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# Title

Primary Care Shortage More Dire than Prior Estimates: Assessing Actual Panel Size and Disparities in Workforce Shortages

## **Priority 1 (Research Category)**

Healthcare Services, Delivery, and Financing

## Presenters

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## Abstract

Background: There is a critical shortage of primary care physicians (PCPs). Current estimates on the scope of the primary care shortage are based on theoretical assumptions about what a clinician's panel size should be, with a panel size of 1800 to 2500 being commonly cited for a full-time clinician. However, as the tasks required for delivering high-quality primary care extend beyond mere office visits, these panel estimations may not be accurate. Understanding how many patients PCPs actually see may give better estimates of what is happening in the real world. Virginia serves as a valuable case example, ranking 27 out of 50 states for number of PCPs per resident.

Setting and participants: Claims for each clinician within the All-Payer Claims Database (APCD) in Virginia were reviewed. All primary care practices in VA were surveyed.

Methods: We queried the APCD to identify the annual mean and median number of unique patients seen by each PCP between 2016 and 2019. We adjusted for missing commercial insurance claims and removed outlier clinicians (PCPs seeing <100 patients or >7500 patients in a year). We mailed surveys to every practice in VA up to six times between 9/1/2021 and 4/22/2022 and conducted interviews to further explore findings. Rate of PCPs in each geographic area of VA by zip code tabulation area (ZCTA) were assessed for distribution.

Results: There were 19,371 provider records remaining after the initial query and elimination of outliers. The median number of patients seen by each PCP annually ranged from 1,322 to 1,372 patients. In 2019,

25% of clinicians saw fewer than 797 unique patients in a year. Based on the 2019 "real" panel size of 1,368 patients, Virginia needs 30% more PCPs (1,456) than we currently have (4,872 clinicians) in order for every Virginian to have a PCP. Furthermore, there are inequities in the communities that have primary care shortages. Surveys were completed by 526 out of 2,296 practices (23%). Many practices (42%) have lost clinicians in the past year, with 1% of practices reporting a clinician dying. Over half of practices report staff are struggling from burnout.

Conclusion: This analysis integrates claims data with local context to better understand the primary care workforce shortage. It indicates the shortage may be more profound than prior estimates. We need to reassess panel size and address community-level inequities in workforce shortages in order to ensure sustainable delivery of primary care.