

***Promoting Health Equity and Diagnostic Excellence
for Eye Care in Rural Communities Using
Collaborative Models of Ocular Telehealth***



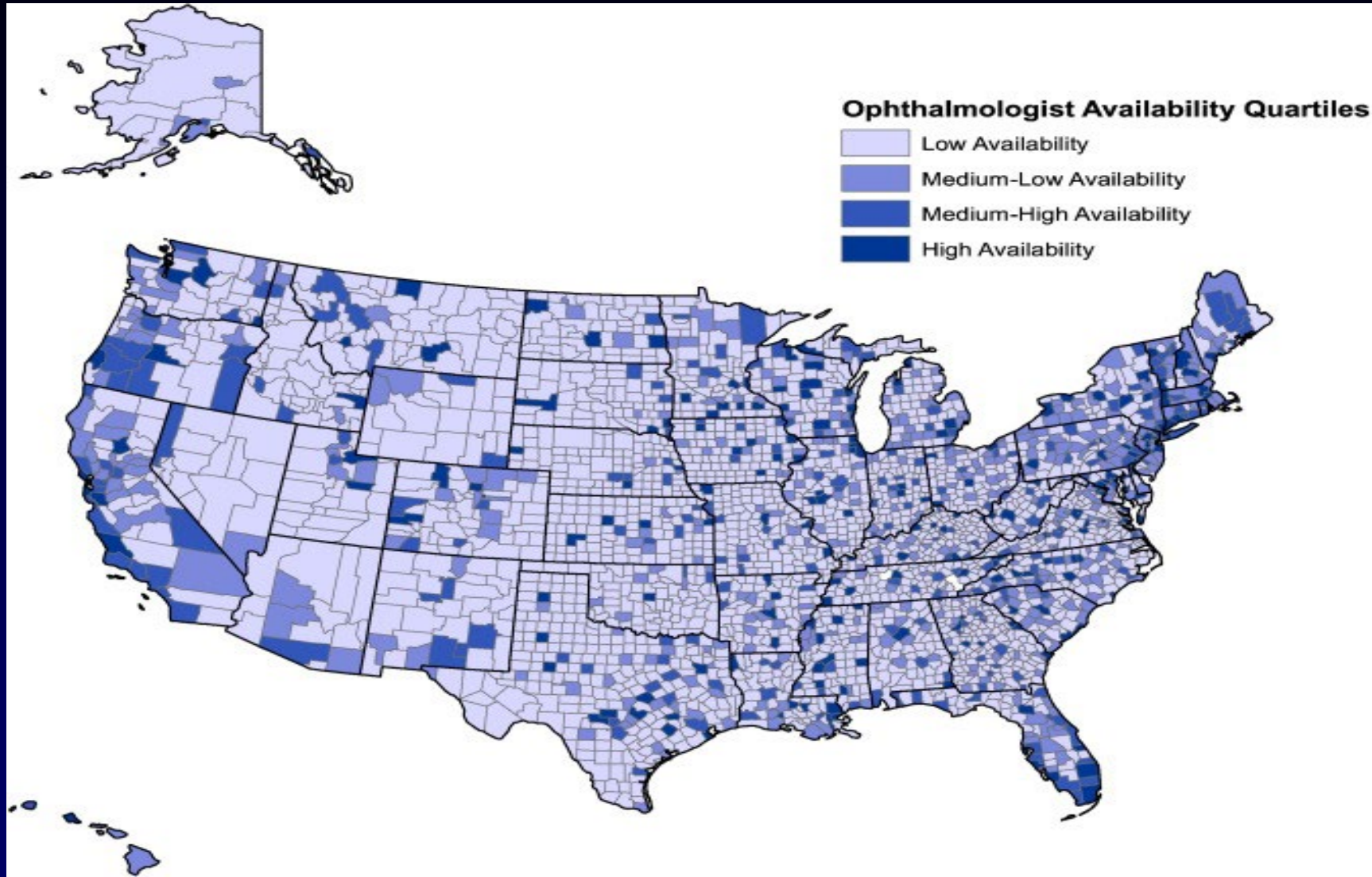
Rurality is a context, not a problem.

- **Rural communities are a vital part of a greater American whole, the unique strengths of each contributing to more than the sum of their parts.**



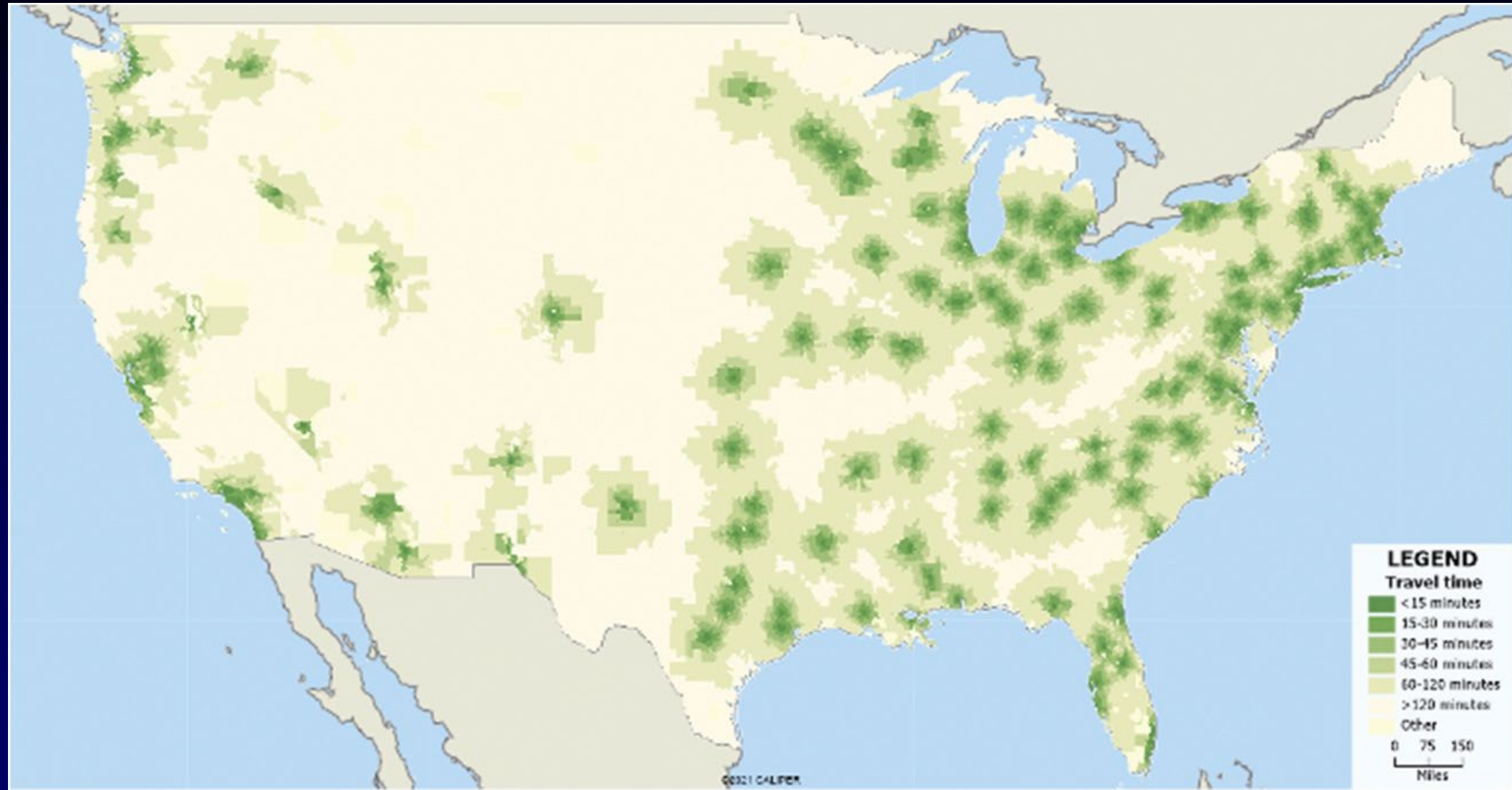
It is very difficult to access subspecialty eye care in many rural communities.

County-level availability of ophthalmologists in the United States.

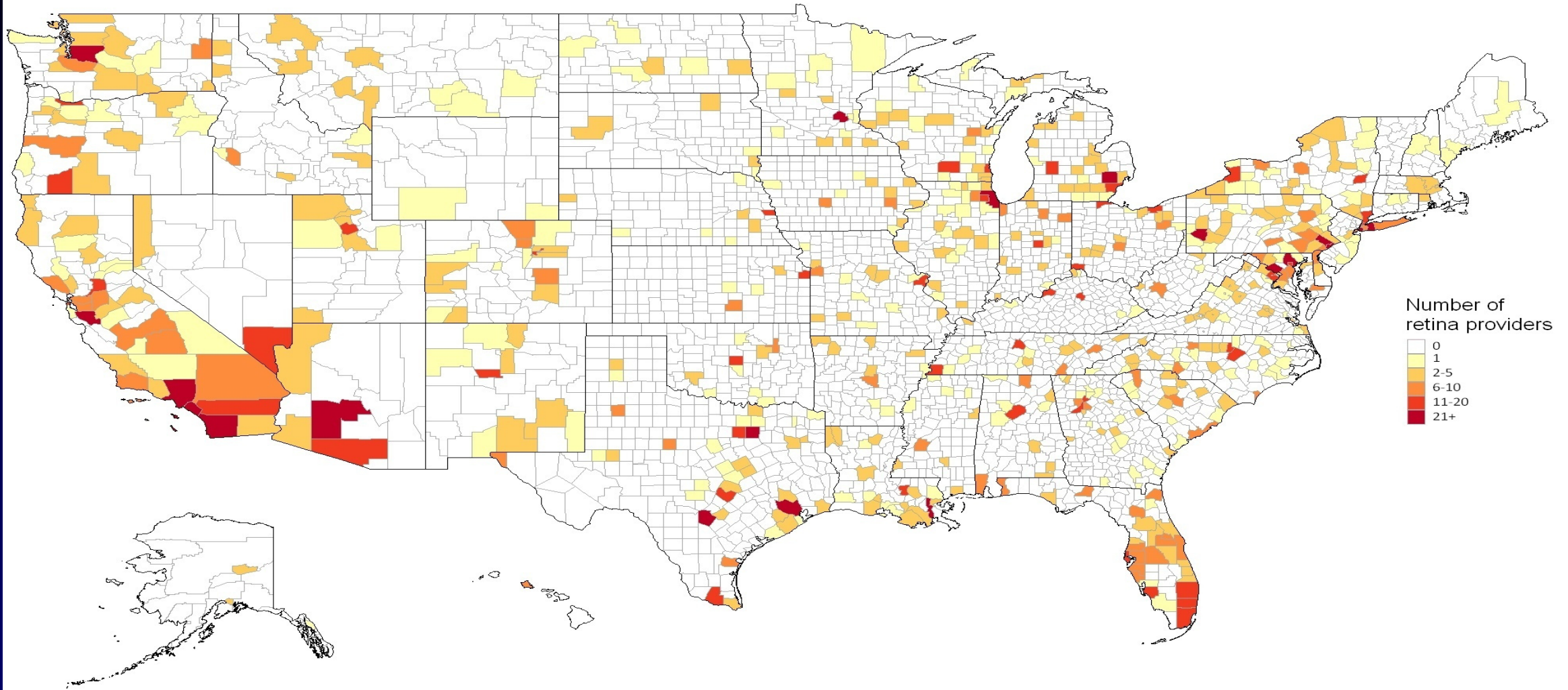


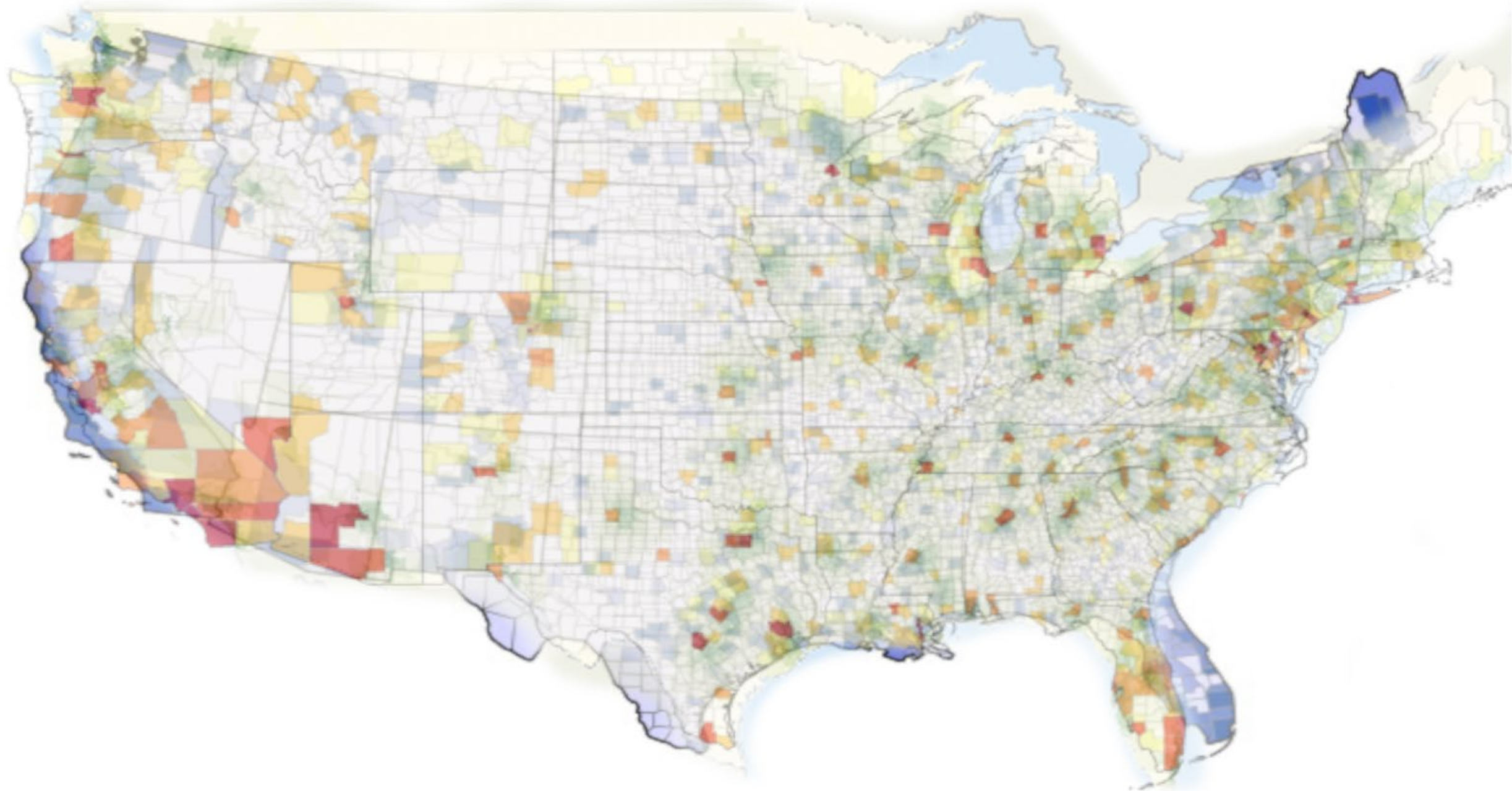
Gibson DM. The geographic distribution of eye care providers in the United States: Implications for a national strategy to improve vision health. *Preventive Medicine*. 2015;73:30-36.

Choropleth map of travel time to the nearest neuro-ophthalmologist in the United States.



Distribution of Retina Providers in the United States by County

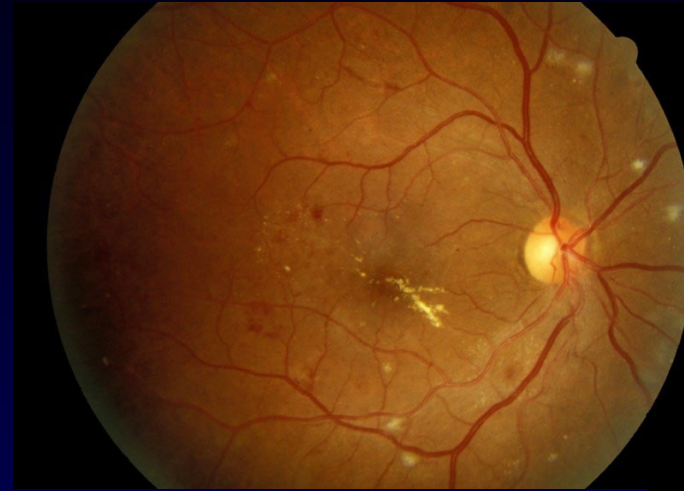




Lack of access to subspecialty eye care in rural communities puts people at risk of blinding disease.

Blinding Retinal Disease

- The CDC reports that diabetic retinopathy is the leading cause of blindness for working-age adults.
- The CDC also reports that Age-Related Macular Degeneration is the leading cause for adults over 65.



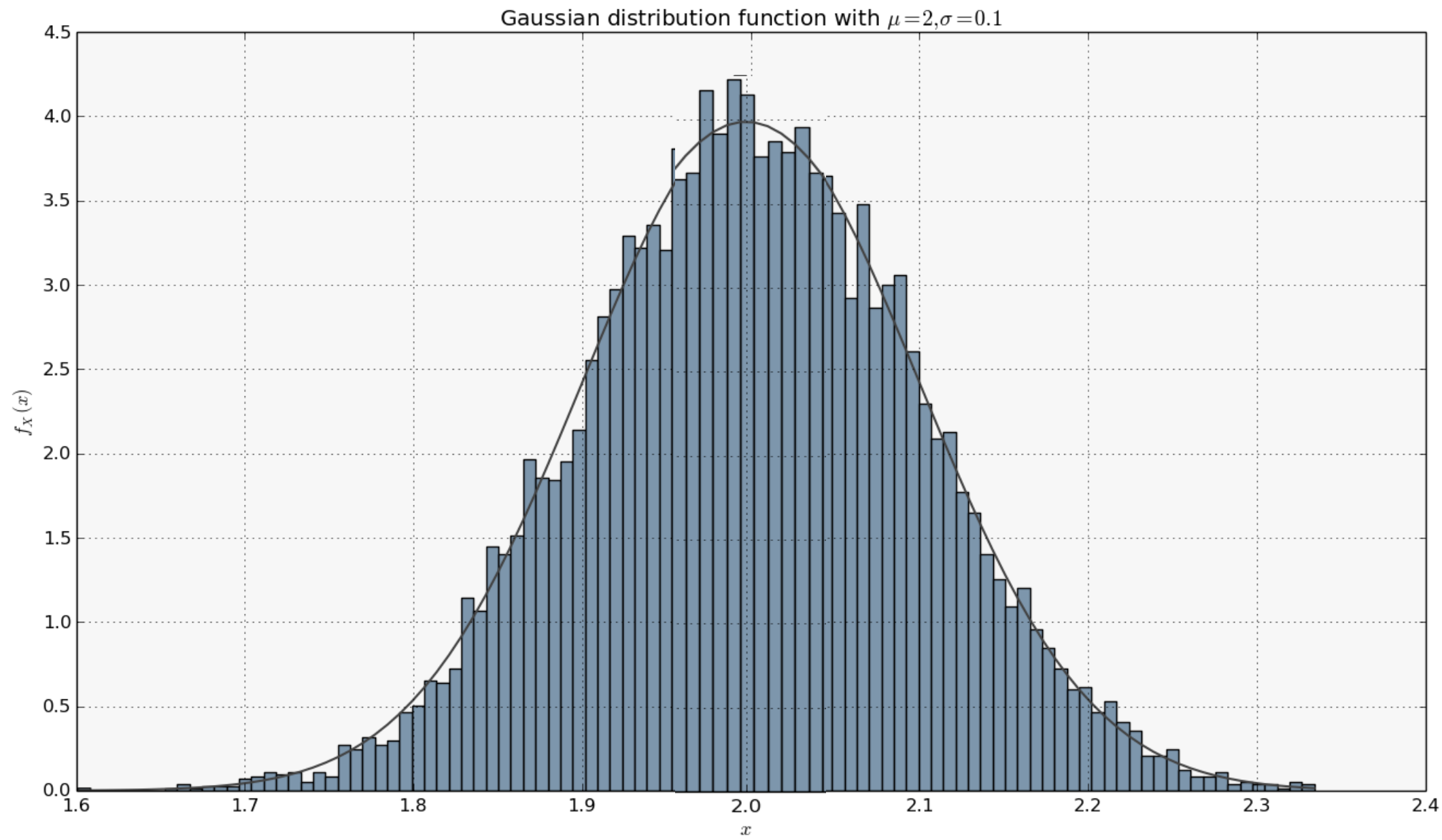
Treatments for diabetes eye complications. (2024b, May 15). Diabetes. <https://www.cdc.gov/diabetes/data-research/research/eye-complications.html>

About Age-Related Macular Degeneration. (2024, May 15). Vision and Eye Health. <https://www.cdc.gov/vision-health/about-eye-disorders/age-related-macular-degeneration.html>

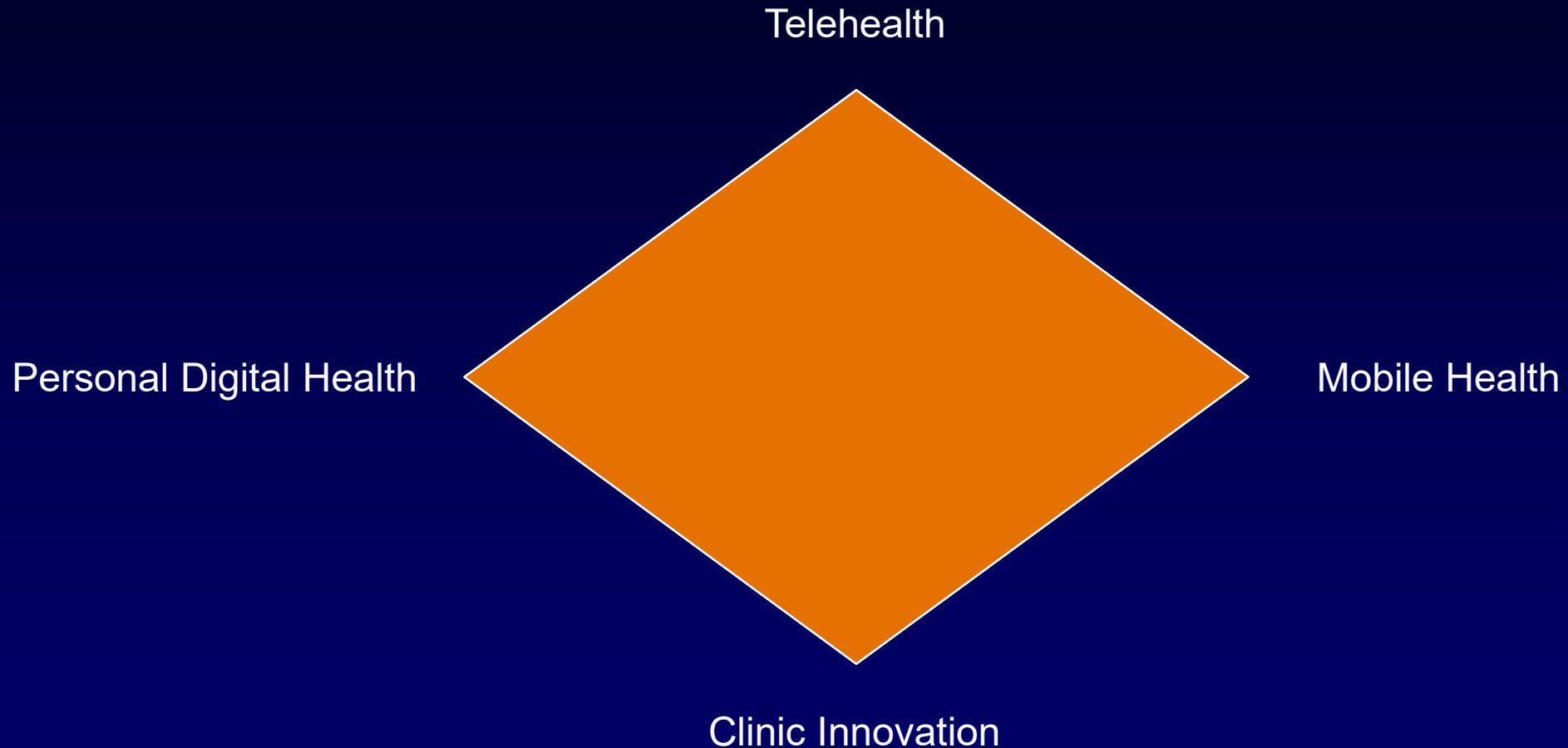
Stewart, J. M., Coassin, M., & Schwartz, D. M. (2021, January 3). Diabetic retinopathy. Endotext - NCBI Bookshelf. <https://www.ncbi.nlm.nih.gov/books/NBK278967/>

Pace of eye disease over two years predicts long-term outcome. (2020, May 18). National Eye Institute. <https://www.nei.nih.gov/about/news-and-events/news/pace-eye-disease-over-two-years-predicts-long-term-outcome>

To meet this challenge, we must evolve beyond axial contexts of care.



New Mindsets, New Models, New Possibilities



Interprofessional collaboration via telehealth can promote diagnostic excellence and health equity.

Facilitating Teamwork in Clinical Practice

Health care organizations play a critical role in ensuring effective teamwork. **Thus, the committee recommends that health care organizations should facilitate and support intra- and interprofessional teamwork in the diagnostic process.** There are a number of strategies that health care organizations can employ to improve teamwork in the diagnostic process. Creating a culture that encourages intra- and interprofessional collaboration is critical, as is designing a work system that is supportive of effective teamwork, including the use of results reporting tools that convey important information to the diagnostic team members (see [Chapter 6](#)). For example, the use of health IT and telemedicine may help facilitate communication and collaboration among team members, especially when geographically distant health care professionals are involved in the diagnostic process (see [Chapter 5](#)). The following section describes several opportunities for improving collaboration, such as care delivery reforms, treatment planning conferences, diagnostic management teams, integrated practice units, morbidity and mortality conferences, and multidisciplinary rounds.

Analysis of transcribed focus group discussions led to identification of three themes: professional and clinical learning occurring, expectations being exceeded, and suggestions for future ECHO sessions. An exemplar quotation was: "...certainly for me it will reduce some unnecessary referrals but it will also help me pick up on things that I really need to refer". Also 'diffusion of learning' occurred: "I found other colleagues asking me things and it was something that I could maybe bring as a question in ECHO, so the whole team did learn, and because I work in different practices, that was spread among different practices too."

had the same 21 COs, and in the hub one of two ophthalmologists who focused on macular disease or glaucoma.

in different practices, that was spread among different practices too."

Expanding the role of medical retina virtual clinics using multimodal ultra-widefield and optical coherence tomography imaging

This article was published in the following Dove Press journal:
Clinical Ophthalmology

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Background: An increasingly elderly population with a corresponding increase in ophthalmic conditions has led to increased pressure on hospital eye services (HES). In this study, we evaluated the use of a medical retina virtual clinic (MRVC), which has expanded into assessing all new medical retina referrals, where the need for urgent treatment was not clear.

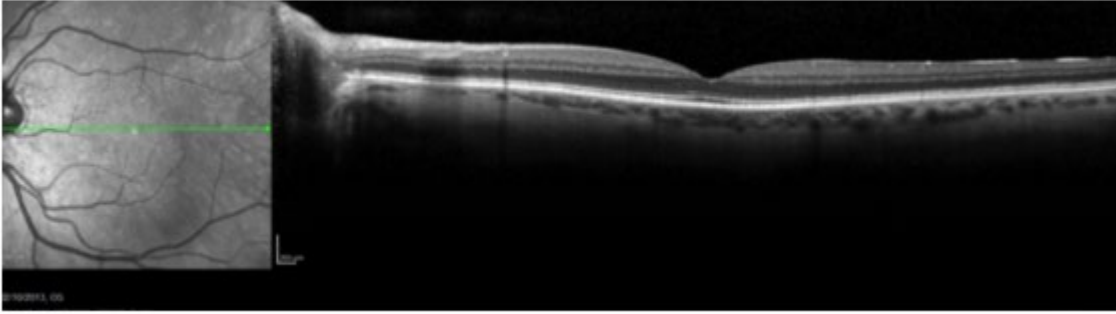
Methods: Retrospective analysis of all new patients who were seen in the MRVC between April 2016 and May 2018. Pro forma sheets were used in the MRVC to record the patient history, visual acuity, and type of imaging required. Two consultants reviewed the completed pro formas and images and provided a final diagnosis and management plan. These results and reasons for face-to-face (F2F) clinic appointment requests were analyzed.

Results: Six hundred ten new referrals were enrolled in the virtual clinic. The most common diagnosis was diabetic eye disease (59.9%). In the virtual clinic 44.1% were followed up, 28.1% were discharged, and 27.8% were booked an F2F clinic appointment (urgent/routine). The main reason for F2F clinic was to offer treatment. Urgent F2F appointments took place on average 11.9 days after virtual clinic attendance. In only two cases was the image quality felt to be inadequate to assess the retina.

VIRTUAL MEDICAL RETINA CLINIC

HOW IT WORKS:

- Leverages fundus photography and OCT to evaluate patients remotely
- For difficult cases or unclear pathology, optometrists and ophthalmologists place an e-consult in CPRS asking for an expert opinion
- A retina specialist reviews the patient chart and imaging and completes the consult with an interpretation and suggested plan of care



VA



U.S. Department
of Veterans Affairs

Your Colleagues Down The Hall

- Our framework:
 - Autonomy
 - Respect
 - Collaboration
 - Veteran-centric



Our Work

- Created a map of the distribution of patients living with retinal disease in VISN 23, tiered by acuity, with overlying layers of VA facilities with eye care and VA facilities with retina subspecialty care.
- Served >90 veterans with complex eye disease across 9 states.
- Expanded program to two new sites, with agreement in place to expand two others.
- Reduced community care expenditures by ~\$200K
- This work received a 2023 *Service to the Citizen Award*.
- Team submission of business case to VA Shark Tank program; selected as semi-finalists with finalist notification to follow in August 2024.
- Designated a “Strong Practice” by the national VA Clinical Resource Hub.

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