral health provider prior to the removal, the child will be re-engaged by this provider to ensure continuity of care. The behavioral health system's rapid response must occur within 72 hours of referral. This contract requirement is congruent with national best practice guidelines[4] and contribute to the overall higher penetration rates in Arizona (67% in FFY2014) compared to national rates (32%)[2]; please refer to Chart 2 for penetration rates from Quarter 1 of 2014 to 2016.



The Geographic Service Areas (GSAs) in the table reflect contractors in effect in 2013: Northern Arizona Regional Behavioral Health Authority (GSA1 – Mohave, Coconino, Apache, Navajo and Yavapai), Cenpatico Behavioral Health of Arizona (GSA 2 & 4 – Gila, Pinal, La Paz and Yuma), Community Partnership of Southern Arizona, Inc. (GSA 3 & 5 – Graham, Greenlee, Santa Cruz, Cochise and Pima), Magellan Health Services of Arizona (GSA 6 – Maricopa), Mercy Maricopa Integrated Care (GSA 6 – beginning 4/1/2016).

In Arizona, the total physical health expenditures for children in foster care during FFY14 were $34,077,043; in comparison, the behavioral health expenditures were nearly four times greater at $131,125,986. Chart 3 compares Arizona penetration rates and expenditures for FFY2014 for Medicaid enrolled children to Medicaid Enrolled Children in Foster Care.

Chart 3:



After the initial rapid response, children in foster care are referred for ongoing behavioral health services for a period of at least six months unless services are declined by the guardian or the child is no longer in DCS custody. Behavioral health services are provided to:

- Mitigate and address the child's trauma;
- Support the child's temporary caretakers;
- Promote stability and well-being; and
- Address the permanency goal of the child and family.

Arizona has a full array of covered behavioral health services for children in foster care; this includes a full continuum of care from outpatient psychosocial interventions to residential and inpatient services; the categories of behavioral health services are further described in Table 2. Behavioral health services are delivered through Child and Family Team (CFT) Practice in Arizona.

Table 2: Covered Behavioral Health Service Categories

Service Category	Description
Treatment Services	Individual and group counseling, therapy, assessment, evaluation, screening, and other professional services
Rehabilitation Services	Living skills training, cognitive rehabilitation, health promotion, and ongoing support to maintain employment
Medical and Pharmacy	Medications which relieve symptoms, promote and/or enhance recovery from behavioral health condition
Support Services	Case management, self-help/peer support services and transportation
Crisis Intervention	Stabilization services provided in the community, hospitals and residential treatment facilities.
Inpatient Services	Inpatient treatment services delivered in hospitals and sub-acute facilities, provide 24-hour supervision, intensive treatment, and on-site medical services
Residential Services	Residential treatment with 24-hour supervision
Behavioral Health Day Programs	Skills training and ongoing support to improve the individual's ability to function within the community; Specialized outpatient programs provided to a person, group of persons and/or families in a variety of settings

III. Psychotropic Prescribing for Children in Foster Care in Arizona

Prescribing Ratios for Children in Foster Care Compared to General Medicaid Child Population for 2008 and 2013

Methodology

AHCCCS utilized the same pharmacist consultant who analyzed the 2008 Arizona psychotropic data to conduct the updated 2013 analysis. The consultant utilized the same methodology as in the 2008 analysis in order to compare the original GAO parameters of psychotropic prescribing for children in foster care to the general Medicaid child population between Calendar Years 2008 and 2013. AHCCCS initially began this analysis nearly two years ago; at that time, 2013 was the most complete data. AHCCCS intends to update this analysis ongoing with the most recent year of complete data, which is Calendar Year 2015.

Children in both study years were included if their age was between 0 and 17 as of July 31 of each selected year. Children could have been enrolled in foster and non-foster plans at different times during the year. A child was included in the foster group if the number of foster days was greater than or equal to the number of non-foster days. Children were excluded from the study if the number of foster and non-foster days enrolled were both less than 30 days, if they were enrolled in long term care, or if they were enrolled in fee for service.

The psychotropic medications included in this study are listed in the GAO report[6]. Prescriptions for anticonvulsants were included in this analysis only if prescribed by a provider in the RBHA network, as anticonvulsants can be used for physical health indications or for behavioral health conditions.

Findings

Ratios of prescribing for children in foster care compared to the general Medicaid child population in Arizona were similar for both study years as illustrated in Table 3; GAO data for other states is included for comparative purposes. Children 0-17 years old in foster care in Arizona were 4.4 times more likely to receive a psychotropic prescription than the general Medicaid child population in 2008 compared to 4.1 in 2013. Children 0-17 years old in foster care were 9 times more likely to be on 5 concomitant medications in 2008 than the general Medicaid child population compared to 9.5 in 2013. Children 0-17 years old in foster care in Arizona were 5.0 times more likely to receive a prescription exceeding the maximum FDA dose for age group than the general Medicaid child population in 2008, compared to 4.6 in 2013.

Table 3: 2008 and 2013 GAO Report Summary

Measure	2013	2008	2008 GAO[6] Comparison States				
	AZ	AZ	FL	MA	MI	OR	TX
Rates of Psychotropic Prescription - Ratio of Foster to Non-Foster Children							
Children 0 – 17 Years Old	4.1	4.4	2.7	3.8	2.7	4.1	4.5
Children 13 – 17 Years Old	4.6	3.8	3.1	3.6	2.7	3.6	5.1
Children 6-12 Years Old	3.9	5.1	2.5	3.7	2.3	3.8	4.3
Children 0-5 Years Old	4.6	5.5	1.6	2.2	3.8	3.9	2.9
Rates Concomitant Psychotropic Prescription of 5 medications - Ratio of Foster to Non-Foster Children							
Children 0-17 Years Old	9.5	9.0	4.6	18.2	14.9	13.1	52
Rates of Children Prescribed Psychotropic Drugs Outside FDA-Approved Doses or Standards Published in Medical Literature - Ratio of Foster to Non-Foster Children							
Prescription exceeding FDA maximum dose for age group	4.6	5.0	3.4	3.9	3.4	6.9	8.9
Prescription exceeding maximum dose published in medical literature for age group	8.0	7.4	4.2	5.1	4	7.6	11.5
Prescription with no FDA-approved dose for child's age, exceeding dosages for the next most relevant standard	9.8	4.9	6.1	7.7	6.4	8.5	21.5
Prescription for medication with no FDA-approved dose for age group	5.6	6.3	3.8	5.9	4.6	5.4	10.3
Prescription for medication with no published dose in medical literature for age group	5.2	4.6	3	4.5	4.8	4.1	14.6

Discussion

It is important to note that the GAO methodology results in a somewhat misleading comparison between children in foster care and the general Medicaid child population. For both study years 2008 and 2013, there is a much higher likelihood that children in foster care will access behavioral health services compared to the general Medicaid child population as there is a >10 fold higher penetration for

behavioral health services for foster children compared to the general Medicaid child population. Children in foster care have a higher prevalence rate of behavioral health conditions, including trauma, compared to the general Medicaid child population. The conditions precipitating a child's removal, as well as the removal itself, require that the State closely monitor the child's behavioral health needs and provide necessary services and supports. As a result, state policy requires certain levels of behavioral health services be provided to children in foster care. Thus, it is not surprising that children in foster care have higher penetration rates for behavioral health services than the general Medicaid population, and correspondingly, higher rates psychotropic medication prescriptions. Clearly, these higher rates require close monitoring and analysis; however, a more like comparison would examine the rates of psychotropic medication prescribing to children utilizing behavioral health services in both the foster care and the non-foster care population. In its next analysis, AHCCCS will include both comparisons.

To our knowledge, there has not been a repeat analysis for the other states from the original 2011 GAO study in order to examine how Arizona compares to other states.

Study Limitations

As this study design is difficult to replicate given that GAO report[6] did not publish the full methodology, GAO has not conducted a repeat analysis of other states in order to compare more recent trends with Arizona, and, as noted above, the two populations being compared are significantly different based on higher prevalence of behavioral health conditions in children in foster care compared to the general child population in Medicaid, it was determined necessary to conduct a separate analysis of the psychotropic prescribing specific to children in foster care to inform future direction as detailed below.

Children in Foster Care Receiving Psychotropic Medications in Calendar Years 2008, 2012, 2013, and 2014

Methodology

AHCCCS utilized the same pharmacist consultant as in the GAO study to analyze psychotropic prescription data for children in foster care during Calendar Years 2008, 2012, 2013 and 2014. Children in all study years were included if their age was between 0 and 17 as of July 31 and enrolled in CMDP for 30 or more days for each measurement year**.** Medications were delineated by the following psychotropic categories: attention deficit hyperactivity disorder (ADHD), antipsychotics, anticonvulsants, antidepressants, mood stabilizers, antiparkinson, anxiolytics, and hypnotics. Prescriptions for anticonvulsants were included in this analysis only if prescribed by a provider in the behavioral health network. Antiparkinson and anxiolytic medications may be used for physical health or behavioral health purposes; prescriptions for antiparkinson and anxiolytic medication were included in the analysis if prescribed by either a physical health or behavioral health provider and thus the utilization for these medication categories may be overrepresented for behavioral health purposes.

For the concurrent medication review of children in foster care in Arizona receiving 2, 3, 4 or 5 or more psychotropic medications, concurrent was defined as requiring 84-day overlap between the two medications in order to account for cross-tapers (lowering the dose of one medication while simultaneously increasing the dose of another medication). Different formulations of the same active ingredient (such as methylphenidate immediate and sustained release) were counted as a single medication.

Findings

As illustrated in Table 4, psychotropic expenditures as a percentage of overall health care expenditures decreased from 3.4% in 2012 to 1.9% in 2014.

Table 4: Psychotropic Expenditures as a % of Overall Health Care Expenditures for Children in Foster Care in Arizona by Year

Expenditure Type	FFY2008	FFY2012	FFY2013	FFY2014
Behavioral Health	$80,185,973	$89,536,917	$115,257,030	$131,125,986
Physical Health	$24,435,046	$24,886,879	$29,509,035	$34,077,043
Total	**$104,621,019**	**$114,423,796**	**$144,766,065**	**$165,203,029**
	2008	**2012**	**2013**	**2014**
Psychotropic Medication Total	**$4,410,642**	**$3,916,691**	**$3,084,039**	**$3,150,542**
Medication (% of Total Spend)	4.2%	3.4%	2.1%	1.9%
Medication Per Enrolled Member	$292	$205	$145	$139

Table 5 further details psychotropic prescribing by medication category by age group for 2008, 2012, 2013 and 2014 for children in foster care in Arizona. Findings indicate that the overall percentage of children in foster care receiving one or more psychotropic medication decreased from 20.3% in 2008 to 14.9% in 2014, a 26.6% decrease. The medication category that most significantly impacted this decrease is antipsychotics: in 2008, 10.9% of children in foster care in Arizona age 0-17 were prescribed antipsychotics which decreased to 6.2% in 2014, representing a 43% decrease. The overall percentage of children in foster care receiving an ADHD medication between 2008 and 2014 remained stable for children in foster care in Arizona age 0-17 at 10.3% for both study years. Additionally, there was a34.2% decrease in the percentage of children age 0-5 prescribed psychotropic medications between 2008 and 2014 (3.8% and 2.5% respectively). The number of children in foster care in Arizona age 0-17 on 5 or more concurrent medications in 2014 represented 1% of the total population receiving psychotropics during that year (34 out of 3,366 children) compared to 0.8% in 2008 (27 out of 3,064 children). Please refer to Table 6 and Chart 5 for further details.

Table 5: Number and Percentage of Children in Foster Care in Arizona Receiving Psychotropic Medications Delineated by Medication Category and Age Group by Year – 2008, 2012, 2013, 2014

2008

		Psychotropic Medication Categories													
		Total Psychotropics		Antipsychotics		Antidepressants		ADHD		Mood Stabilizers (Lithium Only)		Mood Stabilizers (Lithium and Anticonvulsants)		Anxiolytics	
Age Category	Enrolled Members	Member Count[1]	Rx Count[2]	Member Count[3]	Rx Count	Member Count	Rx Count	Member Count	Rx Count	Member Count	Rx Count	Member Count	Rx Count	Member Count	Rx Count
Children 0-5 (under 6)	6,325	241	1,521	66	355	26	98	164	872			2	2	28	44
Children 6-12 (under 13)	4,103	1,123	16,144	567	4,727	300	1,651	715	6,281	50	358	113	624	30	96
Children 13-17 (ie under 18yo)	4,653	1,700	23,853	1,018	7,885	811	4,676	680	5,094	225	1,459	428	2,459	68	199
Total	**15,081**	**3,064**	**41,518**	**1,651**	**12,967**	**1,137**	**6,425**	**1,559**	**12,247**	**275**	**1,817**	**543**	**3,085**	**126**	**339**
Percentage of Enrolled 0-5		3.8%		1.0%		0.4%		2.6%		0.0%		0.0%		0.4%	
Percentage of Enrolled 6-12		27.4%		13.8%		7.3%		17.4%		1.2%		2.8%		0.7%	
Percentage of Enrolled 13-17		36.5%		21.9%		17.4%		14.6%		4.8%		9.2%		1.5%	
Percentage of Total Enrolled		**20.3%**		**10.9%**		**7.5%**		**10.3%**		**1.8%**		**3.6%**		**0.8%**	

2012

		Psychotropic Medication Categories													
		Total Psychotropics		Antipsychotics		Antidepressants		ADHD		Mood Stabilizers (Lithium Only)		Mood Stabilizers (Lithium and Anticonvulsants)		Anxiolytics	
Age Category	Enrolled Members	Member Count[1]	Rx Count[2]	Member Count[3]	Rx Count	Member Count	Rx Count	Member Count	Rx Count	Member Count	Rx Count	Member Count	Rx Count	Member Count	Rx Count
Children 0-5 (under 6)	8,567	169	1,203	38	184	8	30	148	900	6	32	12	59	7	17
Children 6-12 (under 13)	5,443	1,108	14,221	491	3,857	214	1,226	889	8,006	61	460	136	937	13	37
Children 13-17 (under 18yo)	5,055	1,582	22,590	936	7,369	738	4,404	794	6,048	257	1,774	533	3,734	72	327
Total	**19,065**	**2,859**	**38,014**	**1,465**	**11,410**	**960**	**5,660**	**1,831**	**14,954**	**324**	**2,266**	**681**	**4,730**	**92**	**381**
Percentage of Enrolled 0-5		2.0%		0.4%		0.1%		1.7%		0.1%		0.1%		0.1%	
Percentage of Enrolled 6-12		20.4%		9.0%		3.9%		16.3%		1.1%		2.5%		0.2%	
Percentage of Enrolled 13-17		31.3%		18.5%		14.6%		15.7%		5.1%		10.5%		1.4%	
Percentage of Total Enrolled		**15.0%**		**7.7%**		**5.0%**		**9.6%**		**1.7%**		**3.6%**		**0.5%**	

2013

		Psychotropic Medication Categories													
		Total Psychotropics		Antipsychotics		Antidepressants		ADHD		Mood Stabilizers (Lithium Only)		Mood Stabilizers (Lithium and Anticonvulsants)		Anxiolytics	
Age Category	Enrolled Members	Member Count[1]	Rx Count[2]	Member Count[3]	Rx Count	Member Count	Rx Count	Member Count	Rx Count	Member Count	Rx Count	Member Count	Rx Count	Member Count	Rx Count
Children 0-5 (under 6)	9,589	233	1,670	44	243	18	63	208	1,255	3	23	9	51	10	18
Children 6-12 (under 13)	6,371	1,251	15,404	483	3,773	210	1,173	1,050	9,322	60	455	148	997	12	25
Children 13-17 (under 18yo)	5,252	1,648	24,681	917	7,388	824	5,634	836	6,693	235	1,787	548	3,974	72	322
Total	**21,212**	**3,132**	**41,755**	**1,444**	**11,404**	**1,052**	**6,870**	**2,094**	**17,270**	**298**	**2,265**	**705**	**5,022**	**94**	**365**
Percentage of Enrolled 0-5		2.4%		0.5%		0.2%		2.2%		0.0%		0.1%		0.1%	
Percentage of Enrolled 6-12		19.6%		7.6%		3.3%		16.5%		0.9%		2.3%		0.2%	
Percentage of Enrolled 13-17		31.4%		17.5%		15.7%		15.9%		4.5%		10.4%		1.4%	
Percentage of Total Enrolled		**14.8%**		**6.8%**		**5.0%**		**9.9%**		**1.4%**		**3.3%**		**0.4%**	

2014

Age Category	Enrolled Members	Psychotropic Medication Categories: Total Psychotropics Member Count[1]	Total Psychotropics Rx Count[2]	Antipsychotics Member Count[3]	Antipsychotics Rx Count	Antidepressants Member Count	Antidepressants Rx Count	ADHD Member Count	ADHD Rx Count	Mood Stabilizers (Lithium Only) Member Count	Mood Stabilizers (Lithium Only) Rx Count	Mood Stabilizers (Lithium and Anticonvulsants) Member Count	Mood Stabilizers (Lithium and Anticonvulsants) Rx Count	Anxiolytics Member Count	Anxiolytics Rx Count
Children 0-5 (under 6)	9,937	253	1,503	30	127	16	78	204	1,195	-	-	7	21	35	77
Children 6-12 (under 13)	7,408	1,482	17,996	529	4,107	290	1,624	1,271	11,014	55	487	184	1,054	36	83
Children 13-17 (under 18yo)	5,245	1,631	23,517	836	6,592	828	5,622	853	7,007	208	1,471	594	3,574	71	201
Total	**22,590**	**3,366**	**43,016**	**1,395**	**10,826**	**1,134**	**7,324**	**2,328**	**19,216**	**263**	**1,958**	**785**	**4,649**	**142**	**361**
Percentage of Enrolled 0-5		2.5%		0.3%		0.2%		2.1%		0.0%		0.1%		0.4%	
Percentage of Enrolled 6-12		20.0%		7.1%		3.9%		17.2%		0.7%		2.5%		0.5%	
Percentage of Enrolled 13-17		31.1%		15.9%		15.8%		16.3%		4.0%		11.3%		1.4%	
Percentage of Total Enrolled		**14.9%**		**6.2%**		**5.0%**		**10.3%**		**1.2%**		**3.5%**		**0.6%**	

[1]Total unduplicated member counts across medication categories

[2]Rx = prescription

[3]Members receiving a prescription for medication in one category may be duplicated in another category. For example, a CMDP member who received an antidepressant prescription could have also received an ADHD prescription.

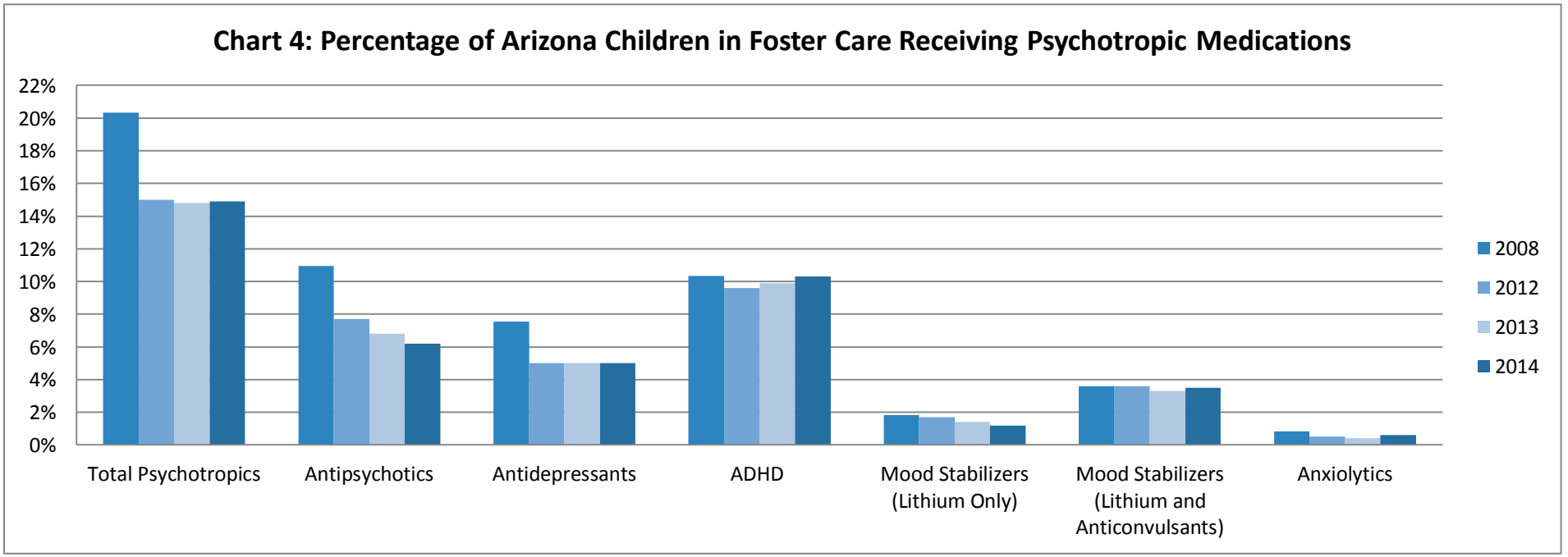
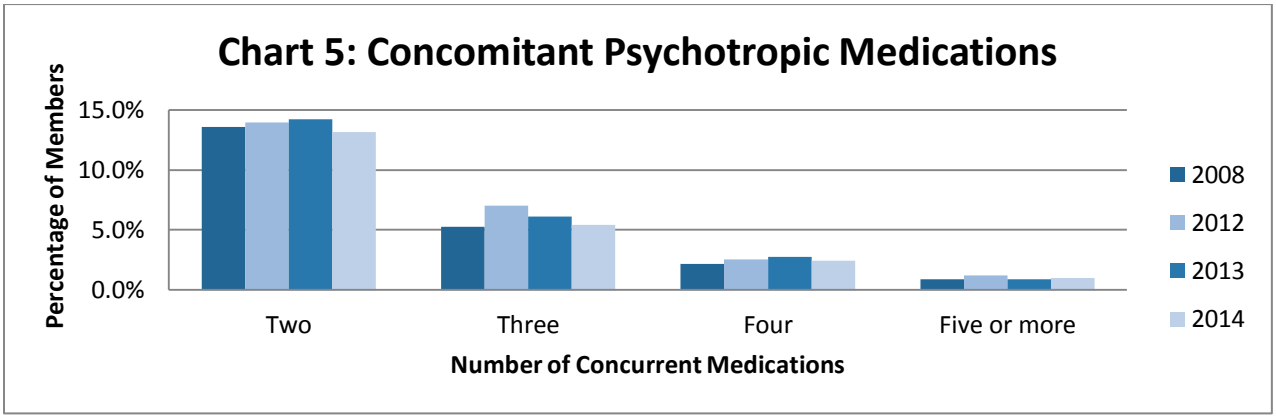


Table 6: Percentage of Children in Foster Care Prescribed Psychotropics Concomitant Medications

Number of Concomitant Medications	Percentage of Children in Foster Care (2008)	Percentage of Children in Foster Care (2012)	Percentage of Children in Foster Care (2013)	Percentage of Children in Foster Care (2014)
2	13.6% (416)	14.0% (399)	14.2% (445)	13.1% (442)
3	5.3% (162)	7.0% (201)	6.1% (192)	5.4% (182)
4	2.2% (66)	2.6% (73)	2.7% (86)	2.5% (83)
5 or more	0.9% (27)	1.2% (35)	0.9% (28)	1.0% (34)



Discussion

In recent years, there has been increasing concern for use of antipsychotic medications in children due to the potential short and long term side effect profile, which includes extrapyramidal symptoms and metabolic syndrome. Efforts to reduce inappropriate prescribing include adoption and dissemination of practice guidelines to providers as required by AHCCCS Medical Policy Manual Chapter 1000, ADHS/DBHS requirement of prior authorization for antipsychotics for children age 0-5 and concomitant antipsychotics, and review of prescribing trends by medication category at RBHA level Pharmacy and Therapeutics Committee as further detailed in Section IV *Best Principle Guidelines for Psychotropic Prescribing and Oversight* of this report. Overall, the findings from this analysis demonstrate a reduction in the prescription of antipsychotics by 43% between study years 2008 and 2014 for children in foster care. AHCCCS and its partners will continue to monitor this closely.

Due to the concern that the long term effects of psychotropic medications in young children age 0-5 have not been systematically studied, there is a relatively strong evidence base for the use of psychotherapeutic interventions for young children with a psychiatric diagnosis. As young children are at a unique development period with ongoing brain development,[7] there has been increased guidance, monitoring and oversight of prescribing of psychotropic medications to this population. Actions taken by ADHS/DBHS to address psychotropic prescribing in children 0-5 include requirement of prior authorization for ADHD and antipsychotic medications. Additionally, on October 2, 2009, ADHS/DBHS implemented the Practice Guideline Psychiatric Best Practice for Children Birth to Five Years of Age. As outlined in this guideline, the use of psychotherapeutic interventions for young children with psychiatric diagnoses should be the initial interventions before considering a psychopharmacologic trial. This guideline also requires the RBHAs to implement a credentialing mechanism which reviews the level of

skills, training, as well as the scope of practice of behavioral health staff who are prescribing psychopharmacological treatments to children age 0-5.

Concomitant prescribing of 2 or more psychotropic medications has also received increased oversight and monitoring due to the additive potential side effects and drug-drug interactions. ADHS/DBHS has prior authorization requirements for intraclass concomitant drug therapy (antidepressants and antipsychotics) and prior authorization requirements for children 0-5 as outlined above. However, given the number of children in foster care on concomitant medications, additional actions are necessary as outlined in Section V. *Future Direction*.

IV. Best Principle Guidelines for Psychotropic Prescribing and Oversight

The American Academy of Child and Adolescent Psychiatry (AACAP) is a national medical organization whose goal is to aid in the understanding and treatment of the developmental, behavioral, and mental disorders that affect children and adolescents. This organization has developed guidelines that address psychotropic prescribing concerns in the foster care population.[3] These guidelines are arranged into four categories (consent, oversight, consultation, information sharing) and contain practices defined as minimal, recommended, or ideal. Tables 7-10 summarize Arizona's actions to date on implementation of these guidelines.

Table 7: Arizona Consent Laws and Policies Compared with AACAP Best Principle Guidelines

Standard	Guideline	Arizona Practice	Reference
Minimal	Identify the parties empowered to consent for psychotropic drug treatment for youth in state custody in a timely fashion	Fully Implemented	a. Arizona Revised Statutes (ARS) § 8-514.05(C)
Minimal	Establish a mechanism to obtain assent for psychotropic medication management from minors when possible	Fully Implemented	b. DBHS Policy 108 c. Policy Form 108.1, Informed Consent/Assent for Psychotropic Medication Treatment
Recommended	Obtain simply written psycho-educational materials and medication information sheets to facilitate the consent process	Fully Implemented	d. DCS Psychotropic Medication Guide e. DCS Pamphlet for Caregivers English Version Spanish Version
Ideal	Establish training requirements for child welfare, court personnel and/or foster parents to help them become more effective advocates for children in their custody	Partially Implemented	f. Behavioral health providers that work with children and families involved with DCS are required to complete the training *Understanding the Unique Behavioral Health Needs of Children and Families involved with the Department of Child Safety.*

Table 8: Arizona Oversight Laws and Policies Compared with AACAP's Best Principle Guidelines			
Standard	**Guideline**	**Arizona Practice**	**Reference**
Minimal	Establish guidelines for the use of psychotropic medications for children in state custody	Fully Implemented	a. DBHS Adopted Practice Guidelines b. DCS Children's Service Manual c. DCS Psychotropic Medication Guide
Ideal	Oversight program includes an advisory committee to oversee a medication formulary and provide medication monitoring guidelines to practitioners who treat children in the child welfare system	Fully Implemented	d. Pharmacy and Therapeutics Committees at AHCCCS, RBHAs and CMDP e. Prior authorization for antipsychotics and ADHD medications for children under the age of 6
Ideal	Oversight program monitors the rate and types of psychotropic medication usage and the rate of adverse reactions among youth in state custody	Partially Implemented	f. RBHAs and CMDP have implemented oversight specific to their geographic area as described in RBHA specific action section of this report g. Statewide requirements for reporting
Ideal	Oversight program establishes a process to review non-standard, unusual, and/or experimental psychiatric interventions with children who are in state custody	Fully Implemented	h. Pharmacy and Therapeutics Committee, Quality/Medical Management Committee, and Peer Review established at RBHAs/CMDP
Ideal	Oversight program collects and analyzes data and makes quarterly reports to the state or county child welfare agency regarding the rates and types of psychotropic medication use. These data are made available to clinicians in the state to improve the quality of care provided	Partially Implemented	i. Pharmacy and Therapeutics Committees at RBHAs/CMDP
Ideal	Maintain an ongoing record of diagnoses, height and weight, allergies, medical history, ongoing medical problem list, psychotropic medications, and adverse medication reactions that are easily available to treating clinicians 24 hours a day	Partially Implemented	j. Electronic Health Record k. Behavioral Health Information Network of Arizona

Table 9: Arizona Consultation Programs Compared with AACAP's Best Principle Guidelines			
Standard	**Guideline**	**Arizona Practice**	**Reference**
Recommended	Design a consultation program administered by child and adolescent psychiatrists. This program provides consultation by child and adolescent psychiatrists to the persons or agency that is responsible for consenting for treatment with psychotropic medications	Partially Implemented	a. Available through select Pediatric Accountable Care Organizations b. Available through RBHA child and adolescent psychiatrists and their contracted child/adolescent psychiatrist providers
Recommended	The consultation program provides consultations by child and adolescent psychiatrists to, and at the request of, physicians treating this complex patient population	Partially Implemented	As per a. and b.
Recommended	The consultation program conducts face-to-face evaluations of youth by child and adolescent psychiatrists at the request of the child welfare agency, the juvenile court, or other state or county agencies empowered by law to consent for treatment with psychotropic medications when concerns have been raised about the pharmacological regimen	Partially Implemented	c. Face: face consultations with child and adolescent psychiatrists are available at the request of the child's primary care physician, family or guardian

Table 10: Arizona Information-Sharing Laws and Policies Compared with AACAP's Best Principle Guidelines			
Standard	**Guideline**	**Arizona Practice**	**Reference**
Ideal	Create a website to provide ready access for clinicians, foster parents, and other caregivers to pertinent policies and procedures governing psychotropic medication management	Fully Implemented	a. AHCCCS Website
Ideal	Website includes psycho-educational materials	Fully Implemented	b. AHCCCS Website
Ideal	Website includes consent forms	Fully Implemented	c. DBHS Policy 108 d. Policy Form 108.1, Informed Consent/Assent for Psychotropic Medication Treatment
Ideal	Website includes adverse effect rating forms	Not Implemented	
Ideal	Website includes reports on prescription patterns for psychotropic medications	Fully Implemented	e. AHCCCS Website
Ideal	Website includes links to helpful, accurate, and ethical websites about child and adolescent psychiatric diagnoses and psychotropic medications	Fully Implemented	f. DBHS Website link specific to DCS

CMDP, CRS and RBHA Specific Actions

Comprehensive Medical and Dental Program (CMDP)

CMDP retrospectively reviews the primary care provider's (PCP) medical records through the PCP Psychotropic Prescribing Oversight Team, which has participation from the CMDP Medical Director, CMDP Behavioral Health Medical Director, CMDP Director of Behavioral Health Services, CMDP Behavioral Health Nurse and CMDP Behavioral Health Clinical Care Coordinator. Medical records are reviewed utilizing audit tools that were created from a literature review of evidenced based practices including Guidelines set forth by the American Academy of Pediatrics.

When PCP psychotropic prescribing is determined to be appropriate through the PCP Psychotropic Prescribing Oversight Team, the Behavioral Health Clinical Care Coordinator monitors PCP annual assessment and service plan completion. This monitoring includes ensuring there is no gap in medication coverage, outreaching to members via coordination with the Behavioral Health Care Coordinators when approaching the 12-month reassessment timeframe, and providing assistance with scheduling the appointment with the member's PCP.

When PCP psychotropic prescribing falls outside of established guidelines as determined through the PCP Psychotropic Prescribing Oversight Team, possible interventions include:

1. *Determination that the PCP would benefit from education regarding psychotropic best practice guidelines and/or trauma-informed care*: the Behavioral Health Clinical Care Coordinator faxes an intervention letter to the PCP office and encourages a RBHA referral for further assessment and the possible addition of psychosocial interventions
2. *Determination that the PCP prescribing does not meet best practice guidelines, but no quality of care concerns have been identified*: the PCP receives education through an intervention letter
3. *Determination of a potential QOC issue:* a QOC investigation is conducted which involves the CMDP Medical Director and/or Behavioral Medical Director in the review of the QOC including necessary actions.

Children's Rehabilitative Services (CRS)

CRS case managers review CRS/CMDP members' needs and intervene for polypharmacy, therapeutic drug class duplications, excessive dosage or inappropriate age limit prescribing. Additionally, CRS has psychiatry consultation for members with complex issues, which includes review of medications and peer-to-peer discussions focusing on psychotropic best practice prescribing guidelines.

CRS has standing meetings every 2 to 4 weeks with CMDP regarding CRS/CMDP members who have complex service needs. Additionally, CRS conducts monthly Pharmacy and Therapeutics Committees meetings to review utilization and management of CRS/CMDP members' prescribed drugs. CRS also holds Quality Utilization Management (HQUM) meetings, which review pharmacy top 10 drugs volume and cost with planned interventions for management. An example of a management strategy addressing the pharmacological issues for the behavioral health issues in the CRS/CMDP members is the current Drug Utilization Review (cDUR) for duplication of therapeutic drug classes with an alert to the pharmacist when noted. There is also a cDUR for drug-drug interactions where there are multiple drugs prescribed to a member. Where it is noted that standard doses are exceeded, another cDUR creates the edit for stopping the fill and requiring a prior authorization to explain why the dose is needed prior to fill. In addition, there is a cDUR that provides pharmacist alerts for age limitations for medications

prescribed. HQUM also reviews planned enhancements or development of DUR such as the cDUR enhancement being developed for the polypharmacy with duplication within therapeutic class (including psychotropics), which will require notification of pharmacist with an edit and then a requirement the pharmacist follow through with an action such as contacting physician before filling the medication.

CRS educates providers a number of different ways including having links on the provider page of uhccommunityplan.com under Clinical Practice Guidelines. CRS has planned additional training at future provider forums regarding the unique needs of DCS-involved members.

Cenpatico Integrated Care (C-IC)

Cenpatico-IC provides routine education to providers in a number of formats. C-IC conducts a monthly Medical Directors' meeting, in which standards of practice are established and system-wide issues are discussed. Cenpatico-IC's pharmacy director hosts a quarterly prescriber webinar to educate providers on proper pharmacologic treatments in children. The pharmacy director or medical director meets with individual prescribers if further one-on-one education appears to be needed.

For children less than 6 years old, C-IC requires that a trained child and adolescent psychiatrist be assigned as the Behavioral Health Medical Practitioner (BHMP) and be the prescriber of any psychotropic medication. In addition, evidence must be provided that non-pharmacologic interventions have attempted before considering medication treatment.

Cenpatico-IC reviews pharmacologic prescribing for children in foster care through the Pharmacy and Therapeutics Committee on a quarterly basis. The data is then presented to the Medical Management Committee and Quality Committee for further analysis and discussion of any interventions needed. Cenpatico-IC monitors individual practitioner prescribing patterns and generates a prescriber report card. The report card detects potential polypharmacy and includes other measures. The report card is shared with medical directors at Intake and Coordination of Care Agencies (community mental health centers). When prescribing patterns appear to be outside the standard of care, the practitioner may be referred to C-IC's Peer Review Committee for further investigation and intervention, including potential referral to the Medical Board.

Mercy Maricopa Integrated Care (MMIC)

MMIC has addressed a potential barrier to appropriate psychotropic prescribing—insufficient information for clinicians to properly assess a child-- by developing a process by which information can be summarized in advance of and brought to the BHMP appointment. MMIC conducts training for DCS group homes and foster care licensing agencies on how to complete the information requested in these forms to provide concise and consistent information to the BHMPs for each visit.

In an effort to ensure clinical expertise is available to the CFT in a timely way to ensure evidence based recommendations are provided, MMIC has required increased involvement of the BHMP in the CFT process. Additionally, through the MMIC new High Need Case Management (HNCM) scope of work, there is increased oversight expectations by the HNCM agency medical director, requiring Medical Director involvement when a BHMP is not available or not involved in a particular case where there is a diagnostic dilemma or question of what would be most evidence based treatment.

Additionally, MMIC is in the process implementing a required peer review process based on AACAP practice parameters for provider agencies who prescribe psychotropic medications to children. This peer review process will outline minimum standards as based on practice parameters Medical Directors/Designees will monitor to this standard for each of their BHMP quarterly.

MMIC is working with CVS caremark to create reports to categorize special populations within the 0-12 age group and to identify prescribing patterns for prospective interventions.

Health Choice Integrated Care (HCIC)

HCIC developed and implemented the Pediatric Check-Up Protocol as part of the National Council Learning Community to coordinate care for children in DCS custody. From October 2013 to December 2015, HCIC coordinated medical information (including medical history, previous primary care provider, medications, immunizations, chronic conditions) between DCS, the child's previous health plan, CMDP, the foster family and behavioral health home for 677 children in foster care.

HCIC holds a monthly Pharmacy and Therapeutics Committee for all behavioral health medical practitioners with an average of 45 providers participating each month. This committee addresses best practice related to psychotropic prescribing in children and monitors psychotropic utilization for children in foster care. Outside of this committee structure, providers also receive education on polypharmacy, information on child psychotropic prescribing best practices, and a provider specific profile report on their psychotropic prescribing to children in foster care.

V. Future Direction

In order to address inappropriate psychotropic prescribing to children in foster care, AHCCCS is continuing with the following actions:

1. Transitioned the Arizona Psychotropic Monitoring Oversight Team into other existing meeting structures at AHCCCS as part of the merger between DBHS and AHCCCS in order to be able to directly address/impact the multiple factors that can lead to inappropriate psychotropic prescribing
2. Maintain the ADHS/DBHS Policy for Informed Consent/Assent for Psychotropic Medication, which includes the following requirements for youth assent for psychotropic medications:
    a. Youth under the age of 18 are to be educated on options, allowed to provide input and encouraged to assent to medication(s) being prescribed.
    b. Information is discussed with the youth in a clear and age-appropriate manner consistent with the developmental needs of the youth.
    c. The information to be shared should be consistent with the information shared in obtaining informed consent from adults.
    d. Discussion of the youth's ability to give consent for medications at the age of 18 years old is begun no later than age 17 ½ years old, especially for youth who are not in the custody of their parents.
    e. There should be special attention to the effect of medications on the reproductive status and pregnancy, as well as long term effects on weight, abnormal involuntary movements and other health parameters.

3. Maintain behavioral health contractors' medical management and quality management functions, including addressing immediate care needs and quality of care concerns specific to psychotropic prescribing to children in foster care.
4. Continue prior authorization requirements for ADHD and antipsychotic medications for children age 0-5
5. Maintain website for behavioral health resources for children and families involved with DCS

Additionally, AHCCCS is implementing the following actions:

1. Requiring behavioral health contractors to track/trend psychotropic medication prescribing to children in foster care at their Pharmacy and Therapeutics Committees and implement appropriate interventions based on trends identified.
2. Requiring behavioral health contractors to conduct chart reviews by subject matter experts (board eligible or certified child and adolescent psychiatrists) for children in foster care on 4 or more psychotropic medications.
3. Requiring behavioral health contractors to share tracked psychotropic prescribing data with DCS.
4. Evaluating other prior authorization requirements for psychotropic medications for children through the AHCCCS Pharmacy and Therapeutics Committee.
5. Requiring behavioral health contractors to conduct behavioral health network analysis of the availability of evidenced-based psychotherapeutic interventions including those *specific* to PTSD and Abuse-Related Trauma:
    a. Trauma-Focused Cognitive Behavioral Therapy (TF-CBT)
    b. TF-CBT for Childhood Traumatic Grief
    c. Abuse-Focused CBT
    d. Parent Child Interaction Therapy (PCIT)
    e. Child-Parent Psychotherapy for Family Violence (CPP-FV)
    f. Structural Psychotherapy for Adolescents Responding to Chronic Stress (SPARCS).
6. Updating AHCCCS specific website for children/families involved with DCS to include psychotropic adverse effect rating forms.
7. Evaluating/expanding the current capacity/availability of Arizona consultation programs with board eligible/board certified child and adolescent psychiatrists.
8. Issuing Frequently Asked Question (FAQ) document to DCS stakeholders on who can consent for behavioral health services for children in foster care, including psychotropic medication.
9. Partnering with DCS to provide training for their staff, court personnel and foster parents on the unique behavioral health needs of children in foster care.

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