

Does Liberalizing State Nurse Practitioner Scope of Practice Laws Affect the Primary Care Provider Composition and Productivity in Community Health Centers?

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BACKGROUND

State scope of practice (SOP) laws for nurse practitioners (NPs) determine the range of services that NPs can provide and the extent to which they can practice independently. This has been a hot topic amid concerns about primary care provider shortages in light of health reform coverage expansion. Between 2009 and 2015, twelve states (AL, CO, CT, DE, HI, MD, MA, MN, NV, ND, RI, & VT) liberalized their NP SOP regulations in an effort to expand primary care capacity. No studies exist to examine how liberalizing these NP SOP laws affects the composition and productivity of primary care providers. Community Health Centers (CHCs) are the nation's primary care safety net serving over 24 million medically underserved populations¹, as such, should be a sector positively affected by NP SOP reforms. This study examined the effects of expanded NP SOP on the composition and productivity of key primary care providers in CHCs, including NPs, primary care physicians, and physician assistants (PAs), between 2009 and 2015.

METHODS

The primary data source was the 2009-2015 Uniform Data System records for 739 CHCs located in the 50 states and the DC. The staffing outcome was measured by the number of primary care physician, NP, or PA FTEs per 10,000 patients, and productivity was measured by the number of severity adjusted visits per each type of primary care provider FTE in each year. Using state annual legislative updates between 2009 and 2015, we obtained NP SOP laws for each state and categorized them as: (1) independent practice and prescription authority; (2) independent practice but restricted prescription authority; and (3) restricted practice and prescription authority. Our analysis used a Difference-in-Differences approach, controlling for patient, CHC, and market characteristics. The model also controlled for the degree of state restrictions on PA scope of practice during the study period.

FINDINGS

We found three important trends (see Table 1). First, there was no significant change in the number of NP FTEs, or the number of visits attributed to each NP FTE associated with liberalizing NP SOP laws. While not statistically significant, we did find that granting independent prescription authority may enhance NP productivity, as reflected in the increased number of visits attributed to each NP FTE (i.e., a marginal increase of 721 visits per NP FTE). Second, liberalizing both facets of NP SOP laws – practice authority and prescription authority – was

KEY FINDINGS

1. This study provides little evidence that liberalizing NP SOP has significantly increased the use of NP staffing or their productivity in CHCs. While not statistically significant, there was a large effect of granting independent prescription authority on increased NP productivity. SOP liberalization was associated with a significant decline in the number of primary care physicians, and a slight increase in the number of PA FTEs.
2. Findings suggest that expanded NP SOP may affect the composition of other type of primary care providers (primary care physicians and PAs) and this, in turn, could affect the marginal productivity of each staff type.
3. CHCs report having difficulty recruiting NPs and this may partially explain the absence of an effect of SOP liberalization on NP staffing. Policies that support the increased supply of qualified NPs would help meet patient needs in rural and underserved areas

significantly associated with a decline in the number of primary care physician FTEs per 10k patients ($p < 0.1$). This suggests that NPs may in some cases replace the work normally performed by primary care physicians, when states grant broader authority to NPs. Third, although not statistically significant, liberalizing NP SOP was associated with a slight increase in the number of PA FTEs, and a substantial increase in the number of visits made by each PA FTE. This result could be related to difficulties in recruiting NPs. A recent survey of CHCs found that the vacancy for NPs is second only to physicians and more than three times higher than PAs (50% vs. 16%).² This may suggest that when CHCs have difficulty recruiting NPs, they hire PAs. If this is the case, PA staffing and productivity may increase, regardless of their own SOP, when they are in states that liberalize NP SOP laws, in particular when NP shortages are more acute.

CONCLUSION

This study provides little evidence that liberalizing NP SOP laws has increased use of NP staffing and their productivity in CHCs. One possible explanation for this finding is that while primary care physicians are the most difficult position to recruit, almost half of CHCs report experiencing at least one opening for NP.² Also, consistent with the findings from a recent study by ASPE, allowing NPs to prescribe may have the greatest effect on productivity, although not statistically significant.³ Changes in NP SOP laws, however, appear to have a ripple effect on other primary care providers - primary care physicians and PAs. In particular, liberalizing NP SOP laws was associated with a significant decline in the number of primary care physicians, suggesting that expanded SOP in one staff category could impact the composition of other type of primary care providers and this, in turn, could affect the marginal productivity of each staff type.

POLICY IMPLICATIONS

As the demand for primary care increases, NPs are expected to have an active role in meeting primary care needs. Liberalizing SOP laws will only increase the use of NPs and potentially allow for increased productivity if NPs are actually available to recruit. Despite a nationwide growth of NP graduates, most CHCs face challenges recruiting NPs. Policies that support the increased supply of qualified NPs would help meet patient needs in rural and underserved areas. The National Health Service Corp is one important vehicle for doing so.

	NP		Primary care physicians		PA	
	# FTEs/10k patients	# visits/FTE	# FTEs/10k patients	# visits/FTE	# FTEs/10k patients	# visits/FTE
Granting practice authority: (3) to (2)	0.86	16.95	-1.13*	-122.41	0.33	1389.2
Granting prescription authority: (2) to (3)	-0.36	721.15	-0.98*	73.9	0.48	849.71

* $p < 0.1$

References:

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