Health Workforce Abstract
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Understanding Why Nurse Practitioner (NP) and Physician Assistant (PA) Productivity Varies Across Community Health Centers (CHCs): A Comparative Analysis

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ISSUE: The growth of nurse practitioners (NPs) and physician assistants (PAs), or Advanced Practitioner Clinicians (APCs) in the primary care workforce has far exceeded the growth of primary care physicians (PCP) in community health centers (CHCs) over the last decade, yet their productivity varies dramatically across organizations. In this study, we ask what organizational characteristics are causing this variation to occur.

METHODS: We employed a pragmatic mixed methods design that began with a production function approach using the Uniform Data System to determine the marginal contribution of each profession to overall CHC visits. We then constructed a maximum diversity sample and interviewed organizational leadership at 15 high and 15 low productivity CHCs. Our qualitative analysis involved two phases. We began with a case comparison using content analysis and then used Qualitative Comparative Analysis (QCA) to identify sets of conditions that could explain high and low productivity outcomes.

FINDINGS: Findings reveal that all but three CHCs in our sample assign APCs their own panel. Two of the three outliers were in the high productivity group, suggesting it is possible to achieve high productivity with APCs serving in a follow-up role. No single set of conditions in the QCA analysis explained all cases, but three combinations (parsimonious solutions) appear to explain high productivity and three different combinations explain low productivity. Key conditions cross the high productivity sets were: 1) scheduling for APCs and PCPs for the same number of visits, 2) formal education programs for onboarding designed especially for APCs, 3) high APC/PCP ratio, 4) no PCP payment for supervising APCs, and 5) when productivity incentives exist, they are the same for PCPs and APCs. Important conditions acting in conjunction with each other for low productivity were: 1) low level of support staff, 2) restricted scope of practice for APCs, and 3) leadership preference for a majority PCPC workforce.

DISCUSSION: This study identifies organizational level conditions that contribute to APC productivity. The content analysis identified conditions that differ between high and low productivity groups. The QCA approach allowed us to identify co-occurring sets of conditions that together appear to contribute to the two outcomes. The study also suggests that while scope of practice may constrain productivity, expansion of scope of practice laws does not guarantee high productivity. Additional changes to attitudes at the level of leadership, adequate support staff, and strong onboarding or residency programs for APCs are needed, in conjunction with other organizational policies that treat APCs in a manner that is the same as PCP in terms of scheduling and incentives.

Key Words: Nurse Practitioners, Physician Assistants, Primary Care, Community Health Centers, Workforce, Productivity, Production Function, Qualitative Comparative Analysis

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