

# Impact of Medicaid, Medicare, and Private Insurance on Access to Orthopedic Surgeons of the Spine: A National Mystery Caller Study

Tristan Seawalt, MS, Nicholas A. Felan, BA, Evalina L. Burger, MD, Dane R.G. Lind, BA, Jason P. Sidrak, BS, Daniel J. Stokes, MD, Ryan Tseng, BS, Miranda G. Manfre, BS, Amy Du, BA, Jasmine Hartman, BA, Bret M. Hatzinger, BS, Christopher J. Hawryluk, MBS, Paul Botolin, MS, Tyler M. Muffly, MD  
University of Colorado School of Medicine, Aurora, CO 80045

## Introduction

### Background

- Access to specialized healthcare remains a significant challenge in the United States. Patients with Medicaid often experience reduced access to specialty care, including orthopedic specialties, compared to patients with Medicare or private insurance. Limited national-level data exists on access to spine surgery across different insurance types.

### Aims

- To assess the impact of insurance type on access to and appointment wait times for fellowship-trained orthopedic spine surgeons for patients with urgent diagnoses.

### Hypothesis

- Medicaid patients would experience longer wait times and reduced access to fellowship-trained orthopedic spine surgeons compared to Medicare and privately insured patients, highlighting significant barriers in musculoskeletal care delivery.

## Methods

### Study Design

- Cross-sectional audit (mystery caller) study using a standardized clinical vignette.

### Patient Sample

- Fellowship-trained orthopedic spine surgeons listed in the American Academy of Orthopedic Surgeons public directory.

### Statistical Analysis

- A Poisson mixed-effects regression model with a log link used to analyze factors associated with the time until the first available appointment.
  - Physicians → random effects, allowing each physician to receive up to two calls with valid data.
  - Insurance type → a fixed effect, controlling for physician gender, age group, US Census Bureau subdivision, day of the week, physician medical degree.

## Outcome Measures

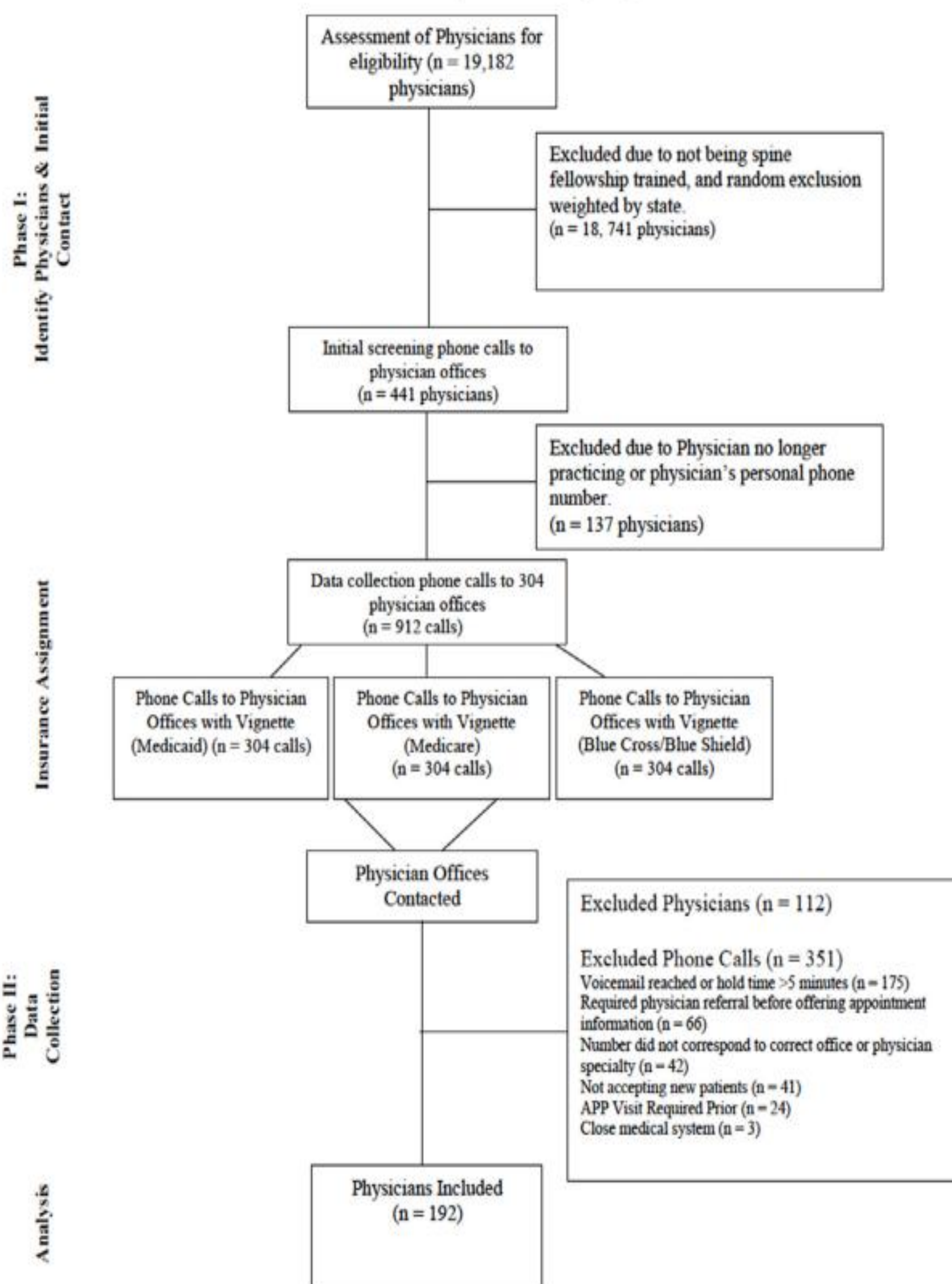
### Primary Measures

- Insurance Acceptance (Medicaid, Medicare, Blue Cross Blue Shield [BCBS])
- Number of Business Days Until The Earliest New Patient Appointment

### Secondary Measures

- Total Call Time
- Hold Time
- Number of Phone Transfers

## Methods & Results



**Figure. 1.** The process of phone calls made during the audit study to orthopedic physician offices and the sequential phases involved including initial phone calls, outcomes of the calls, and subsequent actions.

## Disclosures

The authors have no conflicts of interest to disclose.

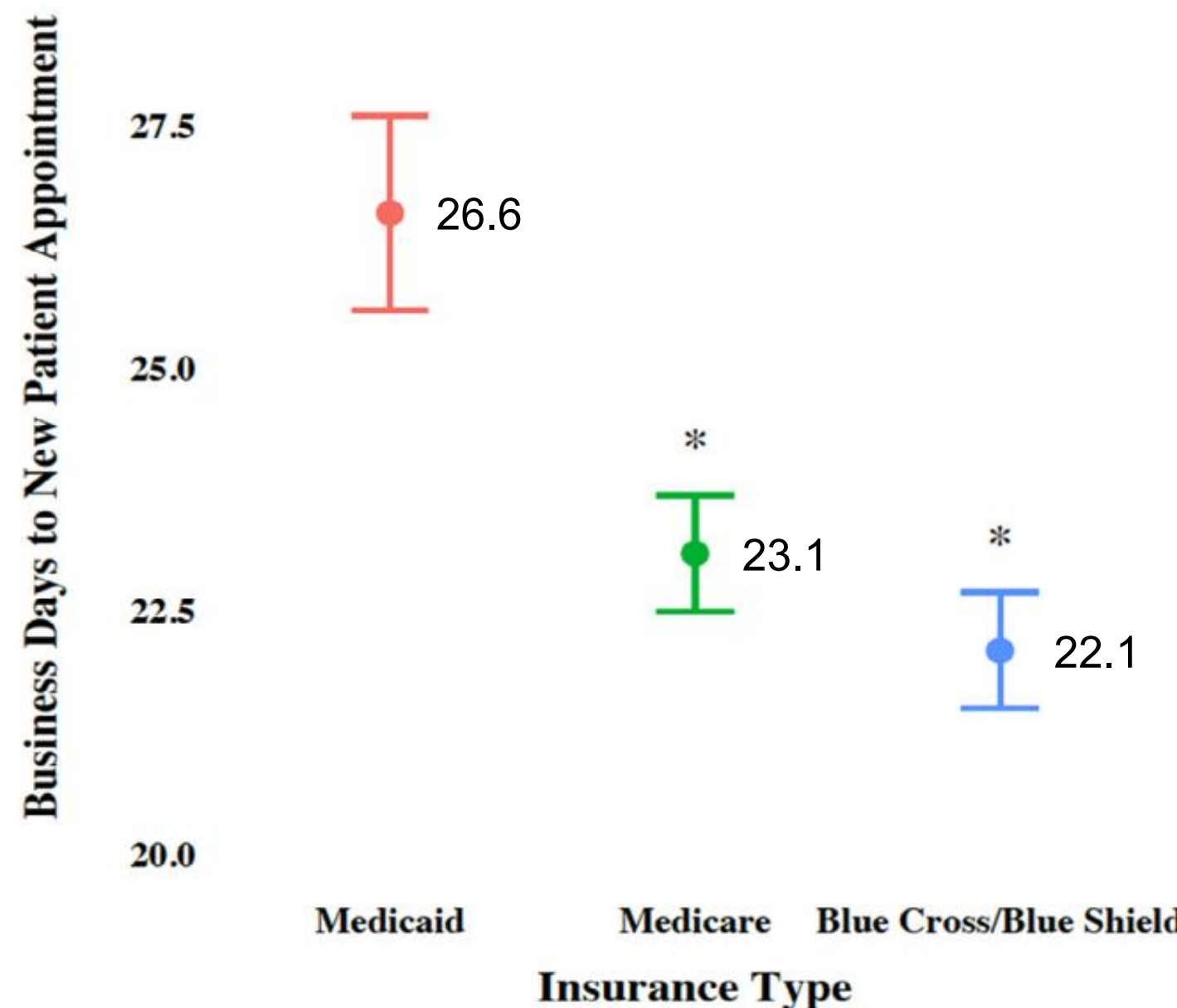
## Results

### Primary Findings

- Of the 192 physicians meeting inclusion criteria, 101 (52%) accepted Medicaid, 182 (95%) accepted Medicare, and 190 (99%) accepted BCBS.
- 48% of spine-trained orthopedic surgeons did not accept Medicaid insurance
- If Medicaid was accepted, patients waited 10% to 12% longer for a new patient appointment than patients with Medicare and BCBS, respectively.

### Secondary Findings

- Medicaid patients experienced longer wait times (124% longer) for physicians affiliated with an academic institution compared to those in private practice and in specific geographic regions (IRR: 2.24 [95% CI: 1.25–4.03],  $p < .01$ ).
- No significant difference in wait times between Medicaid-expanded versus nonexpanded states.



**Figure 2.** Comparison of mean business days to a new patient appointment between insurance types. Medicaid is the reference category. Patients with Medicaid waited 26.6 business days (95% CI: 25.6–27.6), patients with Medicare or BCBS insurance waited 23.1 (95% CI: 22.4–23.8) and 22.1 (95% CI: 21.5–22.7) business days for a new patient appointment, which was significantly fewer days than patients with Medicaid (IRR: 0.90 [95% CI: 0.83–0.98],  $p = .01$ ; IRR: 0.88 [95% CI: 0.81–0.94],  $p < .01$ , respectively).

Note: Error bars represent a 95% confidence interval, and \* denotes statistical significance.

## Conclusions

- When seeking care with an orthopedic spine surgeon, patients with Medicaid experienced decreased access to care and longer wait times for a new patient appointment compared to patients with Medicare or BCBS insurance.
- Academic practice affiliation was associated with the most significant increase in wait time for a new patient appointment.