



Robert Lee Page II, Pharm.D., MSPH
Associate Professor
Department of Clinical Pharmacy

12850 E. Montview Blvd.
Campus Box C238
Aurora, CO 80045
Email: Robert.page@ucdenver.edu

Dear [insert name]:

In compliance with the OBRA '90 federal legislation, state Medicaid agencies are mandated to institute Retrospective Drug Utilization Review Programs (RDUR). The program's goal is to ensure that Medicaid patients receive optimal drug therapy at the lowest reasonable cost. One way to achieve this goal is to identify potential drug therapy problems that may place patients at risk, particularly if multiple providers are identified. This RDUR program is informational in nature and allows you to incorporate the information provided into your continuing assessment of the patient's drug therapy requirements.

During a recent review, one or more of your patients [please see attached profile] was noted to be receiving aripiprazole for a non-approved indication or non-approved age. Aripiprazole is indicated for autistic disorder and psychomotor agitation for patients 6 years and older; for adjunctive bipolar treatment with lithium or valproate, monotherapy for bipolar I, and manic/mixed for patients 10 years and older; and for schizophrenia in patients 13 years of age and older. Use below these ages has limited or no available data.

In presenting this information to you, we recognize that the management of each patient's drug therapy depends upon an assessment of the patient's entire clinical situation about which we are not fully aware. We are providing this information as a service of the Colorado Evidenced Based DUR program to afford you additional information regarding your patient's pharmacotherapy.

Best regards,

Robert L Page, Pharm.D., MSPH,
Clinical Lead, the Colorado Evidenced Based
DUR Review Program

Sam Johnson, Pharm.D.
Chair, Colorado Medicaid DUR Board,
Department of Health Care Policy
and Financing





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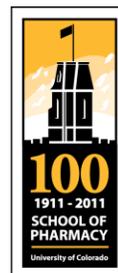
During a recent review, one or more of your patients [please see attached profile] was noted to be receiving either asenaprine, clozapine, ioperidone, lurasidone, or quetiapine XR for a non-approved age. These agents are only indicated for patients 18 years and older. Use below this age has limited or no available data.

In presenting this information to you, we recognize that the management of each patient's drug therapy depends upon an assessment of the patient's entire clinical situation about which we are not fully aware. We are providing this information as a service of the Colorado Evidenced Based DUR program to afford you additional information regarding your patient's pharmacotherapy.

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During a recent review, one or more of your patients [please see attached profile] was noted to be receiving an atypical antipsychotic above the approved labeled dose according to approved indication and patient age (see Table below). Exceeding these maximal doses could increase the risk for cardiovascular and metabolic side effects.

Drug	FDA Approved Indication	FDA Approved Age	Initial and Maximum FDA Approved Dose
Aripiprazole (Abilify)	Autistic disorder, psychomotor agitation Bipolar adjunctive with lithium or valproate Bipolar I, monotherapy, manic/mixed Schizophrenia	6-17 years 10-17 years 10-17 years 13-17 years	2mg/day-5-10 mg/day-15mg/day 2mg/day-10 mg/day-30mg/day 2mg/day-10mg/day-30mg/day 2mg/day-15mg/day-30mg/day
Olanzapine (Zyprexa)	Schizophrenia Bipolar I, monotherapy, manic/mixed	13-17 years	2.5-5mg/day – 10mg/day
Olanzapine (Zyprexa Zydis)		13-17 years	2.5-5mg/day – 10mg/day
Paliperidone (Invega)	Schizophrenia	12-17 years	<51 kg: 3mg/day-3-6mg/day-6mg/day >51kg: 3mg/day-3-12mg/day-12mg/day
Risperidone	Autistic disorder, psychomotor agitation Bipolar adjunctive with lithium or valproate Bipolar I, monotherapy, manic/mixed Schizophrenia	5-16 years 10-17 years 10-17 years 13-17 years	0.25mg/day-0.25-0.5mg/day-0.5 mg/day-3mg/day 0.5mg/day-0.5-1.0 mg/day-2.5mg/day-6mg/day 0.5mg/day-0.5-1.0 mg/day-2.5mg/day-6mg/day 0.5 mg/day-0.5-1.0 mg/day-3mg/day-6mg/day
Quetiapine (Seroquel)	Schizophrenia Bipolar I, monotherapy, manic/mixed	13-17 years 10-17 years	25mg BID - 100-400mg BID- 400 mg BID 25mg BID - 100-400mg BID- 400 mg BID

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During a recent review, one or more of your patient [please see attached profile] was noted to be receiving prescriptions for two or more atypical antipsychotics for greater than eight week. In patients with mood disorders, the use of multiple atypical antipsychotics carries the risks of drug-drug interactions and adverse events both cardiovascular and metabolic. Other than the addition of clozapine to an atypical anti-psychotic regimen, limited data exist regarding the efficacy of duplicate atypical antipsychotic therapy. Consideration should be given to prescribing a single atypical antipsychotic.

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During a recent review, one or more of your patients [please see attached profile] was noted to be receiving olanzapine for a non-approved indication or non-approved age. Olanzapine is indicated for schizophrenia, bipolar I disorder, and mixed mania for patients 13 years and older. Use below this age has limited or no available data.

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During a recent review, one or more of your patients [please see attached profile] was noted to be receiving paliperidone for a non-approved indication or non-approved age. Paliperidone is indicated for schizophrenia in patients 12 years and older. Use below this age has limited or no available data.

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During a recent review, one or more of your patients [please see attached profile] was noted to be receiving quetiapine for a non-approved indication or non-approved age. Quetiapine is indicated for Bipolar I disorder for patients 13 years of age and older and for mixed mania for patients 10 years and older. Use below these ages has limited or no available.

In presenting this information to you, we recognize that the management of each patient's drug therapy depends upon an assessment of the patient's entire clinical situation about which we are not fully aware. We are providing this information as a service of the Colorado Evidenced Based DUR program to afford you additional information regarding your patient's pharmacotherapy.

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COLORADO MEDICAID RETROSPECTIVE DRUG UTILIZATION REVIEW EXECUTIVE SUMMARY

Process and Review:

A prospective chart review was conducted evaluating 125 Medicaid clients from the third Quarter of 2012. The following alerts were run against clients from the Fourth Quarter of 2012.

Atypical Antipsychotics/Over Utilization

Alert Message: The long term use (> 8 weeks) of two or more antipsychotics in patients with mood disorders carries the risks of drug-drug interactions and adverse events both cardiovascular and metabolic. Other than the addition of clozapine to an atypical anti-psychotic regimen, limited data exist regarding the efficacy of duplicate atypical antipsychotic therapy.

Atypical Antipsychotics/No Diagnosis

Alert Message: Exposure to atypical antipsychotics without a diagnosis of psychosis, bipolar disorder, schizophrenia, or autism can lead to unnecessary adverse cardiovascular and metabolic side effects.

Proton Pump Inhibitors/C Difficile

Alert Message: Published observational studies suggest that proton pump inhibitor (PPI) therapy may be associated with an increased risk of Clostridium difficile associated diarrhea. Patients should use the lowest dose and shortest duration of PPI therapy appropriate to the condition being treated.

Bupropion/Seizure

Alert Message: Bupropion is contraindicated in patients with seizure disorder or conditions that increase the risk of seizures (e.g., arteriovenous malformation, severe head injury, CNS tumor or CNS infection, severe stroke, anorexia nervosa or bulimia, or abrupt discontinuation of alcohol, benzodiazepines, barbiturates, and antiepileptic drugs.)

Methods:

The following methods were conducted in order to broadly identified clients with meeting the above alert criteria.

Atypical Antipsychotics/Over Utilization

Using data from October 1, 2012 through December 31, 2012, the number of beneficiaries were identified during that time period who had an ICD-9 code for 299.x, 308.2, 296.xx-296.99, 295.xx, 312.xx, 313.81. This was Cohort A. From Cohort A, the number of beneficiaries were identified who were receiving two or more prescriptions for any one of the atypical antipsychotic medications below for greater than 8 weeks. For example, Abilify and any Clozapine product (e.g, Clozaril, clozapine, clozapine ODT, Fazaclon) or Saphris with any Risperidone product (e.g., Risperdal, Risperidone, or Risperidone ODT) .

Atypical Antipsychotic	Medicaid Therapeutic Code
Abilify® (Solution, Tablet, Discmelt)	H7X
Fanapt®	H7T

Geodon [®] , Ziprasidone	H7T
Invega Sustenna [®] , Invega ER [®]	H7T
Latuda [®]	H7T
Risperdal [®] (Tablet, Solution), Risperidone (Tablet, Solution), Risperidone ODT	H7T
Saphris [®]	H7T
Seroquel [®] , Quetiapine, Seroquel XR,	H7T 16729-0146-01 16729-0146-17 16729-0145-17 16729-0145-01 16729-0145-10 16729-0147-01 16729-0147-17 16729-0147-10 16729-0150-00 16729-0150-16 16729-0150-10 16729-0146-10 16729-0149-10 16729-0149-17 16729-0149-12 16729-0148-10 16729-0148-00 16729-0148-17 60505-3130-08 60505-3130-01 60505-3139-01 60505-3135-01 60505-3132-01 60505-3133-01 60505-3133-08 60505-3132-08 60505-3137-06 60505-3135-08 65862-0495-01 65862-0495-05 65862-0489-01 65862-0489-99 65862-0491-99 65862-0491-01 65862-0493-99 65862-0493-01 65862-0494-60 65862-0494-99 65862-0490-01 65862-0490-99 47335-0905-18 47335-0905-88 47335-0906-86

	47335-0906-18 47335-0903-18 47335-0903-88 47335-0906-88 47335-0904-18 47335-0907-18 47335-0907-88
Zyprexa [®] , Olanzapine, Olanzapine ODT, Zyprexa Zydis [®]	H7T

Atypical Antipsychotics/No Diagnosis

Using data from October 1, 2012 through December 31, 2012 the number of beneficiaries during that time period were identified who had at least one prescription for an atypical antipsychotic (see Table above). This was Cohort A. From Cohort A please identify the number of beneficiaries who did NOT have an ICD-9 code for any of the following: 299.x, 308.2, 296.xx-296.99, 295.xx, 312.xx, and 313.81. This was cohort B.

Proton Pump Inhibitors/C Difficile

Using data from October 1, 2012 through December 31, 2012, the number of beneficiaries during that time period were identified who had at least one prescription for a proton pump inhibitor (any drug with a Medicaid Therapeutic Code of D4J). This was Cohort A. From Cohort A the number of beneficiaries who had an ICD-9 code for 008.45 (Clostridium difficile) were identified. This was Cohort B.

Bupropion/Seizure

Using data from October 1, 2012 through December 31, 2012, the number of beneficiaries during that time period who had an icd-9 code 345.xx or 780.3x were identified. This was cohort A. From cohort A, the number of beneficiaries during that time period who had at least one prescription for one of the following Bupropion, Bupropion ER, Budeprion SR[®], Budeprion XL[®], Wellbutrin XL[®], Wellbutrin Sr[®], or Aplenzin ER[®] were identified. All of these drugs were found under Medicaid Therapeutic Code H7D. This was Cohort B.

Results:

RETRO-DUR Criteria	Number of Clients Evaluated	Number of Clients Meeting Alert
Atypical Antipsychotics/Over Utilization	10,232	196
Atypical Antipsychotics/No Diagnosis	10,983	8,653
Proton Pump Inhibitors/C Difficile	13,894	30
Bupropion/Seizure	5,496	75

Total	40,605	8,954
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Interventions:

The following letters will be sent to providers following clients who met the Retrospective-DUR Criteria Alert.

COLORADO MEDICAID RETROSPECTIVE DRUG UTILIZATION REVIEW EXECUTIVE SUMMARY

Process and Review:

A prospective chart review was conducted evaluating 100 Medicaid clients from the First Quarter of 2014 who were receiving an atypical antipsychotic or growth hormone

1. Atypical Antipsychotic/Over Utilization

Alert Message: The long term use (> 8 weeks) of two or more antipsychotics in patients with mood disorders carries the risks of drug-drug interactions and adverse events both cardiovascular and metabolic. Other than the addition of clozapine to an atypical antipsychotic regimen, limited data exist regarding the efficacy of duplicate atypical antipsychotic therapy.

2. Aripiprazole/Age Restrictions (Pediatric)

Alert Message: Aripiprazole is indicated for autistic disorder and psychomotor agitation for patients 6 years and older; for adjunctive bipolar treatment with lithium or valproate, monotherapy for bipolar I, and manic/mixed for patients 10 years and older; and for schizophrenia in patients 13 years of age and older. Use below these ages has limited or no available data.

3. Olanzapine/Age Restrictions (Pediatric)

Alert Message: Olanzapine is indicated for schizophrenia, bipolar I disorder, and mixed mania for patients 13 years and older. Use below this age has limited or no available data.

4. Paliperidone/Age Restrictions (Pediatric)

Alert Message: Paliperidone is indicated for schizophrenia in patients 12 years and older. Use below this age has limited or no available data.

5. Quetiapine/Age Restrictions (Pediatric)

Alert Message: Quetiapine is indicated for Bipolar I disorder for patients 13 years of age and older and for mixed mania for patients 10 years and older. Use below these ages has limited or no available data.

6. Atypical Antipsychotics/Age Restrictions

Alert Message: Asenaprine, clozapine, ioperidone, lurasidone, quetiapine XR, is indicated for patients 18 years and older. Use below this age has limited or no available data.

7. Atypical Antipsychotics/Dose Restrictions/Disease Restrictions

Alert Message: Atypical antipsychotics are approved for schizophrenia at the following maximal doses stratified by age:

Drug	FDA Approved Indication	FDA Approved Age	Initial and Maximum FDA Approved Dose
Aripiprazole (Abilify)	Autistic disorder, psychomotor agitation Bipolar adjunctive with lithium or valproate Bipolar I, monotherapy, manic/mixed Schizophrenia	6-17 years 10-17 years 10-17 years 13-17 years	2mg/day-5-10 mg/day-15mg/day 2mg/day-10 mg/day-30mg/day 2mg/day-10mg/day-30mg/day 2mg/day-15mg/day-30mg/day
Olanzapine (Zyprexa)	Schizophrenia Bipolar I, monotherapy, manic/mixed	13-17 years	2.5-5mg/day – 10mg/day
Olanzapine (Zyprexa Zydis)		13-17 years	2.5-5mg/day – 10mg/day
Paliperidone (Invega)	Schizophrenia	12-17 years	<51 kg: 3mg/day-3-6mg/day-6mg/day >51kg: 3mg/day-3-12mg/day-12mg/day
Risperidone	Autistic disorder, psychomotor agitation Bipolar adjunctive with lithium or valproate Bipolar I, monotherapy, manic/mixed Schizophrenia	5-16 years 10-17 years 10-17 years 13-17 years	0.25mg/day-0.25-0.5mg/day-0.5 mg/day-3mg/day 0.5mg/day-0.5-1.0 mg/day-2.5mg/day-6mg/day 0.5mg/day-0.5-1.0 mg/day-2.5mg/day-6mg/day 0.5 mg/day-0.5-1.0 mg/day-3mg/day-6mg/day
Quetiapine (Seroquel)	Schizophrenia Bipolar I, monotherapy, manic/mixed	13-17 years 10-17 years	25mg BID - 100-400mg BID- 400 mg BID 25mg BID - 100-400mg BID- 400 mg BID

8. Growth Hormone/Diagnosis

Alert Message: Growth hormones are approved for clients with growth impairment/short stature disorder associated with the following: Prader-Willi Syndrome; chronic renal insufficiency/failure; Turner's Syndrome, hypopituitarism: as a result of pituitary disease, hypothalamic disease, surgery, radiation therapy or trauma; wasting associated with AIDS or cachexia; and Noonan Syndrome. Utilization outside of these indications has limited or no available data

Methods:

The following methods were conducted in order to broadly identify clients with meeting the above alert criteria.

Aripiprazole/Age Restrictions (Pediatric)

Using data from January 1, 2014 through March 30, 2014, we identified patients who have at least one prescription for Aripiprazole (Medicaid Therapeutic Code H7X). This was cohort A. From cohort A, we identified the number of beneficiaries less than 6 years of age during the time period. This was Cohort B. From Cohort B, we identified the number of beneficiaries who had a diagnosis of autistic disorder (ICD-9 code 299.xx) or psychomotor agitation (ICD-9 code). This was cohort C. From cohort C, we identified the number of beneficiaries who were less than 10 years of age during the time period who had a diagnosis of bipolar I/ mixed mania (ICD9 code 296.xx). This was cohort D. From Cohort D, we identified the number of beneficiaries who are less than 13 years of age who had a diagnosis of schizophrenia (ICD-9 code 295.xx).

Olanzapine/Age Restrictions (Pediatric)

Using data from January 1, 2014 through March 30, 2014, we identified patients who have at least one prescription for olanzapine (Medicaid Therapeutic Code H7T). This was cohort A. From cohort A, we identified the number of beneficiaries less than 13 years of age during the time period. This was Cohort B. From Cohort B, we identified the number of beneficiaries who

had a diagnosis of schizophrenia (ICD-9 code 295.xx) or bipolar 1 disorder/ mixed mania (ICD-9 code 296.xx). This was cohort C.

Paliperidone/Age Restrictions (Pediatric)

Using data from January 1, 2014 through March 30, 2014, we identified patients who have at least one prescription for paliperidone (Medicaid Therapeutic Code H7T). This was cohort A. From cohort A, we identified the number of beneficiaries less than 12 years of age during the time period who are taking the paliperidone. This was cohort B. From Cohort B, we identified the number of beneficiaries who had a diagnosis of schizophrenia (295.xx). This was cohort C.

Quetiapine/Age Restrictions (Pediatric)

Using data from January 1, 2014 through March 30, 2014, we identified patients who have at least one prescription for quetiapine (Medicaid Therapeutic Code H7T). This was cohort A. From cohort A, we identified the number of beneficiaries less than 13 years of age during the time period. This was cohort B. From Cohort B, we identified the number of beneficiaries who had a diagnosis of bipolar disorder (ICD-9 code 296.4 through 296.7). This was cohort C.

Atypical Antipsychotics/Age Restrictions

Using data from January 1, 2014 through March 30, 2014, we identified patients who have at least one prescription for asenaprine (Medicaid Therapeutic Code H7T), clozapine (Medicaid Therapeutic Code H7T), or Seroquel XR (Medicaid Therapeutic Code H7T). This will be cohort A. From cohort A, we identified the number of beneficiaries less than 18 years of age during the time period. This was cohort B.

Atypical Antipsychotics/Dose Restrictions/Disease Restrictions

Aripiprazole:

Using data from January 1, 2014 through March 30, 2014, we identified patients who have at least one prescription for aripiprazole (Medicaid Therapeutic Code H7X). This was cohort A. From cohort A we identified all beneficiaries who are 17 years or less. This was cohort B. From cohort B, identified the number of beneficiaries with schizophrenia (ICD9 code 295.xx). This was cohort C. From cohort C, we identified the number of beneficiaries receiving a daily aripiprazole dose exceeding (not including) 30mg/day. This was cohort D.

Risperidone:

Using data from January 1, 2014 through March 30, 2014, we identified patients who have at least one prescription for risperidone (Medicaid Therapeutic Code H7T). This was cohort A. From cohort A we identified all beneficiaries who are 17 years or less. This was cohort B. From cohort B, identified the number of beneficiaries with schizophrenia (ICD9 code 295.xx). This was cohort C. From cohort C, we identified the number of beneficiaries receiving a daily risperidone dose exceeding (not including) 6 mg/day. This was cohort D. We report cohorts A, B, C, D.

Quetiapine:

Using data from January 1, 2014 through March 30, 2014, we identified patients who have at least one prescription for quetiapine (Medicaid Therapeutic Code H7T). This was cohort A. From cohort A we identified all beneficiaries who are 17 years or less. This was cohort B. From cohort B, identified the number of beneficiaries with schizophrenia (ICD9 code 295.xx). This was

cohort C. From cohort C, we identified the number of beneficiaries receiving a daily quetiapine dose exceeding (not including) 800mg/day. This was cohort D.

Olanzapine:

Using data from January 1, 2014 through March 30, 2014, we identified patients who have at least one prescription for olanzapine (Medicaid Therapeutic Code H7T). This was cohort A. From cohort A we identified all beneficiaries who are 17 years or less. This was cohort B. From cohort B, we identified the number of beneficiaries with schizophrenia (ICD9 code 295.xx). This was cohort C. From cohort C, we identified the number of beneficiaries receiving a daily olanzapine dose exceeding (not including) 10mg/day. This was cohort D.

Growth Hormone/Diagnosis:

Using data from January through March 2014, we identified patients who had at least one prescription for a growth hormone (Medicaid Therapeutic Code P1A). This was cohort A. From cohort A we identified all beneficiaries who do NOT have one of the following diagnosis [759.51, 759.89, 758.6, 042, 043, 044, 799.4, 253.xx]. This was cohort B. We also identified the top 10 diagnoses from cohort B.

Results:

Retro-DUR Alert	Total Clients Evaluated	Number of Clients Meeting Alert
Over-utilization		
Atypical Antipsychotic Duplicates	752	153
Age Restrictions		
Aripiprazole	1,516	194
Olanzapine	109	<30
Paliperidone	<30	<30
Quetiapine	301	<30
Asenaprine, Clozapine, Seroquel XR	1,109	184
Dose/Age/Disease Restrictions		
Aripiprazole	3,184	<30
Risperidone	4,042	<30
Quetiapine	1,168	<30
Olanzapine	360	<30
Total		
Diagnosis		
Growth Hormone	346	84
Total Number	12,897	684

Interventions:

The following letters will be sent to providers following clients who met the Retrospective-DUR Criteria Alert.



**Skaggs School of Pharmacy
and Pharmaceutical Sciences**

UNIVERSITY OF COLORADO ANSCHUTZ MEDICAL CAMPUS

**Robert Lee Page II, Pharm.D., MSPH, FCCP,
FASHP, FASCP, FAHA, BCPS (AQ cards), CGP**

**Associate Professor
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**Clinical Lead, Colorado Evidence Based Drug
Utilization Review Program**

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Judy Zerzan, MD, MPH
Chief Medical Officer/Deputy Medical Director, Medicaid
Colorado Department of Health Care Policy and Financing
1570 Grant Street
Denver, CO 80203

Dear Dr. Zerzan:

Attached you will find the executive summary of the Psychotropic Medication Use in Colorado Medicaid Children and Adolescents: A Focus on Foster Children prepared by the Colorado Evidence Based DUR Program Analytic and Clinical Teams.

Based on our analysis, our numbers confirm the estimates of the nine state analysis of antipsychotic use in children/adolescents of which Colorado was included; however, we did find a larger number of children receiving multiple psychotropic medications concurrently both outside and within the same therapeutic class. Our findings also confirm and add to your own findings that foster children are at highest risk for overutilization, especially for antipsychotic medications. Additionally, we found potential interventions to enhance both safety and appropriate utilization of these products while potentially providing some cost savings to the Department.

This analysis presents a summary of our descriptive findings, cost analyses, and proposed policy recommendations to improve safety and appropriate use. This report is a summary of our findings; additional details are available upon your request.

If you should need additional analyses conducted or have further questions, please let us know.

Best regards,

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DUR PROGRAM



Skaggs School of Pharmacy
and Pharmaceutical Sciences

Colorado Evidence-Based Drug Utilization Review Program

Psychotropic Medication Use in Colorado Medicaid Children and Adolescents: A Focus on Foster Care Children

EXECUTIVE SUMMARY PREPARED FOR
THE COLORADO DEPARTMENT OF HEALTH CARE POLICY AND FINANCING
BY THE COLORADO EVIDENCE-BASED DRUG UTILIZATION REVIEW PROGRAM

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INTRODUCTION AND BACKGROUND:

High rates of psychotropic medication use (e.g., antipsychotics, antidepressants, mood stabilizer, stimulants, and anti-anxiety medications) among youths in foster care is a major national concern, which has led to intense scrutiny about its appropriateness in this vulnerable population. Psychotropic prevalence for youth in foster care ranges from 14% to 30% in community settings and as high as 67% in therapeutic foster care and 77% in group homes.¹⁻⁵ Many youth in foster care receive more than 1 psychotropic medication, with as many as 22% using ≥ 2 medications from the same class.⁶ Among youths with autism who were in foster care, 21% received ≥ 3 medications from different classes concomitantly for at least 30 days, compared with 10% among youths with autism and eligible for Medicaid through a disability status.⁷ Finally, the increase has been primarily the second-generation antipsychotics, which carry a greater risk of metabolic adverse effects among children.⁸⁻¹⁵ Concerning is the expanded use of antipsychotics for attention-deficit/hyperactivity disorder (ADHD) in the absence of schizophrenia, autism, or bipolar disorder for which these medications are typically prescribed.¹⁶

In light of this evidence, the question raised here is whether psychotropic medications are overly prescribed for youth particularly those in foster care where continuity of medical care may be disjointed. This patient population may be receiving multiple psychotropic medications or psychotropic medications within the same therapeutic class concomitantly. Particularly, antipsychotic poly-pharmacy has increased among adults, so it is possible this is also occurring in youths. Given the lack of scientific evidence for such practice, the lack of data on the cumulative risks on child development, and the clear indications of the metabolic adverse effects with these agents, it is important to investigate concomitant antipsychotic use in this vulnerable child population.

ANALYSIS:

The proposed analysis focuses on children (beneficiaries < 18 years of age) receiving a psychotropic medication stratified by Medicaid program group (foster care vs non-foster care), age (< 5 years, 6-11 years, 12-17 years of age), type of psychotropic medication (an antipsychotic, antidepressant, mood stabilizer, stimulant, or anti-anxiety medication), and overlapping use within and outside the same therapeutic class. This analysis also describes how atypical antipsychotics are being prescribed in this cohort based on diagnosis (no diagnosis, schizophrenia, autism, bipolar disorder/mixed mania, and conduct disorder/oppositional defiant disorder) and development of cardiometabolic disease stratified by age and specific atypical antipsychotic. As foster children have the highest prevalence of psychotropic medication use, we determine the odds of receiving a psychotropic medication and a specific class of psychotropic medication based on foster child status. Finally we estimate the total annual pharmacy costs, cost per claim, and mean annual cost per beneficiary for children receiving a psychotropic medication stratified by therapeutic class and foster care status. Using these data, we estimate potential cost savings to the Department if dosing restrictions were placed on atypical antipsychotics based on age and indication.

Using pharmacy and medical claims from 1/1/2012-12/31/2012, beneficiaries 17 years and younger with at least one claim for a psychotropic medication (antipsychotic, antidepressant, mood stabilizer, stimulant, and anti-anxiety medication) were identified. For diagnosis of psychotic conditions, diagnoses were verified using pharmacy and medical claims from 1/01/2011-12/31/11. Diagnoses were identified using the following ICD-9 codes:

Psychotic Conditions	
Disease	ICD-9 code
Autism/Psychomotor Agitation	299.xx, 308.2
Bipolar Disorder/Mixed Mania	296.00 through 296.99
Schizophrenia	295.xx
Conduct Disorder, Oppositional Defiant Disorder	312.xx, 313.81,
Metabolic Conditions	
Disease	ICD-9 code
Type 2 Diabetes	249.xx, 250.00, 250.02, 250.10, 250.12, 250.20, 250.22, 250.30, 250.32, 250.40, 250.42, 250.50, 250.52, 250.60, 250.62, 250.70, 250.72, 250.80, 250.82, 250.90, 250.92
Hyperlipidemia	272.0x through 272.4x
Hypertension	401.xx through 405.xx
Obesity/Weight Gain	278.0x, 783.1

Therapeutic classes of psychotropic medications were identified using the following Medicaid Therapeutic Codes:

Therapeutic Class	Medicaid Therapeutic Code
Antipsychotics	<i>All Drugs in H2G, H7O, H7P, H7R, H7T, H7U, H7X</i>
Antidepressants	<i>All Drugs in H2S, H2H, H2U, H7B, H7C, H7D, H7E, H7J, H8P</i>
Mood Stabilizers	<i>All Drugs in H2M, H4B</i>
Stimulants	<i>All Drugs in H2V, J5B</i>
Antianxiety Medications	<i>All Drugs in H2F</i>

Package labeling was used to determine FDA approved indications, age, and maximum approved dose for atypical antipsychotic medications (see Appendix A).

Logistic regression was used to determine the odds of receiving a psychotropic medication or a specific therapeutic class of psychotropic medication based on foster care status controlling for age, sex, and race.

RESULTS:

A. Utilization

Overall Utilization

Table 1. Number and Percentage of Children Taking a Psychotropic Medications Stratified by Age and Foster Child Status.

Age (Years)	All Children				Non Foster Care				Foster Care			
	N	% of population <18	Number on PM	% of population on PM	N	% of population < 18	Number on PM	% of Non Foster Care on PM	N	% of population <18	Number on PM	% of Foster Care on PM
<18	422,913	100.00%	22,176	5.24%	406,124	96.03%	17,870	4.40%	16,789	3.97%	4,306	25.65%
12<Age<18	108,566	25.70%	11,080	10.21%	101,362	93.36%	8,378	8.27%	7,204	6.64%	2,702	37.51%
6<Age<=11	154,038	36.40%	9,315	6.05%	148,168	96.19%	7,890	5.33%	5,870	3.81%	1,425	24.28%
≤5	160,309	37.90%	1,781	1.11%	156,594	97.68%	1,602	1.02%	3,715	2.32%	179	4.82%

PM: Psychotropic Medication

Utilization by Age/ Psychotropic Medication/ Foster Child Status:

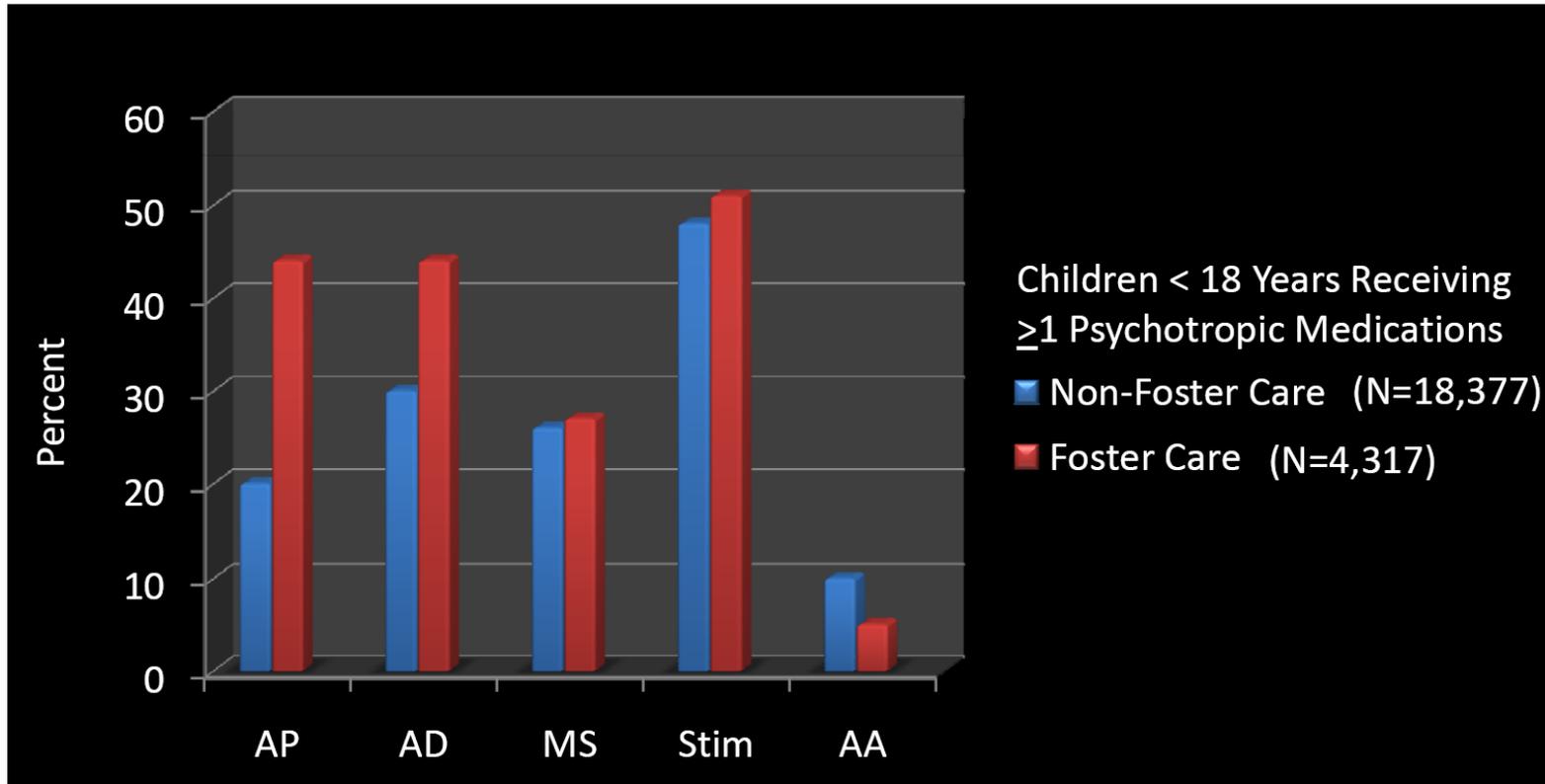
Table 2. Number and Percentage of Children Taking a Psychotropic Medications Stratified by Age, Type of Psychotropic Medication, Foster Child Status.

Age (Years)	All Psychotropic Medications (PM)						Antipsychotics (AP)						Antidepressants (AD)					
	All Children		Non Foster Care		Foster Care		All Children		Non Foster Care		Foster Care		All Children		Non Foster Care		Foster Care	
	Number of benef.	% of benef. <18	Number of benef.	% of All PM	Number of benef.	% of All PM	Number of benef.	% of All PM	Number of benef.	% of All AP	Number of benef.	% of All AP	Number of benef.	% of All PM	Number of benef.	% of All AD	Number of benef.	% of All AD
<18	22,694	100.00%	18,377	80.98%	4,317	19.02%	5,588	24.62%	3,664	65.57%	1,924	34.43%	7,720	34.02%	5,834	75.57%	1,886	24.43%
12<Age<18	11,328	49.90%	8,618	76.08%	2,710	23.92%	3,293	29.07%	1,978	60.07%	1,315	39.93%	5,629	49.69%	4,147	73.67%	1,482	26.33%
6<Age<=11	9,502	41.90%	8,077	85.00%	1,425	15.00%	2,101	22.11%	1,537	73.16%	564	26.84%	1,885	19.84%	1,506	79.89%	379	20.11%
≤5	1,864	8.20%	1,682	90.24%	182	9.76%	194	10.41%	149	76.80%	45	23.20%	206	11.05%				

Age (Years)	Mood Stabilizers (MS)				Stimulants (Stim)				Antianxiety Medications (AA)									
	All Children		Non Foster Care		Foster Care		All Children		Non Foster Care		Foster Care		All Children		Non Foster Care		Foster Care	
	Number of benef.	% of All PM	Number of benef.	% All MS	Number of benef.	% All MS	Number of benef.	% All PM	Number of benef.	% of All Stim	Number of benef.	% of All Stim	Number of benef.	% All PM	Number of benef.	% of All AA	Number of benef.	% of All AA
<18	5,864	25.84%	4,706	80.25%	1,158	19.75%	11,113	48.97%	8,906	80.14%	2,207	19.86%	2,041	8.99%	1,820	89.17%	221	10.83%
12<Age<18	3,090	27.28%	2,242	72.56%	848	27.44%	4,077	35.99%	2,956	72.50%	1,121	27.50%	1,170	10.33%	1,009	86.24%	161	13.76%
6<Age<=11	1,749	18.41%	1,513	86.51%	236	13.49%	6,517	68.59%	5,509	84.53%	1,008	15.47%	568	5.98%	524	92.25%	44	7.75%
≤5	1,025	54.99%	951	92.78%	74	7.22%	519	27.84%	441	84.97%	78	15.03%	303	16.26%				

Benef: beneficiaries

Figure 1. Percentage of Children Taking a Psychotropic Medication Stratified by Type of Medication and Foster Care Status.



AP: Antipsychotic, AD: Antidepressant, MS: Mood Stabilizer, Stim: Stimulant, AA: Antianxiety Medication

Utilization by Number of Overlapping Psychotropic Medications/Foster Child Status :

Table 3. Number and Percentage of Children Taking Two or More Psychotropic Medications with 30 days or More Overlap Stratified by Age, Therapeutic Class, and Foster Care Status.

Foster Care Status	Psychotropic Medication Of Different Therapeutic Class								Psychotropic Medication Within Same Therapeutic Class							
	2 or more				3 or more				2 or more				3 or more			
	N	N with ≥30 days overlap	% of benef	p-value	N	N with ≥30 days overlap	% of benef.	p-value	N	N with ≥30 days overlap	% of benef.	p-value	N	N with ≥30 days overlap	% of benef.	p-value
Beneficiaries 6 ≤ age <18 Years of Age																
All	6,705	4,615	68.8%		2,104	1,169	55.6%		8,934	2,460	27.5%		1,876	160	8.5%	
Non Foster Care	4,661	3,081	66.1%		1,307	668	51.1%		6,571	1,700	25.9%		1,385	119	8.6%	
Foster Care	2,044	1,534	75.0%	<.0001	797	501	62.9%	<.0001	2,363	760	32.2%	<.0001	491	41	8.4%	0.8691
Beneficiaries ≤5 Years of Age																
All	306	181	59.2%		67				790	133	16.8%		313			
Non Foster Care	266	157	59.0%		53				710	119	16.8%		282			
Foster Care																

Benef: beneficiaries

Summary: Of all children under the age of 18 (n=422,913), 5.24% (n=22,176) are receiving at least one psychotropic medication (Table 1). When stratifying according to foster care status, 26% (n=4,306) of all foster care children (n=16,789) are receiving at least one psychotropic medication compared to only 4.40% (n=17,870) of all non-foster care children (n=406,124). For all children under the age of 5 years (n=160,309), 1.11% (n=1,781) are receiving at least one psychotropic medication. When stratifying according to foster care status for this population, 4.8% (n=179) of all foster care children (n=156,594) are receiving at least one psychotropic medication compared to only 1.02% (n=1,602) of all non-foster care children (n=3,715). When considering all children under the age of 18 years of age, only 1.3% (n=5,588) are receiving an antipsychotic. However, when stratifying according to foster care status, 0.9% (n=3,664) of all non-foster care children (n=406,124) are receiving an antipsychotic compared to 11.5% (n=1924) of all foster care children (n=16,789). For all children under the age of 5 years (n=160,309), 0.12% are using an antipsychotic (n=194) and 1.2% (n=1,864) are taking at least one psychotropic medication.

When only considering children under the age of 18 years of age who are receiving at least one psychotropic medication (Table 2), the majority (90%) are between the ages of 6-17 years of age. From this population, 49% (n=11,113) are receiving a stimulant, 34% (n=7,720) an

antidepressant, 26% (n=5,864) a mood stabilizer, 25% (n=5,588) an antipsychotic, and 9% (n=2,041) an antianxiety medication. For children under the age of 5 receiving, 55% (n=1,025) are receiving a mood stabilizer, 28% (n=519) a stimulant, 16% (n=303) an antianxiety medication, 11% (n=206) an antidepressant, and 10% (n=194) an antipsychotic. When stratifying according to foster care status, the majority of foster children are receiving a stimulant 51% (2207 out of 4317) followed by an antipsychotic medication 45% (1924 out of 4317) or an antidepressant 44% (1886 out of 4317). This finding is in contrast to non-foster care children in whom 48% (8906 out of 18377) are receiving a stimulant followed by a mood stabilizer 26% (4706 out of 18377), an antidepressant 30% (5834 out of 18377), and an antipsychotic 20% (3664 out of 18377).

A total of 7,011 (6,705+306) children under the age of 18 years are taking 2 or more psychotropic medications from different therapeutic classes in whom 68% (n=4,796) are receiving these medication concurrently for 30 or more days. A total of 9,724 (8,934+790) children are receiving 2 or more psychotropic medications within the same therapeutic class, in whom only 27% (n=2,593) are receiving these medications concurrently for 30 or more days. Thirty-six percent (n=1,534) of all foster care children age 6-17 taking a psychotropic medication are receiving 30 or more days of concurrent therapy from different therapeutic classes compared to only 16% (n=3,081) of children not in foster care. Seventeen percent (n=760) of foster care children age 6-17 taking a psychotropic medication are receiving 30 or more days of concurrent therapy from the same therapeutic classes compared to only 9% (n=1,700) of children not in foster care.

B. Safety Issues

Development of Metabolic Conditions Stratified by Age/Foster Child Status/Type and Number of Cardiometabolic Conditions :

Table 4. Number and Percentage of Children Taking Risperidone Stratified by Age, Mental Health Condition and Development of Cardiometabolic Conditions. (See Appendix for Specific Atypical Antipsychotics)

	All Children			Non Foster Care			Foster Care			p-value
	N	Number of benef.	% of benef.	N	Number of benef.	% of benef.	N	Number of benef.	% of benef.	
Beneficiaries 6≤age<18 Years of Age										
Mental Health Conditions										
None of diagnoses below	1,918	1,050	54.7%	1,342	745	55.5%	576	305	53.0%	0.3006
Schizophrenia	1,918									
Autism	1,918	292	15.2%	1,342	254	18.9%	576	38	6.6%	<.0001
Bipolar disorder/mixed mania	1,918	413	21.5%	1,342	243	18.1%	576	170	29.5%	<.0001

	All Children			Non Foster Care			Foster Care			p-value
	N	Number of benef.	% of benef.	N	Number of benef.	% of benef.	N	Number of benef.	% of benef.	
Conduct disorder, Oppositional defiant disorder	1,918	396	20.6%	1,342	250	18.6%	576	146	25.3%	0.0009
Metabolic Conditions										
Type II Diabetes	1,918									
Hyperlipidemia	1,918									
Hypertension	1,918									
Obesity or Excessive Weight Gain	1,918	82	4.3%							
1 Metabolic Disorder	1,918	40	2.1%							
2 or more Metabolic Disorders	1,918									
Beneficiaries ≤ 5 years of Age										
Mental Health Conditions										
None of diagnoses below	115	50	43.5%							
Schizophrenia	115									
Autism	115									
Bipolar disorder/mixed mania	115									
Conduct disorder, Oppositional defiant disorder	115	39	33.9%							
Metabolic Conditions										
Type II Diabetes	115	0	0.0%							
Hyperlipidemia	115									
Hypertension	115									
Obesity or Excessive Weight Gain	115									
1 CM Condition	115									
2 or more CM Condition	115	0	0.0%							

Benef: beneficiaries, CM: Cardiometabolic

Odds of Receiving a Psychotropic Medication:

Table 5. Odds of Receiving a Psychotropic Medication Stratified by Age, Gender, Race, and Foster Care Status.

Effect	Any Psychotropic Medication		Antipsychotics		Antidepressants		Mood stabilizers		Stimulants		Antianxiety	
	OR	95% CI	OR	95% CI	OR	95% CI	OR	95% CI	OR	95% CI	OR	95% CI
Age	1.161	1.157-1.164	1.194	1.186-1.202	1.287	1.279-1.295	1.140	1.134-1.147	1.103	1.098-1.108	1.174	1.163-1.186
Gender: M vs F	0.616	0.599-0.634	0.533	0.503-0.564	1.036	0.989-1.086	0.876	0.831-0.923	0.346	0.331-0.362	1.105	1.011-1.207
Race: B vs W	0.578	0.547-0.610	0.628	0.569-0.694	0.504	0.459-0.554	0.605	0.543-0.674	0.606	0.564-0.652	0.512	0.424-0.620
Race: H vs W	0.408	0.408-0.423	0.363	0.337-0.390	0.453	0.427-0.480	0.486	0.453-0.520	0.378	0.360-0.397	0.409	0.365-0.459
Race: O vs W	0.670	0.645-0.695	0.796	0.741-0.856	0.710	0.666-0.756	1.042	0.975-1.114	0.517	0.491-0.545	0.889	0.796-0.993
Foster: Yes vs No	5.407	5.193-5.630	9.625	9.051-10.236	5.554	5.239-5.889	4.795	4.473-5.141	4.855	4.608-5.116	2.009	1.738-2.321

M: Male, B: Black, CI: Confidence Interval, F: Female, H: Hispanic, O: Other race, OR: Odds Ratio, vs: versus

Summary: When specifically evaluating the use of atypical antipsychotics that are approved in children, between 47%-50% does not have a diagnosis of schizophrenia, autism, bipolar disorder/mixed mania, or conduct disorder/oppositional defiant disorder. Table 4 shows the data specifically for risperidone, which has the highest utilization of the atypical antipsychotics in Colorado Medicaid. Specifics for all other atypical antipsychotics can be found in the Appendix B of this Executive Summary. When evaluating the development of cardio-metabolic syndrome, foster care status does not appear to contribute. This was seen across all atypical antipsychotics. However, foster care status does significantly increase the odds of being prescribed any psychotropic medication (OR: 5.40, 95% CI: 5.19-5.63) after controlling for age, gender, and race (Table 5). When evaluating by specific psychotropic agent, foster care status increases the odds of being prescribed an antipsychotic (OR: 9.05, 95% CI: 9.05-10.2), an antidepressant (OR: 5.55, 95% CI: 5.23-5.89), a mood stabilizer (OR: 4.79, 95% CI: 4.47-5.14), a stimulant (OR: 4.85, 95% CI: 4.60-5.12), and an antianxiety medication (OR: 2.01, 95% CI: 1.74-2.23).

C. Costs

Total Annual Pharmacy Costs, Cost Per Claim, and Mean Cost Per Beneficiary:

Table 6. Total Annual Pharmacy Costs, Cost Per Claim, and Mean Cost Per Beneficiary for Children Receiving Psychotropic Medications Stratified by Foster Care Status, and Type of Psychotropic Medication.

Foster Care Status	All Psychotropic Medications			Antipsychotics			Antidepressants			Mood stabilizers			Stimulants			Antianxiety		
	Mean Cost per Claim	Total Annual Cost	Mean Cost per Benef.	Mean Cost per Claim	Total Annual Cost	Mean Cost per Benef.	Mean Cost per Claim	Total Annual Cost	Mean Cost per Benef.	Mean Cost per Claim	Total Annual Cost	Mean Cost per Benef.	Mean Cost per Claim	Total Annual Cost	Mean Cost per Benef.	Mean Cost per Claim	Total Annual Cost	Mean Cost per Benef.
All	\$147.84	\$32,004,827	\$1,410.28	\$281.56	\$12,624,541	\$556.29	\$16.76	\$685,598	\$30.21	\$114.72	\$5,755,790	\$253.63	\$171.83	\$12,866,442	\$566.95	\$12.77	\$72,456	\$3.19
Non Foster Care	\$143.63	\$22,097,195	\$1,202.44	\$268.70	\$6,979,140	\$379.78	\$16.88	\$462,722	\$25.18	\$126.76	\$4,954,600	\$269.61	\$170.54	\$9,636,802	\$524.39	\$13.16	\$63,931	\$3.48
Foster Care	\$158.18	\$9,907,632	\$2,295.03	\$299.27	\$5,645,401	\$1,307.71	\$16.51	\$222,876	\$51.63	\$72.27	\$801,190	\$185.59	\$175.81	\$3,229,640	\$748.12	\$10.43	\$8,525	\$1.97

Benef: beneficiaries

Potential Cost Savings:

Table 7. Potential Cost Savings if Dosing Restrictions Were Implemented According to Indication and Age/Indication for Atypical Antipsychotics.

	Autism	Schizophrenia	Bipolar /Mixed Mania	More than one condition	No Diagnosis	Total savings
Less than the Recommended FDA Approved Dose						
Number of claims \leq max dose	3,833	13,740	372	2,525	20,041	
Average cost per \leq max dose claim	\$ 225	\$327	\$351	\$ 305	\$ 238	
Total annual cost for \leq max dose claims	\$ 863,402	\$ 4,498,312	\$ 130,439	\$ 771,067	\$ 4,764,487	
Exceeding the Recommended FDA Approved Dose						
Number of claims $>$ max dose	593	457	28	332	1,680	
Average cost per $>$ max dose claim	\$ 301	\$368	\$279	\$ 665	\$ 502	
Total annual cost for $>$ max dose claims	\$178,341	\$ 168,332	\$ 7,799	\$ 220,695	\$ 843,190	
Cost saving with max dose restriction	\$44,765.57	\$18,714.15	\$ (2,019.36)	\$ 119,310.84	\$ 443,788.80	\$ 624,560.00

Summary: When evaluating all psychotropic medications, the mean annual cost by claim does not differ between all children (\$147.84) and those of non-foster care (\$143.63) and foster care (\$158.18) status (Table 6). However, when taking into account mean annual cost per beneficiary for foster compared to non-foster care children, the costs are doubled for foster children (\$2,295.03 vs \$1,202.44, respectively). This finding was seen across those taking antipsychotics (\$1,307.71 vs 379.78, respectively), antidepressants (\$51.63 vs \$25.18, respectively), and stimulants (\$748.12 vs 524.39, respectively). These prescription patterns suggest that potentially foster children are receiving more prescription and more multiple medications.

Table 7 summarizes the potential cost savings if the Department were to implement dosing restrictions for atypical antipsychotics according to age and indication based on package labeling recommendations. If such a policy were implemented, the Department could save \$624,560 per year which would address both safety and cost.

SUMMARY and POLICY RECOMMENATIONS TO THE DUR BOARD

1. Compared to national Medicaid statistics, Colorado appears to be below national averages regarding psychotropic and antipsychotic medication use particularly in the most vulnerable populations as seen below:

Cohort	Colorado (2011)	Colorado (2012)	9-State Summary (2011)
Antipsychotic Use			
All Children	1.5%	1.3%	3.0%
Foster Children	6.2%	11.5%	14.0%
Children < 5 years of age	0.1%	0.12%	0.2%
Psychotropic Medication Use			
All Children	4.8%	5.24%	6.6%
Foster Children	20.8%	25.7%	26.6%
Children < 5 Years of Age	1.1%	1.2%	1.8%

However, compared to 2011 findings, use of atypical antipsychotics in foster children, overall use of psychotropic medications in children and in foster children appears to have increased. Additionally, we found that many children particularly foster care children are receiving two or more psychotropic medications within the same therapeutic class. Foster children carry a 6-fold and a 9-fold higher risk of being prescribed an a psychotropic medication and an antipsychotic medication, respectively, compared to those not in foster care.

2. Based on these findings, we suggest to the Board that education efforts be focused on foster care children as they have a 6-fold and a 9-fold higher risk of being prescribed an a psychotropic medication and an antipsychotic medication, respectively, compared to those not in foster care. We suggest that the CO Evidenced Based DUR Program develop written education materials targeted at those providers caring for foster children receiving multiple psychotropic medications within the same therapeutic class to encourage medication profile review of their patients and potentially minimization of duplicate therapy.
3. Based on these findings, the Department may consider additionally consultation from a Child Psychiatrist who can assist the Department in reviewing complex cases which warrant prior authorization.

4. Additionally, stricter prior authorization criteria regarding dose restrictions within children for atypical antipsychotics could not only enhance safety but potentially save the Department \$624,560.00

LIMITATIONS

1. Identification of diagnosis and disease conditions was determined by ICD-9 codes. Therefore, these data are only reflective of what diagnoses were documented by the provider.
2. When estimating cost savings, the Department may receive supplemental rebates which could not be taken in account.
3. Exact denominators for the 9-state analysis were not known which was used for comparison.

REFERENCES:

1. dosReis S, Zito JM, Safer DJ, Soeken KL. Mental health services for youths in foster care and disabled youths. *Am J Public Health*. 2001;91(7):1094–1099.
2. Raghavan R, Zima BT, Andersen RM, Leibowitz AA, Schuster MA, Landsverk J. Psychotropic medication use in a national probability sample of children in the child welfare system. *J Child Adolesc Psychopharmacol*. 2005;15(1):97–106.
3. Zima BT, Bussing R, Crecelius GM, Kaufman A, Belin TR. Psychotropic medication treatment patterns among school-aged children in foster care. *J Child Adolesc Psychopharmacol*. 1999;9(3):135–147.
4. Zito JM, Safer DJ, Zuckerman IH, Gardner JF, Soeken K. Effect of Medicaid eligibility category on racial disparities in the use of psychotropic medications among youths. *Psychiatr Serv*. 2005;56(2):157–163.
5. Breland-Noble AM, Elbogen EB, Farmer EMZ, Wagner HR, Burns BJ. Use of psychotropic medications by youths in therapeutic foster care and group homes. *Psychiatr Serv*. 2004;55(6):706–708
6. Zito JM, Safer DJ, Sai D, et al. Psychotropic medication patterns among youth in foster care. *Pediatrics*. 2008;121(1). Available at: www.pediatrics.org/cgi/content/full/121/1/e157.
7. Rubin DM, Feudtner C, Localio R, Mandell DS. State variation in psychotropic medication use by foster care children with autism spectrum disorder. *Pediatrics*. 2009;124(2). Available at: www.pediatrics.org/cgi/content/full/124/2/e305.
8. Olfson M, Crystal S, Huang C, Gerhard T. Trends in antipsychotic drug use by very young, privately insured children. *J Am Acad Child Adolesc Psychiatry*. 2010;49(1): 13–23.
9. Olfson M, Blanco C, Liu L, Moreno C, Laje G. National trends in the outpatient treatment of children and adolescents with antipsychotic drugs. *Arch Gen Psychiatry*. 2006; 63(6):679–685.
10. Cooper WO, Arbogast PG, Ding H, Hickson GB, Fuchs DC, Ray WA. Trends in prescribing of antipsychotic medications for US children. *Ambul Pediatr*. 2006;6(2):79–83.
11. Patel NC, Sanchez RJ, Johnsrud MT, Crismon ML. Trends in antipsychotic use in a Texas Medicaid population of children and adolescents, 1996–2000. *J Child Adolesc Psychopharmacol*. 2002;12(3):221–229.
12. Domino ME, Swartz MS. Who are the new users of antipsychotic medications? *Psychiatr Serv*. 2008;59(5):507–514.
13. Constantine R, Tandon R. Changing trends in pediatric antipsychotic use in Florida's Medicaid program. *Psychiatr Serv*. 2008; 59(10):1162–1168.
14. Kalverdijk LJ, Tobi H, van den Berg PB, et al. Use of antipsychotic drugs among Dutch youths between 1997 and 2005. *Psychiatr Serv*. 2008;59(5):554–560.

15. Correll CU. Multiple antipsychotic use association patterns among school-aged children in foster care. *J Child Adolesc Psychopharmacol*. 1999;9(3):135–147.

16. Zito JM, Safer DJ, Zuckerman IH, Gardner JF, Soeken K. Effect of Medicaid eligibility category on racial disparities in the use of psychotropic medications among youths. *Psychiatr Serv*. 2005;56(2):157–163.

Appendix A. Atypical Antipsychotics Stratified by NDC number/Medicaid Therapeutic Code, Indication, Age, and Maximal Dose.

Drug	NDC or Medicaid Therapeutic Code	FDA Approved Indication*	FDA Approved Age	Maximal FDA Approved Dose
Asenapine (Saphris®)	NDC #: 00052-2142-03 00052-2142-04 00052-2139-03 00052-0118-06 00052-0119-90 00052-0119-06 00052-0118-90 00052-2139-04	NOT APPROVED		
Aripiprazole (Abilify®)	H7X (H7T (include all doses and formulations))	Autism/Psychomotor Agitation Bipolar Disorder/Mixed Mania Schizophrenia	6-17 years 10-17 years 13-17 years	15mg/day 30mg/day 30mg/day
Clozapine (Fazaclo®, Clozaril®)	H7T (include all doses and formulations)	NOT APPROVED		
lloperidone (Fanapt®)	H7T (include all doses and formulations)			
Lurasidone (Latuda®)	H7T (include all doses and formulations)			
Olanzapine (Zyprexa®)	H7T (include all doses and formulations)	Schizophrenia	13-17 years	10mg/day
Olanzapine (Zyprexa Zydis®)	H7T (include all doses and formulations)	Bipolar Disorder/Mixed Mania	13-17 years	10mg/day
Paliperidone (Invega ER®)	H7T (include all doses and formulations)	Schizophrenia	12-17 years	12mg/day
Risperidone (Risperdal®)	H7T (include all doses but exclude Risperdal Consta)	Autism/Psychomotor Agitation Bipolar Disorder/Mixed Mania Schizophrenia	5-16 years 10-17 years 13-17 years	3mg/day 6mg/day 6mg/day
Quetiapine Fumarate (Seroquel®)	H7T (include all doses and formulations)	Schizophrenia Bipolar Disorder/Mixed Mania	13-17 years 10-17 years	800 mg/day 800 mg/day
Quetiapine Fumarate (Seroquel XR®)	H7T (include all doses and formulations)	NOT APPROVED		
Ziprasidone (Geodon®)	H7T (include all doses but exclude Ziprasidone Mesylate)	NOT APPROVED		

Asenapine:

	All			Non Foster Care			Foster Care			p-value
	N	Number of benef.	% of benef.	N	Number of benef.	% of benef.	N	Number of benef.	% of benef.	
Beneficiaries 6<=age<18										
Mental Health Conditions										
None of diagnoses below										
Schizophrenia										
Autism										
Bipolar disorder/mixed mania										
Conduct disorder, Oppositional defiant disorder										
Type II Diabetes										
Hrperlipidemia										
Hypertension										
1 Metabolic Disorder										
2 or more Metabolic Disorders										
Obesity or Excessive Weight Gain										

Clozapine:

	All			Foster Care			p-value
	N	Number of benef.	% of benef.	N	Number of benef.	% of benef.	
Beneficiaries 6<=age<18							
Mental Health Conditions							
None of diagnoses below							
Schizophrenia							
Autism							
Bipolar disorder/mixed mania							
Conduct disorder, Oppositional defiant disorder							
Type II Diabetes							
Hrperlipidemia							
Hypertension							
1 Metabolic Disorder							
2 or more Metabolic Disorders							
Obesity or Excessive Weight Gain							

Paliperidone:

	All			Non Foster Care			Foster Care			p-value
	N	Number of benef.	% of benef.	N	Number of benef.	% of benef.	N	Number of benef.	% of benef.	
Beneficiaries 6<=age<18										
Mental Health Conditions										
None of diagnoses below	45									
Schizophrenia	45									
Autism	45									
Bipolar disorder/mixed mania	45									
Conduct disorder, Oppositional defiant disorder	45									
Metabolic Conditions										
Type II Diabetes	45									
Hrperlipidemia	45									
Hypertension	45									
1 Metabolic Disorder	45									
2 or more Metabolic Disorders	45									
Obesity or Excessive Weight Gain	45									

Quetiapine:

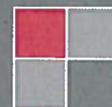
	All			Non Foster Care			Foster Care			p-value
	N	Number of benef.	% of benef.	N	Number of benef.	% of benef.	N	Number of benef.	% of benef.	
Beneficiaries 6<=age<18										
Mental Health Conditions										
None of diagnoses below	618	291	47.1%	362	194	53.6%	256	97	37.9%	0.0001
Schizophrenia	618									
Autism	618	39	6.3%							
Bipolar disorder/mixed mania	618	230	37.2%	362	122	33.7%	256	108	42.2%	0.0319
Conduct disorder, Oppositional defiant disorder	618	152	24.6%	362	58	16.0%	256	94	36.7%	<.0001
Metabolic Conditions										
Type II Diabetes	618									
Hrperlipidemia	618									
Hypertension	618									
1 Metabolic Disorder	618									
2 or more Metabolic Disorders	618									
Obesity or Excessive Weight Gain	618	36	5.8%							

2013

Psychotropic Medication Guidelines for Children and Adolescents in Colorado's Child Welfare System

Solutions for Coordinated Care

Colorado Department of Health Care Policy and Financing
and Colorado Department of Human Services
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INTRODUCTION

The Fostering Connections to Success and Increasing Adoptions Act of 2008 (Public Law 110-351), required state agencies to develop a plan for ongoing oversight and coordination of health care services for children in foster care. Subsequent to this act, the Child and Family Services Improvement and Innovation Act (P.L. 112-34) amended the law by adding requirements specifying that the plan must include an outline of protocols for the appropriate use and monitoring of psychotropic medications.

The Colorado Department of Human Services (CDHS) and the Department of Health Care Policy and Financing (HCPF) joined together, along with many stakeholders from across the community, to form the Psychotropic Medications Steering Committee (the Committee). The Committee was charged with developing the following recommended guidelines for the state of Colorado.

The vision of the Committee: To ensure the appropriate use of psychotropic medications for Colorado's children and youth in out-of-home care and to integrate medications into comprehensive physical and behavioral health care.

“Several recent national reports have called attention to the issue of psychotropic prescribing in terms of misuse and overuse and similar problems exist in Colorado. As state agencies, we are committed to improving the health of children in foster care and ensuring safe, appropriate, and effective prescribing. Attached is a joint report and guidelines for promoting health and guiding the use of psychotropic medications in the child welfare system from the Department of Health Care Policy and Financing and the Department of Human Services. State Medicaid and behavioral health agencies play a significant role in providing access to quality physical and behavioral health services for children in the child welfare system. Therefore, it is essential that we collaborate to improve care.

We created a special committee of advisors and experts to help guide psychotropic medication prescribing in Colorado who created this report. The Committee included child psychiatrists, pediatricians, family medicine providers, pharmacists, social workers, and family advocates from both the private sector and the state.

This report's purpose is to outline guidance to ensure that children in foster care receive high-quality, coordinated medical services, including appropriate medication, even as their placements change. While medications can be an important component of treatment, strengthened oversight of psychotropic medication use is necessary in order to responsibly and effectively attend to the clinical needs of children.

We expect these guidelines will be regularly reviewed to keep up with new research and evidence based practice. We look forward to working collaboratively in the future.

Thank you for your commitment and dedication to the children and adolescents of Colorado.”

Sincerely,

*Judy Zerzan, MD, MPH
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Director, Office of Children Youth
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NATIONAL DATA

Children who come to the attention of the child welfare system have disproportionately high rates of social-emotional, behavioral, and mental health challenges.¹

- Twenty-three percent of children age 17 and under who have experienced maltreatment have behavior problems requiring clinical intervention.
- Clinical-level behavior problems are almost three times as common among this population as among the general population.
- Among children who enter foster care, approximately one third scored in the clinical range for behavior problems on the Child Behavior Checklist.
- Thirty-five percent of children age 17 and under who have experienced maltreatment demonstrate clinical-level problems with social skills – more than twice the rate of the general population.
- Children in foster care are more likely to have a mental health diagnosis than other children.
- In a study of foster youth between the ages of 14 and 17, sixty-three percent met the criteria for at least one mental health diagnosis at some point in their life.²

Psychotropic medications are often prescribed to treat these challenging behaviors and mental health issues. While necessary in some cases, numerous studies have demonstrated that the rates of psychotropic medication prescriptions are disproportionately high among children in foster care. A 2008 study of children in foster care taking psychotropic medication found 21.3 percent are receiving mono-therapy (one class of psychotropic medication), 41.3 percent are taking three or more classes of psychotropic medications, 15.4 percent are taking medication from four or more classes, and 2.1 percent are taking five or more classes of psychotropic drugs.³

COLORADO DATA

A 2011 study assessing the use of psychotropic medications by children and adolescents in Colorado's State Medicaid program found some notable trends. (*Please see Appendix A-Colorado AP 11-27-12.*) Although Colorado had a lower percentage of children and adolescents in foster care using psychotropic medications than the eight comparison states, those in foster care in Colorado were three to six times more likely to be prescribed psychotropic medications than Colorado children and adolescents not in foster care. Children and adolescents in Colorado's foster care system were also above the nine-state median for the use of four or more mental health drugs, with 24.3 percent in 2011.

¹The *National Survey of Child and Adolescent Well-Being* (NSCAW)

²White, CR; Havalchak, A; Jackson, L; O'Brien, K; & Pecora, PJ. (2007). Mental Health, Ethnicity, Sexuality, and Spirituality among Youth in Foster Care: Findings from The Casey Field Office Mental Health Study. *Casey Family Programs*.

³Zito, JM; et al., (2008). Psychotropic medication patterns among youth in foster care. *Pediatrics*. 121(1): e157.

⁴Jensen, P.S., Bhatara, V.S., Vitiello, B., Hoagwood, K., Feil, M., & Burke, L.B. (1999). Psychoactive Medication Prescribing Practices for U.S. Children: Gaps Between Research and Clinical Practice. *Journal of the American Academy of Child & Adolescent Psychiatry*, 38(5), 557-565.

⁵Wethington, H.R., Hahn, R.A., Fuqua-Whitley, D.S., Sipe, T.A., Crosby, A.E., Johnson, R.L., Liberman, A.M., Mos'cicki, E., Price, L.N., Tuma, F.K., Kalra, G., Chattopadhyay, S.K., & Task Force on Community Preventive Services. (2008). The Effectiveness of Interventions to Reduce Psychological Harm from Traumatic Events Among Children and Adolescents: A Systematic Review. *American Journal of Preventative Medicine*, 35(3), 287-313.

SAFEGUARDS

While many children in foster care have mental health challenges requiring intervention which may include the appropriate use of psychopharmacological treatments as part of a comprehensive treatment approach, research on the safe and appropriate pediatric use of psychotropic medications lags behind prescribing trends.⁴ There is even less evidence of the effectiveness of pharmacologic interventions for the treatment of trauma-related symptoms in children. For these reasons, protocols and safeguards need to be put in place.⁵

The Committee is recommending the following safeguards be put in place:

Within Colorado Medicaid, the following situations will be subject to prior authorization or Drug Utilization Review intervention:

1. Clients taking three or more psychotropic medications;
2. Clients taking three or more medications in the same psychotropic class at the same time or within nine months;
3. Clients under age five who are prescribed antipsychotic agents;
4. Clients taking antipsychotic agents with no diagnosis of psychosis, bipolar disorder, schizophrenia, or autism;
5. Clients that are prescribed psychotropic agents at doses that exceed their published recommended daily maximum dose.

It should be noted, these requirements and oversight refer only to medications prescribed for children which are payable under Colorado Medicaid. Prescription coverage policies through other plans may or may not have such policies in place.

These situations may require consult with a call line, Behavioral Health Organization (BHO) specialist, or primary care provider (PCP), to assist with the development of a treatment plan.

For additional information on Colorado Medicaid drug coverage policies, please visit the following links to download policy documents:

Preferred Drug List - <http://www.colorado.gov/cs/Satellite/HCPF/HCPF/1197969485609>

<<http://www.colorado.gov/cs/Satellite/HCPF/HCPF/1197969485609>>

Appendix P (prior authorization policies)

<http://www.colorado.gov/cs/Satellite/HCPF/HCPF/1201542571132>

Additionally, the Committee recommends HCPF, Colorado's state Medicaid agency, perform annual data analysis, identifying prescribers practicing outside of accepted norms with regard to psychotropic medications for children and adolescents. HCPF would then send letters to these providers, informing them that they appear to be practicing outside of accepted norms. This letter would not be punitive, but instead would seek to understand the prescriber's practice, their population type, and any additional input the prescriber might have. A link would be provided for the prescriber to respond to an electronic survey, helping to inform the Committee about the prescriber's practice. The letter would also inquire as to what types of technical assistance may be useful to the prescriber, as well as further recommendations the Committee can provide to HCPF and CDHS.

COMMUNICATION and COORDINATED CARE

Children and adolescents in the care of the local departments of human/social services offer special challenges to the physical, oral, and behavioral health care providers who care for them.

- In State Fiscal Year (SFY) 2011, Colorado received 80,094 referrals, continuing a trend of growth over the past five years. Referrals opened to investigations (i.e., assessments) along with open involvements (i.e., cases) declined. Consistent with the Division of Child Welfare's value of keeping children in the least restrictive setting, the majority of children in open involvement were served in their own homes (71.7 percent).
- In SFY 2011, of the 39,403 children in open involvements, 11,153 were placed in an OOH [out-of-home] setting (28.3 percent of overall involvements).⁶

Many of these children are in care with incomplete medical records and without consistent primary care, a focal point of care, or a medical home overseeing their health and wellbeing. These children represent a vulnerable population with a high rate of behavioral health issues among them. The issue of health and health care for children in the child welfare system is serious. Statistics show that during SFY 2009-10:

- Seventy-four percent of the Medicaid eligible children in foster care had at least one well child visit in comparison to the eighty-seven percent of the eligible children not in the foster care system.
- Sixty-one percent of the Medicaid eligible children in foster care had used dental services at least once. This compares to sixty-three percent of the eligible children not in the foster care system.
- Seventy-one percent of Medicaid eligible children in foster care utilized general pharmacy services at least once. This compares to about sixty-six percent of Medicaid children not in the foster care system who used general pharmacy services at least once.

⁶ Powell, C., Smith, C., Madura, B., McCaw, S., Johnson, K., Sushinsky, J. 2011 Annual Evaluation Report, CDHS, Division of Child Welfare

Medical Homes and the Accountable Care Collaborative

Given this information, these guidelines focus on the urgent need for a medical home for the children in the child welfare system. A medical home focuses on the importance of preventative care as well as the importance of appropriate and timely screening for behavioral health concerns.

The American Academy of Pediatrics (AAP) recommends:

*"Ideally, at a minimum such reassessments should occur monthly for the first six months of age, every two months for ages six to twelve months, every three months for ages one to two years, every six months for ages two through adolescence, and at times of significant changes in placement (foster home transfers, approaching reunification). These periodicity recommendations, although not backed by evidence-based data, are considered by this committee to be the minimal number of preventive health care encounters required to closely monitor these children. Depending on the stability of the placement and changes in the child's status, additional visits may be indicated. **Any child prescribed psychotropic medication must be closely monitored by the prescribing [provider] for potential adverse effects.***
(emphasis added)

At each health visit, the pediatrician should attempt to assess the child's developmental, educational, and emotional status. These assessments may be based on structured interviews with the foster parents and caseworker, the results of standardized tests of development, or a review of the child's school progress. All children with identified problems should be promptly evaluated and treated as clinically indicated."

Additional material regarding periodicity information for children in the child welfare system can be found at: <http://www2.aap.org/fostercare/policystatements.html>.

Children and adolescents in the child welfare system should receive the screening and well child visits as outlined by the AAP. These visits are important to assure that problems are found early and treated as medically appropriate.

Children under the age of five years who are subjects of a substantiated report of abuse or neglect must be referred to the appropriate state or local agency for developmental screening within sixty days after the abuse or neglect has been substantiated. (CCR Vol 7, 7.202.52 (K)).

Colorado is working on providing Medicaid clients with a medical home. The Accountable Care Collaborative (ACC) is a Colorado Medicaid program designed to improve clients' health outcomes through a coordinated, client-centered system which holds providers accountable for health outcomes.

In Colorado, there are seven Regional Care Collaborative Organizations (RCCOs) which provide:

- Medical management, particularly for medically and behaviorally complex clients, to ensure they get the right care, at the right time, and in the right setting.

- Care coordination among providers and with other services such as behavioral health, long-term supports and services.
- Provider support such as assistance with care coordination, referrals, clinical performance, and practice improvement and redesign.
- Primary Care Medical Providers (PCMPs) are affiliated with a RCCO and act as “medical homes” for clients. As a medical home, the PCMP will coordinate and manage a client’s health needs across specialties and along the continuum of care.

Everyone has a mandate to serve the child and there is shared responsibility between the Accountable Care Collaborative (ACC), the Behavioral Health Organization (BHO), the prescriber, and caseworker. The Committee has developed Fact Sheets, to assist these different systems in understanding the needs and services provided by each entity. Child welfare caseworkers need to understand how the ACC can assist in the care of the children and youth they serve and providers need to understand the special needs of the children and youth in the child welfare population. Please see Appendix B for these Fact Sheets. Additionally, information on the ACC is being added to the Child Welfare Training Academy.

Telemedicine

The Committee is also making a recommendation for the increased use of telemedicine in Colorado. Telemedicine is a benefit of Colorado Medicaid and one that can be useful for assessment and treatment for children in rural areas or without access to a needed provider type. The increased access and availability of telemedicine can provide additional consultation, so that providers have the ability for increased monitoring of children and youth on psychotropic medications. Additionally, older youth often prefer telemedicine.

Telemedicine is a way of giving services to Medicaid clients who live a significant distance away from providers they need to see. Telemedicine involves two providers: an “originating provider” and a “distant provider.” The provider where the client is located is the “originating provider” and the provider in another location is the “distant provider.” Providers must have special equipment to provide telemedicine services. Telemedicine does not mean visits by telephone or fax. All Medicaid clients can receive services through the use of telemedicine, regardless of where they live. Services can only be received at providers’ offices that have the special equipment.

Telemedicine services are provided “live” by audio-video communications between two providers. The distant provider is a consultant to the originating provider. Sometimes the distant provider may be the only provider involved in the visit, such as with mental health sessions. Providers such as doctors, nurse practitioners, and behavioral health providers can provide services if they have the special equipment. Telemedicine gives the client access to providers including specialists. Telemedicine is not to take the place of seeing a provider in person when one is available.

Telemedicine is also useful for peer review, peers support and education.

Record transfers between providers

Another barrier in Colorado's child welfare system identified by the Committee is the difficulty providers experience when requesting records. To break down this barrier, the Committee is recommending provider education on how to access services and records. One piece of that education will be to ensure that providers are aware of programs that already exist, such as Colorado Regional Health Information Organization (CORHIO). CORHIO is a public-private partnership that is tasked with the secure implementation of health information exchange (HIE). CORHIO is designated by the State of Colorado to facilitate HIE. CORHIO works closely with and among communities across Colorado to develop and implement secure systems and processes for sharing clinical information. CORHIO collaborates with all health care stakeholders including physicians, hospitals, clinics, behavioral health, public health, long-term care, laboratories, imaging centers, health plans and patients. For more information, please see: <http://www.corhio.org/>

Tracking psychotropic medication taken by children and youth while they are in foster care is another obstacle. Currently, it is not a mandatory field in the State's Statewide Automated Child Welfare Information System (SACWIS), and therefore, the information is often missing or inaccurate. The Committee is recommending a task group be formed to determine the best course of action to improve the tracking of psychotropic medications. This task group would make recommendations as to who can or should be responsible for entry of medication, i.e. the caseworker, or whether providers can be given access to input information. Tracking this information will provide the ability to accurately identify children/youth on high doses of, or multiple psychotropic medications; identify prescribers who may be outliers; provide a history of psychotropic medications to current providers to mitigate the repetition of children/youth being prescribed medications that have been unsuccessful or have caused negative reactions; and track the progress of the appropriate use of psychotropic medications for children and youth in foster care.

Due to the difficulty of data sharing between HCPF and CDHS, the Committee also recommends exploring options of automating this process. The Committee will monitor work being done through the Interoperability Innovation Grant, to determine if there is an opportunity to combine efforts. Specifically, the Committee would also like to investigate how CDHS can work with HCPF's Statewide Data and Analytics Contractor (SDAC).

Transitioning Youth

Youth who are transitioning from foster care to adulthood are finding it especially difficult to obtain or transfer their mental health records, as well as obtain new or transfer prescriptions. Due to these struggles, the Committee will be looking closely at the work that is being finalized by the Colorado Youth and Children Information Sharing System (CCYIS), particularly the release of information forms developed by CCYIS. The Committee believes that these new forms will be helpful to emancipating youth and can be added as part of the process youth go through with their independent living plans.

The Committee also recommends education for providers regarding transitioning youth. The work between the provider and the youth can be done with a “tool box” that would facilitate this transition process and what needs to be done in relation to integrating their mental and physical health needs.

Recommended Guidelines for a Psychopharmacology Assessment

The baseline of an assessment of a child or adolescent prior to initiating psychopharmacological treatment is complex. It must involve the evaluation of a myriad of biological, psychological, and social variables. The actual purpose of the assessment is multifaceted and includes:

- 1) The establishment of a therapeutic relationship with the patient and parent/guardian.
- 2) The formulation and establishment of a working diagnosis.
- 3) The identification of target symptoms.
- 4) The development of a comprehensive treatment plan.

It is important to note that co-morbid medical and psychiatric disorders are often present in children and adolescents who require care. All children should have a thorough health evaluation and identification of acute medical conditions prior to the administration of psychotropic medications or when a change of medication occurs. In some cases, medical problems mimic and/or occur co-morbidly with psychiatric disorders. In those cases, the identification of target symptoms is most critical. When pharmacologic intervention is identified as part of the treatment plan, consideration such as diagnostic medical evaluations, drug-drug interactions, poly-pharmacy, treatment compliance, informed consent, and the safe storage and administration of medications become key.

The administration of psychotropic medication should involve appropriate education of the patient, bio parent, guardian, foster parent or other caregiver and caseworker. This should be followed by adequate trial and careful monitoring by the prescribing practitioner, along with treatment by other providers. It is essential that providers be informed and make prescribing decisions based on **all** medication currently being taken by a child, including non-psychopharmacological medications, be communicated to all parties. An adequate trial refers to an appropriate dose of the medication being given over a reasonable period of time needed to obtain efficacy; however, the practitioner must be ever mindful of the possible adverse reactions, which might necessitate a careful discontinuation of the medication. Regular and frequent follow up with the patient, caseworkers, and foster parent is important in enhancing compliance, providing ongoing psycho-education about side effects and medical monitoring of therapeutic effects of the medication, as well as assessing effectiveness of the medication intervention.

The assessment of the medication trial is facilitated by the initial identification of target symptoms and the regular evaluation of those target symptoms. Target symptoms are identified

during the initial intake through caregiver reports, history, and child/adolescent self-report. Assessment measures and norm-referenced symptom checklists can often be helpful in obtaining information about baseline functioning. Ongoing monitoring is critical to medication management. Re-administering assessment measures, gathering information about behaviors from caregivers and professionals working with the child/adolescent, obtaining child/adolescent self-reports, and monitoring of side effects at routine intervals are key components of medication management.

Secondly, the consideration of inter-current life events, particularly to children and adolescents, is also essential in assessing the benefits of medication. The start of school, the change in living situations, physical illness, parental functioning and participation, issues of grief and loss, trauma history, a birthday, etc., can all impact function and can confound the evaluation of medication trials. Thirdly, compliance may need to be investigated through pharmacy records of medication administration in order to clearly assess the efficacy of a medication trial. Once an informed decision is made about a particular medication, changes in the treatment plan may be necessary including changes in medication regime, adjustment in non-pharmacologic treatment strategies, and re-evaluation of the diagnosis.

In children and adolescents, re-evaluation of the working diagnosis is useful not only when there is a lack of treatment response, but also in other situations. By nature, children and adolescents are developing and changing during their treatment. Longitudinal information may become available, revealing temporal patterns of functioning that may alter diagnosis. The successful treatment of one disorder may then expose an underlying co-morbid disorder that requires treatment. Ultimately, the resolution of a disorder or the ineffectiveness of a medication requires medically supervised discontinuation of medications. Because of withdrawal or discontinuation effects may arise and confound the clinical picture, close monitoring is vital to sort out the illness from medication effects. Poly-pharmacy can be avoided or minimized if these issues are considered. Additionally, it is important to note that there is often symptom overlap among common childhood disorders (e.g., post-traumatic stress disorder and attention deficit/hyperactivity disorder). Treating providers should make differential diagnoses based upon diagnostic interviewing, assessments, and review of history when considering psychotropic treatment.

Expectations of face-to-face or phone follow up between the patient and the prescribing provider should occur a week or two after starting the medication. The next visit should occur at one month, then at least quarterly with the prescribing provider, if possible. Information should be shared between PCP and behavioral health provider by direct communication as possible. This would change as dictated by the medication. If the child misses any appointments related to medication management, the case manager should be contacted immediately.

This missed appointment reporting is not meant to create more work, but to assist with communication to assure the placement stays in place. These expectations should also alleviate the need for emergent script renewals without a return visit.

It is also recommended when children or youth leave a foster home, residential care, or a juvenile detention facility, that discharge planning includes a follow-up appointment, which is made BEFORE discharge and enough medications are prescribed to cover the time until the appointment.

It should also be noted for those children and youth age 20 and under and on Medicaid, Health Care Policy and Financing, under the EPSDT Program, does allow for a second opinion. Should the case worker feel this is needed, a second opinion can be obtained without a prior authorization request for services.

CONSENT PROCESS

The Committee identified the process of obtaining consent for psychotropic medication as a barrier to treatment in Colorado's Child Welfare system. The prescriber is sometimes unclear who is responsible for giving consent and which parties need to be informed of the benefits and side effects associated with the medications. The prescriber must also have a complete medical/psychiatric history of the client to appropriately treat the needs of the child or youth. A more defined procedure will improve the treatment process by increasing the sharing of information by all parties involved.

The following guidelines are being recommended as a more streamlined and informed process to obtaining consent.

Proposed Process for Gathering Consent for Psychotropic Medications

When a child involved with the child welfare system is referred for psychotropic medications, the following process should be followed.

1. Before referring a child/adolescent to a provider for psychotropic medications, the child welfare worker should determine whether the individual(s) who has the legal right to consent for treatment will support the initiation of psychotropic medications. The child welfare worker should also identify individuals who may have relevant information about the child's/adolescent's medical and psychiatric history.
2. The child welfare worker should ensure that the child/adolescent is sent to the medical appointment with the Consent Form for Psychotropic Medications (Attachment B).
When possible the child welfare worker should also:
 - a. Provide information about child's/adolescent's medical and psychiatric history or the contact information for the individual(s) who may have relevant information about the child's/adolescent's medical and psychiatric history.
 - b. Have the individual who has the legal right to consent for treatment, accompany the child to the medical appointment.

3. Before initiating psychotropic medications a medical history and a psychiatric assessment must be completed and refer to a behavioral health provider if necessary. Prescriber should obtain information from all relevant parties which may include, but is not limited to:
 - a. Biological Parents
 - b. Foster Parents
 - c. Child Welfare Caseworker
 - d. Schools
 - e. Guardian Ad Litem (GAL)
 - f. Court Appointed Special Advocate (CASA)
 - g. Other medical and behavioral health treatment providers
 - h. Others with significant knowledge of the child/adolescent
4. The prescriber develops a recommendation for a course of treatment.
5. The prescriber educates the child and all relevant parties (as defined above) on the child's/adolescent's diagnosis and treatment. **Ongoing communication with physical health and mental health professionals is essential.**
6. Obtain assent from the child/adolescent and consent from the individual(s) who has the legal right to consent for treatment. Contact the child welfare caseworker to determine who has the right to consent for treatment. Information needed to consent shall include:
 - a. Information regarding risks and benefits of the medication
 - b. Adequate dose, frequency of dose, and duration of the medication treatment
 - c. Rationale for adding medication(s)
 - d. Information about discontinuation of a psychotropic medication(s)
7. The prescriber shall reassess the child/adolescent if the child/adolescent does not respond to the initial trial of medication treatment as expected.

Uniform Consent Form

The Committee also recognizes that a more uniform consent form for psychotropic medications would be helpful to all parties involved. When treating children from multiple counties, prescribers may see multiple consent forms. Often times, these consent forms are not consistent and some do not capture all relevant information, such as what the medication is intended to treat, what benefits can be expected, and what side effects to look for. It is also important to verify that those involved in the case are giving *informed* consent, or for those involved in the case, but not responsible for giving consent, they also have been informed of side effects, etc. This should include the child or youth, who may not be able to consent, but can give their assent, showing that they understand the medications they have been prescribed. The Committee developed a template that captures all of these essential items. It is recommended that county departments, as well as prescribers, compare their current consent

forms to this template (provided in Appendix C) and either adopt this form or amend their form to capture the relevant information.

Turnaround Time

The Committee is recommending that a response to a request for medication consent should be completed within 24-hours for urgent requests and 48-hours for routine requests. All parties should understand the consequences of not meeting these timelines, including the potential for psychiatric hospitalization, unnecessary care and costs, and disrupted placements. A quick turnaround time is often needed to prevent disruption in placement or the need for a higher level of care, such as residential treatment or hospitalization. Preserving placements not only saves money, but more importantly, it saves children and youth from additional trauma.

CONCLUSION

The work of ensuring the appropriate use of psychotropic medications for Colorado's children and youth in out-of-home care and to integrate medications into comprehensive physical and behavioral health care is multi-faceted. There are many people that touch the lives of these children and youth and it is essential that they are all working together for the best possible outcomes. To that end, the Psychotropic Medication Steering Committee has made the following recommendations:

- Data and Safeguards
 - Review data of prescribing practices
 - Require prior authorization and drug utilization review on prescribing practices that raise red flags
 - HCPF communication with prescribers, facilitating the examination of current practices and collaboration with prescribers
- Communication and Coordinated Care
 - Implementing a medical home model through the Accountable Care Collaborative
 - Telemedicine for underserved areas
 - Improved system for transferring records
 - Special attention to transitioning youth
 - Consistent guidelines for a psychopharmacology assessment
- Consent
 - Streamlined consent process
 - Uniform consent form
 - Turn-around time for consent

The Committee continues to evolve and upon approval of the above recommendations, will move into the next phase of guiding the implementation of these recommendations.

APPENDIX A- Colorado AP 11-27-12

Antipsychotic Medication Use in Medicaid Children and Adolescents

Colorado

Background

Supported by the Agency for Healthcare Research and Quality (AHRQ) since 2005, the MMDLN, as an integrated national resource, seeks to advance the health of Medicaid patients in over 40 member States and across the Nation while best stewarding available resources. The network is focused on the development and use of evidence-based medicine, measurement and improvement of health care quality, and the redesign of health care delivery systems.

The increased use of antipsychotic (AP) medications present quality and value challenges for payers, patients and clinicians. These challenges occur in the context of widespread need for mental health services for children and adolescents who face a variety of barriers to mental health evaluation and treatment.

In response to these concerns, this brief is a follow-up to the MMDLN's *Antipsychotic Medication Use in Medicaid Children and Adolescents: Report and Resource Guide From a 16-State Study*, from 2004-2007 which can be found at:

<http://rci.rutgers.edu/~cseap/MMDLN/APKIDS.html>). Please reference this guide for variable definitions.

Methods

The rates of AP medication use in 9 of the 16 original States were defined and calculated similarly to the 16-State study. (However, Maine and Pennsylvania used a slightly different medication list than the other 7 States.)

- Calculated by dividing the number of medication users by the total populations each year (e.g. more than 1 month eligibility).
- Based on the 2008-2011 calendar year, we calculated the minimum, maximum, and median for the 9 States in order to examine trends.

Comparing calculations between this 9-State study and the 2004-2007 16-State study is not possible due to the absence of several large State populations. However, States with significant changes were asked to feature their programs, practices, and policies alongside the reported outcomes.

In 2011, we assessed antipsychotic (AP) and mental health drug (MHD) utilization in Colorado's State Medicaid program (414,880 enrolled children/adolescents). Key findings and trends are discussed below. Arrows indicate increase or decrease in use from 2008-2011.

Key findings from AP medication use in 2011

Among Medicaid enrolled children/adolescents, AP medication users comprise:

- 1.5% (6,128) of all enrolled children/adolescents (N=414,880) ↓
- 0.1% (167) of all enrolled children ≤ 5 years old (N=186,302) ↓
- 11.2% (761) of all enrolled foster care children/adolescents (N=19,934) ↓

Of the AP medication users:

- 3.4% (206) are at or above a maximum dose (i.e. Texas' foster care prescribing parameters) (N=6,128) ↓
- 21.6% (1,302) are prescribed multiple AP medications (≥2) (N=6,015) ↓
- 24.4% (1,336) have a >20-day gap in supply (N=5,474) Same ↔

Key findings from Mental Health Drug (MHD) use in 2011:

- 4.8% (20,040) of children/adolescents enrolled in Medicaid were taking a MHD (N=414,880) ↑
- 13.0% (2,615) of users take multiple MHDs (≥4) (N=20,040) ↓

Colorado is taking a number of different approaches to improve the appropriate use of AP medications and MHDs:

Atypical antipsychotic (AAP) medications were added to the Preferred Drug List beginning April 1, 2010, and the class has since been reviewed annually. Quantity limits have been built into the pharmacy claims system starting in April 2010, requiring prior authorization for both max dose and doses per day in accordance with FDA approved dosing regimens for AAP agents. A restriction was put into place (April, 2010) requiring prior authorization for any new AAP medication prescription in children under 5 years of age. This prior authorization must be manually reviewed by a clinical health professional at the Department of Health Care Policy and Financing. Non-preferred products are limited to FDA approved indications only. With input from the Drug Utilization Review Board, an antipsychotic medication prescribing algorithm was created and made available through the Department Web site to assist prescribers in making product selections based upon indication and patient specific factors. The algorithm is now undergoing its second update with assistance from experts on the Board. The Department has worked with prescribers and behavioral health organizations to match child psychiatrists with prescribers for consults and referrals when necessary. Members of the Department of Health Care Policy and Financing are currently working with experts from the Colorado Department of Human Services and several State experts in pediatric mental health to produce the "Guidelines for Psychotropic Medications use for Children and Adolescents in the Child Welfare System."

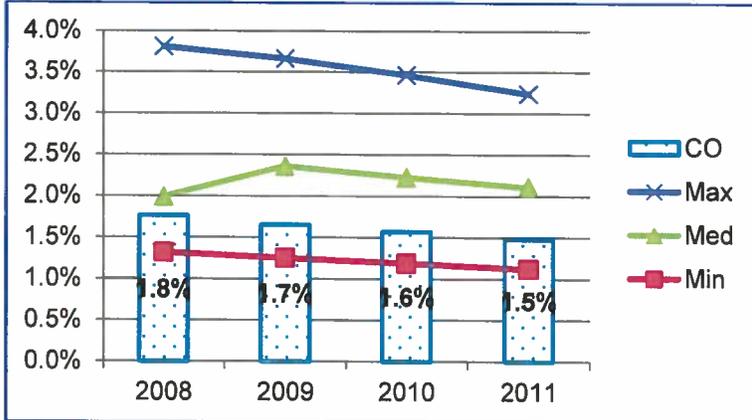
The MMDLN is funded by an AHRQ contract to AcademyHealth. The funding supports in person meetings, Web conferences, and other activities that help the members use evidence-based research findings to make policy decisions. The views expressed in this document do not necessarily reflect the official policies of the Department of Health and Human Services, nor does the fact that AHRQ is funding this group imply endorsement of any publications or policy statements that come out from the MMDLN.

AP Medication and MHD Use by Age

Age Years	All AP Users		All MHD Users	
	CO	9-State Average	CO	9-State Average
0-5	0.1%	0.2%	1.1%	1.8%
6-11	1.6%	2.3%	6.1%	9.4%
12-18	3.9%	4.4%	10.2%	13.8%

Compared to the 9-State average, Colorado has lower rates for both AP medication and MHD use. Similar to the 9-State average, the number of users in Colorado increased for older children/adolescents.

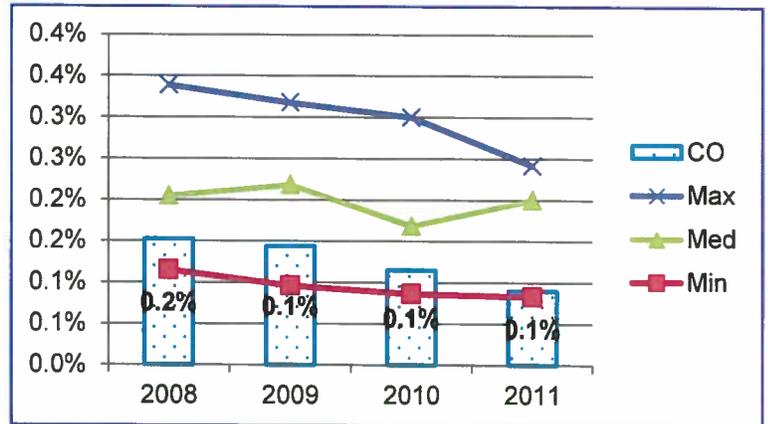
AP Medication Use in Children/Adolescents



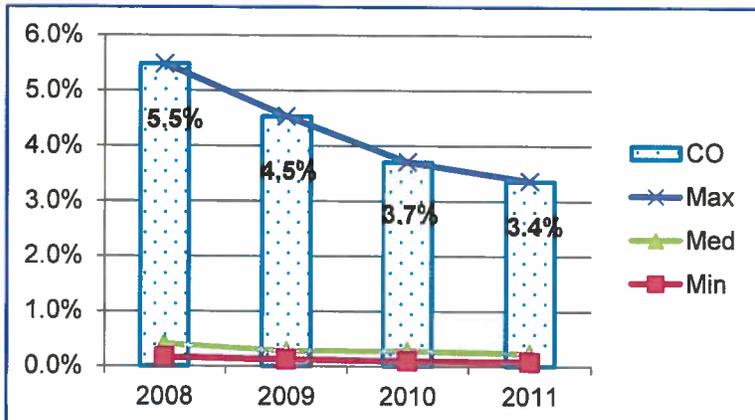
Within Colorado the percentage of children using AP medications decreased slightly from 2008-2011. The proportion was highest among the Foster Care (11.2%) and the 12-18 age group (3.9%).

In Colorado, the percentage of children age 5 and younger using an AP medication remained almost the same from 2008 to 2011. In 2011, Colorado had the lowest rates on this measure compared to the other eight States during this time period.

Children Age Five Years and Younger Using AP Medications



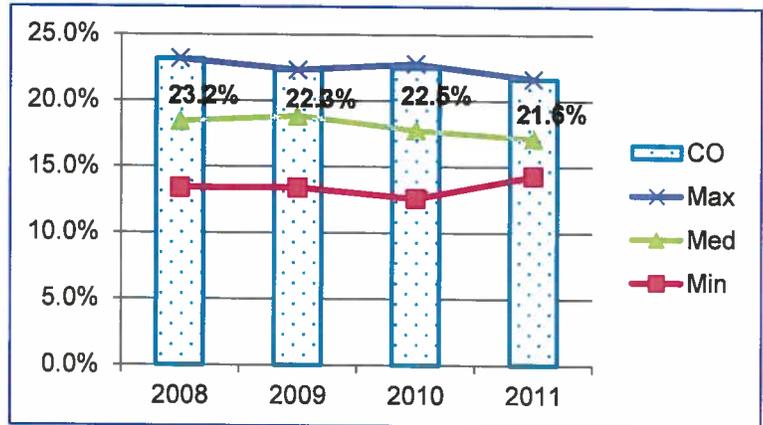
Children/Adolescents Prescribed a High Dose of AP Medications



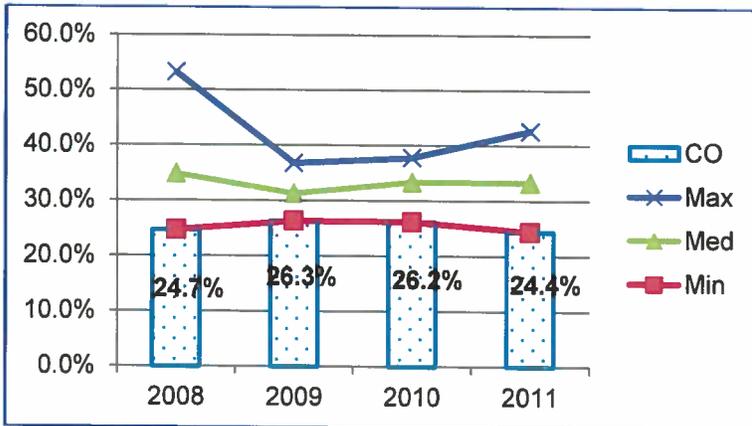
In Colorado, the percentage of children/adolescents prescribed AP medications at two or more times the maximum dose decreased between 2008 and 2011, but remained the highest rate for this measure among the 9-States. In 2011, rates on this measure were highest among the age 6-11 (6.4%), followed by foster care (4.3%).

In Colorado, the percentage of children/adolescents prescribed two or more AP medications decreased between 2008 and 2011. Rates on this measure were highest in Colorado among the 9 States. In 2011, rates on this measure were highest among the foster care (25.5%), and 12-18 years age group (23.0%).

Children/Adolescents Using Two or More AP Medications



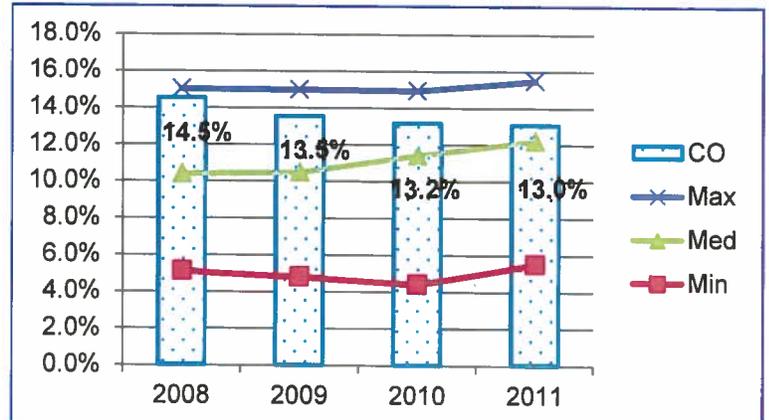
Children/Adolescents with More Than a 20 Day Gap in AP Medication Supply



In Colorado, the percentage of children/adolescents with a gap in supply of greater than 20 days between consecutive AP medication prescriptions fluctuated between 2008 and 2011. In 2011, rates on this measure were highest among the age 6-11 years age group (28.0%).

Within Colorado, the percentage of children/adolescents using multiple (four or more) MHDs decreased slightly between 2008 and 2011. In 2011, rates on this measure were highest among the foster care (24.3%), and 12-18 years age group (15.7%).

Children/Adolescents Using Multiple Mental Health Drugs



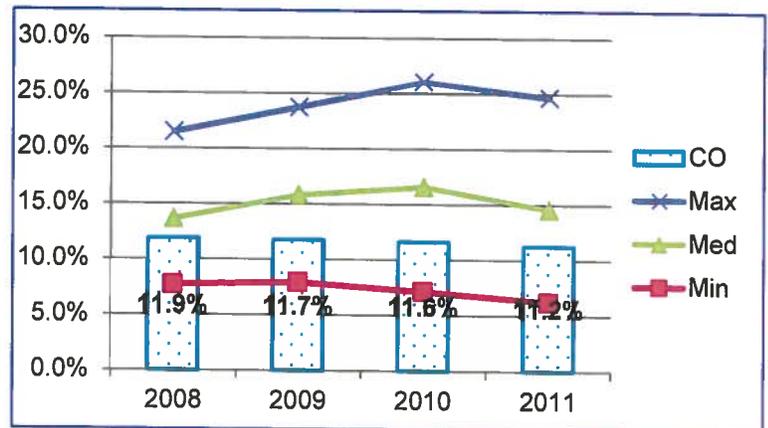
AP Medication and MHD Use in Foster Care

Foster Care and Non-Foster Care AP and MHD Users

Foster Care Status	AP		MHD	
	CO	9-State Average	CO	9-State Average
Foster Care	6.2%	14.0%	20.8%	26.6%
Non-Foster Care	1.0%	1.8%	6.0%	7.4%

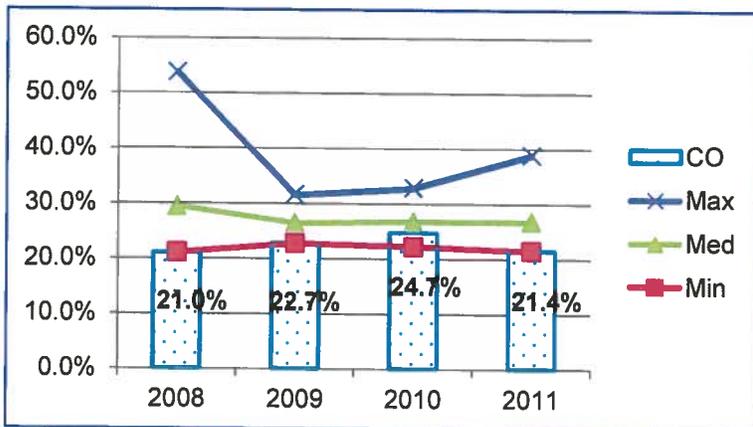
Compared to the 9-State average, Colorado had a lower percentage of foster care children/adolescents using AP medications or MHDs.

Foster Care Children/Adolescents Using AP Medications



The percentage of children/adolescents in foster care using AP medications in Colorado was lower than the 9-State median across time. Overall, the proportion decreased slightly from 2008 to 2009.

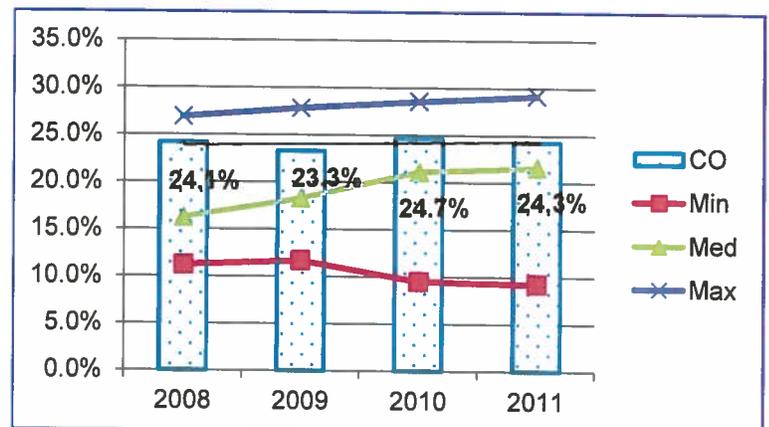
Foster Care Children/Adolescents with More Than a 20 Day Gap in AP Medication Supply



In Colorado, the percentage of children/adolescents in foster care with more than a 20-day gap in AP medication supply fluctuated between 2008 and 2011. The rate of this measure was one of the lowest across time among the 9 States.

In Colorado, children/adolescents in foster care using multiple (four or more) MHDs fluctuated across 2008 and 2011 and remained slightly above the 9-State median over this time period.

Foster Care Children/Adolescents Using Four or More MHDs



APPENDIX B- Fact Sheets



Accountable Care Collaborative “101”: Coordinating Services between the Child Welfare System, Primary Care Medical Homes and the ACC

What is the Accountable Care Program?

The ACC is a Medicaid program to improve clients’ health and reduce costs. Medicaid clients in the ACC receive the regular Medicaid benefit package and are enrolled in a Regional Care Collaborative Organization (RCCO). Medicaid clients also choose a Primary Care Medical Provider (PCMP).

Central Goals:

- Improve health outcomes through a coordinated, client-centered system; and
- Control costs by reducing avoidable, duplicative, variable and inappropriate use of health care resources.

Key Components:

Seven Regional Care Collaborative Organizations (RCCOs) provide:

- Medical management, particularly for medically and behaviorally complex clients, to ensure they get the right care, at the right time and in the right setting;
- Care coordination among providers and with other services such as behavioral health, long-term supports and services, Single Entry Point (SEP) programs and other government social services such as food, transportation and nutrition; and
- Provider support such as assistance with care coordination, referrals, clinical performance and practice improvement and redesign.

What does this mean for me as a provider to children in the child welfare system?

- RCCO staff provides you with care coordination, as needed.
- RCCOs and the assigned PCMP have the ability to see Medicaid paid claims that can help providers determine where a child has been seen in the past. This will speed up the search for medical and behavioral health records that may be needed by providers for immediate and urgent treatment needs.
- RCCOs have the ability to access claims for behavioral health and pharmacy.
- The RCCO staff can assist with locating available physical, oral and behavioral health providers and other medical and non-medical community supports for the family and the child/youth.
- RCCO staff can assist with coordination between physical health and behavioral health and can help arrange for services.
- RCCO staff can assist when physical health services or supports are denied or partially approved.
- RCCO staff can help you with prior authorization issues, available benefits and services and access to medically necessary care.
- RCCOs can help access EPSDT services and supports as needed to meet federal requirements.

The RCCO staff are only available during regular business hours.

If you are a part of a hospital system, you may also have access to the Colorado Regional Health Information Organization (CORHIO), which may help locate information about emergency room visits and other hospital-based services before the information becomes available within Medicaid's claims system. CORHIO is a nonprofit, public-private partnership that is improving health care quality for all Coloradans through cost effective and secure implementation of health information exchange (HIE). CORHIO is [designated by the State of Colorado](#) to facilitate HIE.

CORHIO works closely with and among communities across Colorado to develop and implement secure systems and processes for sharing clinical information. CORHIO collaborates with health care stakeholders including physicians, hospitals, clinics, mental health, public health, long-term care, laboratories, imaging centers, health plans and patients.

To see if you are eligible for this service, please visit <http://corhio.org/contact-us.aspx>.





ACCOUNTABLE CARE COLLABORATIVE “101” FOR THE CHILD WELFARE CASE WORKER

What is the Accountable Care Collaborative?

The Accountable Care Collaborative (ACC) is the new delivery system for Medicaid in Colorado. “Colorado is one of a handful of states piloting innovative health care payment and delivery reforms through Medicaid. Under the Accountable Care Collaborative Program, which began enrollment in May 2011, the state Medicaid agency contracts with seven regional organizations to create networks of primary care providers and ensure care coordination for Medicaid enrollees. Providers receive increased payments, and will eventually be eligible for incentives and shared savings and risk agreements. Results from November 2012 show reduced use of acute care, better control of chronic conditions, and lower total costs among enrollees.”¹

The ACC is a Medicaid program to improve clients’ health and reduce costs. Medicaid clients in the ACC receive the regular Medicaid benefit package, and are enrolled in a Regional Care Collaborative Organization (RCCO). Medicaid clients also choose a Primary Care Medical Provider (PCMP).

Central Goals

- Improve health outcomes through a coordinated, client-centered system; and
- Control costs by reducing avoidable, duplicative, variable and inappropriate use of health care resources.

Key Components:

Seven Regional Care Collaborative Organizations (RCCOs) provide:

- Medical management, particularly for medically and behaviorally complex clients, to ensure they get the right care, at the right time and in the right setting;
- Care coordination among providers and with other services such as behavioral health, long-term supports and services, Single Entry Point (SEP) programs and other government social services such as food, transportation and nutrition; and
- Provider support such as assistance with care coordination, referrals, clinical performance and practice improvement and redesign.

What do I need to know about this program?

The ACC is not a traditional managed care program. While children are assigned to a provider, they are not locked into that provider and may see any provider who accepts Medicaid. The child’s provider, along with the name of the RCCO, will appear on the eligibility print out from Medicaid.

Children in child welfare are passively enrolled into a RCCO. They are assigned to the last provider they may have visited and a list of these assignments is forwarded every month to the county who

¹ The Commonwealth Fund, Authors: Diana Rodin, M.P.H., and Sharon Silow-Carroll, M.B.A., M.S.W

has custody. If you or your manager is not receiving a copy of this list, please send an email to Catania Jones at Catania.jones@state.co.us and request to be added to the distribution.

How does being in a RCCO benefit the children/youth on my caseload?

- When you need assistance with a child, including but not limited to:
 - Facilitating the location of medical records, including immunization records, and behavioral health treatment records.
 - Locating providers such as physical, oral health and behavioral health providers and specialists
 - Locating community services
- RCCO staff can help you meet the required medical and dental visits; coordinate physical health and behavioral health; and can help arrange for services, as needed.
- RCCO staff can help when services or supports are denied or partially approved.

A child must be enrolled in the ACC in order to utilize ACC care coordination services.

What do the RCCOs need from me as the case worker?

- Serve as the focal point of contact for releases
- Information on choice of care and if the child is placed out of the county or service area

For more information on the ACC, including a listing of the ACC contracts and their service areas, please visit: www.colorado.gov/hcpf and enter Accountable Care Collaborative in the search engine.





CHILD WELFARE “101” FOR THE ACCOUNTABLE CARE COORDINATOR AND PROVIDERS

Child Welfare - Program Description

Child Welfare is a division of the Colorado Department of Human Services and is located in the Office of Children, Youth and Families. It consists of a group of services intended to protect children from harm and to assist families in caring for and protecting their children. Taken together, these programs comprise the main thrust of Colorado’s effort to meet the needs of children who must be placed or are at risk of placement outside of their homes for reasons of protection or community safety. The delivery of Child Welfare Services in Colorado is primarily a state-supervised, county administered system.

Division of Child Welfare Vision:

Colorado’s children live in a safe, healthy and stable environment.

Mission:

Everything we do enhances the delivery of child welfare services so that Colorado’s children and families are safe and stable.

What do you need to know about this program?

Children in the child welfare system are required to have the following services:

- A full medical examination scheduled within fourteen (14) calendar days after initial placement.
- A full dental examination scheduled within eight (8) weeks after initial placement.
- Ongoing medical and dental care is to be provided in a timely manner.
- A regular schedule of appointments should be maintained in subsequent placements.

County child welfare departments are required to document these appointments in the case record.

Children may have a need to have additional services, such as additional well child visits, oral health care visits, or screenings. Please see AAP recommended schedule at <http://www2.aap.org/fostercare/>.

Responsibility:

Children in child welfare are typically in county custody and the county department is typically the entity to provide any consent to treat.

Children may move in and out of service areas across the state. Regional Care Collaborative Organizations (RCCOs) must work together to serve a child effectively.

Is important to remember in Colorado that:

- 98 percent of children in the child welfare system have been exposed to trauma or a traumatic event.
- The average length of stay in the child welfare system is 25.3 months.
- With multiple placements, the child may have more complex needs and require higher levels of coordination and communication among all providers.

Therefore, RCCOs should work with the county case worker to ensure that the child's physical, dental and mental health needs are being met without duplicating services as children move between placements.

Relationships:

RCCO staff and providers are expected to coordinate and communicate with DHS case workers to assist with data collection, medical records and any other information DHS staff may be required to add to their data system.

Child welfare staff is expected to provide releases, HIPAA information and any available medical or social information needed to treat the child quickly and effectively. The RCCO is a contractor of the Department of Health Care Policy and Financing and should be treated as such for HIPAA.

For more information, go to: www.colorado.gov/cdhs



APPENDIX C-

Proposed Consent Form for Psychotropic Medications

Child/Youth's Name: _____ DOB: _____

Date: _____ Psychiatric or Medical Provider: _____

These are the current medications:

_____	_____
_____	_____
_____	_____

New medications being prescribed are:

_____	_____
_____	_____
_____	_____

I have been informed of:

- My diagnosis
- The name of the medication prescribed
- The reason the medication was prescribed

This medication is intended to address the following symptoms:

Check if medication information sheet attached instead)

- Usual use of the medication (*Adequate dose, frequency of dose, and duration of the medication treatment, maximum recommended dose*)
- Description of the benefits expected
- The common side effects
- The risks of taking the medication
- The probable consequences of not taking the medication
- Alternatives to the medication
- My right to obtain a second opinion

Printed information was provided to the family or caregiver on _____.

(Consent Form Continued)

In the event of a life threatening adverse reaction, seek emergency care.

In the event of a non-life threatening adverse reaction, if you are unable to contact your health care provider, seek emergency care.

Do not discontinue the routine use of medication without the prescribing clinician's instructions, as this could be hazardous.

For a Child or Adolescent Under 15

I understand the child cannot be compelled to take this medication and I may request the discontinuation of the medication.

I also understand that there are no guaranteed results of this medication.

I understand the benefits and the risks of this medication. On this basis, I give consent for the medication to be administered as prescribed.

Signature of Parent or Legal Authority

Relationship

Signature of Youth Indicating Informed Assent

Date

Child Welfare Administrator *(if the parent has not consented, please check one of the options below)*

- Parent Unavailable
- Parent Refused

For Adolescent 15 Years or Older

I understand I cannot be compelled to take this medication and I may request the discontinuation of the medication.

I also understand there are no guaranteed results of this medication.

I understand the benefits and the risks of this medication. On this basis, I consent to treatment.

Signature of Youth

Date