

The Accountable Primary Care Model: Beyond Medical Home 2.0

THOMAS D. DOERR, MD; HERBERT B. OLSON, FSA; AND DEBORAH C. ZIMMERMAN, MD

ABSTRACT

OBJECTIVE: To test a novel model of primary care designed to improve healthcare outcomes.

METHODS: We used literature searches, data analytics, and interviews with high-performing physicians to create the Accountable Primary Care Model. We enhanced the “4 Cs” Primary Care Model (first contact; comprehensive care; continuous care; coordinated care) with the addition of 5 more Cs: physician credibility, collaborative learning, cost-effectiveness, capacity expansion, and career satisfaction. Then, using a retrospective quasi-experimental design, we compared 3 years of outcomes data from members in a Medicare Advantage plan in a virtually integrated delivery system with relevant benchmarks, including matched patients in fee-for-service Medicare.

RESULTS: The Medicare Advantage health plan averaged 29,556 members with costs that were 58.93% of those in fee-for-service Medicare. Spending was shifted when appropriate from inpatient to outpatient settings and from specialists to primary care physicians. After allocating \$80 per member per month for primary care costs, the health plan had medical cost ratios from 2010 to 2012 averaging 72.7% before surplus distribution. Member benefits were the best in the market, evidenced by the average maximum out-of-pocket expense limit of \$1875. The next best plans averaged \$2800. The health plan was rated 4.5 stars each year by CMS for quality, patient experience, access to care, and care process metrics. Of the primary care physicians surveyed, 90.2% would probably or definitely recommend this plan to another physician. About 91.4% of specialists surveyed were satisfied or very satisfied with this plan.

CONCLUSIONS: The Accountable Primary Care Model offers improved clinical outcomes, cost, and patient satisfaction—the Triple Aim formulated by the Institute for Healthcare Improvement—along with the additional aim of physician satisfaction. It is the Triple Aim *Plus One*.

Introduction

Volume-based reimbursement has limited the deployment of the Institute of Medicine/Starfield’s Primary Care Model (including the 4 Cs: first contact; comprehensive care; continuous care; coordinated care)^{1,2} despite its better healthcare outcomes at lower costs and validation of an assessment tool.³ Emerging evidence from controlled trials of the Patient Centered Medical Home (PCMH) model 3 to 5 years post implementation shows that it has produced little, if any, savings in the total cost of care. For example, Friedberg et al published a controlled trial 3 years after implementation of the PCMH for 39,559 patients in a multi-payer environment and found no total cost savings.⁴ Analysis of the retrospective study by Flottemesch et al reveals that a 10% increase in the Patient Practice Connections Readiness Survey (a proxy for medical home-ness) correlates with a 0.35% reduction in total annual costs of care for 58,391 patients with diabetes during years 3 through 5 post implementation.⁵ Wang et al found no significant changes in total medical costs during the third year post implementation of the PCMH in 1891 patients with diabetes.⁶ Furthermore, none of these studies includes the cost of supporting the PCMH, estimated to be \$148,347 to \$163,347 annually per primary care physician (PCP).⁷

Development of the APC Model

To enable physician transformation to accountability, Lumeris developed the Accountable Primary Care (APC) Model. Lumeris is a company that designs, builds, operates, measures, and optimizes value-based care models. This model embraces the 4 columns (Cs), or pillars, that support the Institute of Medicine/Starfield Primary Care Model,² and contributes 5 additional Cs. The goal of this model is to foster the Institute for Healthcare Improvement’s Triple Aim of improved clinical outcomes, cost, and patient satisfaction, along with the additional aim of physician satisfaction—it is the Triple Aim *Plus One*.

The APC Model is built on the Lumeris data analytics department's multivariate regression analysis of relationships between 23 hypothesized variables and the medical cost ratio to discover critical success factors. We also contracted with the Olin School of Business at Washington University in St. Louis for an independent discovery of critical success factors. They utilized multivariate regression analysis to identify the 13 most important independent variables that impacted cost/revenue ratios at the PCP level. They then used forecast error variance decomposition of 2010 data to validate the model they generated from 2009 data. In addition, in 2012, the primary author of this manuscript interviewed 10 high-performing PCPs and hospitalists with more than 200 years of collective experience in diverse settings such as medical groups, independent practice associations, and a physician-hospital organization. The high-performing physicians were identified based on Lumeris internal data analytics focusing on population health quality metrics, patient satisfaction, and costs of care. During the same time period, this author performed Google Scholar searches of the grey and medical literature about topics and synonyms related to the 9Cs. He then searched the references in, and the articles citing, each study, as appropriate. After obtaining full text copies of the 1377 articles that passed initial screening, he reviewed each, analyzed the key findings, and integrated them into coherent themes. All of this information informed the development of the APC model as we utilized qualitative interpretative analyses to discover larger meaning and theory.

The APC Model (The 9 Cs)

The APC Model has 4 levels. Level 0 is no PCP engagement, or the absence of accountability; PCPs are paid one-off for piecework. Levels 1, 2, and 3 represent low, medium, and high PCP engagement, respectively. Organizations may progress through these levels sequentially. Some organizations will have aspects of more than 1 level of the model implemented at the same time. Each level is implemented through a playbook that includes granular and specific actions for 8 different actors—the types being: administrator; analyst; care manager; chief medical officer; office

Table 1. Suggested Metrics of Success for the 9 Cs

C	Measure of success	Type	Based on
C1: 1st Contact	Potentially preventable ED visit rate Access-to-care metrics adjusted for age and gender	Outcome Outcome	Claims Claims
C2: Comprehensive	Prospective Health Assessments, comprehensive visit claims Average Outreach Worklist Score ^a for a population	Process	Claims
		Outcome	Data
C3: Continuous longitudinal	Survey of metrics of physician patient interactions: (CAHPS Clinician PCMH measures [19, 24, 29, 30, 35, 36, and 39-41]) ²³ HCPCS codes for advance care planning	Process	CAHPS
		Process	Claims
C4: Coordinated	Follow-up after high-risk discharge Readmission rate Coordination with consultants/specialists (PCMH 5-B1,2,5,6,7) ²⁵	Process	Claims
		Outcome	Claims
		Process	PCMH
C5: Credible	Rates of patients changing PCPs Stanford Trust in Physician Scale ²⁵ (questions 6 through 9) Number of consecutive time periods in which patient saw PCP	Outcome	Data ^b
		Process	Pt survey
		Process	Data
C6: Collaborative learning	Payer portal usage rates CME credits for monographs and computer training Contract metric performance	Process	Data
		Process	Data
		Outcome	Data
C7: Cost-effective	Utilization metrics: BD/K, ED/K, ALOS Risk-adjusted medical cost ratio ED vs urgent-care claims ratio	Outcome	Claims
		Outcome	Claims
		Outcome	Claims
C8: Capacity expansion	Ratio of NP and PA to PCP claims CPT codes for a multitude of office procedures	Process	Claims
		Process	Claims
C9: Career satisfaction	Physician compensation Medical organization's internal compensation formula SGIM Career Satisfaction Group survey (9 questions) ²⁶	Process	Data
		Process	MD survey
		Outcome	MD survey
Global	Costs of care by decile vs 5% fee-for-service cohort Patient experience-of-care score: How's Your Health? ²⁷ Patient ratings of their providers on 1-to-10 scale	Outcome	Data
		Outcome	Pt survey
		Outcome	Pt survey

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ALOS indicates average length of stay; BD/K, bed days per 1000 members per year; CPT, Current Procedural Terminology; ED, emergency department; ED/K, emergency department visits per 1000 members per year; HCPCS, Healthcare Common Procedure Coding System; NP, nurse practitioner; PA, physician assistant; PCMH, Patient Centered Medical Home; PCP, primary care physician; pt, patient; SGIM, Society of General Internal Medicine.

^aThe Outreach Worklist Score quantitates all the reasons that a patient would benefit from a PCP office visit.

^bOther data sources such as measures of utilization and performance. As indicated, some measures address the processes involved in a particular C, while others reflect the outcomes of the C.

staff (registered nurse, medical assistant); primary care physician/nurse practitioner/physician assistant; population health manager; and regional medical director—and roles in the healthcare system by day, week, month, and quarter.

C1: First contact refers to the patient's initial entry point into the healthcare system. When new health or medical needs arise, it is usu-



Table 2. Per Member per Year Costs: APC Model vs Unmanaged FFS

Calendar Year	2010	2011	2012	Average
FFS results*				
Mean	\$10,961	\$10,764	\$11,020	\$10,915
Median	\$2665	\$2601	\$2661	\$2642
APC results				
Mean	\$6130	\$6417	\$6751	\$6433
Median	\$1714	\$1794	\$1836	\$1781
% of FFS	55.93	59.62	61.26	58.93

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APC indicates Accountable Primary Care; FFS, fee-for-service.

*5% Medicare FFS sample results.

ally optimal for the first contact to be with the PCP. In a nationally representative sample of more than 20,000 episodes of care, episodes that began with PCP visits, as opposed to some other source of care in the system, were ultimately 53% less costly. Controlling for emergency department (ED) visits, health status, sociodemographics, and other relevant variables did not materially change this cost differential.⁸

C2: Comprehensive care means PCPs offer a large range of services across the spectrum of patient care needs, for all but the most uncommon problems. With the APC Model, office visits for older or more complex patients are usually scheduled for 30 minutes to proactively address both manifest and latent issues. Longer visits also enable compliant documentation and accurate diagnosis coding for comprehensive health risk status assessments. These assessments enable claims-enhanced, data-driven collaborative population management, as well as appropriate risk-adjusted revenue assignment in Medicare Advantage (MA) and many accountable care organizations, Medicaid, and state insurance exchange programs.

C3: Continuous, longitudinal, person-focused care means that PCPs and patients work together in the context of longstanding relationships to reach mutual decisions that transcend episodic care. Accountable PCPs tend to follow their patients across care settings as they attend to their care in hospitals, nursing homes, and hospices. Person-focused care includes discussing expectations, discerning preferences, setting priorities, and engaging with family, as well as the usual personalized prevention, screening, and advance care planning.

C4: Coordinated care is widely admired but narrowly understood and practiced in the United States. Transitions to and from EDs, inpatient facilities, and skilled nursing facilities are obvious high-stakes care coordination opportunities. Half of Medicare beneficiaries have 5 or more chronic conditions.⁹ And every referral

to a specialist—with accompanying requirements for information transfers, medication reconciliations, and adjustments to the patient's overall care plan— may be viewed as a type of care transition. Accountable PCPs, those practicing at the top of their professional training and providing comprehensive primary care, decrease the number of care coordination events as they enhance patient convenience.

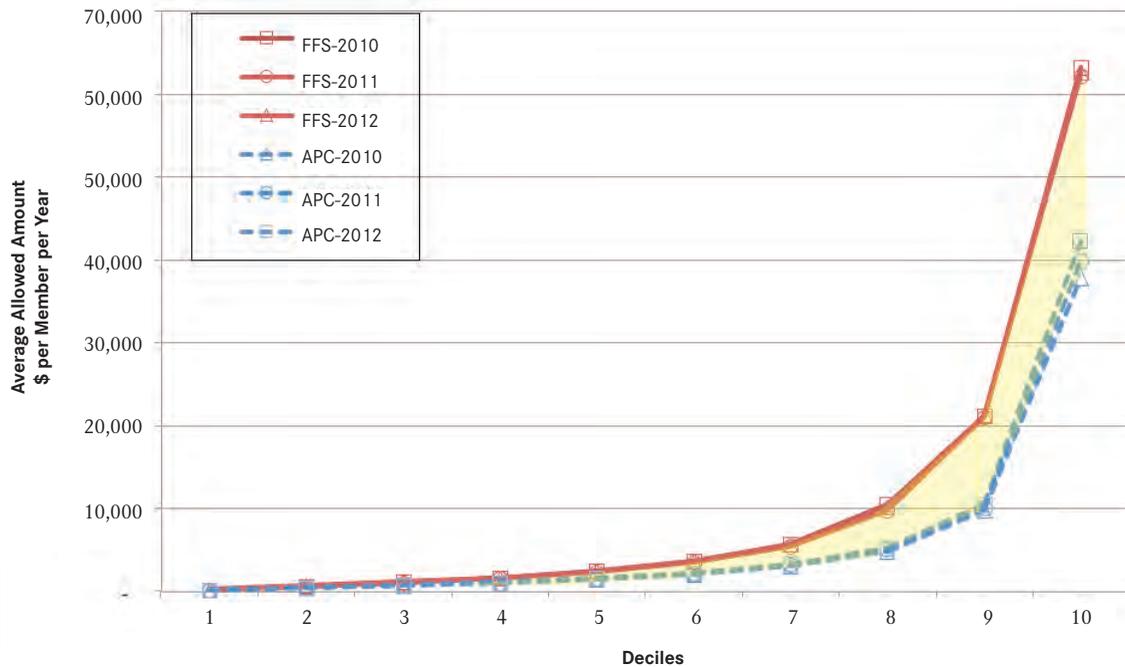
C5: Credible primary care earns patients' trust in the PCP's competence, beneficence, and professionalism. The strategic significance of this high level of trust is manifest as patients are willing to place confidence in PCP recommendations that may run contrary to their expectations or apparent wishes. Credibility is needed to counter the prevailing currents of Internet-driven consumerism and supply-sensitive care, which tend to undermine PCPs' authority as they promote patient-specific and individually designed care agendas. PCPs earn credibility with patients primarily by providing the first 4 Cs, but also by honoring patients' perspectives with active listening and respectful explanations, and by their professionalism in providing excellent customer service.¹⁰

One accountable PCP said that without credibility, physicians are nothing but referral clerks. Patients who do not trust their PCPs often want their care from specialists, even for health problems within the realm of primary care.

C6: Collaborative learning requires cooperation across institutional roles, organizational boundaries, and care settings. Both PCPs and the integrators¹¹ of the healthcare system (often the payer or hospital) make important contributions. Payers contribute clinical and claims data transparency aggregated from across the continuum of care. Clinicians perform the work of augmenting this shared, actionable longitudinal information with their own patient data. Clinicians' knowledge of their patients is complementary to payers'. It is more nuanced (as it includes patients' current preferences) but incomplete in its breadth. The system integrator typically funds the analytics, while clinicians engage with the resulting rules-based clinical decision support messages. These 2 parties also take accountability for various tasks and responsibilities in collaborative population management, built on a foundation of collaborative learning and trust.¹²

C7: Cost-effective care naturally results from the other Cs, but it is enhanced by proactive, intentional PCP-led efforts. These are empowered by important infrastructure items that help dedicated care teams succeed: educational programs, care management, clinical quality and cost data sharing, opportunity analyses, and clinical decision support from the integrator. Cost-effective care is the embodiment of the Triple Aim *Plus* One, as it optimizes the trade-

Figure 1. FFS vs APC: Average Allowed Amount per Member per Year by Decile



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APC indicates Accountable Primary Care; FFS, fee-for-service.

The x axis presents each cohort divided into 10 deciles sorted by cost, with the highest cost decile on the right. The average annual spending in dollars per member per year for each of these deciles is on the left side of the y axis. The solid red lines represent FFS Medicare patients; the blue dashed lines, APC patients. The yellow shaded area represents the savings that can be attributed to the APC Model for each decile.

offs among population health, patient experience, and cost for each healthcare decision. Most of the time, cost-effective care is based on the 5 Rs derived from Lean manufacturing: right diagnosis, right care, right place, right provider, and right time.¹³

While payers have an important role in cost-effective care, individualized decisions weighing trade offs and patient preferences are best made by physician-led care teams, in conjunction with patients and their families. Collaborative payers have the responsibility to provide vital integrated clinical and claims data with cost transparency. They also have the incentives and resources available to sift through the medical literature to identify evidence-based, fiscally responsible and, whenever possible, individualized clinical decision support messages and deliver them as close

to the point of care as possible. These activities support the practices and processes by which PCPs can bend the cost curve.¹⁴

C8: Capacity expansion is a requirement for the APC Model, because it causes dramatic shifts of care from specialists to PCPs and from hospitals to the outpatient setting. The requisite primary care can be estimated as the number of patients in a PCP panel multiplied by the expansive responsibilities articulated in C1 through C7 that must be managed by PCP-led teams in order to progress toward the Triple Aim *Plus One*.¹⁵ The collapsing interest in primary care among recent medical school graduates demands reinvention of the fee-for-service model.¹⁶ PCP productivity expansion is the best solution for this impending crisis. A number of approaches—including e-mail visits, team- or pod-based care, and the use of nurse



Table 3. Comparison of Some Models of Primary Care

	C1 1st Contact	C2 Comprehensive	C3 Continuous	C4 Coordinated	C5 Credible	C6 Collaborative learning	C7 Cost-effective	C8 Capacity Expansion	C9 Career Satisfaction	Notes
Fee-for-service ^{37,38}	-	-	=	= to +	=	=	-	=	-	
Primary care model ³⁹	+++	+++	+++	+++	+++	.	+ to ++	++	++	
Chronic care model ^{40,41}	+	+	+	+	+	+	+	++	=	
PCMH ²⁵	+ to +++	= to ++	- to ++	+ to +++	+ to ++	+ to ++	= to +	+++	=	Varies with the level of the Medical Home
APC Model	+++	+++	+++	+++	+++	+++	+++	+++	+++	

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 Source: Authors' analysis of published literature.

= means no effect on the model; - indicates that the model discourages the column. + indicates that the model encourages the column. *Accountable Primary Care Model. This table compares the Accountable Primary Care Model with other common models of care, based on the characteristics of each model. The pluses and minuses indicate the extent to which each column is part of the models listed in each row.

practitioners and other clinicians in appropriate situations—promise to narrow or even eliminate the PCP-to-future-needs gap.¹⁷

C9: Career satisfaction is markedly low among PCPs in the United States, with 36% saying they are dissatisfied with their careers—a rate 2 to 3 times higher than in Western European countries.¹⁸ Career satisfaction is dependent on nonmonetary as well as monetary considerations. For example, pediatrics is among the lowest paid specialties, but pediatricians have one of the highest work-life balance self-ratings of all specialties.¹⁹ Career satisfaction is directly related to issues such as meaning, control, order, work-life balance, and remuneration. Lumeris internally articulated the physician satisfaction (fourth aim) as “Triple Aim *Plus* One” in 2009. Other thought leaders, including Wallace,²⁰ Bodenheimer,²¹ Wagner,²² and the Institute for Healthcare Improvement have proposed this fourth aim.

Suggested metrics for the 9 Cs are presented in **Table 1**.

Methods

After creating the APC Model, we looked back at its performance in an MA plan with a PCP gatekeeper model. All 3 levels of the APC model are represented by various PCP organizations in the outcomes data. The health plan had 25,423 members 65 years and older in 2010, 30,091 in 2011, and 33,155 in 2012. These members

were matched to Medicare beneficiaries of the same county, age, and gender from a 5% Medicare fee-for-service (FFS) population limited data set each year.

The populations were intentionally not risk-adjusted by diagnosis codes, to eliminate any possible impact of more thorough diagnosis coding in the MA plan. In this analysis the MA plan’s contracted hospital rates were normalized to 100% of Medicare allowable. In a typical contract, the payer was allocated 15% of the total revenue to cover its costs. PCPs received 80% of the shareback (distribution of surplus) in global risk contracts. The percentage of shareback that was directly linked to performance on quality and process metrics increased over the 3-year period. By 2012, this percentage was typically 25% of the PCP’s 80% shareback. Approximately 1400 specialists contracted with the health plan. They were paid 110% of Medicare rates to compensate for their added work collaborating with PCPs. They were assured that they would receive more referrals with better documentation from PCPs if they provided high-value care. The plan contracted with 22 hospitals, of which 7 were independent and 15 were in 3 hospital systems. The provider profiles for 2010 to 2012 were similar.

Two cohorts were defined for comparison. The APC Model cohort consisted of all members of the Essence Healthcare plan who were 65 years and older. The 5% FFS sample consisted of a sample

of Medicare FFS data matched for age, gender, and county. Claims data for the 2 cohorts were analyzed for each of the 3 years.

Results

During calendar years 2010 through 2012, an MA plan (Essence Healthcare, #H2610) in Missouri and southern Illinois had costs that averaged 58.93% of a matched FFS Medicare cohort adjusted for age, gender, and county (Table 2).

Figure 1 contrasts this APC Model health plan with the matched FFS population for calendar years 2010, 2011, and 2012. Each cohort was divided into 10 deciles based on total costs of care for each member of the cohorts. Each year was considered to be independent of the other 2.

Figure 2 is an analysis based on classifying claims into 1 of 10 groups. The number of claims in each group (not the costs of care) were compared. Note that the reductions in costs in Figure 1 were greater in the higher-cost deciles than in the lower-cost deciles, reflecting some influence of expenditures on preventive services.

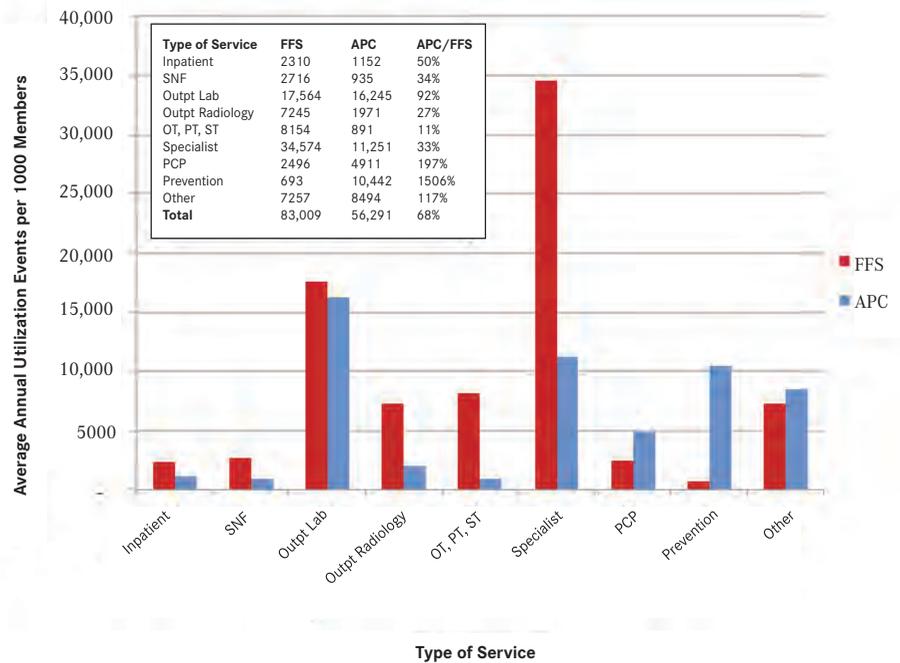
While the number of accountable PCP visits is 197% of the fee-for-service unmanaged control group, this underestimates the increase in primary care services because it does not account for the longer duration of many of these PCP visits and many APC model services (eg, virtual visits) that are not reimbursable in the FFS remuneration system and therefore not billed. This is offset by the 67% decrease in the total number of specialist claims. Acute hospital bed days were 50% lower and skilled nursing facility days 64% lower. Occupational, physical, and speech therapy were 89% lower, and outpatient radiology 71% lower than FFS. The APC model simultaneously increased the number of preventive service claims by 1400%.

This health plan was rated at 4.5 Stars²⁸ by CMS in 2012, 2013, and 2014 based partially on 2011, 2012, and 2013 Health Care Effectiveness Data and Information Set (HEDIS)/Star quality metrics for patient care delivered in 2010, 2011, and 2012, along with patient experience, access to care, and care process metrics. The top 19% to 30% of MA plans nationally are 4.5 or 5 Stars each year.²⁹ Of note,

the plan was rated at 5 Stars in the Consumer Assessment of Health Plans member survey questions C24 (getting needed care) and C28 (health plan quality) for each of these years.

In 2011 DSS Research performed a survey of PCPs contracted with this MA plan; the response rate was 44%. Of the 102 PCP respondents, 90.2% would definitely or probably recommend this MA Health plan to another physician. At the 95% confidence level, this is significantly higher than the national average (83.8%, n = 4529).³⁰ In 2010, DSS Research performed a survey of specialists contracted with this MA plan; the response rate was 19.4%. About 91.4% of the 169 specialist respondents were satisfied or very satisfied with this plan. At the 95% confidence level, this is significantly higher than the national average (88.9%, n = 5810).

If the PCPs were paid \$80 per member per month (PMPM)³¹—twice the FFS Medicare remuneration—and hospital contracts were normalized to 100% of Medicare, the MA plan would have medical cost ratios of 73.4% in 2010, 72.2% in 2011, and 72.5% in 2012, before surplus distribution. These low medical cost ratios occurred despite having the most generous member benefits, as measured by maximum out-of-pocket expenses (which were \$1875, while the



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APC indicates Accountable Primary Care; FFS, fee-for-service; OT, occupational therapy; outpt, outpatient; PCP, primary care physician; PT, physical therapy; SNF, skilled nursing facility; ST, speech therapy.

The bars represent the average of the number of events per 1000 member years for 2010, 2011, and 2012 for each type of encounter listed. The number of events are also listed in the data table. The red columns represent the FFS Medicare 5% Limited Data Set sample and the blue columns are the Accountable Primary Care Model results. The health plan deploying the APC Model had an average of 29,556 members during the 3-year period.



next lowest were \$2800, looking at plans from 2010 to 2012), of any zero-premium-dollar MA health maintenance organization in its market.

Discussion

As seen in Figure 2, the profound redistributions of medical services from hospitals and skilled nursing facilities to the outpatient setting, and from specialists to PCPs, are at the heart of the APC Model. Specialists are empowered to practice at the top of their training, as the APC model frees them from many routine follow-up visits and basic care that is provided by PCPs. The overall result is improvement in outcomes from both providers. These changes are consistent with Landon and Roberts' vision for specialty care under global payment systems.³² The 5-Star member survey ratings for access to care and quality of care suggest that the APC Model reins in supply-sensitive care³³ and increases preventive care services while maintaining quality and patient satisfaction. C1 through C9, but especially C5, produce these changes.

Other models of care can be analyzed through the lens of the 9 Cs. The Direct Primary Care Medical Home concept developed by Qliance Medical Management Inc can include all of the 9 Cs except for C6.^{34,35} The APC Model has greater emphasis on C5 and C7, but both care models include longer visits, a greater range of primary care office services, substantially more revenue for primary care, and virtual visits. The savings generated by the APC model provide the enhanced funding for primary care that is required from patients through the age-related monthly fees of the Direct Primary Care model. This enables the APC model to serve patients of all socioeconomic strata, since it provides the most generous benefits in the market in a zero-dollar-premium MA plan. Financial outcomes of the Direct Primary Care model are unknown.

The Primary Care Model defined C1-4, but these expansions of primary care are less substantially emphasized in the Medical Home and Wagner's Chronic Care models (Table 3). The Medical Home as deployed today is an important building block for the transition from volume to value, but it does not go far enough. Care coordination fees typically ranging from \$3 to \$15 PMPM don't cover the costs of practice reengineering and primary care expansion. PCP expenses in the APC model are estimated to be \$80 PMPM—twice the typical Medicare FFS compensation—for a Medicare population, consistent with Goroll's model of comprehensive payment for comprehensive adult primary care.³¹

Several additional models of primary care include some of the 9 Cs. The Collaborative Care Model developed by Aetna and NovaHealth is focused mostly on C6, utilizing payer-sponsored care managers.⁴¹ Its encouraging outcomes were limited to 750 members of 1 Independent Physician Association. ThedaCare's Collaborative Care Units are a redesign of inpatient care that has lowered costs of inpatient care by 25% and improved quality metrics.⁴² ThedaCare

also reported improvements in outpatient quality.⁴³ Their model incorporates C6 and C7. The CareMore model includes retraining hospitalists into extensivists, who provide hospitalist care and follow these patients in the office for a visit or two before releasing them back to the care of their PCPs.⁴⁴ The extensivists effectively coordinate care transitions (C4) and expand PCP capacity (C8). This model lowered inpatient utilization, length of stay, and readmissions, but overall financial outcomes are not available. HealthCare Partners Medical Group developed a care model that targets high-need patients at risk of hospitalization using multidisciplinary care teams and Homecare Teams. They bring high-risk conditions under control and return the patients to care with their PCPs. The organization's Medicare patients use 800 acute hospital days per 1000 people per year. While their model is focused on team care rather than PCPs, they nonetheless utilize parts of C1, C2, C4, C6, C7, and C8.⁴⁵ Limited information is available about Boeing/Regence's pilot study of the Intensive Outpatient Care Program, which included C4, C6, C7, and C8 to reduce the costs of care by 20% while improving quality in the sickest quintile of the population.⁴⁶ The New Model of Family Medicine was developed by the American Academy of Family Physicians and TransforMED. The model promotes all the Cs except C5 and C7, but it is not very granular and lacks published outcomes.^{47,48} The Institute of Medicine's 10 New Rules for 21st Century Health Care include C1, C3, C4, C6, and C7, but the plan lacks detailed recommendations and outcomes.⁴⁹ Dartmouth Clinical Microsystems offers a well-established, dynamic, customizable approach to systems improvement, rather than a specific model of care.⁵⁰ Implementations in primary care may utilize Wagner's Chronic Care Model and include C1 through C4, and C8.⁵¹ We could not identify any published systematic reviews or meta-analyses of Clinical Microsystems' cost and quality outcomes in primary care.

Limitations

This study has several limitations. The APC model was partially derived from some physicians participating in the testing of the same model. In addition, the model was tested retrospectively in a single health plan in 1 market. It is also unclear to what extent the health plan's gatekeeper model and PCP compensation through shared global risk contracts with quality incentives contributed to the outcomes, above and beyond the APC Model itself. The APC Model is designed for scalable implementations and various levels of the model are being deployed in multiple markets, but these independent outcomes data are not yet available.

The demonstrated strength of the APC Model is its extension of the proven Primary Care Model and the strong support for C5 through C9 in the medical literature. Note that this performance was not obtained within an Integrated Delivery System. The contracted PCPs came from medical groups, a Physician Hospital Organization and several Independent Physician Associations of varying

cohesiveness. This improves the likelihood that the model may be replicable outside an Integrated Delivery System. The APC Model fosters the transition from volume- to value-based care by parsing it into 3 levels or steps. This model is completely consistent with the vision for healthcare reform articulated by Mostashari, Sanghavi, and McClellan.⁵²

Conclusion

The 2011 Medical Home provides building blocks for better healthcare. The 9 Cs of the APC Model extend the Medical Home model as they provide an empirical, programmatic road map for physician-led teams that invigorates the practice of high-value primary care medicine.

The APC Model enables a win-win-win system for patients, providers, and payers. All 3 benefit from improved patient satisfaction, higher-quality care, and lower costs of care. Collectively, the framework of the 9 Cs of the APC Model offers new hope for our beleaguered healthcare system, and for primary care in particular. Based on these results in a 4.5-Star MA plan, it is possible to utilize the 9 Cs to progress toward the Triple Aim *Plus* One.

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Address Correspondence to: Thomas D. Doerr, MD, c/o Lumeris, 13900 Riverport Dr, St. Louis, MO 63043. E-mail: APCmodel@lumeris.com.

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