Quality of Care for Children with Chronic Conditions and Medicaid Managed Care in Georgia

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Abstract

Background: Medicaid Managed Care plans employ cost containment tools, such as prior authorization, preferred drug lists, and restrictive provider networks, to achieve savings relative to traditional, state-run Medicaid programs. Because these tools may affect clinicians’ therapeutic recommendations and Medicaid patients’ adherence to treatment, beneficiaries’ quality of care may be reduced. We know little about the effects of Medicaid Managed Care cost containment tools because information about their implementation is often proprietary.

Setting: The 33 federally qualified health center (FQHC) organizations in Georgia, most of which regularly see patients enrolled in the state’s three (through September 2017) Medicaid Managed Care plans.

Data: A survey of FQHC-based physicians and nurse practitioners regularly treating children and adolescents with asthma. The survey captures information on: difficulties encountered when making referrals and prescribing medications due to Medicaid Managed Care plans’ tools; the quality of care Medicaid Managed Care beneficiaries receive; and other FQHC and clinician characteristics. Data are gathered for Medicaid Managed Care patients overall and for each plan separately.

Results: We received 63 completed surveys (estimated 72% response rate), representing 19 (58%) of Georgia’s FQHC organizations. Across multiple measures, 22.5-35.6% of respondents indicated they had experienced difficulties with prior authorization, preferred medication...
prescribing, or specialist referrals often or very often when caring for their patients. Greater difficulties with referrals to certain specialists and prior authorization request denials were associated with perceptions of poorer patient care quality overall among clinicians.

Conclusion: In Georgia, FQHC clinicians expressed difficulties with denied prior authorization requests and obtaining referrals when providing preferred treatments to Medicaid-enrolled, children and adolescents with chronic conditions. Furthermore, these challenges were associated with their perceptions of their patients’ overall quality of care.

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Introduction

In the U.S., Medicaid represents the largest fraction of state budgets, and this fraction has grown in recent years due to increasing enrollment (Sommers et al. 2015; Wherry & Miller 2016) and rising medical care expenditures per beneficiary (Pew Charitable Trusts 2016; Kaiser Family Foundation 2018). The pressures on State policymakers to contain these costs will intensify if Congress enacts recent proposals to block-grant or cap federal funding for the program because federal funding for the Medicaid program would grow at a slower rate than it has historically (Park 2016; Katch 2017). Since the 1990s, many states have sought to contain Medicaid spending by administering Medicaid benefits through privately operated Medicaid Managed Care plans (Holahan et al. 1998). As of fiscal year 2013, 92.8% of children in Medicaid were enrolled in Medicaid Managed Care plans, including 67.8% in comprehensive Medicaid Managed Care plans—versus 77.5% and 53.9%, respectively, of Medicaid beneficiaries overall (MACPAC 2016). Moreover, the vast majority of new Medicaid expansion enrollees have been enrolled in Medicaid Managed Care plans (Sommers et al. 2013), and states are increasingly moving to enroll their more vulnerable beneficiary groups, including the disabled and children with special needs, into Medicaid Managed Care (CBO 2018).

Medicaid Managed Care plans have the potential to achieve cost savings relative to traditional state-run fee-for-service Medicaid programs because these plans typically employ various cost containment tools—including requirements for prior authorization for select services, preferred drug lists (i.e., formularies), and restrictive provider networks—while traditional Medicaid may employ them only to a limited degree. These tools are intended to reduce utilization of select, higher-cost services and prescriptions, but they may also lead to the provision of lower-quality care for some beneficiaries for at least two reasons. First, these tools can impose out-of-pocket costs (e.g., non-covered prescriptions) and travel costs (e.g., referrals to more distant specialists) on patients, who may not adhere to recommended therapies. Consequently, utilization of select, higher-cost services and prescriptions may be reduced, and
some beneficiaries may receive care of lower overall quality. And second, the tools impose
differential transaction costs on clinicians across treatment options, increasing the
administrative burden associated with recommending some treatments. Thus in some cases
clinicians may feel pressure to limit what treatment options they present to their patients
(Grumbach et al. 1998), and at times some preferred options may be passed over.

There is sporadic evidence on whether Medicaid Managed Care plans realize
meaningful cost savings or affect the quality of care their beneficiaries receive relative to
traditional Medicaid beneficiaries (Coffey et al. 1995; Miller & Luft 1997; Lyles & Palumbo 1999;
Glied 2000; Aizer, Currie, & Moretti 2007; Burns 2009; The Lewin Group 2009; Sparer 2012;
Perez 2017; Barnett, Clark, & Sommers 2018). Previous studies of U.S. providers’ impressions
of managed care have generally found that physicians believe managed care harms quality of
care (Baker and Cantor 1993; Feldman, Novack, & Gracely 1998; Gazewood, Longo, & Madsen
2000; Christianson, Warrick, & Wholey 2005), but this evidence is outdated and explored only in
very general terms. Importantly, these studies do not examine the potential impact of managed
care on care for vulnerable or populations with chronic illnesses, and they collect data across
multiple states or in states with larger numbers of Medicaid Managed Care plans; this broad
vantage point precludes a more in-depth examination and comparison across plans. Moreover,
the only studies that have observed this heterogeneity across Medicaid Managed Care plans
with respect to the implementation of cost containment tools and any implications thereof are
purely descriptive, qualitative, and limited to coverage of specific services (e.g., Novartis 1998;
Wyn et al. 2000), and they have not considered how the tools’ implementation may affect the
quality of care beneficiaries receive.

The publicly available information about cost containment tools in Medicaid Managed
Care—typically provided by plans online in beneficiary and provider handbooks—is limited to
high-level descriptions and presented inconsistently across plans. Importantly, key information
about Medicaid Managed Care plans’ implementation of their cost containment tools (e.g., rules
and algorithms governing whether a prior authorization request will be approved, how frequently
preferred drug lists are updated) is often proprietary. This is a key impediment to learning about
these tools’ impact on quality of care. In this study, we examined how clinicians have
experienced the impact of Medicaid Managed Care plans’ cost containment tools, focusing on
perceptions of these tools’ implications for their patients’ care downstream. In particular, we
surveyed clinicians practicing in Georgia community health centers about the cost containment
tools used by Georgia Medicaid Managed Care plans (called “care management organizations”
or “CMOs” locally) and the quality of care received by these plans’ youth beneficiaries with
chronic conditions. We also examined whether clinicians perceive there are important
differences in the impact of cost containment tools as implemented by different Medicaid
Managed Care plans.

Data and Methods

We fielded a survey of clinicians regularly delivering care at Georgia federally qualified
health centers (FQHCs) to children and adolescents with chronic conditions. Our investigation
was focused on care for children and adolescents because youth are disproportionately covered
through Medicaid (Kaiser Family Foundation 2015) and Medicaid Managed Care in particular.
Georgia is an appropriate setting for this study because, until October 2017, Georgia’s Medicaid
Managed Care program was administered by only three Medicaid Managed Care plans, and all
three plans covered beneficiaries statewide. Furthermore, nearly all of Georgia’s FQHC
organizations regularly see patients enrolled in each of the state’s Medicaid Managed Care
plans. This simplifies data collection and mitigates concerns about survey respondents’
cognitive burden in recalling differences among Medicaid managed care plans significantly,
relative to most states. (A majority of states with comprehensive Medicaid Managed Care
programs have five or more plans administering benefits, with many plans serving beneficiaries
who reside in some services areas but not others [Kaiser Family Foundation 2018].) Moreover,
Georgia has a large Medicaid Managed Care program, with over 1.3 million enrollees in comprehensive Medicaid Managed Care plans. Ninety-three percent of Medicaid-enrolled children and adolescents and all Peachcare for Kids (Georgia’s Children’s Health Insurance Program) beneficiaries are enrolled in Medicaid Managed Care (MACPAC 2017).

Sample

Our target population for this survey was clinicians (physicians and nurse practitioners) delivering care at Georgia FQHCs to Medicaid and PeachCare-enrolled children and adolescents, ages 1-18, with asthma. Clinicians who treated one or more such patients within the last six months were invited to participate. Children ages 1-5 are eligible for Georgia Medicaid if their family has income below 149% of the Federal Poverty Level (FPL), and children ages 6-18 are eligible with income below 133% FPL (Medicaid.gov 2016). Children ages 1-18 are eligible for Peachcare if ineligible for Medicaid and if they have family income below 247% FPL. Both Medicaid and Peachcare are administered through Medicaid Managed Care plans in Georgia. We excluded newborns (age < 1) from survey respondents' consideration because of the distinct patterns of care, available social services, and mix of specialists (e.g., obstetrics, gynecology) to which such patients are exposed.

We focused on clinicians who treated children with asthma because of the condition’s high prevalence, particularly among Medicaid-enrolled children, in Georgia and throughout the U.S. (CDC 2016a-b): the CDC estimated that 10.2% of Georgia children ages 0 to 17 (versus 9.2% nationally) were diagnosed with asthma as of 2014 (CDC 2016a). In addition, effective coordination of asthma is critically important to avoid costly health care use outcomes (e.g., emergency department use, inpatient hospitalization) and adverse health outcomes (Falik et al. 2001; Bindman et al. 2005; Proser 2005; Ansari, Laditka, & Laditka 2006).

It was infeasible to obtain the true number of clinicians meeting our inclusion criteria for three reasons. First, the specificity of our provider population of interest rarified the data sources required to identify this population. Second, the available data sources tracking this population
were outdated and could not be relied upon for current estimates. Third, Georgia’s FQHC organization leaders seek to protect their clinicians’ time in the context of requests for research participation; consequently we could not contact the clinicians directly but rather recruited participants through these FQHC leaders.

We estimated the total number of clinicians (physicians and nurse practitioners) eligible for our survey by FQHC using two strategies, both relying on 2016 Uniform Data System (UDS) data and the insights of Georgia Primary Care Association (GPCA) leadership and select leading clinicians who practice at Georgia FQHCs. First, for the 33 FQHC organizations in Georgia with more than 500 patients, based on UDS data, we prepared our first estimates by dividing each FQHC’s reported total patients by 2,000—a commonly used benchmark of clinician panel sizes (Bodenheimer & Pham 2010)—and rounding this clinician count estimate to the nearest full clinician. We also rounded these estimates up to the nearest full clinician (rather than round down) if the FQHC’s reported proportion of treated patients under 18 years old was above the median (18.6%). By this procedure, we estimated 237 total full-time equivalent clinicians across Georgia’s FQHC organizations. In deriving our second estimates, we gave fuller consideration to the under-18 proportion of each FQHC’s patient population by multiplying our first FQHC-level estimates by the proportion of treated patients under 18 years old. We also adjusted this scaling factor for the patient population’s insurance mix—the proportion of treated patients enrolled in Medicaid or CHIP (median 22.0%)—and case mix—the proportion treated for asthma (median 4.7%). These proportions were obtained from UDS data. By this procedure, we estimated 88 total clinicians meeting our eligibility criteria. GPCA leadership and leading FQHC-based clinicians considered the second estimate to have face validity. In particular, they noted that the first estimate failed to account for (i) the concentration of pediatric patients within certain clinicians (e.g., pediatricians), (ii) care provided by physician assistants (who were not surveyed), and (iii) the presence of some facilities unlikely to serve youth with chronic conditions due to their organizational mission or provider team composition (e.g., focused on women’s
We used the estimate of 88 total clinicians as the denominator for our estimate of the survey's response rate.

We administered the survey between October 2017 and April 2018. Eligible clinicians were offered $100 to participate; one participant was selected at random to receive an additional $1,000. Similar multi-part incentive structures have achieved response rates of 65% or better in clinician samples (Shields et al. 2005; Pfefferle 2007; Salmon et al. 2008; Van Otterloo et al. 2011, Seib et al. 2013; Abrams et al. 2014). Clinicians were recruited to participate in the survey both in person—at the annual GPCA member convention—and subsequently through their FQHC organizations’ chief executive officers and medical directors, as described above. We sent these leaders packets of survey forms and return envelopes to distribute to their potentially eligible clinicians, and we contacted them four times by e-mail (twice before mailing out the packets and twice after) to encourage them to distribute the surveys and advise their clinicians about our online survey option. In total, the packets included 237 surveys with paid return envelopes, ensuring more than enough surveys were distributed to reach all eligible clinicians.

Survey

Our survey instrument was designed to elicit the perspectives of clinicians actively practicing in safety net care settings on Medicaid Managed Care plans and their cost containment tools—specifically, how these tools influence the quality of care their child and adolescent beneficiaries with chronic conditions receive. The survey captured information on: difficulties encountered when making referrals and prescribing medications for these patients due to Medicaid Managed Care plans’ tools; the quality of care respondents perceived their patients receive; and other FQHC and clinician characteristics. Respondents were asked to reflect on their experiences with Medicaid Managed Care patients over the preceding six months. For the 12 items concerning difficulties due to Medicaid Managed Care plans’ tools, respondents were also asked to reflect on their experiences more specifically with each of
Georgia’s three established Medicaid Managed Care plans—Amerigroup, WellCare and Peach State—separately.\(^1\)

Prior to fielding our survey, we affirmed its face validity and appropriateness with the assistance of GPCA staff, and we pre-tested the instrument with two FQHC clinicians.

Participants took approximately 15 minutes to complete the 35-item survey.

**Key Measures**

We measured respondents’ perceptions of their patients’ quality of care, our outcome of interest, using four measures: overall quality of care, care coordination effectiveness, and frequencies of emergency department (ED) visits and inpatient hospitalizations, each captured using a 5-point Likert scale (e.g., 1 = very poor…5 = very good). We included care coordination as a secondary measure of quality of care because of the importance of coordinating for achieving good outcomes for children with chronic conditions (Falik et al. 2001; Bindman et al. 2005; Proser 2005; Ansari, Laditka, & Laditka 2006), including reduced ED visits and inpatient hospitalizations. In modeling, each outcome was specified alternately as a continuous variable and as a dichotomous variable (e.g., 1 = very good or good, 0 otherwise).

Our key explanatory variables were respondents’ perceptions of difficulties they had in delivering patient care due to Medicaid Managed Care plans’ cost containment tools, also captured using Likert scales. We inquired about difficulties securing referrals to pulmonologists or allergist/immunologists, denials of prior authorization requests (which could affect access to specialists, prescriptions, or select services), and difficulties prescribing preferred medication therapies. For the latter, we included an overall survey item, an item about difficulties prescribing due to the absence of a particular treatment option from the plan’s preferred drug

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\(^1\) A fourth Medicaid Managed Care plan CareSource began administering benefits for Georgia Medicaid and PeachCare beneficiaries in October 2017, too recently for our respondents to have fully informed opinions of the plan. Consequently we did not ask participants about their experiences caring for CareSource beneficiaries.
list, and an item about difficulties with medication maintenance due to changes in the preferred drug list. Prior authorization and other restrictions on access to prescription medications have been identified as barriers to receipt of high-quality care among Medicaid beneficiaries with other chronic conditions (LaPensee 2003; Lu et al. 2010; Stein et al. 2014)—though rarely for asthma (Keast et al. 2014)—but not differentially among Medicaid Managed Care plans. To our knowledge, no previous study has examined the relationship between narrow specialist networks in Medicaid Managed Care and asthma care quality.

By including items reflecting a variety of outcome measures and cost containment tools in our survey, we sought to detect differential impacts of cost containment tools on different dimensions of quality of care. Difficulties securing referrals to specialists might affect care coordination more than difficulties prescribing preferred medication therapies due to preferred drug lists, for example.

**Analysis**

Our objective was to test whether difficulties attributed to Medicaid Managed Care plans’ cost containment tools are associated with perceived quality of care for child beneficiaries with chronic conditions and whether FQHC efforts to manage plan requirements mitigate this relationship. Our survey instrument included parallel questions about asthma and ADHD (a second highly prevalent chronic condition [CDC 2016c]), yet we focused on asthma care when testing this hypothesis because a greater share of FQHC clinicians regularly treat asthma than ADHD. Our ADHD-focused results, limited to the subsample of respondents who identified that they prescribe ADHD medications (and so may have more complete information in this care context), are presented in the Appendix. We also analyzed survey items asking respondents to reflect on any difficulties they have experienced with the cost containment tools used by each of Georgia’s three Medicaid Managed Care plans separately. Specifically, we quantified how often respondents gave different answers for different plans when characterizing these difficulties.
Subsequently, we estimated ordinary least squared regression models of perceived quality as a function of difficulties due to cost containment tools. In these models we accounted for differences across facilities in the extent of care that could be delivered onsite using a count of the asthma-related services offered. Our provider-level controls included whether the provider is a primary care physician or a nurse practitioner, and years practicing at their current FQHC site. Standard errors were clustered at the FQHC level.

Subsequently, we reviewed our analytic findings with three FQHC-based clinician/administrators and GPCA staff, who provided insights to enhance our interpretations.

We conducted our empirical analysis using Stata analytic software (Stata/SE 14.2, College Station, TX). The Emory Institutional Review Board determined this study was exempt-approved.

Results

We received 63 completed surveys, an estimated 72% response rate relative to our n=88 sample estimate. Respondents represented 19 (58%) of Georgia’s FQHC organizations. Thirty-two surveys were submitted via mail, 20 were submitted online, and 11 were completed in person with a study team member. Twelve respondents could not be clearly identified as either an active physician (MD or DO) or an active nurse practitioner—a potentially important control variable; these records were included in the bivariate analyses, but excluded from our regression analyses. (Results were similar when these records were included in our regression analyses, removing the control variable indicating whether the respondent was a physician or nurse practitioner.)

2 Respondents could identify up to 6 asthma-related services offered onsite: medication management support, peak flow meter dispensing, peak flow meter use training, inhaler use training, allergy testing, and telehealth consults with asthma specialists.
Table 1 presents descriptive statistics for our full respondent sample. When asked about the quality of care their asthma patients received (from them and other providers they saw within and outside the FQHC), 93.7% considered their patients’ care quality to be good or very good, and 74.2% of respondents regarded their patients’ care coordination as good or very good. By contrast, about three-fourths of respondents indicated that their patients experienced asthma-related ED visits sometimes, often, or very often, and about one-third of respondents indicated that their asthma patients experienced inpatient hospitalization sometimes, often, or very often. The full distributions for our outcomes survey items are presented in Figure 1.

Table 1. Descriptive Statistics, Asthma-related Outcomes and Plan Practices

<table>
<thead>
<tr>
<th>Variable†</th>
<th>Dichotomous Measures</th>
<th>Continuous Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>%</td>
<td>Mean</td>
</tr>
<tr>
<td><strong>Outcomes</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quality - Good/Very Good</td>
<td>93.7%</td>
<td>1.86</td>
</tr>
<tr>
<td>Coordination - Good/Very Good</td>
<td>74.2%</td>
<td>2.15</td>
</tr>
<tr>
<td>ED visits - Rarely/Very Rarely</td>
<td>27.4%</td>
<td>3.05</td>
</tr>
<tr>
<td>IP treatment - Rarely/Very Rarely</td>
<td>65.6%</td>
<td>3.72</td>
</tr>
<tr>
<td><strong>Predictors</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Referral for pulmonologist - Diff./Very Diff.</td>
<td>22.5%</td>
<td>2.69</td>
</tr>
<tr>
<td>Referral for allerg./immun. - Diff./Very Diff.</td>
<td>33.3%</td>
<td>2.91</td>
</tr>
<tr>
<td>Prior auth. request denied - Often/Very Often</td>
<td>28.3%</td>
<td>2.85</td>
</tr>
<tr>
<td>Prescribing preferred Rx - Diff./Very Diff.</td>
<td>33.3%</td>
<td>2.86</td>
</tr>
<tr>
<td>Rx not on preferred drug list - Often/Very Often</td>
<td>35.6%</td>
<td>2.88</td>
</tr>
<tr>
<td>No Rx due to changed PDL - Often/Very Often</td>
<td>34.0%</td>
<td>2.96</td>
</tr>
<tr>
<td><strong>Site-level Factors</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Administrative effectiveness in managing cost containment tools, Effective/Very Effective</td>
<td>93.7%</td>
<td>2.52</td>
</tr>
<tr>
<td>Count of asthma-specific services offered (max 6)</td>
<td>2.3</td>
<td>1.1</td>
</tr>
<tr>
<td><strong>Provider-level Factors</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Years practicing medicine</td>
<td>12.1</td>
<td>9.8</td>
</tr>
<tr>
<td>Years practicing at current FQHC site</td>
<td>5.5</td>
<td>7.5</td>
</tr>
<tr>
<td>Percent of clinical time at FQHC site</td>
<td>88.8%</td>
<td>22.0%</td>
</tr>
<tr>
<td>Physician</td>
<td>39.7%</td>
<td></td>
</tr>
<tr>
<td>Nurse Practitioner</td>
<td>41.3%</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>19.0%</td>
<td></td>
</tr>
</tbody>
</table>

| N | 63 | 63 |

Notes: "Not Sure" responses for a given question were excluded from computations. † All listed Outcomes and Predictors survey items were framed specifically for asthma; other items were
not condition-specific. SD = standard deviation; ED = emergency department; IP = inpatient hospital; Medicaid Managed Care = Medicaid Managed Care; Rx = prescription; PDL = preferred drug list; MH = mental health; FQHC = federally qualified health center.

**Figure 1. Survey Responses, Items on Asthma-related Outcomes†**

Notes: "Not Sure" responses for a given question were excluded from computations (n=63, 62, 62, and 61 respectively across outcomes). † All presented Outcomes survey items were framed specifically for asthma.

Across Medicaid Managed Care plans, obtaining referrals for pulmonologists and allergist/immunologists was considered to be difficult or very difficult by 22.5% and 33.3% of respondents, respectively. About one-third of respondents expressed having experienced difficulties with prior authorization request denials, difficulties prescribing preferred medications due to preferred drug list issues (drug not listed on the PDL, and changes in the PDL), and difficulties prescribing their preferred asthma medications more generally.

Thirty-six respondents (57.1%) identified one or more differences between the Medicaid Managed Care plans in any of the survey’s 12 items concerning cost containment tools; similarly, 32 respondents (50.8%) identified one or more differences between the Medicaid
Managed Care plans specifically in any of the survey’s 6 asthma-related items concerning cost containment tools. The likelihood of distinguishing among Medicaid Managed Care plans on the basis of their cost containment tools and their implications for care was generally not correlated with observed provider characteristics.

**Table 2** presents regression results for models of asthma care quality as a function of difficulties due to Medicaid Managed Care plan tools. Controlling for FQHC and provider characteristics, we found that respondents who experienced more frequent denials of their requests for prior authorization were less likely to perceive their patients receive care of high quality overall ($p=0.03$). Similarly, respondents who experienced greater difficulties obtaining referrals to allergist/immunologists were more likely to perceive that their asthma patients made more frequent visits to the emergency department ($p=0.02$) and inpatient hospital settings ($p=0.01$). These estimated associations are of a large magnitude. For example, if all respondents changed their prior authorization denial response from “often” to “very often” (a one-unit change), this would be associated with an 11% decline in our measure of overall care quality or an 18% decline in our effective care coordination measure (0.3-0.4 standard deviations across outcome measures). Neither difficulties obtaining referrals to pulmonologists nor difficulties prescribing preferred treatments was significantly associated with any of our measures of perceived quality of care. All results were similar when outcome variables were specified as dichotomous variables versus continuous variables (results not shown).
Table 2. Ordinary Least Squares Regression Models of Quality of Care, Asthma

<table>
<thead>
<tr>
<th>Variable</th>
<th>Quality of Care</th>
<th>Care Coordination</th>
<th>ED Visits</th>
<th>IP Visits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Difficulty Obtaining Referral to Pulmonologist</td>
<td>0.143</td>
<td>0.103</td>
<td>-0.121</td>
<td>0.213</td>
</tr>
<tr>
<td>Difficulty Obtaining Referral to Allergist/Immunologist</td>
<td>-0.030</td>
<td>0.092</td>
<td>0.168</td>
<td>0.184</td>
</tr>
<tr>
<td>Difficulty Prescribing Preferred Asthma Medications</td>
<td>0.109</td>
<td>0.079</td>
<td>0.229</td>
<td>0.131</td>
</tr>
<tr>
<td>Prior Authorization Requests Denied</td>
<td>-0.205 *</td>
<td>0.086</td>
<td>-0.384 **</td>
<td>0.118</td>
</tr>
<tr>
<td>Count of Asthma Services at FQHC Site</td>
<td>-0.111</td>
<td>0.073</td>
<td>-0.215</td>
<td>0.104</td>
</tr>
<tr>
<td>Is a Nurse Practitioner</td>
<td>0.198</td>
<td>0.193</td>
<td>0.006</td>
<td>0.269</td>
</tr>
<tr>
<td>Years Practicing at FQHC Site</td>
<td>-0.005</td>
<td>0.007</td>
<td>0.009</td>
<td>0.011</td>
</tr>
</tbody>
</table>

| n                                             | 38              | 38                | 37        | 36        |

Notes: * p<0.05, ** p<0.01; Outcomes specified as continuous variables; Samples exclude respondents not clearly identified as a physician or nurse practitioner; ED = Emergency Department, IP = Inpatient Hospital, FQHC = Federally Qualified Health Center.
Thirty-nine respondents (61.9%) indicated that they prescribed ADHD medications. Within this sample, our analytic results in the context of ADHD care were similar to those we present for asthma. They are presented in the Appendix in Tables A1 (descriptive statistics) and A2 (regression results).

Discussion

Asthma is a highly prevalent chronic condition among youth and is more common among disadvantaged populations, including children in lower-income families, African American children, and children of Puerto Rican descent (CDC 2016b). These children are also disproportionately likely to be enrolled in Medicaid and CHIP programs (Kaiser Family Foundation 2015). Mounting pressures in state budgets, significantly due to growth in Medicaid expenditures, have been passed along to Medicaid Managed Care plans, who in turn use a variety of cost containment tools to reduce expenditures. Whether these tools, such as prior authorization, preferred drug lists, and narrow provider networks, are associated with poorer quality of care for their beneficiaries with chronic illnesses, including children, is unknown. We explored this relationship from the perspective of physicians and nurse practitioners who practice at FQHCs because these provider organizations disproportionately treat such vulnerable populations and regularly encounter Medicaid Managed Care plans’ constraints on care. These clinicians also have a valuable, first-hand perspective on the manner in which Medicaid Managed Care plans implement cost containment tools and the extent to which patient care can be affected. Our research questions are particularly salient in Georgia, where the asthma is especially prevalent and care outcomes are quite poor (CDC 2016a-b).

Perhaps not surprisingly, respondents generally regarded the quality of care received by their child patients with chronic illnesses as good or very good. Survey responses reflected a range of experiences and varying degrees of difficulty providing care due to Medicaid Managed Care plans’ cost containment tools. In our regression models, we found some evidence that
greater difficulties with referrals to certain specialists and prior authorization request denials were associated with perceptions of poorer patient care quality. These cost containment tools may be more likely to emerge as “pain points” for FQHC clinicians because the clinicians themselves are more likely to encounter these tools directly (e.g., when placing phone calls to specialists to ensure the patient can obtain an appointment). By contrast, some clinicians may not be aware of issues that arise because of limited or changing preferred drug lists; it may be that pharmacists or patients and caregivers would be more likely to regard these preferred drug lists as an impediment to high-quality care.

It is noteworthy that only slight majorities of our respondents distinguished among the state’s three established Medicaid Managed Care plans with respect to their cost containment tools in any of our twelve measures. There are a few possible explanations for the absence of variation in clinicians’ impressions in this context; some mix of them could fully explain why so many respondents did not distinguish among Georgia’s three plans. First, although the clinicians may have material personal experience with these tools’ implementation, they may not perceive that their experiences were meaningfully different across plans. Other clinicians may have had materially different experiences across plans, but they may have difficulty recalling which of the Medicaid Managed Care plans was the insurer of record in the context of a given care episode (e.g., when they had a memorably worse experience). Alternatively, many clinicians may be unable to perceive differences because their encounters with the plans’ tools are vicarious; many FQHCs have sufficient administrative support to manage such administrative requirements on their clinicians’ behalf.

GPCA leadership suggested they did not believe respondents would be concerned about the disclosure risk for their survey data. Still, it is possible a few respondents had reservations about distinguishing among the plans out of concern that, if they had recorded meaningful differences among the three Medicaid Managed Care plans and this information reached the plans, it could have eroded the FQHC’s relationship with one or more of the plans.
Limitations

The study has a few limitations of note. Since we gathered information about quality of care by survey, they represent subjective perceptions of quality of care rather than objective measures. Comparable analyses relying on such objective measures (e.g., HEDIS) would represent an important next step. Because we recruited participants through GPCA and FQHC leadership rather than directly, we were unable to collect information about FQHC site-level staffing (clinical and administrative) and other factors that could affect how FQHC clinicians experience Medicaid Managed Care plans’ cost containment tools. It may be valuable to conduct longitudinal analyses to examine the impact of any administrative efforts made by FQHCs to manage Medicaid Managed Care plans’ cost containment tools and prevent them from interfering with patient care.

Our survey’s true response rate could not be determined precisely using available data. Still, our approaches to quantify the size of the target sample and the proportion of Georgia’s FQHCs represented in our sample—and the consistency of our sample estimates with the intuition of GPCA leadership—give us confidence that the response rate is quite high for a survey of clinicians. The introduction of a fourth Medicaid Managed Care plan, CareSource, into Georgia at the time our survey was fielded could have interfered with respondents’ recall concerning the state’s three established plans. Alternately, since CareSource’s introduction was the first change in the set of Medicaid Managed Care plans in the state in over a decade (Miller 2017; Medicaid.gov 2016), it is possible that respondents were more reflective on their relative experiences across the three established Medicaid Managed Care plans than they would have been in previous years. Moreover, we note that until recently there have only been three Medicaid Managed Care plans in Georgia—below the median (n=5) across states (Kaiser Family Foundation 2018). This may reduce the likelihood that any of our respondents confused one plan for another. Nevertheless, our results may not be representative of the perceived
differential effects of different Medicaid Managed Care plans’ cost containment tools for other conditions or in other states.

Conclusions

As states enroll additional, more vulnerable groups in Medicaid Managed Care (CBO 2018), it is imperative that we expand our limited understanding of Medicaid Managed Care beneficiaries’ quality of care and how it may be affected by plans’ cost containment tools. This knowledge is critical for empowering states to achieve cost savings in their Medicaid Managed Care programs without compromising beneficiaries’ outcomes. Medicaid Managed Care plans should endeavor not to impose restrictive cost containment tools that inhibit clinicians’ efforts to devise and employ effective strategies for coordinating these patients’ care as well as supporting patient self-management and adherence to medications and other treatment regimens. In particular, clinicians may perceive that the quality of care their Medicaid Managed Care patients receive increases when they encounter fewer difficulties with denials of prior authorization requests or making referrals to certain important specialist types. Further evidence is needed on whether these tools meaningfully vary in their implementation across Medicaid Managed Care plans in other states and for other populations; their implications for the quality of care received by other vulnerable patient groups also merits further examination.

References


from-fy2000-to-fy2011-for-full-benefit-enrollees/?currentTimeframe=0&sortModel=%7B%22colId%22:%22Location%22,%22sort%22:%22asc%22%7D


Stein, B. D., Leckman-Westin, E., Okeke, E., Scharf, D. M., Sorbero, M., Chen, Q., ... & Wisdom, J. P. 2014. The effects of prior authorization policies on Medicaid-enrolled


Appendix

Table A1 presents descriptive statistics reflecting our survey responses concerning ADHD care among those who reported prescribing for ADHD. When asked about the quality of care their ADHD patients received (from them and other providers they saw within and outside the FQHC), 94.1% of respondents considered their patients’ care quality to be good or very good, and 70.6% of respondents regarded their patients’ care coordination as good or very good. About 9.7% of respondents indicated that their ADHD patients experienced ADHD-related ED visits sometimes, often, or very often, and none (0%) indicated that their ADHD patients experienced related inpatient hospital care sometimes, often, or very often. Corresponding percentages were higher in the context of asthma patients: 72.6% and 34.4%, respectively.

Across Medicaid Managed Care plans, obtaining referrals for psychiatrists and behavioral health therapists was considered to be difficult or very difficult by 53.0% and 32.4% of respondents, respectively. The greater level of difficulty securing referrals to psychiatrists was not surprising given the shortage of such providers in the state. Prior authorization request denials and difficulties prescribing preferred medications due to preferred drug list issues (drug not listed on the PDL, and changes in the PDL) were experienced often or very often by about one third of respondents. Clinicians were more likely to report that prescribing their preferred medications was difficult or very difficult for their ADHD patients (50%) than for their asthma patients (33.3%, p=0.07). This is likely because the number of ADHD medication alternatives generally considered most effective is fewer, and, because these alternative are newer and more expensive, they are commonly excluded from Medicaid Managed Care plans’ PDLs.

Only 17 respondents (43.6%) identified one or more differences between the Medicaid Managed Care plans in any of the survey’s 12 items concerning cost containment tools, and 16 (41.0%) identified one or more differences between the Medicaid Managed Care plans in any of the survey’s 6 ADHD-specific items concerning cost containment tools. These proportions were
not statistically significantly different (p=0.74). In the context of ADHD care, as in the context of asthma care, the likelihood of distinguishing among Medicaid Managed Care plans on the basis of their cost containment tools and their implications for care was generally not correlated with observed provider characteristics. There was one exception: as estimated in a reduced-form logit model, the likelihood of distinguishing among Medicaid Managed Care plans at least once on the survey’s 6 ADHD-specific items increased 1.8 percentage points with each additional year the provider had been practicing medicine (p<0.001); this corresponds to a 19.1 percentage-point increase per 10.5 years practicing medicine (one standard deviation in this sample).
<table>
<thead>
<tr>
<th>Variable</th>
<th>Dichotomous Measures</th>
<th>Continuous Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Outcomes</strong></td>
<td>Mean, %</td>
<td>SD</td>
</tr>
<tr>
<td>Quality - Good/Very Good</td>
<td>94.1%</td>
<td>1.82</td>
</tr>
<tr>
<td>Coordination - Good/Very Good</td>
<td>70.6%</td>
<td>2.15</td>
</tr>
<tr>
<td>ED visits - Rarely/Very Rarely</td>
<td>90.3%</td>
<td>4.42</td>
</tr>
<tr>
<td>IP treatment - Rarely/Very Rarely</td>
<td>100.0%</td>
<td>4.73</td>
</tr>
<tr>
<td>Missed appts. - Sometimes/Rarely/Very Rarely</td>
<td>78.8%</td>
<td>3.00</td>
</tr>
<tr>
<td><strong>Predictors</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Referral for psychiatrist - Diff./Very Diff.</td>
<td>53.0%</td>
<td>3.26</td>
</tr>
<tr>
<td>Referral for beh. health therapist - Diff./Very Diff.</td>
<td>32.4%</td>
<td>2.91</td>
</tr>
<tr>
<td>Prior auth. request denied - Often/Very Often</td>
<td>34.6%</td>
<td>2.88</td>
</tr>
<tr>
<td>Prescribing preferred Rx - Diff./Very Diff.</td>
<td>50.0%</td>
<td>3.31</td>
</tr>
<tr>
<td>Rx not on preferred drug list - Often/Very Often</td>
<td>31.0%</td>
<td>2.97</td>
</tr>
<tr>
<td>No Rx due to changed PDL - Often/Very Often</td>
<td>21.4%</td>
<td>3.21</td>
</tr>
<tr>
<td><strong>Site-level Factors</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Administrative effectiveness in managing cost containment tools, Effective/Very Effective</td>
<td>94.1%</td>
<td>2.64</td>
</tr>
<tr>
<td>Count of ADHD-specific services offered (max 8)</td>
<td>2.3</td>
<td>1.6</td>
</tr>
<tr>
<td>Est. children with MH conditions per month</td>
<td>63.2</td>
<td>169.6</td>
</tr>
<tr>
<td><strong>Provider-level Factors</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Years practicing medicine</td>
<td>14.4</td>
<td>10.5</td>
</tr>
<tr>
<td>Years practicing at current FQHC site</td>
<td>7.0</td>
<td>9.0</td>
</tr>
<tr>
<td>Percent of clinical time at FQHC site</td>
<td>87.8%</td>
<td>24.4%</td>
</tr>
<tr>
<td>Physician</td>
<td>56.4%</td>
<td></td>
</tr>
<tr>
<td>Nurse Practitioner</td>
<td>28.2%</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>15.4%</td>
<td></td>
</tr>
</tbody>
</table>

| N | 39 | 39 |

Notes: "Not Sure" responses for a given question were excluded from computations. † All Outcomes and Predictors survey items were framed specifically for ADHD; other items were not condition-specific. ADHD = attention deficit/hyperactivity disorder; SD = standard deviation; ED = emergency department; IP = inpatient hospital; Medicaid Managed Care = Medicaid Managed Care; Rx = prescription; PDL = preferred drug list; MH = mental health; FQHC = federally qualified health center.
Table A2 presents results of regression models of quality of care as a function of difficulties due to Medicaid Managed Care plan tools for ADHD care. Controlling for FQHC and provider characteristics, we found that when respondents experienced more frequent denials of their requests for prior authorization, they also perceived their patients receive care of lower overall quality. This is a meaningfully large estimate, indicating that a one-unit change in denial frequency (e.g., from often to very often) is associated with reduced overall quality of care on the order of 0.32 standard deviations (in the continuously specified measure). Across separate models, we found that perceived quality of care was not statistically significantly associated with difficulties obtaining referrals to psychiatrists, difficulties obtaining referrals to behavioral health therapists, or difficulties prescribing preferred treatments. The estimated number of children treated with mental health conditions at the FQHC site—an additional covariate in our ADHD models, introduced as a measure of mental health disorder burden in the local community—was associated with poorer perceived overall quality and care coordination but also reduced inpatient hospital treatment for ADHD. Our control variables were otherwise not statistically significantly associated with quality of care.
# Table A2. Ordinary Least Squares Regression Models of Perceived Quality of Care, ADHD

<table>
<thead>
<tr>
<th>Variable</th>
<th>Quality of Care</th>
<th>Care Coordination</th>
<th>ED Visits</th>
<th>IP Visits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Difficulty Obtaining Referral to Psychiatrist</td>
<td>0.147</td>
<td>0.174</td>
<td>0.122</td>
<td>0.288</td>
</tr>
<tr>
<td>Difficulty Obtaining Referral to Beh. Health Therapist</td>
<td>-0.096</td>
<td>-0.029</td>
<td>0.164</td>
<td>0.264</td>
</tr>
<tr>
<td>Difficulty Prescribing Preferred ADHD Medications</td>
<td>0.039</td>
<td>0.223</td>
<td>-0.108</td>
<td>0.201</td>
</tr>
<tr>
<td>Prior Authorization Requests Denied</td>
<td>-0.232</td>
<td>-0.197</td>
<td>0.122</td>
<td>-0.052</td>
</tr>
<tr>
<td>Count of ADHD Services at FQHC Site</td>
<td>-0.082</td>
<td>-0.163</td>
<td>0.122</td>
<td>0.003</td>
</tr>
<tr>
<td>Estimated Children with MH Conditions per Month</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Treated (/50) at FQHC Site</td>
<td>-0.116 **</td>
<td>-0.149 **</td>
<td>0.034</td>
<td>-0.062</td>
</tr>
<tr>
<td>Is a Nurse Practitioner</td>
<td>-0.071</td>
<td>-0.113</td>
<td>0.530</td>
<td>0.303</td>
</tr>
<tr>
<td>Years Practicing at FQHC Site</td>
<td>-0.016</td>
<td>-0.017</td>
<td>0.009</td>
<td>-0.017</td>
</tr>
</tbody>
</table>

Notes: * p<0.05, ** p<0.01; Outcomes specified as continuous variables; Samples exclude respondents not clearly identified as a physician or nurse practitioner; ADHD = Attention Deficit/Hyperactivity Disorder, ED = Emergency Department, IP = Inpatient Hospital, FQHC = Federally Qualified Health Center.