

Evaluation of the Accountable Care Collaborative

Final Report

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Executive Summary

This report describes the results of our two-year study of the impact of Colorado's Accountable Care Collaborative on health care utilization, costs, and quality. The quantitative analysis examined administrative claims data between July 2009 and June 2015, a period that spans the introduction and establishment of the Accountable Care Collaborative. The qualitative portion of our mixed methods evaluation of the Accountable Care Collaborative is focused on experiences and perspectives of provider practices with the program to date. We have also incorporated findings focused on member experience from a companion study conducted by TriWest Group.

The Accountable Care Collaborative reduced spending while maintaining quality

Overall, we find that the Accountable Care Collaborative was successful at reducing health care related expenditures and that the reduction in expenditures was persistent over time. The estimates reveal that the Accountable Care Collaborative saved about \$60 per member per month (PMPM) in health care spending on adults and \$20 PMPM in health care spending on children. The savings grew over time, making us confident that these savings will persist. The savings among Medicare and Medicaid eligible (MME) members were estimated to be about \$120 PMPM. We find that contemporaneously funded grants and Center for Medicare and Medicaid Innovation (CMMI) initiatives also contributed to declines in spending. Controlling for these initiatives lowers the estimated savings estimate by about 20%. The Accountable Care Collaborative did not significantly influence official key performance indicators or other recognized indicators of quality and access. Taken together, we interpret these findings as an indication that the Accountable Care Collaborative program increased the value of Health First Colorado services by reducing spending while keeping quality of care constant.

Practices in the Accountable Care Collaborative viewed the program positively

Practices generally shared positive perspectives of the Accountable Care Collaborative. The biggest driver of practice perceptions was the push for enhanced care coordination. Many also stated that the Accountable Care Collaborative has been a step toward much needed health care reform in Colorado. Some practices shared that the Accountable Care Collaborative initiated a much larger discussion and coordinated effort toward health care reform among various entities that previously were not communicating or coordinating efforts as effectively. Practices also shared that the Accountable Care Collaborative program was consistent with ongoing efforts to enhance care coordination with many practices crediting specific efforts to enhance care coordination tied to elements of the Accountable Care Collaborative.

Practices expressed divided opinions on Key Performance Indicators (KPIs)

Practices expressed a variety of opinions about the Key Performance Indicators (KPIs) associated with the Accountable Care Collaborative. Some clinics stated that they felt the KPIs were generally good measures of a practice's performance. However, even these clinics noted that some of the KPIs were more relevant than others. The majority of clinics stated that they felt at least some of the KPIs were not appropriate or were not good indicators of a practice's performance. Interestingly, different clinics referenced different KPIs as good indicators versus poor indicators. The quantitative analysis of the KPIs revealed that performance on the measures improved equally for Accountable Care Collaborative members and fee-for-service (FFS) clients reflecting contemporaneous trends.

Statewide Data Analytics Contractor (SDAC) brought value but improvements are needed

The majority of clinics recognized the potential of the use of high-quality, timely data in care coordination and decision-making but struggled to make the data available in SDAC actionable.

Many clinics noted that members they do not see are attributed to their clinic and that members that are seen by their clinic are not attributed to them. Several pediatric clinics also noted that adult members were inappropriately attributed to their clinic. Even among the clinics that valued the data from SDAC, workarounds were sometimes put in place to extract relevant data from SDAC for members of the clinic in order to make it actionable.

Regional Care Collaborative Organizations (RCCOs) provided new capacity for practice-specific initiatives and needs

Practices generally report positive experiences and interactions with their RCCO(s) but also great variability in how they interact and the specific activities they engage in with their RCCO(s). Practices tended to value interactions with their RCCO(s) when those interactions were based on practice specific and initiated needs. These interactions with RCCOs were frequently initiated by practices that wanted assistance in areas such as quality improvement initiatives, practice transformation efforts to enhance care coordination, and relationship building with community partners to enhance care coordination. The impact of the Accountable Care Collaborative on total spending on adults also varied considerably by RCCO: two of seven RCCOs experienced reductions of less than \$40 PMPM. In contrast, only one RCCO experienced reductions of less than \$20 PMPM on children. Two RCCOs experienced twice the average PMPM savings on MME members.

Member education remains an opportunity for improvement

Many practices noted that members need to play a more active role in the Accountable Care Collaborative program if it is to be successful. Practices recognized the key role that “patient satisfaction” plays in the Accountable Care Collaborative and contemplated using it as a future KPI. Several practices noted that members would benefit from more education, engagement, and accountability, as many lack a fundamental understanding of preventive care and how their Primary Care Medical Providers (PCMP) can help. Practices perceived the financial incentives for members to be misaligned with KPIs because members have no co-pay for emergency department (ED) visits but have a copay to see their PCMPs. However, virtually all practices acknowledge that this population has more unmet socioeconomic basic needs which need to be overcome before members become more involved in their own care.

Conclusions

Our findings suggest that the Accountable Care Collaborative program has decreased total spending on health care services on a PMPM basis while maintaining quality of care. This decrease in spending is likely due in part to practice and RCCO efforts to enhance care coordination through various practice transformation efforts initiatives. Many of the practices participating in the Accountable Care Collaborative have only recently implemented care coordination improvements or are in the midst of ongoing quality improvement efforts to enhance care coordination, and RCCOs have helped to support these new initiatives.

Given the timeliness of these efforts by RCCOs and practices, it may be that the full effect of their efforts on utilization, cost, and quality measures has yet to be realized. RCCOs and practices should continue to be supported in their ongoing efforts to enhance the coordination and quality of the care of their members. These supports may include: continued funding to support care coordination; access to timely data; support on how to integrate care coordination efforts into the practice; performance indicators that align with practice specialty and care coordination approach; and member education, engagement and accountability.

Introduction

In this report we summarize the findings of a two-year evaluation of the Colorado Accountable Care Collaborative. The Accountable Care Collaborative includes seven Regional Care Collaborative Organizations (RCCOs) that are responsible for coordinating patient care. Primary care providers were recruited to join the RCCOs and be designated as a Primary Care Medical Provider (PCMP). The evaluation is based on quantitative analyses of paid Medicaid claims and qualitative analyses of interviews of primary care providers and practice administrators. This report also incorporates findings of a companion study of the member perspective conducted by the TriWest Group (<https://www.colorado.gov/pacific/hcpf/research-data-and-grants>).

The quantitative analysis was focused on measuring the impact of the Accountable Care Collaborative on health care spending, quality and value. We also performed sub-analyses to provide quantitative evidence related to the findings of the qualitative analyses of interviews of primary care providers and practice administrators.

The qualitative analysis was based on 75 interviews of PCMPs, practice administrators and providers who did not join a RCCO. We interviewed primary care providers and administrators because they had an important perspective of the changes in care delivery and financial incentives related to the Accountable Care Collaborative and individual RCCOs. The methodological details of our evaluation are available in a separate methodological appendix. The qualitative results based on the member perspective are incorporated from an independent analysis conducted by the TriWest Group.

Aggregate Medicaid Spending and Utilization

We analyzed Medicaid claims for services delivered between July, 2009 and June, 2015. This sample period includes two years of pre-Accountable Care Collaborative and up to four years of post-Accountable Care Collaborative utilization. Accountable Care Collaborative members were separated into three Cohorts based on when they originally joined the program. For each Cohort, we constructed a control group of fee-for-service (FFS) clients who were neither enrolled in the Accountable Care Collaborative nor a managed care health plan. The control group was used to control for secular trends in spending that would have occurred regardless of whether the Accountable Care Collaborative was implemented. Note that health care services continued to be reimbursed on a FFS basis for both the Accountable Care Collaborative and FFS control group throughout the sample period. The primary difference between the groups is based on care coordination activities that were tied to Accountable Care Collaborative enrollment. The estimates of the impact of the Accountable Care Collaborative are based on Accountable Care Collaborative members and do not necessarily generalize to other populations. This type of estimate is called the average treatment effect on the treated (ATET) in the econometrics and statistics literature.

Enrollment into the Accountable Care Collaborative

The way by which Health First Colorado clients were enrolled into Accountable Care Collaborative depended on whether or not a client was a Denver County resident and when the client enrolled. Enrollment was gradual during the first year of operation (FY 2011-2012). Clients who were not Denver residents were attributed to PCMPs based on previous evaluation and management visits. Clients were attributed to the provider that they visited most frequently. Ties were broken by attributing the clients based on the most recent visit. If the provider agreed to join a RCCO as a PCMP then the clients attributed to the provider were automatically enrolled in the

Accountable Care Collaborative. Clients were allowed to opt-out of the Accountable Care Collaborative but the default option was the Accountable Care Collaborative. As of June, 2012 there were over 78,000 adults and 51,000 children enrolled in the Accountable Care Collaborative.

Enrollment of PCMPs and clients accelerated between July 1, 2012 and the end of our sample period. Up until the fall of 2015, clients who were eligible for the Accountable Care Collaborative and did not reside in Denver were not enrolled if they were attributed to a primary care provider who was not in the Accountable Care Collaborative (starting in the fall of 2015 the Department began enrolling these clients). Clients who were not attributed to any primary care provider or were attributed to a primary care provider who was in the Accountable Care Collaborative were automatically enrolled.

In contrast to the rest of the state, Denver residents were automatically enrolled in the Denver Health Medicaid Choice plan. Prior to the fall of 2015, they were enrolled in the Accountable Care Collaborative only if they opted out of Denver Health Medicaid Choice. Like the rest of the state, Denver residents could opt-out of the Accountable Care Collaborative into FFS. Estimates of the impact of the Accountable Care Collaborative on Denver residents may be subject to larger selection bias because the primary driver of Accountable Care Collaborative enrollment is related to member decisions to opt-out of Denver Health Medicaid Choice. As described above, enrollment in the rest of the state was largely the default option. Until the fall of 2015, for members with a demonstrated relationship with a primary care provider, the main mechanism that determined enrollment in the Accountable Care Collaborative was whether or not their primary care provider had joined the program, rather than the member's decision to opt-into the Accountable Care Collaborative. We report results of samples with and without Denver residents to assess whether the different paths to enrollment influence our results.

Methods

Cohort 1 includes Accountable Care Collaborative members that joined in FY 2011-2012. Cohorts 2 and 3 include individuals who were enrolled in the Accountable Care Collaborative in FY 2012-2013 and FY 2013-2014, respectively. We separated members into Cohorts to take into account the changes in enrollment pathways over time. Primary care providers who joined in the first year may be more amenable to working with the RCCOs than providers who joined in later years. If this is true, then the impact of the Accountable Care Collaborative may be different depending on when people enrolled. We have the most confidence in the results based on the Cohort 1 sample without Denver residents because we can reduce selection bias by controlling for primary care provider characteristics in the analysis. This is also the sample that has the largest control group of clients who are enrolled in FFS which enables us to make a consistent apple-to-apples comparison. However, we are cautious in our interpretation of the results based on all three Cohorts (adults, children and dual Medicare and Medicaid eligible) in the last year of our sample because the FFS group shrinks to a relatively small number of individuals who may be fundamentally different than Accountable Care Collaborative members in that they have opted out of managed care and see a small minority of primary care providers who have declined to join the Accountable Care Collaborative.

We controlled for a full set of patient comorbidities using the Chronic Illness and Disability Payment System (CDPS) Version 6.0 for risk adjustment. (<http://cdps.ucsd.edu/index.html>). The CDPS was developed to use in adjusting capitated payments for Medicaid beneficiaries by Dr.

Richard Kronick, Dr. Todd Gilmer and colleagues at the University of California, San Diego. We also controlled for individual characteristics including age, race, length of time enrolled in Medicaid, and the share of visits at attributed providers to measure the strength of the relationship. We included the characteristics of primary care providers linked to each attributed member, including practice type (Federally Qualified Health Center or Rural Health Center, Hospital-based, private clinic or provider practice, specialty (Pediatric, ObGyn, Family Practice or Internal Medicine). We included quarter fixed effects in all specifications and a primary care provider fixed effects as a sensitivity analysis to assess whether nonrandom selection of providers into the Accountable Care Collaborative was affecting our estimates.

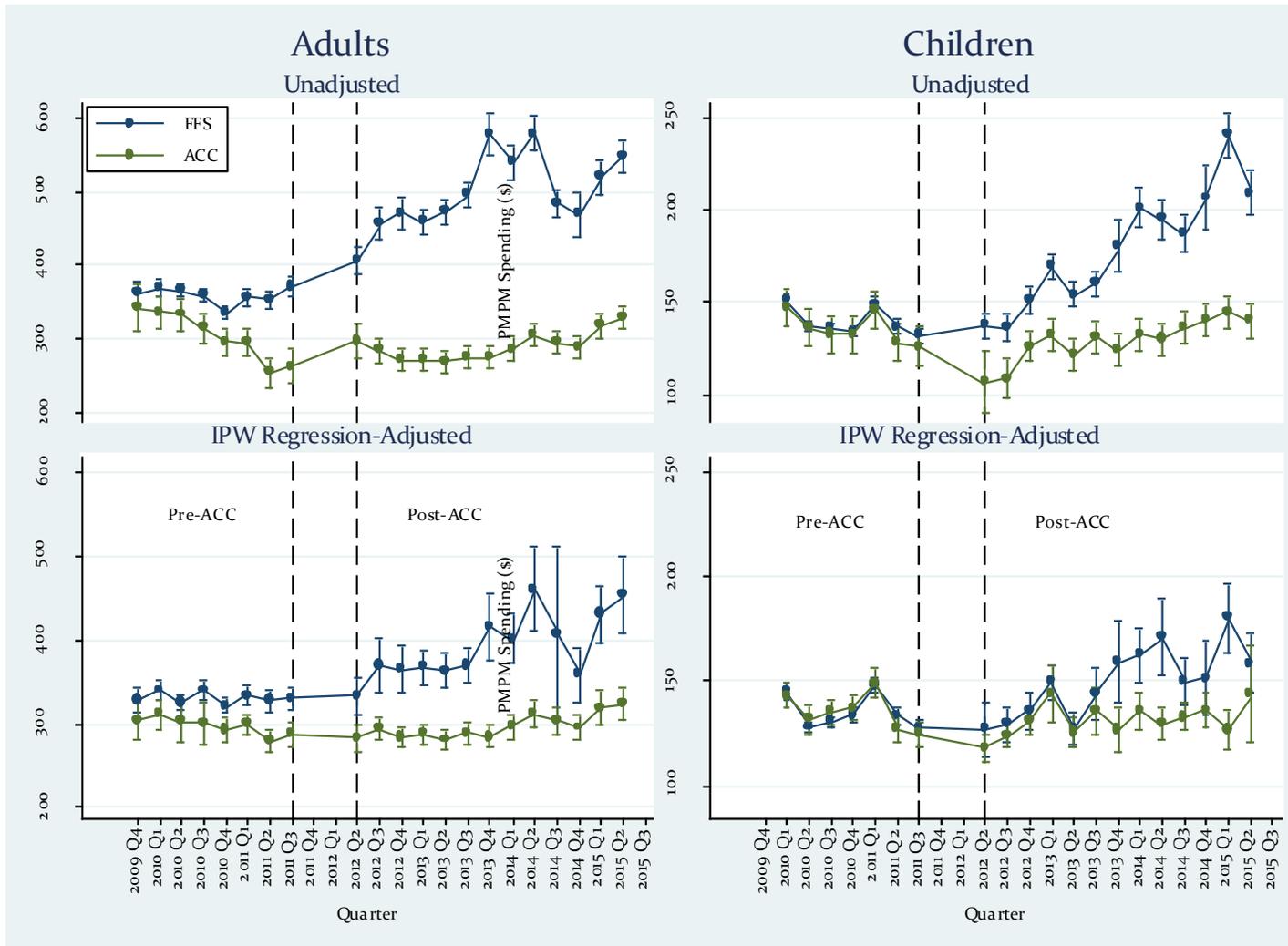
We attempted to control for all observable differences in Accountable Care Collaborative members and FFS clients. However, there may be unobserved differences that may confound our estimate. We examined the pre-Accountable Care Collaborative trends in spending over time of FFS and future Accountable Care Collaborative members to assess whether our control group was sufficient to control for contemporaneous trends in treatment. Figures 1-3 summarize the data for adults and children in Cohorts 1, 2, 3 defined by if they joined in FY2011-2012; FY 2012-2013; or FY 2013-2014, respectively. The focus of our evaluation is on the ongoing performance of the Accountable Care Collaborative rather than the initial roll-out. As a result, we allowed for an adjustment period of up to six months before and six month after enrollment, because we determined a transitory increase in spending related to initial enrollment.

We separately analyzed children (ages 0-18) and adults (ages 19-64) with standard Medicaid eligibility, and adults who were dual Medicare and Medicaid eligible (MME). A lack of a suitable control group and a lack of pre-period data prevented us from examining the expansion populations that consisted of adults with incomes too high to qualify for traditional Medicaid. The analytic details of the specifications are available in the Methodological Appendix.

Results

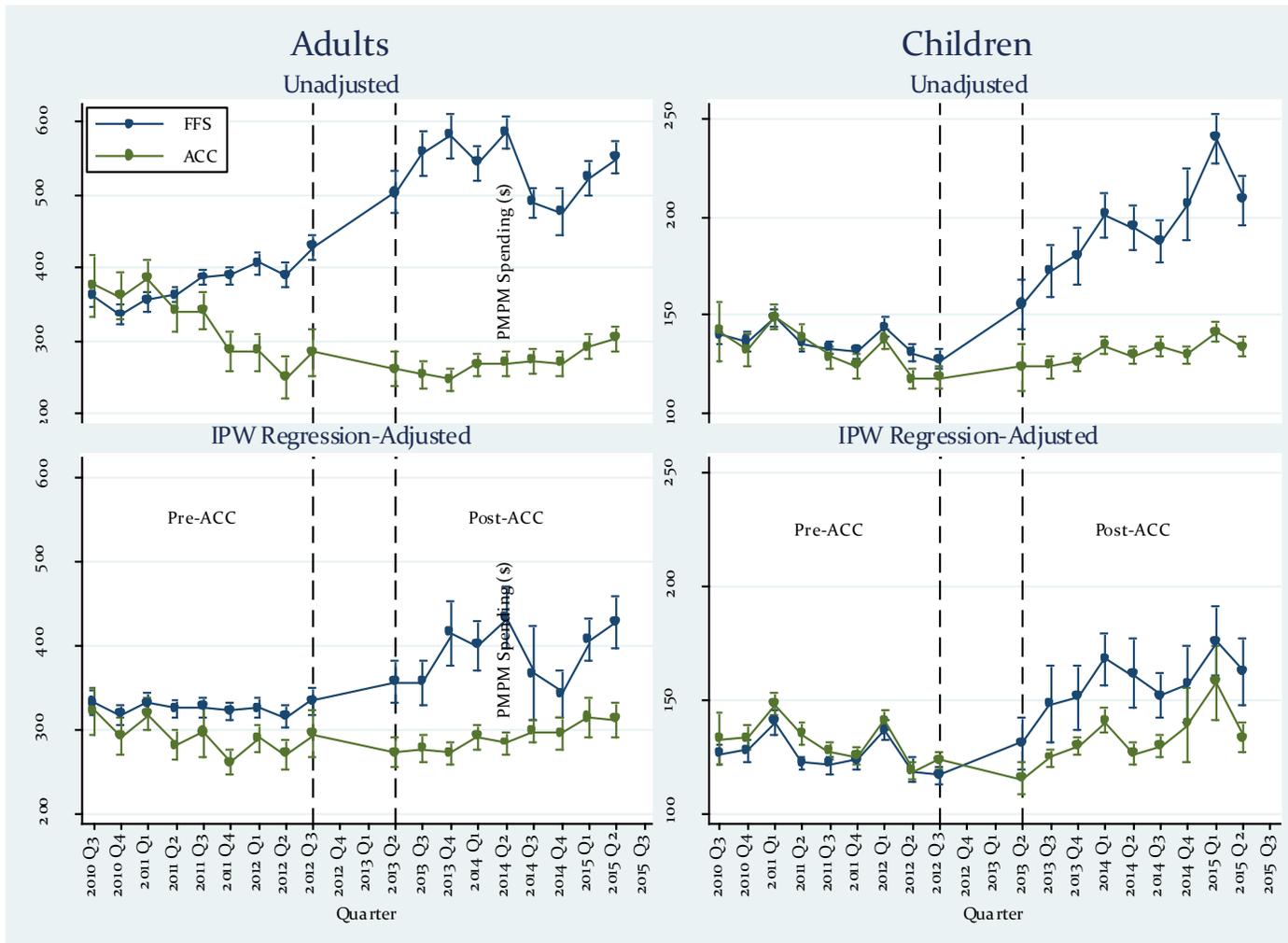
Average PMPM spending on standard Accountable Care Collaborative members and FFS clients are graphed in Figures 1-3. The first row shows trends in unadjusted spending and the bottom row includes adjusted spending estimates using with inverse probability weighting (IPW). Inverse probability weights were used to control for selection on observables. The weights increase the influence of FFS observations that are similar to the Accountable Care Collaborative group based on the covariates described above. Figures 1-3 reveal that after adjustment the trends Pre-Accountable Care Collaborative spending of Accountable Care Collaborative members looks quite similar to FFS clients in both the adult and children samples. Formal tests of whether the pre-program trends in spending on Accountable Care Collaborative members and FFS clients were parallel revealed that the parallel trend condition was satisfied for Cohort 1. In contrast, the pre-period trends in spending on Accountable Care Collaborative members and FFS clients were significantly different in Cohort 2 and 3. As a result, we control for Accountable Care Collaborative and FFS-specific trends in our analyses of these Cohorts. A post-Accountable Care Collaborative divergence of spending by Accountable Care Collaborative and FFS groups can clearly be seen in Figures 1-3. The larger the divergence between the groups, the larger estimated spending reductions related to the Accountable Care Collaborative. For example, examination of Figure 1 reveals that FFS clients incurred about \$25 PMPM more spending than

Figure 1. Accountable Care Collaborative and FFS Trends in Spending by Age Group: Cohort 1



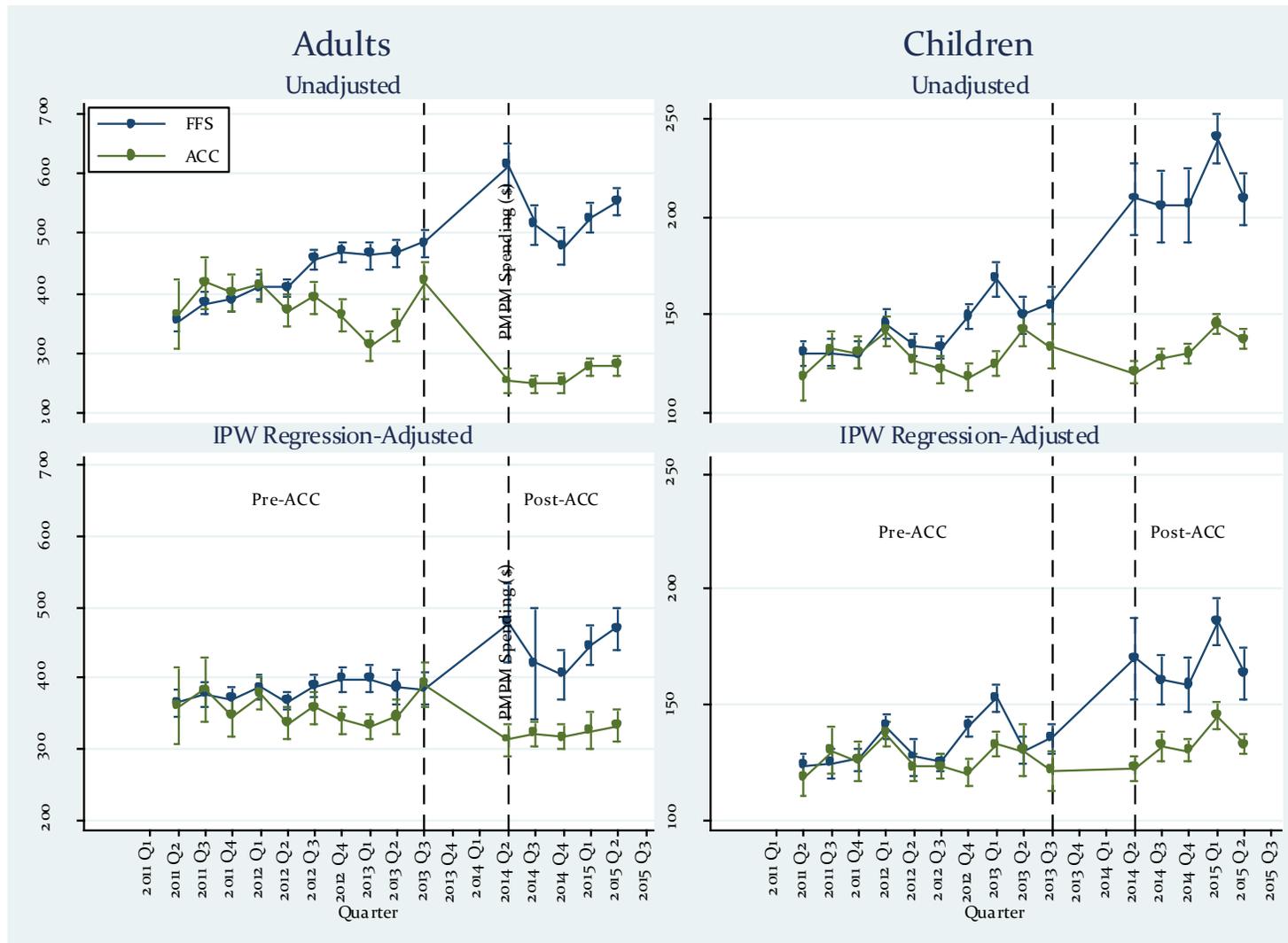
Notes: Null hypothesis of pre-period parallel trends was not rejected (Kids: $p=0.5336$ Adults: $p=0.492$)
 Cohort 1: Accountable Care Collaborative members who enrolled in FY 2011-2012

Figure 2. Accountable Care Collaborative and FFS Trends in Spending by Age Group: Cohort 2



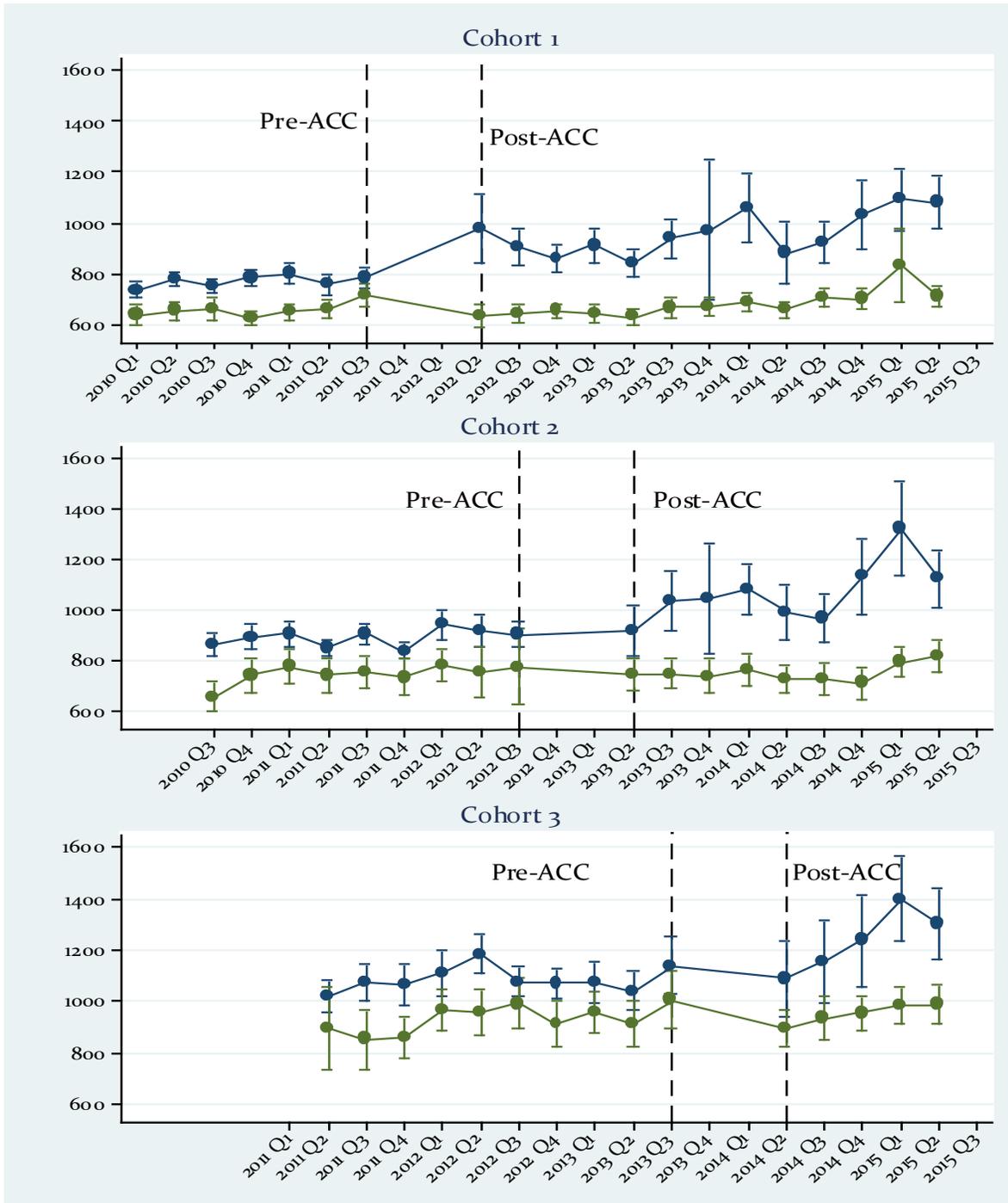
Notes: Null hypothesis of pre-period parallel trends was rejected (p<0.05).
 Cohort 2: Accountable Care Collaborative members who enrolled in FY 2012-2013

Figure 3. Accountable Care Collaborative and FFS Trends in Spending by Age Group: Cohort 3



Notes: Null hypothesis of pre-period parallel trends was rejected (p<0.05).
 Cohort 3: Accountable Care Collaborative members who enrolled in FY 2013-2014

Figure 4. Trends in Adjusted MME Adult Spending, Accountable Care Collaborative and FFS Control Group



Notes: Null hypothesis of pre-period parallel trends was not rejected for Cohort 1.

Pre-period parallel trends was rejected in Cohort 2 and 3.

Cohort 1: Accountable Care Collaborative members who enrolled in FY 2011-2012

Cohort 2: Accountable Care Collaborative members who enrolled in FY 2012-2013

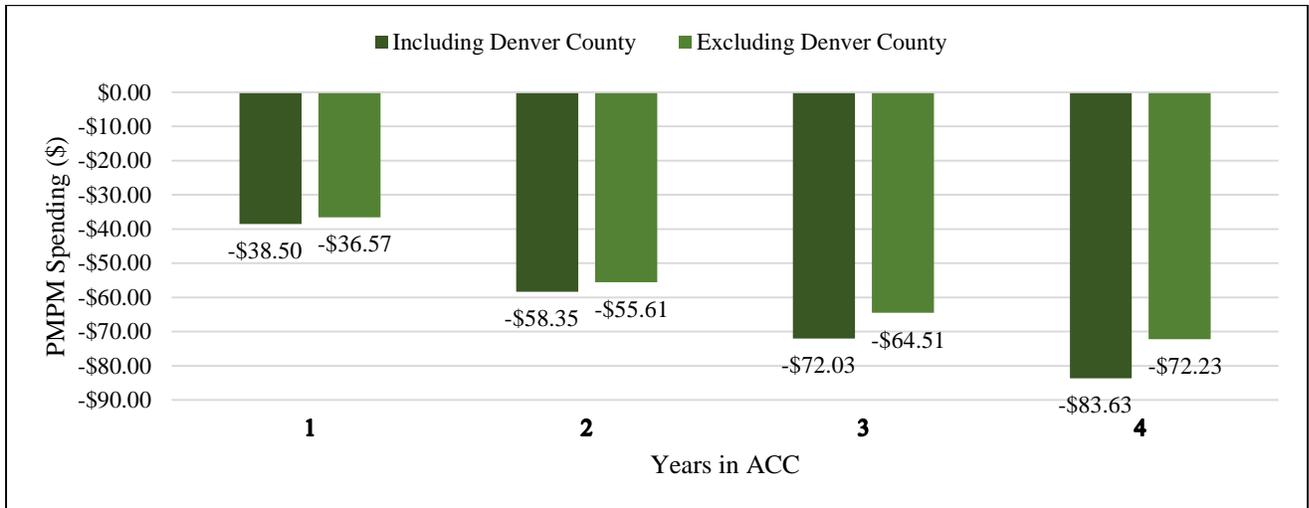
Cohort 3: Accountable Care Collaborative members who enrolled in FY 2013-2014

Accountable Care Collaborative members in the pre-Accountable Care Collaborative period. In the post-Accountable Care Collaborative period, spending on FFS clients was approximately \$100 PMPM higher than Accountable Care Collaborative members. The approximate “difference-in-differences” estimate of the spending reduction related to the Accountable Care Collaborative is \$75 PMPM.

The trends in PMPM spending incurred by each Cohort of adult MME members are reported in Figure 4. Cohort 1 passed the tests for parallel trends whereas Cohorts 2 and 3 did not pass the test. As a result, we control for Accountable Care Collaborative-specific trends in the analysis of Cohorts 2 and 3. Figures 1-4 are suggestive of an Accountable Care Collaborative-related reduction in spending but the specification ignores the underlying distribution of spending and does not give a precise estimate of the effect of the Accountable Care Collaborative in dollar terms. Instead, the point estimates of the effect of the Accountable Care Collaborative on PMPM spending were estimated using a two-part model.

The two-part model takes into account the prevalence of individuals who have no spending in a given quarter by estimating the probability of any spending in the first part and the level of spending, conditional on any spending, in the second part. The first part is modeled as a Probit and the second part used a generalized linear model with a log-link function assuming a gamma distribution. The log-link is used because spending is highly skewed due to relatively few individuals with unusually high amounts of spending.

Figure 5. Change in PMPM Spending Associated with the Accountable Care Collaborative: Adult Cohort 1



**Notes: All values are statistically significant (p<0.01)
Cohort 1: Accountable Care Collaborative members who enrolled in FY 2011-2012**

The results of the analysis of total spending by Cohort for adults and children are presented in Figures 5-8. As seen in Figures 5 and 6, the estimates of savings are slightly higher when Denver County is included than when it is excluded. Our preferred specification excluded Denver County because of the member-level selection described earlier. We included Denver County in the analyses of the RCCOs because one of the seven RCCOs was set up for Denver County residents.

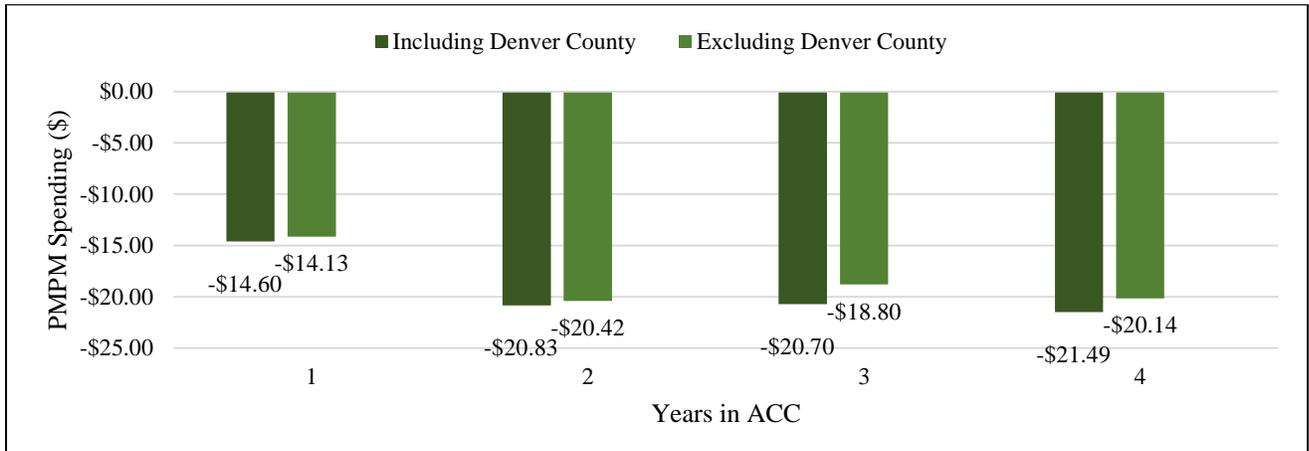
The estimated savings in health care spending were larger for adults than children. However, the reductions were statistically significant for both groups.

The longer that Cohort 1 adults were in the Accountable Care Collaborative the larger the savings. PMPM spending reductions peaked at \$72.23 after four years. There was a slight downward trend in spending on children after the first year but it flattened between the second and fourth years.

Figures 7 and 8 report the estimated savings for Cohorts 2 and 3 adults and children, respectively. Overall, the savings in adult spending were smaller for these Cohorts and it did not exhibit a trend towards greater saving over time. The smaller estimate may be, in part, due to the inclusion of Accountable Care Collaborative-specific trends in the specification. This specification, necessitated by the failure of the Accountable Care Collaborative and FFS parallel trends assumption, assumes that the downward trend in spending among Accountable Care Collaborative members in the pre-Accountable Care Collaborative period would continue into the post Accountable Care Collaborative period in the absence of the Accountable Care Collaborative. The trends in the estimates for children in Cohorts 2 and 3 are similar to Cohort 1. There are slightly larger savings in the second and third year of enrollment.

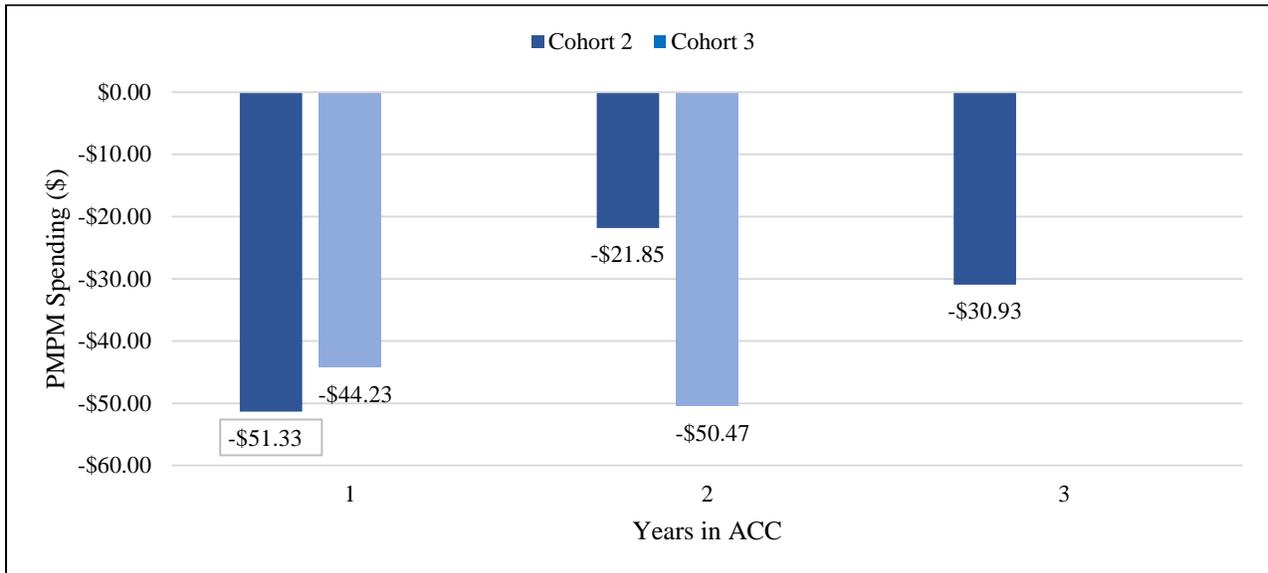
Figure 9 reports the results for MME adults in Cohorts 1-3. The results reveal larger savings in each successive Cohort. The average savings over all four years is statistically significant at the 5% level for Cohort 1 and Cohort 3 and the 1% level for Cohort 2. However, when we calculate separate estimates for each year we find that the statistical significance of Cohort 1 centered on the first two years. In the later years the estimates are quantitatively larger but also much more variable. In contrast the significance of Cohort 2 and Cohort 3 is consistent over time and continues the same trend towards larger savings over time that was seen in the standard population.

Figure 6. Change in PMPM Spending Associated with the Accountable Care Collaborative: Children Cohort 1



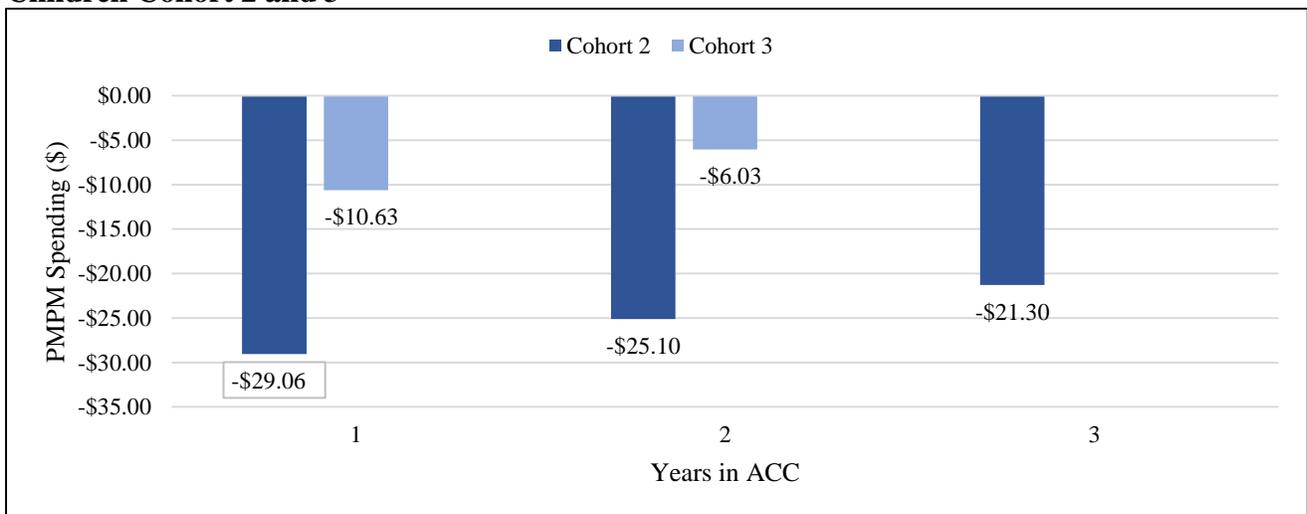
Notes: All values are statistically significant ($p \leq 0.01$)
Cohort 1: Accountable Care Collaborative members who enrolled in FY 2011-2012

Figure 7. Change in Total Spending Associated with the Accountable Care Collaborative: Adult Cohort 2 and 3



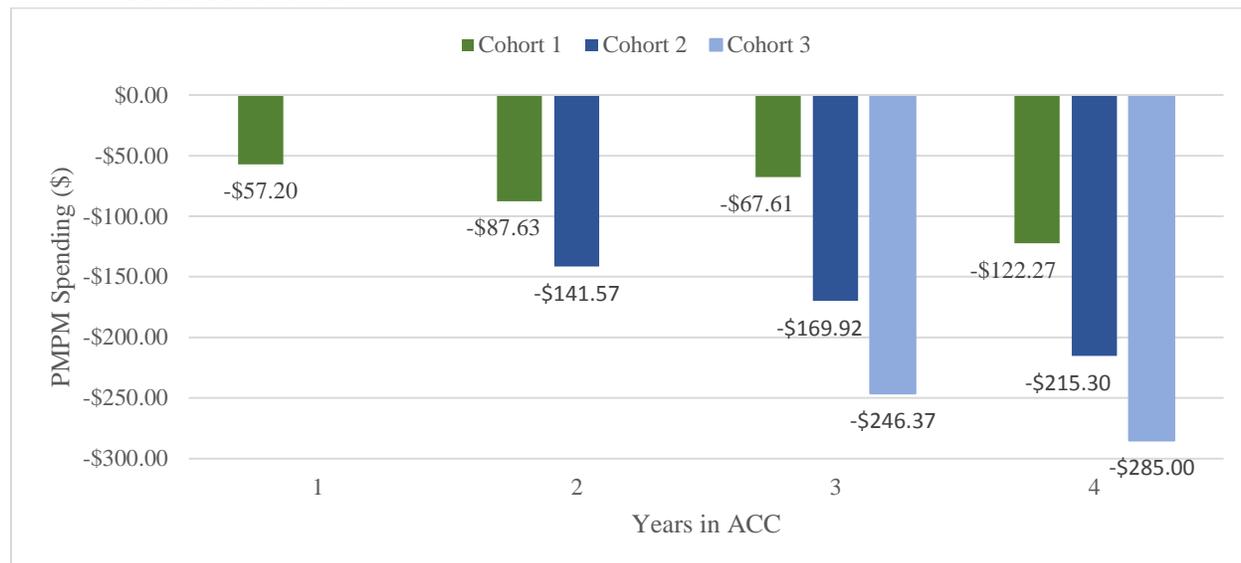
Notes: All values are statistically significant ($p \leq 0.05$)
 Cohort 2: Accountable Care Collaborative members who enrolled in FY 2012-2013
 Cohort 3: Accountable Care Collaborative members who enrolled in FY 2013-2014

Figure 8. Change in Total Spending Associated with the Accountable Care Collaborative: Children Cohort 2 and 3



Notes: Cohort 2 values are statistically significant ($p \leq 0.05$), Cohort 3 Values are not significant
 Cohort 2: Accountable Care Collaborative members who enrolled in FY 2012-2013
 Cohort 3: Accountable Care Collaborative members who enrolled in FY 2013-2014

Figure 9. Change in Total Spending Associated with the Accountable Care Collaborative: MME Adults Cohort 1-3



Notes: Years 1 and 2 are marginally significant for Cohort 1 ($p < 0.10$). All years are significant for Cohort 2 ($p < 0.01$) and Cohort 3 (Year 3: $p < 0.05$ and Year 4: $p < 0.01$).

Cohort 1: Accountable Care Collaborative members who enrolled in FY 2011-2012

Cohort 2: Accountable Care Collaborative members who enrolled in FY 2012-2013

Cohort 3: Accountable Care Collaborative members who enrolled in FY 2013-2014

Potential Mechanisms based on the Qualitative Study

The qualitative study uncovered several potential mechanisms for the declines in spending experienced by Accountable Care Collaborative members. In particular, we found that enhanced care coordination and benchmarking with official Accountable Care Collaborative key performance indicators and other practice and RCCO imposed performance indicators were regularly referenced by practices as elements of the Accountable Care Collaborative that contributed to more appropriate and efficient care and cost savings.

Practices generally shared positive perspectives of the Accountable Care Collaborative. Many stated that the Accountable Care Collaborative has been a step towards further health care reform in Colorado. Some practices shared that the Accountable Care Collaborative has facilitated a larger discussion and coordinated effort toward better communication and integration of several types of providers with the goal of improving care and decreasing costs. Many providers and administrators consistently stated that the Accountable Care Collaborative, along with the RCCOs, have provided an environment that encourages sharing best practices and rewards improvements in care coordination. They expressed that “10 years ago” the landscape was very different and everybody did their own thing without much thought about continuity of care. Practices that have a better understanding of the Accountable Care Collaborative goals demonstrate investment in this larger vision of delivering more effective care, improving health outcomes and controlling costs. However, sustainability of practice transformation efforts is a concern for most of them.

Many providers expressed optimism that the previously unmet needs of their Accountable Care Collaborative members can now be more appropriately addressed by care coordination efforts. For the majority of these providers, they attributed it to the Accountable Care Collaborative program, and more specifically, to the PMPM payments which have enabled them to enhance care coordination. For practices that have not been able to hire their own care coordinator, some mentioned that the RCCOs have provided valuable care coordination to their Accountable Care Collaborative members.

There has been widespread support for the objectives of the Accountable Care Collaborative program which several practices described as being in line with the Quadruple Aim: improving patient experience of care, provider experience, population health and controlling costs. Care coordination was emphasized by many practices and seen as one of the core components of the Accountable Care Collaborative program. Despite their general support of the Accountable Care Collaborative, the vast majority of practices referenced needed changes and frustrations with the program which we discuss in greater detail below.

One practice representative stated, “I think in general it’s been a positive experience for us. And, I’m glad we did it. Initially, I was afraid that it was going to be very bureaucratic and bog down our system, and it pleasantly has not been that...think it would be helpful for them [the Department and RCCOs] to come out more often than once a year. You know, like maybe quarterly or, you know, every six months to come out and review our P3 reports with us. And, to do some chart reviews...it always gives us good feedback about other things we could be doing...they give us insights as to what they’re seeing in other practices. And, that’s really helpful.”

Benchmarking and increased oversight leads to increased effort

Many practices reported significant changes and practice transformation to enhance care coordination in response to various perceived incentives and expectations associated with the Accountable Care Collaborative. These incentives and expectations included, the general objectives of the Accountable Care Collaborative program, key performance indicators, oversight from RCCOs, and numerous practice imposed benchmarks that were not explicitly imposed by the Accountable Care Collaborative or RCCOs. However, it was not always just the incentives and expectations associated with the Accountable Care Collaborative that drove their changes. For some practices, simply having practice data in front of them illustrating their progress provided them with a certain accountability that was lacking prior to the Accountable Care Collaborative.

Practices’ perception of the Accountable Care Collaborative and the approaches used in practice transformation to align with the program varied tremendously across practices. Practices of similar size did tend to share similar perspectives. We found that practice experiences and perspectives generally aligned with the categories of small (150 to < 450 attributed members), medium (≥ 450 to < 5,000 attributed members), and large ($\geq 5,000$ attributed members). Here we report general practice perspectives of the Accountable Care Collaborative by small, medium and large sized practice.

Results by the Size of an Organization and Location

There is a large amount of heterogeneity in the size and the organization type of PCMPs. Some organizations, such as FQHCs, integrated health systems and large multispecialty practices have a large number of members. We hypothesized that the impact of the Accountable Care Collaborative may be different depending on the practice size. We examined the impact of size in both the quantitative and qualitative analyses.

Table 1 includes estimates of the change in spending associated with Accountable Care Collaborative enrollment for children and adults. The estimates are based on Cohort 1. Most of the spending reductions for adults were associated with PCMPs in organizations with greater than 450 members. However, no clear conclusions emerged from the analysis of the association of number of members and spending for children. The reduction in spending on children is significantly larger for very small practices (>150 attributed members) than the other practices in Cohort 1. However, there are larger and statistically significant estimates for adults who have PCMPs in organizations greater than 450 members. Overall this result is consistent with findings of Cohorts 2 and Cohort 3. This implies that the Accountable Care Collaborative may have had a larger impact on primary care providers within large organizations.

These results are partially supported by the results of the qualitative analysis which highlight how practices of different sizes perceive and have responded to the Accountable Care Collaborative. Here we report differences in practice perspective and experience.

Table 1. Change in PMPM Spending Associated with Accountable Care Collaborative PCMP Size, by Age Group

Age Group:	Adults	Children
# Members per Organization:		
Very Small: 0-149	-\$21.44	-\$56.30**
Small: 150-449	-\$34.13	-\$15.03
Medium: 450-4999	-\$54.53***	-\$15.57**
Large: 5000 +	-\$63.67***	-\$13.71

Notes: Statistical Significance: ***p<0.01, **p<0.05, *p<0.10
 Sample: Cohort 1 members (enrolled in FY 2011-2012)

Large Practices (≥5,000 attributed members)

Large practices frequently spoke of the Accountable Care Collaborative and the goals of the program in terms of the Triple Aim of improving the experience of care, population health and controlling costs. These large practices spoke of an alignment between the objectives of the Accountable Care Collaborative and existing efforts at their practice. Some of the large practices stated that joining the Accountable Care Collaborative had little or no impact on care coordination or other practice transformation. These tended to be delegated practices serving large Medicaid and uninsured patient populations prior to joining the Accountable Care Collaborative. As such, they had gone through considerable practice transformation to better serve this vulnerable population years before the Accountable Care Collaborative and much of this transformation

aligned well with the Accountable Care Collaborative. This partly explains why some of these practices stated that they did not benefit from being part of a RCCO and would like the ability to contract directly with the state.

One representative from a larger practice stated: “No, I don’t think it [Accountable Care Collaborative] has [had an impact]. I think...it’s [RCCO] another layer of bureaucracy. I don’t think that our providers or care coordinators would feel that they get a tremendous amount from the RCCOs...we were already doing this work and we have to document that a lot of what we do, in order to meet the requirements of the RCCOs but I think from [our] perspective we don’t see that we have added resources by being part of the RCCO.”

Another large practice provider and administrator said: “You know, they’re [RCCOs] administrative bodies...So, what do they do with the money? ...we know they get a PMPM for every single patient. And, they pay us part of that, but...absolutely for sure, they’re making money hand over fist on that program and anything that doesn’t go to direct patient care or really good data management is—I would argue—squandered dollars. So...region [number] is what I would consider a model ACC [RCCO]. Everything they’re doing is to try to, you know, reach the goals. Regions [number] and [number] [are] working to reach the goals, but I think they’re also paying very close attention to, you know, amassing the reserves and insuring their own financial viability for whatever happens in the future. And, region [number]...I think they must be sitting on like a gold mine because...they put hardly any money back into it. So, let me sum that up...You know, there’s money that the state has allocated to healthcare dollars. And, a big chunk of that is sucked off into the administrative overhead of the ACC [RCCOs]. I think, personally, big enough healthcare organizations like ours should be direct contractors with the state. We don’t need a middle person doing anything for us. The ACCs [RCCOs] should just be there to help assist the small practices...But, the big healthcare systems, we don’t need an intermediary. It’s just totally administrative overhead that’s wasted dollars.”

Despite the sentiment among large practices that they were already implementing many processes that aligned with the medical home model prior to joining the Accountable Care Collaborative, some stated that specific elements of the program were helping them to further develop and implement practice transformation to facilitate the Triple Aim.

One large practice noted “I would say the number one thing we needed to do [after joining the Accountable Care Collaborative] was come up with a...care management system for our care-managed patients... And then, we hired a lot of care managers and developed a pretty robust care management system within our EHR. And so, the patients were getting a lot more care after we took over than they were when the RCCO was doing it.

In general, issues raised by large practices included increased administrative burden and variability in reporting requirements between the RCCOs. They also noted that the current PMPM is not enough to sustain the level of work envisioned by the Accountable Care Collaborative program. The vast majority of large practices have the scale and sometimes access to other funding sources that support their ongoing transformation.

Medium Practices (≥450 to < 5,000 attributed members)

Medium practices expressed an alignment between their own objectives and the Accountable Care Collaborative. Their belief in the medical home model and desire to systematically pursue medical home status were stated as reasons for joining the Accountable Care Collaborative. They perceived the RCCOs' ability to help them pursue medical home recognition as an asset of the Accountable Care Collaborative program. They frequently reported significant practice transformation associated with the Accountable Care Collaborative. Examples of practice transformation included: hiring additional care coordination staff and other practice staff, integrating in-house behavioral health specialists, new information systems such as decision-support tools or care coordination systems, and improving Electronic Health Records (EHRs). As with large practices, medium practices consistently stated that the PMPM is insufficient to cover all practice transformation efforts. The practices that report making the most progress in their transformation efforts and have more well-developed care models frequently report supplementing the PMPMs with substantial outside grant funding.

One representative from a medium practice stated, "...we really got involved back in 2011. And, it just aligned very much with what [practice name] already offers in terms of the triple-aim, looking at some of our outcomes, costs and patient experience around how care coordination was offered...And so, it just opened an opportunity to actually get reimbursed and elevate some of that work and increase our resources and staffing."

In response to how the Accountable Care Collaborative has impacted the practice, one administrator said "Oh, wow, a lot. A lot of it has been we feel much more well-informed. We've changed a lot of processes in how we approach or react to patients. I felt previously that we were very reactive. We waited for patients to tell us they had been to the hospital. We didn't have a lot of data to support it. So, I feel like now, a lot more proactive in our approach. So, we have really changed the format of how we develop caseloads, our method in doing our risk assessments, as well as how we are viewed, I think, within our own practice. The clinic really functions just on a provider-driven methodology and integrated behavioral health quite a bit. And now, we're at a point where we are very strongly integrating care coordination. So, the care coordinator, essentially our social worker, I think, through the ACC efforts, is now deemed a strong member of their team. They have a lot of information, they have a lot of knowledge of what's going on with a patient to better inform the medical provider and the behavioral health providers care."

Sustainability is a concern, especially for small and medium practices. They have made significant investments in their EHR systems and other electronic systems as well as expanding their human resources in order to meet Accountable Care Collaborative goals. One of the practices mentioned being "passionate and invested" in the Accountable Care Collaborative program, but also shared that the implementation could have been better planned and more gradual, especially for medium and small practices.

On this point the administrator said: "It [Accountable Care Collaborative] made us more aware of the patient. It made us walk. We've been doing the talk. We are all out there talking but now we have to walk the walk and we have to actually care coordinate and

manage care and be a medical home. It is difficult to put it all together and get everybody on board...the providers have to take extra time to write care plans...get all the staff buying into it and...you are telling a minimum wage receptionist that she has got to pay attention to who is in the RCCO and who is not and why she needs to attribute them...We have to prove we [are] getting kiddos in here for physicals, and so I think it's good overall, but I think it's too much too soon and that is why everybody is in a state of chaos.”

Small Practices (<450 attributed members)

Small practices had the greatest variability in their reported perceptions and knowledge about the Accountable Care Collaborative. Most of the small practices communicated a lack of knowledge about the Accountable Care Collaborative. Many of them were not able to report which RCCO they belonged to. They have limited or no contact with their RCCO and do not know who to contact for support. They voiced frustration in the lack of communication with RCCOs, as one stated, “getting emails and letters really isn’t enough.” Some indicated a preference for “more direct feedback and more practice-related feedback. Also, that ability...to...talk us through some of the data.”

It was more common for small practices to report that their care coordination activities were still being developed or not well developed. Some stated that they were engaged in care coordination activities but were not able to elaborate on what those activities were. They described care coordination as “we all do it” but they did not seem to grasp the full concept of care coordination. Some small practices reported that the Accountable Care Collaborative program has not had a major impact on how they operate and that it is not a priority for them at the moment.

One representative from a small practice stated, “I didn’t even know it [RCCO] existed until you just said something, so...Besides the signing up, I don’t think they’ve been out very much to follow up on us or see if we need additional help. I do know that they’re there, but I mean, they don’t routinely come out.” When asked if she would be interested in having a contact at the RCCO, she said “Yes...I would...because I would like to know what else you guys [RCCO] can help us with.”

Another said “Yeah, nobody’s [from the RCCO] ever come out or said, ‘We have this new...’ or something...as far as anything else... I mean, the lady who signed us up was pretty much signing us up, and that was about it.”

A subset of the small practices demonstrated strong knowledge and familiarity with the Accountable Care Collaborative program. Smaller practices that had joined were more likely to have done so due to one-on-one conversations with RCCO representatives or because they were already involved in Accountable Care Collaborative activities. One small practice in particular communicated enthusiasm for the Accountable Care Collaborative, monthly meetings with their RCCO and ongoing integration of care coordination activities. Unlike larger practices who discussed hiring additional staff to expand care coordination capability, this smaller practice discussed the addition of care coordination duties to existing staff in the practice. Many of these small practices indicated that in addition to the extra PMPM payments and alignment with their

care model, access to community and care coordination resources were the major reasons for joining the Accountable Care Collaborative.

They also shared a desire for more reporting and measures that were aligned with private payers. The administrative burden of reporting was a concern to them and given the small proportion of their patient panel that was Accountable Care Collaborative members there was a hope to keep things streamlined.

As one practice stated, “I think they need to be sensitive to how...insurances are trying to move towards value metrics. What’s really hard on a primary care practice is if there’s eight different payers that are asking for different metrics...there’s a lot of things initially when the ACC started that mirrored the meaningful use criteria, which many of them weren’t relevant to kids or private practices. And they need to be sensitive to having offices do things that are actually helpful and meaningful with the alignment of those metrics.”

Flexibility and appropriateness of measures for a practice’s patient population was of particular concern for small and medium practices and was more pronounced in pediatric practices. The heterogeneity of their patient populations, particularly in terms of insurance types, may contribute to this concern.

Pediatric Practices

Pediatric practices of various sizes reported experiences with the Accountable Care Collaborative that were generally in line with other practices of comparable size with some notable exceptions. Pediatric practices of all sizes consistently stated that the Accountable Care Collaborative and the corresponding activities of the RCCOs are designed for the adult population. This results in guidelines, processes and KPIs that are not well aligned with pediatric populations. Some of the pediatric practices interviewed noted that their RCCO acknowledged this misalignment. With the support of their RCCOs, some practices have developed their own guidance that is more appropriate for pediatric populations.

One representative from a pediatric practice stated, “...we have made that recommendation multiple times to the RCCO to say that you need to separate processes for adults and processes for children because they are not the same...And I believe that is coming because we’ve said it so many times over the last year.”

Another stated, “I would say overall that we have had a great experience. The folks we worked with at [RCCO name] and with the department has been...very responsive. We really appreciate the flexibility as a delegated practice and being allowed to have the flexibility to build a program that they think is a success for our patients and their families and the openness ... how do we meaningfully evaluate the impact we are having and so I think that has been a great experience overall. I think that where the challenges lie is with the IT systems changing. [We] keep thinking about care management for all different kinds of populations and so like we said multiple times it is just a matter of making sure that we continue to think about ... serving kids versus adults.”

Practices in Urban, Rural, and Frontier Counties

Organizational size is highly correlated with the urbanity of the location, therefore, we analyzed the data based on whether a member resided in an urban, rural or frontier county. We found that there was a large average reduction in spending on adults in urban counties of \$68.83 PMPM (Table 2). The reduction in spending on adults residing in rural counties was \$32 PMPM ($p < 0.10$). There was not a statistically significant reduction in frontier counties. This result may be due to relatively few members residing in frontier counties. Reductions in spending on children was even more concentrated on residents of urban counties where there was an average reduction of \$20 PMPM. The estimates for children residing in rural and frontier counties were quantitatively smaller (about \$6 PMPM) and were not statistically significant.

Table 2. Estimated Change in PMPM Spending Associated with the Accountable Care Collaborative by Residence

	Adults	Children
Location:		
Urban	-\$68.83***	-\$19.85***
Rural	-\$32.25*	-\$5.75
Frontier	-\$28.69	-\$6.72

Notes: Statistical Significance: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$
 Sample: Cohort 1 members (enrolled in FY 2011-2012)

Care Coordination

Care coordination varied by practice size with larger practices tending to devote more resources and discussing larger and more elaborate care coordination efforts. Sometimes larger practices stated that their care coordination infrastructure was already in place prior to the Accountable Care Collaborative. Several medium sized practices reported substantial practice transformation activities to facilitate care coordination. They were more likely than large practices to attribute some practice transformation activities directly to the Accountable Care Collaborative. Small practices sometimes stated that their care coordination activities were still developing or were not able to provide specific details about their care coordination activities. Small practices reported the smallest changes with some reporting no change in care coordination activities pre and post Accountable Care Collaborative.

Care coordination was recognized by virtually all practices as a key component of the Accountable Care Collaborative but was conceptualized in various ways. Small practices tended to have the narrowest stated definition of care coordination with a focus on the medical aspects of care coordination and the specialist referral process for members. Medium sized practices’ definition tended to be broader with more discussion of the “social determinants of health.” Large practices tended to have the broadest definition of care coordination with a focus on pursuing the Triple Aim and National Center for Quality Assurance (NCQA) Patient-Centered Medical Home (PCMH) goals. These practices tended to have the most formalized models and team-based processes in place for care coordination. Despite the variation in how care coordination was conceptualized, many practices highlighted the same benefits of improved care coordination. These benefits included the reduction of unnecessary utilization, addressing social needs and improved outcomes for patients.

One practice stated, “We are very actively engaged with a lot of other community partners in trying to get a handle over our high utilizers, meaning those patients that are in and out of the hospitals, ERs on a frequent basis, so that, um, maybe they don’t know any better. Maybe we just need to educate them how to utilize those services better, but we are all going to be held accountable for trying to control that cost. So, there’s a whole alliance formed over the last year to try and figure out a better way to deal with it.

Another practice stated, “In some of our populations, we’re starting to see some ER utilization drift down, and it’s been wildly popular with our patients. I mean, they appreciate being called. For the most part. Especially because it’s us calling, it’s our practice, you know, it’s our doctors’ office calling them, not some insurance company or something.”

Several practices specifically recommended that the Accountable Care Collaborative develop a more standardized definition of what care coordination is as a way to deal with the variation and uncertainty. The existing NCQA PCMH standards were sometimes given as an example of a recognized and consistent standard for care coordination. Some practices noted that they already had NCQA PCMH recognition.

One practice representative stated, “How do we define care coordination. I think we define care coordination in a very different way than other people do. I think that is a critical question that we as a healthcare system need to answer. What is care coordination and what does that definition look like... but care coordination is, at this point in healthcare, really kind of an ambiguous term that does not have clear definitions.”

Another practice stated “My one final thing is when we define care coordination, let’s use a standard that already exists. Like, let’s use the PCMH standard or the NCQA standard, you know? I think instead of the RCCO creating something on its own, it should work towards creating something that the rest of the, you know, medical community is moving towards.”

Although the concept of care coordination was supported across practice size, the value of NCQA PCMH recognition varied by practice size. While all seemed to suggest that the recognition process was somewhat “cumbersome”, medium and large practices experienced greater value in the recognition through payment negotiations and “the ability to be a major player in the population health management arena.” While small practices were more skeptical of the value of such recognition, they did find value in the Accountable Care Collaborative goals, as one practice stated, “I felt like [the Accountable Care Collaborative and RCCOs] were...looking to offer resources and try and help out. It certainly felt a little more personalized than the NCQA process.”

The challenges in balancing standardization (e.g., NCQA PCMH standards) and personalized care coordination were discussed by all practice type sizes. Small and medium size practices identified some of the care coordination activities they provided:

“For our offices, care coordination is basically working with any patients who have identified barriers to good health. And so, whether it’s finances or education or community resources or mental health, substance abuse... So, basically, any barriers to them feeling their best is who we work with, and we work to kind of ameliorate those barriers. So, with the idea that, if we get rid of those barriers, that reduces utilization and improves outcomes.”

These activities tended to be on a more of a case-by-case basis and they generally had fewer standardized or formalized processes in place for care coordination. It was often up to the individual health care provider to identify the needs during a patient visit.

In contrast, large practices often had team-based care coordination (e.g., patient care pods) or other formalized processes for identifying and caring for specific needs of a patient. In spite of these standardized and formalized processes some large practices still voiced a concern for more unique or complex situations, “I think we do a very good job on the...standard care coordination, and we have room for improvement on complex care coordination.” Creating standardized processes that still allowed for flexibility based on patient population and practice variables was a concern across practice size.

Practices of all sizes stated that the primary mechanism to financially support care coordination was the PMPM which many supplemented with outside grants. Partially as a function of the smaller member population, small practices were more likely to feel that this PMPM was not sufficient to cover their current care coordination activities or to expand their care coordination activities. Those in medium and large practices were more likely to feel the PMPM helped supplement their care coordination activities or expand those activities but still worried about the sustainability of such activities given the PMPM payment amount.

The specific models of care coordination varied and included focus on:

- High risk patients (high utilizers, several co-morbidities, high-cost)
- Specific topics or diseases
- Integrated care coordination teams dedicated to groups of patients
- Ad-hoc linkages of patients to other services

Several interviewees expressed their desire to expand the care coordination model to all of their patients, but were currently unable to due to limited human and financial resources. Some practices spoke of care coordination within the context of better integration of care with specialty care (e.g., integration of behavioral health in the practice). Across practice size, access to specialty providers was identified as a challenge. However, those in small and medium sized practices voiced greater concern than larger practices. Behavioral health specialists were identified most frequently when discussing access to specialty care concerns. Those in rural communities were less likely to have access to such providers. A few of the smaller practices did have some behavioral health component within the practice but they tended to have collaborated more frequently with community partners to provide such care.

As one small practice stated, “Behavioral health is a mess, in general. And has been for a long time. So from that standpoint, actually, what we have done is outside of the RCCO now [collaborating] with [mental health center]. And they approached us... They had come up with a collaboration agreement and plan... she is just seeing our patients or our patients’ families, including Medicaid. So that’s been outside the RCCO and has just in the six months we’ve been doing it really dramatically changed our access to behavioral health, which previously was a disaster.”

In our sample of medium sized practices about half had some behavioral health integration component. The majority of those activities were grant funded and as such the financial viability of such endeavors were of concern to the practices. They also identified the large number of mental health providers that did not take Medicaid as an issue of concern.

As one practice said, “we’ve identified these families that need support, and the ones that are Medicaid, we don’t really have anywhere to send them. The mental health center is overwhelmed and not really making changes to accommodate them.”

The majority of the large practices had some sort of behavioral health component within their practices. However, even within large practices there were issues with Accountable Care Collaborative members accessing such behavioral health care provision.

One stated, “You know, we can’t use our own behavioral health system for our Medicaid members. We have to refer them out to the behavioral health organizations. So that is very dissatisfying to our providers who are used to having all that within our system.”

And another discussed how it would be helpful if the RCCO “could build a stronger specialty network for Medicaid patients.” Across practice type, determining specialists that accepted Medicaid was an issue in providing adequate care coordination to clients.

Some practices talked about coordinating non-medical resources for members to address the “social determinants of health”.

One interviewee stated, “Finally, I think as a system, we are realizing that the social determinants of health are in fact an essential element that must be addressed with respect to an individual’s healthcare... I don’t want to equate that only to the ACC and the RCCO model, but I think that it is certainly something that has been emphasized and we are moving away from doctor-centric and clinic-centric to a community-centric, and this has got to be something that all members of the community are participating in an effort to best respond to the individual needs of each patient.”

Some practices have hired care coordinators to help link members to specialists and social services (e.g., housing, food banks, health education, etc.).

One practice representative stated, “I think our definition of care coordination is really the hub of what drives a patient’s health and wellness. We’re making sure that all the dots are connecting for that patient. So, not just looking at their health when they come into one [of] our clinics, but really looking at the whole person... What are their needs

socioeconomically? How can we help in adjusting some of the educational needs or barriers that may be there? So, we really try to not just be the hand-holder or enable a patient through providing the services for them, but we take very much on the approach of, ‘I’ll help you get linked in and navigate the healthcare system, but along the way, I’m going to teach you how to do it yourself. So, in the future, when you need a resource or when you have a need, you actually know how to navigate that.’”

Another said, “[practice name] is a...Level 3 Patient-Centered Medical Home. All of the care is rendered by teams of providers, and a care team consists of probably three primary care providers, so a mixture of physicians and nurse practitioners, PAs, and a behavioral health professional, a case manager,...three MAs, the front desk, medical records, a portion of a referral case manager and then a dental... A portion of a dental hygienist, portion of a registered dietician.”

Practices reported great variability in how they utilized patient navigators and care coordinators but they generally stated that in-house care coordinators and behavioral health specialists are more effective. The ability to have in-house care coordinators was influenced by practice size and requires a minimum scale of members.

One practice representative stated, “And, we felt that we have had experience before where entities have come in and tried to do care management for our patients, but externally. And, that didn’t work well. So, we were very committed to making sure that...If there was case management or care coordination to be provided to patients that we would be the entity doing that.”

While the majority practices express enthusiasm for in-house care coordination, some smaller practices expressed a preference for RCCO-based care coordination. The practices that expressed enthusiasm for RCCO-based care coordination tended to have less developed internal care coordination infrastructure and processes and many stated that the RCCOs had the expertise and resources to provide a level of care coordination that the practice did not.

One practice spoke about the benefits of RCCO provided care coordination, saying, “Having a go-to person for questions or help has made it a lot easier for us. There was a time that we couldn’t check eligibility, find out information on past care for a patient, but having that access...when you’re frustrated...it helps a lot to have that care coordination or someone to go to and say, ‘Look...we are struggling to find a specialist. We are struggling to find what’s going on with this patient. We’re concerned about this patient because Baby hasn’t come back in for a well-child check.’”

However, there were others that felt that RCCO-based care coordinators did not always understand the communities they served. This was particularly the case in rural and frontier communities.

As one small rural practice stated, “[F]or example, there was a patient of mine...who lived in a town that’s an hour and a half away. And, they went to the [Hospital name]. And, they had a variety of medical conditions. And, the [Hospital name] care

coordinator, who is part of the RCCO system, scheduled that patient to come to [town], which is another hour away from where the patient lives, so an hour and a half away, when there was a family physician, who's really just 10 or 15 minutes from the patient's house. And, because that RCCO coordinator didn't truly understand the geography, the demographics and where these towns are and how they're, how they fit in Colorado, this poor guy felt that he had to drive an hour and a half to... establish care with someone who he's never gonna see again.

He went on to state, "You know, unless you live here, you don't understand how the town works." Understanding the member's community of care resources and a providers' member population was important to providing optimal care coordination. Those that did not use RCCO provided care coordination often appreciated the flexibility in creating their own care coordination models.

As one small practice said, "So rather than [the Department] or [the RCCO]...telling us exactly what we needed to do, or just... hiring a care team or something like that, they have given us the flexibility to develop a model for our community, which has been more... behavioral-health focused because we know that... most of the high needs folks that we work with have comorbidities and they have behavioral health needs and what not."

The fact that RCCOs allowed practices some flexibility in care coordination models while acknowledging that they are all sharing the goal of optimal care coordination for their individual member population in their particular community has been appreciated across practice size.

Care Coordination: Access to Non-medical Community Resources

As discussed above, many practices felt the care coordination aspect of the Accountable Care Collaborative was one of the most valuable components of the program. The RCCOs were often cited as integral to the provision of comprehensive care coordination. They indicated that RCCOs and their care managers were able to help them find non-medical community resources they may have been unaware of previously. Medium and small practices were most likely to feel that the RCCO directly contributed to their awareness of such resources.

As one stated: "the RCCO...[supported] us with care coordination; with coordinating care in either community resources and also in behavioral health...they have an employee who actually used to work for us who...[identifies] community resources that we could...offer...to a patient, including transportation, food"

Smaller practices often relied on their providers or care managers to be cognizant of all the available resources. In some cases it was a combination of all types of staff that helped identify available community resources. One practice explained that providers may not be aware of the available resources but "but their desk staffs [are]. And, they're the ones that can help with some of these resources." Many practices perceived their communities and patient populations to be unique. As such, they often felt that case managers living within the community were more able to help clients access appropriate community resources. Smaller practices were less likely to

consider non-medical resource support as part of their definition of care coordination and relied on RCCO support when such need arose.

There were several practices that were exceptionally engaged in their communities and thus able to be fully engaged in the provision of non-medical community resources to their patient populations. These practices were less likely to feel RCCO support was needed in this aspect of their care provision.

As one practice stated, “Within our region, we formed this sort of very local, community-centric group of care managers, I feel like our care managers are already really well-connected with the community...I feel like locally here, things are already going quite well because...of the nature of this being sort of a community-driven process to develop this team to begin with.”

Larger practices were also less likely to feel that they needed RCCO support to provide community non-medical resources to their patients. They explained that their care coordination teams and systems often already included such resources. However, they still felt the Accountable Care Collaborative had an impact.

One practice discussed the impact of the Accountable Care Collaborative, “It’s hard to directly attribute to the [Accountable Care Collaborative] Program because we’ve done a lot of practice transformation in general for a number of reasons. But, I would say, one of the biggest pieces is how we work with the care team and really [link] folks now to community resources, rather than just medical resources.”

One of the assets of the Accountable Care Collaborative program has been to get providers and practices to carefully consider the comprehensiveness and value of their care coordination efforts.

Care Coordination: Related Quantitative Findings

We analyzed the type of spending by location to shed light on the potential impact of care coordination. It may be that care coordination reduces the need for hospitalizations, unnecessary duplication of outpatient services and improved medication management. Table 4 reveals that reductions in spending on adults averaged \$25 PMPM in outpatient settings; \$22 PMPM in inpatient setting, and \$15 PMPM on pharmaceuticals. The reduction in outpatient spending was concentrated in outpatient hospital settings. Much of this was due to reduced utilization of outpatient hospital facilities, but there was also a reduction in spending during a visit. Reductions in spending on children averaged \$12 PMPM in outpatient settings and \$8 PMPM on pharmaceuticals. There was not a statistically significant change in spending in inpatient settings for children.

Use of Statewide Data Analytics Contractor (SDAC) and Practice Analytics Capabilities

The majority of practices understand that SDAC data is derived from claims data which means there is an inherent time lag in the data provided to them. The majority of practices recognize the

Table 4. Estimated Change in Spending Associated with the Accountable Care Collaborative, by Setting and Age Group

	Adults	Children
Setting:		
Outpatient	-\$25.46***	-\$11.75***
Inpatient	-\$21.99**	\$4.06
Pharmaceutical	-\$15.07***	-\$8.23***
Within Outpatient Setting:		
Outpatient Clinic	-\$2.03	-\$5.07***
Outpatient Hospital	-\$22.12***	-\$6.05*
Outpatient ED	-\$0.98**	-\$0.06
Home Health	\$0.50	-\$0.79
Other	-\$0.83	\$0.22

Notes: Statistical Significance: *p<0.01, **p<0.05, *p<0.10**

Sample: Cohort 1 members (enrolled in FY 2011-2012)

value of using high-quality timely data in care coordination and decision-making but reported struggles with making SDAC data actionable in the practice. Some medium and large practices that are more sophisticated with data analytics stated that inappropriate attribution and significant time-lag effectively make SDAC data unusable. Related to the time-lag issue, one practice representative stated, “How can we address 30-day hospital readmissions if our data is 90-120 days behind?”

Another practice representative stated, “So, a couple things I would say is that the difficulty with the data is, of course, it claims data. So, it’s not always actionable data. However you manipulate the claims information, because it’s old information, unless it’s overlaid with the information from the medical record, it’s hard to drive action on it because it just frustrates case manager who are reaching out for supposed gaps in care that don’t exist...Unless it’s really overlaid with our own data, it’s difficult to make that actionable, I would say.”

Many practices noted that members they do not see are attributed to their practice and that members that are seen by their practice are not attributed to them. Several pediatric practices also noted that adult members were inappropriately attributed to them. Even among the practices that valued the data from SDAC, workarounds were sometimes put in place to extract relevant data from SDAC for members of the practice. Some of the practices we interviewed discussed identifying members in their practice’s EHR system first and then supplementing information extracted from the EHR with data from SDAC for activities such as identifying high risk members for focused care coordination activities.

One practice representative stated, “Well, it’s [combining SDAC data with EHR] a manual process, unfortunately. So, it’s dumped into a business intelligence tool, and then we’ll pull something like our high utilizers or pull patients who look like they might have had a gap in care. And then we’ll—at the same time—run reports on their record so that the business intelligence tool is mining information from the medical record to show the last visit and to show whether or not a patient was up to date on certain standards of care...we’re looking for a solution where there’s something that somehow can combine a little more elegantly and easily information and make it actionable in a way that a case manager could use it without a whole lot of...”

One practice went through an effort to follow up with all SDAC-generated members, after doing some data reconciliation with their EHR system. Some of the issues they encountered were: outdated phone numbers, members who never saw a provider at the practice, members getting confused and frustrated by the call, among others. Some smaller and medium sized practices wished there was a better way to integrate SDAC data with information on their whole patient population. Those practices served by several RCCOs also discussed a need for some integration of these data to identify how their care coordination activities affected their entire patient population.

Many of the small practices stated that they did very little or nothing with SDAC data because they lacked the resources and capacity to effectively digest and utilize it. They talked about their need for additional support from their RCCOs on how to use the data. Other practices reported stronger support from their RCCOs in navigating SDAC data including trainings and SDAC reports. Practices that reported valuing RCCO-generated SDAC reports frequently spoke of those reports as useful for benchmarking performance on a monthly or quarterly basis as opposed to integrating the reports into existing real-time care coordination efforts. Some of these practices also stated that the RCCO-generated reports did not come on a regular schedule.

Need for practice education on data analytics

Large practices that reported having greater capacity and greater utilization of SDAC and other sources of data stated that they need additional education and training on how to best use the data.

A practice that puts effort into using SDAC data stated, “I would disagree with maybe it’s an assumption that we don’t struggle with data because we still do struggle with data. I think the SDAC is a claims based system. It has historical data, and we are looking at people whom we are assuming are attributed to us, but that is not always the case. I think that better understanding data is something that needs to be part of all of our continuous quality improvement plan. Although we have tried to make sense out of it, I think there is still a lot of uncertainty as to the reliability of SDAC data and certainly has to be real time accuracy of it. For example, I still don’t fully understand how somebody determines what an individual clinical risk group score is. I understand on a sort of basic definition level what that is but I think TREO and 3M, they haven’t fully revealed what a clinical risk group score means, and there is a lot of other really important data elements in the SDAC, but I think they can get sort of clouded or diluted in just the sheer quantity of data that is available there, which I think is sort of a catch 22. It is really, really great because there is so much

more data available to us now than there ever has been historically. However, with all of that data comes some confusion with what do we really look at, what does the department care about, what do the RCCO's care about, and what do we care about.”

Access to Real Time Hospital Data

RCCOs

A few practices described a process through which they receive hospital data via their RCCO, sometimes on a weekly or monthly basis. However, this seemed ad-hoc and inconsistent, which is a source of frustration for practices. This lack of access to real-time hospital member data has been a major challenge for the practices that are trying to align their efforts and processes to achieve the KPIs. When they do receive information from their RCCO, it is usually in an e-mail/member list format.

An administrator at a FQHC stated “...I think that the number one concern that we've had since the beginning has been that the department's data is based on claims and claims are anywhere from 50-90 days old. If we are trying to reduce 30-day hospital readmissions based on a claim that happened 90 days ago, obviously, we have missed our opportunity, and so I think the RCCO's are now receiving admit, discharge, and transfer data from hospitals. There is no standardization process to my knowledge across RCCO's to distribute that information to practices, and so we get data that is sent to us in encrypted emails from [RCCO name] and it comes to us in very different formats and it has varying levels of reliability, and so it is just another example of what my biggest request would be from a data standpoint, and that is standardization and timeliness with respect to generating more real time claims data as opposed to historic data.”

Hospital relationships

A few practices have built relationships with local hospitals and sometimes receive patient information directly from the hospitals. However, there appears to be inconsistency in this approach as well. For example, one pediatric practice has a good relationship with Children's Hospital, and the hospital sends a list of patients who called the ED but were unsure if they should go to the ED or their PCMP. This list is shared on a daily basis. The practice then calls the patients to follow up and schedule appointments, sometimes avoiding unnecessary ED visits. This same practice also works with Rocky Mountain Hospital for Children, but it seems that their relationship with Children's Hospital is more well-established.

One practice representative stated, “Well, obviously, here within the organization, it's super easy to get information. From the other hospital that's local, [hospital's name], they're pretty good about sending us information. Or, if we call and request it, then they get that to us. As far as timely response, I think it's a matter of who's working that day, you know? And, if it's a...if it's on the top of their list of something to be done or not...I think there's always room for improvement in that regard as well.”

Practices that have access to real time hospital data, especially on ED visits, are diligent in using the information to follow up with their patients (e.g., to schedule follow up appointment with their

PCMP, connect them to a care coordinator or social worker if there is one, etc.). Practices stated that it would be very helpful to have a more formal process for sharing patient information with hospitals. In regards to sharing data with hospitals, one practice representative stated, “it’s more luck than a real process”. Some practices think that the RCCOs or the Department could take a leading role in formalizing this data sharing, especially because two KPIs rely on better communication with the hospitals (i.e., ED visits and 30-day hospital readmissions).

Practices associated with integrated delivery systems

A small number of practices that we interviewed are part of larger integrated delivery systems that include hospitals. They described their use of patient ED visit and hospital discharge data to provide care coordination and proper follow up for their patients. The data sharing was generally described as “easy” since they were all under one system and did not have to rely on their RCCO.

One administrator stated “We use the SDAC when we need to find out who has been to the emergency room that is not an [integrated delivery system name] emergency room and that’s about it because we pull all of the same information out of our own EMR. Yes, we are on our hospital system’s EMR, and so it is ten hospitals, 300 clinics throughout four states.” This same interviewee said “I don’t think [SDAC data is] timely enough. It has on there, you know, patients with ED utilization but the last ED visit the SDAC shows is 90 days ago and that does not help me know if the patient went to the emergency room last week.”

One practice described a system used in the ED which automatically generates and sends an e-mail to PCMPs when patients are admitted. The case manager is included on this e-mail. The case manager talked about another system they can check to get information on patients discharged from the hospital. This case manager works “very closely” with the hospital-based social worker to help coordinate care for discharged patients.

This case manager stated, “And, it’s not the greatest system ever, but we make it work. So, one of the ways is that we’ve got an email system called iDoc that, when patients are admitted either to the med/surg floor or are seen in the emergency department, then that’s recorded in the system. And, then the system generates an email, and that’s sent to the primary care physician and then I’m tagged on all of those emails as well. So, that’s one way that we find out that a patient has been admitted and discharged.”

The case manager said their system is not ideal as they’re likely not capturing all the patients who may need care coordination. She said there are “too many systems” to check. These practices don’t have access to hospital data from other local hospitals that their patients might go to, unless they have established some sort of relationship with the hospital. As described above, this mode of data sharing is usually inconsistent.

Colorado Regional Health Information Organization (CORHIO), Quality Health Network (QHN) and PedsConnect

A few of the practices interviewed have access to the State’s main health information exchange (HIE) platforms (CORHIO and QHN). Ideally, some practices need access to both CORHIO and

QHN as their patients are seen in hospitals in areas covered by both platforms. A few pediatric practices we spoke with have access to PedsConnect, a pediatric population-specific HIE platform that gives providers access to Children's Hospital data. Currently, PedsConnect, is only available to 16 private practices (as of 2015).

Practices that have access to real-time systems such as CORHIO spoke very positively of the access to timely patient data. A common example presented by practices with CORHIO was timely notification of a patient being seen in the ED and the ability of that practice to have access to medical records. These practices reported being able to provide more timely follow-up which they perceive to have decreased ED utilization among their patients.

Practices connected to CORHIO frequently noted the cost associated with obtaining access to the system. Practices that would like to have access to CORHIO and QHN cited costs as one of the main reasons why they still have not signed on.

This administrator stated the benefits of both SDAC and CORHIO, "I think the implementation of CORHIO was key because we were relying so much on SDAC for making real-time, current day decisions, and SDAC is a great tool for doing trend studies and retroactive pieces, but we really need something to drive what's happening right now, real time. So, CORHIO was a game changer in terms of getting that level of data."

These points are well summarized by two medium practices, "...And then, the SDAC data, you get monthly. And, you know, I'm sure you've heard this from everyone, which is having 90 days in arrears data is not exactly the biggest help, but it's data... You know, it gives us access to who's on our critical list, who's been in the ED. And then, the other thing that's really helpful is we participate in CORHIO, and so we're getting real live, you know, real time information about our patients that pop into the ER that we don't know about. So, that's another piece of data that's really helpful."

"I think the biggest issue has been money. So, getting connected to the HIE has been covered by grants and what not, but then beyond connection, it's that monthly fee. So, in our region, most of the providers are connected to QHN, and the monthly fee has just been kind of a holdback for our hospitals in making the connection. And then, the other piece is... So, here in [location], we actually have [X] Medical Center, and they have had a contract to be connected to QHN for a few years, but it kept getting delayed because of the functionality of QHN. It just wasn't what they really needed... So, rather than spending time getting connected to QHN, the hospital just built their own... So, that's one of those things where it's like, it just kept getting put on hold because it couldn't do what the hospital wanted it to do. And then, now it's more of, 'Well, it's really expensive, and I don't know if it's going to be what we need.'"

Role of the Regional Care Collaborative Organizations (RCCO)

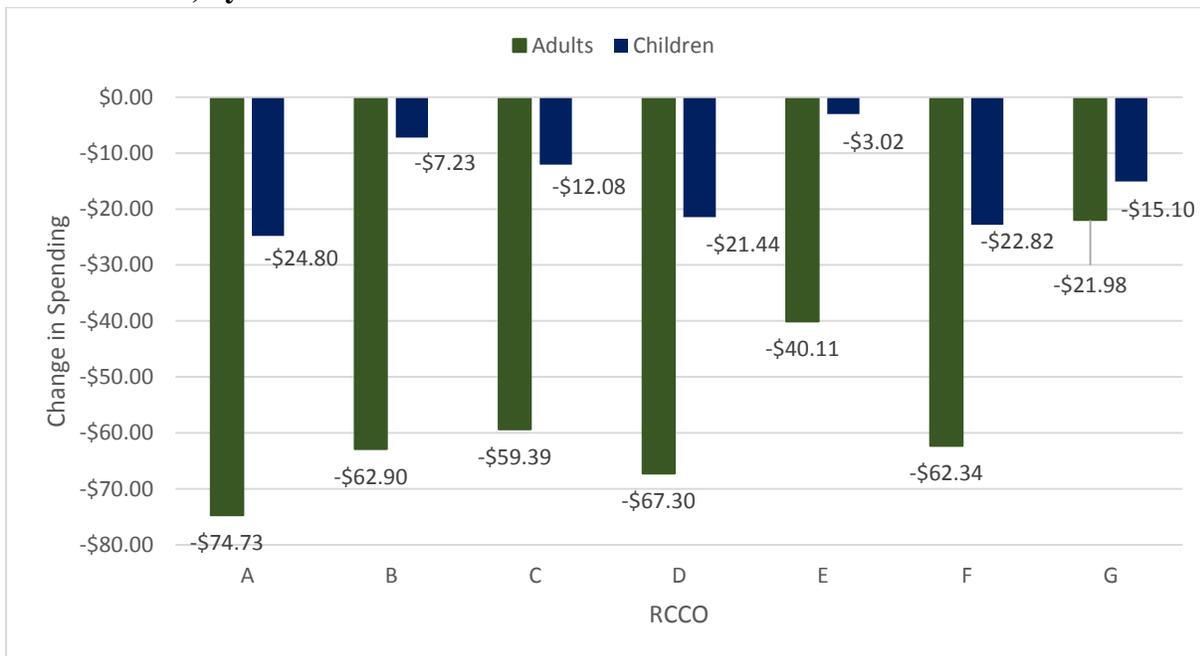
We also analyzed the quantitative and qualitative data to assess whether there were differences in the performance of RCCOs. The results in Figure 9 reveal a large amount of variation in the spending reductions by RCCO. Among the seven RCCO regions, spending reductions for Adults

varied between \$29-\$77. The \$29 reduction at one RCCO was not statistically different than zero. Health care spending on Children was reduced by \$13-\$25 at six of the RCCOs. One RCCO experienced a \$29 increase in spending but this was not statistically different than zero.

Similarly, there was tremendous variation in what different practices want and value from the RCCOs in the qualitative interviews. This variation is understandable given the great differences in the practices that participate in the Accountable Care Collaborative. Despite this variation there were some key themes that emerged related to how practices want and value support from the RCCOs.

Several large practices recognized the value of RCCOs in the Accountable Care Collaborative for medium and small practices but stated that, for large practices that are sophisticated with care coordination they would prefer the option of eliminating the RCCO and contracting directly with the state. These practices stated that given their well-developed care coordination systems that the RCCOs represented an unnecessary and inefficient administrative step and that the state should explore direct contracting with large practices.

Figure 9. Estimated Change in PMPM Spending Associated with the Accountable Care Collaborative, by RCCO



**Notes: Statistical Significance: Adults: RCCO A-D, F (p<0.01); RCCO E (p<0.05); RCCO G (p=0.20)
 Children: RCCO A & D (p<0.01), RCCO B, (p=0.38); RCCO C, (p<0.10); RCCO E (p=0.84); RCCO F (p=0.10); RCCO G (P<0.05)
 Sample: Cohort 1 members (enrolled in FY 2011-2012)**

However, other large practices valued the interactions with their RCCOs. Even among some large delegated practices, the contributions of the RCCOs were seen as valuable and distinct from the RCCOs' administrative duties.

As one stated, “they put a lot at our community meetings...where...all of the delegated practices are together, they share a lot of resources. They share a lot of best practices on the virtual community...there a lot on there and I have found that very helpful. There’s sample forms, there’s sample policies, there is community resources and I think whenever we need something that is not available, they are very open to kind of helping us find something that would support our patients and families or that would support like what we are doing programmatically and so I do find them to be responsive when we are needing information and support.”

Practices of all sizes tended to value interactions with their RCCOs when those interactions were based on practice specific and initiated issues. These interactions with RCCOs were frequently initiated by practices that wanted assistance with issues such as quality improvement initiatives, practice transformation efforts to enhance care coordination, and relationship building with community partners to enhance care coordination.

Some practices stated that centralized RCCO efforts to standardize and enhance care coordination sometimes did not fit with their practice’s conceptualization or operationalization of care coordination. Other standardized reporting required by RCCOs was sometimes described as administratively burdensome and practices that had members in multiple RCCOs sometimes stated that navigating the various reporting requirements was burdensome for the practice.

Practices that had members in multiple RCCOs frequently expressed clear preferences for certain RCCOs. RCCOs that were viewed positively were frequently described as “highly invested”. These RCCOs were willing to give time and resources to the practice in order to work towards goals that the practice either determined themselves or determined in collaboration with the RCCO. RCCOs that were viewed negatively were frequently described as not investing time and resources with a practice and being generally less engaged with a practice relative to another RCCO.

Smaller practices sometimes reported minimal or no interaction with their RCCOs, if they even knew which RCCO to which they belonged, and were more likely to be unsure of the appropriate RCCO contact when they had questions.

Member Experience

In our discussions with practices about members many practices of all sizes noted the role the member plays in the Accountable Care Collaborative program. Many practices also talked about “patient satisfaction” as a key element in the Accountable Care Collaborative program which could also be incorporated as a potential KPI.

Practices of all sizes cited the following areas for improvement when speaking about members:

- Member education, engagement and accountability
- High rates of non-emergent ED visits and no-shows
- Challenges with transportation and other social needs
- Incorrect attribution and challenges with switching back to correct provider
- Members bounce around from provider to provider

- Member confusion and frustration when contacted by too many care coordinators, patient navigators, nurses and community representatives
- Language barriers
- Challenges accessing specialty care, especially mental health

Member education, engagement and accountability

High rates of non-emergent ED visits and no-shows

Although practices of all sizes noted the topic areas listed above, there seemed to be much greater focus on member education and accountability. On the theme of member education and engagement, it was very common for providers and administrators to state that most members do not understand: the value of having health coverage or how to utilize it appropriately; the value of a primary care provider to their well-being; the cost of their care and how it ties to appropriate utilization; and some more general health-related prevention and management. Practices consistently noted that member education needs to be a collective effort by providers, the RCCOs and the Department.

Related to this practices stated the following:

“...educating the population that, as much as possible...go work with your primary care manager because, in the end, you’re going to get the best care.”

“...how do we help this population be a little bit more responsible with their healthcare...and I don’t think today that any person who has Medicaid receives that information [breakdown of medical visit cost] at any point to know what it would be like if they had to pay out of pocket for that.”

“And, honestly, it’s the relationship between the patient and the primary care provider that drives the patient care model. And, if that relationship is not encouraged...then the patient is going to continue to get lost in the system.”

On the topic of accountability, several practices talked about the need for increased member accountability, and this usually emerged in the context of high non-emergent ED utilization and members not showing up for their appointments. Although many recognized that this is a complicated issue with many factors contributing to high ED use, several practices focused on what they felt were member- and program-level factors. Frustration with practice-level care coordination efforts that did not seem to decrease ED utilization rates, often resulted in looking at other factors that might affect these ED rates. Several interviewees suggested some type of co-pay associated with an ED visit and a “no-show” fee. Although these suggestions may not be possible or feasible within the Medicaid system, there may be other member- or program-level solutions to high ED use.

They indicated that the Medicaid population potentially has a higher rate of non-emergent ED utilization because there is no co-pay associated with such visits. They also talked extensively about the convenience of access to EDs and the heavy marketing of short wait times in the ED as potential reasons for higher ED utilization among this population.

Once practice representative stated, "...for a...commercial insurance population, if you go to the ER, you're going to have a large out of pocket expense, so that's...for many...a limiting factor or a reason to think twice about going to the ER. But, when you pay zero out of pocket...it's definitely a factor in whether or not you go to the ER..."

Another stated, "You know, and it probably ties into their ED utilization too, that since Medicaid had no co-pays or lower co-pays for a long time, there was less of a patient or family investment in where they went or whether they showed up or not."

Practices also have the perception that the Medicaid population has a higher no-show rate for appointments. Some mentioned that members usually don't call to cancel or reschedule the appointment. While acknowledging that there are numerous socio-economic and transportation factors that contribute to this no-show rate, several felt the lack of consequences that members face for missing an appointment also contributed to the problem. Others felt it might be related to the Medicaid expansion and higher volume of Medicaid clients in their practice.

Related to this, interviewees stated the following:

"Well, the reason why I've had an [increased] no-show [rate is] because we're seeing so many Medicaid [clients] now, so there's a lot of Medicaid on the book...And, not too many paying people are going to be no-showing if they'd have to pay \$50...Medicaid, there's no money. They just say, "Oh, I forgot", "Oh, I missed my appointment and I need to reschedule."

"We know we have a higher no-show rate among the Medicaid patients compared to the private paying patients."

Challenges with transportation and other social needs

Practices reported that many members cite transportation as a barrier to accessing their PCMPs, and end up in the ED because it's easier to get to. They also generally say that they can go to the ED at a time that is more convenient to them. Many practices have extended their hours of operations but some practices stated that members are unaware of it.

On this issue, practices stated the following...

"I think if they've been missing appointments or no-showing and saying it's a transportation issue..."

"Some of it is, for sure, I have no doubt...in terms of ease of access, so if you don't have a car...and you're having to take two buses to the office...that will affect it for sure."

"...we had several missed appointments because parents couldn't get to their physicals."

Most interviewees stated that Medicaid populations have barriers to other social needs and that these members place a higher priority on meeting these basic needs. They talked about this as another potential reason for the high rates of no-show and ED visits.

One practice stated, "They're not going to follow through because they're worried about whether they're going to be able to feed their family or do they have the light on...if you don't meet the

bottom stuff, you're not going to get the higher stuff...and the healthcare, honestly, is the higher stuff.”

Incorrect attribution and challenges with switching back to correct provider

Language barriers

Some interviewees talked about the challenges present when members are attributed to different providers. They explained that it can be time-consuming for both the staff and the members. This problem is especially acute when English is not the member's native language.

Once practice stated, "...[T]o tell them that this is what you have to do in three steps, and have them understand and then try to do that process is very hard for [non-native English speaking] patients to do. Then, Health Colorado isn't really cooperative.”

“...I understand that, you know, the patient's family can make a call to change who their primary care, but in the past, it's been a really long wait on hold, and parents are just not gonna do that.”

Another said, “[M]y understanding is that that [attribution] process has been pretty challenging for patients to navigate...the clients themselves have to do it. And I've heard the process is quite cumbersome.”

Members bounce around from provider to provider

Providers and administrators that we spoke with frequently stated that they understood the members' desire for flexibility to select different primary care providers, however, they talked about the possibility of restricting the frequency of these changes. Many practices perceive the Medicaid population as being more prone to “bouncing around” among different providers.

One interviewee stated, “...a lot of these patients bounce around...they're sometimes a difficult group to care manage...”

Another said, “...I know patients need choice...and if continuity and relationship is central to improved health, then it seems like the only way to build that is by having you at one place.”

Some talked about the high frequency of provider change, or “bouncing around”, as a result of being “kicked out” of a practice because of a high number of no shows.

One practice stated, “Because what happens is, you know, they go to [practice name] and [practice name] kicks them out for too many no shows. Then they go to [practice name], they kick them out. Then they come back to us and we have to kick them out. Then they go to [practice name]...that translates into poor care.”

Member confusion and frustration when contacted by too many care coordinators, patient navigators, nurses and community representatives

While all practices noted the critical importance of care coordination in improving patient health and social outcomes, some talked about members feeling overwhelmed, confused and frustrated because they have multiple care coordinators and other staff contacting them.

One practice stated, "...so the patient may be getting several different calls, which is... duplication of work for the various groups, as well as potentially annoying for patients."

Another stated, "...I think [care coordination] requires a lot of community communication and collaboration, if that makes sense. I think it's often...confusing to the families as to who is doing what."

TriWest Results from member perspective

Here we report findings from two efforts conducted by TriWest to explore the member experience and perspective in the Accountable Care Collaborative. The first set of results, come from "dyad" interviews conducted in June of 2016 with Accountable Care Collaborative Care Coordinators and the members with whom they work. Dyad interviews were tailored to discover common themes specifically around successful care coordination within the Accountable Care Collaborative. The second set of results, come from a sequence of semi-structure phone interviews from a stratified random sample of Accountable Care Collaborative members throughout Colorado.

Results from TriWest Dyad Interviews

Key roles of the Care Coordinator in successful care coordination include:

1. Invest the time it takes to build trusting relationships.

Coordinators and members both underscored the importance of building trust to establish a successful relationship. Coordinators noted that establishing trust could often take time and that members are not necessarily automatically inclined to trust them, since they are part of "the system." One member mentioned that she initially thought her care coordinator was from child protective services and she was scared and concerned. In this situation, the care coordinator took the time to go to the member's house, meet with several members of the family and talk about the specific kinds of support she could offer.

For most of the pairs, trust emerged when the coordinator was able to offer help, and then follow through with that help for the member. One coordinator discussed "small victories" that build up a feeling of trust over time. She stressed the importance of setting and achieving small goals that can help to demonstrate the kind of assistance a care coordinator can provide.

2. Frequently communicate with members and develop open honest communication channels.

In addition to more formal interactions (coordinating meetings, going to appointments, etc.), many coordinators alluded to a lot of informal communication between themselves and members. Coordinators frequently contacted members to remind them of upcoming appointments, to make sure they were following through with a referral or action item from a previous meeting, or to provide information about a new resource in the community.

Similarly, members expressed gratitude at having someone they could communicate with freely beyond the relationship they would typically have with a health care provider. Coordinators in these successful dyads were available for members when they had questions about their (or their child's) care, when they needed a specific resource, or when they were unsure about a next step to take in their care. "I just know I can call whenever I need anything," said one member.

3. Facilitate positive relationships between providers and members by attending appointments as needed and finding different providers if necessary.

Every dyad mentioned the importance of the relationship between the member and the provider. Most also discussed the key role played by the care coordinator in facilitating these relationships. Strategies used by care coordinators ranged from speaking directly with clinicians on the member's behalf to clarify issues, to attending appointments with members, and, in some cases, facilitating a transition to a new provider. One example of this was a member who was doing poorly with his current provider (not following through with appointments, not taking medication, etc.). By speaking with the member and attending an appointment with the provider, the care coordinator observed a poor relationship between the two with a perceived lack of trust on the part of the member. She helped the member to find and switch to a provider who was able to quickly develop a more personal and trusting relationship with the member. This member believes changing providers has made a significant difference in his overall health. In this situation, the care coordinator worked for the RCCO and supported members in multiple practices with multiple providers. This may have been an advantage in this situation, over a care coordinator who works only in one clinic, making

4. Follow up on everything offered or promised as quickly as possible.

Universally, coordinators stressed the importance of following through with tasks and assistance promised to their members in a timely manner. This was closely related to the need to build trust early on in the relationships. Most pairs described an initial relationship that was somewhat tentative. However, once coordinators could demonstrate the types of services available and members could see improvements (even if initially small) in their situations, then members became much more likely to ask for help when needed and to be more proactive in seeking out assistance for various needs.

Likewise, members consistently mentioned the importance of care coordinators following through on everything they promised. In some cases, members seemed surprised that care coordinators actually did what they said they were going to do.

5. Listen and learn about all aspects of members' lives and attend to needs beyond those that are directly related to medical issues (e. g., food assistance, transportation, house cleaning, children's activities).

The importance of listening was discussed in all interviews. From the perspective of the members, they felt valued, respected and understood because the care coordinators took the time to listen. From the perspective of the care coordinators, they mentioned the importance of taking the time to listen to members' questions and concerns as a benefit to providers who may not have the time they would like to spend with each member.

Care coordinators stressed listening as a key to identifying barriers to improving member health that are not directly related to medical care and that might otherwise go unnoticed. All of the members interviewed reported that their coordinator provided them with assistance for other personal needs that were impacting either their access to care or their overall health and quality of

life. In each case, the member's health was being significantly impacted by other social determinants, including:

- Transportation
- Food and housing security
- Child care/parenting
- Social supports (friends and family)
- Acting as primary caregiver for a family member

For the members interviewed, having these needs addressed was an important step in their ability to take on greater responsibility for their own care and in becoming more active in improving their overall health. Examples of the range of non-medical needs care coordinators were able to address include:

- Replacing a rotted wheelchair ramp at a member's house
- Negotiating a lease with a private landlord and the local Housing Authority
- Food assistance
- Housekeeping assistance
- Assistance with after school activities for children
- Clothing for the member and her children

6. Explain and interpret information from clinicians and staff about the member's health and health care, and help the member navigate the system.

One of the most important things a care coordinator can do is to explain in less technical terms any medical information the member may have missed, misunderstood or forgotten. Several dyads shared examples of the care coordinator interpreting medical information after and between appointments. Care coordinators discussed keeping detailed notes at each appointment and referring back to them when members had questions. Care coordinators and members both mentioned the benefit of having enough time to talk, ask and answer questions particularly when the medical providers did not have much time to spend with the members.

In addition to interpreting and explaining medical information, the care coordinators play a critical role in helping members navigate the system. In particular, interviewees shared several examples of times when the member was unsuccessful getting timely answers or making appointments. In these cases the care coordinator, either through pre-existing contacts in the provider's office or through persistence, was able to make more progress more quickly than the member could on their own.

Key roles of the member in successful care coordination include:

1. Trust the care coordinator.

While the care coordinator took on much responsibility for initial trust building in the relationship, many members discussed the importance, from their perspective, of being open and willing to initially engage in the process. Some members described initial feelings of distrust of their coordinators, mostly stemming from concern about what was unknown. However, all members

reported that, now, the trust in their relationship facilitates more engagement on their part. The time it took to build a trusting relationship seemed to vary. For those members who were initially more skeptical it may take several visits and a few early successes or fulfilled promises on the part of the care coordinator. Having a trusted ally is key to members reporting that they were more likely to follow through on tasks, to make and attend appointments, follow care/medication instructions, and otherwise participate in their own care. Many members credited their relationship with the care coordinator for behavior changes including fewer missed appointments and increased compliance with medication regimes.

2. Ask questions, communicate needs and challenges.

Coordinators reported that for members to be successful, it is important that they ask for help when they need it and they communicate about their needs. Being a pro-active “team” member is a vital role for the member. Being able to ask for help and to outline specific needs was highlighted as particularly important from the perspective of the care coordinators. Often, members were better able to formulate those questions after the coordinator was able to demonstrate the assistance available. Positive outcomes seemed much more likely in scenarios where the coordinator approached the member with an idea of a particular need they may be able to meet rather than simply asking, “What can I do for you?”

However, members seemed to have better experiences when they were cognizant of their own needs and goals, and were able to communicate these needs and goals to their coordinator. This seems to be somewhat of an intrinsic characteristic of the member, although coordinators often provide members with assistance in framing and thinking about these goals. Most coordinators stressed that members have to want to get better and be willing to work at it.

3. Be honest and keep an open mind.

When asked what advice they have for other Accountable Care Collaborative members, members in the dyad interviews said they would encourage other members to be honest and open-minded. They talked about their own realizations that the more open and honest they were, the better able care coordinators were to help them with the issues that really mattered. Members also talked about being open-minded and “giving care coordination a try.” As mentioned above, most members interviewed were initially skeptical but all found the support they received from their care coordinators to be helpful in many ways. Many members made comments about not knowing what their health conditions would be today without the support of their care coordinators

4. Prioritize your health/your child’s health and be proactive.

For many members, one of the most valuable services provided by the coordinator included an ability to remind the member of the importance of taking care of their own health, pointing out that their ability to care for others is compromised when they themselves are not healthy. Particularly in cases where the member was also acting as a primary caregiver (for children or for an elderly parent), it was important that the coordinator keep focus on the member’s health and well-being.

5. Set small goals and follow up as much as you can; take on more as you are able.

The role of setting small goals and following up is really a shared role for the coordinators and members. Dyads discussed two ways that goal setting can be helpful for members working to improve their health. In one scenario, members may identify barriers to getting and staying healthy but may not see a path to overcome the barriers. Coordinators can play a crucial role in helping members to set and realize a series of small goals that can quickly add up and overcome a seemingly impassible barrier. In other cases, members may expect too much of themselves too fast and become frustrated when they don't see the outcomes they want right away. In this situation, care coordinators can help the member set small goals and to be more realistic and patient with themselves. As members build small successes they build confidence and are better able to take on more responsibility for their health and health care.

Results from TriWest Member Phone Interviews

Utilization of Services

Most respondents reported receiving services primarily through a clinic with a primary care provider. However, four discussed difficulty finding a provider that will accept new Medicaid members. One additional member had recently lost her primary care provider (the doctor left the practice) and had struggled to find a replacement. These members (without a current primary care provider) most often sought care in either an urgent care clinic or emergency department.

There was considerable variation in health care utilization reports across members. Just under half (40%) reported usually visiting a health care provider one to two times per year, with exceptions for sporadic illnesses or if they needed to see a specialist for a particular condition. One quarter (25%) reported seeking health care quarterly and 20 percent reported monthly visits to a health care provider. The remaining members (6%) either reported receiving care more often than monthly or did not answer the question. As would be expected, those members classified in a higher risk category by Health First Colorado tended to report more frequent utilization of health care services.

A few (15%) reported utilization because they could not get an appointment right away. However, those members generally reported being unable to get a same-day appointment leading to the decision to seek out an ED or urgent care clinic. Only one reported an ED visit after being offered a same day appointment.

Satisfaction with Services

The vast majority of respondents (89%) reported being satisfied (or better) with their current health care.

Nearly a third (32%) reported feeling "very satisfied." In particular, satisfied members reported that they like and trust their PCMP and they believe their health needs (or their child's health needs) are being addressed. Members praised the ability to get appointments quickly, with most reporting the ability for same-day appointments or clinics that accept walk-in patients.

Those members who reported not being satisfied with services identified difficulty in finding providers taking new Health First Colorado members or finding a good quality provider locally. This was particularly true of members living in rural areas. One respondent pointed out that she felt that her status of “being on Medicaid” led to doctors making judgments about her and treating her differently than when she had private insurance. Several other respondents reported being unhappy with long waits in the clinic, even when arriving on time for an appointment.

Turnover within practices caused issues for a small number of members who reported recently losing a well-liked doctor. More frequently, members were dissatisfied with large practices where a larger number of providers meant little consistency in which doctor they saw during each visit.

Factors in Decision-Making

Overwhelmingly, members reported that trust in their doctors was the most important factor in making decisions about their health care. When members felt that doctors genuinely cared about their well-being (or their child’s well-being) and listened to their concerns, they were more likely to closely follow medical advice.

There was no variation in this finding across members in rural versus urban areas or in English versus Spanish-speaking members. Parents were more likely to report they take the lead in making decisions and often spoke in terms of advocacy for their children. One parent said, “I am an advocate for him. I make sure his issues are taken seriously.”

Health Care Coordination

Overall, members did not seem to think of their health care providers as working together as part of a team. When asked about the concept, the majority of members named only their PCMP. A smaller number (just under half of members) did also include nurses and other staff at their PCMP clinic as being on their “team.” However, without prompting, very few members offered suggestions of other health care professionals that might also make up the team. Only four mentioned specialists, including behavioral health providers, and only one named their pharmacist. Three mentioned their dentist as being part of their team. A handful of respondents (11%) also included family members.

Nine members (10%) reported not feeling as though they have a health care team at all, even after a list of potential individuals was provided. This was either because they currently do not have a PCMP (five of the nine) or because they do not feel any level of engagement with their providers. As one member put it, “I think it is really just me, with some help from the RN. I don’t think the doctor is really all the way [sic] on the team.” This was a member who also cited problems with his doctor seeming to be very rushed during appointments and not having enough time to talk about all of his health concerns.

Barriers to Access and Suggested Program Improvements

Across all members, the most common barrier to receiving quality health care was communication with providers, both inside and outside the exam room. Outside the exam room, members

suggested better direct lines of communication with doctors, with some expressing frustration at being unable to reach a doctor directly with health care questions.

Some also suggested better communication with doctors within the exam room. Members reported that, after waiting for long periods of time in the exam room, the doctor did not spend enough time with them to have all of their questions answered. Parents, in particular, expressed a desire for more general information about their child's development and ways to keep them healthy.

Spanish-speaking members universally reported access to a translator for appointments and did not see language issues as a communication barrier in the clinic. However, these members were more likely to report difficulty in understanding doctor instructions and/or the benefits available to them, and often reported receiving mailed information in English that required a friend or family member to translate.

Across all of the interviews, trust in their provider (and the clinic staff as a whole) was strongly related to member satisfaction with care, to their perceptions of efficacy in making health care decisions, and in their likelihood to follow medical directives. Members who did not have good relationships with providers were less likely to follow medical advice and were more likely to report that their health had gotten worse or stayed the same (rather than improving) over the past year.

Some rural members reported that travel could be a barrier to accessing services, particularly in finding specialty care. Some members said that one factor in not following up on referrals to specialists was the need to drive significant distances for an appointment.

Suggested Improvements

Health First Colorado participants were asked what would be helpful to them to stay or become more actively involved in their health care. Just over one-quarter (28%) of the 88 respondents offered suggestions for things they needed to either maintain or improve their current level of engagement in their health care. The low number of suggestions to improve is likely due to a combination of two factors: 1) most respondents were satisfied with the level of care received through Health First Colorado, and 2) members seemed reluctant to discuss any lack of engagement or active involvement in their own health care.

Seven general suggestions were provided:

- Members (5) said that they would like more or better information about medications or health conditions. Parents in particular expressed a desire to have more information about their child's overall health and things that can help them to stay healthy.
- Some expressed confusion around benefits available to them in Health First Colorado. Specifically, five (5) members said that they would like more information about the benefits available to them.
- Five (5) said they do not have a care coordinator, but either could benefit from one or said that they would like to see more/better communication across their health care team.
- Some members expressed frustration at being able to directly ask providers questions, either on the phone or by having more time to ask questions during an appointment, with 3 reporting that better and more direct communication with their providers would improve their engagement.

- Several members (3) said they wished providers listened to their input regarding their own health care needs or the needs of their child.
- Three (3) said they have been unable to find a provider and need further assistance.
- Three (3) members expressed a desire for shorter wait times for both scheduling appointments and waiting to see a provider once they got to the clinic for their appointment.

Key Performance Indicators and Quality of Care

Among the KPIs, only the analysis of ED visits by adults revealed statistically significant reduction, though at the $p < 0.10$ level. Otherwise there was not a significant reduction in KPI-related utilization in adults or children. However, there were contemporaneous trends downward in both the FFS and Accountable Care Collaborative adult groups. This was especially true for high-cost imaging where there were large reductions that continued after the KPI was dropped. This may reflect spillovers to the FFS population related to increased emphasis on reducing low-value care nationwide.

The analysis included measures that were not related to KPIs but have been validated for use in claims data. We did not analyze measures that required an EHR. In addition, we analyzed measures that were related to the KPIs but defined using either NCQA or Centers for Medicare and Medicaid Services (CMS) standards.

Our analysis included measures of preventable, low-value care as well as measures of desirable care and access. The analysis revealed statistically significant changes in two of the measures:

- (1) The Accountable Care Collaborative was associated with a 0.229 increase in the likelihood of whether a child had one or more well-child visits during the measurement year, and
- (2) The Accountable Care Collaborative was also associated with a 0.01 increase in the likelihood of appropriate Use of Imaging Studies.

Otherwise there was no change. When interpreted in the context of the spending reductions these results imply an increase in the value of care.

Key Performance Indicators: Qualitative findings

There was a variety of opinions shared about the Accountable Care Collaborative's KPIs. Some practices stated that they felt the KPIs were generally good measures of a practice's performance

Table 5. Association of Accountable Care Collaborative enrollment and performance on measures of preventable, low-value care, and access to desirable care

Measure Name	Definition	Estimate
Avoidance of Antibiotic Treatment in Adults with Acute Bronchitis	Proportion of members diagnosed with acute bronchitis w/o Antibiotics	0.0108
Adults' Access to Preventive-Ambulatory Services	Proportion of adults 20-44 years with access	0.00780
Adults' Access to Preventive-Ambulatory Services	Proportion of adults 20-64 years with access	-0.0291
Potentially Avoidable ED Visits, 18+	ED visits with a primary diagnosis indicating they are "potentially avoidable"	0.0216
Potentially Avoidable ED Visits, 1-17	ED visits with a primary diagnosis indicating they are "potentially avoidable"	-0.00165
Ambulatory ED utilization	Ambulatory ED visits Visits per 1,000 member months (that don't result in admission)	-0.0166
Ambulatory outpatient utilization	Ambulatory outpatient visits per 1,000 member months	-0.0628
Avoidance of Non-Recommended Cervical Cancer Screenings	Proportion of adolescent females were not screened (unnecessarily) for cervical cancer	-0.0290
Avoidance of CT w/o Ultrasound for Eval of Suspected Appendicitis	Proportion who had a CT scan, but NOT an ultrasound, within 30 days prior to index case	-0.0276
Use of Appropriate Medications for People With Asthma, Adult	Proportion who appropriately filled medication during the measurement year	-0.260
Use of Appropriate Medications for People With Asthma, Children	Proportion who were appropriately filled medication during the measurement year	0.00864
Adolescent Well-Care Visits	Proportion who had 1+ comprehensive well-care visit during the measurement year	0.229**
Diabetes HbA1C Testing	Proportion who had 1+ HbA1c test performed during the measurement year	-0.0291
Diabetes LDLC Screening	Proportion who had 1+ LDL-c screening performed during the measurement year	0.00189
Appropriate Testing for Children with Pharyngitis	Proportion who received a group A streptococcus (strep) test for the episode	-0.000129
Developmental Screening in the First 3 Years of Life	Proportion screened for risk of developmental, behavioral, and social delays using a standardized screening tool in the 12 months preceding their 1st, 2nd or 3rd birthday	-0.000499
Avoidance of Head Imaging for Uncomplicated Headache	Proportion of members that did not had a CT or MRI for an uncomplicated headache	0.00828*
Appropriate Use of Imaging Studies for Low Back Pain	Proportion that did not receive an imaging study within 28 days of dx	0.000984
Annual Monitoring for Patients on Persistent Medications	Proportion who had at least one therapeutic monitoring event for the therapeutic agent in the measurement year	-0.000931
Adult Prevention Quality Overall Composite	PQI Overall Composite; readmits counted twice	-0.00527
Adult Prevention Quality Acute Composite	PQI Acute Composite; readmits counted twice	0.00588
Adult Prevention Quality Chronic Composite	PQI Chronic Composite; readmits counted twice	0.000239
Well-Child Visits for Children 0-15 Months of Age; 6 or More	Proportion who had 6 or more well-child visits during their first 15 months of life	0.00588
Well-Child Visits in the Third, Fourth, Fifth and Sixth Years of Life	Proportion who had one or more well-child visits during the measurement year	0.000239

** p<0.05, * p<0.10 result of t-test based robust standard errors

but noted that some of the KPIs were more relevant than others. The majority of practices stated that they felt at least some of the KPIs were not appropriate or were not good indicators of a practice's performance. Interestingly, many practices referenced different KPIs as good indicators. The most widely recognized KPI was ED visits, with 30-day readmissions and well-child coming second. High-cost imaging was rarely mentioned. Some interviewees talked about "meaningful use" and immunizations as if they were Accountable Care Collaborative -specific KPIs.

Many practices stated that ED visits is a poor KPI. One stated "we have no control over this KPI". Several practices noted that there is a fundamental misalignment between the Accountable Care Collaborative program goals and hospitals when talking about ED visits. The Accountable Care Collaborative incentivizes practices to decrease ED visits while hospitals appear to be incentivized to increase ED visits. Several interviewees noted the aggressive advertising of short wait times for hospital ED visits as an example of hospitals working to increase ED volume. However, other practices stated that outreach to high ED utilizers was a specific focus of their practices. This variation and difference of opinion about the appropriateness of specific KPIs among the practices was common.

One practice representative stated, "...it certainly has been my, as well as everyone else's, consistent feedback to [The Department] is what are you doing about engaging the EDs in a conversation about managing how they're recruiting people to come to the ED?...the problem is, you know, they're putting up EDs fricking all...there's a new one on every corner of the damn county. And so, you know, they certainly are not slowing down in their recruitment...So, I don't know. But, I do think that [the Department] and the RCCOs need to engage the EDs in some kind of conversation about how do we bring down the cost of care and how do we target, you know, people using the ED inappropriately."

Many pediatric practices state that the KPIs in general were not well aligned with their pediatric populations. Related to this, some practices stated that the KPIs should be aligned with practice specialty.

One pediatric practice representative stated, "Well again, I feel that the ED utilization has somewhat of an impact for kids but it really is more indicative of again an adult chronic population. And so I think it's not a huge indicator for us and it's something that can more easily, I think, be worked on. I think that...for indicators of health we'd look at...well child, the immunization, access to immunizations and immunization rates, BMI for children."

Some practices viewed the regional calculation of KPIs as creating a disincentive for individual practices. These practices noted that an individual practice's effort is diluted in the regional calculation by the performance of other practices that have not aligned their processes with the Accountable Care Collaborative's goals. This decreases the incentive for an individual practice to perform well on any given KPI.

This comment elucidates this perspective, "Well, I think one piece...and I hate to go back to money, but when you look at the incentive payments, it's based on the full entire regional level, so it doesn't really feel connected to us... Although...our 1,500 is a decent amount and a large population for our clinics, it's just a tiny piece of the whole, whole entire region

[RCCO number]. And so, even if we're doing excellent on all of the KPIs, it's dependent on the rest of the region if we actually get our incentive payment on that...I think that's been one of those things where it's like, 'Meh...' Where it's not necessarily like money tied to our tiny little piece of the big puzzle."

An administrator spoke on KPIs and the issue of attribution as follows, "I think they [KPI] are fine. The only one that kind of is a little difficult is the well child check one because the age ranges are not necessarily something that most parents would agree with for a healthy young child. We are unable to unattribute patients on our own. So, when we call a patient's mom and say we haven't seen you in two years. It's time for a well child check and she tells us to go to a certain place that I shall not repeat because we are not her doctor and we can't get that patient unattributed. So, they want to outreach to patients that don't want us to outreach and we are not able to unattributed patients from us and so they ding us in the end in our percentages."

Influence of Grants and Other Contemporaneous Programs

There were major grants and Center for Medicare and Medicaid Innovation (CMMI) initiatives that targeted primary care and care coordination in particular during our sample period. These contemporaneous investments could potentially bias our results because participation by primary care providers was not randomly allocated. The results would be biased towards larger spending reductions if the grants and initiatives affected the care of Accountable Care Collaborative members but not FFS clients.

We collected information on the timing, amount, and recipients of grants that were funded by The Colorado Health Foundation and Rose Community Foundation during our sample period. We limited the grants to those that would influence physical health care spending of children and adults aged less than 65. We created a variable that measured the dollar amount of grants received by a practice during the grant period. This variable was merged into the analysis dataset using primary care provider IDs.

Because many of the grants were not given directly to primary care practices but still could impact spending, we created a regional measure of grant funding per Medicaid beneficiary using the health care service area (HSA) as the definition of the area. HSAs are market areas for hospital services defined using Medicare client flows in the Dartmouth Health Atlas. They are larger than primary care services areas (PCSA) which are based on outpatient visits. We chose the larger measure because the larger grants that aren't tied to a practice are often given to groups whose activities span the larger health service area. We merged the area-level measure into the analysis dataset by members' residence with the assumption that grants could potentially influence care of all patients in the area.

In addition, there were a number of initiatives funded by CMMI during our sample period. We created three separate dummy variables that equaled 1 if a primary care practice was in the Comprehensive Primary Care Initiative (CPCI); Federally Qualified Health Center (FQHC)

Advanced Primary Care Practice Demonstration; or the Safety Net Medical Home Initiative, respectively.

We added these variables to our primary specification of total spending on children and adults and re-estimated it. Table 6 reports the results. The first two rows report the average effect of the Accountable Care Collaborative with and without control for contemporaneous programs. The estimated impact is robust to inclusion of control for contemporaneous grants and programs. The bottom set of results estimate the impact of the Accountable Care Collaborative on practices depending on whether they received grants. The impact of the Accountable Care Collaborative on practices that did not receive grants is slightly smaller than average. If a practice received grants, then the impact on adults and children spending is significantly larger. This result measures the combined impact of the causal impact of the grants and selection bias. In other words, the interpretation is that some combination of the following mechanisms: (1) grants enabled the practices to operate more effectively within the Accountable Care Collaborative than practices that did not receive grants (causal effect); or (2) practices that received grants were already well positioned to operate effectively under the Accountable Care Collaborative (selection bias). The results for regionally-based grants that couldn't be linked to individual practices are quantitatively larger, but not significantly different than the results for practices with no grants. It is likely that these grants impacted people in both the Accountable Care Collaborative and FFS groups. Finally, the influence of contemporaneous programs was to lower the quantitative impact of the Accountable Care Collaborative on spending. But the coefficients were not significant in the adult specification and were marginally significant for children. As the top set of results reveals, the influence of these programs was offset by the grants received, leaving the net effect unchanged.

Table 6. Influence of Contemporaneous Programs on Estimate of the Change in PMPM Spending Associated with the Accountable Care Collaborative, by Age Group

	Adults	Children
Impact of the Accountable Care Collaborative:		
No controls for Contemporaneous Programs	-\$65.30***	-17.11***
With controls for Contemporaneous Programs	-\$65.57***	-15.23***
Impact by recipient type		
No grants	-\$57.18***	-16.23**
PCP Grants (average)	-\$73.22 ^a	-39.87 ^a
In HSA with Grants (average)	-\$69.40 ^b	-13.39 ^b

Notes: **Statistical Significance: ***p<0.01, **p<0.05, *p<0.10:**

a: Reject Ho: Impact =0 at p<0.05 and Reject Ho: Impact=No Grants (p<0.05)

b: Reject Ho: Impact =0 at p<0.05 and Not significantly different than No Grants.

Sample: Cohort 1 members (enrolled in FY2011-2012)

Influence of Grants and Other Contemporaneous Programs: Qualitative Findings

Practices that reported significant practice transformation to enhance care coordination frequently reported receiving grants and other funding outside of the Accountable Care Collaborative to support the initial implementation of the practice transformation. Practice transformation activities described included hiring additional care coordinators, enhancing data analytic capabilities, implementing care teams and integrating behavioral health providers.

Common sources of external funding included foundation grants from Rose Community Foundation and The Colorado Health Foundation. Some practices also reported receiving CMMI grants or other federal sources. Practices that received this external funding tended to view it as necessary to support the implementation of practice transformation to enhance care coordination. These practices frequently described the PMPM payment as necessary to sustain the practice transformation initially supported by external funding. These practices also expressed concern that their current PMPM payments would not fully support already implemented care coordination enhancements. Here we report further detail about non- Accountable Care Collaborative funding to enhance care coordination by practice size.

Large practices

All large practices that we spoke with reported receiving outside funding and were engaged in partnerships with other providers and organizations to improve and expand their integrated care models. They reported using the additional funding to improve, expand and sustain their practice transformation and integrated care models, with a focus on behavioral health and expanded access.

One large practice stated, "...we have been able to grow that mainly through foundation grants over the last several years, the support positions and the collaboration work and so, we will be focused at tracking closely with the fund grant and opportunities to continue to advance in the integrated behavioral health services as far as just technical support that is available."

Some large practices also focused their funding on expanding access by opening new sites. Interestingly, they spoke of both expanding access for members and also increasing practice revenue.

One of these practices stated, "And then, I think the other really important thing in terms of just... innovation and how do we sustain things are looking for creative ways to deliver care. So, group-based care as a way to see more patients at once in order to improve access, expanding our hours of operation...Building more clinics...have a sector of the population that we still don't serve and that's not served by anyone. And so, economies of scale are also a means to sustainability."

Some large practices talked about arrangements in which the funding came from a foundation or government grant, but was funneled through another organization or the RCCO, which then funded special projects in the practice.

Related to this, one practice said, "...the Colorado Health Foundation, the recent grant dollars from, for cancer screening that became available through the RCCOs...We're always looking for those opportunities...to fund bursts of innovation."

Another stated "There's a CMMI grant that has been awarded to Children's as part of a multi-site grant around the care of complex children with who have Medicaid and we're going to be one of the participating sites working with Children's on that so that actually is through [RCCO name]."

Medium practices

About half of medium practices we interviewed reported having received outside funding to support care coordination. They also frequently reported collaborations with other organizations to expand and improve their integrated care models. They stated that these collaborations helped them to secure grants more successfully or to provide specialized staffing for the practice (e.g., social worker, behavioral health specialist).

For instance, one practice stated “We did get a grant. It wasn’t to our practice. It was through Children’s. We had an integrated behavioral health specialist here. The grant ran out, and we obtained her services. We made a contract through Anschutz and Children’s to have her services here for another year, and then...That ran out.”

Some practices stated that these initiatives were in place prior to the Accountable Care Collaborative program, “...this started through a separate grant funding, maybe five-ish years ago as well. And, that is a program that we originally developed with a couple of navigators and care managers and us at the [practice name] to be the medical home for all children who are involved in foster care.”

One of the main focuses of external funding sources reported by practices was on integrating behavioral health in the practice and expanding their care coordination models. Medium sized practices sometimes reported having already initiated practice transformation processes and were in a position to direct the funding to improving their existed integrated care models. Some medium practices were also focused on expanding access by building new sites in underserved areas.

For example, a practice executive stated “... we’ve shifted our asks to the Colorado Foundation into other areas of our business. So, we’re not asking for ongoing funding for our integrated care, in part because [RCCO name] has stepped up to the plate and is filling most of that need for us. And, I need [the Colorado Health Foundation] money in other places of our business, mainly to build new clinics.”

Medium practices were also operationally positioned to qualify for other programs such as meaningful use, CPCI, State Innovation Model (SIM) and other CMMI grants.

Related to this practices stated, “...we also joined the Comprehensive Primary Care Initiative Pilot, you know, the multi-payer pilot.”

“We also qualify for meaningful use, so we get that funding through the federal government, and then we also were able to qualify for the enhanced primary care program through the state of Colorado.”

“We just got a grant, or will be able to get a grant, a HRSA grant for expanded services.”

Small practices

Approximately one third of the small practices we interviewed, discussed receiving funding from outside sources other than the Accountable Care Collaborative, RCCO and Medicaid reimbursement. Based on our sample of practices, it seems that small practices receive less financial support from outside grants. This is in line with other findings that seem to suggest that small practices are generally in the earlier stages of practice transformation activities that align with the medical home model and the Accountable Care Collaborative program goals.

Some of the potential reasons for this are that small practices tend to be privately owned and may not qualify for certain funding opportunities; they may be unaware of funding opportunities; many were unaware of the role the RCCOs can play in supporting them from a consulting perspective (e.g., grant writing); and smaller practices usually talked about being understaffed and “being busy” and may not have the time, expertise and personnel to prepare proposals.

As discussed earlier in this report, many small practices still approach patient care from a more traditional medical framework and are not actively engaged in care coordination activities to help meet non-medical patient needs. This could be another reason why they are not actively seeking funding opportunities. Alternatively, they could be ill-positioned to successfully apply for grants because they cannot show advancements on care coordination activities.

The grants awarded to small practices seemed to concentrate on practice transformation activities, such as: seeking NCQA PCMH recognition, developing a team-based care model, integrating behavioral health into the practice, improving the EHR system, paying for access to HIE platforms (e.g., CORHIO), and establish a care management program.

Related to this, practices stated the following, “We got a grant and implemented a reading program into the office for children up to the age of 10, but we do hand books out up to the age of 15, so we purchased books and encourage reading...Reach Out and Read Program.”

“...we actually were just awarded this week some team-based care funding through the Colorado Health Foundation, which will really help us excel some of our practice transformation work in becoming more of a team-based care model.”

“...in a nutshell, I think it will help us. I think even add some more stuff on our EHR, some templates that are not originally in the EHR to bring in somebody who’s an expert to add that, which you know, is an added cost that the grant will help offset.”

Accountable Care Collaborative Funding to Support Care Coordination

Large practices

Large practices that we interviewed all had well developed care coordination models prior to the Accountable Care Collaborative, and some talked about Accountable Care Collaborative funding and RCCO-specific initiatives as giving them an opportunity to experiment with different initiatives to enhance integrated patient care.

One large practice representative stated, “that [additional funding] allowed us to change some things. And, that is allowing us to kind of experiment with, okay, what really works? And so, in a team-based care situation, how do you make sure that you’re deploying the right resource for the right issue?” and “And, I think for us, you know, some of the care coordination dollars allow us to say, ‘Oh, it looks like we actually need expertise in these certain areas. Which member of the care team is going to supply those? And then, how do we kind of experiment with what happens outside the visit?’”

A smaller set of large practices expanded their care coordination team using Accountable Care Collaborative and RCCO funding and also invested funds to improve their EHR. They also talked about less obvious benefits of the Accountable Care Collaborative program. For instance, the reorganization of staffing in the practices to accommodate a team approach and getting providers to understand, embrace and utilize the services of care coordinators are among the less tangible benefits cited by practices.

One interviewee stated, “So, we have really changed the format of how we develop caseloads, our method in doing our risk assessments, as well as how we are viewed... within our own practice. I think we’re seeing now is more of a team within each of our pods... And now, we’re at a point where we are very strongly integrating care coordination. So, the care coordinator, essentially our social worker, I think, through the ACC efforts, is now deemed a strong member of their team.”

Even among large practices, many still reported a gap between the level of services provided and their reimbursement, including the FFS Medicaid reimbursement, Accountable Care Collaborative PMPM and RCCO payments. They are constantly working to make their models more efficient and effective, but this level of planning is costly for them.

One large practice stated, “We still have a gap, I’ll say, even with the RCCO payment, even with our fundraising, and with the patients we’re seeing and billing fee-for-service... I mean, we’re trying to figure out every way we can be lean and mean, but I mean, with practice transformation in particular... All of that takes time for a lot of our clinical leads to come out of clinic and really think about how we do this well. And, every time they’re not out of clinic, they’re not seeing patients, and we lose money.”

Medium practices

Generally, the medium sized practices that we spoke to already had some level of in-house care coordination and they reported that the Accountable Care Collaborative funding helped expand, refine and enhance their models.

One practice stated, “So, that’s been a huge plus to us... of course, we do enjoy the extra incentive. It would not, however, and has not, changed the way that we provide our services to the Medicaid and CHP community... We’ve always had this practice model. The fact that we’re getting incentive money hasn’t changed that. I mean, we’re just getting a little extra for stuff that we’ve always been doing from the beginning.”

Some medium practices whose RCCO has partially funded a centralized community care coordination program, redirect most of their PMPMs toward that program. They all seem “pretty happy” with this arrangement. For the most part, they agree that this program has the expertise to manage the “high-risk, high-cost...and complex” patient population, that the practices themselves might not have otherwise: “I think we decided that if we retained those funds, that \$3 PMPM, and we tried to provide the same level of service, it would be very difficult for us to duplicate that expertise.”

The majority of medium practices explained that the PMPMs and RCCO-specific funding helped enhance their care coordination models by hiring more staff (i.e., medical providers, care coordinators, nurse care managers, behavioral health provider, pharmacists, etc.).

One interviewee stated, “We were already doing care coordination, we just weren’t being paid for it. And so...it just made sense to get paid for what we were already doing” and “...the per-member, per-month definitely financially helps us. It gives us...the funds to staff as well as we do...we have...more providers than we probably would without the per-member, per-month.”

Some asserted that the “incentives are too small to generate true, sustainable results” and suggested that the Accountable Care Collaborative program could focus on further financial alignment with its goals. Many medium practices had to invest a considerable amount of money on their EHRs, care management systems, disease registries and other areas in their practice to get their operations in line with the goals of the Accountable Care Collaborative program. The majority of these non-staff investments were not funded by the PMPMs or RCCOs.

One medium sized practice stated, “What we had with our EMR couldn’t accommodate what they wanted...We’ve had to invest thousands in a new Care Management Module software...It just took a lot and lot of work. But, I can understand why. And for a start up care coordination program, no, it’s not, it’s not adequate.”

When talking about Medicaid in general, medium practices talked about Medicaid expansion, the primary care bump and the Accountable Care Collaborative as being critical in their ability to improve their integrated care coordination models and to open to more Medicaid clients.

One practice stated, “The primary care bump or the expanded payments have also been really, really important for revenue for our clinic. And then, the care management team that we’ve been able to assemble using the per-member per-month fees has been just absolutely amazing, and I feel like is making a really great impact with these highest-risk and highest-needs patients in our community.” and “It’s actually allowed us to open up to Medicaid patients. I mean, before we used to be closed and only take newborns. And now, we are open to the Medicaid public because we can take more kiddos that way.”

The practices that are experimenting with global budget instead of the usual PMPM spoke of this arrangement with enthusiasm and see it as a more reasonable approach to achieving the Accountable Care Collaborative goals than the KPI-based PMPMs.

One interviewee stated, “The big potential financial win is when they cut the checks for the gain share at the end of year one...that is really meaningful, and ultimately, a lot more meaningful than the KPI payments today.” They mentioned reinvesting these funds into “team-based quality improvement incentives”.

The topic of integrated behavioral health came up frequently among medium practices. There’s concern that the current Medicaid reimbursement system does not facilitate integrated behavioral health. The practices that have integrated behavioral health have absorbed the costs, or relied on special RCCO initiatives.

One medium sized practice stated, “Right now, we are not being paid for the full-time behavioral health person...So, we have pretty much absorbed the cost of that, but again, ...with the help of the people at [RCCO name], we were able to show that we needed to do that, and they are also helping us with the credentialing.” and “...which is [reimbursement for behavioral health] frustrating when there’s so much need and they [should] make it so that the billing isn’t such a problem, that people can get paid rather than it just not being financially viable.”

There is some concern among medium sized practices about the sustainability of all these initiatives that emerged after the program began using Accountable Care Collaborative funds.

One practice stated, “So, I think the increased funds, again, is something that’s really helping getting that started and off the ground, so that when we see, you know, proposed budget cuts and all that other stuff, that’s terrifying.”

Many medium practices reported being delegated and qualifying for the enhanced primary medical home payments or being positioned to achieve both statuses.

One interviewee stated, “That is the fully delegated where you do everything and anything. There is a 12-13 page audit tool process you have to go through with the RCCO quality manager and be able to demonstrate what level you should be at. Like I’ve said, I’ve got the book almost done but not quite there yet. What they did do, which was pretty helpful, was the end of 2014, there was a monetary incentive to be an enhanced primary medical home and, again, that was an auditing processing.”

Small practices

In terms of financial support for in-house care coordination, smaller practices tended to talk about PMPMs, Medicaid reimbursement and special RCCO initiatives with much less emphasis than medium and large practices. Some small practices already had their own care coordinators prior to the Accountable Care Collaborative and indicated that the PMPMs they received would be insufficient to hire a care coordinator. They did recognize that this was a function of the number of members attributed to them (150-449).

The small practices that have more robust care coordination programs primarily used the support to further advance their model and towards other practice transformation (i.e., disease registries, achieving NCQA PCMH recognition, etc.). There was one small practice that received funds from

their RCCO to hire a care coordinator and another to become part of a learning collaborative focused on managing complex members.

The few practices that were in the position to apply for the enhanced payment (i.e., 50 cent PMPM), all thought it “was a lot of work” to meet the requirements and that it was not “much of an incentive”.

Specific to the RCCOs, some small practices talked about non-monetary care coordination and practice transformation assistance: “...the RCCO has supported me or us...sort of in education and training...with coordinating care in either community resources and also in behavioral health too.” and “The care coordination that they pay for in the community or the fact that they pay for a staff member who can help us with our patients is very positive.” They also mentioned help from the RCCO to understand SDAC data and with process improvement.

Smaller practices reported being particularly sensitive to the lower-than-average Medicaid reimbursement. However, this came up for all types of practices (i.e., small, medium and large). Since the PMPMs are not enough to hire staff, they are “trying to figure out chronic care reimbursement”, to help them provide the level of care coordination envisioned by the Accountable Care Collaborative.

Current Reimbursement Structure and Payment Reform

Large practices

Many large practices stated that the Accountable Care Collaborative program was a step towards additional future payment reform. They also praised the role the Accountable Care Collaborative has played in helping them along the process. Many of these practices stated that they feel ready to move towards higher risk arrangements and feel that “capitated, at-risk models” are needed “for a lot of the accountable care to actually be successful”. Some expressed their need for upfront funding to support the changes necessary for payment reform.

On this issue, practices stated the following, “...we have been able to implement amazing and innovative program [because of the Accountable Care Collaborative] that historically we haven’t been able to do, but I am not convinced that it is sustainable in the long term especially in a climate that is subject to change.”

“...that PMPM allows us to figure out how to care manage these folks and how to move these things forward. I think, again, the issue is still just the alignment of what you need to do in order to get the outcomes that folks are wanting to see doesn’t necessarily align with the funding.”

“...I think we are at the interesting place where we are in the middle where as a practice, capitated payment for care navigation for us it’s a growing source of revenue. It has allowed us to really build up this program that we are excited about, we think it’s best for patients. We are so mainly supported through fee-for-service so I would say that I think we need to move away from fee for service...I mean, we, I feel comfortable moving

more towards thoughtful risk or partial risk models...some things are moving in development and I definitely see that in the future. I am excited about that direction.”

These practices recognized that changing the payment model would be a complicated and nuanced undertaking and noted that any change would need to be “well thought out.” They stated that the Department, along with the RCCOs, would need to support the practices, especially medium and small practices, and that a system with different payment models for different practice sizes might be the most appropriate. Practices discussed their concern that, under FFS, many services that can be categorized as “care coordination” are not reimbursed by Medicaid and that they are essentially providing “free care”.

A large practice summarized their thoughts, “You know, the main issue for us is that the fee for service methodology that we’re paid for doesn’t work very well for us because we are an integrated delivery system and so many of the services that we offer our members are not reimbursed by the state and so, what would help [practice name] is to move towards a fully integrated capitated way of taking care of patients at an actuarially sound reimbursement rate and that’s what we spend time working on with [RCCO name], to see how we might move in that direction, which really leverages our strength as an integrated delivery system in a way that’s compatible with how the state wants to deliver services to Medicaid members.”

Medium practices

Many medium practices also spoke of payment reform. They frequently described the Accountable Care Collaborative program as laying the foundation for future reforms including payment reforms. These practices sometimes expressed enthusiasm and other times anxiety related to potential future payment reforms, but also generally expressed the opinion that eventual payment reforms would be necessary to achieve better population health at lower costs.

One practice stated, “We’re in a few of those [shared saving contracts] and they’re very challenging to understand. They’re not transparent. They’re just difficult. But, I think, ultimately...some sort of risk/gain sharing type situation would also help. But, there has to be some guaranteed funding for us to be even providing the service in the first place.”

Another stated, “...it just makes me reflect that I’m proud of our state for moving the ACC forward. I think that’s positive, and I think the next iteration is how passionately we will move forward with payment reform.”

Some medium sized practices with more sophisticated care coordination models and care teams, talked about bringing behavioral and physical health together financially. These practices reported having struggled with behavioral health reimbursement under the current system and stated that it is as an important part of payment reform. They all recognized that Accountable Care Collaborative 2.0 is a significant step in that direction but are still unsure how it will be operationalized.

We interviewed a few practices that are part of the global payment pilot. These practices expressed clear enthusiasm about it and one stated it is, “the best thing to happen in the state in a long time because it shifts reimbursement out of fee-for-service volume mentality and into value-based care that if we improve the quality of care we deliver and improve the health of the community, we win financially.”

These practices talked about some challenges in getting operations set up and “helping staff understand what the heck primary care capitated payment or global payment means.” Even with these challenges, they continued with the process because they thought it was right for the strategic future.

Small practices

Although small practices spoke of payment reform less frequently, some still talked about the need to move away from FFS reimbursement. These practices also recognize the important role of the Accountable Care Collaborative program in helping practices gradually transition from a volume-based mentality to a quality and outcomes-oriented one.

One small practice stated, “My understanding of the benefit of it...is a cost-cutting mechanism for the state. And...hopefully...[the Accountable Care Collaborative] improves innovation in care and thinking outside the box.”

They also talked about moving forward with the Accountable Care Collaborative program and how to finance it in ways that moves the system toward better outcomes, lower costs and improved experience for the Medicaid population:

One small practice stated, “...just feeling like that there could be an overhaul a little bit with how, how the state pays out monies to Medicaid and its population and just trying to figure it out.”

Another stated, “...support practices like ours and maybe corporate medicine too, to sustain the viability of getting coordination of care for our indigent population, there’s certainly going to have to be incentives continued throughout the process.”

Accountable Care Collaborative 2.0

The practices that we interviewed have generally expressed enthusiasm for the Accountable Care Collaborative and view it as a positive step towards much-needed health care reform. As the goals of the Accountable Care Collaborative program usually aligned with the goals of their own practices, they appreciated the program and wanted to see the program continue. Although suggestions for improvements were discussed, practices saw value in the program and felt it contributed to the care provision to this important patient population. As one practice stated, they hoped the program would continue as the RCCO provided resources “really [do] make a positive impact on our families.” They also recognized the program as first step toward additional reform. As one practice stated, “I think it just makes me reflect that I’m proud of our state for moving the Accountable Care Collaborative forward. I think that’s positive, and I think the next iteration is how passionately we will move forward payment reform.”

Some practices mentioned they would like to have a greater Department presence in the future. When asked to elaborate on what the “increased presence” would look like they mentioned: meetings with the Department, Accountable Care Collaborative staff, regular meetings with RCCOs and other practices, or a presence in the sense of having a more unified message that serves as a common thread among all RCCOs and practices. Increased communication and collaboration was a desire of mainly small and medium sized practices, although community engagement and collaboration was discussed across all practice sizes and geographies. Site visits and collaboration with other practices was frequently discussed by practices as a way to demonstrate to the Department and the RCCOs that practice transformation and care coordination activities were occurring as a result of the Accountable Care Collaborative.

As one practice said, “I...quite frankly, would not object to a site visit by [the Department]. I would love to be able to show them what we’re doing and the continuous quality improvement processes that we’re...participating in all the time.”

This was a particular issue for those that felt that some of the data measures did not reflect all the hard work in which they engaged as a result of the Accountable Care Collaborative. In general, these practices were proud of the work that had been accomplished as a result of being a part of the Accountable Care Collaborative and felt positively about the program in general. This desire for increased communication and collaboration with the RCCOs and the Department was not limited to simply showing their practice transformation activities but also included a desire to understand some of the higher level goals and thinking of the program, as one practice stated, “[W]hat’s their vision? And, where are they heading?”

Currently, there’s a sense that the RCCOs all operate differently which has been challenging for some practices, especially the ones that fall under multiple RCCOs.

On this topic, an interview said “And, I would also say that it’s also really helpful that somebody from [the Department] attend the RCCO meetings and is usually pretty candid and is usually very helpful in answering questions and giving us some perspective about why [the Department] is doing what it’s doing or what it’s thinking or, you know, what direction [the Department] is going. They have just started that in the last six months. And, I think that has been really helpful.”

While some of the high level thinking may be communicated to larger and more engaged practices, finding a way to disseminate that information to small and medium sized practices will be important as the Accountable Care Collaborative continues.

Practices had many other suggestions for improvement in the Accountable Care Collaborative. We have reported these in more detail throughout the report. It is important to note that while practices had many suggestions for making improvements to the Accountable Care Collaborative moving forward, they also expressed enthusiasm for the program and broadly recognized it as an important step toward needed health care reform in the future.

Conclusion

Our findings suggest that the Accountable Care Collaborative program to date has decreased total spending on health care services on a per member basis while maintaining quality of care. This decrease in spending is likely due in part to efforts by RCCOs and practices to enhance care coordination through various practice transformation efforts.

Many of the practices participating in the Accountable Care Collaborative have only recently implemented care coordination improvements or are in the midst of ongoing quality improvement efforts to enhance care coordination, and RCCOs have helped to support these new initiatives. We find that contemporaneously funded grants and CMS initiatives also contributed to the declines in spending. Controlling for these initiatives lowers the PMPM estimate by 20%. Some of the practices that we interviewed described being in a constant cycle of quality improvement efforts.

Given the recent and ongoing efforts by RCCOs and practices to enhance the coordination and quality of their care delivery, it may be that the full effect of their efforts on utilization, cost, and quality measures have yet to be realized. RCCOs and practices should continue to be supported in their ongoing efforts to enhance the coordination and quality of the care they deliver. These efforts may include: continued funding to support care coordination, access to timely data and support on how to integrate into practice care coordination efforts, performance indicators that align with practice specialty and care coordination approach, and member education.