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Federally Qualified Health Center Clinicians And Staff Increasingly Dissatisfied With Workplace Conditions

ABSTRACT Better working conditions for clinicians and staff could help primary care practices implement delivery system innovations and help sustain the US primary care workforce. Using longitudinal surveys, we assessed the experience of clinicians and staff in 296 clinical sites that participated in the Centers for Medicare and Medicaid Services (CMS) Federally Qualified Health Center (FQHC) Advanced Primary Care Practice Demonstration. Participating FQHCs were expected to achieve, within three years, patient-centered medical home recognition at level 3—the highest level possible. During 2013–14, clinicians and staff in these FQHCs reported statistically significant declines in multiple measures of professional satisfaction, work environment, and practice culture. There were no significant improvements on any surveyed measure. These findings suggest that working conditions in FQHCs have deteriorated recently. Whether findings would be similar in other primary care practices is unknown. Although we did not identify the causes of these declines, possible stressors include the adoption of health information technology, practice transformation, and increased demand for services.

Better working conditions, which are inherently important to primary care clinicians and staff, could also help practices implement delivery system innovations and help sustain the US primary care workforce.¹ In the past decade, primary care practices in the United States have been exposed to multiple health system changes that could affect their working conditions. These changes include incentives to adopt electronic health records (EHRs), exposure to alternative payment models, and efforts to encourage practice transformation (for example, via medical home recognition programs).^{2–8}

Each of these health system changes has the

potential to improve or worsen working conditions in primary care. Though medical home initiatives might improve professional satisfaction,⁹ practice transformation can involve substantial changes to roles, responsibilities, and workflows within primary care practices. Such changes can be stressful and have the potential to worsen working conditions for clinicians and staff, especially in the short term.^{1,10} Similarly, adopting EHRs can have complex effects; clinicians report appreciating some EHR features (such as the ability to access information remotely) but loathing others (such as distraction from face-to-face patient care).^{5,11} The effects of alternative payment models and other system

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changes on primary care working conditions have not been evaluated quantitatively, but qualitative research points to a mixed picture.⁶

Because of resource constraints owing to payer mix, safety-net practices such as federally qualified health centers (FQHCs) may be especially vulnerable to the stresses of practice transformation, technology adoption, and realignment of financial incentives.^{12,13} At the same time, safety-net practices such as FQHCs may be especially resilient in responding to these stresses because of their greater prior experience with EHRs, team-based care, and other capabilities such as enhanced payments via Health Resources and Services Administration grants and cost-based Medicaid reimbursement, compared to non-safety-net practices.^{14–16} In this study we evaluated longitudinal changes in professional satisfaction, work environment, and practice culture within a national sample of FQHCs.

Study Data And Methods

SETTING We sampled all 503 federally qualified health center sites that participated in the Centers for Medicare and Medicaid Services (CMS) FQHC Advanced Primary Care Practice Demonstration, which ran from 2011 to 2014.¹⁷ Three of these sites were replacements for sites that dropped out in the first few months of the demonstration; there were never more than 500 FQHC sites participating in the demonstration at any one time. The 503 participating sites represented 271 unique FQHCs, which can be multisite organizations.

As described elsewhere, participating FQHCs were expected, by the end of the demonstration, to achieve patient-centered medical home recognition at level 3—the highest level possible—under the 2011 criteria for National Committee for Quality Assurance recognition.¹⁷ The demonstration required participating FQHC sites to do so within three years; 70 percent achieved this goal.

SURVEY DESIGN AND SCORING Building on previously published surveys, we designed and cognitively tested one instrument for clinicians (physicians, nurse practitioners, and physician assistants) and a second closely related instrument for other staff (nurses, medical assistants, and technicians). These survey instruments assessed three measures of professional satisfaction (overall satisfaction, burnout, and intent to leave), five measures of work environment (work control, stress, time pressure, practice atmosphere, and top-of-license activity), and thirteen measures of practice culture (for example, adaptive reserve and communication openness).^{18–21}

To facilitate interpretation, we dichotomized responses to the single-item variables following preexisting convention, at a conceptually intuitive threshold or at a threshold that produced the most even split (when there was no preexisting or intuitive threshold). For example, we counted “agree” and “strongly agree” responses to the item “Overall, I am satisfied with my current job” as indicating overall satisfaction, following the convention of the source instrument.²² For the continuous variables (a subset of work environment measures and all measures of practice culture), we calculated standardized scores by dividing each raw score by its standard deviation. The exact wording, scoring details, and sources of all survey items are described in online Appendix Exhibit 1.²³

SURVEY SAMPLE AND ADMINISTRATION We obtained names and work addresses for all clinicians and staff members who worked at least thirty hours per week in sites participating in the FQHC Advanced Primary Care Practice Demonstration. We then fielded the surveys in an early wave (April–August 2013) to three clinicians and three staff members selected at random from each site. Some sites had fewer than six eligible respondents, and we reallocated excess survey opportunities from these small-sample sites to sites with larger staffs. Overall, we sent early-wave surveys to 1,496 clinicians and 1,515 staff members. Of these, 1,277 responded (42 percent response rate), representing 440 of the 503 participating sites from 259 unique FQHCs.

We then fielded a late survey wave (June–October 2014) to all clinicians and staff who had completed the baseline survey, after excluding respondents who had left their clinics. Of the 1,068 clinicians and staff eligible for the follow-up survey, 564 responded (236 clinicians and 328 staff; 53 percent response rate), representing 296 sites from 202 unique FQHCs.

The early-wave survey was fielded via mail only, but online completion was available for the late-wave survey. There were no statistically significant differences between mailed ($n=454$) and online ($n=110$) responses for any survey item.

OTHER SITE CHARACTERISTICS We obtained data on sites' baseline use of EHRs, provision of after-hours care, and prior medical home certification (from any source) from their applications to participate in the demonstration. For each FQHC, the Health Resources and Services Administration supplied data on participation in its Patient-Centered Medical Home Recognition Initiative (which covers the cost of applying for recognition), annual revenue, and the number of affiliated clinical sites (because each FQHC can

have multiple sites). We also obtained data from the National Committee for Quality Assurance on the end-of-demonstration medical home recognition levels (or lack of such recognition) for all 503 participating sites.

Using Medicare claims, we also calculated characteristics of each site's attributed population at baseline: percentage female, percentage disabled, and mean Medicare Hierarchical Condition Category risk-adjustment score.²⁴ We estimated the poverty rate within each site's census tract from the American Community Survey five-year aggregated file (2005–09).

ANALYSIS We evaluated changes over time in working conditions among clinicians and staff members who responded to both survey waves. To do this, we fitted single-difference regression models for each measure of working conditions in which the main predictor was the survey wave (early versus late).

In all models, we used nonresponse weights; robust standard error estimates to account for nonindependence of observations within sites; functional forms appropriate to each dependent variable (linear regression for continuous measures and logistic regression for dichotomized measures); and covariates to control for survey version (clinician versus staff), baseline site characteristics (EHR use, after-hours care, prior medical home certification, participation in the Health Resources and Services Administration's Patient-Centered Medical Home Recognition Initiative, number of sites affiliated with the FQHC, total revenue), patient population characteristics (sex, disability, Hierarchical Condition Category score), and local-area poverty. We then repeated these models separately for clinicians and staff.

We used SAS 9.4 for data management and analysis. RAND's Human Subjects Protection Committee approved this study.

LIMITATIONS Our study had limitations. First, despite applying weights to account for survey nonresponse, our modest response rates could have biased our results. Second, the early survey was fielded eighteen months into the medical home intervention. It is possible that results would be different if the survey had been fielded closer to the beginning of the demonstration. Third, our study was limited to FQHCs, so our findings might not apply to other types of primary care practices. Finally, we did not analyze relationships between FQHC working conditions and patient outcomes.

Study Results

Survey respondents and nonrespondents represented federally qualified health center sites

that had similar baseline characteristics and that served generally similar patient populations (Exhibit 1). However, respondents' sites served a smaller proportion of disabled Medicare beneficiaries (52.7 percent versus 54.3 percent for nonrespondents). Respondents were less likely than nonrespondents to be clinicians (41.8 percent versus 51.5 percent).

All three measures of professional satisfaction worsened significantly over time (Exhibit 2) (full versions of Exhibits 2–4, with confidence intervals, are in the online Appendix).²³ Overall satisfaction rates declined from 84.2 percent in the early wave to 74.4 percent in the late wave. Rates of burnout increased from 23.0 percent to 31.5 percent. The proportion of respondents reporting that they were likely to leave their practices within two years increased from 29.3 percent to 38.2 percent.

Three of five work environment measures worsened significantly over time, with adjusted standardized differences of –8.3 percent for work control and –11.2 percent for low-stress environment (Exhibit 3). The proportion of respondents reporting a hectic/chaotic practice atmosphere increased from 31.6 percent in the early wave to 40.1 percent in the late wave. There were no statistically significant changes in top-of-license activity for any of the four types of practice staff or in time pressure during visits with new, established, or urgent care patients.

Twelve of thirteen practice culture measures worsened significantly over time (Exhibit 4). The greatest adjusted standardized declines were for teamwork, at –26.4 percent and facilitative leadership, at –23.3 percent. Only values alignment did not exhibit a significant change over time.

Analyses stratified by clinicians versus staff showed similar findings to the main analyses in both subgroups on nearly all measures, as shown in Appendix Exhibits 2–4.²³

Discussion

We found statistically significant declines in most measures of professional satisfaction, work environment, and practice culture among clinicians and staff in a national sample of federally qualified health center sites. Our study did not identify the causes of these declines, but there are several possibilities. For example, rapid adoption of new EHRs (which can disrupt practice workflow and distract from face-to-face care), expansion of coverage under the Affordable Care Act (which may have caused a demand surge for many clinics), and medical home transformation (whether spurred by the CMS FQHC Advanced Primary Care Practice Demonstration or other initiatives) all could have stressed FQHC

EXHIBIT 1

Characteristics of survey respondents and nonrespondents, survey of workplace conditions among FQHC clinicians and staff, 2013-14

Characteristic	Respondents		Nonrespondents		p value
	Number or mean	Percent	Number or mean	Percent	
CHARACTERISTICS OF FQHC SITE					
Baseline NCQA-equivalent recognition level					
1 or less	268	47.5	1,195	48.8	0.89
2 or 3	296	52.5	1,252	51.2	
Presence of any medical home certification at baseline					
Yes	28	5.0	123	5.0	0.95
No	536	95.0	2,324	95.0	
Presence of EHR at baseline					
Yes	481	85.3	2,055	84.0	0.44
No	83	14.7	392	16.0	
Participating in HRSA medical home recognition program					
Yes	329	58.3	1,431	58.5	0.95
No	235	41.7	1,016	41.5	
Number of sites affiliated with FQHC					
1	14	2.5	59	2.4	0.92
More than 1	550	97.5	2,388	97.6	
Offers after-hours care at baseline					
Yes	46	8.2	189	7.7	0.95
No	518	91.8	2,258	92.3	
Total revenue per site (millions)	\$2.3	\$1.8	\$2.2	\$1.6	0.13
SITE-LEVEL ATTRIBUTED POPULATION CHARACTERISTICS					
Percent female, mean	55.3	— ^a	55.4	— ^a	0.75
Percent disabled, mean	52.7	— ^a	54.3	— ^a	0.04
HCC risk score, mean	1.20	— ^a	1.15	— ^a	0.58
Percent of the site's census-tract households below poverty level, mean	20.5	— ^a	20.9	— ^a	0.39
RESPONDENT TYPE					
Clinician (physician, NP, or PA)	236	41.8	1,260	51.5	<0.001
Staff (all other categories)	328	58.2	1,187	48.5	

SOURCE Authors' own analyses. **NOTES** Patients are Medicare fee-for-service beneficiaries. p values are from Pearson chi-square tests for categorical variables and t tests for continuous variables. FQHC is federally qualified health center. NCQA is National Committee for Quality Assurance. EHR is electronic health record. HRSA is Health Resources and Services Administration. HCC is Hierarchical Condition Category. NP is nurse practitioner. PA is physician assistant. ^aNot applicable.

EXHIBIT 2

Changes in measures of professional satisfaction from the early wave to the late wave of the survey of workplace conditions among FQHC clinicians and staff

Measure	Early wave	Late wave	Adjusted odds ratio	p value
Overall satisfaction: percent responding "agree" or "strongly agree" to satisfaction with current job	84.2%	74.4%	0.5	<0.001
Burnout: percent giving a response indicative of burnout	23.0	31.5	1.6	<0.001
Intent to leave: Percent responding moderately, likely, or definitely to likelihood to leave practice within 2 years	29.3	38.2	1.5	<0.001

SOURCE Authors' own analyses. **NOTES** The early wave was conducted during April–August 2013. The late wave was conducted during June–October 2014, repeating the survey with clinicians and staff who had completed the early-wave survey. A full version of this exhibit, including confidence intervals, is in the online Appendix (see Note 23 in text). FQHC is federally qualified health center.

EXHIBIT 3
Changes in measures of work environment from the early wave to the late wave of the survey of workplace conditions among FQHC clinicians and staff

Measure	Early wave	Late wave	Adjusted difference	Adjusted standardized difference	Adjusted odds ratio	p value
Work control (higher score signifies greater degree of control)	35.7	33.9	-1.8	-8.3%	— ^a	0.04
Low stress (higher score signifies less stressful environment)	45.5	43.1	-2.5	-11.2%	— ^a	0.002
Top-of-license activity (higher score signifies more time devoted to activities)						
Clinician (physician, NP, PA)	-1.7	-1.6	0.1	3.5%	— ^a	0.59
Nurse (RN, LVN)	1.0	1.0	0.0	-1.2%	— ^a	0.97
Educator (health educator, nutritionist)	1.0	1.3	0.1	5.3%	— ^a	0.70
Clerk (receptionist, medical records clerk)	3.4	3.4	0.0	-2.5%	— ^a	0.89
Practice atmosphere (percent responding ≥ 4 on scale from 1 [calm] to 5 [hectic, chaotic])	31.6%	40.1%	— ^a	— ^a	1.5	<0.001
Time pressure (percent allocated $\geq 75\%$ of time required for actions below)						
New patient physical visits	33.9%	40.3%	— ^a	— ^a	1.3	0.10
Established patient follow-up visits	73.3%	72.9%	— ^a	— ^a	1.0	0.90
Urgent care visits	66.7%	68.4%	— ^a	— ^a	1.1	0.68

SOURCE Authors' own analyses. **NOTES** The early wave was conducted during April–August 2013. The late wave was conducted during June–October 2014, repeating the survey with clinicians and staff who had completed the early-wave survey. Adjusted standardized differences are the adjusted differences divided by the standard deviation of the corresponding measure. Top-of-license scores were calculated separately for respondents in each of the four categories of respondents shown. Within each respondent category, these scores were based on responses to the question: "In a typical day at the practice, how often do you do the following activities?" The response options for each of sixteen activities ranged in required expertise from "checking in and orienting patients" to "evaluating patients and making treatment decisions." Responses were on a four-point scale: 1 (never) to 4 (frequently). Separately for each of the four staff categories, each of the sixteen activities was rated as "top of license," "probably below license," and "definitely below license." A composite top-of-license score was created by adding one point for each "top of license" activity reported as being performed "sometimes" or "frequently" and subtracting one point for each "definitely below license" activity reported as being performed "sometimes" or "frequently." This composite could take values between -7 and +3 for physicians, nurse practitioners (NPs), and physician assistants (PAs); -2 to +3 for nurses; -3 to +4 for educators; and 0 to +5 for clerks. A full version of this exhibit, including confidence intervals, is in the online Appendix (see Note 23 in text). FQHC is federally qualified health center. RN is registered nurse. LVN is licensed vocational nurse. ^aNot applicable.

EXHIBIT 4
Changes in measures of practice culture from the early wave to the late wave of the survey of workplace conditions among FQHC clinicians and staff

Measure	Early wave	Late wave	Adjusted difference	Adjusted standardized difference	p value
Adaptive reserve ^a (higher score signifies greater capacity for change)	65.1	61.1	-4.0	-21.2%	<0.001
Relationship infrastructure	65.3	62.2	-3.0	-15.7	<0.001
Facilitative leadership	63.5	58.1	-5.4	-23.3	<0.001
Sensemaking	68.1	64.1	-4.0	-18.4	<0.001
Teamwork	64.4	59.0	-5.4	-26.4	<0.001
Work environment	61.3	57.3	-3.9	-18.6	<0.001
Culture of learning	58.4	55.3	-3.0	-17.6	<0.001
Communication openness (higher score signifies greater openness to ideas for improvement)	64.2	61.0	-3.2	-16.3	<0.001
Organizational learning (higher score signifies greater likelihood of evaluating own improvement efforts)	64.4	60.9	-3.5	-16.0	<0.001
Team structure (higher score signifies better skill mix and role clarity)	64.3	61.6	-2.7	-15.8	<0.001
Situation monitoring (higher score signifies greater awareness of each other's needs)	63.5	61.3	-2.1	-11.3	0.006
Mutual support (higher score signifies greater readiness to help others within the practice)	67.1	64.9	-2.2	-12.4	0.006
Values alignment (higher score indicates that clinicians more completely believe that site managers share their values)	40.5	39.0	-1.4	-6.7	0.16

SOURCE Authors' own analyses. **NOTES** The early wave was conducted during April–August 2013. The late wave was conducted during June–October 2014, repeating the survey with clinicians and staff who had completed the early-wave survey. Adjusted standardized differences are the adjusted differences divided by the standard deviation of the corresponding measure. More details are in Appendix Exhibit 1 (see Note 23 in text). A full version of this exhibit, including confidence intervals, is also in the online Appendix. FQHC is federally qualified health center. ^aComposite of six subdomain scores: relationship infrastructure, facilitative leadership, sensemaking, teamwork, work environment, and culture of learning.

clinicians and staff members.^{1,5,10,25}

Though our sample of FQHCs was drawn from those participating in the demonstration, our analyses could not determine whether the changes we observed were attributable to participation in the demonstration. We were unable to survey clinicians and staff in comparison FQHCs or non-FQHC primary care clinics. Without a comparison group, any effects of the demonstration are not distinguishable from factors that might affect working conditions across FQHCs inside and outside the demonstration, such as incentives to adopt EHRs.

Our findings are consistent with reports of increasing burnout and declining professional satisfaction among physicians across the United States, not just in safety-net clinics.²⁶ However, they differ with the only assessment of longitudinal changes in provider experience during a medical home initiative published to our knowledge, in which transformation within a single Group Health Cooperative site was associated with improvements in provider burnout between 2006 and 2008.^{9,27} This discrepancy might be explained by differences in time frame, type of clinic (FQHC versus integrated system), and intervention design (the Group Health pilot was motivated by and designed to mitigate provider burnout). Moreover, some FQHCs have high staff turnover, and most serve patients with complex medical, behavioral, and social needs—which can make practice transformation more difficult.¹³ The finding that top-of-license scores did not improve suggests that many FQHCs in our sample may have transformed only to a modest extent. Applying for and receiving medical home recognition could have been a higher priority than transformation. In addition, when safety-net clinics have insufficient staffing levels, this can increase the risk of burnout associated with quality improvement efforts.²⁸

We observed simultaneous, similar changes in multiple measures of working conditions—a

These findings suggest that professional satisfaction, work experience, and clinic culture are likely to change in unison.

result consistent with previous studies documenting strong associations between measures of clinician and staff experience, job satisfaction, and work environments in safety-net clinics.^{29–31} Taken together, these findings suggest that professional satisfaction, work experience, and clinic culture are likely to change in unison.

Conclusion

Clinicians and other staff members working in a national sample of federally qualified health center sites reported declines over time in multiple measures of professional satisfaction, work environment, and practice culture. Our analysis could not identify the factors contributing to these declines. However, as additional health system changes accumulate under the Medicare Access and CHIP Reauthorization Act of 2016 and new legislative and regulatory activity, policy makers should consider further study of how these forces could affect primary care working conditions—especially in FQHCs and other safety-net clinics. ■

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