Physician Satisfaction With Health Plans: Results From a National Survey

Natasha Parekh, MD, MS; Sheryl Savage; Amy Helwig, MD, MS; Patrick Alger, BS; Ilinca D. Metes, BS; Sandra McAnallen, MA, BSN; and William H. Shrank, MD, MSHS

S tudies have demonstrated that physician satisfaction is associated with patient satisfaction, adherence to chronic disease management recommendations, and quality of care.¹⁻⁵ However, physician burnout is a growing concern; the majority of physicians in the United States experience burnout symptoms, and between 2011 and 2014, the prevalence of burnout among physicians increased by 9% while remaining stable in other fields.⁶ Given the importance of physician satisfaction, some have suggested that the Triple Aim (representing patient experience, quality of care, and cost reduction) be expanded to the Quadruple Aim, which adds provider satisfaction as the fourth key tenet.⁷

A key source of physicians' frustration is related to their relationships with payers. Challenges include administrative burden, documentation pressures, payment and delivery changes, and publicly reported quality metrics,^{6,8,9} and they represent central causes of physician burnout. It is therefore important to better understand the associations between physician satisfaction and characteristics of the health plan, provider, and practice.

Our existing knowledge of physician satisfaction with health plans is limited, mixed, and outdated. Studies from the 1990s that focused on managed care found contradictory results regarding the association between managed care and physician satisfaction.9-11 More recent studies note that increased administrative burden and productivity requirements are associated with reduced satisfaction, but limited evidence is focused on physician satisfaction with health plans specifically.^{6,8,9} Moreover, little is known about what provider and plan characteristics are associated with greater provider satisfaction with health plans. Considering the rapid evolution of new payment models and the emergence of vertically integrated health plans (ie, plans in which healthcare providers and payers are integrated), we need to refresh our understanding of key provider and payer relationships and their association with physician satisfaction. Accordingly, we sought to explore physician satisfaction with health plans and assess the physician and plan characteristics that are associated with greater satisfaction.

ABSTRACT

OBJECTIVES: Physician satisfaction is associated with patient satisfaction, adherence to treatment recommendations, and quality. However, burnout is prevalent, and physician experience with health plans is likely a key contributor. We explored physician satisfaction with health plans and assessed physician and plan characteristics associated with greater satisfaction.

STUDY DESIGN: Cross-sectional analysis of physician satisfaction surveys for US health plans in 2016.

METHODS: We assessed the association between health plan/physician characteristics and physician satisfaction domains using multivariable linear regression. The following satisfaction domains were outcomes of interest, measured by 5-point Likert scales: overall health plan rating, finance, utilization/quality management, network/care coordination, pharmacy, call center, provider relations, and recommendation of the plan to others' practices.

RESULTS: We analyzed surveys from 3158 physicians on 74 health plans, representing a 12.6% response rate. We observed highest satisfaction in overall plan rating, finance, and call center domains (adjusted means = 3.25) and lowest satisfaction in the pharmacy domain (adjusted mean = 3.02). The largest and smallest plans and vertically integrated plans had the highest satisfaction; 76% and 66% of physicians recommended vertically integrated plans and non-vertically integrated plans, respectively, to others (*P* <.001). Solo practitioners rated overall plan rating, finance, utilization/quality management, and pharmacy domains more favorably than did physicians rated overall plan rating, finance, and utilization/quality management more favorably than did specialists.

CONCLUSIONS: Our findings demonstrate opportunity to improve physician satisfaction with health plans, specifically in pharmacy/formulary management. As provider satisfaction is increasingly recognized as a critical outcome, our findings highlight intervention targets.

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TAKEAWAY POINTS

- Significant opportunity exists to improve physician satisfaction with health plans, specifically
 in pharmacy/formulary management.
- Vertically integrated health plans and the largest and smallest plans had the highest physician satisfaction.
- Solo practitioners rated overall health plan ratings, finance, utilization/quality management, and pharmacy domains more favorably than did physicians in larger practices, whereas primary care physicians rated overall health plan ratings, finance, and utilization/quality management domains more favorably than did specialists.
- As provider satisfaction is becoming increasingly recognized as a critical outcome of its own, our findings highlight potential intervention targets.

METHODS

In partnership with SPH Analytics, a provider of patient/member experience and population health solutions charged with measuring, analyzing, and interpreting patient and provider satisfaction for US health plans, we conducted a cross-sectional analysis of provider satisfaction surveys from 2016. As a requirement for National Committee for Quality Assurance (NCQA) accreditation, all health plans solicit feedback from their providers with the goal of improving care coordination and quality. Unlike patient satisfaction surveys, NCQA does not specify which questions are asked of providers about health plans. SPH Analytics therefore developed its Provider Satisfaction Benchmark Survey Tool to help health plans assess provider satisfaction. The tool is administered by SPH Analytics on behalf of health plans to providers, including physicians, nurses, office managers, and behavioral health clinicians. Our study used results from the 2016 SPH Analytics Provider Satisfaction Benchmark Survey Tool, which was completed by providers for 130 health plans, representing approximately 30% of health plans across the United States. Of the 130 health plans, 54 had customized surveys with customized questions/responses. Because responses to these questions could not be compared among health plans, we excluded plans with customized surveys from our analyses. We included only physician responses in this analysis (ie, we excluded office staff responses) to simplify result interpretation because our specific focus was the intersection between health plan practices and physician satisfaction, and as a group, physicians may have different responses compared with other provider types.

Survey Design and Development

SPH Analytics developed its original Provider Satisfaction survey in 2001 based on the reporting, regulatory, and accreditation requirements of its health plan clients. In 2012-2013, SPH Analytics re-evaluated the utility of this existing survey, seeking to ensure that it covered meaningful topics and provided valuable results by which health plans could measure and compare their performance and identify areas of opportunity. The organization therefore conducted focus groups with 10 physicians and interviews with 12 office managers from diverse practice settings (representing a combination of primary care and specialist offices and large and small groups) to obtain feedback on the survey, key domains, administration methods and frequency, and result sharing. SPH Analytics then used focus group and interview feedback to revise its original tool. It specifically reordered the domains by most important to least important according to the focus groups and, to reduce respondent burden, removed follow-up questions asking providers to rate other plans they encounter for each domain.

The final survey included 7 demographic questions, 33 five-point Likert scale questions (with response options of well above average, somewhat above average, average, somewhat below average, and well below average), 1 yes/no question about whether the provider would recommend the sponsor plan to other physicians, and 1 free-text question where responders could leave comments. Key domains included (1) overall health plan rating, which reflected general satisfaction with the respective health plan compared with all other plans they work with; (2) financial issues, which included questions on provider reimbursement, fee consistency, and claims processing and resolution; (3) utilization and quality management, which included questions on access to knowledgeable staff, procedures and timeliness of preauthorization information, facilitation of appropriate clinical care, access to care managers, and preventive care and wellness coverage; (4) network/ coordination of care, which included questions on number, quality, and timeliness of reports from specialists and behavioral health clinicians in the plan's provider network; (5) pharmacy issues, which included questions on formulary consistency over time, reflection of current care standards, variety of branded drugs, ease of prescribing preferred medications, and availability of substitutions; (6) call center experiences, which included questions on ease of reaching the call center, helpfulness in referrals, and overall satisfaction with call center staff; (7) provider relations, which included questions on availability and capacity of provider relations representatives, quality of provider orientation, and value of written communications; and (8) whether providers would recommend the respective health plan to other practices.

Piloting and Validity/Reliability Testing

SPH Analytics then piloted the final survey with 8 health plans that included 1524 provider responders, representing physicians, nurses, office managers, behavioral health clinicians, and other staff. SPH Analytics conducted reliability testing via internal consistency analysis (Cronbach's alpha) and validity testing via factor analysis. In internal consistency analyses, the Cronbach's alpha values for the key domains (finance issues, utilization and quality management, network/coordination of care, pharmacy, call center services, and provider relations) ranged from 0.884 to 0.957, indicating that the domains represented reliable measures of provider satisfaction. Factor analysis suggested 4 underlying factors that matched with survey domains—provider relations, quality and accessibility, pharmacy, and finance issues.

Sampling Strategy and Survey Administration

SPH Analytics works with health plans to determine their provider sampling strategies. Strategies generally start with a sample of 1500 providers per health plan, with stratification efforts to include 60% primary care physicians, 30% specialists, and 10% behavioral health clinicians. Physicians with high patient volumes are targeted first because they likely have more interaction with health plans. Based on focus group feedback on desired administration methods, SPH Analytics administers the survey to providers using mail, email, and phone. Of 114,880 email and mail surveys from 2016, 10,240 providers responded (response rate, 8.9%); of 62,632 phone surveys, 12,178 providers responded (response rate, 18.8%). The total response rate was 12.6% for all providers.

Data Collection

SPH Analytics received survey results from providers and built a deidentified data set at the provider–plan level using their survey data and AIS health plan demographic data. Each plan was assigned a unique numerical identifier so responses could be compiled for each plan. SPH Analytics then shared the deidentified data with the University of Pittsburgh Medical Center researchers who conducted analyses. The data set included 22,418 provider surveys for 76 health plans, of which 3158 were completed by physicians.

Outcomes/Covariates of Interest and Statistical Analysis

For each physician-plan dyad, we included the following provider satisfaction domains described previously as outcomes of interest: (1) overall health plan rating, (2) financial issues, (3) utilization and quality management, (4) network/coordination of care, (5) pharmacy, (6) call center experiences, (7) provider relations, and (8) provider recommendation of the sponsor plan to other practices.

We assessed the association between the following characteristics and outcomes of interest using multivariable linear regression, weighted by the number of providers who completed surveys for each plan: vertical integration status, defined as the integration of provider and payer systems and categorized using publicly available lists from Robert Wood Johnson Foundation, McKinsey, and Avalere (eAppendix Table [eAppendix available at ajmc.com])¹²⁻¹⁴; health plan size (stratified by ≤100,000, 100,001-500,000, 500,001-1 million, 1,000,001-2 million, and >2 million enrollees); practice size (stratified by practices having 1 physician, 2-5 physicians, and >5 physicians); provider type (stratified by primary care, specialists, and behavioral health physicians); and years of practice (stratified by <5 years, 5-15 years, and >15 years). In addition to these variables, we also adjusted our models for HHS region, number of insurance companies accepted by a respective provider's practice, and proportion of a practice's managed care volume represented by a respective health plan. We

clustered deidentified provider responses based on the sponsored health plans they were assessing and, because we did not have unique identifiers for provider responders, used robust standard error estimation to account for potential correlation in a scenario in which the same provider responded to surveys about multiple health plans. Missing data were deemed missing completely at random through a multistep statistical verification process that included visual inspection of missing data, tabulating missing data for each variable, and performing Little's test to assess the assumption that missing data were missing completely at random. Analyses were performed using Stata 14 (StataCorp LP; College Station, Texas) and SAS 9.4 (SAS Institute Inc; Cary, North Carolina).

RESULTS

We received surveys from 3158 physicians for 74 health plans (**Table 1**). Primary care physicians represented 62% of responders and specialists represented 38%. Fifty-one percent of responders were solo practitioners, and 55% were in practice for more than 15 years. Thirty-eight percent of physicians' practices participated with more than 15 insurance companies. In terms of plan demographics, 11% of plans were vertically integrated and 89% of plans were not. Most plans had 500,000 or fewer enrollees and belonged to HHS regions 9 (San Francisco), 6 (Dallas), 5 (Chicago), and 4 (Atlanta).

Overall provider satisfaction varied little across domains, with highest satisfaction in the overall health plan rating (adjusted mean = 3.25), finance (adjusted mean = 3.25), and call center (adjusted mean = 3.25) domains and lowest satisfaction in the pharmacy domain (adjusted mean = 3.02) (eAppendix Table). Providers rated pharmacy significantly lower than all other domains (P < .05). The call center domain received the most "somewhat above average" and "well above average" ratings, whereas the pharmacy domain received the fewest "somewhat above average" and "well above average" ratings and the most "average" ratings (Figure 1).

In multivariable models, a number of health plan, provider, and practice characteristics were associated with physician satisfaction. Vertically integrated plans had significantly higher adjusted means than non-vertically integrated plans for all satisfaction domains (Figure 2; eAppendix Table), and the largest difference between vertically integrated and non-vertically integrated plans was observed in the overall health plan rating ($\beta = 0.89$; 95% CI, 0.61-1.17). Of note, 76% of providers would recommend vertically integrated plans and 66% of providers would recommend non-vertically integrated plans to other practices (P <.001). By plan size, physician satisfaction was highest for the largest (1,000,0001-2 million enrollees and >2 million enrollees) and smallest (≤100,000 enrollees) plans (Figure 2). Compared with practices with more than 1 physician, solo practitioners rated plans more favorably in overall health plan rating, finance, utilization/quality management, and pharmacy domains (Figure 3). Compared with primary care responders, specialists rated plans less favorably in overall health plan rating ($\beta = -0.20$; 95% CI, -0.31 to -0.11), finance ($\beta = -0.21$; 95% CI, -0.33 to -0.11),

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TABLE 1. Physician and Plan Demographics (N = 3158 physicians; N = 74 plans)

N = 74 plans) Physician Characteristic	n (%) of Physicians
Physician specialty	1770 (/ 2)
Primary care	1779 (62)
Specialist	1093 (38)
Behavioral health	15 (0.5)
Practice size	
1 physician	1611 (51)
2-5 physicians	894 (29)
>5 physicians	624 (20)
Years in practice	
<5 years	511 (16)
5-15 years	881 (28)
>15 years	1706 (55)
Proportion of practice volume enrolled in sponsor h	nealth plan
None	38 (1.2)
≤10%	1214 (40)
11%-20%	823 (27)
21%-30%	421 (14)
31%-50%	293 (9.7)
51%-75%	167 (5.5)
76%-100%	80 (2.6)
Number of health plans that physician practices pa	rticipate with
≤3	46 (1.5)
4-7	643 (21)
8-11	763 (25)
12-15	405 (13)
>15	1148 (38)
	n of Plans
Plan Characteristic	(n of physicians)
Vertically integrated	8 (397)
Non-vertically integrated	66 (2482)
Size	
≤100,000	20 (840)
100,001-500,000	31 (1302)
500,001-1 million	11 (352)
1,000,001-2 million	3 (93)
>2 million	9 (292)
HHS region	
1 (Boston)	5 (209)
2 (New York)	4 (314)
3 (Philadelphia)	3 (56)
4 (Atlanta)	11 (565)
5 (Chicago)	11 (379)
6 (Dallas)	14 (491)
7 (Kansas City)	5 (106)
8 (Denver)	0 (0)
9 (San Francisco)	21 (920)
10 (Seattle)	5 (118)

and utilization/quality management ($\beta = -0.17$; 95% CI, -0.27 to -0.06) (eAppendix Table).

DISCUSSION

Our findings demonstrate that with a mean overall plan rating of 3.25 of 5 points, significant opportunity exists to improve physician satisfaction with health plans, specifically in pharmacy/formulary management. Furthermore, we found that vertically integrated plans and the largest and smallest plans had the highest physician satisfaction overall. Solo practitioners rated overall health plan ratings, finance, utilization/quality management, and pharmacy domains more favorably than did physicians in larger practices, whereas primary care physicians rated overall health plan ratings, finance, and utilization/quality management domains more favorably than did physicians more favorably than did specialists.

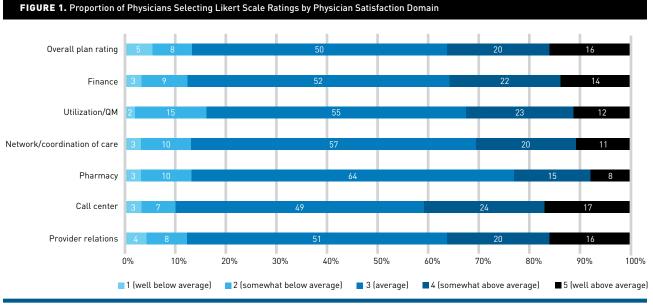
Vertical integration was a strong predictor of satisfaction; this could be due to perceived increased efficiency and streamlining of processes and initiatives, alignment of incentives, or engagement and participation in coverage and benefits policies. Other studies indicate that vertically integrated plans have better quality and patient satisfaction,¹²⁻¹⁵ although these studies did not include provider satisfaction as an outcome.

Plan size was an important predictor of physician satisfaction. Plans that serve more enrollees could have higher physician satisfaction because of increased organizational commitment and potentially more experience interacting with and supporting providers. These findings are consistent with those of studies on patient satisfaction that suggest that larger plan size is positively associated with higher satisfaction.¹⁶ Interestingly, we found that smaller plans also had high physician satisfaction, potentially because smaller plans tend to be community-based plans and thus may have more intimate community-based relationships and increased ability to customize care compared with larger plans.

Physician practice characteristics were also associated with satisfaction with health plans. Solo practitioners rated plans more favorably than did physicians in practices with more than 1 physician. This finding is consistent with those of studies demonstrating that practices with fewer physicians have higher physician satisfaction in general.^{10,17} Grembowski et al and Blechter et al explain this observation by the notion that as primary care physicians shift from solo to group practice, they become salaried employees who are more likely to have increased bureaucratic controls and reduced autonomy imposed on them.^{3,10,17} Physicians in larger practices may be less satisfied with health plans due to similar pressures.

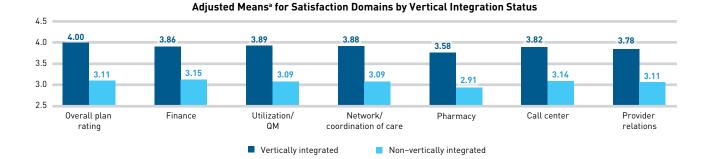
Our finding that primary care physicians rated finance and utilization/quality management domains higher than did specialists could be related to multiple factors. First, specialists may be more affected by utilization management than primary care physicians, specifically those in procedure-based specialties whose relative value units and incomes are based on procedures that require prior authorization from health plans. Second, new alternative payment

Physician Satisfaction With Health Plans



QM indicates quality management.

FIGURE 2. Association Between Plan Characteristics and Physician Satisfaction Domains



3.9 3.42 3.42 3.45 3.29 3.26 3.23 3.7 3.23 3.32 3.16 3.51 3.25 3.23 3 3.16 3.50 3.1 3.5 44 3.35 3.35 3.32 2.98 3.30 3 33 3.3 3.29 3.29 3.25 2 95 3.1 3.07 29 2.7 2.5 Overall plan Finance Utilization/ Network/ Call center Provider Pharmacy rating QМ coordination of care relations ■ ≤100,000 100,001-500,000 500,001-1 million 100,000,001-2 million >2 million

Adjusted Means^a for Satisfaction Domains by Plan Size

QM indicates quality management.

*Adjusted means represent average predicted probabilities in multivariable models that adjust for vertical integration status, plan size, HHS region, provider specialty, practice size, provider years of practice, number of insurance companies accepted by a respective provider's practice, and proportion of practice managed care volume represented by the respective health plan.

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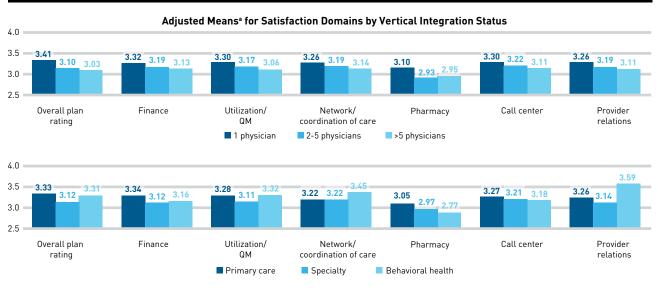
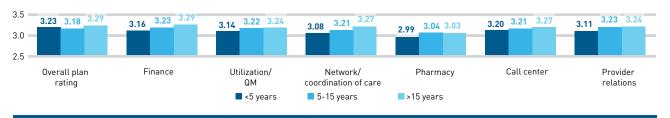


FIGURE 3. Association Between Physician Characteristics and Physician Satisfaction Domains





QM indicates quality management.

^aAdjusted means represent average predicted probabilities in multivariable models that adjust for vertical integration status, plan size, HHS region, provider specialty, practice size, provider years of practice, number of insurance companies accepted by a respective provider's practice, and proportion of practice managed care volume represented by the respective health plan.

models that prioritize value over volume may disproportionately benefit primary care physicians over specialists.¹⁸ Additionally, because primary care is more heavily influenced by payment reform, health plans potentially have had to intensify their outreach efforts with primary care providers more so than with specialists.

Limitations

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Our study has limitations. First, we could not include plans that use customized provider satisfaction surveys because responses could not be fairly compared. Therefore, the potential for selection bias exists for plans that chose standardized surveys because they may not be representative of all plans. Second, the response rate for the survey was 12.6% among providers. It is unclear how our responders might differ from nonresponders, and our responders may not be representative of all physicians responding for all health plans: Although our physician years of experience and practice size seem to be reflective of the general physician integration status seem to be reflective of the general health plan population,²¹ our representation from primary care physicians is higher than primary care representation in the United States.²⁰ Importantly, we adjusted for whether physicians were primary care providers versus specialists in our multivariable model (Table 2) and display adjusted means for primary care and specialist physicians separately (Figure 3). Similarly, selection bias may exist among physicians, in that physicians who may be more or less satisfied with respective plans might complete these optional surveys more frequently. Interestingly, although we anticipated that providers may be more likely to respond to surveys when a higher proportion of their patients were enrolled in sponsor health plans, this was not the case; most providers had less than 20% of their patients enrolled in respective plans, likely because the majority of providers' patients were represented by more than 11 health plans (Table 1). Nevertheless, we adjusted for differences in the proportion of patients represented by sponsor health plans in our multivariable models. Despite potential selection bias, to our knowledge, no other study has assessed such a large volume of physician satisfaction surveys.^{3,11} Finally, although we adjusted for regional differences, certain regions had very little representation by

TABLE 2. Association Between Plan/Provider Characteristics and Satisfaction Domains in Multivariable Models, ^a β (s	95% CI)
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	Overall		Utilization/	Network/	DI	0.11.0	Provider
	Plan Rating	Finance	QM Vortical In	Coordination of Care	Pharmacy	Call Center	Relations
Non-vertically integrated			Verticat III	Reference			
Vertically	0.89	0.71	0.80	0.78	0.67	0.67	0.68
integrated	(0.61-1.17)	(0.46-0.96)	(0.47-1.12)	(0.47-1.10)	(0.37-0.98)	(0.43-0.92)	(0.44-0.92)
				Size			
≤100,000				Reference			
100,000-500,000	-0.22	-0.19	-0.21	-0.16	-0.12	-0.12	-0.13
	(-0.49 to 0.04)	(-0.41 to 0.02)	(-0.46 to 0.04)	(-0.43 to 0.11)	(-0.35 to 0.11)	(-0.35 to 0.10)	(-0.40 to 0.14
500,001-	-0.06	-0.09	-0.09	-0.06	-0.09	0.04	-0.09
1 million	(-0.39 to 0.27)	(-0.33 to 0.15)	(-0.37 to 0.18)	(-0.33 to 0.22)	(-0.45 to 0.27)	(–0.21 to 0.30)	(-0.44 to 0.26
1,000,001-	0.16	-0.10	0.12	0.21	0.16	0.45	0.48
2 million	(–0.07 to 0.39)	(-0.59 to 0.39)	(-0.26 to 0.50)	(-0.03 to 0.46)	(–0.04 to 0.36)	(0.09-0.81)	(0.26-0.69)
>2 million	0.75	0.07	0.05	0.16	0.23	0.05	0.27
	(–0.20 to 0.35)	(-0.20 to 0.33)	(–0.22 to 0.32)	(-0.14 to 0.46)	(–0.08 to 0.54)	(–0.17 to 0.28)	(-0.01 to 0.56
			Pra	ctice Size			
1				Reference			
2-5	–0.31	-0.13	-0.13	-0.07	-0.17	-0.07	-0.07
	(–0.44 to –0.17)	(-0.24 to -0.03)	(-0.24 to -0.03)	(-0.17 to 0.04)	(-0.29 to -0.05)	(-0.19 to 0.05)	(-0.20 to 0.06
>5	-0.38	-0.20	-0.24	-0.12	-0.15	-0.19	-0.15
	(-0.61 to -0.16)	(-0.40 to 0.08)	(-0.44 to -0.04)	(-0.30 to 0.06)	(-0.36 to 0.07)	(-0.39 to 0.02)	(-0.04 to 0.28
			Prov	vider Type			
Primary care				Reference			
Specialty	-0.20	-0.21	-0.17	0.00	-0.09	-0.06	-0.12
	(-0.31 to -0.11)	(-0.33 to -0.10)	(-0.27 to -0.06)	(-0.09 to 0.09)	(-0.18 to 0.09)	(-0.16 to 0.04)	(-0.24 to 0.09
Behavioral	-0.02	-0.18	0.04	0.23	-0.28	-0.08	0.34
health	(-0.51 to 0.47)	(-0.59 to 0.23)	(-0.16 to 0.24)	(-0.25 to 0.70)	(-0.71 to 0.15)	(-0.85 to 0.68)	(-0.50 to 1.17
			Years	of Practice			
<5				Reference			
5-15	-0.04	0.06	0.08	0.12	0.05	0.01	0.12
	(-0.18 to 0.09)	(-0.09 to 0.21)	(-0.03 to 0.19)	(0.01-0.23)	(-0.07 to 0.18)	(-0.13 to 0.15)	(-0.04 to 0.28
>15	0.06	0.13	0.10	0.18	0.04	-0.19	0.12
	(-0.09 to 0.21)	(–0.03 to 0.28)	(–0.03 to 0.24)	(0.05-0.31)	(–0.10 to 0.18)	(-0.39 to 0.02)	(-0.04 to 0.28

QM indicates quality management.

*Multivariable models include vertical integration status, plan size, HHS region, provider specialty, practice size, provider years of practice, number of insurance companies accepted by a respective provider's practice, and proportion of practice managed care volume represented by the respective health plan. Bolded results indicate P < .05.

plans. For example, 0 plans were associated with region 8 (Denver), whereas 21 plans were associated with region 9 (San Francisco).

CONCLUSIONS

To our knowledge, this is the first study to assess contextual factors associated with provider satisfaction with health plans. As part of the largest physician satisfaction study to date, ^{3,11} our results contribute to a growing foundation of work related to contextual factors associated with provider satisfaction. Our findings have important implications for policy and practice. We demonstrate that provider ratings of health plans were, in general, low. As provider satisfaction is increasingly recognized as crucial for health systems, significant opportunity exists to improve the relationship between providers and health plans. In 2005, the Association for Community Affiliated Plans collaborated with The Commonwealth Fund to identify best practices for health plans to recruit and retain providers.²² These best practices include improving payment practices, incentives, and financial assistance for claims; strengthening referral and authorization practices through streamlining processes and incorporating technology; improving communication through in-person meetings and regular written communications; simplifying administrative burdens, such as credentialing, eligibility requirements, and data required for encounters; and enhancing support for high-risk patients, including assistance with patient transportation, child care, and interpreter services. Importantly, the report did not address health

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plans' approach to pharmacy. Our findings build on these existing recommendations by suggesting that plans could additionally focus on their formulary consistency, availability, affordability, messaging, prior authorization procedures, and ease of navigation to improve provider satisfaction.

Taken together, rather than exacerbating physician burnout through administrative burden, documentation requirements, and cumbersome utilization management processes, our findings suggest that health plans have an opportunity to improve physician satisfaction through prioritizing provider relationships, reducing administrative burden, and strengthening resource support. As physicians are required to adapt to a rapidly transforming health-care landscape, it will be imperative for health plans to prioritize physician satisfaction moving forward.

Author Affiliations: University of Pittsburgh Medical Center (UPMC) Center for High-Value Health Care (NP, WHS) and Insurance Services Division (NP, AH, SM, WHS), Pittsburgh, PA; Division of General Internal Medicine, University of Pittsburgh (NP), Pittsburgh, PA; SPH Analytics (SS, PA), Alpharetta, GA; University of Pittsburgh Graduate School of Public Health (IDM), Pittsburgh, PA.

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Authorship Information: Concept and design (NP, AH, WHS); acquisition of data (SS, PA, SM); analysis and interpretation of data (NP, SS, AH, PA, IDM, WHS); drafting of the manuscript (NP, AH, WHS); critical revision of the manuscript for important intellectual content (SS, AH, IDM, SM, WHS); statistical analysis (NP, PA, IDM); administrative, technical, or logistic support (SM); and supervision (SM).

Address Correspondence to: Natasha Parekh, MD, MS, UPMC Center for High-Value Health Care, 600 Grant St, 40th Floor, Pittsburgh, PA 15219. Email: natashaparekh1@gmail.com.

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eAppendix Table. Adjusted Means^a by Physician Satisfaction Domain

Physician Satisfaction Domain	Adjusted Mean (95% Confidence Interval)
Overall Health Plan Rating	3.25 (3.16, 3.34)
Finance	3.25 (3.18, 3.33)
Utilization/Quality Management	3.22 (3.14, 3.30)
Network/Coordination of Care	3.22 (3.14, 3.30)
Pharmacy ^b	3.02 (2.94, 3.10)
Call Center	3.25 (3.18, 3.31)
Provider Relations	3.22 (3.14, 3.29)

- a- Adjusted means represent average predicted probabilities in multivariable models that adjust for vertical integration status, plan size, Health and Human Services region, provider specialty, practice size, provider years of practice, number of insurance companies accepted by a respective provider's practice, and proportion of practice managed care volume represented by the respective health plan
- b- The adjusted mean for the pharmacy domain was significantly lower than the adjusted means for all other domains, p<0.05.</p>