

The Impact of Medicaid Expansion on Community Health Center Staffing

Ellen Kurtzman, Jeongyoung Park, Xinxin Han, and Patricia Pittman

BACKGROUND

Over the last two decades, community health centers (CHCs) have grown to meet the needs of the uninsured and Medicaid populations. This growth has been accelerated by the Affordable Care Act (ACA), which expanded Medicaid eligibility beginning January 1, 2014 and authorized funds for CHC operations. The 2012 Supreme Court ruling, however, made states' Medicaid expansion optional and created a natural experiment—that is, it allowed researchers to compare outcomes in expansion and non-expansion states before and after expansion. So far, studies have found that Medicaid expansion increased CHC volume and primary care utilization.^{1,2} The impact on CHC staffing, however, is largely unexplored. To address this gap, we isolated the differential effect of Medicaid expansion on the size and composition of CHC staff.

METHODS

Using 2009-2015 data from the Uniform Data System (UDS) and multivariate regression analysis, we compared CHC staffing in expansion and non-expansion states before and after January 1, 2014. We excluded observations from 10 states that expanded Medicaid at different time points and excluded CHCs that did not submit data all seven years. This resulted in a sample of 5,222 observations from 746 grantees in 19 expansion and 21 non-expansion states.

We modeled two staffing outcomes—size (full-time equivalents [FTEs]) and composition (percent FTEs) of personnel in four functional roles (physicians, advanced practice providers (APPs), nurses, other medical staff) and two service categories (clinical, enabling)—and isolated the differential effect of Medicaid expansion on each outcome, separately, using a difference-in-differences (DID) model. Outcomes were drawn from one or more UDS items that report the number of FTEs by staff function and service category. Each regression equation included two binary, independent variables representing the Medicaid expansion status of the state in which the CHC was located, whether the observation was before/after January 1, 2014, and an interaction of these two terms (DID estimator). We incorporated covariates, including practitioner supply, number of patients, state nurse practitioner restrictions, and patient-centered medical home (PCMH) status.

We controlled for state fixed effects and clustered standard errors at the state-year level.

KEY FINDINGS

1. Over the study period, all CHCs grew in size regardless of whether they were located in expansion states or non-expansion states; however, CHCs in expansion states reported larger increases.
2. After expansion, compared with CHCs in non-expansion states, CHCs in expansion states tended to have larger clinical staffs, increase their use of APPs and nurses, and shift the composition of clinical staff with APPs and nurses gaining as a percent of all clinical staff; however, staffing changes in most other functional areas and service categories were small and not statistically significant. Estimates suggest that factors other than Medicaid expansion also contributed to changes in staff size and composition.
3. Our findings suggest that, in addition to hiring new staff, CHCs may employ diverse strategies including workflow changes and role expansion to address Medicaid expansion and its accompanying increased patient volume.

FINDINGS

Over the seven year study period, CHCs reported a mean of 124.2 total FTEs comprised of 34.7% clinical staff (i.e., physicians, APPs, nurses, other medical personnel) and 9.6% enabling staff. Consistent with prior work by this team, unadjusted, descriptive statistics suggest that all CHCs grew in size over time regardless of whether they were located in expansion states or non-expansion states; however, CHCs in expansion states reported larger increases. For example, CHCs in expansion states reported that their total staffs increased by 32.9 FTEs after expansion while CHCs in non-expansion states reported an additional 20.1 FTEs. This pattern—that is, increases in staff following expansion with CHCs in expansion states reporting larger increases—persisted across service categories (Appendix I). In regression models, when factors that were known to contribute to CHC staffing were incorporated, findings were more mixed (Appendixes IIa and IIb). On the one hand, expansion increased the total number of staff (3.7 FTEs) and the number of enabling staff (0.4 FTEs) reported by CHCs, but these differences were not statistically significant. At the same time, CHCs reported a modest and statistically significant increase in the number of clinical staff and the proportion of total staff that was clinical by 2.5 FTEs ($p \leq 0.01$) and 0.7% ($p \leq 0.05$), respectively. Estimates—by staff function and service categories—varied considerably. In most cases the coefficients on the variables reflecting the treatment effect (DID) were positive but small in magnitude and not statistically significant. Partial correlations among these variables suggest that predictors such as CHC size, practitioner supply, and uninsurance were more highly correlated with staffing than Medicaid expansion.

CONCLUSION

Prior studies found that Medicaid expansion increased the demand for CHC care. In this study, CHCs in states that expanded Medicaid tended to have larger clinical staffs and increase their use of APPs and nurses; however, differences in other functional areas and service categories were mixed. Estimates suggest that factors other than Medicaid expansion also contributed to changes in staff size and composition.

POLICY IMPLICATIONS

Findings provide some evidence of a Medicaid expansion-staffing effect. We found an increase of 2.5 FTEs in the number of clinical staff, increases in the number of APPs and nurses, and a shift in the composition of clinical staff with these two groups gaining as a percent of all clinical staff. Staffing changes in most other functional areas and service categories were small and not statistically significant. Even so, small differences could be operationally meaningful and could represent a sufficient response to these providers' increased utilization given known levels of productivity³ and CHCs use of diverse workforce strategies to contend with the increased patient volume they experienced with expansion^{4,5}. Data limitations prevented us from accounting for vacancy rates, which are high in some personnel categories and well documented⁶ and our models did not account for variation in states' Medicaid income eligibility limits before or after expansion. Research that accounts for these limitations should be pursued.

References:

1. Han X, Luo Q, Ku L. Medicaid expansion and grant funding helped improve community health center capacity. *Health Aff.* 2017;36(1):49-56.
2. Hoopes MJ, et al. Utilization of community health centers in Medicaid expansion and nonexpansion states, 2013–2014. *J Ambul Care Manage.* 2016;39(4): 290–298.
3. Ku L, Frogner BK, Steinmetz E, & Pittman P. Community health centers employ diverse staffing patterns, which can provide productivity lessons for medical practices. *Health Aff.* 2015;34(1), 95-103.
4. Miller SC, Frogner BK, Saganic LM., Cole AM, Rosenblatt R. Affordable Care Act impact on community health center staffing and enrollment: A cross-sectional study. *J Ambul Care Manage.* 2016;39(4): 299-307.
5. Wright B, Damiano PC, Bentler SE. Assessing the capacity of Iowa's community health centers to respond to the opportunities and challenges of the Affordable Care Act. *J Health Care Poor Underserved.* 2014;25(4):2032-2043.
6. Rosenblatt RA, Andrilla CHA, Curtin T, & Hart LG. (2006). Shortages of medical personnel at community health centers: implications for planned expansion. *JAMA.* 2006;295(9):1042-1049.