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## Access to Ophthalmologists in States Where Optometrists Have Expanded Scope of Practice

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### Key Points

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#### Question

What is the estimated travel time to the nearest ophthalmologist office for persons living in states that have expanded the scope of practice of optometrists?

#### Findings

This population-based cohort study of 10 149 897 residents of Oklahoma, Kentucky, and New Mexico found that more than 75% live within 30 minutes' estimated travel time of the nearest ophthalmologist

office, and 94% to 99% of residents live within 60 minutes of the nearest ophthalmologist office. Roughly half of Medicare beneficiaries in these states who received surgery from optometrists between 2008 and 2014 lived within 30 minutes of the nearest ophthalmologist.

## Meaning

These results may help inform policy makers when weighing the pros and cons of expanding optometrist scope of practice.

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## Abstract

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### Importance

As the United States considers how to best structure its health care services, specialty care availability is receiving increased focus. This study assesses whether patients lack reasonable access to ophthalmologists in states where optometrists have been granted expanded scope of practice.

### Objective

To determine the estimated travel time (ETT) to the nearest ophthalmologist office for persons residing in states that have expanded scope of practice for optometrists, and to quantify ETT to the nearest ophthalmologist for Medicare beneficiaries who received surgical care from optometrists in those states between 2008 and 2014.

### Design, Setting, and Participants

This study used data from the 2010 US census, a 2016 American Academy of Ophthalmology member database, and a data set of claims

data for a random sample of 20% of beneficiaries enrolled in Medicare nationwide from 2008 to 2014 (n=14 063 725). Combining these sources with geographic information systems analysis, the ETT to the nearest ophthalmologist office was calculated for every resident of Kentucky, Oklahoma, and New Mexico. This study also assessed ETT to the nearest ophthalmologist for Medicare beneficiaries in those states who had received surgery from an optometrist from 2008 to 2014. Data analyses were conducted from July 2016 to July 2017.

### Main Outcomes and Measures

The proportion of residents of Kentucky, Oklahoma, and New Mexico who live within an ETT of 10, 30, 45, 60, or 90 minutes of the nearest ophthalmologist office.

### Results

The study included 4 339 367 Kentucky residents, 3 751 351 Oklahoma residents, and 2 059 179 New Mexico residents. Of these, 5 140 547 (50.6%) were female. Racial/ethnic composition included 7 154 847 people (70.5%) who were white, 640 608 (6.3%) who were black, and 1 418 246 (14.0%) who were Hispanic. The mean (SD) age was 37.8 (22.8) years. More than 75% of residents in the 3 states lived within an ETT of 30 minutes to the nearest ophthalmology office, and 94% to 99% of residents lived within an ETT of 60 minutes to the nearest ophthalmology office. Among Medicare beneficiaries who received surgery by optometrists, 58.3%, 51.1%, and 46.9% in Kentucky, Oklahoma, and New Mexico, respectively, lived within an ETT of 30 minutes from the nearest ophthalmologist office.

## Conclusions and Relevance

In the states where optometrists have expanded scope of practice, most residents lived within an ETT of 30 minutes of the nearest ophthalmologist office, as do half of Medicare beneficiaries who received surgical care from optometrists. These results can help inform policy makers when weighing the pros and cons of scope of practice expansion for optometrists.