

# **Shaping GME: The Future of Ophthalmology**

## **Major Revisions to the Program Requirements for Graduate Medical Education in Ophthalmology**

### **Summary of Themes and Insights**

#### **Overview**

Every 10 years, ACGME Review Committees are required to evaluate the applicable specialty- and subspecialty-specific Program Requirements under their purview for revision. In 2017, the ACGME re-envisioned the process by which this is done and piloted a new approach with the Program Requirements for Graduate Medical Education in Internal Medicine. The new process, which includes scenario-based strategic planning, requires a writing group (composed of Review Committee members and members of the ACGME Board of Directors, including public members) and the specialty community to think rigorously and creatively about what the specialty will look like in the future prior to proposing any revisions, recognizing that the future is marked with significant uncertainty.

#### **Key Insights about the Practice of the Ophthalmologist of the Future**

Several themes emerged from the scenario planning efforts that provide insight into the ophthalmologists of the future and their practice. It is recognized that the ophthalmologist of the future will not achieve mastery of all these competencies during residency alone. Residency must serve as the foundation for career-long professional development and adaptation to a changing health care system and community needs.

#### **Proposed Definition of the Ophthalmologist**

Ophthalmologists are physicians who provide patient-centered, medical, and surgical care to individuals across all ages presenting with disorders of the eye, adnexa, surrounding face, and visual system. The practice of ophthalmology encompasses the understanding of systemic diseases that interact with or manifest themselves within the eye and visual system. Ophthalmologists apply their medical knowledge of optics to diagnose and treat refractive error both medically and surgically.

Ophthalmologists integrate patient history, physical examination, imaging, and laboratory data to diagnose and manage complex ophthalmic disease, collaborating with other medical specialties as necessary. Ophthalmologists manage patients holistically by also considering their psychosocial concerns. Ophthalmologists understand how systemic diseases affect the eye and visual system and how the social determinants of health impact ocular diseases. They identify barriers to care and communicate with patients to optimize, preserve, and protect visual function.

Ophthalmologists may elect to pursue additional graduate medical education, and specialize in the fields of pediatric ophthalmology, neuro-ophthalmology, ophthalmic oncology, retina, uveitis, glaucoma, cornea, ophthalmic plastic and reconstructive surgery, and other areas of focus. Ophthalmologists are lifelong learners who stay current with advanced and emerging technologies. Ophthalmologists adapt both their knowledge and clinical care to the evolving needs of their local, national, and global communities. They understand and manage the

business of medicine to ensure high value, cost-conscious care for their patients. They apply a data-driven approach to addressing the clinical problems of their patients and communities.

Ophthalmologists are leaders of effective eye care teams, optimizing relationships and supporting the well-being of themselves and their teams. They act ethically in all aspects of their professional and public lives. Ophthalmologists are culturally sensitive and compassionate in patient-centered communication and demonstrate empathy for all patients. Ophthalmologists educate and clearly explain medical information to patients and caregivers. They advocate for the needs of their patients using shared decision making to value the perspective of patients, patients' families, and other members of the health care team.

### **Future Ophthalmology Residency Education and Training**

In each of four strategic planning scenarios, strategies were developed to successfully educate and train the ophthalmologist of the future. The strength of each strategy was then assessed across the other three scenarios. Strategies that were most successful across scenarios were considered most likely to be useful in any potential future. Seven themes emerged from the consolidation of the diverse strategies:

1. The Learning Process
2. Patient Care and Outcomes
3. Emerging Technologies
4. Leadership
5. Well-being
6. Working in Systems
7. Addressing the Community

#### **1. The Learning Process**

*This theme concentrates on aspects of the educational methods, environment, and structures that will allow ophthalmologists to thrive in the future.*

Ophthalmology residency programs will:

- Provide rigorous training and assessment of competencies in all domains in comprehensive ophthalmology.
  - Programs may provide individualized flexibility for exploration of subspecialty focus, including medical or surgical emphasis.
- Support time-variable training and personal needs of the resident.
- Partner with residents to create self-directed learning plans, including virtual and asynchronous education, that continuously incorporate constructive feedback.
- Provide training for core faculty members to achieve competence in teaching.
- Provide dedicated time for core faculty members to teach and foster supportive learning environments for residents from diverse backgrounds.
- Create strong mentorship programs for residents and faculty members.

#### **2. Patient Care and Outcomes**

*This theme relates to areas of focus and concentration that will allow for the best quality evidence-based health care.*

Ophthalmology residency programs will:

- Deliver training in health care improvement science and data analytics to enhance population health, continuity of care, patient safety, and practice outcomes.
- Provide longitudinal training to improve empathy and communication with patients and their families/caregivers, including how to have difficult conversations, disclose serious diagnoses, respond to emotions, and navigate discussions regarding poor or unexpected surgical outcomes.

### **3. Emerging Technologies**

*This theme conveys the effect of applying new tools in the educational environment to ensure that learners are prepared to practice in state-of-the-art facilities.*

Ophthalmology residency programs will:

- Provide training in the utilization and critical evaluation of emerging technologies, including:
  - telemedicine, electronic health records, and the use of data standards;
  - benefits, limitations, and ethical implications of artificial intelligence; and,
  - application of biostatistics/informatics, and implementation of science and cybersecurity.
- Provide the education and resources for residents to develop the skills necessary to implement novel therapies during their residency and beyond.

### **4. Leadership**

*This theme addresses that as leaders of the eye care team, ophthalmologists need formal leadership training and training in interdisciplinary teams and teaming.*

Ophthalmology residency programs will:

- Provide structured training in leadership and communication within inter- and intra-professional teams (that may include technicians, orthoptists, optometrists, nurses, physician assistants, and other professionals) in a variety of practice settings and contexts, including high-volume care.

### **5. Well-being**

*This theme addresses the recognition that physician well-being is integral to ensuring access to physicians for all patients.*

Ophthalmology residency programs will:

- Support a culture of well-being for faculty members and residents.
- Provide instruction to faculty members and residents on how to access and utilize institutional well-being and mental-health resources.
- Foster strategies that promote resilience when receiving and incorporating feedback from multiple sources.
- Balance the flexibility of asynchronous and virtual experiences with the well-being benefits of in person shared experiences of residents.

### **6. Working in Systems**

*This theme underscores that ophthalmologists do not work alone; they practice in complex health care systems and teams.*

Ophthalmology residency programs will:

- Train residents to be strong advocates for their patients and profession during interactions with institutions, payors, and governmental entities.
- Provide residents with didactic education and clinical experience in systemically promoting safety and efficiency in surgical and clinical care, including accurate documentation.
- Provide clinical experience with increasing patient volume and complexity to prepare for independent practice.
- Provide residents with resources to learn about policy development, ethics, health care economics, waste reduction, and the business of medicine, including practice management, entrepreneurship, payment policy, and personal finance.
- Emphasize values that promote patient and societal needs over individual practitioner autonomy.

## **7. Addressing the Community**

*This theme addresses that it is imperative that ophthalmologists are prepared to practice in a diversifying society wherein they will be able to meet the needs of all patients.*

Ophthalmology residency programs will:

- Provide experience working in diverse practice contexts, including academic and community settings to gain knowledge of care delivery models.
- Engage with the local community to provide equitable access to care.
- Ensure that faculty members serve as role models for care of vulnerable patient populations.
- Collaborate with surrounding communities to engage in providing exposure to ophthalmology with the goal of diversifying the ophthalmology workforce and understanding the communities within which ophthalmologists provide care.

## **Next Steps**

The Writing Group respectfully requests feedback regarding the major themes described above, including the vision of the future ophthalmologist and program strategies. The Writing Group seeks diverse perspectives—from the public, patients, families of patients, community agencies, clinicians within and outside of ophthalmology, and all stakeholders in health care and population health.

A Stakeholder Summit will be held in January 2024 to consider and expand on feedback from the public comment period and adjust themes and strategies to prepare for revisions to the Program Requirements for Graduate Medical Education in Ophthalmology.

## **Questions and Issues for Stakeholders to Consider**

Considering that the requirements developed under the program strategies listed above will affect comprehensive ophthalmologists practicing from approximately 2025-2050:

- What, if any, additional educational experiences should be considered in support of meeting the aspirational definition of the ophthalmologist as proposed?

- Describe any potential challenges a program might face in providing the experiences described. What additional resources might be required to support the provision of these experiences?
- In addition to the themes and strategies described, what, if any, other issues should be addressed in the revised Program Requirements?
- Describe any potential unintended consequences that may result from implementing the strategies.

Submit comments using [the comment form](#) by **January 3, 2024**.

## **Addendum**

### **What is scenario-based planning?**

Scenario-based planning is a technique by which organizations develop and test their readiness for the future using a range of alternative futures or scenarios. In this case, these scenarios are detailed, systematically developed descriptions of operating environments that the US medical profession might face over the next 25 years or more. This is a technique for managing uncertainty, risk, and opportunity. It yields a strong strategic framework for understanding future needs and a practical basis for immediate action. The intent is not to predict what the future will be and then build a master plan, but rather to ask what the future might hold and identify actions that can be taken today that are most likely to be valuable regardless of how the future turns out. As a result, the technique relies far more on expert judgment and less on quantitative trend forecasts.

### **What has the ACGME done so far?**

In 2013, the ACGME Board of Directors engaged in a scenario-based planning exercise using four widely varied, plausible, internally consistent scenarios describing the range of the future context for health care delivery. These same scenarios were used again during two workshops for the Review Committee for Internal Medicine's Program Requirements revision process in 2017.

The process resulted in a summary of general insights about the practice of internal medicine in the future, followed by key insights about the internist in 2035 that worked well and were viable regardless of scenario, and final recommendations for what residency programs should do to prepare the internal medicine resident to practice in 2035. The Review Committee for Internal Medicine then used this information to design the recent major revisions to the Program Requirements for Graduate Medical Education in Internal Medicine.

The process was refined as a result of the experiences with internal medicine, and subsequently with family medicine, pediatrics, general surgery, emergency medicine, vascular surgery and colon and rectal surgery. Ophthalmology is the eighth specialty to embark on the ACGME's new approach to the major revision process for Program Requirements. New scenarios were developed and updated for envisioning the future in 2050 or beyond. These are:

- Now You're on Your Own – A dynamic, high-technology world with a rich economy, characterized by a novel mix of libertarian economics and progressive social policies.
- New New Deal – Following decades of political division and economic stagnation, this world is based on social democracy, civic unity, bold government actions, economic rebound, and public optimism.
- Ex Uno, Plures – A world with a weak federal government, strong independent states, divisive culture wars, no safety nets, isolationism, and near-depression economics.
- One Giant Leap – A world of rapid temperature rise and extreme weather causing havoc and widespread anxiety, and a large shift in government priorities, as well as sluggish economics.

### **What has taken place for the specialty of ophthalmology so far?**

Thirty-five participants representing the ophthalmology community, other specialties, and related fields attended a workshop in May 2023. The focus was to provide the Review Committee with insights regarding what the practice of ophthalmology could look like in each scenario.

Additionally, a literature review on key topics identified by the Ophthalmology Writing Group was conducted, along with a series of one-on-one interviews with patients, ophthalmologists who recently completed residency, and health care influencers.

Above is a summary of the results of these efforts—key insights about the ophthalmologist of the future that worked well and were viable regardless of the scenario, and recommendations for what programs should do to prepare ophthalmology residents to practice in 2050. The Writing Group will use these findings and public comments to begin its major revision process in 2024.