

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/MMDLNA/PKIDS.html>). Please reference this guide for variable definitions.

Methods

The rates of AP medication use in nine of the 16 original States were defined and calculated similarly to the 16-State study. (However, Maine and Pennsylvania used a slightly different AP medication list than the other seven 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 nine 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 examined antipsychotic (AP) medication and mental health drug (MHD) utilization in nine State Medicaid Fee-For-Service programs (5.4 million enrolled children/adolescents). Key findings and trends are discussed below.

Key findings from AP medication use among 9 States in 2011

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

- 2.0% (107,028) of all enrolled children/adolescents (N=5.4 million)
- 0.2% (3,704) of all enrolled children ≤5 years old (N=2.1 million)
- 13.4% (17,514) of all enrolled foster care children/adolescents (N=130,493)

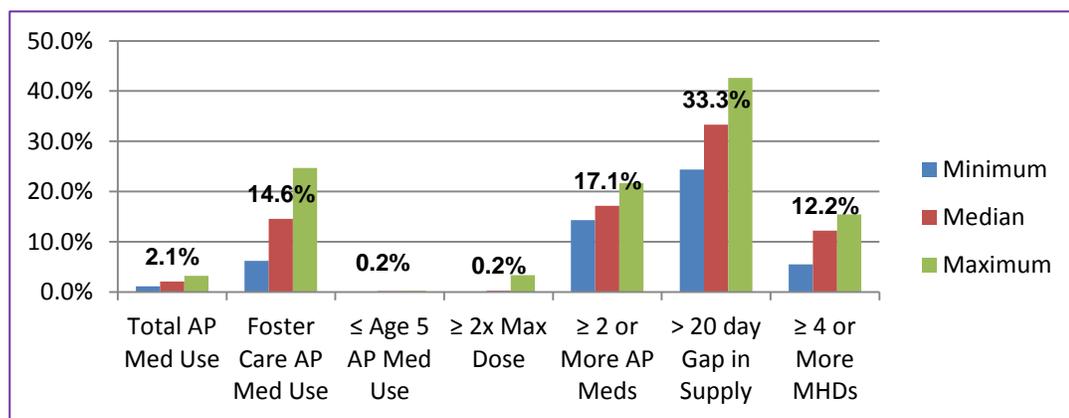
Of the AP medication users:

- 0.4% (379) are at or above a maximum dose (i.e., Texas's foster care prescribing parameters) (N=107,284)
- 18.0% (18,462) are prescribed multiple AP medications (≥2) (N=102,725)
- 34.8% (34,282) have a >20-day gap in supply (N=98,447)

Key findings from MHD use among 9 States in 2011

- 7.3% (391,418) of all enrolled children/adolescents were taking a MHD (N=5.4 million)
- 12.1% (46,221) of users take multiple MHDs (≥4) (N=381,965)

Percent of all AP Medication and MHD Users in 2011 Across Subcategories



The chart above shows that across the nine states, the median percent of AP medication users is 2.1%. AP medication use among children/adolescents in foster care is 14.6%.

Trends from 2008 to 2011

- In general, States with higher trends of "too young, too many, too much" are markedly down.
- Six out of nine States slightly decreased their AP medication use in children ≤5 years and three States' use stayed the same.
- High dose and foster care AP medication use, use of two or more, and gap of >20 days is down.

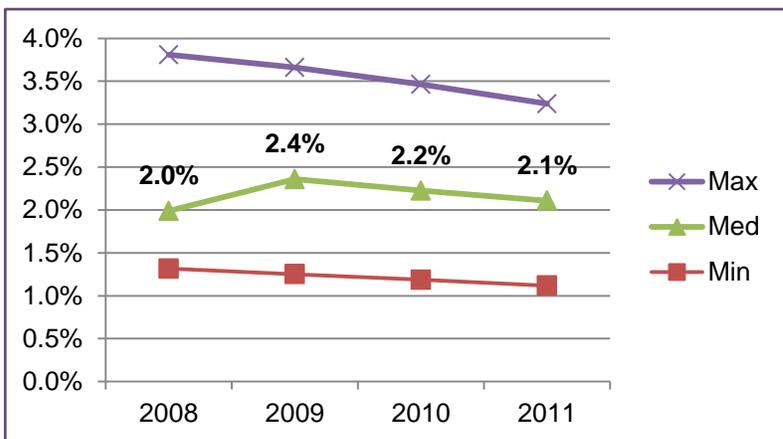
The MMDLN is funded by an AHRQ contract to AcademyHealth. The funding supports in person meetings, Web conferences, and other activities that help the members use evidence-based research findings to make policy decisions. The views expressed in this document do not necessarily reflect the official policies 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.

In 2011, the percentage of children/adolescents using either AP medication or a MHD is higher for older children/adolescents. MHD use (13.8%) is close to three times greater than AP medication use (4.4%) for adolescents aged 12-18 years.

AP Medication and MHD Use by Age in 2011

Age in Years	9-State Average	
	AP	MHD
0-5 years	0.2%	1.8%
6-11 years	2.3%	9.4%
12-18 years	4.4%	13.8%

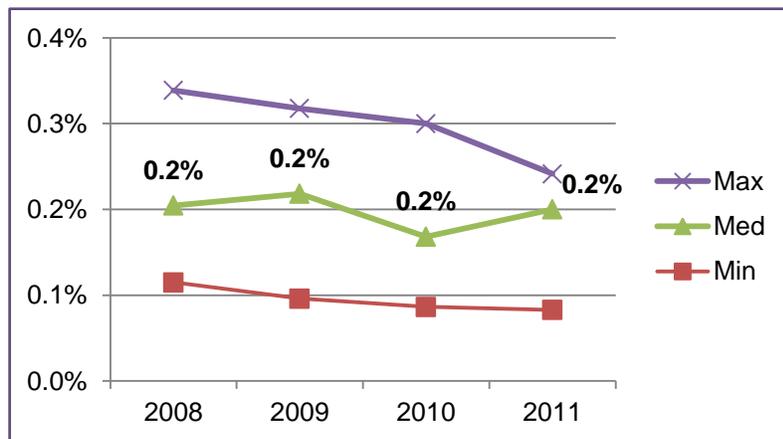
AP Medication Use in Children/Adolescents



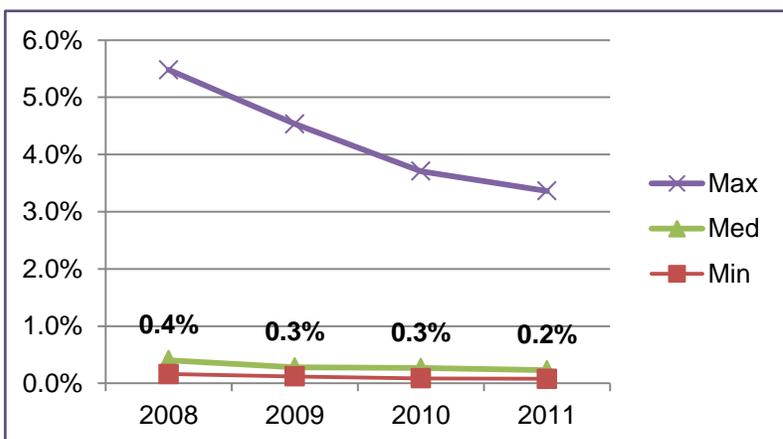
While one State experienced a slightly more than one percentage point increase in AP medication use in children/adolescents from 2008 to 2011, most States experienced a slight decrease during this time period. One State that experienced a decrease in use implemented the Retrospective Drug Utilization Review (RetroDUR) program, a method for improving appropriate AP medication prescribing through outreach to providers.

Six of the nine States had a very slight decrease (<0.1 percentage points) in the percentage of children age 5 years or younger using an AP medication, and three States had no variation between 2008 and 2011. Some States with improvements implemented strict prior authorization requirements for children ages 5 years or younger.

Children Age Five Years and Younger Using AP Medications



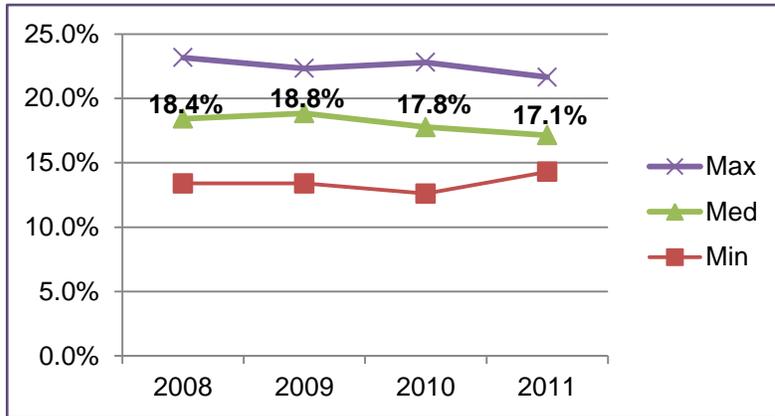
Children/Adolescents Prescribed a High Dose of AP Medications



One State reported a substantially higher percentage of children/adolescents who were prescribed AP medication at two or more times the maximum dose, but experienced a prominent decrease on this measure between 2008 and 2011. All other States had at least a slight decrease. One State that implemented the second opinion program during this time period reduced their rate by 60%. Another State that experienced improvement implemented age and daily dose restrictions and manual reviews of prior authorizations.

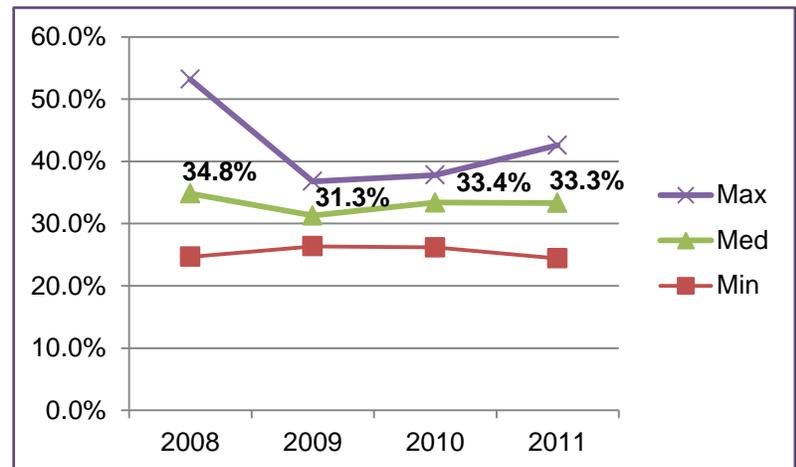
*Maine was not included in the high dose of AP medications analysis

Children/Adolescents Using Two or More AP Medications



The percentage of children/adolescents prescribed two or more AP medications decreased slightly between 2008 and 2011. The variation between States in 2011 was between 14.3% and 21.6%. Two States that experienced decreases also implemented prior authorization requirements for multiple AP medications and mailed reports to providers, showing their AP medication prescription rate compared to other providers to promote prescribing awareness.

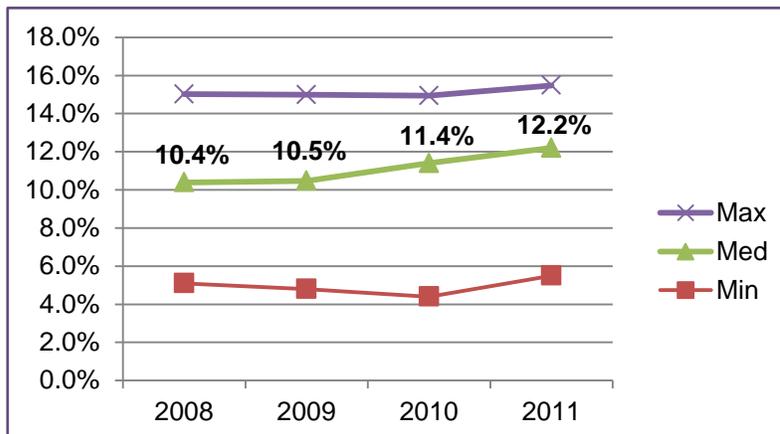
Children/Adolescents with More Than a 20-Day Gap in AP Medication Supply



*New Hampshire was not included in the >20 day gap in AP medication supply analysis

The percentage of children/adolescents with a gap in supply of greater than 20 days between consecutive AP medication prescriptions decreased slightly between 2008 and 2011. In 2011, the variation between States was between 24.4% and 42.6%. One State that showed improvement mailed providers about late refills.

Children/Adolescents Using Multiple Mental Health Drugs



The percentage of children/adolescents using multiple (four or more) MHDs gradually increased between 2008 and 2011. In 2011, the variation ranged from 5.5% to 15.5%. Some States where MHD use decreased also implemented prior authorization requirements for MHDs and therapeutic duplication edits.

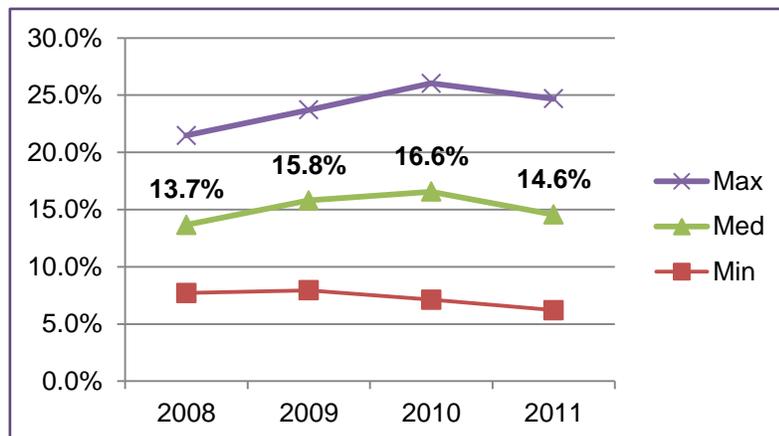
AP Medication and MHD Use in Foster Care

Foster Care AP Medication and MHD Users in 2011

Foster Care	9-State Average	
	AP	MHD
Foster Care	14.0%	26.6%
Non-Foster Care	1.8%	7.4%

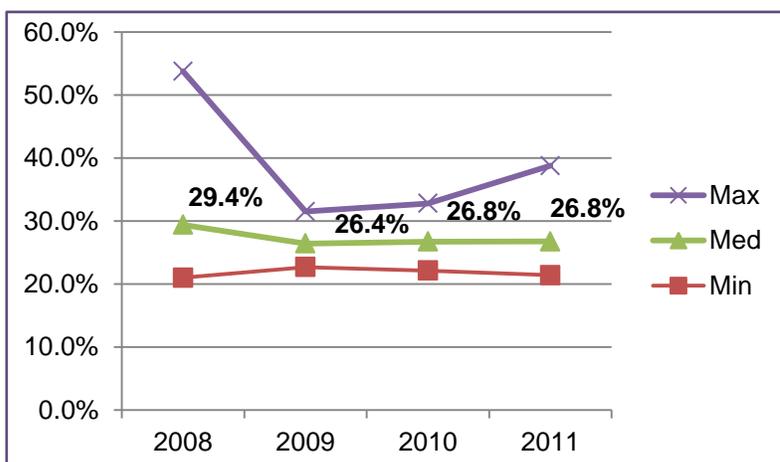
In 2011, AP medication and MHD use is higher among foster care children/adolescents than non-foster care children/adolescents.

Foster Care Children/Adolescents Using AP Medications



The percentage of children/adolescents in foster care prescribed AP medication increased slightly between 2008 and 2011. The variation between States in 2011 ranged from 6.2% to 24.7%. One State that had lower rates publishes guidelines on safe dosing of AP medications and regularly meets with community providers and foster care agencies to review and discuss prescribing practices.

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



The percentage of children/adolescents in foster care with more than a 20-day gap in AP medication supply decreased slightly between 2008 and 2011. The variation between States in 2011 ranged from 21.4% to 38.8%. Two States greatly reduced their rates since 2008. These States implemented programs in which they conduct outreach efforts with providers and foster care agencies.

*New Hampshire was not included in the >20 day gap in AP medication supply analysis

The percentage of children/adolescents in foster care using multiple (four or more) MHDs has gradually increased between 2008 and 2011, although there is wide variation between States. The lowest rate in this measure is 9.2%, with the highest rate at 29.2%.

Foster Care Children/Adolescents Using Four or More MHDs

