

The Characteristics of Physician Practices Joining the Early ACOs: Looking Back to Look Forward

Stephen M. Shortell, PhD, MPH, MBA; Patricia P. Ramsay, MPH; Laurence C. Baker, PhD; Michael F. Pesko, PhD; and Lawrence P. Casalino, MD, PhD

A major response to the continued growth in healthcare costs and the highly varying quality of care in the United States has been the formation of accountable care organizations (ACOs). As of 2018, there are 1011 ACOs, with at least 1 located in every state, serving approximately 32 million people.¹ Enrollment has been projected to grow to 68 million by 2020.² Despite high hopes for savings, early research suggests only modest savings, albeit with no diminution of quality and, in fact, with increases on some quality measures.³⁻⁸ Substantial variation in the performance of ACOs has also been noted.^{9,10}

There are a number of possible reasons that ACOs thus far appear to have achieved only modest savings. This paper's contribution lies in using a unique national survey of physician practices to explore the possibility that there were differences in characteristics and capabilities between physician practices that intended to join the Medicare ACO programs in 2012 and those that did not. Presumably, those practices intending to join might have been larger, had greater access to resources, and believed they had greater ability to contain costs, achieve savings, and improve quality by doing a better job of managing patient care.

Taking a look back to the beginning of the ACO program is important for considering what may happen with the introduction of alternative payment models (APMs) and the Merit-based Incentive Payment System (MIPS) authorized to take effect in 2019 as part of the Medicare Access and CHIP Reauthorization Act. Practice leaders will need to assess their ability to take on financial risk and meet the challenge of performance metrics. Due to the importance of health information technology (HIT), care management processes (CMPs), and quality improvement (QI), we assess whether practices with strong capabilities in these areas were more or less likely to intend to join.¹¹⁻¹⁴ Such capabilities are markers of a practice's ability to redesign care to meet quality goals and achieve shared savings. If practices without strong capabilities were the most likely to join, then the ability of ACOs to implement the necessary changes to drive higher-value care may have been limited, with implications for those that have joined more recently and those intending to join in the future.

ABSTRACT

OBJECTIVES: To assess whether the characteristics and capabilities of individual practices intending to join the early Medicare accountable care organization (ACO) programs differed from those of practices not intending to join.

STUDY DESIGN: Data from a 2012-2013 national survey of 1398 physician practices were linked to 2012 Medicare beneficiary claims data to examine differences between practices intending to join a Medicare ACO and practices not intending to join a Medicare ACO.

METHODS: Differences were examined with regard to patient sociodemographic characteristics and disease burden, practice characteristics and capabilities, and cost and quality measures. Logistic regression was used to examine the differences.

RESULTS: Practices intending to join were more likely to have better care management capabilities (odds ratio [OR], 1.72; $P < .003$), health information technology functionality (OR, 1.87; $P < .001$), and use of quality improvement methods (OR, 1.52; $P < .04$). They were also more likely to have had prior pay-for-performance experience (OR, 1.59; $P < .02$) and less likely to be physician-owned (OR, 0.51; $P < .001$). However, the practices with the greater capabilities still used half or less of them.

CONCLUSIONS: Physician practices that intended to join the early ACO programs had greater capabilities and experience to manage risk than those practices that decided not to join. The early ACO programs thus attracted the more capable physician practices, but those practices still fell short of implementing key recommended behaviors. The findings have implications for future physician practice selection into ACOs.

Am J Manag Care. 2018;24(10):469-474

TAKEAWAY POINTS

- ▶ Practices intending to join accountable care organizations (ACOs) in 2012 had greater capabilities than those not intending to join but implemented half or less of the capabilities. This may partially help explain the great variation found in ACO performance. The findings suggest the need for more careful targeting of practices in the future and greater investment in developing the capabilities of future practices to succeed in a value-based payment environment.
- ▶ Those practices intending to join were also more likely to be hospital-owned and have prior experience with pay-for-performance payment models.
- ▶ There were no differences in practice size or related variables.
- ▶ There were no differences in patient demographic characteristics or illness severity/disease burden or in baseline Medicare spending per beneficiary, ambulatory care-sensitive admission rates, or 30-day unplanned hospital readmissions.

Beneficiaries were eligible if they were 65 years or older as of January 1, 2011; were not in the end-stage renal disease program; and were alive and enrolled in Medicare parts A and B throughout 2011 and 2012. The research protocol was approved by the Institutional Review Board of the University of California, Berkeley.

Outcome Variable

The dichotomous dependent variable was the practice's intention to join an ACO in 2012. Specifically, respondents were asked if their organization applied to become an ACO during 2012. For our analysis, we constructed a 0/1 variable indicating those that responded affirmatively to this question.

STUDY DATA AND METHODS

We draw on a unique national survey of individual physician practices in 2012-2013 to identify those choosing to join the Medicare ACO programs versus those not choosing to join. We collected data on practice ownership, size, care management capabilities, HIT use, QI processes, and related variables. We linked these data to the Medicare claims files to examine baseline differences across practices in Medicare patient characteristics and illness severity/disease burden, focusing on high-cost/high-need patients' spending, ambulatory care-sensitive admissions (ACSAs), and 30-day unplanned hospital readmissions.^{15,16}

Specifically, we used the IMS Healthcare Organizational Services Database to select a national sample of physician practices, with oversampling in 17 communities that participated in the Robert Wood Johnson Foundation Aligning Forces for Quality program. Veterans Health Administration practices and academic medical center practices were excluded. We focused on practices most likely to provide care for patients with chronic illnesses, including asthma, congestive heart failure, depression, and diabetes. These included general internal medicine, family medicine, general practice, cardiology, endocrinology, and pulmonology practices.

Survey Methods

Between January 2012 and November 2013, the physician or administrative practice leader completed a 40-minute telephone survey administered by RTI International. The survey instrument ([eAppendix A](#) [eAppendices available at [ajmc.com](#)]) was based on prior National Survey of Physician Organizations (NSPO) surveys. A total of 1398 practices responded, yielding an adjusted response rate of 50%.¹⁷ We restricted our analyses to the practices that included at least 15% primary care physicians (PCPs), which totaled 1040 practices. Of these, 235 (22.6%) practices intended to join a CMS ACO program. These data were then linked to the 2012 Medicare beneficiary claims data using the CMS method for assigning beneficiaries to ACOs ([eAppendix B](#)). A total of 868,213 beneficiaries were linked to surveyed practices; 311,116 beneficiaries were attributed to the physician practices intending to join the CMS ACO program.

Predictor Variables

Our principal independent variables of interest were measures of CMPs, HIT functionality, and QI activities. Each practice was measured on a 20-item care management capability index, which included items involving nurse care management, reminders and education for patients, provision of quality data to physicians, and use of a registry to identify patients with chronic illnesses. Each practice was also measured on a 14-item HIT functionality index that included various uses of an electronic health record, such as clinical decision support, collection of quality data, and electronic connectivity with patients. QI activities were measured based on whether the practice used 1 or more of 5 specific QI processes, including Plan-Do-Study-Act cycles, lean, Six Sigma, and related approaches. The elements of these 3 indices along with their reliability are shown in [eAppendix C](#). We recoded these variables and placed the practices into dichotomous categories based on whether or not they scored in the top quartile of each composite index.

In addition, we included a number of other measures of practice characteristics in our analysis. Ownership was measured by whether the practice was physician-owned, hospital-owned, or a federally qualified health center (FQHC) or community health center (CHC). Practice size was measured by the 6 categories shown in [Table 1](#) and ranged from 1 or 2 physicians to more than 100. We also included each practice's percentage of PCPs as a continuous variable and whether or not the practice had previous experience with pay-for-performance and/or public reporting programs.

Medicare Spending

Using the 2012 Master Beneficiary Summary File Cost and Use segment, we measured total spending per beneficiary, defined as the allowed amounts paid for services by Medicare, coinsurers, and the beneficiary. We also measured spending in 4 subcategories: hospital services, physician services, postacute care, and other services. Outliers were reduced to the amount spent at the 99th percentile for each subcategory. Each subcategory was then summed to measure total spending. We standardized spending to adjust for

geographic differences in Medicare payments at the county level by multiplying spending in each category by the ratio of Medicare county-level total standardized spending to total actual spending in that county in 2012.¹⁸ We used this to construct practice-level measures of mean spending.

To assess severity of illness/disease burden, we used 2011 Medicare claims and modified a method developed by Jha et al by placing each beneficiary into 1 of 5 categories of need, ranging from those predicted to have the highest need (beneficiaries with 2 or more frail conditions) to the lowest need (beneficiaries with no chronic conditions), based on total spending on care in 2012.¹⁹ For purposes of this analysis, we collapsed the category with 3 or more chronic conditions and the category with 2 or more frailty conditions into 1 category labeled high-need, and those with 2 or fewer major conditions, only minor conditions, or no other conditions into the low-need category.

Quality/Utilization Measures

We used 2 utilization-based measures of quality. The first was the number of unplanned 30-day hospital readmissions for each beneficiary, measured using the hospitalwide (all-condition) 30-day risk-standardized readmission measure, which excludes planned readmissions.²⁰ We computed whether or not the practice was above or below the median on this measure. Second, we measured the number of ACSAs for each beneficiary for conditions, such as congestive heart failure, chronic obstructive pulmonary disease, and short-term complications of diabetes, for which good outpatient care may reduce the rate of hospital admissions.²¹ We computed whether or not the practice was above or below the median on this measure.

Covariates

From the Medicare Master Beneficiary Summary File, we included beneficiaries' age, sex, racial/ethnic group, whether the beneficiary was dual-eligible (covered by both Medicare and Medicaid), and whether disability was the original reason for Medicare eligibility. We used these data to calculate the share of each practice's Medicare beneficiaries in each of the above areas. We also calculated the percentage of the practice's patients that were in the high-need/

TABLE 1. Comparison of CMS ACO Practices With All Other Practices

	CMS ACO Practices (n = 235)	All Other Practices (n = 805)	P ^a
Number of beneficiaries, mean (SD)	1323.90 (3358.90)	692.00 (2153.30)	.007
Beneficiary age (years), mean (SD)	75.10 (2.17)	75.16 (2.12)	.70
% male patients, mean (SD)	38.25 (13.39)	39.16 (39.89)	.25
% dual-eligible patients, mean (SD)	13.85 (19.62)	14.20 (17.88)	.79
Major chronic conditions per beneficiary, mean (SD)	1.06 (0.33)	1.06 (0.39)	.89
Minor chronic conditions per beneficiary, mean (SD)	3.56 (0.60)	3.60 (0.73)	.42
% disabled patients, mean (SD)	7.55 (5.07)	8.14 (6.38)	.14
% high-need patients, mean (SD)	57.15 (12.16)	56.13 (12.62)	.27
% other than white race category, mean (SD)	16.31 (22.91)	14.18 (20.35)	.20
Practice group size category (%)			
1-2 physicians	31.06	46.34	<.001
3-9 physicians	36.17	29.81	
10-19 physicians	8.09	7.58	
20-49 physicians	6.81	6.34	
50-99 physicians	6.38	4.47	
≥100 physicians	11.49	5.47	
Practice ownership (%)			
Hospital-owned	37.87	17.76	<.001
Physician-owned	53.19	71.55	
FQHC/CHC	8.94	10.68	
Primary care physicians (%)	85.45 (23.52)	88.95 (20.79)	.04
% revenue from Medicaid, mean (SD)	12.46 (14.15)	11.23 (14.28)	.25
HRR spending level, mean (SD)	9625 (1317)	9375 (1389)	.01
Any pay-for-performance (%)	77.87	61.86	<.001
Any public reporting (%)	74.47	57.89	<.001
QI index score ^b (%)	46.81	25.22	<.001
HIT index score ^b (%)	50.64	27.58	<.001
CMPs index score ^b (%)	44.68	23.60	<.001
Total spending, ^{c,d,e} mean (SD)	\$5476 (\$2157)	\$5616 (\$2943)	.43
Hospital services spending, ^{d,e} mean (SD)	\$2714 (\$1375)	\$2668 (\$1644)	.67
Physician services spending, ^{d,e} mean (SD)	\$913 (\$315)	\$939 (\$396)	.29
Postacute spending, ^{d,e} mean (SD)	\$760 (\$721)	\$870 (\$1050)	.07
Other spending, ^{d,e} mean (SD)	\$1090 (\$348)	\$1139 (\$484)	.08
ACSAs (per 100 beneficiaries)	3.7 (4.3)	3.8 (4.0)	.75
30-day unplanned hospital readmissions (per 100 beneficiaries)	1.4 (1.6)	1.5 (2.4)	.51

ACO indicates accountable care organization; ACSA, ambulatory care-sensitive admission; CHC, community health center; CMP, care management process; FQHC, federally qualified health center; HIT, health information technology; HRR, hospital referral region; QI, quality improvement.

^aT test of means or χ^2 test of contingency tables.

^bPercentage of those scoring in top quartile.

^cMean Medicare spending calculated as the sum of 4 spending subcategories (hospital costs, post-acute care costs, physician services costs, and all other costs), each winsorized at the 99th percentile.

^dAdjusted for geographic differences at the county level.

^eWinsorized at 99th percentile.

TABLE 2. Multivariable Analysis of Baseline Differences Between ACO Practices and Non-ACO Practices

	Total Practice Sample (N = 1040)		
	Odds Ratio	95% CI	P
Mean beneficiary age (years)	1.04	0.94-1.15	.44
% male patients	1.02	1.00-1.03	.09
% dual-eligible patients	1.01	1.00-1.03	.07
Mean number of major chronic conditions per beneficiary	1.64	0.53-5.03	.39
Mean number of minor chronic conditions per beneficiary	0.94	0.67-1.32	.72
% disabled patients	0.99	0.96-1.03	.65
% high-need patients*	0.99	0.95-1.04	.74
% other than white race category	0.99	0.98-1.00	.21
Practice group size category			
1-2 physicians		Reference	
3-9 physicians	1.36	0.91-2.04	.14
10-19 physicians	0.98	0.49-1.97	.96
20-49 physicians	0.91	0.42-1.97	.81
50-99 physicians	1.05	0.46-2.38	.90
≥100 physicians	1.16	0.48-2.81	.74
Practice ownership			
Hospital-owned		Reference	
Physician-owned	0.51	0.34-0.75	.001
FQHC/CHC	0.31	0.15-0.62	.001
Practice % primary care physicians	1.00	0.99-1.01	.84
Practice % revenue from Medicaid	1.01	0.99-1.02	.39
Practice has any pay-for-performance	1.59	1.08-2.35	.02
Practice has any public reporting	1.39	0.96-2.01	.09
Practice QI index score ^b	1.52	1.02-2.25	.04
Practice HIT index score ^b	1.87	1.34-2.62	<.001
Practice CMP index score ^b	1.72	1.20-2.46	.003
Mean total spending per beneficiary ^{c,d}	1.00	1.00-1.00	.06
Practice per patient ACSAs above median	0.95	0.65-1.38	.78
Practice per patient 30-day unplanned readmissions above median	1.06	0.72-1.54	.78
HRR spending	1.00	1.00-1.00	.05
AIC		1005	

ACO indicates accountable care organization; ACSA, ambulatory care-sensitive admission; AIC, Akaike information criterion; CHC, community health center; CMP, care management process; FQHC, federally qualified health center; HIT, health information technology; HRR, hospital referral region; QI, quality improvement.

*High-need defined as having 3 or more chronic conditions or 2 or more frailty indicators.

^bCompares those scoring in top quartile with all others.

^cTotal spending calculated as the sum of 4 spending subcategories (hospital costs, postacute care costs, physician services costs, and all other costs), each winsorized at the 99th percentile.

^dAdjusted for geographic differences at the county level.

high-complexity category versus the low-need/low-complexity category. To account for possible heterogeneity within the need and complexity categories, we also included variables for each beneficiary's number of major and minor conditions. We also took into account the percentage of the practice's revenue from Medicaid, measured as a continuous variable. Finally, we included the mean annual spending per Medicare beneficiary for the hospital referral region in which the beneficiary resided, in order to account for the possible influence of local practice norms.

Statistical Analysis

We used a logistic model to evaluate our binary dependent variable of whether or not the practice chose to join an ACO. All analyses were conducted accessing the Medicare Virtual Data Research Center using SAS Enterprise Guide 7.1 (SAS Institute; Cary, North Carolina).

RESULTS

Table 1 shows that the practices that chose to join a CMS ACO program had a greater number of Medicare beneficiaries, had twice as many practices with greater than 100 physicians, were more likely to be hospital-owned, had more experience with pay-for-performance and public reporting programs, and had greater capabilities in CMPs, HIT functionality, and QI activities than practices that did not join. It is important to note that, as Table 1 illustrates, even the practices scoring in the top quartile of the QI index and the CMP index were using less than half of the available recommended capabilities and, in regard to HIT functionality, were using only half. The 2 groups did not differ on any of the characteristics of patients seen, including the percentage of high-need/high-complexity patients. There were also no differences in total spending (costs), ACSA rates, or 30-day unplanned hospital readmissions.

The multivariable results shown in **Table 2** indicate that the practices that joined ACOs had more prior experience with pay-for-performance programs (odds ratio [OR], 1.59) and greater capabilities in CMPs (OR, 1.72), HIT functionality (OR, 1.87), and QI (OR, 1.52). The results also indicate that the physician-owned practices and the FQHC/CHC sites were less likely to join than the hospital-owned practices (ORs, 0.51 and 0.31, respectively). There were no differences in practice size, types of patients treated, spending, ACSAs, or 30-day unplanned readmissions. The latter 2 variables were also assessed by whether or not a practice/group had any ACSAs or not or any 30-day unplanned readmissions or not, with virtually identical results.

DISCUSSION

We expected that practices intending to join ACOs would have greater CMP, HIT, and QI capabilities in order to better manage risk and achieve shared savings. The data support this expectation. But at the same time, even those scoring in the top quartile had only between 45% and 50% of the identified capabilities in CMPs, HIT, and QI. The practices joining ACOs also had greater prior experience

with private-sector pay-for-performance programs containing some of the same performance metrics and incentives as those associated with the Medicare ACO programs. But although such practices may have more such capabilities and prior experience with value-based payment programs,^{22,23} there is mixed evidence to suggest that they are yet associated with better performance.^{3,4,12,24-26} It is important to recognize that most such practices have been operating in a largely risk-free fee-for-service world in which the capabilities and infrastructure to provide care more efficiently and effectively have not been needed. Given the results presented, it is likely that most practices lack the capabilities needed to succeed under new risk-based payment models. Those practices already doing well, or that at least believe that they have the QI, HIT, and CMP capabilities to do so, have the opportunity to get paid for continuing to do well. Those practices that have fewer resources to invest in such capabilities are likely to fall further behind, potentially exacerbating possible disparities in patient care. Thus, “catch-up” policies and practices may be needed, including technical assistance programs, such as the CMS Transforming Physician Practice Initiative; consolidation of practices or ownership by hospitals to create or gain access to greater resources; and partnerships with insurers and nonprovider organizations that provide management and infrastructure support services.²⁷ Recent research suggests that physicians themselves participating in Medicare ACOs are only moderately convinced that ACOs are an effective model for delivering cost-effective care,²⁸ despite some evidence that physician-owned practices are more financially successful.^{3,4} Those practices entering into ACO arrangements today and in the future may require an even stronger set of capabilities and face an even steeper learning curve to be successful under the newly evolving value-based payment arrangements.²⁹

Limitations

Although there were small differences between practices that responded to the NSPO survey versus those that did not,²² it is possible that unmeasured differences existed between the 2 groups that could result in biased estimates of the variables associated with those practices that intended to join an ACO versus those that did not. We also did not capture all practices in 2012 that intended to apply to become a Medicare ACO. Further, although we have key informant survey measures of each practice’s use of CMPs, HIT functionality, and QI processes, we do not have fine-grained measures of the quality or consistency of implementation of these processes, which are better captured through qualitative methods. Finally, we did not have access to the follow-up performance measures of the individual physician practices that intended to join an ACO in 2012, but rely on the literature cited above³⁻¹⁰ indicating that overall ACO accomplishments to date have been modest.

CONCLUSIONS

Physician practices intending to join an ACO in 2012 at the beginning of the program had greater care management capabilities, HIT functionality,

and use of QI methods; were more likely to be hospital-owned; and had more experience with value-based payment programs than those practices that were not intending to join. There were no net differences in size, types of patients seen, or other characteristics. Thus, the early-joining physician practices did have greater capabilities to manage risk and succeed under the new value-based payment model. However, despite the involvement of such practices overall, ACO performance has been modest and, to some extent, disappointing. The finding that even the more capable practices used only 50% or less of recommended care management, HIT, and QI processes may be a reason for this relative lack of success. Forthcoming APMs and MIPS value-based payment models will likely present challenges to not only more advanced physician practices but also, in particular, to those currently lacking the needed capabilities to succeed. ■

Acknowledgments

The research upon which this paper is based was supported by the Commonwealth Fund under grant #20150261. The authors thank David Muhlestein, PhD, JD, of Leavitt Partners for supplying information helpful to the analysis.

Author Affiliations: Center for Healthcare Organizational and Innovation Research (CHOIR), School of Public Health, University of California, Berkeley (SMS, PPR), Berkeley, CA; Department of Health Research and Policy, Stanford University School of Medicine (LCB), Stanford, CA; Department of Economics, Georgia State University (MFP), Atlanta, GA; Department of Healthcare Policy and Research, Weill Cornell Medicine (LPC), New York, NY.

Source of Funding: The Commonwealth Fund, grant 20150261.

Author Disclosures: Dr Shortell is a member of the Advisory Board of the Centene Corporation. Dr Casalino is a board member of the Hospital Research and Educational Trust of the American Hospital Association and is part of the American Medical Association Committee on Professional Satisfaction. The remaining authors report no relationship or financial interest with any entity that would pose a conflict of interest with the subject matter of this article.

Authorship Information: Concept and design (SMS, PPR, LCB, MFP, LPC); acquisition of data (SMS, PPR, LPC); analysis and interpretation of data (SMS, PPR, LCB, MFP, LPC); drafting of the manuscript (SMS, PPR); critical revision of the manuscript for important intellectual content (SMS, LCB, MFP, LPC); statistical analysis (PPR, MFP); obtaining funding (SMS); administrative, technical, or logistic support (PPR); and supervision (SMS).

Address Correspondence to: Stephen M. Shortell, PhD, MPH, MBA, University of California, Berkeley School of Public Health, 2121 Berkeley Way, Room 5317, Berkeley, CA 94720. Email: shortell@berkeley.edu.

REFERENCES

- Muhlestein D, Saunders R, Richards R, McClellan M. Recent progress in the value journey: growth of ACOs and value-based payment models in 2018. *Health Affairs Blog website*. healthaffairs.org/doi/10.1377/hlthlog.20180810.481968/full. Published August 4, 2018. Accessed September 5, 2018.
- Ahier B. The ACO journey continues. *LinkedIn website*. linkedin.com/pulse/aco-journey-continues-brian-ahier. Published September 16, 2016. Published July 6, 2017.
- McWilliams JM, Cherner ME, Landon BE, Schwartz AL. Performance differences in year 1 of Pioneer accountable care organizations. *N Engl J Med*. 2015;372(20):1927-1936. doi: 10.1056/NEJMsa1414929.
- McWilliams JM, Hatfield LA, Cherner ME, Landon BE, Schwartz AL. Early performance of accountable care organizations in Medicare. *N Engl J Med*. 2016;374(24):2357-2366. doi: 10.1056/NEJMsa1600142.
- Colla CH, Lewis VA, Kao LS, O'Malley AJ, Chang CH, Fisher ES. Association between Medicare accountable care organization implementation and spending among clinically vulnerable beneficiaries [erratum in *JAMA Intern Med*. 2017;177(11):1702-1703. doi: 10.1001/jamainternmed.2017.4130]. *JAMA Intern Med*. 2016;176(8):1167-1175. doi: 10.1001/jamainternmed.2016.2827.
- Colla CH, Wennberg DE, Meara E, et al. Spending differences associated with the Medicare Physician Group Practice Demonstration. *JAMA*. 2012;308(10):1015-1023. doi: 10.1001/2012.jama.10812.
- Song Z. Accountable care organizations in the U.S. health care system. *J Clin Outcomes Manag*. 2014;21(8):364-371.
- Nyweide DJ, Lee W, Cuerdon TT, et al. Association of Pioneer Accountable Care Organizations vs traditional Medicare fee for service with spending, utilization, and patient experience. *JAMA*. 2015;313(21):2152-2161. doi: 10.1001/jama.2015.4930.
- Kocot SL, White R. Medicare ACOs: incremental progress, but performance varies. *Health Affairs Blog website*. healthaffairs.org/doi/10.1377/hlthlog.20160921.056715/full. Published September 21, 2016. Accessed November 21, 2017.

10. D'Anno T, Broffman L, Sparer M, Kumar SR. Factors that distinguish high-performing accountable care organizations in the Medicare Shared Savings Program. *Health Serv Res.* 2018;53(1):120-137. doi: 10.1111/1475-6773.12642.
11. Vogeli C, Spirt J, Brand R, et al. Implementing a hybrid approach to select patients for care management: variations across practices. *Am J Manag Care.* 2016;22(5):358-365.
12. Blumenthal D, Chernof B, Fulmer T, Lumpkin J, Selber J. Caring for high-need, high-cost patients—an urgent priority. *N Engl J Med.* 2016;375(10):909-911. doi: 10.1056/NEJMp1608511.
13. Hsu J, Vogeli C, Price M, et al. Substantial physician turnover and beneficiary 'churn' in a large Medicare Pioneer ACO. *Health Aff (Millwood).* 2017;36(4):640-648. doi: 10.1377/hlthaff.2016.1107.
14. Mechanic RE, Zinner D. Risk contracting and operational capabilities in large medical groups during national healthcare reform. *Am J Manag Care.* 2016;22(6):441-446.
15. Walker DM, Mora AM, Scheck McAlearney A. Accountable care organization hospitals differ in health IT capabilities. *Am J Manag Care.* 2016;22(12):802-807.
16. Wu FM, Shortell SM, Lewis VA, Colla CH, Fisher ES. Assessing differences between early and later adopters of accountable care organizations using taxonomic analysis. *Health Serv Res.* 2016;51(6):2318-2329. doi: 10.1111/1475-6773.12473.
17. Smith TW, ed. *Standard Definitions: Final Dispositions of Case Codes and Outcome Rates for Surveys.* 7th ed. Deerfield, IL: American Association for Public Opinion Research; 2011.
18. Public Use File. CMS website. cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/Medicare-Geographic-Variation/GV_PUF.html. Updated May 11, 2018. Accessed May 11, 2018.
19. Joynt KE, Figueroa JF, Beaulieu N, Wild RC, Orav EJ, Jha AK. Segmenting high-cost Medicare patients into potentially actionable cohorts. *Healthc (Amst).* 2017;5(1-2):62-67. doi: 10.1016/j.hjdsi.2016.11.002.
20. Measure methodology: Planned Readmission Algorithm. CMS website. cms.gov/medicare/Quality-Initiatives-Patient-Assessment-Instruments/HospitalQualityInits/Measure-Methodology.html. Updated June 27, 2018. Accessed June 27, 2018.
21. Prevention Quality Indicators Technical Specifications updates - version 6.0 (ICD-9), October 2016. Agency for Healthcare Quality and Research website. qualityindicators.ahrq.gov/Modules/PQI_TechSpec_ICD09_v60.aspx. Published October 2016. Accessed October 2018.
22. Wiley JA, Rittenhouse DR, Shortell SM, et al. Managing chronic illness: physician practices increased the use of care management and medical home processes. *Health Aff (Millwood).* 2015;34(1):78-86. doi: 10.1377/hlthaff.2014.0404.
23. Shortell SM, McClellan SR, Ramsay PP, Casalino LP, Ryan AM, Copeland KR. Physician practice participation in accountable care organizations: the emergence of the unicorn. *Health Serv Res.* 2014;49(5):1519-1536. doi: 10.1111/1475-6773.12167.
24. Casalino LP, Pesko MR, Ryan AM, et al. Small primary care practices have low rates of preventable hospital admissions. *Health Aff (Millwood).* 2014;33(9):1680-1688. doi: 10.1377/hlthaff.2014.0434.
25. Kerrissey MJ, Clark JR, Friedberg MW, et al. Medical group structural integration may not ensure that care is integrated. *Health Aff (Millwood).* 2017;36(5):885-892. doi: 10.1377/hlthaff.2016.0909.
26. Hsu J, Price M, Vogeli C, et al. Bending the spending curve by altering care delivery patterns: the role of care management within a Pioneer ACO. *Health Aff (Millwood).* 2017;36(5):876-884. doi: 10.1377/hlthaff.2016.0922.
27. Lewis VA, D'Anno T, Murray GF, Shortell SM, Colla CH. The hidden roles that management partners play in accountable care organizations. *Health Aff (Millwood).* 2018;37(2):292-298. doi: 10.1377/hlthaff.2017.1025.
28. Schur CL, Sutton JP. Physicians in Medicare ACOs offer mixed views of model for health care cost and quality. *Health Aff (Millwood).* 2017;36(4):649-654. doi: 10.1377/hlthaff.2016.1427.
29. LaPointe J. Accountable care organizations grow, but face new challenges. RevCycleIntelligence website. revcycleintelligence.com/news/accountable-care-organizations-grow-but-face-new-challenges?es_p=4722901. Published August 1, 2017. Accessed November 9, 2017.

Visit ajmc.com/link/3215 to download PDF and eAppendix

eAppendix A. National Survey of Physician Organizations III

A. Background Information and History

A1_pre

I'd like to confirm that I have the correct name for your <IF S1>1 then "medical group", IF S1=1 then "practice">.

Is <<org_name>> correct?

Yes – A1_b

No –A1

A1. What is the name of your <IF S1>1 then "medical group", IF S1=1 then "practice">?

1. Enter Name _____

8. Don't Know

9. Refused

A1a. Has your group ever been called <org_name>?

Yes

No

A1b. During the last three years has your medical group/practice merged with or purchased another organization?

Yes – A1b1

No - A1c

A1b1. What is the name of the other organization?

A1c. During the last three years, has your medical group/practice been purchased by another organization?

Yes – A1c1

No - A2

A1c1. What is the name of the other organization?

A2. Which of the following best describes your <IF S1>1 then "medical group", IF S1=1 then "practice">.

1. Solo practice

2. Two or more physician group

3. Federally Qualified Health Center

4. Other Community Health Center

5. OTHER (Please specify _____)

IF A2 = 1, GO TO A4INT. IF A2 = 1 THEN A3 MUST AUTOMATICALLY fill1

INTROA3. In the rest of this interview, I will frequently refer to "your medical group". By "your medical group" I mean physicians who work together and share staff, patient medical records, and income. When I ask about "your medical group", please think of this group of physicians. **If your medical group has more than one location, please think of physicians across all your locations.**

1. Continue

A3. At present, approximately what is the total number of physicians working in your medical group **across all its locations**, including both full and part-time physicians?

1. ENTER TOTAL NUMBER OF PHYSICIANS _____

888. DK

A4INT. Approximately how many of the physicians in your medical group, **across all its locations**, are:
IF A2=1 OR A3=1, SHOW: (IF SPEAKING WITH A PHYSICIAN: “Are you a...” IF SPEAKING WITH A PRACTICE MANAGER OR OTHER ADMINISTRATOR: “Is your practice’s physician a,,”)
 [INTERVIEWER: READ LIST.]

- A4) Family physician(s) _____
 - A5) General Internist(s) _____
 - A6) General practitioner(s) _____
 - A7) Cardiologist(s) _____
 - A8) Endocrinologist(s) _____
 - A9) Pulmonologist(s) _____
- If A3=1, and [A4 + A5 + A6 + A7 + A8 + A9 = 0]**
show also:
A9a) _____

If A9a > 0, ask A9a ‘other specify’.

SUM A4 through A9 _____
DIVIDE SUM (A4:A9) by A3 _____ %

IF (A3 LT 20 AND SUM A4:A9 <40% of A3) OR IF (A3 GE 20 AND IF SUM A4:A9 <30% of A3) → GO TO TERM1 the sum should not include A9a

A10. Who owns the equipment and employs the non-physician staff of your <IF A2>1 then “medical group”, IF A2=1 then “practice”>?

READ LIST UNTIL REPSONSE SELECTED

- 1. Physicians in your practice, including yourself if you own the practice
- 2. A larger medical group, (specify: _____)
- 4. A hospital, hospital system, or health care system that is not an academic medical center
- 5. An HMO (Health Maintenance Organization) or other insurance entity
- 6. Jointly owned, (specify: _____)
- 7. Non-physician managers
- 8. Someone Else (Please specify _____)
- 88. DK
- 99. REF

A10b. For how long has that entity had ownership over your <IF A2 >1 then “medical group”, IF A2=1 then “practice”>?

- 1. ENTER NUMBER OF YEARS _____
- 888. DK

999. REF

IF A3 = A4 OR IF A3 =A5 OR if A3 = A6 OR IF A3 = (A4 +A5 + A6), GO TO A12.

A11. In some cases, specialists also serve as primary care physicians for their patients. To the best of your knowledge, for approximately what percentage of patients, if any, do the physicians in your medical group, across all its locations, serve as primary care physicians as well as specialists?

1. ENTER PERCENTAGE _____

888. DK

999. REF

IF A3 = 1, SHOW: In some cases, specialists also serve as primary care physicians for their patients. To the best of your knowledge, for approximately what percentage of patients, if any, {do you/does your practice’s physician} serve as a primary care physician as well as a specialist?

A12. Does your <**IF A2>1 then “medical group”, IF A2=1 then “practice”> receive a significant proportion of patients through an independent practice association (IPA) or a physician hospital organization (PHO)?**

[INTERVIEWER: IF RESPONDENT ASKS TO CLARIFY “significant proportion,” SAY “Whatever that means to you.]

1. Yes

2. No

7. NA

8. DK

9. REF

IFA12=1, SHOW: For simplicity, from now on when I say ‘IPA’ I mean independent practice association and when I say ‘PHO’ I mean physician hospital organization.

A13. Approximately what percent of your group’s patients are from the following ethnic groups? Again, by “your group” we mean all the physicians in your practice across all its locations. We understand that you will not know these percentages exactly – please just give us your best estimate.

IF A3=1 SHOW Approximately what percent of your practice’s patients are from the following racial/ethnic groups? We understand that you will not know these percentages exactly – please just give us your best estimate.

A13a) Asian _____

A13b) Black/ African American _____

A13c) Caucasian _____

A13d) Hispanic / Latino _____

A13e) Other racial/ethnic groups 100%

A14. Approximately what percent, if any, of the patients in your <**IF A2>1 then “medical group”, IF A2=1 then “practice”> have limited English proficiency (meaning they speak English less than very well)?**

1. ENTER PERCENT _____

888. DK

999. REF

A15. Does your <**IF A2>1 then “medical group”, IF A2=1 then “practice”> collect the following information on all or most of your patients or have it provided by others?**

A15a. Race

A15b. Ethnicity

A15c. Primary language

1. Yes
2. No
8. DK
9. REF

B. Information Systems

BINTRO: Now I am going to ask some questions about the extent – if any – to which your <**IF A2>1 then “medical group”, IF A2=1 then “practice”>** has electronic clinical information systems.

B1. An electronic medical record (EMR) is a computer-based patient medical record. Not including billing records, does your <**IF A2>1 then “medical group”, IF A2=1 then “practice”>** use electronic medical records, part electronic and part paper medical records, or all paper medical records?

1. YES, ALL ELECTRONIC
2. YES, PART ELECTRONIC AND PART PAPER
3. NO, ALL PAPER
8. DON'T KNOW
9. REF

IF B1 = 3 OR B1 = 8, GO TO B18INT.

IF B1 = 3 OR B1 = 8 AND A3 = 1, GO TO B18INTb

IF B1 = 3 OR B1 = 8 AND A3 > 20 GO TO B18INTa

ELSE GO TO B3INT

B3INT. We would like to understand more about which components are included in your EMR. Does your <**IF A2>1 then “medical group”, IF A2=1 then “practice”>** make available an electronic medical record that contains the following elements . . .?

B3. the patient's medications?

1. Yes
2. No
8. DK
9. REF

B3a. the patient's medication allergies?

1. Yes
2. No
8. DK
9. REF

B4. the patient's problem list?

1. Yes
2. No
8. DK

9. REF

IF B4>1, GO TO B6

IF B4=1 AND IF A3 >=20, GO TO B5a

IF B4=1 AND IF A3 = 1, GO TO B5b

ELSE GO TO B5

B5. Approximately what percentage – if any – of your physicians are using the electronic medical record for the patient’s problem list?

1. ENTER PERCENTAGE _____

888. DK

999. REF

GO TO B6

B5a. Do the majority of your physicians use the electronic medical record for the patient’s problem list?

1. Yes

2. No

8. DK

9. REF

GO TO B6

B5b. {Do you use/Does your practice’s physician use}the electronic medical record for the patient’s problem list?

1. Yes

2. No

8. DK

9. REF

B6. Does your <IF A2>1 then “medical group”, IF A2=1 then “practice”>

make available an electronic medical record that includes ambulatory care progress notes?

1. Yes

2. No

8. DK

9. REF

IF B6 >1, GO TO B8

IF B6 =1, AND IF A3 >=20, GO TO B7a

IF B6 =1, AND IF A3 = 1, GO TO B7b

ELSE GO TO B7

B7. Approximately what percentage – if any – of your physicians are using the electronic medical record for progress notes?

1. ENTER PERCENTAGE _____

888. DK

999. REF

GO TO B8

B7a. Do the majority of your physicians use the electronic medical record for progress notes?

1. Yes

2. No

8. DK

9. REF

GO TO B8

B7b. {Do you/Does your practice's physician} use the electronic medical record for progress notes?

1. Yes
2. No
8. DK
9. REF

B8. Does your <IF A2>1 then "medical group", IF A2=1 then "practice"> make available an electronic medical record that includes automatic alerts of potential drug interactions?

1. Yes
2. No
8. DK
9. REF

IF B8>1, GO TO B10

IF B8=1, AND IF A3>=20, GO TO B9a

IF B8=1, AND IF A3 = 1, GO TO B9b

ELSE GO TO B9

B9. Approximately what percentage – if any – of your physicians are using the electronic medical record for potential drug interactions?

1. ENTER PERCENTAGE _____
888. DK
999. REF

GO TO B10

B9a. Do the majority of your physicians use the electronic medical record for potential drug interactions?

1. Yes
2. No
8. DK
9. REF

GO TO B10

B9b. {Do you/Does your practice's physician} use the electronic medical record for potential drug interactions?

1. Yes
2. No
8. DK
9. REF

B10. Does your <IF A2>1 then "medical group", IF A2=1 then "practice"> make available an electronic medical record that includes decision support in the form of prompts or reminders at the time the physician is seeing the patient?

1. Yes
2. No
8. DK
9. REF

IF B10 >1, GO TO B12

IF B10 =1 AND IF A3>=20, GO TO B11a

IF B10 >1 AND IF A3 = 1, GO TO B11b

ELSE GO TO B11

B11. Approximately what percentage - if any - of your physicians are using the electronic medical record for prompts and reminders?

1. ENTER PERCENTAGE _____

888. DK

999. REF

GO TO B12

B11a. Do the majority of your physicians use the electronic medical record for prompts and reminders?

1. Yes

2. No

8. DK

9. REF

GO TO B12

B11b. {Do you/Does your practice's physician} use the electronic medical record for prompts and reminders?

1. Yes

2. No

8. DK

9. REF

B12. Does your <IF A2>1 then "medical group", IF A2=1 then "practice">

make available an electronic medical record that includes alerts about important abnormal test results at the time they are received?

1. Yes

2. No

8. DK

9. REF

IF B12>1, GO TO B14

IF B12=1 AND IF A3>=20, GO TO B13a.

IF B12=1 AND IF A3 = 1, GO TO B13b

ELSE GO TO B13

B13. Approximately what percentage, if any, of your physicians are using the electronic medical record for alerts on abnormal test results?

1. ENTER PERCENTAGE _____

888. DK

999. REF

GO TO B14

B13a. Do the majority of your physicians use the electronic medical record for alerts on abnormal test results?

1. Yes

2. No

8. DK

9. REF

GO TO B14

B13b. {Do you/Does your practice's physician} use the electronic medical record for alerts on abnormal test results?

1. Yes
2. No
8. DK
9. REF

B14. Does your <IF A2>1 then “medical group”, IF A2=1 then “practice”> use its electronic medical record to collect data for clinical quality measures?

1. Yes
2. No
8. DK
9. REF

IF B14>1, GO TO B15

B14a. Does your <IF A2>1 then “medical group”, IF A2=1 then “practice”> provide theBse data on clinical quality measures to CMS, your state, or other entity that compiles or reports quality measures?

1. Yes
2. No
8. DK
9. REF

B15. Does your<IF A2>1 then “medical group”, IF A2=1 then “practice”> allow patients to view their medical record online?

1. Yes
2. No
8. DK
9. REF

IF B15>1, GO TO B17

B16. Does your <IF A2>1 then “medical group”, IF A2=1 then “practice”> allow patients to make changes to or update their medical record online?

1. Yes
2. No
8. DK
9. REF

B17. Does your <IF A2>1 then “medical group”, IF A2=1 then “practice”> use the electronic medical record to provide patients with clinical summaries of each office visit?

1. Yes
2. No
8. DK
9. REF

IF A3 >=20 GO TO B18INTa

IF A3=1 GO TO B18INTb

ELSE GO TO B18INT

B18INT: The next few questions ask whether the physicians in your medical group have electronic **access** to certain information. Approximately what percentage, if any, of the physicians in your medical group have electronic access to:

GO TO B18

B18INTa The next few questions ask whether the physicians in your medical group have electronic **access** to certain information. Do **MOST** of your physicians have electronic access to:
GO TO B18a

B18INTb The next few questions ask whether {you have/your practice's physician has}electronic **access** to certain information. {Do you/Does he/she} have electronic access to:

GO TO B18b

B18. clinical information on patients' emergency room visits at the *main* hospital which your physicians use ?

1. ENTER PERCENTAGE _____
888. DK
999. REF

GO TO B19

B18a. clinical information on patients' emergency room visits at the *main* hospital which your physicians use ?

1. Yes
2. No
8. DK
9. REF

GO TO B19a

B18b. clinical information on patients' emergency room visits at the *main* hospital which {you use?/he/ she uses?}

1. Yes
2. No
8. DK
9. REF

GO TO B19b

B19. hospital discharge summaries at the main hospital which your physicians use?

1. ENTER PERCENTAGE _____
888. DK
999. REF

GO TO B20

B19a. hospital discharge summaries at the main hospital which your physicians use?

1. Yes
2. No
8. DK
9. REF

GO TO B20a

B19b. hospital discharge summaries at the main hospital which {you use?/he/she uses?}

1. Yes
2. No
8. DK
9. REF

GO TO B20b

B20. laboratory results from the main laboratory that your physicians use?

1. ENTER PERCENTAGE _____
888. DK
999. REF

IF B1 > 2, GO TO B23.

IF B1 < 3 AND B18 = 0 AND B19 = 0, GO TO B23.

IF B1 <3 AND B18 >0 OR B19 >0 GO TO B21.

B20a. laboratory results from the main laboratory that your physicians use?

1. Yes
2. No
8. DK
9. REF

IF B1 > 2, GO TO B23a.

IF B1 < 3 AND B18a >1 AND B19a >1, GO TO B23a.

IF B1 <3 AND B18a =1 OR B19a =1 GO TO B21.

B20b. laboratory results from the main laboratory that {you use/?he/she uses?}

1. Yes
2. No
8. DK
9. REF

IF B1 > 2, GO TO B23b.

IF B1 < 3 AND B18b >1 AND B19b >1, GO TO B23b.

IF B1 <3 AND B18b =1 OR B19b =1 GO TO B21a.

B21. Does your group's EMR connect **directly** to the EMR at the main hospital which your physicians use?

1. Yes
2. No
8. DK
9. REF

IF A3 >= 20 GO TO B23a; ELSE GO TO B23

B21a. {Does your/Does your practice's} EMR connect **directly** to the EMR at the main hospital which {you use/?your practice's physician uses?}

1. Yes
2. No
8. DK
9. REF

GO TO B23b

B23. Finally, approximately what percentage, if any, of your physicians have electronic access to a **pharmacy record** of prescriptions **filled** by your patients?

1. ENTER PERCENTAGE _____
888. DK
999. REF

IF B1 > 2 OR B23 = 0, GO TO B25

IF B1 < 3 AND B23 > 0, GO TO B24

B23a. Do **most** of your physicians have electronic access to a **pharmacy record** of prescriptions **filled** by your patients?

1. Yes
2. No
8. DK
9. REF

IF B1>2 OR B23a >1, GO TO B25a
IF B1<3 AND B23a = 1, go to B24

B23b. {Do you/Does your practice's physician} have electronic access to a **pharmacy record** of prescriptions **filled** by {your patients?/his or her patients?}

1. Yes
2. No
8. DK
9. REF

IF B1>2 OR B23b >1, GO TO B25b.
IF B1<3 AND B23b =1, go to B24.

B24. And, is this accessible within an individual patient's electronic medical record at your ...

IF A2>1 then <medical group's>

IF A2=1 then <practice's>

... office?

1. Yes
2. No
8. DK
9. REF

IF A3>=20 GO TO B25a
IF A3 = 1, GO TO B25b
ELSE TO TO B25

B25. Approximately what percentage, if any, of your physicians transmit prescriptions electronically **directly to pharmacies** via computer or PDA (personal digital assistant)?

1. ENTER PERCENTAGE _____
888. DK
999. REF

GO TO B26

B25a. Do **most** of your physicians transmit prescriptions electronically **directly to pharmacies** via computer or PDA (personal digital assistant)?

1. Yes
2. No
8. DK
9. REF

GO TO B26a

B25b. {Do you/Does your practice's physician} transmit prescriptions electronically **directly to pharmacies** via computer or PDA (personal digital assistant)?

1. Yes
2. No
8. DK
9. REF

GO TO B26b

B26. Approximately what percentage, if any, of your physicians communicate with patients via e-mail?

1. ENTER PERCENTAGE _____
888. DK
999. REF

GO TO CINT

B26a. Do **most** of your physicians communicate with patients via e-mail?

1. Yes
2. No
8. DK
9. REF

GO TO CINT

B26b. {Do you/Does your practice's physician} communicate with patients via e-mail?

1. Yes
2. No
8. DK
9. REF

GO TO CINT

C. Care Management and Clinical Practice

CINT: I'd like to ask you a few questions about processes your < **IF A2>1 then "medical group", IF A2=1 then "practice">** uses to care for patients with chronic illness.

IF A12 < 1 GO to CINTb.

ELSE GO TO CINTa

CINTa. I'd also like to ask you some questions about whether an IPA or PHO provides help to < **IF A2>1 then "medical group", IF A2=1 then "practice">** in caring for patients with chronic illness.

CINTb. I will ask whether your < **IF A2>1 then "medical group", IF A2=1 then "practice">** maintains a simple LIST of patients with a particular illness OR whether your < **IF A2>1 then "medical group", IF A2=1 then "practice">** maintains an electronic REGISTRY.

We define an electronic registry as a list generated electronically **that includes associated clinical data** for each patient.

I will not be asking whether your < **IF A2>1 then "medical group", IF A2=1 then "practice">** could create a list or electronic registry, but rather whether it actually **has** such a list **at present**.

Please note that there is no right or wrong answer to these questions: many < **IF A2>1 then "medical groups", IF A2=1 then "physician practices">** do not have a list or a registry.

IF A8=A3 AND A11<=50, GO TO C3

C1. For a majority of the patients in your < **IF A2>1 then "medical group", IF A2=1 then "practice">** with asthma...

IF C1a =1, SKIP C1b

IF A12<1, SKIP C1c

C1a. does your < **IF A2>1 then "medical group", IF A2=1 then "practice">** maintain an electronic registry?

C1b. does your < **IF A2>1 then "medical group", IF A2=1 then "practice">** maintain a list of patients?

C1c. does an IPA or PHO provide you with a patient list?

C1d. does one or more health plans provide you with a patient list?

1. Yes
2. No
8. DK
9. REF

C2. For a majority of the patients in your < IF A2>1 then “medical group”, IF A2=1 then “practice”> with CHF...

IF C2a =1, SKIP C2b

IF A12<=1, SKIP C2c

C2a. does your < IF A2>1 then “medical group”, IF A2=1 then “practice”> maintain an electronic registry?

C2b. does your < IF A2>1 then “medical group”, IF A2=1 then “practice”> maintain a list of patients?

C2c. does an IPA or PHO provide you with a patient list?

C2d. does one or more health plans provide you with a patient list?

1. Yes
2. No
8. DK
9. REF

C3. For a majority of the patients in your < IF A2>1 then “medical group”, IF A2=1 then “practice”> with depression...

IF C3a =1, SKIP C3b

IF A12<=1, SKIP C3c

C3a. does your < IF A2>1 then “medical group”, IF A2=1 then “practice”> maintain an electronic registry?

C3b. does your < IF A2>1 then “medical group”, IF A2=1 then “practice”> maintain a list of patients?

C3c. does an IPA or PHO provide you with a patient list?

C3d. does one or more health plans provide you with a patient list?

1. Yes
2. No
8. DK
9. REF

IF A9=A3 and A11<=50, GO TO CMM

C4. For a majority of the patients in your < IF A2>1 then “medical group”, IF A2=1 then “practice”> with diabetes....

IF C4a =1, SKIP C4b

IF A12<=1, SKIP C4c

C4a. does your < IF A2>1 then “medical group”, IF A2=1 then “practice”> maintain an electronic registry?

C4b. does your < IF A2>1 then “medical group”, IF A2=1 then “practice”> maintain a list of patients?

C4c. does an IPA or PHO provide you with a patient list?

C4d. does one or more health plans provide you with a patient list?

1. Yes
2. No
8. DK
9. REF

CMM. Does your practice have a process for systematically identifying high risk patients who are in need of extra attention?

1. Yes
2. No
8. DK
9. REF

IF A3 = 1, GO TO C5INTc.

C5INTa. I will now ask you some questions about the extent, if any, to which physicians in your group use certain specific care processes in the treatment of a particular illness.

IF A3 > SUM OF (A4 through A9), GO TO C5INTb; ELSE, GO TO C5INTd.

C5INTb. In responding to these questions, please think **only** about your physicians who are general internists, family physicians, general practitioners, cardiologists, pulmonologists, or endocrinologists.

C5INTc. I will now ask you some questions about the extent, if any, to which your practice uses certain specific care processes in the treatment of a particular illness.

C5INTd. Again, please note that there are no right or wrong answers to these questions, and that many < **IF A2>1 then “medical groups”, IF A2=1 then “practices”>** do not use any of the processes about which I am going to ask.

IF A3> SUM of (A4, A5, A6, A7, A8, A9), GO TO C5INTe. ELSE GO TO C5INTf.

IF A3 = 1, GO TO C5INTg.

C5INTe. Please consider the extent, if any, that your practice provides physicians in the specialties just mentioned with guideline-based reminders - **that they see at the time they are seeing the patient** - for services the patient should receive. An example would be a pop-up within an electronic medical record or an appropriate reminder attached to the front of the chart **each time that they see the patient**.

GO TO C5

C5INTf. Please consider the extent, if any, that your group provides physicians with guideline-based reminders - **that they see at the time they are seeing the patient** - for services the patient should receive. An example would be a pop-up within an electronic medical record or an appropriate reminder attached to the front of the chart **each time that they see the patient**.

GO TO C5

C5INTg. Please consider whether your practice provides {you/your practice’s physician} with guideline-based reminders – **that {you see/he/she sees} at the time {you are/he/she is} seeing the patient** – for services the patient should receive? An example would be a pop-up within an electronic medical record or an appropriate reminder attached to the front of the chart **each time that {you see/he/she sees} the patient**.

GO TO C5a

IF A8=A3 AND A11<=50 GO TO C7

C5. For approximately what proportion – if any – of your physicians who care for patients with asthma does your group provide these reminders?

1. None
2. Less than half
3. Half or more
4. All
8. DK
9. REF

GO TO C6

IF A8=A3 AND A11<=50 GO TO C7a

C5a. Does your practice provide these reminders for you for your patients with asthma?”

1. Yes
2. No
8. DK
9. REF

GO TO C6a

C6. For approximately what proportion – if any – of your physicians who care for patients with CHF does your group provide these reminders?

1. None
2. Less than half
3. Half or more

- 4. All
- 8. DK
- 9. REF

GO TO C7

C6a. Does your practice provide these reminders for you for your patients with CHF?"

- 1. Yes
- 2. No
- 8. DK
- 9. REF

GO TO C7a

C7. For approximately what proportion - if any - of your physicians who care for patients with depression does your group provide these reminders?

- 1. None
- 2. Less than half
- 3. Half or more
- 4. All
- 8. DK
- 9. REF

IF A9=A3 and A11<=50, GO TO C9INT, ELSE GO TO C8

C7a. Does your practice provide these reminders for you for your patients with depression?

- 1. Yes
- 2. No
- 8. DK
- 9. REF

IF A9=A3 and A11<=50, GO TO C9INT, ELSE GO TO C8a

C8. For approximately what proportion - if any - of your physicians who care for patients with diabetes does your group provide these reminders?

- 1. None
- 2. Less than half
- 3. Half or more
- 4. All
- 8. DK
- 9. REF

GO TO C9INT

C8a. Does your practice provide these reminders for you for your patients with diabetes?

- 1. Yes
- 2. No
- 8. DK
- 9. REF

C9INT.

IF A3>1 AND A12=1 GO TO C9INTb.

IF A3 = 1 AND A12<1, GO TO C9INTc.

IF A3=1 AND A12=1, GO TO C9INTd.

A3 > 1 and A12 < 1, GO TO C9INTa

C9INTa. We would like to know about the extent, if any, to which your group provides physicians with feedback on the quality of care they provide to their patients with chronic illness.

IF A8=A3 AND A11 <=50 GO TO C11, ELSE GO TO C9

C9INTb. We would like to know about the extent, if any, to which your group provides physicians with feedback on the quality of care they provide to their patients with chronic illness. We will first ask about the extent to which your group provides its physicians with feedback; then we will ask whether an IPA or PHO provides the individual physicians in your group and/or the group as a whole with feedback on the quality of care you provide.

IF A8=A3 AND A11 <=50 GO TO C11, ELSE GO TO C9

C9INTc. We would like to know whether your practice provides [you/the practice's physician] with feedback on the quality of care {you provide/he/she provides} to patients with chronic illness.

IF A8=A3 AND A11 <=50 GO TO C11a, ELSE GO TO C9a

C9INTd. We would like to know whether your practice provides {you/the practice's physician} with feedback on the quality of care {you provide/he/she provides} to patients with chronic illness. We will first ask about whether your practice provides {you/him/her} with feedback; then we will ask whether an IPA or PHO provides {you/him/her} with feedback.

IF A8=A3 AND A11 <=50 GO TO C11a, ELSE GO TO C9a

C9. Approximately what proportion – if any – of your physicians who care for patients with asthma receive data from your medical group on the quality of **their** care for patients with asthma?

1. None
2. Less than half
3. Half or more
4. All
8. DK
9. REF

GO TO C10

C9a. Does your practice provide {you/the practice's physician} with data on the quality of {your/his/her} care for patients with asthma?

1. Yes
2. No
3. DK
4. REF

GO TO C10a

C10. Approximately what proportion – if any – of your physicians who care for patients with CHF receive data from your medical group on the quality of **their** care for patients with CHF?

1. None
2. Less than half
3. Half or more
4. All
8. DK
9. REF

GO TO C11

C10a. Does your practice provide {you/the practice's physician} with data on the quality of {your/his/her} care for patients with CHF?

1. Yes
2. No
3. DK
4. REF

GO TO C11a

C11. Approximately what proportion – if any – of your physicians who care for patients with depression receive data from your medical group on the quality of **their** care for patients with depression?

1. None
2. Less than half
3. Half or more
4. All
8. DK
9. REF

IF A9=A3 and A11<=50, GO TO C13INT. ELSE GO TO C12

C11a. Does your practice provide {you/the practice's physician} with data on the quality of {your/his/her} care for patients with depression?

1. Yes
2. No
3. DK
4. REF

IF A9=A3 and A11<=50, GO TO C13INT. ELSE GO TO C12a

C12. Approximately what proportion – if any – of your physicians who care for patients with diabetes receive data from your medical group on the quality of **their** care for patients with diabetes?

1. None
2. Less than half
3. Half or more
4. All
8. DK
9. REF

IF A12<=1, GO TO C17INT.

ELSE GO TO C13INT.

C12a. Does your practice provide {you/the practice's physician} with data on the quality of {your/his/her} care for patients with diabetes?

1. Yes
2. No
3. DK
4. REF

IF A12<=1, GO TO C17INT.

ELSE GO TO C13INT.

C13INT. Does an IPA or PHO provide data to your medical group's individual physicians and/or to your practice as a whole on the quality of their care for patients with . . .

IF A3 = 1 AND A12 =1, SHOW: "Does an IPA or PHO provide data to you on the quality of your care for patients with . . ."

IF A8=A3 AND A11 <=50, GO TO C15

C13. asthma?

1. Yes
2. No
7. NA
8. DK

9. REF

C14. CHF?

1. Yes
2. No
7. NA
8. DK
9. REF

C15. depression?

1. Yes
2. No
7. NA
8. DK
9. REF

IF A9=A3 and A11<=50, GO TO C17INT

C16. diabetes?

1. Yes
2. No
7. NA
8. DK
9. REF

C17INT. To approximately what proportion, if any, of the patients with the following diseases does your <IF A2>1 then “medical group”, IF A2=1 than “practice”> routinely send reminders for preventive or follow-up care?

IF A8=A3 AND A11<=50, GO TO C19

C17. asthma?

1. None
2. Less than half
3. Half or more
4. All
8. DK
9. REF

C18. CHF?

1. None
2. Less than half
3. Half or more
4. All
8. DK
9. REF

C19. depression?

1. None
2. Less than half
3. Half or more
4. All
8. DK
9. REF

IF A9=A3 and A11<=50, GO TO C21INT

C20. diabetes?

1. None
2. Less than half
3. Half or more
4. All
8. DK
9. REF

**IF A12 <1, GO TO C25INT
ELSE GO TO C21INT.**

C21INT. Does an IPA or PHO routinely send reminders for preventive or follow-up care directly to a majority of your **<IF A2>1 then “medical group’s”, IF A2=1 then “practice’s”>** patients with...

IF A8=A3 AND A11<=50, GO TO C23

C21. asthma?

1. Yes
2. No
7. NA
8. DK
9. REF

C22. CHF?

1. Yes
2. No
7. NA
8. DK
9. REF

C23. depression?

1. Yes
2. No
7. NA
8. DK
9. REF

IF A9=A3 and A11<=50, GO TO C25INT

C24. diabetes?

1. Yes
2. No
7. NA
8. DK
9. REF

C25INT. Does your **<IF A2>1 then “medical group”, IF A2=1 then “practice”>** have any **non-physician staff**, for example, nurses, dietitians, or health educators, who have **time set aside** to meet with and/or call patients to help educate them about managing their:

IF A8=A3 AND A11<=50, GO TO C27

C25. asthma?

1. Yes
2. No

- 7. NA
- 8. DK
- 9. REF

C26. CHF?

- 1. Yes
- 2. No
- 7. NA
- 8. DK
- 9. REF

C27. depression?

- 1. Yes
- 2. No
- 7. NA
- 8. DK
- 9. REF

IF A9=A3 AND A11 <= 50, GO TO C29INT

C28. diabetes?

- 1. Yes
- 2. No
- 7. NA
- 8. DK
- 9. REF

IF A12<=1, GO TO C33INT

C29INT. Does an IPA or PHO make available non-physician staff (for example, health educators dieticians, or nurses) to meet with and/or call your <IF A2>1 then “medical group’s”, IF A2=1 than “practice’s”> patients to help educate them in managing their:

IF A8=A3 AND A11<=50, GO TO C31

C29. asthma?

- 1. Yes
- 2. No
- 7. NA
- 8. DK
- 9. REF

C30. CHF?

- 1. Yes
- 2. No
- 7. NA
- 8. DK
- 9. REF

C31. depression?

- 1. Yes
- 2. No
- 7. NA
- 8. DK
- 9. REF

IF A9=A3 and A11<=50, GO TO C33INT

C32. diabetes?

1. Yes
2. No
7. NA
8. DK
9. REF

C33INT. We are also interested in whether your <IF A2>1 then “medical group”, IF A2=1 than “practice”> uses **specially trained nurse care managers** whose **primary job is to coordinate and improve the quality of care** for patients with chronic diseases. I am not asking about staff whose main task is inpatient utilization management – for example getting patients out of the hospital at the appropriate time.

C33INT2 Thinking about your <IF A2>1 then “medical group’s”, IF A2=1 than “practice’s”> patients with each of the following chronic illnesses, for approximately what proportion – if any – of these patients does your practice provide **specially trained nurse care managers** to coordinate and improve their quality of care?

IF A8=A3 AND A11<=50, GO TO C35

C33. For patients with severe asthma?

1. None
2. Less than half
3. Half or more
4. All
8. DK
9. REF

C34. For patients with severe CHF?

1. None
2. Less than half
3. Half or more
4. All
8. DK
9. REF

C35. For patients with severe depression?

1. None
2. Less than half
3. Half or more
4. All
8. DK
9. REF

IF A9=A3 and A11<=50, GO TO C37INT

C36. For patients with severe diabetes?

1. None
2. Less than half
3. Half or more
4. All
8. DK
9. REF

IF A12<=1, GO TO C41

C37INT. Does an IPA or PHO provide nurse care managers for your <IF A2>1 then “medical group’s”, IF A2=1 than “practice’s”> patients with severe...

IF A8=A3 AND A11<=50, GO TO C39

C37. asthma?

1. Yes
2. No
7. NA
8. DK
9. REF

C38. CHF?

1. Yes
2. No
7. NA
8. DK
9. REF

C39. depression?

1. Yes
2. No
7. NA
8. DK
9. REF

IF A9=A3 and A11<=50, GO TO CNN

C40. diabetes?

1. Yes
2. No
7. NA
8. DK
9. REF

IF A3=1, GO TO C42INT

IF A3=2, GO TO CNN, OR

IF A3>2 AND A8=A3 AND A11 <=50, OR

IF A3>2 AND A7=A3 AND A11 <=50, OR

IF A3>2 AND A9=A3 AND A11 <=50, OR

IF A3>2 AND A7+A8+A9 = A3 AND A11 <=50

GO TO CNN.

ELSE GO TO C41

C41. Does your medical group use primary care teams, by which we mean a group of physicians and staff who meet with each other regularly to discuss the care of a **defined group of patients** and who share responsibility for their care?

1. Yes
2. No
8. DK
9. REF

CNN. Approximately how often do patients see their **personal physician, or their personal nurse practitioner or physician assistant** when they are seen in your practice?

1. More than 75% of the time
2. 50-75% of the time
3. 25-50% of the time
4. < 25% of the time

Care Transitions

C42INT. We would like to ask you several questions about transitions between inpatient and outpatient care for your **<IF A2>1 then “medical group’s”, IF A2=1 than “practice’s”>** patients. Please respond to these questions based on how transitions occur between your group and the primary hospital or hospitals to which {you admit/your practice’s physician admits} patients.

C42. Does your **<IF A2>1 then “medical group”, IF A2=1 than “practice”>** participate in a formal organized care transition program which improves transitions of care **from** hospital discharge to home care, nursing home care, or follow-up with the patient’s primary care physician or specialist?

1. Yes
2. No
8. DK
9. REF

C43. Does the primary hospital or hospitals to which your group’s patients are admitted notify the appropriate physician in your group within two hours of the patient’s admission?

1. Yes
2. No
8. DK
9. REF

C44. Does the primary hospital or hospitals to which your group’s patients are admitted notify the appropriate physician in your group within two hours of the patient’s admission to the emergency department?

1. Yes
2. No
8. DK
9. REF

C45. When one of your group’s patients is admitted to the hospital, does the appropriate physician in your group receive a hospital discharge summary within 48 hours of the time the patient was discharged?

1. Yes
2. No
8. DK
9. REF

C46. When one of your group’s patients is admitted to the emergency room, does the appropriate physician in your group receive an emergency room discharge summary within 48 hours of the time the patient was discharged?

1. Yes
2. No
8. DK
9. REF

C47. When one of your group's patients is discharged from the hospital, does the patient's physician or someone else in your organization contact the patient within 48 hours to make sure that appropriate support services are in place and to schedule a follow-up appointment?

1. Yes
2. No
8. DK
9. REF

C48. When one of your group's patients is discharged from the hospital, does the patient's physician or someone else in your organization contact the patient within 48 hours to make sure that the patient understands what medications to take?

1. Yes
2. No
8. DK
9. REF

COO. Does your practice have a formal system in place to track :

- a) all laboratory (eg blood and urine) tests ordered by one of your physicians until results are available to the clinician?
- b) referrals to specialists or other providers outside of your practice until the specialist or consultant report is received by the practice?

Care Accessibility

C49INT. Are you familiar with the relatively new method of scheduling patient appointments called "advanced access" or "open access"?

1. Yes
2. No
8. DK
9. REF

IF C49INT >1 GO TO C50.

IF A3=1 GO TO C49a.

IF A3>=20, GO TO C49b

ELSE GO TO C49

C49. Approximately what percentage, if any, of physicians in your medical group currently use the "advanced access" or "open access" scheduling method in an effort to offer same-day appointments to virtually **all** patients who want to be seen, **regardless of the reason for which they want to be seen?**

1. ENTER PERCENTAGE_____
8. DK
9. REF

C49a. {Do you/Does your practice's physician} currently use the "advanced access" or "open access" scheduling method in an effort to offer same-day appointments to virtually **all** patients who want to be seen, **regardless of the reason for which they want to be seen?**

1. Yes
2. No
8. DK
9. REF

GO TO C50

C49b. Do **most** physicians in your medical group currently use the “advanced access” or “open access” scheduling method in an effort to offer same-day appointments to virtually **all** patients who want to be seen, **regardless of the reason for which they want to be seen?**

1. Yes
2. No
8. DK
9. REF

C50. On weekdays, is your **<IF A2>1 then “medical group”, IF A2=1 than “practice”>** open for patient appointments beyond the hours of 8 AM - 5 PM?

1. Yes
2. No
8. DK
9. REF

C51. Is your **<IF A2>1 then “medical group”, IF A2=1 than “practice”>** open for patient appointments on **weekends?**

1. Yes
2. No
8. DK
9. REF

C52. Does your **<IF A2>1 then “medical group”, IF A2=1 than “practice”>** use **group visits** in which multiple patients with chronic illness meet together with a trained clinician to obtain routine medical care and to address educational and psychosocial concerns?

1. Yes
2. No
8. DK
9. REF

Care Quality Improvement

C53INT. We are interested in whether or not your **<IF A2>1 then “medical group”, IF A2=1 than “practice”>** routinely uses any formal methods for quality improvement.

C53. Does your **<IF A2>1 then “medical group”, IF A2=1 than “practice”>** use any of the following formal and systematic quality improvement systems:

C53a) Plan-Do-Study-Act (PDSA)

C53b) Lean production techniques

C53c) Six Sigma

C53d) Quality improvement learning collaboratives

C53) Other _____

1. Yes
2. No
7. NA
8. DK
9. REF

C56. In the past year, to what extent has your **<IF A2>1 then “medical group”, IF A2=1 than “practice”>** made new or additional investments in personnel or technology targeted specifically at improving patient satisfaction or experience and/or your quality of care?

1. no investment

- 2. small investment
- 3. moderate investment
- 4. large investment
- 8. DK
- 9. REF

IF C56 = 1, GO TO C58INT

C57. What form did these investments take? Please choose as many of the following as are relevant: *THIS IS MULTIPLE RESPONSE.*

- 1. adding staff dedicated to quality improvement activities
- 2. training existing staff in quality improvement activities
- 3. administering a patient satisfaction and/or experience survey or measure?
- 4. other (please specify _____)
- 8. DK
- 9. REF

C57SPFY. "OTHER SPECIFY" _____ (100 char).

CPP. Does your practice survey some patients, at least once a year, about their experience of care with the practice?

- 1. Yes
- 2. No
- 8. DK
- 9. REF

Clinical Preventive Services and Health Promotion
--

C58INT. Now I would like to ask you some questions about disease prevention and health promotion.

- IF A7=A3 AND A11<=50, GO TO C59**
- IF A8=A3 AND A11<=50, GO TO C59**
- IF A9=A3 AND A11<=50, GO TO C59**
- IF [A7+A8+A9] = A3 AND A11<=50, GO TO C59.**
- ELSE GO TO C58**

C58. First, I'd like to ask you a few questions about how your **<IF A2>1 then "medical group", IF A2=1 then "practice">** identifies patients in need of preventive care services. For a majority of female patients over age 50 in your **<IF A2>1 then "medical group", IF A2=1 then "practice">** for whom mammography is indicated for breast cancer screening . . .

IF A12<=1, SKIP C58b

C58a. does your **<IF A2>1 then "medical group", IF A2=1 then "practice">** maintain a list of patients?

C58b. does an IPA or PHO provide you with a patient list?

C58c. does one or more health plans provide you with a patient list?

- 1. Yes
- 2. No
- 8. DK
- 9. REF

C59. For a majority of patients in your **<IF A2>1 then "medical group", IF A2=1 then "practice">**, is there a formal system in place at **every visit** to identify patients who use tobacco (e.g. a pop-up in the electronic medical record, a sticker on the chart, or routine recording of smoking as a vital sign)?

IF B1>2, SHOW: For a majority of patients in your <IF A2>1 then “medical group”, IF A2=1 than “practice”>, is there a formal system in place at **every visit** to identify patients who use tobacco (e.g., a sticker on the chart, or routine recording of smoking as a vital sign)?

1. Yes
2. No
8. DK
9. REF

IF A3=1, GO TO C60INTa

C60INT. Clinical Practice Guidelines

We would like to know about the extent, if any, to which your medical group provides your physicians with guideline-based reminders – **that they see at the time they are seeing the patient** – for preventive services the patient should receive. An example would be a pop-up within an electronic medical record or an appropriate reminder attached to the front of the chart **each time that they see the patient**.

IF B1>2, SHOW: We would like to know about the extent, if any, to which your medical group provides your physicians with guideline-based reminders – **that they see at the time they are seeing the patient** – for preventive services the patient should receive. An example would be an appropriate reminder attached to the front of the chart **each time that you see the patient**.

IF A7=A3 AND A11<=50, GO TO C61

IF A8=A3 AND A11<=50, GO TO C61

IF A9=A3 AND A11<=50, GO TO C61

IF [A7+A8+A9] = A3 AND A11<=50, GO TO C61

ELSE GO TO C60.

C60INTa. We would like to know about whether your practice provides {you/the practice’s physician} with guideline-based reminders - **that {you see/he/she sees} at the time {you are/he/she is} seeing the patient** - for preventive services the patient should receive. An example would be a pop-up within an electronic medical record or an appropriate reminder attached to the front of the chart **each time that {you see/he/she sees} the patient**.

IF B1>2, SHOW: We would like to know about whether your practice provides you with guideline-based reminders - **that you see at the time you are seeing the patient** - for preventive services the patient should receive. An example would be an **appropriate** reminder attached to the front of the chart **each time that you see the patient**.

IF A7=A3 AND A11<=50, GO TO C61a

IF A8=A3 AND A11<=50, GO TO C61a

IF A9=A3 AND A11<=50, GO TO C61a

IF [A7+A8+A9] = A3 AND A11<=50, GO TO C61a.

ELSE GO TO C60a

C60. For approximately what proportion - if any - of your physicians do you provide these reminders for breast cancer screening?

1. None
2. Less than half
3. Half or more
4. All
8. DK
9. REF

GO TO C61

C60a. Does your practice provide {you/the practice’s physician} with these reminders for breast cancer screening?

1. Yes
2. No
3. DK
4. REF

GO TO C61a

C61. For approximately what proportion - if any - of your physicians do you provide these reminders for tobacco cessation interventions?

1. None
2. Less than half
3. Half or more
4. All
8. DK
9. REF

GO TO C62NT

C61a. Does your practice provide {you/the practice's physician} with these reminders for tobacco cessation screening?

1. Yes
2. No
8. DK
9. REF

C62INT.

IF A2 >1 and A12 <=1, SHOW: We would like to know about the extent, if any, to which the physicians in your medical group are provided feedback on the quality of the preventive care they deliver to their patients.

IF A2 >1 and A12=1, SHOW: We would like to know about the extent, if any, to which your medical group provides physicians with feedback on the quality of the preventive care they deliver to their patients. We will first ask about the extent to which your group provides its physicians with feedback; then we will ask whether an IPA or PHO provides the individual physicians in your practice and/or the practice as a whole with feedback on the quality of preventive care delivered.

IF A2=1 AND A12 <=1, SHOW: We would like to know whether your practice provides {you/the practice's physician} with feedback on the quality of preventive care {you provide/she/he provides} to patients.

IF A2=1 AND A12=1, SHOW: We would like to know whether your practice provides {you/the practice's physician} with feedback on the quality of preventive care {you provide/she/he provides} to patients. We will first ask about whether your practice provides {you/him/her} with feedback; then we will ask whether an IPA or PHO provides {you/him/her} with feedback.

IF A7=A3 AND A11 <=50, GO TO C63

IF A8=A3 AND A11 <=50, GO TO C63

IF A9=A3 AND A11 <=50, GO TO C63

IF [A7+A8+A9] = A3 AND A11 <=50, GO TO C63.

IF A3=1, GO TO C62a

ELSE GO TO C62

C62. For approximately what proportion of your physicians – if any - does your medical group routinely provide data on the quality of **their** preventive care regarding breast cancer screening (mammography) for women over age 50?

1. None
2. Less than half
3. Half or more
4. All
8. DK
9. REF

GO TO C63

C62a. Does your practice routinely provide {you/the practice's physician} with data on the quality of {your/his/her} preventive care regarding breast cancer screening (mammography), for women over age 50?

1. Yes

- 2. NO
- 8. DK
- 9. REF

GO TO C63a

C63. For approximately what proportion of your physicians – if any - does your medical group routinely provide data on the quality of **their** preventive care regarding provision of tobacco cessation interventions for patients who use tobacco?

- 1. None
- 2. Less than half
- 3. Half or more
- 4. All
- 8. DK
- 9. REF

IF A12<=1, GO TO C66INT; ELSE GO TO C64INT.

C63a. Does your practice routinely provide {you/the practice’s physician} with data on the quality of {your/his/her} preventive care regarding provision of tobacco cessation interventions for patients who use tobacco?

- 1. Yes
- 2. NO
- 8. DK
- 9. REF

IF A12<=1, GO TO C66INT

C64INT. Does an IPA or PHO provide data to your medical group’s individual physicians and/or to your medical group as a whole on the quality of their preventive care for patients in the following categories...

IF A3 = 1, SHOW: Does an IPA or PHO provide data to {you/the practice’s physician} on the quality of {your/his/her} preventive care for patients in the following categories?”

IF A7=A3 AND A11<=50, GO TO C65

IF A8=A3 AND A11<=50, GO TO C65

IF A9=A3 AND A11<=50, GO TO C65

IF [A7+A8+A9] = A3 AND A11<=50, GO TO C65.

ELSE GO TO C64

C64. Breast cancer screening for women over age 50?

- 1. Yes
- 2. No
- 7. NA
- 8. DK
- 9. REF

C65. The provision of tobacco cessation interventions for patients who use tobacco?

- 1. Yes
- 2. No
- 7. NA
- 8. DK
- 9. REF

IF A7=A3 AND A11<=50, GO TO C68

IF A8=A3 AND A11<=50, GO TO C68

IF A9=A3 AND A11<=50, GO TO C68

IF [A7+A8+A9] = A3 AND A11<=50, GO TO C68.

ELSE GO TO C66INT

C66INT.

To approximately what proportion of the patients in the following categories does your <IF A2>1 then “medical group”, IF A2=1 then “practice”> routinely send reminders for preventive services?

C66. Women over the age of 50 for whom mammograms are indicated to screen for breast cancer?

1. None
2. Less than half
3. Half or more
4. All
8. DK
9. REF

IF A12 < 1, GO TO C68.

C67. Does an IPA or PHO routinely send reminders to a majority of women over the age of 50 in your <IF A2>1 then “medical group”, IF A2=1 then “practice”> regarding mammograms to screen for breast cancer?

1. Yes
2. No
7. NA
8. DK
9. REF

C68. Does your <IF A2>1 then “medical group”, IF A2=1 then “practice”> have any **non-physician staff**, for example, nurses, dieticians, or health educators, who have **time set aside** to meet with and/or call patients to help educate them about diet, exercise, and/or tobacco or excessive alcohol use?

1. Yes
2. No
7. NA
8. DK
9. REF

IF A3>1 AND A12<1, GO TO C70

IF A3=1 AND A12<1, GO TO C70a

ELSE GO TO C69

C69. Does an IPA or PHO make available non-physician staff, for example, health educators dieticians, or nurses to meet with and/or call your <IF A2>1 then “medical group’s”, IF A2=1 then “practice’s”> patients to help educate them about diet, exercise, and/or tobacco or excessive alcohol use?

1. Yes
2. No
7. NA
8. DK
9. REF

IF A3=1, GO TO C70a

C70. To what extent, if any, have the **physicians** in your medical group participated in formal training programs to improve their skills in the areas of patient communication and/or cultural competence? Please choose one of the following statements.

1. our physicians have had little or no formal training
2. our physicians have had some formal training
3. our physicians have had a great deal of formal training
8. DK
9. REF

GO TO C71

C70a. To what extent, if any, {have you/has your practice's physician} participated in formal training programs to improve {your/his/her} skills in the areas of patient communication and/or cultural competence? Please choose one of the following statements.

1. I have had little or no formal training.
2. I have had some formal training.
3. I have had a great deal of formal training.
8. DK
9. REF

C71. For a majority of your patients who use tobacco, does your <IF A2>1 then "medical group", IF A2=1 then "practice"> routinely offer referral to a tobacco counseling program?

1. Yes
2. No
7. NA
8. DK
9. REF

D. Relationships with Health Insurance Plans

DINT. I have a few questions for you regarding health insurance plan activities in chronic illness and preventive care. In answering these questions, please think about the major health plans that insure your patients.

DINTb. Do any of these health insurance plans provide data to the physicians in your medical group on:
IF A3 = 1, SHOW: Do any of these health insurance plans provide data to {you/your practice's physician} on

IF A3= 1, GO TO D1a

D1. the quality of your physicians' preventive care and/or care for patients with chronic illness?

1. Yes
2. No
8. DK
9. REF

GO TO D3INT

D1a. the quality of {your/his/her} preventive care and/or of {your/his/her} care for patients with chronic illness?

1. Yes
2. No
8. DK
9. REF

D3INT. Do any of these health insurance plans routinely:

D3. send reminders for preventive or follow-up care directly to your <IF A2>1 then "medical group's", IF A2=1 then "practice's"> patients with chronic illness?

1. Yes
2. No
8. DK
9. REF

IF A7=A3 AND A11<=50, GO TO D5

IF A8=A3 AND A11<=50, GO TO D5

IF A9=A3 AND A11<=50, GO TO D5

IF [A7+A8+A9] = A3 AND A11<=50, GO TO D5.

ELSE GO TO D4

D4. send reminders for preventive care directly to other patients in your <IF A2>1 then "medical group", IF A2=1 then "practice"> (for example, to women who are due for mammograms)?

1. Yes

- 2. No
- 8. DK
- 9. REF

D5. make available non-physician staff (for example, health educators, dieticians, or nurses) who are **specialty trained and designated** to educate patients in managing their illness to your **<IF A2>1 then “medical group’s”, IF A2=1 then “practice’s”>** patients with chronic illness?

- 1. Yes
- 2. No
- 8. DK
- 9. REF

D6. Make available non-physician staff (for example, health educators and nurses) who are **specialty trained and designated** to educate and counsel patients about tobacco cessation?

- 1. Yes
- 2. No
- 8. DK
- 9. REF

D7. Provide **nurse care managers** for your **<IF A2>1 then “medical group’s”, IF A2=1 then “practice’s”>** patients with severe chronic illness? By "nurse care manager" I mean someone whose **primary job is to coordinate and improve the quality of care** for patients with chronic diseases. I am not asking about nurses whose main task is inpatient utilization management – e.g. getting patients out of the hospital at the appropriate time.

- 1. Yes
- 2. No
- 8. DK
- 9. REF

E. Performance Incentives

E1INT. Now I have some questions for you about performance reporting and incentives.

IF A3= 1, GO TO E1a

E1. Is your medical group or its physicians **evaluated by external entities** such as health insurance plans on measures of **patient satisfaction and/or experience** with the medical group or its physicians?

- 1. Yes
- 2. No
- 8. DK
- 9. REF

GO TO E3

E1a. {Are you/Is your practice’s physician} **evaluated by external entities** such as health insurance plans on measures of **patient satisfaction and/or experience** with the practice or with {yourself/himself/herself}?

- 1. Yes
- 2. No
- 8. DK
- 9. REF

GO TO E3a

E3. Are data on **patient satisfaction and/or experience** with **your medical group** or its physicians **publicly reported** by health plans or other **external entities**?

- 1. Yes
- 2. No

- 8. DK
- 9. REF

**IF E3 = 1 GO TO E4,
ELSE GO TO E5**

E3a. Are data on **patient satisfaction and/or experience** with your practice or with {you/the practice's physician} **publicly reported** by health plans or other **external entities**?

- 1. Yes
- 2. No
- 8. DK
- 9. REF

**IF E3a = 1 GO TO E4a,
ELSE GO TO E5a**

E4. During meetings of the physicians in your medical group, how often – if ever - are data or reports on patient satisfaction and/or experience from health plans or other **external entities** discussed?

- 1. Never
- 2. Infrequently
- 3. Often
- 8. DK
- 9. REF

GO TO E5

E4a. During meetings in your practice, how often – if ever - are data or reports on patient satisfaction and/or experience from health plans or other **external entities** discussed?

- 1. Never
- 2. Infrequently
- 3. Often
- 8. DK
- 9. REF

GO TO E5a

E5. Is your medical group or its physicians **evaluated** by **external entities** such as health insurance plans on measures of **clinical quality**, such as HEDIS measures?

- 1. Yes
- 2. No
- 8. DK
- 9. REF

GO TO E7

E5a. {Are you/Is your practice's physician} or your practice **evaluated** by **external entities** such as health insurance plans on measures of **clinical quality**, such as HEDIS measures?

- 1. Yes
- 2. No
- 8. DK
- 9. REF

GO TO E7a

E7. Are data on the **clinical quality** of care provided by your medical group or its physicians **publicly reported** by health plans or other **external entities**?

- 1. Yes
- 2. No
- 8. DK
- 9. REF

IF E7 = 1 GO TO E8

ELSE GO TO E13

E7a. Are data on the **clinical quality** of care provided by you or your practice **publicly reported** by health plans or other **external entities**?

1. Yes
2. No
8. DK
9. REF

IF E7a = 1 GO TO E8a

ELSE GO TO E13a

E8. During meetings of the physicians in your medical group, how often – if ever – are these data or reports about clinical quality from health plans or other external entities discussed?

1. Never
2. Infrequently
3. Often
8. DK
9. REF

GO TO E13

E8a. During meetings in your practice, how often – if ever - are data or reports on clinical quality from health plans or other **external entities** discussed?

1. Never
2. Infrequently
3. Often
8. DK
9. REF

GO TO E13a

E13. To the best of your knowledge, how often do the patients in your medical group ask about or discuss public reports on quality and/or patient satisfaction and/or experience with your physicians or non-physician staff?

1. Never
2. Infrequently
3. Often
8. DK
9. REF

GO TO E14

E13a. To the best of your knowledge, how often do the patients in your practice ask about or discuss public reports on quality and/or patient satisfaction and/or experience with {you/your practice's physician} or non-physician staff?

1. Never
2. Infrequently
3. Often
8. DK
9. REF

E14. During the past year, did your **<IF A2>1 then “medical group”, IF A2 = 1 then “practice”>** have the opportunity to receive additional income from **health plans or other external entities** for scoring well on measures of **clinical quality, such as HEDIS and/or on measures of patient satisfaction and/or experience?** Please do **not** include income from Medicare's physician reporting program.

1. Yes
2. No
8. DK
9. REF

E16. During the past year, was your <IF A2 >1 then “medical group”, IF A2=1 then “practice”> involved in any program that rewards physicians with **bonus income** from **external entities** based on your adoption of use of **information technology**? Please do not consider the “meaningful use” program of Medicare and Medicaid. We are asking whether your <IF A2 >1 then “MEDICAL GROUP”, IF A2=1 then “PRACTICE”> participated in programs in addition to this.

- 1. Yes
- 2. No
- 8. DK
- 9. REF

IF E14 >1 AND E16 >1, GO TO E20,

E17. During the past year, approximately what percent, if any, of your <IF A2>1 then “medical group’s, IF A2 = 1 then “practice’s”> annual revenue came from bonus income for patient satisfaction and/or experience, clinical quality and use of information technology? Please do not consider “meaningful use” payments from the Medicare or Medicaid programs as bonus income; we are asking whether <IF A2>1 then “your medical group”, IF A2 = 1 then “your practice”> received any bonus income in addition to this.

- 1. Enter percent _____
- 888. DK
- 999. REF

E20. During the past year, did your practice have the opportunity to receive additional income from **health plans or other external entities** for scoring well on measures of **efficient utilization of resources**? For example, reducing inpatient hospital days.

- 1. Yes
- 2. No
- 8. DK
- 9. REF

IF E20 >1, GO TO E23

E21. During the past year, approximately what percent, if any, of your <IF A2>1 then “medical group’s”, IF A2 = 1 then “practice’s”> annual revenue did bonus income for efficient utilization of resources constitute?

- 1. ENTER PERCENTAGE ____
- 888. DK
- 999. REF

E23 During the past year, if your practice scored well on **HEDIS tobacco cessation measures**, was it eligible for additional income from **health plans or other external entities**?

- 1. Yes
- 2. No
- 7. NA
- 8. DK
- 9. REF

F. Revenue Sources and Compensation Methods

F1a. Approximately what percent of your <IF A2>1 then “ medical group’s”, IF A2 = 1 then “ practice’s”> annual revenues for patient care come from each of the following major sources of insurance coverage: commercial health insurance, Medicare, Medicaid, other insurance such as workers’ compensation or no insurance? We understand that you will not know the exact numbers, so please just give us your best estimate. [INTERVIEWER: PLEASE PROBE UNTIL THE CATEGORIES ADD UP TO 100%.]

F1.	Commercial health insurance	_____ %
F2.	Medicare	_____ %

F3.	Medicaid	_____	%
F4.	Other insurance (e.g. workers' compensation)	_____	%
F5.	No insurance – low income patients	_____	%
F6.	No insurance – middle or upper income patients	_____	%
F6a	Other, specify	_____	%

F1 through F6a should SUM to 100%

888. DK
999. REF

F7. Approximately what percentage of your **<IF A2>1 then “medical group’s”, IF A2 = 1 then “practice’s”>** annual revenues, if any, comes from HMO insurance plans? Please include revenues from commercial health plan HMOs, Medicare HMOs, and Medicaid HMOs.

IF NECESSARY: A **health maintenance organization (HMO)** is an organization that provides or arranges managed care for health insurance, self-funded health care benefit plans, individuals and other entities in the United States as a liaison with health care providers (hospitals, doctors, etc.) on a prepaid basis.

ENTER PERCENT: _____

F12INT. During your most recent fiscal year, for approximately what percent of your **<IF A2>1 then “medical group’s”, IF A2 = 1 then “practice’s”>** HMO and POS (Point of Service) patients did you accept some of the financial risk (e.g., capitation payment) for...

[NOTE THAT THESE PERCENTAGES NEED NOT SUM TO 100%]

F12.	primary care costs	_____	%
F13.	specialist costs	_____	%
F14.	hospital costs	_____	%

IF A3 = 1, GO TO HINT.

F15a. I am now going to ask you some questions about how you pay your individual physicians. We are interested in what percent of compensation you pay them based on each of five categories:

[NOTE THAT YOU ARE SIMPLY READING THEM THE CATEGORIES HERE. THEY SHOULD NOT BE ANSWERING YET.]

base salary , which we define as compensation not directly tied to patient visits or charges
productivity , which is measured by patient visits or charges
patient satisfaction and/or experience
clinical quality of care
Other , (such as efficient use of resources, generic prescribing, reducing inpatient days, etc.)

IF A4=0 AND A5=0 AND A6=0, GO TO F21.

F15INTROb. For the majority of your individual **primary care physicians**, what is the percent of total compensation from your medical group that is based on ...

F15.	base salary	_____	%
F16.	Productivity	_____	%
F18.	patient satisfaction and/or experience	_____	%
F19.	clinical quality of care	_____	%
F20.	other factors, specify	_____	%

777. NA **F15 – F20 should SUM to 100%**
888. DK
999. REF

IF SUM of (A4;A5;A6)=A3, GO TO F27

F21INT. For the majority of your individual **specialty physicians** what is the average percent of total compensation from your medical group that is based on ...?

F21. base salary	_____	%
F22. Productivity	_____	%
F24. patient satisfaction/ patient experience	_____	%
F25. clinical quality of care	_____	%
F26. other factors, (such as efficient use of resources, generic prescribing, reducing inpatient days, etc.),, specify	_____	%

777. NA **F21 – F26 should SUM to 100%**
888. DK
999. REF

IF F18=0 AND F19=0 AND F24=0 AND F25=0 GO TO HINT
IF F18=0 AND F19=0 AND F24=NA AND F25=NA GO TO HINT
IF F18=NA AND F19=NA AND F24=0 AND F25=0 GO TO HINT

F27. Is your internal payment scheme for individual physicians based wholly, or in part, on any of the following:

F27a. measures of quality, patient experience, or resource utilization contained in reports **produced by major payers or health care plans?**

F27b. measures of quality, patient experience, or resource utilization contained in reports **produced by local health care delivery systems?**

F27c. measures of quality, patient experience, or resource utilization contained in reports **produced by local health care alliances or collaboratives?**

1. Yes
2. No
8. DK
9. REF

H. Organizational Culture

HINT. We are just about finished – I have a few final questions:

IF A3 = 1, GO TO H5INTa

H5INT. To what extent do you believe that the majority of physicians in your practice would agree with each of the following statements? Would they strongly disagree, disagree, neither agree nor disagree, agree, or strongly agree with each?

GO TO H5

H5INTa. To what extent do you agree with each of the following statements? Please tell me whether you strongly disagree, disagree, neither agree nor disagree, agree, or strongly agree with each?

GO TO H5a

H5. To what extent would they agree that the practice does a good job of assessing patient needs and expectations?

1. Strongly Disagree
2. Disagree
3. Neither Agree nor Disagree
4. Agree
5. Strongly Agree
8. DK
9. REF

GO TO H6

H5A. To what extent do you agree that the practice does a good job of assessing patient needs and expectations?

1. Strongly Disagree
2. Disagree
3. Neither Agree nor Disagree
4. Agree
5. Strongly Agree
8. DK
9. REF

GO TO H6a

H6. To what extent would they agree that staff promptly resolve patient complaints?

1. Strongly Disagree
2. Disagree
3. Neither Agree nor Disagree
4. Agree
5. Strongly Agree
8. DK
9. REF

GO TO H7

H6a. To what extent do you agree that staff promptly resolve patient complaints?

1. Strongly Disagree
2. Disagree
3. Neither Agree nor Disagree
4. Agree
5. Strongly Agree
8. DK
9. REF

GO TO H7a

H7. To what extent would they agree that patients' complaints are studied to identify patterns and prevent the same problems from recurring?

1. Strongly Disagree
2. Disagree
3. Neither Agree nor Disagree
4. Agree
5. Strongly Agree
8. DK
9. REF

GO TO H8

H7a. To what extent do you agree that patients' complaints are studied to identify patterns and prevent the same problems from recurring?

1. Strongly Disagree
2. Disagree
3. Neither Agree nor Disagree

- 4. Agree
- 5. Strongly Agree
- 8. DK
- 9. REF

GO TO H8a

H8. To what extent would they agree that the practice uses data from patients to improve care?

- 1. Strongly Disagree
- 2. Disagree
- 3. Neither Agree nor Disagree
- 4. Agree
- 5. Strongly Agree
- 8. DK
- 9. REF

GO TO H9

H8a. To what extent do you agree that the practice uses data from patients to improve care?

- 1. Strongly Disagree
- 2. Disagree
- 3. Neither Agree nor Disagree
- 4. Agree
- 5. Strongly Agree
- 8. DK
- 9. REF

GO TO H9a

H9. To what extent would they agree that the practice uses data on patient expectations and/or experience when developing new services?

- 1. Strongly Disagree
- 2. Disagree
- 3. Neither Agree nor Disagree
- 4. Agree
- 5. Strongly Agree
- 8. DK
- 9. REF

GO TO JIINT

H9a. To what extent do you agree that the practice uses data on patient expectations and/or experience when developing new services?

- 1. Strongly Disagree
- 2. Disagree
- 3. Neither Agree nor Disagree
- 4. Agree
- 5. Strongly Agree
- 88. DK
- 99. REF

GO TO JIINT

J1INT. The Patient-Centered Medical Home and the Accountable Care Organization are two models of practice that were described in the large health reform bill passed by Congress in 2010. We have a few questions for you about these practice models.

J1. Has your <IF A2>1 then “medical group”, IF A2 = 1 then “practice”> received recognition as a Patient-Centered Medical Home from the National Committee for Quality Assurances (NCQA)?

1. Yes
2. No
7. NA
8. DK
9. REF

IF J1> 1 GO TO J2

J1a. What level of recognition have you received?

1. Level 1
2. Level 2
3. Level 3
8. DK
9. REF

J2. Has your <IF A2>1 then “medical group”, IF A2 = 1 then “practice”> received recognition or certification as a Patient-Centered Medical Home by any organization other than NCQA?

1. Yes
2. No
7. NA
88. DK
99. REF

IF J2=1 OR J1=1GO TO J4

J3. Is your <IF A2>1 then “medical group”, IF A2 = 1 then “practice”> planning to attempt to receive medical home recognition or certification from the NCQA or any other organization during the next year?

1. Yes
2. No
7. NA
8. DK
9. REF

J4. Has your <IF A2>1 then “medical group”, IF A2 = 1 then “practice”> applied to CMS to become an accountable care organization (ACO) in 2012?

1. Yes
2. No
8. DK
9. REF

IF J4>1 GO TO J4b

J4a. Have you applied to:

- a) The advanced payment program
- b) The pioneer program
- c) The general Medicare shared-savings program

1. Yes
2. No
8. DK
9. REF

GO TO J10

J4b. How likely is it that you will apply to CMS, under their shared savings programs, within the next 12 months?

- 1. Definitely not likely**
- 2. Probably not likely**
- 3. Somewhat Likely**
- 4. Probably likely**
- 5. Definitely likely**

J5. Does your <IF A2>1 then “medical group”, IF A2 = 1 then “practice”> have a signed agreement with a private health insurance plan to become an accountable care organization (ACO) in 2012?

1. Yes
2. No
8. DK
9. REF

IF J5 =1, GO TO J10.

J5a. Does your <IF A2>1 then “medical group”, IF A2 = 1 then “practice”> have plans to sign an agreement with a private health insurance plan within the next 12 months?

1. Yes
2. No
8. DK
9. REF

Go to J13

J10. Which of the following does the ACO include?

J10a. Groups with fewer than 20 physicians

J10b. Groups with 20 or more physicians

J10c. one or more hospitals

J10d. one or more nursing homes

J10e. one or more home health agencies

J10f. Other _____

1. Yes
2. No
8. DK
9. REF

J11. Who primarily governs the ACO?

1. Physicians
2. A hospital or hospital system
3. Shared physician-hospital governance
4. Other (please specify): _____

J12. In your judgment, at this point in time, how well prepared is the ACO to:

J12a. Implement the Meaningful Use Criteria for Electronic Medical Records?

J12b. Collect, analyze and report on the required **quality of care** and **cost** performance measures?

1. Not at all prepared
2. Very little prepared
3. Somewhat prepared
4. Very well prepared
- 8 DK
9. REF

J13. Some medical groups receive assistance from outside organizations (other than health plans, IPAs and PHOs) for such things as developing a disease registry, providing specially trained nurse care managers, or developing a patient self management program. Does your practice receive such assistance?

1. Yes
2. No
1. **DK**
2. **REF**

IF J13=1, THEN ASK J13a

J13a. From whom does it receive such assistance?

Enter name of organization: _____

IF SITEID = 15 or 16 GO TO L1

K. Site-specific questions

K1.

[IF SITEID=12]. Are you aware of the Better Health Greater Cleveland’s quality reporting through it s Community Health Checkup which is available at www.betterhealthcleveland.org?

[IF SITED IN (1-11, 13-14,)]Are you aware of the healthcare provider quality report(s), **<fill “Name(s) of Report,”>** sponsored by **<Reporting Organization>**, which is available at **<fill “website”>**?

INTERVIEWER: IF NEEDED: **<fill link>**

1. Yes
2. No
8. DK
9. REF

IF K1 =1 AND (E3=1 OR E3a=1 OR E7=1 OR E7a=1) GO K2

ELSE IF K1 > 1 GO TO L1

K2. [IF SITEID IN (2,4,6-18)]Are clinical quality and/or patient experience measures for your **<IF A2>1 then “medical group”, IF A2 = 1 then “practice”>** or any of your physicians reported in **<fill “Name(s) of Report,”>** sponsored by **<Reporting Organization>**?

[IF SITEID IN (1)]Are clinical quality measures for your **<IF A2>1 then “medical group”, IF A2 = 1 then “practice”>** or any of your physicians reported in **<fill “Name(s) of Report,”>** sponsored by **<Reporting Organization>**?

[IF SITEID IN (3)]Are clinical quality and/or patient experience measures for your group/practice or any of your physicians reported in the website <http://healthcarequalitymatters.org/> sponsored by Healthy Memphis Common Table?

[IF SITEID IN (5)] Are clinical quality and/or patient experience measures for your group/practice or any of your physicians reported in the Reaching for Excellence website and the portal physicians have available to them at www.p2quality.com sponsored by P2 Collaborative of Western NY?

1. Yes
2. No
8. DK
9. REF

Closing

IF A3=1 OR A3>5 GO TO VERIFY ADDRESS

L1. I have one final question for you. Drs. Shortell and Casalino would like to know the names of the physicians in your practice **to make sure we are up to date on your practice.**

(INTERVIEWER: STOP HERE AND SEE IF THE RESPONDENT PROVIDES THE NAMES. IF THEY DON'T OR HESITATE ONLY THEN ADD THE FOLLOWING SENTENCE)

They would never reveal these names to anyone, just as they would never reveal your name or the name of your practice. They will not contact the physicians in your practice. But knowing who the physicians in practices are might help with future research. So, may I ask you to give me the names of the physicians in your practice? (INTERVIEWER: PLEASE VERIFY SPELLING BY READING BACK TO PHYSICIAN.)

Name1 _____
Name2 _____
Name3 _____
Name4 _____
Name5 _____

Verify Address

M1. Thank you for your time. We will send you the \$200 check as soon as we verify your contact information. You should expect to receive the check within two to three weeks.

1. CONTINUE

M2a: I just need to verify your name and title for our records.
INTERVIEWER: VERIFY OR OBTAIN REQUESTED INFORMATION.

M2a1. First name: **<fill from POC roster line>**

1. Correct – GO TO M2a2
2. Incorrect

M2a1b. (What is your first name?)

ENTER NAME:

M2a2. Last name: **<fill from POC roster line>**

1. Correct – GO TO M2a3
2. Incorrect

M2a2b. (What is your last name?)

ENTER NAME:

M2a3. Title: <fill from POC roster line>

1. Correct – GO TO M2a4
2. Incorrect

M2a2b. (What is your title?)

ENTER TITLE:

M2a4. SELECT A TITLE CODE:

1. President
2. CEO
3. Senior Partner
4. Medical Director
5. Lead Physician
6. Practice/Office Manager
7. Practice/Chief Administrator
8. Physician, but not lead
9. Other, specify: _____

M2a5. Do you have an MD/DO?

1. Yes
2. No

M3fINTRO1. Should the check be made out to you or someone else?

1. ME (PERSON ON THE PHONE) – GO TO MS3fINTRO2
2. Someone else

M3fINTRO1b. What name should we list?

ENTER NAME: _____

M3fINTRO2. Would you like your check sent to your business address or a different address such as your home?

1. Business address – Go to M5
2. Different address

M4a. (What is the first address line?)

ENTER ADDRESS:

M4b. (What is the second address line?)

ENTER ADDRESS:

M4c. (What is the city?)

ENTER CITY:

M4d. (What is the state?)

ENTER STATE:

M4e. (What is the zipcode?)

ENTER ZIPCODE:

M5INTRO. We will send the check to the address you just gave me, but I need to verify the address of your medical group/practice for our records so that we make sure we do not interview anyone else from this organization.

M5. VERIFY BUSINESS NAME: <fill A1>

1. Correct – GO TO M6

2. Incorrect

M5b. (What is the name of the business?)

ENTER NAME:

M6. VERIFY STREET ADDRESS 1: <fill prev_staddress1>

1. Correct – GO TO M7
2. Incorrect

M6b. (What is the street address?)

ENTER ADDRESS:

M7. [IF prev_staddress2; ELSE go to M7]. VERIFY STREET ADDRESS 2: <fill prev_staddress2>

1. Correct – GO TO M8
2. Incorrect

M7b. (What is the second address line?)

ENTER ADDRESS:

M8. VERIFY CITY: <fill prev_city>

1. Correct – GO TO M9
2. Incorrect

M8b. (What is the city?)

ENTER CITY:

M9. VERIFY STATE: <fill prev_st>

1. Correct – GO TO M10
2. Incorrect

M9b. (What is the state?)

ENTER STATE:

M10. VERIFY ZIPCODE: <fill prev_zip>

1. Correct – GO TO M11
2. Incorrect

M10b. (What is the zipcode?)

ENTER ZIPCODE:

M11. VERIFY PHONE: <fill prev_resp_phone>

1. Correct – GO TO M12
2. Incorrect

M1b. (What is the best phone number to reach you at?)

ENTER PHONE:

M12. Would you like to provide a fax number?

1. ENTER NUMBER:
2. REFUSE

M13. Once we have completed interviews with all of the participating physician practices nationally, we will send you a summary feedback report that you can use for benchmarking and to compare your practice with others around

the country. May we have your email address for this purpose? Your email address will not be sold or distributed in any fashion.

INTERVIEWER: IT IS ACCEPTIBLE TO ENTER THE ADDRESS OF A SECRETARY/ADMIN

ENTER E-MAIL ADDRES:

END INTERVIEW AND ASSIGN EVENTID 295 – Completed interview

TERM1: Thank you very much; the specialty mix of your practice makes it ineligible for the study. **ASSIGN EVENT CODE AS XXX – SUBJECT INELIGIBLE – WRONG SPECIALTY MIX**

TERM3: Thank you very much for your time.

eAppendix B. Attributing Beneficiaries to Practices

Following the Center for Medicare and Medicaid Services (CMS) method for assigning beneficiaries to ACOs^a we used Part B Outpatient and Carrier file Medicare claims for 2012 to identify beneficiaries who had any primary care service with a physician belonging to an NSPO3 practice (as determined by physician NPI).

Result => 3,789,683 unique beneficiaries

We then applied study eligibility criteria including:

- ≥ 65 as of January 1, 2011
- Not identified as ESRD in 2011 or 2012
- Had continuous coverage in Parts A and B in 2011-2012
- Had no Medicare Advantage coverage in 2011-2012
- Were alive as of December 31, 2012
- Resided in United States or its territories

Result => 2,569,384 unique beneficiaries

We used the resulting finder file to identify all primary care services received for these beneficiaries, from any provider, as listed in the Part B Outpatient and Carrier file Medicare claims for 2012. Beneficiaries were assigned to an NSPO3 practice if the sum of allowed charges for primary care services at that practice was greater than the sum of allowed charges for services received by all other practices combined. Ties were excluded.

Result => 919,414 unique beneficiaries assigned to 1320 practices

We then excluded NSPO3 practices with $<15\%$ primary care physicians in the practice.

Result => 868,213 unique beneficiaries assigned to 1040 practices

^aCMS. Medicare Shared Savings Program Shared Savings and Losses and Assignment Methodology Specifications. Version 4, December 2015.

eAppendix C. Health Information Technology, Care Management Processes, and Quality Improvement Indices

<i>Health information technology index (range: 0-14 points, Cronbach's alpha=0.54)</i>	
1. Electronic Documentation - Practice makes available an electronic medical record (EMR) that contains the patients medications - Majority of physicians in the practice use the EMR for the patient's problem list - Majority of physicians in the practice use the EMR for progress notes	0-3 points
2. Clinical Decision Support - Majority of physicians in the practice use the EMR for potential drug interactions - Majority of physicians in the practice use the EMR for prompts and reminders - Majority of physicians in the practice use the EMR for alerts on abnormal test results	0-3 points
3. Quality Measurement - Practice uses EMR to collect data for clinical quality measures	1 point
4. Physician order entry - Majority of physicians in the practice transmit prescriptions electronically	1 point
5. Electronic access to data - Majority of physicians have electronic access to clinical information on patient ER visits - Majority of physicians have electronic access to clinical information on patient hospital discharge summaries - Majority of physicians have electronic access to laboratory results - Majority of physicians have electronic access to pharmacy record of prescriptions filled by patients	0-4 points
6. Electronic connectivity for patients - Majority of physicians communicate with patients by email - Patients can view their medical record online	0-2 points
<i>Care management processes index (range: 0-20 points, Cronbach's alpha=0.90)</i>	
<i>For each of four conditions - asthma, coronary heart failure, depression, and diabetes-practice receives one point for the following:</i>	
Practice maintains an electronic registry for majority of patients with each condition	0-4 points
Practice provides nurse care managers for patients with each condition	0-4 points
Practice provides data to physicians on the quality of their care for patients with these conditions	0-4 points
Practice routinely sends reminders to patients with these conditions for preventive care	0-4 points
Practice has non-physician staff to educate patients about managing their condition	0-4 points

<i>Quality Improvement activities index (range: 0-5 points, Cronbach's alpha=0.73)</i>	
<i>Practice routinely uses any of the following methods for quality improvement:</i>	
Plan-Do-Study-Act (PDSA)	1 point
Lean production techniques	1 point
Six Sigma	1 point
Quality Improvement learning collaboratives	1 point
Other quality improvement system	1 point