# Scope of Practice and Physician Associates: Analysis on the Relationship to Supply Between 2015 and 2019

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**Related literature**: AAMC. New AAMC Report Confirms Growing Physician Shortage. 2020

PAs could help fill gaps in areas where a shortfall of practitioners is expected. However, the regulatory environment of a state may play a role on a PA's desired practice setting. Can regulations impact the supply of PAs across the country?

## Introduction
AAMC projects a shortfall of up to 139,000 physicians by 2023. Impacted areas have attempted multiple solutions, such as expanding scope of practice (SOP) laws, to avoid shortages.

## Objective
To identify how changes to SOP regulations between 2015 and 2019 impacted PA supply across the United States.

## Methodology
Secondary data analysis utilizing:
- AHRQ’s Social Determinants of Health  
  - Number of PAs with an NPI practicing within each county in the U.S.  
  - County population 2015–19  
- AAPA’s PA State Laws and Regulations  
  - Regulatory data on practice-impacting laws states had in place from 2015–19

## Analysis
**ANOVA**
- Average number of enacted SOP regulations by U.S. census region   
  $F(3, 3138)=19.81, p<0.001$  
- PAs per 1,000 residents by region   
  $F(3, 3138)=62.25, p<0.001$

**Multiple Linear Regression**
- PAs per 1,000 residents by SOP regulation changes between 2015–19   
  $F(7, 3134)=14.50, p<0.001$

Predictive statistics calculated in IBM SPSSv29

## Findings
Favorable regulatory environments are associated with higher PA concentration. Elements of SOP can impact PA concentration differently:

### Changing Supervisory Definitions
- Granting Full Prescriptive Authority
- Removing Proximity Requirements

### SOP was not limited by the SOP of a supervising/collaborating physician

## Conclusion
Changing specific regulations can lead to macro-level PA supply differences. Future research should evaluate these impacts in alongside other environmental variables.