



RESEARCH BRIEFS IN ECONOMIC POLICY

Seeing Is Believing: The Effects of Expanding Optometrists' Scope of Practice

Our findings imply that allowing optometrists to practice to the full extent of their training might encourage them to provide higher-value services, improving public eye health.

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The United States is experiencing a shortage of physicians—exacerbated by the COVID-19 pandemic—and the shortage is expected to worsen primarily because of population growth and aging. Notably, the availability of ophthalmologists is trending downward despite growing demand for eye care. Eye problems emerge with age, so older people need eye care more frequently than younger people. For example, approximately half of Americans have cataracts by age 75. However, the number of ophthalmologists dropped from 6.30 per 100,000 people in 1995 to 5.68 in 2017.

Given the limited availability of ophthalmologists, some have suggested leveraging optometrists, who also have skills in eye care. Our research examines the effects of optometrists' prescription authority on public eye health and optometrists' earnings.

The role of optometrists in eye care has substantially expanded over the past several decades. In the early 20th century, optometrists were strictly eye examiners without permission to treat eye conditions. Beginning in the 1970s, optometrists gradually obtained the authority to prescribe medications. This scope-of-practice expansion has allowed optometrists to diagnose and treat patients with eye diseases or disorders without referrals to ophthalmologists. After receiving prescription authority, optometrists became known as eye doctors rather than refractionists. This policy added optometrists with proper training to the body of primary eye care providers available to patients. The federal government contributed to the momentum in 1986 by classifying optometrists as medical doctors for Medicare reimbursement.

In addition to their expanded role in primary eye care, the number of optometrists increased from 11.06 per 100,000 people in 1990 to 16.16 in 2017. This evolution represents a remarkable and unprecedented change in the role of an occupation within the health care sector. Moreover, the emergence of eye doctors coincided with a noticeable decline in visual impairment in the United States between 1984 and 2010. Despite these trends, minimal research exists on the effects of expanding optometrists' scope of practice.

States have introduced and expanded optometrists' prescription authority in multiple phases. Initially, optometrists were permitted to administer medications only for diagnostic purposes. Then, states allowed optometrists to prescribe medications for treatment purposes—known as therapeutic pharmaceutical agent (TPA) prescription authority. Over time, states broadened the scope of permissible TPA prescription authority.

Our research estimates the effects of optometrists' TPA prescription authority by taking advantage of the fact that states granted this authority at different times. Specifically, it examines the effect of laws that allow optometrists to prescribe drugs for glaucoma treatment on public eye health. Data on eye health came from the Survey of Income and Program Participation for 1984–2008. Additionally, our research examines the effects of three stages of TPA laws on optometrists' earnings: a state's first

TPA law, TPA laws allowing prescriptions for glaucoma medications, and TPA laws allowing prescriptions for controlled substances. Data on optometrists' earnings come from the 1980–2000 US censuses and the 2001–2010 editions of the American Community Survey.

Our estimates provide evidence that granting TPA prescription authority to optometrists improved public eye health and increased optometrists' earnings. Vision impairment declined by 12 percent on average over a 15-year period after the policy change. The effect was not instant but emerged six years after the policy change. Moreover, the policy brought a more significant decline in vision impairment among the nonwhite population, who might have more limited access to medical care than white people. Also, TPA prescription authority was associated with an approximately 13 percent increase in hourly wages among optometrists who were not self-employed.

Our findings imply that allowing optometrists to practice to the full extent of their training might encourage them to provide higher-value services, improving public eye health. For example, treating eye diseases such as glaucoma is a more valuable service than writing a prescription for eyeglasses or contact lenses. As states allowed optometrists to prescribe medications, particularly for treatment purposes, optometrists with proper training began to treat patients directly, reducing the need for referrals to ophthalmologists and expanding access to eye care.

Note

This research brief is based on Kihwan Bae, Edward Timmons, and Protik Nandy, "**Seeing Is Believing: The Effects of Optometrist Scope of Practice Expansion**," *Contemporary Economic Policy* (forthcoming).

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