

DR CARE: IT TAKES A VILLAGE



Diabetes has been labeled an epidemic and a global crisis for more than 20 years.¹ Despite improved systemic therapies and diabetic eye disease screening efforts, the prevalence of diabetic retinopathy (DR) continues to rise at an alarming rate. In 2021, 22.27% of patients with diabetes had DR, globally.² By 2045, researchers estimate the number of adults worldwide with DR will increase to 160.5 million, a more than 55% increase from 2020, with 44.82 million having vision-threatening disease.² Needless to say, we desperately need a better way to identify these patients and ensure they get the vision-saving care they need.

Over the years, we have covered many DR screening programs, including a single-day community event that started in Philadelphia, a teleretinal program in Boston, and a national program in Brazil. These efforts are all useful in identifying patients in need of care and connecting them with the larger health care system. Unfortunately, they simply aren't big enough on their own. What we really need is a global initiative—something adaptable to inhospitable locations to serve patients most in need.

To that end, Majda Hadziahmetovic, MD, from Duke Eye Center, spearheaded a global conversation on the unmet needs for our patients with diabetes and the hurdles we must overcome before realizing comprehensive global screening. In our flagship article *Global DR Screening: Why Aren't We There Yet?*, you will learn from a robust lineup of international experts from Brazil, Saudi Arabia, Sierra Leone, Singapore, United Kingdom, and the United States. They explore the unique barriers to adoption in their regions, as well as the benefits of creating organized, technology-assisted, and equitable screening programs.

When it comes to identifying and tracking disease in our clinics right now, fundus photography-based AI models and

AI-assisted OCT screening may help, and Scott Song, BA, and T. Y. Alvin Liu, MD, provide information on those. In addition, Amani A. Fawzi, MD, and her team discuss how you can use OCT angiography to track disease progression.

Once patients have established care, novel implants and pharmaceutical mechanisms of action hold promise for more durable and efficacious treatment. Matthew Pfannenstiel, MD, and Leanne Clevenger, MD, explore various implants for DR/DME, while Shawn Kavoussi, MD, provides a granular look at tyrosine kinase inhibitors in the pipeline. Lastly, Dimitra Skondra, MD, PhD, FASRS, and Neil Sheth, MD, MBA, provide important pearls for managing complex diabetic vitrectomy.

This is one of our most comprehensive diabetes issues to date, and we hope it sparks a much-needed larger conversation about how we can all come together, as a retina village, to tackle the diabetes epidemic and reduce the risk of vision-threatening complications. ■

- Allen C. Ho, MD
- Robert L. Avery, MD
- Lejla Vajzovic, MD

1. Bonow RO, Gheorghide M. The diabetes epidemic: a national and global crisis. *Am J Med*. 2004;116(Suppl 5A):2S-10S. doi.org/10.1016/j.amjmed.2003.10.014

2. Teo ZL, Tham YC, Yu M, et al. Global prevalence of diabetic retinopathy and projection of burden through 2045: systematic review and meta-analysis. *Ophthalmology*. 2021;128(11):1580-1591. doi.org/10.1016/j.ophtha.2021.04.027

SCREENING EFFORTS CLOSE TO HOME

In 2022, Wills Eye Hospital initiated a single-day community diabetic retinopathy (DR) screening program; since then, participation has risen more than 45%, and nearly half of patients screened are uninsured with English as their secondary language. Approximately one in 36 patients screened had vision-threatening DR. Given the success of the program, it has now expanded to include 18 sites across four states.

After years of feasibility testing and validation for DR screening, Duke Eye Center launched its first organized, institution-wide AI-powered DR screening program in May 2026, marking a major milestone in integrating AI into routine clinical care. In addition to improving early detection, this collaborative aims to increase follow-up adherence, streamline referrals, and optimize the use of ophthalmology clinics.



FURTHER READING

Teleretinal Screening: Closing the Gap in Diabetic Eye Care

By Alice C. Lorch, MD, MPH

