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**Title**

*Do Physicians with Large Panels Undermine their Patients' Ability to Achieve High Continuity?*

**Priority 1 (Research Category)**

Healthcare Services, Delivery, and Financing

**Presenters**

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**Abstract**

Context: Continuity of care (CoC) between patients and their primary care physician (PCP) is an established cornerstone of primary care (PC), associated with numerous positive outcomes. Barriers to timely access to appointments, such as larger patient panels, may prevent patients from achieving high CoC. Little is known about the relationship between CoC and panel size.

Objective: To determine whether patients attributed to PCPs with smaller panels have greater CoC than those with larger panels.

Study Design and Analysis: Cross-sectional analysis of PC patients enrolled in Medicare in 2019 Virginia All Payer Claims Data (APCD). Patients were attributed to the PCP most responsible for their care using proprietary methodology. We used the Bice-Boxerman Continuity of Care (BB-COC) index to measure CoC for each patient, dichotomized into low (BB-COC < 0.5) and high CoC ( $\geq 0.5$ ). We used two definitions for panel size: (1) attribution method counting the number of patients attributed to each PCP and (2) unique patient method counting patients having any PC visit with the PCP. We categorized panel size into quartiles. We included Medicare patients with 2+ PC visits who were attributed to family or internal medicine PCPs. We performed two logistic regressions, one for each panel definition. Patient covariates included age, gender, social deprivation and rurality. PCP covariates included specialty and estimated clinical days/week. Both models included a random intercept for clustering at the PCP level.

Dataset: 2019 Virginia APCD

Population Studied: Virginia Medicare patients

Outcome Measure: Bice-Boxerman Continuity of Care index

Results: Our sample included 533,583 patients attributed to 2,988 PCPs and 2,855,004 PC visits. PCPs had a median panel size by attribution of 593, and 820 by unique patients. The mean BB-COC score was 0.56 and 52% of patients had high CoC. There was no significant association between patient CoC and

panel size by attribution. We did observe a significant association with panel size by unique patients. 60% of patients had high CoC when attributed to PCPs with panel sizes in the bottom quartile vs 49% in the top, with a corresponding adjusted OR of 2.32.

Conclusions: Smaller panel size was significantly associated with higher CoC when considering all unique patients, but not when only counting attributed patients. Monitoring the volume of patients and ensuring timely access to care may help physicians achieve higher CoC with their patients