



County Data Demonstrates Eye Care Access Nationwide

At a time when patients are facing a potential lack of access to primary care, doctors of optometry are uniquely positioned to serve as frontline providers in primary eye care for the vast majority of U.S. patients.

Research conducted by the American Optometric Association (AOA) shows 46,521 doctors of optometry are providing patient care in the United States.ⁱ As of February 2018, doctors of optometry practiced in more than 10,176 communities, and counties that account for 99 percent of the U.S. population.ⁱⁱ Thirty-nine percent of U.S. counties or county equivalents (representing 8 percent of the U.S. population or 24.9 million individuals) have access to an optometrist but not an ophthalmologist.ⁱⁱⁱ Ninety-one percent of the population are living in a county that has access to both types of eye doctors.

In a recent letter^{iv} to the lawmakers in the state of Washington, the Federal Trade Commission (FTC) cited a 2015 article^v by Diane M. Gibson published in *Preventative Medicine* stating that 24 percent of U.S. counties had no optometrist or ophthalmologist. However, the AOA Health Policy Institute (HPI), using accurate and updated data, found only 12 percent of counties or county equivalents in the U.S. (accounting for 1 percent of the U.S. population or 3 million individuals) do not have eye doctors.

Gibson's article used 2011 data from The Area Health Resources File (AHRF) to determine the number and practice location for both optometrists and ophthalmologists.^{vi} The source of ophthalmology data in the AHRF was the American Medical Association's (AMA) Physician Masterfile. The source of optometrist data in the AHRF was the Centers for Medicare and Medicaid Services National Provider Identification (NPI) File and not that of the AOA's Data Management System nor data from the State Boards of Optometry License Files. Doctors of optometry in the NPI data file were listed with one office address only. AOA data show that roughly 15 percent of practicing optometrists work in more than one location. When considering access to eye care based on the number of eye doctors in a county, policymakers should be aware of the limitations of some data that may lead to inaccurate assumptions.

The AOA HPI performed a new analysis using more complete data, including data on practicing optometrists obtained from the AOA Master Optometry List. This data includes multiple practice location zip codes for current licensed, practicing optometrists in the U.S. Data for ophthalmology were obtained using the AMA Physician Masterfile and include the primary practice zip code for each ophthalmologist. Zip codes from the optometrist data for all known practice locations and for the primary ophthalmologist locations were matched to U.S. Census Bureau data to determine counties in which there were eye care providers. The number of practice locations for both optometrists and ophthalmologists might be incomplete and access to eye care providers may be higher than estimated in this brief.

Only 17 counties, distributed across 10 states, have populations greater than 20,000 with no doctor of optometry or ophthalmology. Only five counties within four states have populations greater 25,000 and no eye care provider (See Table 1). When considering access to eye care based on the number of eye doctors in a county, policymakers should use these more accurate and updated data.

Table 1: Counties with Populations Greater than 25,000 and No Eye Care Provider

| State | County Name | County Population | % of County Population Deemed Rural |
|-------|-------------|-------------------|-------------------------------------|
| TX | Starr | 60,968 | 23.7% |
| FL | Suwannee | 41,551 | 83.2% |
| TX | Jasper | 35,710 | 78.2% |
| GA | Harris | 32,024 | 96.7% |
| KY | Harlan | 29,278 | 54.2% |

Among the 10 largest counties in the U.S., all but one (Kings County, New York) have 20 or more eye care providers per 100,000 population.

Sixty percent of U.S. counties or county equivalents (1,883 counties or equivalents) have more than 50 percent of total population represented by rural population.^{vii} Eighteen percent of these counties or county equivalents (accounting for 675,610 rural population or 1 percent of the total rural population in U.S.) have no eye care provider. Doctors of optometry are practicing in the remaining 82 percent of counties or county equivalents where a majority of the population is rural. Ophthalmologists are practicing in 31 percent of these counties or county equivalents.

Geographic access to eye care is not an issue for the overwhelming majority of the U.S. population, including the rural population. Optometrists are currently practicing in counties and county equivalents that comprise 99 percent of the total population in both urban and rural areas.

i American Optometric Association (AOA) Professional Optometrist Data. St. Louis, Missouri. February 22, 2018.

ii U.S. Census Bureau. 2010 ZCTA to County Relationship File. https://www2.census.gov/geo/docs/maps-data/data/rel/zcta_county_rel_10.txt. Accessed March 1, 2018.

iii American Medical Association (AMA) Masterfile Physician Professional Data 2016. Chicago, Illinois. Available from: Medical Marketing Services, Inc. October 2017.

iv https://www.ftc.gov/system/files/documents/advocacy_documents/ftc-staff-comment-washington-state-rep-paul-graves-regarding-ssb-5411/hb-1473/proposed_advocacy_comment_-_wa_eye_care_final_2-9-18.pdf

v Gibson, D.M. (2015) *The geographic distribution of eye care providers in the United States: Implications for a national strategy to improve vision health*, 73 PREVENTIVE MEDICINE. 30.

vi Gibson, D.M. (2015) *The geographic distribution of eye care providers in the United States: Implications for a national strategy to improve vision health*, 73 PREVENTIVE MEDICINE. 30.

vii, U.S. Census Bureau. 2010 Census Percent Urban and Rural by County.

https://www.census.gov/geo/reference/ua/ualists_layout.html. Accessed March 22, 2018.