

Advancing Innovation in Residency Education: An ACGME-ABFM Collaboration

The Review Committee for Family Medicine of the ACGME and American Board of Family Medicine (ABFM) announce a collaboration to explore the outcomes of an additional fourth year of education and training in family medicine. The purposes of this collaboration are to support the development of advanced expertise and clinical mastery, spur innovation in clinical care and residency education, and improve the social accountability and community responsiveness of family medicine residency programs. The hope is to extend the evidence base of the outcomes of four years of residency education for individual residents, residency programs, health systems, and the specialty. What follows is a brief description of the rationale, eligibility and application process, benefits for residency programs and their Sponsoring Institutions, and current plans for the governance of the innovation program and a supporting educational collaborative. Feedback on this draft is welcomed and invited.

Rationale

The need for mastery and innovation in clinical care and education in family medicine is clear. American health care is at an inflection point. The outcomes of care are substantially worse than comparable countries, (National Research Council and Institute of Medicine 2013) life expectancy began to drop in 2014 (Woolf and Schoemaker 2019), and the COVID-19 pandemic has again exposed unequal care and health inequities. Major new problems in health and health care have emerged over the last generation, including accelerating multimorbidity, widespread Opioid Use Disorder, and a sharply rising rate of behavioral health problems and suicidality, even as obstetric deserts widen and cost and quality issues with hospital and transitions of care persist. Unfortunately, despite health care reform and massive investments in technology and technical innovation, little progress has been made in addressing the Quadruple Aim (Bodenheimer and Sinsky 2014), and burnout has become endemic, itself limiting the response of health care to the challenges the community faces. Student interest in family medicine has not kept up with the growth of medical schools.

The ACGME and ABFM believe that personal physicians, properly educated, trained, and supported, can play a major role in healing health care and communities. The recent National Academies of Sciences, Engineering, and Medicine report (2021) on the implementation of high-value primary care points to a way forward: a rebuilding of primary care foundation of health care with access to primary care teams with education and training based in communities, along with new approaches to financing, linkage with other community resources, a patient- and provider-centered revolution in digital health, and explicit governmental accountability. In this context, innovation in family medicine residency education is a key component of a strategy to address these challenges. Family physicians represent the largest and most widely distributed specialty of personal physicians; in contrast to general internal medicine and general pediatrics, the number of family medicine residency programs and residents is growing rapidly. The diversity of family medicine residents is also increasing (Jabbapour and Westfall 2021; Wang et al. 2022).

The family medicine residency education model is relatively unchanged since the founding of the specialty. Family medicine then brought many innovations to the broader graduate medical education (GME) community, among them education and training opportunities outside of the hospital, incorporation of behavioral health and practice management, and educational goals and objectives. These innovations led to the explosive growth of family medicine in the 1970s

and have created a large and engaged primary care workforce for communities across the country.

Now, however, is time for another phase of dramatic change. Over the last 18 months, the specialty has come together to re-envision family medicine residency education (Starfield Summit IV 2020; Family Medicine Journal 2021). It grounded family medicine residency education in the core functions of primary care developed by Barbara Starfield and others (Bazemore and Grunert 2021), acknowledged the crucial role of imprinting of residency education on clinical care patterns in practice over many years (Phillips et al. 2021), and affirmed the importance of educating and training comprehensive personal physicians. Building on these foundations, the specialty has called for a new approach to education and training, one that emphasizes that the practice is the curriculum (Neutze et al. 2021), introducing panel management as a key to population health, and educating and training residents in team-based care (Arenson and Brandt 2021) with robust behavioral health (deGruy and McDaniel 2021). A second imperative is developing new relationships with the communities residency programs serve and engagement of residents in the work of addressing the social determinants of health. Finally, the specialty has committed to fulfilling the promise of competency-based graduate medical education (Allen 2021; Phillips et al. 2021, even as it acknowledges the challenges this entails (Saultz 2021). The proposed draft of revised Program Requirements for Graduate Medical Education in Family Medicine (ACGME 2021a) reflects these changes and many others; they represent a major step forward for the discipline.

Increasing the length of family medicine residencies is an important strategic option for the specialty, and for many residency programs an important component for meeting the needs of the community they serve. The residency education requirements are like an “over-stuffed potato”: over the years, for good reasons, requirements for education in family medicine have grown dramatically. Since 1969, the needs of patients and society have changed, and what the practice of medicine offers has grown dramatically. The new standards call for additional clinical skills, from point-of-care ultrasound to medication-assisted treatment for substance use disorders, to integrated behavioral health and a systematic education in implementing population health. In addition, there are many clinical niches into which family physicians must lean, and these niches require a level of greater competence than the field is currently educating and training to—expertise and eventually mastery. Finally, the specialty and programs’ sponsoring hospitals and health systems need to develop the pipeline of teachers (Wilson and Sairenji 2021), researchers, and (Harper 2021) executives (Muramoto, Rankin, and Rodgers 2021) necessary for the health care system to progress toward the Quadruple Aim. Adding time to residency education is an important option, even as the dissemination of competency-based approaches can make learning more effective and efficient. The goal of this initiative is not to simply add more time, but to also explore how innovations in curricular design and assessments can holistically enhance the professional development of a family medicine physician toward mastery and provide education in the advanced skills necessary to meet the needs of society.

Family medicine has about 15 years of experience with a small cohort of four-year residency programs, with a formal prospective comparative trial of the long-term outcomes now reporting out. Robust and innovative curricula have been developed with graduates who have gone onto leadership roles in clinical care and other missions. Initial reports on outcomes suggest substantial interest among medical students (Carney et al. 2021), that these residency programs have found ways to finance these longer-term residents (Eiff et al. 2019), and that four-year residents have a modest gain in clinical knowledge as measured by the ABFM certification exam (Carney 2021). Early data also suggest that four-year residency programs

have graduates with a broader scope of practice, who become faculty members and leaders in other programs at high rates. The longer duration may also support more meaningful engagement of residency programs with communities.

These findings are very promising but are limited to a small number of residency programs. Given the significance of the proposed change in family medicine residency education, it is important to conduct a test of the feasibility and outcomes of the four-year duration with a larger and more diverse set of programs. To accomplish this goal, the ACGME Review Committee for Family Medicine and the ABFM propose using the ACGME Advancing Innovation in Residency Education (AIRE) (ACGME 2021b) mechanism. AIRE is based on a premise of competency-based medical education balanced with deliberately planned and extensive experience and allows programs the opportunity to innovate, with freedom from selected requirements, in return for submission of outcome data and the sharing of learning. This AIRE initiative will be jointly sponsored by the ACGME and ABFM.

The goal is to recruit approximately 10 percent of ACGME-accredited family medicine residency programs to participate in an innovation cohort. A major goal is recruitment of diverse types of programs—from all regions of the country, urban and rural, and inclusion of start-up and older programs. The Review Committee and ABFM envision that the information derived from this innovation cohort will inform future revisions of the Program Requirements in five to six years, along with revision of ABFM Board eligibility of standards. There will be a formal external evaluation.

Another goal of this AIRE initiative is to support residency programs in the significant changes necessary for the proposed changes in residency education. Experience with prior large collaboratives of programs—the I³ collaborative in four phases (Donahue et al. 2015; Gwynne et al. 2017; Newton et al. 2011; Reid et al. 2011), the P4 (Carney et al. 2018), and the Length of Training collaborative (Carney et al. 2021; Tepperberg et al. 2019), has demonstrated the great value in participating in a residency learning community that shares ideas and solves problems jointly. The ABFM Foundation has committed to support a national collaborative to back this AIRE initiative. The details will be developed in coming months, but the experience of prior collaboratives will inform the initiative. The other organizations in family medicine—the American Academy of Family Physicians, including Residency Program Solutions, Association of Family Medicine Residency Directors, Society of Teachers of Family Medicine, Association of Departments of Family Medicine and others—have also expressed interest in supporting innovation in residency education. The changes envisioned by the community are substantial, and it will take all organizations working together to bring meaningful change.

Eligibility

The goal is to recruit at least 10 percent of the more than 700 ACGME-accredited family medicine residency programs to participate in the initiative. Three different pathways for residency applications are envisioned:

- 1) One for residency programs that want to integrate a traditional residency with a one-year fellowship, such as addiction medicine, geriatrics, or hospice and palliative medicine, sports medicine.
- 2) One that provides for an integrated four-year residency following the model of those programs that have participated in the Length of Training Pilot; and,
- 3) One that provides for a four-year residency with an area of concentration in specific areas of expertise, which could be clinical, such as primary care HIV management;

population health and quality care; rural health; advanced maternity care; or structured experiences in research or faculty development.

A diverse set of residency programs is sought to include programs from around the country, as well as those of a variety of sizes and populations. In particular, the initiative seeks former American Osteopathic Association-approved osteopathic programs that have become ACGME-accredited through the transition to a single GME accreditation system, and rural training programs striving to meet major community needs in rural and underserved communities.

A prerequisite for applying will be a commitment to developing a competency-based approach to GME. Five core components for competency-based medical education have been defined by Van Melle et al. (2019), following a comprehensive literature review and an international Delphi process:

- Explicit focus on outcomes, as defined by the needs of society and the communities served using a competency framework
- Progressive sequence of competencies—a developmental model that requires robust involvement of residents with their own education
- Tailored learning experiences—attention to individualized competence development in design of educational experiences
- Competency-focused instruction—curriculum explicitly designed to focus on one or more of the Competencies, with very frequent formative feedback
- Programmatic assessment

These five core components are grounded philosophically in a growth mindset that embraces educational reform and leverages co-production with residents as one essential mechanism for successful implementation (Carraccio et al. 2016; Englander et al. 2020). Finally, ongoing evaluation of the effectiveness of competency-based medical education within and across the participating programs will be a vital component of this initiative.

Robust clinical experience is also necessary for development of the “clinical courage” needed to meet the needs of society. While the draft major revisions of the Program Requirements do not specify numbers for formal accreditation, both the ACGME and ABFM will require that residency programs monitor the volume and variety of clinical experiences to judge clinical competence—and that this approach will include hospital medical care and labor and delivery. They will also require involvement of the residents in their own education and a system for regular individual review of their developmental progress on the Competencies with a clinical mentor to supplement the work of the residency program director and the Clinical Competency Committee, along with a robust faculty development system that includes implementation of competency-based medical education.

Eligibility and Application Process

A joint ACGME/ABFM steering group will finalize the requirements, but it is envisioned that all participants will need to make a formal application through the current AIRE process (ACGME 2021b), which would also include the following:

- Programs must commit to innovation in both education and clinical care in service of developing the comprehensive physicians needed by society.
- Sponsoring Institutions will provide a letter of support for program participation.

- Programs must adhere to the newly revised specialty Program Requirements, including the commitment to train comprehensive personal physicians, the practice as the curriculum, an innovative community-based role and a competency-based educational approach. These new Program Requirements must be the foundation for the innovation.
- Programs must have a robust faculty development program to establish, evaluate, and report innovation in clinical care and education, and must be committed to sharing what they learn with the specialty.
- As a part of the application, programs will detail the benefits of additional education and training for individual residents and to their communities. This will be specific clinical skills such as Point of Care Ultrasound or Medication Assisted Treatment, certificates of achievement given by the program, or eligibility for ABFM CAQs or Focused Practice Recognition. Programs will also be asked to describe the specific competence residents will gain in a fourth year, and the assessments that will be used.
- Programs will submit data annually on the impact of these changes in their residency and resident assessments using the existing ACGME Accreditation Data System (ADS) and the ABMS graduate surveys. There will be common measures across all programs. The data will not include protected health information and will be collected under Institutional Review Board protection.
- Programs will commit to participating in a national learning collaborative, sending at least two representatives to an annual conference each year. As in the I³ collaborative, they will commit to present their work and lessons learned to the collaborative or other national organization's meeting every year, and to submit or participate in one paper every two years. There will be some financial support for participation.

All applications will be screened by the ACGME's AIRE program staff and finally accepted by the ACGME Review Committee for Family Medicine. The ABFM will review and approve all applying programs to ensure Board eligibility of all graduates after completion of the residency. Programs may choose to utilize an additional year for all residents in the program, or for select residents who seek additional or advanced education and training. Participating programs will be able to adjust these numbers each year.

Benefits for Residency Programs and the Specialty

Residency programs participating in the AIRE initiative and its associated collaborative will get:

- Approval from the ACGME to add a fourth year and to develop innovations in clinical care and education. They will be allowed flexibility from existing Program Requirements for three years of education and training, as well as other requirements as needed.
- The opportunity to participate in a learning community of other residency programs, with a website (developed by the ABFM) to share innovations, an annual meeting, and emerging work groups. It is anticipated that diversity of participating programs will help drive innovation in both clinical care and education.
- The opportunity for career development for faculty members, residents, and staff members through attending national meetings and establishing and participating in smaller working groups.
- The opportunity for faculty members, residents, and staff members to develop, present, and publish scholarly work, meeting the residency requirements for scholarship and contributing to the development of the specialty.
- The opportunity to develop and use ABFM resources, including knowledge self-assessment, in-training examination, organizational quality improvement, and the ABFM national journal clubs.
- An opportunity to help shape the future and promise of family medicine.

Participating residency programs will be enrolled in the national collaborative to transform family medicine residency education. The collaborative's design is being developed, but it is anticipated that participating programs will be asked to participate in at least one area of clinical and educational collaboration in the first year. Options include the clinical and educational redesign of continuity care, hospital medicine, family medicine obstetrics, and community-based initiatives. These preferences will be used in designing the collaborative and sharing lessons across participating programs.

The hope is that this AIRE initiative and the associated learning community will catalyze change in family medicine residency education, attracting new students, faculty members, and future leaders; developing innovations in care and education; and generating smaller communities working on the major problems facing health and health care while celebrating and developing the role that broadly educated and trained family physicians can play in healing the health care system.

It is expected that the AIRE initiative will take place in the context of the broader specialty response to the proposed revised Program Requirements. The ACGME and ABFM are committed to supporting and coordinating with that broader response.

Governance

This project will be run by a steering committee put together by the ACGME Review Committee for Family Medicine and the ABFM, which will manage the process. The Steering committee will include residency program directors and Sponsoring Institutional leaders, as well as representatives of residents, patients, and the public.

Ongoing review of participating individual programs will be done annually by a subcommittee of the Review Committee and separately by the ABFM.

There will be formal external evaluation; both the ACGME and ABFM will support and facilitate evaluations and support faculty development in research and evaluation. Separately, the ACGME will work with the ABFM to collect data necessary for ongoing research and evaluation, as well as Milestones and other data. This will be detailed in a separate data agreement. Programs participating in the collaborative will also sign a separate data use agreement.

Many family medicine organizations play key roles in supporting the development of residents, faculty members, and residency program directors. The intent is to involve all of these partners and include their representation on the steering committee. Shaping the future of family medicine is a team sport.

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