

Use of Temporary Providers in Primary Care in Federally Qualified Health Centers

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BACKGROUND

The use of temporary health care providers, such as locum tenens and on-call providers, has increased in the U.S. in recent years^{1,2,3}, but data is lacking on their use in federally qualified health centers (FQHCs). Since FQHCs face difficulties in recruiting staff, temporary providers could be an important staffing solution, both to bridge to permanent hires and to maintain patient service in more challenging health professional shortage and recruitment areas, including rural areas.^{1,4,5} However, an important question remains as to whether temporary providers were used to fill vacancies in FQHCs, especially rural FQHCs that face more severe staffing problems. This study provides a landscape of temporary provider usage in FQHCs and identifies factors associated with their use.

METHODS

Using the Uniform Data System data on 1,028 FQHCs for the period of 2013-2017, we described trends in the number and percent of FQHCs that used temporary primary care physicians and advanced practice providers (nurse practitioners, physician assistants, and certified nurse midwives). We then used 2017 descriptive statistics to compare facility and patient characteristics in FQHCs that used and did not use temporary providers. Finally, we constructed a multivariate linear probability model to identify factors associated with their use using all five years of data.

FINDINGS

During the five-year study period, on average slightly over one-third of FQHCs used temporary providers. During this period, the use of temporary family physicians declined, while the use of nurse practitioners and physician assistants increased. Compared to centers that did not use temporary providers, centers that used temporary providers were larger and less rural. Multivariate regression analysis showed that neither health professional shortage area facility score (a measure of the severity of provider shortage), nor the local primary care provider supply, was a predictor of temporary provider usage in FQHCs. Instead, clinics with higher regular primary care staff-to-patient ratio (i.e., less provider shortage) were more likely to use temporary providers.

DISCUSSION

Our study shows widespread use of temporary primary care providers in FQHCs during recent years. At the core of our hypothesis was the idea that FQHCs use temporary providers when there is no other staffing option, in which case the probability of using temporary providers would be higher in severe shortage areas. However, we did not find this; instead, we found that clinics with higher regular staff levels (i.e., less provider shortage) were more likely to use temporary providers. Interestingly, in rural FQHCs particularly, none of the three variables, that is, HPSA facility score, facility regular staff-to-patient ratio, and local primary care provider supply, was significantly associated with temporary provider usage. Possible explanations associated with these findings might be (1) the perception that temporary staffing could lead to

KEY FINDINGS

1. This study finds over a third of FQHCs used temporary staffing from 2013 to 2017.
2. However, there was no evidence that high shortage facilities were more likely to use temporary providers; rather, clinics with higher regular staff levels (i.e., less provider shortage) were more likely to use temporary providers.
3. Future study should understand the business model for their use in specific contexts, as well as their impact on quality.

lower quality or higher costs, (2) competition for the same providers across different types of FQHCs (rural vs urban centers, small vs large centers), or (3) unwillingness of temporary providers to work in underserved areas. A question that emerges from this study is whether temporary providers are used for reasons other than filling vacancies. In light of the wide spread usage of temporary providers in FQHCs, future research should seek to understand the business model for temporary staffing in specific contexts, as well as their impact on quality.

Figure 1. Trends in Number and Percent of Federally Qualified Health Centers that Used Temporary Providers in Primary Care, 2013-2017

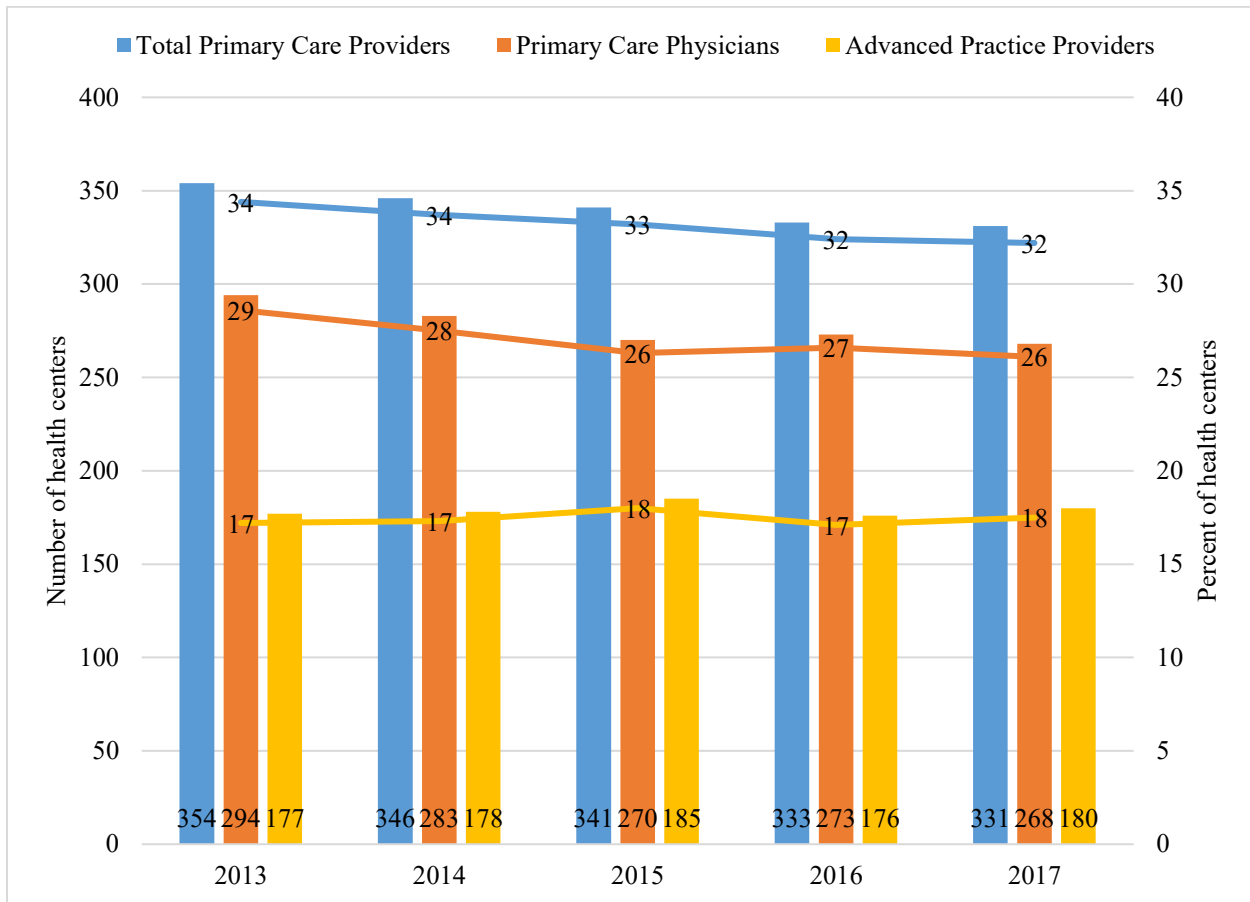


Table 1. Facility and Patient Characteristics in Federally Qualified Health Centers that Used and Did Not Use Temporary Providers in Primary Care, 2017^a

	Use of Temporary Providers		Diff.	P-value ^b
	No (N=697)	Yes (N=331)		
Facility Characteristics				
Large FQHC	4%	60%	20%	<.001
Rural FQHC	52	36	-17	<.001
Received migrant center grant	13	16	3	.251
Received community health center grant	94	95	1	.643
Received homeless center grant	19	28	10	.001
Received public housing grant	7	10	3	.071
Percent of patients who are				
Hispanic	22	32	10	<.001
Non-Hispanic Black	20	17	-3	.038
Non-English spoken	15	22	7	<.001
Income below 100% federal poverty level	46	50	4	.015
Uninsured	25	25	-1	.646
Medicaid	40	47	7	<.001
Privately insured	21	17	-4	<.001
Migrants	3	3	0	.684
Homeless	7	8	1	.432

^a Values are presented as percentages. ^b Person Chi-square tests were used to compare percentage difference. Two-tail t-tests were used to compare mean difference.

Table 2. Multivariate Linear Probability Model Estimates of Factors Associated with Use of Temporary Providers in Primary Care in Federally Qualified Health Centers

	All CHC	Rural CHC
	b(se)	b(se)
HPSA facility score	0.000 (0.002)	-0.000 (0.002)
Facility primary care provider-to-patient ratio	0.078* (0.032)	0.063 (0.040)
County primary care provider-to-population ratio	-0.015 (0.013)	-0.018 (0.020)
Large FQHC	0.095*** (0.026)	0.092** (0.036)
Rural FQHC	-0.086** (0.028)	
Federal grant amount (\$ in 1 million)	0.009 (0.005)	0.013 (0.008)
Percent Black patients	-0.086 (0.049)	-0.034 (0.085)
Percent low-income patients	0.032 (0.044)	0.059 (0.065)
Percent uninsured patients	0.090 (0.059)	0.155 (0.094)
County health outcome ranking	-0.001*** (0.000)	-0.001* (0.000)
County preventable hospitalization rate	-0.001* (0.000)	-0.001 (0.000)
Medicaid expansion states	0.046* (0.019)	0.060* (0.026)
Year = 2014	-0.029 (0.016)	-0.037 (0.022)
Year = 2015	-0.042* (0.019)	-0.002 (0.027)
Year = 2016	-0.062** (0.022)	-0.036 (0.030)
Year = 2017	-0.069** (0.024)	-0.056 (0.031)
Observations	4,862	2,307

*** p<0.001, ** p<0.01, * p<0.05