Center for Healthcare Improvement for Addictions, Mental Illness and Medically Vulnerable Populations

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EVALUATION OF WASHINGTON STATE'S PARTNERSHIP ACCESS LINE (PAL): IMPACT OF A CHILD PSYCHIATRY CONSULTATION PROGRAM ON PROVIDER PRESCRIBING CHARACTERISTICS AND CHILD OUTCOMES

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EXECUTIVE SUMMARY

Introduction

In the last several years, Washington State has undertaken numerous system-wide changes to improve the delivery of evidence-based mental health care for children, particularly Medicaid children. Mental disorders are not uncommon in childhood, and they are routinely diagnosed and managed within primary care.[1-4] However, primary care providers (PCPs) may not always be comfortable providing this care, and may lack the training to do so.[4, 5] In response, Washington State has funded the Partnership Access Line (PAL) to provide free mental health consultation support to PCPs treating children's mental health disorders in primary care. PAL began in April 2008. The goal of the PAL program is to assist PCPs in providing evidence-based mental health treatments for children. While PAL is specifically marketed as a resource to providers in the Department of Social and Health Services (DSHS) Regions 1 and 6, any provider in the state may call PAL. PCPs may call the toll-free PAL line and speak with a child psychiatrist for any mental health treatment advice for any child. Medication therapy is the most common reason for a call to PAL, but evidence-based psychosocial treatment and referral to local mental health resources are also commonly addressed during a PAL call. PAL is funded by the Washington State Legislature through House Bill 1088 and the Washington Department of Social and Health Services (DSHS).

The Division of Public Behavioral Health and Justice Policy (PBHJP) and the Center for Healthcare Improvement for Addictions, Mental Illness and Medically Vulnerable Populations (CHAMMP) at Harborview Medical Center were commissioned by the Washington Department of Social and Health Services to evaluate the PAL program. Both PBHJP and CHAMMP reside within the Department of Psychiatry and Behavioral Sciences at the University of Washington. Previous evaluations of the PAL Program were conducted by Robert Hilt and his colleagues[6, 7] The evaluation described here addresses medication and health services utilized by children enrolled in Medicaid Fee-for-Service (FFS) who were the focus of a PAL call.

Description of Providers and Children

From May 2008 through December 2009, 853 calls eligible for this study[1] were made to the PAL Program about 698 unique children.

- 75% of 239 providers making one or more calls were physicians, and 17% were nurse practitioners.
- Of the 698 unique children that were the focus of a PAL call
    - 59% were male,
    - 15% ever had a history of foster care placement,
    - 61% ever had Medicaid, and
    - 23% were enrolled Medicaid Fee-for-Service (FFS) at the time the provider called PAL.
- **158 children** who were enrolled in Medicaid FFS at the time the provider called PAL were the focus of most analyses because they had the most complete Medicaid encounter-level data.

Results of Analyses

Mental Health Diagnoses among FFS Medicaid Children:

[1] Calls from specialists and providers outside DSHS Regions 1 and 6 were excluded from this evaluation. Sixteen children whose families did not consent to the evaluation were also excluded.

- The majority of Medicaid FFS children had multiple diagnoses—83% had two or more diagnoses, 59% had three or more, and 41% had four or more.
- Almost two-thirds (62%) were diagnosed with attention deficit/hyperactivity (ADHD). Half were diagnosed with conduct or oppositional defiant disorder, 27% with autism, and 26% with anxiety.
- Compared to children who were never in foster care, children ever in foster care had:
    - Significantly higher rates of post-traumatic stress disorder (17% vs. 4%) and substance abuse (7% vs. 0%)
    - Significantly lower rates autism spectrum (12% vs. 44%)

Mental Health Medication Use among FFS Medicaid Children:

- Before the PAL call, the most commonly prescribed medications were for ADHD (an average of 0.61 ADHD medications per child per month), followed by antipsychotics (AP) (0.31 AP medications per child per month), and antidepressants (0.19 antidepressants per child per month).
- After the PAL call, there were significant increases in the rates of children using:
    - Antidepressants (0.19 before to 0.26 after)
    - ADHD medications (0.61 before to 0.78 after)

Reimbursements among FFS Medicaid Children:

- There was not a significant difference in the average Medicaid reimbursement for mental health medications before and after the first PAL call for FFS Medicaid children. Before a PAL call, the average FFS Medicaid reimbursement per child per month was $170.75 and after a PAL, the average FFS Medicaid reimbursement per child per month was $171.34.

Mental Health Service Utilization among FFS Medicaid Children:

- The rate of outpatient mental health visits per child per month increased from 0.05 before the PAL call to 0.07 after the PAL call for all children.
- For children with a history of foster care placement, the rate of outpatient mental health visits per child per month increased after the PAL call, from 0.04 before to 0.07, a statistically significant increase.
- The rate of outpatient mental health visits did not change for children never in foster care,—from 0.07 before the PAL call to 0.07 after the PAL call.

Emergency Department and Inpatient Hospital Admission among FFS Medicaid Children:

- There was no evidence for a change in either emergency department or inpatient hospital admissions in relation to the PAL call.

Conclusions

- Even though there was an increase in medication use among FFS Medicaid children who were the focus of a PAL call, there was no significant increase in Medicaid reimbursements.
- There is evidence for an increase in outpatient mental health visits following a PAL call for children with a history of foster care placement.

    - We recommend this finding be followed closely as more FFS Medicaid children become the focus of a PAL call.
    - We also recommend obtaining Washington State Regional Support Network (RSN) data to enhance our understanding of the rates of outpatient mental health service use for these children.
- No change in either emergency department or inpatient hospital admissions could be due to the low rates of utilization of these services during the period under study.

Introduction

In the last several years, Washington State has undertaken numerous system-wide changes to improve the delivery of evidence-based mental health care for children, particularly Medicaid children. Mental disorders are not uncommon in childhood, and they are routinely diagnosed and managed within primary care. [1-4] However, primary care providers (PCPs) may not always be comfortable providing this care, and they may lack the training to do so.[4, 5] In response, Washington State has funded the Partnership Access Line (PAL) to provide consultation led by child psychiatrists to PCPs treating children's mental health disorders in primary care.

Established in April 2008, PAL is a free, mental health consultation and education service designed to assist primary care providers (PCPs) in providing evidence-based mental health treatment to children. PCPs may call the toll-free PAL line and speak with a child psychiatrist to receive mental health treatment advice for any child. While PAL is specifically marketed as a resource to providers in the Department of Social and Health Services (DSHS) Regions 1 and 6, any provider in the state may call PAL. Child psychiatrists are affiliated with Seattle Children's Hospital in Seattle, Washington. Medication therapy is the most common reason for a call to PAL, but evidence-based psychosocial treatment and referral to local mental health resources are also commonly addressed during a PAL call. If the child psychiatrist and the PCP determine over the phone that further consultation is needed, a consult appointment with the child psychiatrist can be scheduled for a DSHS or Healthy Options client. PAL is funded by the Washington State Legislature through House Bill 1088 and the DSHS.

The Division of Public Behavioral Health and Justice Policy (PBHJP) in collaboration with the Center for Healthcare Improvement for Addictions, Mental Illness and Medically Vulnerable Populations (CHAMMP) at Harborview Medical Center were commissioned by the Washington Department of Social and Health Services to evaluate the PAL program. Both PBHJP and CHAMMP reside within the Department of Psychiatry and Behavioral Sciences at the University of Washington. Previous evaluations of the PAL Program were conducted by Robert Hilt and his colleagues [6, 7] The evaluation described here addresses medication and health services utilized by children enrolled in Medicaid Fee-for-Service who were the focus of a PAL call.

Purpose

The purpose of this report is to describe:

- The providers who have participated in the PAL Program
- Individual children who were the focus of a PAL call ('target child')
- Mental health medication use before and after a PAL call for the target child
- Mental health medication costs before and after a PAL call for the target child
- Mental health service use before and after the PAL call for the target child
- Emergency department and inpatient hospital use for the target child

Methods

This study was designed to broadly describe the providers who called PAL between May 2008 and December 2009 and the children who were the focus of these calls. This study was also designed to evaluate the

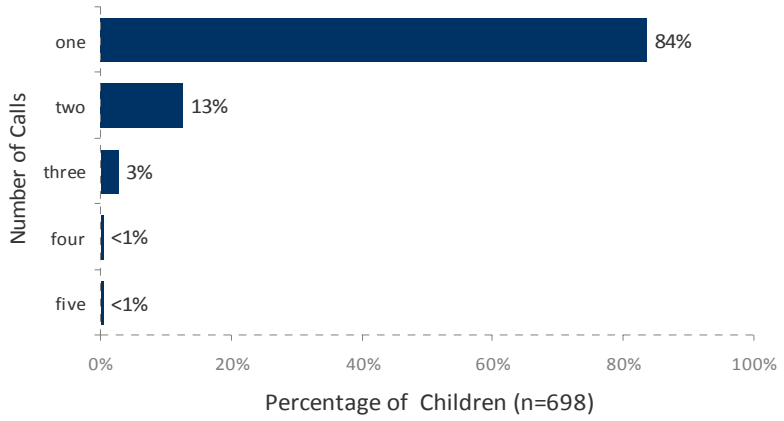
medication and health service use by 158 children enrolled in Medicaid fee-for-service before and after a PAL call. If the provider called PAL more than once about a particular child, the first phone call was used to assess differences before and after the PAL call. PAL program data and DSHS claims data from the Medicaid Management Information System (MMIS) were used to conduct the evaluation. The technical notes provide additional detail on the methods.

Results

Calls Made to PAL

There were 853 calls eligible for this study[2] to the PAL Program from May 2008 through December 2009 regarding 698 unique children. In this section, we discuss the ***calls***. Subsequent sections focus on the ***unique children***. A distribution of these calls is summarized in Figure 1. Most children (84%) were the subject of a single call, 13% were the subject of two calls, and 3% were the subject of three calls.

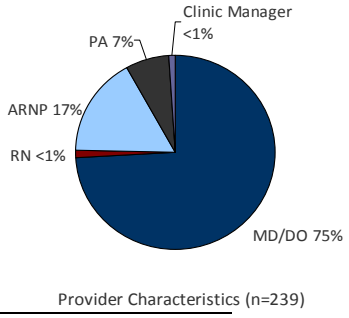
Figure 1. The Number of PAL Calls Made on Behalf of an Individual Child



Characteristics of Providers who Participated in PAL

As shown in Figure 2, an estimated three-quarters (75%) of providers making one or more calls to the PAL line were physicians and 17% were nurse practitioners. Additional information on PAL calls is included in Appendix A.

Figure 2. Characteristics of Providers Who Called PAL from May 2008 Through December 2009



[2] Calls from specialists and providers outside DSHS Regions 1 and 6 were excluded from this evaluation. Sixteen children whose families did not consent to the evaluation were also excluded.

Characteristics of Children Served by PAL

During the 20 months covered by this study, 698 unique children were the focus of a PAL call. Approximately 61% of them (425 children) were ever eligible for Medicaid as reported by the provider calling PAL, while approximately 23% (158 children) were Medicaid fee-for-service (FFS) at the time a provider first called PAL about the child. This latter group, FFS Medicaid children, was the focus of most of the analyses presented in this report because they had the most complete Medicaid encounter-level data.

Figures 3a through 3d summarize characteristics of all 698 children who were the focus of a PAL call and also contain a summary of characteristics of the subset of children in this group (n=158) who were FFS Medicaid. As shown in Figure 3a, 59% of the 698 children served by PAL were male, and 69% of the FFS subgroup were male. 51% of children served by PAL were under 12 years of age, and 56% of the FFS subgroup were under 12 years of age 12 (Figure 3b). Race/ethnicity and primary language are summarized for the FFS Medicaid subgroup only because this information was not available for the other children. Most (71%) FFS Medicaid children were white, and almost all (99%) had English as their primary language.

Figure 3a – 3d. Demographic Characteristics of Children Served by PAL and the FFS Medicaid Subgroup

Figure 3a. Gender

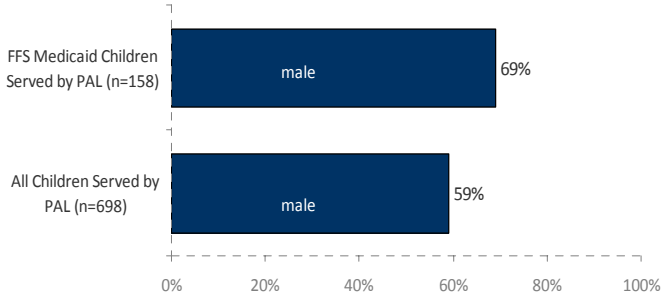


Figure 3b. Age

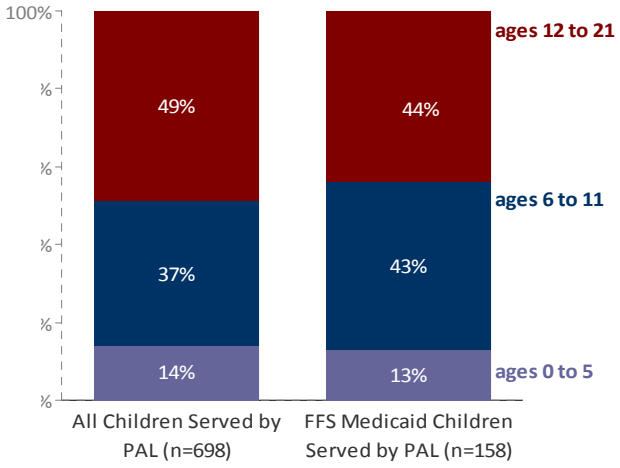
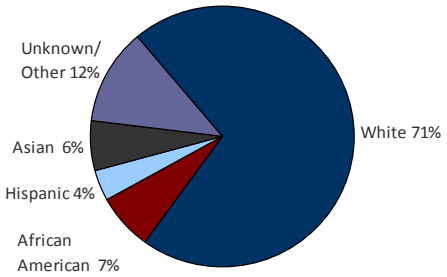
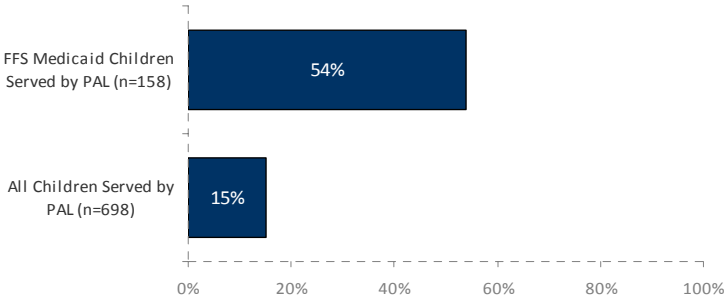


Figure 3c. Race/Ethnicity



FFS Medicaid Children Served by PAL (n=158)

Figure 3d. Foster Care



The Children's Global Assessment Scale (C-GAS) score[8] is a 100 point rating scale measuring psychological, social, and school functioning based on clinical assessment. A higher score indicates better functioning. The average C-GAS score was 48 for the 698 children served by PAL and 43 for the Medicaid FFS children, indicating a high level of functional impairment in these children. For example, in Washington State, children must have a C-GAS score of less than 60 to be eligible for mental health services through the Regional Support Network (RSN) system.

As shown in Figure 3d, an estimated 54% of the FFS Medicaid subgroup was ever known to be in foster care (referred to as "ever in foster care" throughout this report).[3] Children who were not identified as having ever been in foster care are referred to as "never in foster care" throughout this report. Figures 4a through 4c contain a summary of characteristics of FFS Medicaid children who were ever or never in foster care. Compared to FFS Medicaid children never in foster care, FFS Medicaid children ever in foster care were less likely to be male (p-value<0.05) and have slightly higher C-GAS scores, indicating greater functioning (C-GAS score of 45 for children ever in foster care vs. C-GAS score of 42 for children never in foster care, p-value<0.05). Compared to FFS Medicaid children never in foster care, FFS Medicaid children ever in foster care were also apparently more likely to be racially/ethnically diverse and more likely to be somewhat younger, though these differences are not statistically significant.

Figures 4a – 4c. Demographic Characteristics of Fee-for-Service Medicaid Children Ever or Never in Foster Care.

Figure 4a. Gender

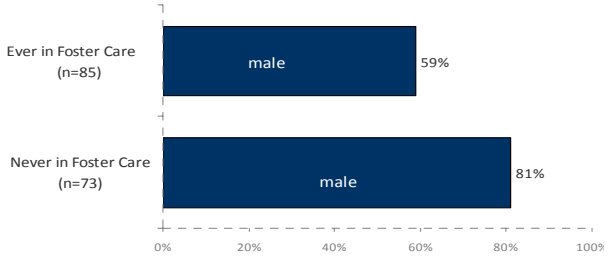


Figure 4b. Age

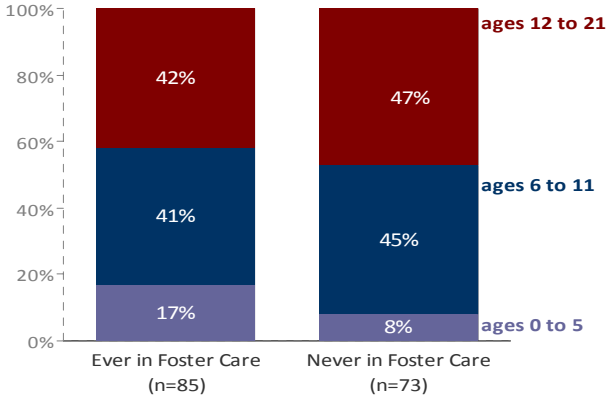
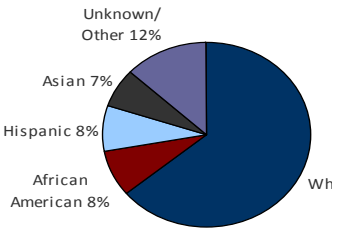
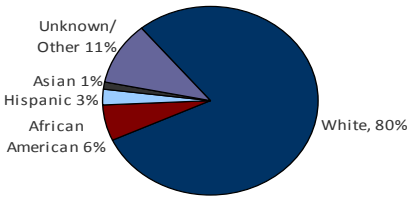


Figure 4c.



FFS Medicaid Children Ever in Fos
Served by PAL (n=85)



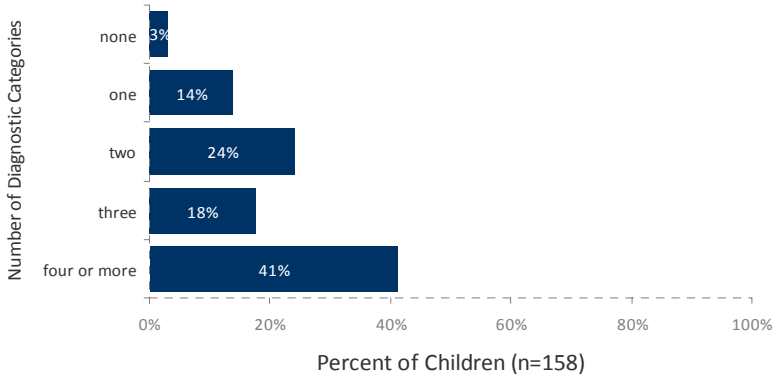
FFS Medicaid Children Never in Foster Care
Served by PAL (n=73)

[3] A child was determined to ever have been in foster care if first there was a Medicaid record of being in foster care and if second PAL recorded the child was ever in foster care. PCP's calling PAL were asked if the child about whom they were calling was ever in foster care. These are likely conservative estimates of whether a child was identified to have ever been in foster care.

Mental Health Diagnoses among FFS Medicaid Children

Diagnostic information was derived from Medicaid claims data and was, therefore, only available for the 158 FFS Medicaid children served by PAL. For the purposes of counting the number of diagnoses, diagnoses were grouped into the categories listed in Figure 6a. Most children had more than one mental health diagnosis (Figure 5). 83% had two or more diagnoses; almost 59% had three or more diagnoses, and more than a third (41%) had four or more diagnoses.

Figure 5. Number of Diagnostic Categories among 158 FFS Medicaid Children



As shown in Figure 6a, almost two-thirds (62%) of FFS Medicaid children were diagnosed with ADHD, and half (50%) were diagnosed with either conduct disorder or oppositional defiant disorder. Almost 40% were diagnosed with a mood disorder such as bipolar or depressive disorder. Over one quarter of children had a diagnosis of autism spectrum (27%) and/or an anxiety disorder (26%).

Several differences in diagnoses were evident between children who were ever in foster care compared to those who were not. As shown in Figure 6b, children ever in foster care had significantly ***higher*** rates of PTSD (17% vs. 4%), p-value<0.05, and substance abuse (7% vs. 0%), p-value<0.05, and significantly ***lower*** rates of autism spectrum (12% vs. 44%), p-value<0.05, compared children never in foster care. The larger number of children with autism in the never in foster care group may be due to the fact that these children qualify for Medicaid's blind and disabled program, indicating significant levels of disability.

Figure 6a. Diagnoses of Fee-for-Service Medicaid Children Served by PAL (n=158)

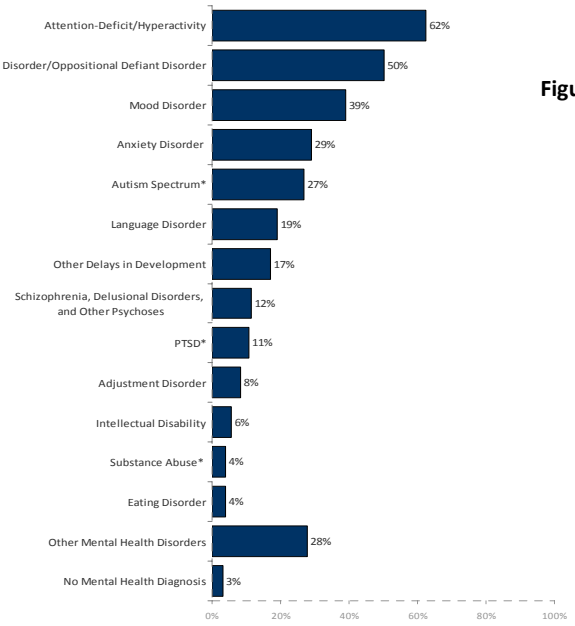
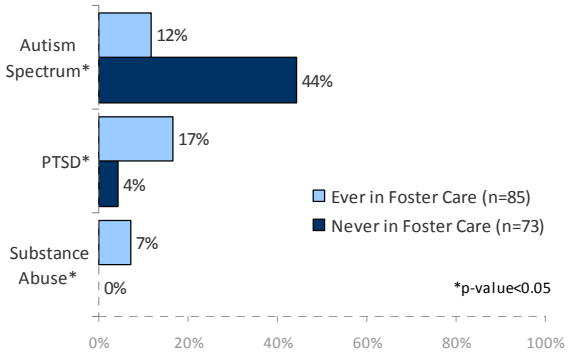


Figure 6b. Diagnostic Categories by Children Ever or Never in Foster Care

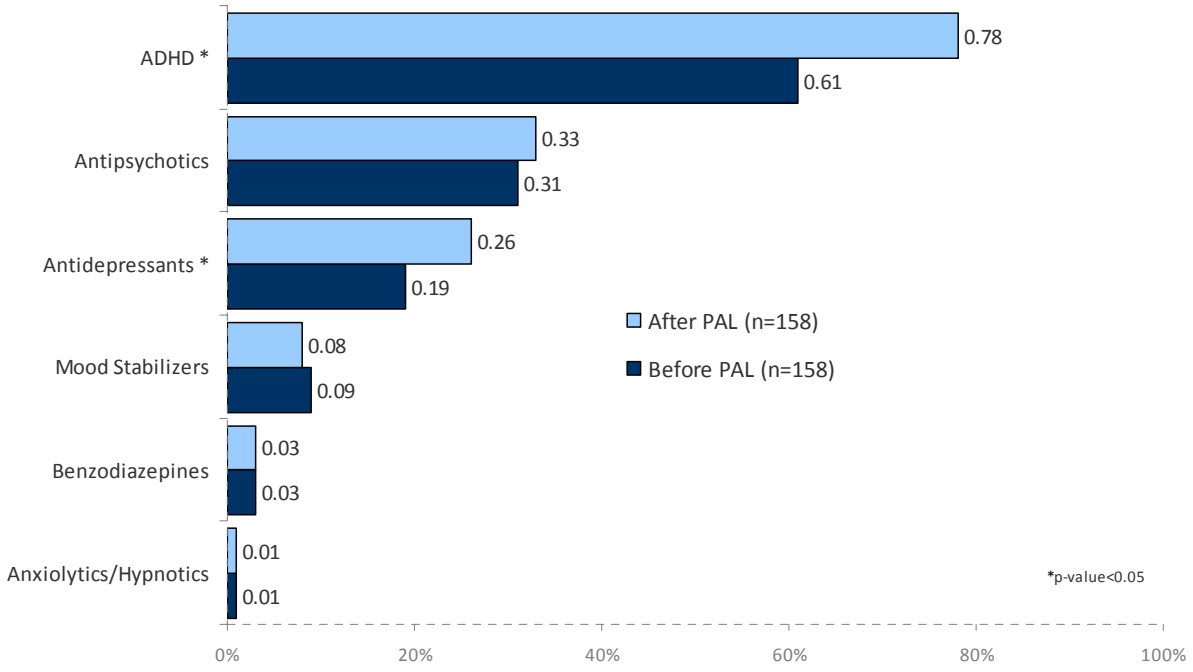


*Statistically significant at p<.05

Medication Use among FFS Medicaid Children before and after the PAL call

The most commonly prescribed medications before the PAL call were for ADHD medications (0.61 medications per child per month), followed by atypical antipsychotics (0.31 medications per child per month) and antidepressants (0.19 medications per child per month). After the PAL call, there was a significant increase in the rates of antidepressant use (0.19 to 0.26), p-value<0.05, and ADHD medication use (0.61 to 0.78), p-value<0.05. See Figure 7.

Figure 7. Mean Per Child Per Month Rates of Mental Health Medication Use Among Fee-for-Service Medicaid Children Before and After the First PAL Call[4]



* Statistically significant at p<.05.

Reimbursement for Psychiatric Medications among FFS Medicaid Children before and after PAL Call

Before a PAL call, the average FFS Medicaid reimbursement per child per month was $170.75, and after a PAL call, the average reimbursement per child per month was $171.34. There was no statistically significant difference in reimbursements from before the PAL call to after the PAL call.

Outpatient Mental Health Services among FFS Medicaid Children before and after PAL Call[5]

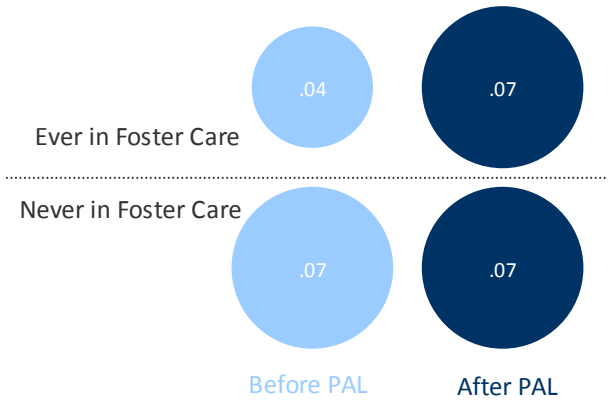
There was a significant increase in the rate[6] of outpatient mental health visits after the PAL call among children with a history of foster care placement. The rate of outpatient mental health visits for children

[4] Medication use is calculated as a rate. The rate is interpreted as the number of medications per child per month among the population. For example, a rate of 0.61 is interpreted as 0.61 ADHD medication claims per child per month.

[5] Outpatient mental health services reported here are those paid by FFS Medicaid. These visits do not include all outpatient mental health visits that might have occurred (such as those that occur within the Regional Support Network (RSN) system), so these estimates likely underestimate mental health outpatient service use.

ever in foster care increased from 0.04 before the PAL call to 0.07 after the call. The rate of outpatient mental health visits increased for the 158 FFS Medicaid children served by PAL, from 0.05 before the PAL call to 0.07 after the PAL call, but this change was not statistically significant. The rate did not change for children never in foster care (0.07 before the PAL call to 0.07 after the PAL call).

Figure 8. Rate of Outpatient Mental Health Services for Children Ever or Never in Foster Care



Emergency Department Use and Inpatient Hospital Admissions among FFS Medicaid Children before and after PAL Call

Among the 158 children, there was no evidence for a difference in the rate of emergency department visits before and after the PAL call—0.06 before the PAL call to 0.07 after the PAL call. Similarly, there was no evidence for a difference in the rate of inpatient hospital admissions before and after the PAL call—0.008 before the PAL call and 0.01 after the PAL call.

Considerations

- Even though there were 698 children who were the focus of a PAL call during the study period, only 23% (158 children) were eligible for the detailed analysis of medication and health service use within Medicaid. The small sample size limits our ability to detect patterns in medication and health service use.
- It is not possible to know the extent to which the findings reported for the Medicaid FFS children can be generalized to the larger group of 698 from which they were drawn. There is evidence that the Medicaid FFS subset differs from the larger group in gender distribution (69% male in Medicaid FFS subsample compared to 59% in the larger group), proportion ever in foster care (54% in Medicaid FFS subgroup compared to 15% in the larger group), and C-GAS scores (higher functional impairment in

[6] Service use is calculated as a rate. The rate is interpreted as the number of visits per child per month among the population. For example, a rate of 0.04 is interpreted as 0.04 outpatient mental health visits per child per month.

the Medicaid FFS subsample). Because of this, we recommend caution in any attempt to generalize to the vast majority of Medicaid children who received a PAL consultation.

- Because the clinical appropriateness of increases in medication use cannot be determined using claims data alone, it is unclear if these increases in medication use are clinically warranted for a child. Subsequent analyses will link PAL program medication recommendations data to the Medicaid claims data for the Medicaid FFS children to enhance our understanding of the patterns of medication use seen in the claims data.

Conclusions and Recommendations

- Even though there was an increase in medication use among FFS Medicaid children who were the focus of a PAL call, there was no significant increase in Medicaid reimbursements.
    - FFS Medicaid children filled prescriptions for brand and generic mental health medications. We recommend further investigation to determine if brand to generic medication switching occurred after a PAL call, potentially contributing to the non-significant increase in Medicaid reimbursements.
- There is an increase in outpatient mental health visits following a PAL call among children in foster care.
    - We recommend this finding be followed closely as more FFS Medicaid children become the focus of a PAL call.
    - We also recommend obtaining Washington State Regional Support Network (RSN) data to enhance our understanding of the rates of outpatient mental health service use for these children.
- The apparent lack of change in emergency department or inpatient hospital admissions may be due to the low rates of use of these services during the period under study.
- As data systems evolve, it would be helpful to have the ability to look at provider-level claims to evaluate programs such as this.

- **TECHNICAL NOTES**

Study Population

Of the 698 children who were the focus of a PAL call from May 1, 2008 through December 31, 2009, 158 children were on Medicaid fee-for-service in the same month that the first PAL call was made. Based upon Washington State Medicaid eligibility requirements, children enrolled in Medicaid FFS are primarily those children who are in foster care and/or who have significant disabilities. All other Medicaid-eligible children are typically enrolled in Washington's managed care medical program, Healthy Options. Therefore, our Medicaid FFS analysis is based upon a very select population of children, those ever known to be in foster care and/or those with significant disabilities, and both populations may be more likely to have significant mental health problems as compared to children enrolled in Healthy Options.

Definitions

Information about mental health diagnoses was derived from the International Classification of Diseases, 9th Revision (ICD-9) codes described on a health service use FFS Medicaid claim.

Analyses

To test for statistically significant differences between foster children and non-foster children in demographic characteristics and mental health diagnoses the chi-square test and Fisher's exact test were used. Prescription medication and health services claims paid by Medicaid FFS and occurring from April 1, 2007 through April 30, 2010 were available for inclusion in the analyses. Visits occurring on the date of the PAL call were excluded due to the inability to determine whether that visit was the immediate indication for a PAL call or the immediate result of a PAL call. Medication claims filled on the date of a PAL call were considered to be "post PAL." Children's claim history was available for up to 32 months before a PAL call and up to 12 months after the last PAL call made on their behalf. To account for differences in the number of months pre- and post-PAL available for each child, the number of mental health medications, mental health medication reimbursement amounts, and health care visits per child were transformed into per child per month rates based on the number of months of FFS eligibility each child had.

We first estimated the association between the PAL call and mental health medication use, mental health medication reimbursements, and health service use in unadjusted, bivariate analyses using the paired t-test. We then used multivariable regression models to assess the independent effect of the PAL call, adjusted for child's age at the first PAL call, sex, race/ethnicity, and whether the child was ever known to be in foster care. We modeled mental health medication use and visits count data using generalized estimating equations (GEE) with negative binomial family, log link, exchangeable working correlation, and robust standard errors. GEE models accounted for the repeated measures of medication use and health care visits (pre-PAL call and post-PAL call) within a child. Multivariable analyses for medication use were limited to those for ADHD medications, antidepressants, and antipsychotics; anxiolytic/hypnotic, benzodiazepine, and mood stabilizer use was too infrequent to accommodate multivariable modeling. To account for the characteristically right-skewed distribution of expenditure data in the mental health medication reimbursement analysis, we employed GEE linear regression with gamma family, log link, exchangeable working correlation, and robust standard errors. Costs incurred in 2007 and 2008 were inflated to 2009 dollars using the Personal Health Care Expenditure (PHCE) component of the National Health Expenditure Accounts.

References

1. Gardner, W., Kelleher, K. J., Wasserman, R., Childs, G., Nutting, P., Lillienfeld, H., Pajer, K. (2000). Primary care treatment of pediatric psychosocial problems: A study from pediatric research in office settings and ambulatory sentinel practice network. *Pediatrics*, 106(4), E44.
2. Kelleher, K. J., Campo, J. V., & Gardner, W. P. (2006). Management of pediatric mental disorders in primary care: where are we now and where are we going? *Curr Opin Pediatr*, 18(6), 649-653.
3. Rushton, J., Bruckman, D., Kelleher, K. (2002). Primary care referral of children with psychosocial problems. *Arch Pediatr Adolesc Med*, 156(6), 592-598.
4. Stein, R. E., Horwitz, S. M., Storfer-Isser, A., Heneghan, A., Olson, L. & Hoagwood, K. E. (2008). Do pediatricians think they are responsible for identification and management of child mental health problems? Results of the AAP periodic survey. *Ambul Pediatr*, 8(1), 11-17.
5. Heneghan, A., Garner, A. S., Storfer-Isser, A., Kortepeter, K., Stein, R. E. & Horwitz, S. M. (2008). Pediatricians' role in providing mental health care for children and adolescents: do pediatricians and child and adolescent psychiatrists agree? *J Dev Behav Pediatr*, 29(4), 262-269.
6. Hilt, R. & Myers, J. (2009). The Partnership Access Line. Establishing an empirically based child psychiatry consultation program for Washington State: Background, Program Description, and Measures. Program Update, September 2009.
7. Hilt, R., Myers, J., Trupin, E. (2008). The Partnership Access Line. Establishing an empirically based child psychiatry consultation program for Washington State: Background, Program Description, and Measures; January 2008.
8. Shaffer, D., Gould, M. S., Brasic, J., Ambrosini, P., Fisher, P., Bird, H., Aluwahlia, S. (1983). A children's global assessment scale (CGAS). *Arch Gen Psychiatry,* 40(11), 1228-1231.

Appendix A

Table 1. Description of PAL Providers from 5/01/08 through 12/31/09

	# of Providers Who Called PAL (N=239)		# of Children Who Were Called About (N=698*)		Total # of PAL Calls (N=853)	
Descriptors of Providers	n	%	n	%	n	%
Provider Type						
MD/DO	180	75%	561	78%	672	79%
ARNP	41	17%	135	19%	155	18%
PA	16	7%	22	3%	24	3%
RN	1	<1%	1	<1%	1	<1%
Clinic Manager	1	<1%	1	<1%	1	<1%
Attended PAL presentation**						
Yes	99	41%	430	60%	504	59%
No	140	59%	290	40%	349	41%
Provider Region						
1	82	34%	206	29%	236	28%
6	157	66%	514	71%	617	72%
Provider County						
Adams	4	2%	5	1%	6	1%
Chelan	13	5%	48	7%	58	7%
Clallum	14	6%	26	4%	30	4%
Clark	59	25%	188	26%	215	25%
Cowlitz	11	5%	32	4%	38	4%
Douglas	1	<1%	7	1%	9	1%
Grant	10	4%	17	2%	19	2%
Grays Harbor	9	4%	28	4%	35	4%
Jefferson	5	2%	8	1%	11	1%
Klickitat	1	<1%	2	<1%	2	<1%
Lewis	9	4%	41	6%	52	6%
Mason	4	2%	10	1%	11	1%
Okanogan	6	3%	9	1%	10	1%
Pacific	4	2%	8	1%	8	1%
Pend Oreille	1	<1%	1	<1%	1	<1%
Spokane	40	17%	95	13%	104	12%
Stevens	1	<1%	1	<1%	1	<1%
Thurston	41	17%	171	24%	215	25%
Whitman	4	2%	11	2%	16	2%
Unknown	2	1%	12	2%	12	1%

*Although there were 698 unique children, the numbers of children across categories add up to 720. In some cases, more than one provider called about a particular child. **The PAL program offered continuing education training to primary care providers in regions 1 and 6 focused on the assessment and treatment of childhood psychiatric disorders. The trainings involved experts in specific topics related to mental health assessment and treatment from Seattle Children's Hospital and the University of Washington.

Table 2. Number of Calls by Provider Type (N=847*)

	MD/DO		ARNP		PA		RN/Clinic Mgr		Total	
	(N=180)		(N=41)		(N=16)		(N=2)		(N=239)	
	n	%	n	%	n	%	n	%	n	%
Total calls related to specific children*	669		152		24		2		847	
Descriptors of Children (who were the focus of each call)										
Gender										
Males	411	61%	83	55%	17	71%	1	50%	512	60%
Females	258	39%	69	45%	7	29%	1	50%	335	40%
Age at time of call										
0 to 5 years	94	14%	25	16%	1	4%	0	0%	120	14%
6 to 11 years	260	39%	54	36%	7	29%	0	0%	321	38%
12 to 21 years	314	47%	73	48%	16	67%	2	100%	405	48%
Missing	1	21%								
On Medicaid (at any PAL call)**	388	58%	114	75%	19	79%	1	50%	522	62%
Children in foster care (at any PAL call)**	50	7%	23	15%	3	13%	0	0%	76	9%
Children ever known to be in foster care**	90	13%	36	24%	5	21%	0	0%	131	15%

*The same child could have been the focus of more than one call. 6 calls with general questions unrelated to a particular child were excluded from this table. **These are conservative estimates; status was unknown in many cases.