AAFP | Residency Program Solutions

Criteria for EXCELLENCE

March 2026 Edition

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FOREWORD

Residency Program Solutions (RPS)—formerly known as the Residency Assistance Program (RAP)—has been the vanguard for defining excellence in family medicine graduate medical education (GME) since its establishment in 1975. The authors provide consultation services to developing and existing family medicine residency programs across the nation. During consultation work, best policies and practices (also called positive deviances) in residency education are collected. These ideas and practices from the field, personal experiences as educators, and ongoing assessments of the clinical, educational, and accreditation environments form the basis for the aspirational guidelines outlined in this document.

For more than 45 years, the RPS Criteria for Excellence, a set of national standards developed by consensus and continually revised to reflect changes in education and the health care environment, has served as an ongoing resource for those seeking to improve the quality of family medicine GME.

Since the last publication of the Criteria for Excellence, the health care landscape continues to undergo rapid change. The concepts of "Triple Aim" (improving the health of populations, improving the patient experience, and reducing per capita costs of health care) and "Quadruple Aim" (the Triple Aim, plus improving the work life of health care clinicians) have become well established in the family medicine literature. Health professional well-being and resilience have taken center stage at many professional meetings and discussions as the medical community grapples with the recognition of the toll that burnout has taken on patients and the professionals providing health care. Additionally, workforce assessments continue to show shortages in the supply of family physicians to meet the health care needs of the country to achieve the quadruple aim.

Family medicine's contribution to the health care system is imperative to create a strong foundation in primary care, shown in other countries to improve healthcare outcomes. To meet this need, the number of family medicine GME positions needs to increase, with the largest growth in rural and medically underserved areas.

Among other significant contemporary health care trends include:

- Reinvention of community-oriented primacy care (COPC) in response to the increasing concern about health equity;
- Impact of social determinates of health;
- Changes in health care delivery through population health management;
- Value-based payment systems;
- Coordinated care through accountable care organizations;
- Practice redesign;
- Team-based care through the shared principles of primary care; and

- Changes in technology, including electronic health records and machine learning/artificial intelligence.

Over the past few years, the Accreditation Council for Graduate Medical Education (ACGME) has embarked upon major revisions to the Family Medicine Program Requirements. This sparked a series of national discussions to re- envision family medicine residency education, starting with the needs of society in the face of an increasing gap in health outcomes, made even more poignant with the experience of the COVID-19 pandemic. The result is a recommitment to the core primary care principles of continuity and comprehensiveness to meet the health care needs of communities. Family physicians are being called to address health equity and social determinants of health, positively impacting population health. A growing body of literature shows that the quality of care; rate of complications; and cost of care delivered in the local clinical learning environment correlates with performance of graduates on these same parameters for as long as two decades following graduation. The requirements effective July 1, 2023, will afford more flexibility to programs to create community-based care, training in care teams where people live and work. The core comprehensive nature of family medicine remains, encompassing continuity care in multiple settings (outpatient, inpatient, emergency care, home) where residents learn skills to meet the community's needs.

With fewer time- and numbers-based requirements, residents will be assessed through competency-based medical education. This will require increased individual learning, with educational coaching to develop individual learning plans. As technology and assessment tools are changing, the process of assessment and evaluation is changing. Learning must be more than information transfer, it's also decision making, judgement and professionalism. Residents will be expected to partner in their learning to become master adaptive learners. Faculty will need to learn alongside residents to support the learning process. The evolving nature of learner evaluation and assessment, particularly regarding the relationships between ACGME competencies, domains of competency, Milestones, and Entrustable Professional Activities (EPAs), has created complexity in the GME realm. It is important for programs to establish processes that provide clarity for all participants.

This rapidly changing environment creates challenges, as well as opportunities for family medicine program directors and their educational and clinical teams. The accreditation standards created by the ACGME and the Review Committee for Family Medicine (RC-FM) represent the minimum requirements with which a program must demonstrate substantial compliance in order to achieve accreditation. In contrast, the goals set forth in this document represent standards for excellence to which a program should aspire. While there is no official designation or certification for a program that achieves most of the goals or best practices, the convention used in this document is to describe a program meeting or exceeding these goals as a "Program of Excellence." Continuous improvement is the hallmark of a Program of Excellence. We strive to have every resident learn in a high-

functioning practice environment so that they will deliver the highest quality of care for optimal health outcomes and have the tools needed to be adaptable and resilient throughout their careers.

We anticipate the pace of change will continue to escalate, and this publication will continue to be updated on an ongoing basis so that residency leaders can remain current with new requirements, innovations, and standards of program excellence.

As in the past, we provide the reader the opportunity to conduct a self- assessment for many topic areas within the Criteria for Excellence. The assessment is meant to stimulate questions, help initiate conversations with key stakeholders, and become part of a process of continuous improvement for program leaders.

Consistent with our 45-plus year tradition, the Criteria for Excellence has taken the ACGME institutional and program requirements into account, but is not, and never has been, bound by ACGME accreditation requirements in developing a vision of excellence. We do note in the document when recommendations are at odds with current accreditation requirements and when implementation likely would require a waiver from the RC-FM.

Karen B. Mitchell, MD, FAAFP Vice President, National Residency and National Initiatives
American Academy of Family Physicians

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HOW TO USE THIS DOCUMENT

This book is intended to assist with:

- Developing or expanding residency programs. Many key decisions must be made early in the process concerning overall curriculum design, clinical practice operations, and engagement with the hospital(s) and other community sites. The resources needed (e.g., faculty complement, job descriptions) for an excellent program and the financial viability of the program are key to success.
- Residency programs striving for excellence.
- Residency programs contemplating a major curriculum overhaul or practice enhancements.
- Residency programs which are concerned that they don't have the resources needed to become excellent—or even remain viable. This document provides detailed advice about resources needed for excellence.
- Residency programs which want to use the Criteria for Excellence scores as part of agenda setting for program improvement.
- RPS consultants to help evaluate programs and provide feedback and support during RPS consultations.

Creating a Program of Excellence involves attending to many different dimensions (accreditation, education, finance, etc.) that may seem at first to be independent. We recognize that the reader may have limited time and may need to target their reading to chapters related to urgent issues. Chapters contain links to related chapters and references. However, based upon the experience of the authors, we believe that the topics covered throughout this book are interrelated and often dependent upon one another. Therefore, we recommend that at some time the reader should read the book from start to finish to increase their chances of success. The chapter of Key Terms and Concepts containing definitions and many links to external resources is located at the end of the main book prior to the Self-Assessment Tool.

This document provides a self-scoring system for each chapter. For this document, a self-assessment score of “1” refers to the lowest score (Never Occurs/Is Done Poorly); “5” refers to the highest score (Always Occurs/Is Done Extremely Well).

Knowing how your program scores in each area should be considered in the context of your Annual Program Evaluation and improvement priorities, as well as against the backdrop of the global assessment of your program by important stakeholders—your patients, community, residents, faculty, staff, specialty colleagues, hospital(s), applicants, and graduates. The assessment may point to areas of potential future innovation.

We wish you every future success and remind you that assistance is available through a variety of consultation services through RPS.

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1. Workforce/Mission

A Program of Excellence will produce family medicine graduates who will fulfill the primary care workforce needs of the communities that it serves. The review article, Results of the 2017 National Resident Matching Program® and the American Osteopathic Association Intern/Resident Registration Program by Kozakowski, et al, clearly demonstrates that the current family medicine residency annual output across the nation is falling significantly short of societal need. The percentage of family medicine residency graduates compared to total annual residency graduates is falling. Given this situation, it is incumbent on a Program of Excellence to continually assess and update their residency capacity plan and determine whether resources (budget, faculty, capital, plant, applicant pool, etc.) could support program expansion. Programs of Excellence will try to maximize capacity to match their resource constraints. The changing health care and political climate can threaten even long-standing residency programs that have been in favor by stakeholders. Programs should always be prepared to demonstrate their direct, indirect, and intangible benefits.

A Program of Excellence can utilize models such as community-oriented primary care (COPC) to assess the health needs of the community and the population that it serves. This model has three major process steps:

- Define the community of interest
- Identify the health problems of the community
- Develop and implement interventions to address those problems

A Program of Excellence will know the ratio of primary care to overall physician workforce for the communities they serve, as well as the composition of the local primary care workforce, including:

- Scope of services provided;
- Access to care;
- Comprehensiveness of care;
- Continuity of care; and
- Coordination of care provided to the community.

The Center for Disease Control (CDC) County Health Rankings and Roadmaps provide a tool to identify local health care outcomes and health factors, including social determinants of health that impact the health of the community members. The tool also includes the local ratio of primary care physicians to the population and allows comparison to other counties, the state, and the nation. Geospatial health care mapping tools, such as HealthLandscape, can be helpful to assess community health needs. Each residency program's graduate survey, as required by the Accreditation Council for Graduate Medical Education (ACGME) Review Committee for Family Medicine (RC-FM) and managed through a partnership with the American Board of Family Medicine, is a useful resource to understand the

demographics and scope of practice of the program's graduates. Patient and family advisory councils can also provide valuable insight to community needs.

Workforce targets should be established in conjunction with various stakeholders within the sponsoring institution and the community. The creation of buy-in by the stakeholders is critical to demonstrate that the program is delivering value. This buy-in may require negotiation because the workforce needs may not be self- evident to some stakeholders, particularly if they believe that the extant residency size and diversity mix, or the composition of the local medical specialty mix, appear adequate to provide a collection of services that have kept the supporting institution solvent in the past.

Increasingly, pipeline activities, such as pre-med school outreach and mentoring are essential in attracting needed diversity of medical school applicants to meet workforce goals, including underrepresented minorities and rurally-based students. Activities that build a pipeline that expose elementary, high school, and college students to family medicine such as The Ladder program may be a valuable long-term investment for the residency.

The recruitment of medical students should be examined to ensure that the processes currently in place have a high rate of success in meeting the established workforce targets. The Four Pillars for Primary Care Physician Workforce model, created by the Council of Academic Family Medicine (CAFM) in conjunction with the American Academy of Family Physicians (AAFP), the AAFP Foundation, and the American Board of Family Medicine (ABFM), serves as a blueprint for increasing the number of family physicians. Program leaders should consider their present supply chain of students and consider alternative tactics, such as targeted recruitment efforts to attract underrepresented minorities to the program.

Acting sub-internships and other opportunities that expose medical students to the residency program, transformed clinical practices, and excellent and inspiring role models over a prolonged time can build affinity for the student to the program, as well as provide the program a chance to see the student in action.

These limited opportunities can be expanded by using the practices of local alumni as additional elective rotation sites, especially if students can participate in some of the residency activities, such as morning report or noon conferences. Other options include support for local family medicine interest groups and working inter-professionally to engage in the training of other health professions students.

Programs of Excellence regularly assess the level of success of their workforce plan and re-adjust accordingly using quality improvement models such as Plan- Do-Study-Act (PDSA) or Define, Measure, Analyze, Improve and Control (DMAIC).

View this section's self-assessment.

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1.A. HEALTH EQUITY, BIAS, AND STRUCTURAL BARRIERS TO CARE AND OPPORTUNITY

Authors: Steven Crane, MD, Walt Mills, MD, Stephen Schultz, MD, Karen Mitchell, MD, Gregory Sawin, MD, MPH, Danielle Jones, PhD.

*"**Of all the forms of inequality, injustice in health is the most shocking and the most inhuman because it often results in physical death.***"[1]
-- Martin Luther King, Jr., Chicago, 1966

Programs of Excellence, mindful of the core principles of Family Medicine, design their mission, vision, strategies, faculty recruitment and development, resident selection and recruitment process, and curricula, to promote health equity for the diverse communities they serve. To accomplish that, Programs of Excellence strive to identify and remove biases and structural barriers that compromise achieving that goal and apply an equity lens to all decision making.

Background:
The ACGME in the 2024 Program Requirements was unequivocal about central role of health equity and inclusion as core tenets of Family Medicine:

"*Family physicians are specialists in primary care for individuals of all ages. This personalized care is provided within the context of their families and communities through accessible, comprehensive, continuous, and coordinated care. Family physicians champion holistic, empathic, compassionate, equitable, culturally humble, and relationship-based care to patients across the broad spectrum of society.*

Through knowledge of structural determinants of health, family physicians advance equity in health care for all:

Family physicians excel at coordinated team-based care and advocate for high value care in their partnership with diverse, interprofessional teams. They are superb communicators and serve as teachers to patients, colleagues, and community groups. Family physicians employ respect and compassion with colleagues, allied health professionals, patients, and patients' families.

Family physicians advocate for social justice and ethical principles to remove barriers to equitable care for all populations. They advocate for their patients through the development and promotion of health policy by working with local organizations and partnering to promote better health within the intricacies of the health care system."

Definitions

The Healthy People 2020 definition of health equity, which was adopted by the AAFP, is the "attainment of the highest level of health for all people." Achieving health equity requires valuing everyone equally with focused and ongoing societal efforts to address avoidable inequalities, historical and contemporary injustices, and the elimination of health and health care disparities." https://www.healthypeople.gov/2020/about/foundation-healthmeasures/Disparities

The Robert Wood Johnson Foundation (RWJF) offers the following definition: "Health equity means that everyone has a fair and just opportunity to be as healthy as possible. This requires removing obstacles to health such as poverty, discrimination, and their consequences, including powerlessness and lack of access to good jobs with fair pay, quality education and housing, safe environments, and health care. For the purposes of measurement, health equity means reducing and ultimately eliminating disparities in health and its determinants that adversely affect excluded or marginalized groups." https://www.rwjf.org/en/library/research/2017/05/what-is-health-equity-.html.

The health disparities we seek to address are those wherein observed "differences in health are systematically associated with being socially disadvantaged." (P. Braverman, Health Disparities and Health Equity, Ann Rev. Public Health 2006. 27: 167-94).

Disparities are differences in health that "are not only unnecessary and avoidable but, in addition, are considered unfair and unjust." (M. Whitehead, 13 1992, The concepts and principles of equity in health. Int J. Health Serv. 22:429-45)

Addressing Health Equity in Residency Programs: The AAFP launched the Center for Diversity and Health Equity (CDHE) in 2017 to operationalize health equity and diversity in medicine. The CDHE has developed high impact programs and products such as the SDOH Toolkit, Implicit Bias Training Guide, Issue Briefs and more. These resources are free and available at www.aafp.org/everyone.

Controversy and Confusion Around Health Equity Goals

A. In 2023 the U.S. Supreme Court (*Students for Fair Admissions, Inc. v. President & Fellows of Harvard College, 600 U.S. 181 (2023) ("Students v. Harvard" or "SFFA"*) held that the admissions programs of the University of North Carolina and Harvard College violated the Equal Protection Clause of the Fourteenth Amendment to the U.S. Constitution and, coextensive with the Equal Protection Clause, Title VI of the Civil Rights Act, by impermissibly considering students' race when making admissions decisions. The Court articulated a broad principle: "Eliminating racial

discrimination means eliminating all of it." The Court emphasized that students must be treated based on their experiences as individuals and not based on their race. It declared the admissions programs were unlawful because they employed racial stereotypes, disadvantaged members of particular races, were not sufficiently measurable, and lacked a logical endpoint.

The Court further held that the asserted compelling interest in "diversity" that the Universities were trying to achieve failed strict scrutiny because "the question whether a particular mix of minority students produces 'engaged and productive citizens,' sufficiently 'enhance[s] appreciation, respect, and empathy,' or effectively 'train[s] future leaders' is standardless." Equally, schools may not grant preferential benefits to members of certain races for the purpose of achieving a student-body composition that mirrors the racial makeup of the country, remedying general societal discrimination, or otherwise rectifying societal injustice.

Race can no longer be used as a proxy for socioeconomic disadvantage. Even if there is a correlation between race and socioeconomic status, the Court stated there are race-neutral alternatives by which to assess socioeconomic status.

The Court added that "nothing prohibits universities from considering an applicant's discussion of how race affected the applicant's life, so long as that discussion is concretely tied to a quality of character or unique ability that the particular applicant can contribute to the university." However, the Court cautioned in the same paragraph that schools "may not simply establish through application essays or other means the regime we hold unlawful today[,]" adding that "[w]hat cannot be done directly cannot be done indirectly."

B. On January 20, 2025 President Trump signed an executive action Ending Radical And Wasteful Government DEI Programs And Preferencing The stated purpose of the policy was to eliminate "the Biden Administration's forced illegal and immoral discrimination programs, going by the name "diversity, equity, and inclusion" (DEI), into virtually all aspects of the Federal Government, in areas ranging from airline safety to the military."

Without identifying what DEI actually was the action ordered "the Director of the Office of Management and Budget (OMB), assisted by the Attorney General and the Director of the Office of Personnel Management (OPM), shall coordinate the termination of all discriminatory programs, including illegal DEI and "diversity, equity, inclusion, and accessibility" (DEIA) mandates, policies, programs, preferences, and activities in the Federal Government, under whatever name they appear."

It also ordered all Federal agencies provide the Director of the OMB with a list of among other entities "Federal grantees who received Federal funding to provide or advance DEI, DEIA, or "environmental justice" programs, services, or activities since January 20, 2021."

C. On February 14, 2025 the U.S. Department of Education's Office for Civil Rights (OCR) which enforces federal civil rights in schools sent a Dear Colleague Letter and subsequent FAQ to public school administrators in an apparent effort to clarify the Executive Action in light of the Supreme Court's SFFA ruling.

Schools may not intentionally discriminate on the basis of race, color, or national origin in their programs or activities. Many schools have advanced racially discriminatory policies and practices under the banner of "DEI" initiatives. Other schools have sought to veil racially discriminatory policies with terms like "social-emotional learning" or "culturally responsive" teaching. But whether an initiative constitutes unlawful discrimination does not turn solely on whether it is labeled "DEI" or uses terminology such as "diversity," "equity," or "inclusion."

Schools with programs focused on interests in particular cultures, heritages, and areas of the world would not in and of themselves violate Title VI, assuming they are open to all students regardless of race. Nor would educational, cultural, or historical observances— such as Black History Month, International Holocaust Remembrance Day, or similar events—that celebrate or recognize historical events and contributions, and promote awareness, so long as they do not engage in racial exclusion or discrimination. However, schools may not sponsor programming that creates a hostile environment based on race for students who do participate.

Extreme practices at a university—such as requiring students to participate in "privilege walks" that are designed to make them feel guilty about being part of a certain race, segregating them by race for presentations and discussions with guest speakers, pressuring them to participate in protests or take certain positions on racially charged issues, investigating or sanctioning them for dissenting on racially charged issues through DEI or similar university offices, mandating courses, orientation programs, or trainings that are designed to emphasize and focus on racial stereotypes, and assigning them coursework that requires them to identify by race and then complete tasks differentiated by race—are all potential forms of school-on-student harassment that could create a hostile environment under Title VI. Specifically, such conduct could be deemed to create a hostile environment if, viewed by a reasonable person, of the same race and age, under similar circumstances, it is sufficiently severe, pervasive, or persistent

so as to interfere with or limit the ability of an individual to participate in or benefit from the school's program or activity.

To determine whether a school acted with a racially discriminatory purpose, OCR may analyze different types of circumstantial evidence that, taken together, raise an inference of discriminatory intent. A non-exhaustive list may include (1) whether members of a particular race were treated differently than similarly situated students of other races; (2) the historical background or administrative history of the policy or decision; (3) whether there was a departure from normal procedures in making the policy or decision; (4) whether there was a pattern regarding policies or decisions towards members of a particular race; (5) statistics demonstrating a pattern of the policy or decision having a greater impact on members of a particular race; and (6) whether the school was aware of or could foresee the effect of the policy or decision on members of a particular race. A school's history and stated policy of using racial classifications and race-based policies to further DEI objectives, "equity," a racially-oriented vision of social justice, or similar goals will be probative in OCR's analysis of the facts and circumstances of an individual case.

Although GME programs to date have not been specifically targeted for compliance to these directives, given that all GME programs receive federal funds such scrutiny should be expected. To achieve the core values of Family Medicine outlined by the ACGME in 2024 while adhering to the new federal guidelines the Programs of Excellence should consider the steps outlined below.

Achieving health equity goals within a family medicine residency program is multilayered, complex and can include five distinct yet overlapping processes:

1. Personal self-awareness and transformation
2. Resident recruitment and education
3. Faculty recruitment, retention, professional development
4. Organizational commitment and practice redesign
5. Health care delivery and patient outcomes.

1. Personal self-awareness and transformation

While many root causes of health disparities are systemic, some barriers arise from within ourselves. Each of us has unconscious biases, but with targeted training, individuals can develop skills and self-awareness that can help mitigate them. To better understand one's own unconscious biases the American Academy of Family Physicians (AAFP) has developed the Implicit Bias Training Guide. https://www.aafp.org/family-physician/patient-care/theeveryone-project/toolkit/implicit-bias.html

2. Resident recruitment

Programs of Excellence should participate in activities that enhance the candidate pool of residents, faculty, and staff to include individuals who may have experienced limited opportunities due to bias or structural barriers.. Examples of activities include the following:

- Expanding opportunity in the pathway of healthcare workforce: Programs of Excellence should create experiential and mentoring programs in the communities they serve. These programs should target high school students who have an interest in health care careers.
- Outreach to medical schools that excel in modeling access to opportunity.: Medical schools vary widely on the proportion of students they matriculate who have encountered structural barriers. Programs of Excellence should conduct outreach to those schools who are excelling in this metric to strategically recruit resident candidates. Consider giving selection preference for candidates who train in these learning environments.
- Creating a welcoming website: Programs of Excellence should prominently display their commitment to healthy equity and proactively work to reduce bias and structural barriers on their recruitment website and materials to be transparent about their selection criteria.
- Accommodation for candidates with individual needs: Programs should also develop and effectively communicate accommodations that are designed to reduce barriers to the application process for candidates

Resident Candidate Selection

The recruitment and selection process for residents is an area fraught with potential biases and systemic barriers that can limit opportunity. Programs of Excellence are strongly encouraged to adopt a thoughtful process of redesigning their selection criteria and processes to include measures of success in achieving their health equity and equal opportunity goals. Specific changes to consider could include:

- Define the specific training mission of the program and identify those characteristics most likely to lead to success in meeting that mission. For instance, an academic program may have an important goal to produce primary care researchers and faculty, while another may desire to produce broad-scope rural physicians. The relative importance of candidates' specific experience/skills/goals may be a better fit for the program depending on the educational goal. If so, the program should strive to identify valid and discriminating measures for each. These criteria should be transparent to applicants.
- When dealing with so-called "objective" selection measures such as board scores

or class rank, a strategy for creating a minimum threshold will likely increase the pool of otherwise well-qualified candidates who may have encountered structural barriers on their educational journey.

- The interview process should be reviewed closely and structured to reduce bias. The AAMC has published guidelines for programs conducting interviews intended to reduce bias while improving "fit" of candidates to the programs stated educational objectives. https://www.aamc.org/services/admission-interviewfoundations/developing-structured-residency-interviews
- Consider using short, structured performance-based questions, and the use of group interviews where multiple observers judge the candidates' responses. Those participating in the interviews should be blinded to other information that is contained in the typical ERAS application including board scores, class rank, and medical school and should have some unconscious bias training before the interview season. Standardized performance questions should include all the core competencies and allow candidates to give short answers to their experiences that would perhaps demonstrate their ability in those areas. Candidates should be made aware of this process which should be executed in a non-threatening manner.
    - Performance on the interview should be individually assessed by the team participating in the structured interview process. Rather than a simple Likert scale, the ranking should be pegged to specific observable measures similar to the Milestones.
- The program should consider inclusion of other staff members, and perhaps community members in the selection committee.
- The ranking process itself should include only those selection criteria thought to be valid and discriminating (as above); it should avoid pictures of candidates.
- Rather than a traditional numerical rank list, the committee should consider a more generic process such as: "Highly ranked, ranked, and do not rank" or simply "rank and do not rank" and randomize candidates who fall in the ranked categories. Randomization at this level will help dispel the inevitable bias that can enter into the selection process even with the best of intentions.
- Programs should invite all their candidates to complete an anonymous post-interview questionnaire about their perception of the fairness and transparency of the program's recruiting and selection process.

Supporting Success in Resident Education

During orientation, each enrolling resident should receive an individualized evaluation of their clinical skills, strengths, weaknesses, learning style, and potential barriers, and together with their faculty advisor develop an individualized professional development plan. This could involve some remedial skill-building, structured time to meet with a

mentor, or a plan to develop social support in the community. Progress along this professional plan should be reviewed at least monthly during the PGY1 year until both resident and faculty are satisfied that the resident is thriving in the program. Assessments and evaluations should be performance based and pegged to specific observable criteria. All faculty including community faculty should participate in annual faculty development programs that include bias awareness training and mitigation techniques. Residents should have an anonymous reporting system to report on what they may perceive as bias in training or evaluations.

Awards that are given out in residency should be based on observable, transparent criteria.

3. Faculty recruitment and retention

Many of the principles of faculty recruitment, selection, professional development, and retention follow the guidelines for resident selection. Assessments and evaluations of both faculty and residents should be performance based and pegged to specific observable criteria. Programs should provide Faculty Development focused on building skills in promoting health equity goals. The AAFP and AFMRD Health Equity Fellowship can provide such professional development for existing faculty as well as build internal program capacity for modeling and teaching current and future faculty. Inspired by the Starfield Summit II http://www.starfieldsummit.com/starfield2, a team of 40 content experts in the U.S. and Canada developed a comprehensive Health Equity Curricular Toolkit. This toolkit provides structured curricular guides to facilitate exploration of social determinants of health, vulnerable populations, and economics and policy, and includes 14 modules. https://www.aafp.org/family-physician/patient-care/the-everyone-project/healthequity-tools.html

4. Organizational commitment and practice redesign

As a start, programs should examine their mission and values statements, and update them to explicitly indicate their commitment to the principles of Family Medicine outlined in the 2024 ACGME Program Requirements. Ideally, this process should involve relevant parties at all levels to increase transparency, garner buy-in and provide accountability. Programs could review this process here: https://journals.stfm.org/familymedicine/2019/january/chen-2018-0328/ The AFMRD developed Milestones for Program Assessment. This tool is a way for individual programs to assess themselves and their institutions on aspects of supportive work environments and identify areas of opportunity and strength. https://www.afmrd.org/home (login required)

Workforce diversity is not about racial diversity, but diversity of people of many backgrounds, cultures, and life experience. Patient outcomes may be improved by having care teams better understand their patients' lives and social, historical, and

cultural context. Training the workforce on cultural proficiency should be considered standard and required upon hiring, and at least annually. Resources and evidence supporting this approach can be found here: https://www.countyhealthrankings.org/take-action-to-improve-health/whatworks-for-health/strategies/cultural-competence-training-for-health-careprofessionals

Supervisory staff should receive additional training in how to identify and address issues that arise in the workplace, and all staff should have a safe mechanism by which to report and disclose incidents they feel are discriminatory or promote bias. Programs of Excellence should consider an outside entity or ombudsman who can maintain anonymity where appropriate while advocating for positive change. The USCF SAFE reporting system could provide a model to other programs: https://ucsf.co1.qualtrics.com/jfe/form/SV_0VwcaXHEvY4mXRP\\ as well as the American Medical Associations guidelines for confronting systemic racial bias in medicine. https://www.ama-assn.org/delivering-care/health-equity/whatstructural-racism

Programs should survey staff at least annually on how well they feel the organization is progressing towards their stated goals. These surveys should be anonymous, with their results, and actions taken by leadership disclosed and communicated to all staff. There are multiple examples of benchmarking tools including: https://www.buildhealthyplaces.org/content/uploads/2018/09/Build-HealthyPlaces-Network-Playbook-for-Community-Developers.pdf

Promote approach to health equity as “a lens, not a list” and commit to applying a health equity lens to ALL decision making in the residency and clinical practice. The below tools are examples that can be adopted and systematically applied to meeting design and decision-making processes:

- Multnoma County’s “Equity and Empowerment Lens” https://multco.us/info/equity-and-empowerment-lens including the “5-P’s Worksheet” that guides systematic exploration into the areas of People, Place, Process, Power, and Purpose: https://multco.us/file/5p%27s_worksheet/download.
- RaceForward.org: Racial Equity Impact Assessment Toolkit: https://www.raceforward.org/practice/tools/racial-equity-impact-assessment-toolkit

Section 9C in the Criteria for Excellence chapter on “Models of Care” contains a number of specific ways the Family Medicine Practice can achieve health equity objectives.

View this section’s self-assessment.

2. RESIDENCY LEADERSHIP MANAGEMENT

Authors: Diana Heiman, MD, Walt Mills, MD, Elissa Palmer, MD

Successful residency leaders manage a complex set of relationships with stakeholders to obtain the resources necessary to sustain—and grow, if appropriate—the family medicine workforce needed to serve their communities, both directly and indirectly (i.e., through graduates' practices).[1] These resources may include faculty, staff, residency positions, capital, space, and information technology (IT). A residency leader must have a deep understanding of shareholders' values, mission, and vision in order to articulate a compelling shared vision that connects the residency program and its services to the community.

2.A. LEADING CHANGE IN THE RESIDENCY PROGRAM

At a time of great change, organizational leadership capacity within a family medicine residency program needs to be robust enough for the program to successfully navigate the change process. Programs need a more collaborative, team-based model of leadership to ensure that everyone in the residency is engaged in efforts to achieve the program's vision. This vision should be customer oriented from both the patients' point of view and the learners' point of view.

Given the complexities and high stakes of leading a residency, it now requires a team. The leadership team in a Program of Excellence uses adaptive leadership to competently respond to changes in its parent organization, the health care market, and regulatory requirements. A Program of Excellence is able to adapt to these changes while continuing to produce high-quality graduates who can practice a broad scope of family medicine independently and use newer models of patient care to provide a satisfying experience and excellent health outcomes.

The leadership team should be actively engaged in programs that alert them to changes in the science of education, the clinical practice environment, the health care system, and accreditation requirements so they can anticipate changes and proactively address them in the curriculum. In addition, the team should be able to manage the program through a crisis (e.g., unanticipated loss of a resident or faculty member, pandemic) and still have enough resilience to function effectively. They should also maintain adherence to all institutional, common, and program-specific Accreditation Council for Graduate Medical Education (ACGME) accreditation requirements.

The rate of change in graduate medical education continues to accelerate. Traditional hierarchical management structures can hamper quick and efficient adaptation within

residency programs. To keep pace with current ACGME requirements, evolving reporting processes, and evolving models of education (e.g., competency-based medical education, master adaptive learning), residencies must be adaptable, collaborative, and innovative. Day-to-day demands often command the most attention, so programs must be proactive to minimize change fatigue when they institute broad changes that require effective leadership. Financial, operational, and psychological support from the sponsoring institution and community may be limited, especially if the family medicine program seems isolated from that support.

Many family medicine residency leadership teams have not been adequately trained in leadership. Programs of Excellence engage each member of their leadership team in both team development and an individual leadership development program. Mentorship, executive coaching, adequate protected administrative time, and succession planning are essential. In a Program of Excellence, envisioning the team's "leadership legacy" guides development and actions. Adopting newer processes and business techniques helps facilitate organizational adaptability and resilience.

Programs of Excellence prioritize strategies to identify and implement process improvements. (See the Quality Improvement and Patient Safety section for additional information.) A Program of Excellence encourages the entire organization to adopt and utilize process and quality improvement tools as part of ongoing operations and curricular improvement efforts.

Key Actions to Successfully Lead Change in the Residency Program

The leadership team of a family medicine residency program should stay apprised of and embrace newer management and leadership techniques that can help the program adapt to change effectively. To successfully lead change, program leadership will also do the following:

- **Establish a compelling strategic vision for the clinical practice and the family medicine program overall**: This vision includes education, scholarly activity production, and leadership development. It is customer oriented and detailed and has a scope that can be rolled out over a three- to five-year timeframe. The vision is well planned but not so rigid that it cannot adapt to changes in the environment or available resources. (See the Strategic Planning chapter for additional information.)
- **Measure key outcomes to ensure goals are achieved**: It is often said that "you can't manage what you can't measure," so the leadership team must measure outcomes of their training program. A Program of Excellence leverages the ACGME Program Evaluation Committee (PEC) to generate metrics and

action plans in their Annual Program Evaluation Action Plan that meet and exceed the ACGME requirements. These measures are organized into a scorecard that is periodically published and displayed for all to see, not just submitted in the ACGME Web Accreditation Data System (WebADS). This scorecard serves as a foundation for improvement activities that engage all stakeholders.

- **Engage in vigorous debate about key organizational decisions and, once a decision is made, align the team to accomplish the goal that is set:** Decision making by the leadership team is based on consensus and is communicated effectively to all program staff. If conflict arises, it is dealt with in a mature manner, not used to sow discord. Program goals are specific, measurable, attainable, relevant, and time-bound (SMART), and decisions are assessed periodically to ensure they are supporting achievement of these goals. In addition, the leadership team ensures that all staff members understand how they can contribute to accomplishing program goals.
- **Measure engagement of staff in their roles to ensure that contributions are recognized and achieved**: Standard job descriptions are available so that managers can coach staff, provide feedback in the moment, and encourage staff to be customer focused and team oriented. Time is allocated for team-building exercises. Staff are knowledgeable about the program's vision and goals and how to accomplish those goals.
- **Participate as an academic leadership team in the Quadruple Aim**: Even though the program director (PD) may not have direct responsibility for clinical practice, they must ensure clinic leadership is aligned with the ACGME required educational goals for population-based health, patient safety, quality improvement, and patient experience.
- **Build academic improvement activities into the DNA of the residency program**: Schedule time for the program's faculty, residents, and staff to participate in these activities.
- **Ensure a strong link between the family medicine residency program, the sponsoring and collaborating organization(s), and key external stakeholders**: Regularly convene an advisory board that includes patients and supports the program. This can be an expanded role for the ACGME-required family medicine practice patient advisory committee, or it can be an addition that includes a fuller scope of the residency beyond its continuity clinic.
- **Ensure adequate resources to achieve the program's strategic vision**: Provide adequate, well-designed space for both the educational and clinical needs of the program.

- **Create leadership and development activities for faculty, residents, and staff with adequate protected time**: Facilitate development opportunities (i.e., skill training) that are available to faculty and staff, including training on diversity, equity, and inclusion (DEI).
- **Model self-care as a leadership team and provide self-care education for faculty, residents, and staff**: Focus on mindfulness, wellness, stress reduction, and resilience to reduce burnout and moral injury.

2.B. RESIDENCY FACULTY AND LEADERSHIP

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The people who perform teaching, administrative, and clinical roles are the heart of any residency program. Recruitment, development, and retention of high-quality individuals in these roles are some of the most critical determinants of the health of the residency program as a whole. Programs of excellence strongly support their faculty and staff by delineating appropriate job roles and facilitating ongoing development. In addition, they regularly evaluate faculty and staff to ascertain that the program is meeting or exceeding performance benchmarks, and they assess retention and well-being within the program.

Program Director and Faculty Staffing

The 2024 Accreditation Council for Graduate Medical Education (ACGME) Family Medicine Program Requirements (FM-PR) changed the required time allocations for clinical and administrative work for the program director (PD), dropped the associate PD requirement, and added required core faculty positions based on parameters defined in the 2023 ACGME Common Program Requirements. All family medicine residencies are expected to be in substantial compliance by July 1, 2024. The Program Requirements, the embedded clarifying statements of intent, and the separate Family Medicine FAQ documents must be reviewed in order to understand these changes in their entirety. The scope of the changes cannot be appreciated without reviewing all three sources of information.

The ACGME definition for the program director position specifically requires all PDs to have salary support of at least 0.2 full-time equivalent (FTE) for nonclinical administrative time, exclusive of resident clinical supervision (i.e., precepting) time. That percentage increases with the number of residents up to 0.5 FTE for programs with 11 or more residents. [See section II.A.2.a) of the ACGME FM-PR.] PDs must be engaged in ongoing clinical activity, although a required percentage of time is not specified. [See section II.A.3.c) of the ACGME FM-PR.]

For programs with 16 or more residents, additional support for program leadership is required, ranging from 0.1 FTE for programs with 16 to 20 residents up to a maximum of 1.3 FTE for programs with 76 to 80 residents. Program leadership FTE may be added to the PD's support or divided among the PD and one or more associate PDs. [See section II.A.2.a) of the ACGME FM-PR.] Note that the new requirements do not state that programs must have an associate PD. However, Residency Program Solutions (RPS) strongly urges ***all*** programs to have an associate PD. At minimum, the associate PD provides clear leadership in the absence of the PD, assists with leadership development, and aids in leadership succession planning. Associate PDs are often assigned critical roles, such as committee chair, clinic medical director, or hospital teaching service director.

The 2024 ACGME Family Medicine Program Requirements do not specifically define administrative FTE for core faculty members. Instead, they state that core faculty in programs with 13 residents or more should devote a minimum of 60% of their time to the program and core faculty in programs with 12 residents or fewer should devote a minimum of 40% of their time, exclusive of direct patient care. This time definition includes both administrative time and clinical precepting time. However, the ACGME clearly recognizes the need for protected administrative time in the Background and Intent section regarding core faculty, which states, "Core faculty members are engaged in a broad range of activities, which may vary across programs and specialties. Core faculty members provide clinical teaching and supervision of residents and also participate in non-clinical activities related to resident education and program administration. Examples of these non-clinical activities include, but are not limited to, interviewing and selecting resident applicants, providing didactic instruction, mentoring residents, simulation exercises, completing the annual ACGME Faculty Survey, and participating on the program's Clinical Competency Committee, Program Evaluation Committee, and other GME committees."[2] [See section II.B.4.a) of the ACGME FM-PR.] Additional administrative program activities include evaluation, recruitment, scholarly activity, faculty development, resident/fellow engagement, and administrative documentation. These activities also include organizing the curriculum and the schedule, advising and counseling residents, participating in discussions, attending meetings, and planning for the future.

RPS believes it is essential for every PD, associate PD, and core faculty member to have specific nonclinical time for academic and administrative work. For clarity, RPS recommends that programs of excellence define three categories of work time in faculty contracts and/or position descriptions. Note that "academic salary support" is needed for category #3 below since there is no clinical income associated with these important residency tasks:

1. Time for direct care of patients assigned to the faculty member (billable)
2. Time for precepting or clinical resident supervision (also billable)
3. Nonclinical administrative time, distinct from clinical revenue-generating time, that includes time devoted to program administration and scholarly activities

Balancing faculty responsibilities and time allocation can be one of the most difficult challenges for residency leadership. In addition to educational expectations for teaching, mentoring, educational improvement, scholarship, and faculty development, there may be intense expectations for clinical care within the practice and the sponsoring institution. Programs of excellence work to ensure that faculty members' clinical responsibilities are balanced with the necessary administrative, teaching, and scholarly demands. In programs of excellence, the PDs and Designated Institutional Officials (DIOs) negotiate an appropriate balance of these different responsibilities with hospitals and sponsoring institutions.

Table 1 compares ACGME-required minimums for the number of core faculty to RPS-recommended minimums. Note that current ACGME-required minimums are the same as RPS-recommended minimums for programs with more than 12 residents.

Table 1: Recommended Additional Core Faculty Relative to Size of Program

	PROGRAM SIZE							
Core faculty (in addition to PD)*	6 FTE (2-2-2)	9 FTE (3-3-3)	12 FTE (4-4-4)	15 FTE (5-5-5)	18 FTE (6-6-6)	21 FTE (7-7-7)	24 FTE (8-8-8)	More than 24 FTE
ACGME Requirements	1	2	2	3	4	5	6	1 per 4 residents
Program of Excellence**	2	3	3	4	5	6	7	Same as ACGME minimums

ACGME = Accreditation Council for Graduate Medical Education; FTE = full-time equivalent; PD = program director.

*The total number of core faculty in this table ***includes*** any associate PDs.
**Most residency programs use non-core family physician faculty to assist with precepting in clinic and in the hospital.

Non-core faculty do not need to meet any ACGME time requirements or Residency Program Solutions (RPS) recommendations for time allocation and salary support. Often, they have no "academic" salary support and are paid based completely on clinical revenue from personal practice and resident supervision billing. However, they are frequently very important parts of the faculty and valued teachers. The PD is responsible for the selection and development of non-core faculty as supervisors and teachers.

Table 2 compares the ACGME-required minimums for time allocation—and some maximums—to RPS recommendations. Note again that RPS distinguishes academic time that requires salary support from time spent directly supervising resident patient care, which generates considerable clinical income. Currently, the ACGME does not provide that clear distinction.

Table 2: Essential Core Program Time Allocations

Program Director	**Minimum Required by ACGME**	**Maximum Allowed by ACGME**	**Minimum Recommended by RPS**	**Maximum Recommended by RPS**
Patient care without residents[a]	Some to role model	Not specified	10%	30%
Precepting (direct resident supervision) in clinic and hospital[b]	20% to 50%, depending on program size	Not specified	10%	30%
Administrative/ Academic[c]			50%[d]	80%
Core Faculty Physicians	**Minimum Required by ACGME**	**Maximum Allowed by ACGME**	**Minimum Recommended by RPS**	**Maximum Recommended by RPS**
Patient care without residents[e]	Not specified	40% to 60%	20%	40%
Precepting (direct resident supervision) in clinic and hospital[f]	40% for programs ≤12 residents	Not specified	20%	40%
Administrative/Academic	60% for programs ≥13 residents[g]		10% to 20%, depending on program size	50%
Associate Program Director(s)	**Minimum Required by ACGME**	**Maximum Allowed by ACGME**	**Minimum Recommended by RPS**	**Maximum Recommended by RPS**
Patient care without residents[e]	Not specified	Not specified	20%	40%
Precepting (direct resident supervision) in clinic and hospital[f]	Not specified	Not specified	20%	40%
Administrative/Academic			30% to 40%, depending on program size[h]	50%

ACGME = *Accreditation Council for Graduate Medical Education; RPS = Residency Program Solutions.*

[a.] The program director (PD) is expected to maintain at least some personal practice.

[b.] RPS recommends that the PD be a regular preceptor in clinic or in the hospital—preferably both. Ten percent of the PD's time is the recommended minimum. However, precepting for more than 30% of their time (in addition to their time spent in personal practice) would leave insufficient time for other administrative/academic duties.

[c.] The PD should devote a minimum of 50% of their time to administrative and academic duties that do not generate patient care billings and have the budget to support this time.

[d.] For small programs under 11 residents, the amount of administrative/academic time allocated for the PD will depend on how much support the PD will get from others. A small rural track that gets considerable leadership support from the associated core urban program may require less dedicated leadership time for the rural PD. A free-standing small program with no outside support should budget closer to the 50% minimum recommended for larger programs.

[e.] To be active practice partners and role models for residents, core faculty members should each spend a minimum of 20% of their time in direct patient care. Faculty with more administrative duties (e.g., associate PDs, clinic medical directors) may need to limit direct patient care time to adequately serve the program's precepting and administrative needs, but they should devote between 20% and 40% of their time to direct patient care.

[f.] Core faculty members should be regular preceptors either in clinic or in the hospital—preferably both. However, precepting for more than 40% of their time (in addition to their time spent in personal practice) would leave insufficient time for other administrative/academic duties.

[g.] The ACGME currently sets a ***minimum*** for each family medicine core faculty of 60%-time allocation to the residency ***exclusive*** of personal practice. The minimum is 40% for small programs with 12 or fewer residents. This has replaced a prior minimum of 10% "academic time," which the ACGME did not clearly distinguish from precepting.

[h.] See *Table 4* for details on recommended numbers of associate PDs and administrative/academic/leadership time allocation.

Table 3 shows the current ACGME-required minimum support required for family medicine program leadership.

Table 3: ACGME Requirements for Program Leadership FTE

Number of Approved Resident Positions	Minimum Support Required (FTE) for Program Director	Additional Minimum Support Required (FTE) for Program Leadership
1-6	20%	N/A
7-10	40%	N/A
11-15	50%	N/A
16-20	50%	10%
21-25	50%	20%
26-30	50%	30%
31-35	50%	40%
36-40	50%	50%
41-45	50%	60%
46-50	50%	70%

51-55	50%	80%
56-60	50%	90%
61-65	50%	100%
66-70	50%	110%
71-75	50%	120%
76-80	50%	130%

ACGME = Accreditation Council for Graduate Medical Education*; FTE = full-time equivalent.*

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Table 4 provides RPS recommendations for the minimum number of associate PDs and the minimum associate PD academic/administrative/leadership time allocation. RPS continues to recommend that all programs have at least one associate PD.

Table 4: Number of Associate PDs and Leadership Time Allocation

	PROGRAM SIZE								
APDs:	6 FTE (2-2-2)	12 FTE (4-4-4)	18 FTE (6-6-6)	24 FTE (8-8-8)	30 FTE (10-10-10)	36 FTE (12-12-12)	42 FTE (14-14-14)	48 FTE (16-16-16)	More than 48 FTE
Program of excellence number of APDs	1	1	2	2	2	2	3	3	≥3
Program of excellence leadership time, ***plus*** core faculty time per APD**	**30%** (10% leader, plus 20% core)	**30%** (10% leader, plus 20% core)	**30%** (10% leader, plus 20% core)	**30%** (10% leader, plus 20% core)	**35%** (15% leader, plus 20% core)	**40%** (20% leader, plus 20% core)	**40%** (20% leader, plus 20% core)	**40%** (20% leader, plus 20% core)	**40%** (20% leader, plus 20% core)

APD = associate program director; FTE = full-time equivalent; PD = program director.

**RPS recommends adding core faculty time plus additional leadership time for PDs.

Overall Position Descriptions

Table 2 shows specific RPS recommendations for PD, associate PD, and core faculty positions, with precepting time—a billable activity—distinguished from other academic/administrative work. The ACGME Family Medicine Program Requirements do not specify a minimum percentage of time that the PD and core faculty should spend precepting and/or in direct patient care. However, RPS has established minimum thresholds for these activities so programs of excellence can ensure that PDs and core

faculty are active practice partners and role models for residents. Even while meeting the administrative/academic program requirements, PDs and core faculty must remain visible and participatory in core resident experiences.

One of the PD's key administrative responsibilities is to ensure that administrative/academic time is not consumed with "catch-up" clinical work, such as managing the clinical desktop or completing medical records. Similarly, the PD should ensure that faculty members are adequately protected during precepting so they can focus on resident teaching and supervision duties and do not need to use precepting time to catch up on administrative work or other clinical work.

Recommendations for dedicated academic and administrative time present a clear dilemma for many programs, specifically related to having an adequate number of core faculty members available to precept. In addition, the most common root cause for faculty burnout and failure to meet Program of Excellence benchmarks is having an inadequate number of faculty members. Therefore, RPS recommendations for adequate core faculty size (*Table 1*) exceed the ACGME's minimum standard. Sponsoring institutions and programs must arrange appropriate support to meet these recommendations.

Rural Track Programs

The definitions and funding rules for rural residencies have evolved over several decades. There are free-standing rural residencies, pathways within residencies that emphasize rural training, and one- to two-month rural rotations in otherwise urban residency programs. Rural training programs are one common type of rural residency, and specific rules govern Centers for Medicare & Medicaid (CMS) funding for these programs. Rural training programs were "rebranded" as Rural Track Programs (RTPs) by the Consolidated Appropriations Act, 2021, which removed the requirement for separate accreditation. CMS considers a new residency program or an expansion of an existing residency an RTP if greater than 50% of the residents' training time is spent in a CMS-defined rural area. Currently, CMS defines "rural" as any U.S. location that is **not** in a metropolitan Core Based Statistical Area (CBSA).[3]

Inpatient prospective payment system (IPPS) hospital claims for RTP residents qualify for additional Medicare graduate medical education (GME) payments above the hospital's cap and result in a specific "RTP cap exception" segregated cap after the program is five years old. The RTP-specific cap can only be used for RTP residents. The rules are complex, and an increasing number of urban-located teaching hospitals are being reclassified as "rural," primarily by becoming rural referral centers. Currently, most residents and fellows in the

United States are training at urban-located rural referral centers. RPS strongly encourages programs and communities planning a new RTP to have a detailed discussion with an RPS consultant to clarify the funding options, particularly if a rural referral center hospital may be involved.

The ACGME has adopted the CMS definition for RTPs and has an evolving process for designating new programs or expansions as RTPs. An excellent family medicine RTP—whether separately accredited or not—should have a close relationship with a "core" urban residency. The program should expect assistance with many aspects of running the RTP, including resident recruitment, evaluation, curriculum, maintenance of accreditation, faculty development, and leadership mentoring. An excellent family medicine RTP can then assign less leadership involvement, staff support, and faculty academic time than would be required for a stand-alone program. Recommended staffing levels are as shown in *Table 1*.

Designated Institutional Official for Single-Site Sponsors

In single-program institutions, having the program director serve as DIO raises concerning conflicts of interest. The DIO and Graduate Medical Education Committee *(*GMEC) must review and sign off on a residency program's Annual Program Evaluation. This requirement is intended to ensure internal input on the evaluation, in addition to the PD's input. All AGCME and Review Committee for Family Medicine responses to concerns, warnings, and citations must be reviewed and approved by the DIO, who serves as a "second set of eyes" for these responses. Additionally, in most institutions, the DIO is part of the appellate process for adverse resident personnel decisions (e.g., probation, termination). The PD obviously cannot fill an appellate role in the grievance process. (See the Institutional Engagement chapter for additional information.)

For single-site sponsoring institutions, programs of excellence provide 0.1 FTE for the DIO, with an additional 0.1 FTE if the DIO is also the chair of the institution's GMEC, which is often the case.

Academic and Administrative Staffing

High-functioning residency programs have a sufficient number of staff members with appropriate job descriptions to help carry out the residency's academic and administrative functions. This is particularly true because of the increasing complexity of resident evaluation requirements and the need to support faculty and resident scholarship.

Program Coordinator

The Family Medicine Program Requirements mandate that residency programs must have

a program coordinator who is given dedicated time and support for administration of the program (*Table 5*). [See section II.C.1. of the ACGME FM-PR.] Programs of excellence will have at least a full 1.0 FTE in this position. The program coordinator is an essential part of the residency and must have a job description that entitles them to exempt (managerial) status in the sponsoring organization. This person shares major responsibility for the day-to-day operation of the program, including recruitment, human resources administration, and external compliance and reporting. In programs of excellence, the coordinator job will be sufficiently demanding to warrant a separate clinical practice manager role, so combining these roles is not recommended. The program coordinator should report directly to the PD.

Table 5. ACGME Dedicated Administrative Time and Support for Program Coordinator

Number of Approved Resident Positions	Minimum FTE Required for Coordinator Support	Minimum Additional Aggregate FTE Required for Administration of the Program
1-6	50%	N/A
7-12	70%	N/A
13-20	90%	N/A
21-30	100%	N/A
31-45	100%	25%
46 or more	100%	50%

ACGME = Accreditation Council for Graduate Medical Education; FTE = full-time equivalent; RPS = Residency Program Solutions.

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RPS recommends the following FTE minimums for coordinator support in a program of excellence:

- 1 to 6 approved resident positions: 0.5/1.0 FTE (Note: For 12 RTPs with strong support from the main program, 0.5 FTE may be sufficient to manage the program. For stand-alone RTPs, a 1.0 FTE minimum is needed.)
- 7 to 12 approved resident positions: 1.0 FTE
- 13 to 20 approved resident positions: 2.0 FTE
- 21 to 30 approved resident positions: 3.0 FTE
- 31 or more approved resident positions: 4.0 FTE

Administrative Assistants

In addition to a program coordinator, all programs need administrative assistance to support residents and faculty. Duties may include staffing the required Program Evaluation Committee (PEC), the Clinical Competency Committee (CCC), and faculty meetings; coordinating the curriculum, portfolios, and evaluations; and supporting core faculty in their administrative/academic duties. Administrative assistant positions should report to the program coordinator and PD. RPS recommends the following administrative assistant staffing levels relative to program size:

- 12 to 20 total residents: 2.0 administrative assistant FTE
- 21 to 30 total residents: 3.0 or more administrative assistant FTE
- 31 or more total residents: 4.0 or more administrative assistant FTE

Additional administrative assistants may be needed if the program is responsible for helping with non-program functions (e.g., managing medical student, fellowship, or allied health professional training programs), as often occurs with single-site sponsors.

Other Administrative Staff

The Family Medicine Program Requirements state the following with regard to other personnel required to effectively administer a residency program: “These may include staff members with clerical skills, project managers, education experts, and staff members to maintain electronic communication for the program. These personnel may support more than one program in more than one discipline.”[2]

In particular, additional academic support personnel are necessary to fulfill requirements for scholarly productivity. At a minimum, these individuals need basic skills in information retrieval and display. In many organizations, job titles such as analyst are applicable, but individuals with other terminal degrees (e.g., Master of Public Health [MPH]) should be considered. Specific additional training in project management and continuous quality improvement (CQI) is helpful. In larger, multi-residency environments, this expertise can be shared among several residencies coordinated by the GMEC. Scholarly productivity requirements are the same for single programs, making it essential for these programs to have qualified staff to support scholarship.

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View this section's self-assessment.

3. PROFESSIONAL DEVELOPMENT

A Program of Excellence recognizes that the people who work in the program and the practice are the program's most important assets and therefore makes professional development one of its highest priorities. Professional development has three major realms: educational, clinical, and administrative. Recognizing the burnout epidemic amongst health care professionals, a fourth realm of professional development, well-being, is the focus of the chapter titled, Resident and Faculty Well-Being.

Educational—Traditionally, it has been assumed that if someone is a "good clinician" then the person will be a "good teacher." This is not always the case, especially as core competencies for faculty educators expands beyond the traditional clinical, research, and didactic domains to include areas called out by the new ACGME Common Program Requirements (e.g., patient safety, quality improvement, population health, health care disparities, well-being, scholarly activity). Expanded, yet specific definitions of scholarly activity provide guidance for programs in the realm of faculty development.

Creativity, innovation, transformation, change management, and leadership require skill sets, even new mindsets, which were not expected of the prior generations of faculty. Residency education can benefit from new knowledge generated in the fields of the science of classroom teaching, cognitive psychology, and brain research. Examples of these opportunities include direct observation, bedside rounds, simulation, and supervision of procedures.

Direct observation is strongly emphasized in the Next Accreditation System (NAS) and is necessary to assess multiple Milestone achievement levels. Excellent teachers understand that passive learning methods (e.g., lectures and readings) have long-term retention rates in the range of 5-10%, compared with active teaching learning methods (e.g., discussion groups, practice by doing, teaching others, problem-based learning [PBL], etc.), which have retention rates of 50-90%. The Institute for Healthcare Improvement (IHI) has developed a useful framework of seven different learning formats that can be used to convey new information.

Clinical—Programs of Excellence provide professional development for clinical content (e.g., diabetes or heart failure treatments), as well as content related to care delivery transformation. Often, lower functioning programs lack resources or ability to encourage professional development, relying on faculty continuing to follow established habits and patterns of care and education. The need exists to transform primary care education through the training of both learners and teachers to deliver high-quality, 21st century care. This led to a national pilot training project across the three primary care specialties, called the Primary Care Faculty Development Initiative (PCFDI), which demonstrated transformation catalyzed by interdisciplinary learning communities.

The Professionals Accelerating Clinical and Educational Redesign (PACER) project has been initiated to create a sustainable model of interprofessional primary care faculty development. Tools and resources are currently available with reports on educational and clinical transformation from the organization teams involved.

Administrative—Programs of Excellence create professional development opportunities for staff to improve their effectiveness and efficiency through training in areas, such as project management, effective use of communication technologies, and use of hardware and software.

The Association of Family Medicine Administration is an invaluable resource for program coordinators providing training in "the leadership tools needed to enhance administration of family medicine residency training programs in the changing environment of health care and education"—as well as a national network for program coordinators to learn from one another.

In addition, professional development for program directors in the administrative realm is critical to a program's success. The AAFP offers development opportunities, such as the annual Residency Leadership Summit (RLS) which offers relevant and informative workshops for program directors and staff.
Intensive immersion for program directors and those aspiring to be program directors is offered through the Association of Family Medicine Residency Directors in the National Institute for Program Director Development.

View this section's self-assessment.

4. RESIDENT AND FACULTY WELL-BEING

"Physicians need to be trained in a way that considers their well-being over the course of a lifelong career." **–Timothy P. Brigham, MDiv, PhD, Senior Vice President, Education, and the ACGME Co-chair of the Physician Well-Being Task Force.**

Beginning in 2017, the ACGME more directly and comprehensively addressed well-being in GME programs, emphasizing that psychological, emotional, and physical well-being are critical in the development of the competent, caring, and resilient physician. Initially focusing on duty hours and fatigue management, the emphasis has expanded to also include work/life balance, burnout, and support of those at risk of or demonstrating self-harm.

Programs of Excellence are called to employ recognized best practices in well-being that both support individual residents in training, equipping them with the resiliency skills to succeed in practice and redesign the clinical learning environment using a systems approach to well-being. Programs of Excellence relentlessly explore innovations in this important, emerging field of resident education.

Programs of Excellence appreciate that "resiliency training," focused on the individual physician is important, but that system transformation may be more powerful, hence the interdependence of well-being with professionalism, quality improvement, and safety.

The ACGME reports evidence showing significant variation in how specific institutions address resident and faculty well-being. Appreciating the best practices of those factors that contribute to well-being is foundational to our initial set of recommendations. Still, the strength of evidence for many recommendations is lacking, and thus we anticipate an acceleration of the pace of research and consequent evidence-based curriculum and system change recommendations over time.

Resilience

Resilience can be defined as the capacity to bounce back, to withstand hardship, and to repair oneself. Resilience requires capacity to positively adapt in the face of stress or disruptive change. It seems to be based on a combination of factors, including internal attributes (genetics, optimism) and external (modeling, trauma) with specific skills of effective problem solving and the ability to find meaning and purpose.

There is agreement on many aspects of what makes physicians resilient, but can it be taught and learned as other skills in medical training? Studies list a variety of skills and strategies that can be learned and practiced that support resiliency. These include:

- Realistic recognition (i.e., overcoming denial is crucial)
- Healthy exercise, sleep, and nutrition

- Supportive professional relationships
- Talking things out with others
- Hobbies outside medicine
- Healthy personal relationships
- Setting boundaries
- Humor
- Time away from work
- Passion for one's work

Resiliency Curricula

Programs of Excellence incorporate well-defined curricula to improve resiliency. Broadly they:

- Teach mindfulness meditation
- Stress awareness, and adaptive strategies
- Engage residents (and faculty) during "protected" time
- Engage in reflection, coping (using physical, cognitive, emotional, and relational skills)
- Provide 1:1 coaching
- Help to create meaning
- Use humor
- Teach other adaptive skills

Recommendations

Programs of Excellence engage in effectively changing the very culture of medicine by actively promoting resilience and well-being. Specifically, Programs of Excellence complete a needs assessment to facilitate the development of new initiatives to address resident and faculty well-being by:

1) Engaging the designated institutional official, program director, and program coordinator to proactively identify stressors and supports, along with curricular innovations, coaching strategies, and faculty development activities to transform the clinical learning environment.
2) Using their program evaluation committee to intentionally redesign their curriculum based on needs assessment to develop solutions to issues in their own learning environments, using structured tools in their needs assessment and action plans that address resident well-being.
3) Developing and supporting a well-being plan (a), including well-being curricula (b) that is reviewed and acted upon annually.
    a) A Program of Excellence inventories core components of a well-being plan that

include leadership, resident mental health resources, including crisis management, orientation and enforcement of policies related to duty hours, fatigue mitigation, sick call, supervision, grievances, and others.

b) Well-being curricula will make time/space for reflection with process groups (e.g., Balint, personal and professional development sessions), including building skills in mindfulness and resilience. It will include clinical care challenge discussions. One-to-one mentorship and advising is designed to actively combat burnout while supporting resident acquisition of resiliency skill building throughout their training period. The curriculum intentionally creates community and connectedness supports for residents and faculty. It Includes faculty development with knowledge, skills, attitudes known to promote resiliency and wellness in themselves and learners.

Additional Resources

- AAFP Physician Well-being Resources
- ACGME Webinar Resources about Burnout
- ACGME Well-being Initiative
- AAMC Well-being in Academic Medicine
- Massachusetts General Hospital's Curriculum Stress Management and Resiliency Training (SMART-R) Program (adapted from Benson Henry Institute for Mind Body Medicine's "Relaxation Response and Resiliency Program") uses a three-pronged approach to wellness, (log-in required)

View this section's self-assessment.

5. STRATEGIC PLANNING

A Program of Excellence strategic plan will have:

1. Vision and mission statements that are reviewed annually and revised at least every three to five years. The review and revision process incorporate feedback from program participants and key stakeholders. The mission describes the overall purpose of the program. The vision creates a powerful image of the program as it carries out its work. These statements should guide and inspire members of the program toward innovative training and patient care.

2. Defined core values and a delineation of how they were derived and how often they are to be reexamined. These values should describe the key priorities in the program's culture and the core of the program and what it cherishes. The description should reflect how members of the program interact in the workplace and what they describe as their most significant commitments.

3. A formal strategic planning process that allows the program to develop and articulate its vision for the overall purpose of the program and the outcomes of its graduates. The strategic plan outlines the outcomes that will guide decisions in keeping with the program's vision, including:

    - Goals and/or objectives that support obtaining the program's vision.

    - Specific tactics and a timeline to accomplish the goals. Programs of Excellence utilize formal project management tools, techniques, and processes to clearly document, manage, track, and report on the execution of strategies and tactics to achieve elements of their strategic plan.

    - An ongoing process that assesses the progress toward these goals and reevaluates the steps needed to attain the program's vision.

The program should communicate its strategic plan to the appropriate stakeholders at least annually, with their support and participation enlisted in the development of the strategic goals and objectives. The governing board of the sponsoring institution should be included as a stakeholder. The sponsoring institution should endorse the program's strategic plan and provide the resources necessary to achieve the program goals. Specific tactics within the program's strategic plan should be assigned to those responsible for executing them to attain the program's vision.

The program should regularly evaluate the progress of assigned goals and tactics, redeveloping these as needed to achieve the program vision. This should be at least annually

as part of the program evaluation committee (PEC) and annual program evaluation (APE). As change in the program mission, internal and external environment occurs, the program's faculty and stakeholders must meet to realign the program's goals and tactics. It should be aligned with annual program evaluations required by the Accreditation Council for Graduate Medical Education (ACGME).

The formal strategic planning process should be revised at least every three to five years, and any time significant changes in the health care environment occur that could affect program outcomes. This includes changes in the national health care environment; the educational, clinical, or accreditation environments; or the local environment.

View this section's self-assessment.

6. INSTITUTIONAL ENGAGEMENT

Authors: John Gazewood, MD, Alan Douglass, MD, Judith Pauwels, MD

In the graduate medical education (GME) accreditation system, all programs must comply with the Accreditation Council for Graduate Medical Education (ACGME) requirements in three areas:

1. Institutional Requirements, which apply to program sponsors
2. Common Program Requirements, which apply to all specialty programs (with some program-specific options)
3. Program Requirements, which apply to the specific specialty residency program (in this case, family medicine)

Institutional Requirements

Institutional Requirements apply to the program sponsor, which is often a hospital or university medical center/medical school but may be a community health center or regional educational organization. The institution oversees and is responsible for specific higher-level oversight of activities in the system within which the residency and residents operate. A sponsoring institution may sponsor one residency/fellowship or many. (See the Sponsoring Institution section for more details on these requirements.)

Common Program Requirements

Common Program Requirements apply to all specialties and are integrated into each specialty's Program Requirements. These requirements, which are noted in bold in the Program Requirements, contribute specific discussion of resident and faculty well-being and identify related expectations and aspirations.

Specialty-Specific Program Requirements

The most current specialty-specific Program Requirements in family medicine and related frequently asked questions are available on the ACGME website. The requirements are updated with major reviews approximately every five years. Focused revisions may occur more frequently. Changes to the Program Requirements may pose challenges for residencies. For example, to ensure that the program has appropriate documentation and information for periodic reporting, the program director (PD) and administration must pay careful attention to requirements for education and documentation of competency or experience. (See the Program Accreditation section for more details on these requirements.)

6.A. SPONSORING INSTITUTION

A strongly supportive relationship between a residency program and its sponsoring institution (SI) is essential to the success of the program. The accreditation expectations and responsibilities defined by the Accreditation Council for Graduate Medical Education (ACGME) in its Institutional Requirements recognize the critical nature of this relationship for both quality training of residents and program stability. A Program of Excellence exists in an environment in which the SI explicitly identifies education as a core part of its mission.

The Institutional Requirements emphasize the sponsor's responsibility to provide adequate financial support and other resources to its programs, as well as to oversee the learning and working environment for all sites where its residents work. The Common Program Requirements further underscores the importance of integrating learners into key institutional initiatives, including patient safety, health care quality with additional focus on addressing health disparities, professionalism, well-being, and teaming (formerly transitions in care). It also emphasizes the need to ensure compliance with supervision standards and a robust approach to supporting learner well-being.

A Program of Excellence is able to describe—at least in qualitative terms—the impact of its education and service on the environment of the community, hospital, and medical staff. This analysis of community needs and the residency program's impact, including how it will reduce disparities, is significant in shaping the program's strategic plan, goals, and objectives.

Essential Structural/Organizational Elements and Resources

The following structural and organizational elements and resources are essential to a Program of Excellence:

- **Charts**: The program has organizational charts of the institution, other participating organizations, the residency program, and the family medicine practice (FMP) that reflect reporting relationships and financial accountability. Individual positions are defined with specific titles and/or descriptive terms that allow clear understanding of the program and its interrelationships.
- **Relationships**: The program can describe its relationships with its SI, its affiliated or sponsoring medical school, the community that it serves, voluntary faculty, graduates of the program, and its financial stakeholders.
- **Advisory board**: The program has an advisory board that functions with the perspectives of two populations: consumers and community leaders. The board includes patients who use the FMP and its services, as well as community and

hospital leaders who understand the program's vision and mission, the needs of the community, and how they interrelate.

- **Decision making**: The program can describe how accreditation and financial decisions are made; how they are communicated to the program and key stakeholders; and what aspects of that communication do and do not work well, with attention to ongoing improvement. The program has specific goals and objectives related to sponsoring and participating institutions that are evaluated on a regular basis.
- **Global assessment of "residency health"**: The program periodically assesses its status from a high-level perspective, including assessment of faculty development, faculty morale, resident morale, and overall program director (PD) satisfaction.
- **Participation in the Annual Institutional Review (AIR) and the 10- year Institutional Self-Study process**: Program leadership and representatives are active participants in the institutional processes of internal improvement and strategic planning to "address institutionally defined priorities that may include, but are not limited to, transforming education through graduate medical education (GME) innovation, optimizing health systems for learning, and demonstrating a commitment to excellence in patient care."[1]

Sponsoring and Participating Institutions

The SI for a Program of Excellence demonstrates consistent and strong support for the program's mission, goals, and strategies to promote excellent GME in a patient care setting that embraces the Quadruple Aim and advances health equity (an expanded framework sometimes referred to as the Quintuple Aim). Each participating institution should complete a program letter of agreement emphasizing its support of these goals and strategies.

Educational programs and the institutions in which patient care is practiced and modeled are integrally entwined on multiple levels, including the following:

- Providing patient care in an environment that increasingly prioritizes systems approaches
- Sharing common goals in ensuring quality and patient safety and addressing health disparities
- Working together on interprofessional teams and information systems
- Engaging other professional learners in interprofessional education and training
- Sharing critical financial arrangements

Collaborative Measures for Institutions and Residency Programs

In an increasingly complex and financially stressed environment, collaboration between institutions and programs is critical to maximizing mutual success.
These collaborative measures include the following:

1. The SI and the Program of Excellence must mutually commit to regular, open communication and shared strategies in support of medical education and excellent family medicine-based patient care.
2. Program leadership must present an update at least annually to institutional leadership, including the board of directors, on the value of the program and the return on investment to the community and the institution.
3. The SI must meet ACGME requirements for institutional accreditation, with a particular commitment to providing strong support for educational and clinical resources, including space, staff, visibility, and competitive salaries and benefits for faculty, residents, and staff.
4. The Designated Institutional Official (DIO) must be empowered within the sponsoring organization to effectively represent the needs of its sponsored programs and negotiate for needed resources in support of the programs. Program directors should have direct lines of communication with the DIO to collaborate in these efforts.
    a. Time required for the DIO role will depend on the number of programs sponsored by the institution, including both residency and fellowship programs. It will also depend on whether the institution has long-standing accreditation or is newly accredited because establishing all the systems and processes for a newly accredited institution requires significant work effort. Administrative support for the DIO is essential to fulfilling the job responsibilities and coordination functions.
    b. In some institutions, the DIO may be one of the program directors. Although this arrangement can work in principle, an institution should only enact this dual role after careful analysis. It may make effective advocacy for the needs of the GME programs more challenging by reducing the number of champions with significant roles in organizational leadership, and it may add substantial responsibilities for which time would be taken away from PD duties. Additional institutional staff support would also be mandatory, beyond program administrative support.
    c. If the program director serves as DIO, there are conflicts of interest that are concerning. The DIO and GMEC must review and sign off on a residency program's Annual Program Evaluation. This requirement is intended to ensure institutional input in addition to that of the PD. All AGCME and Review Committee for Family Medicine (RC-FM) responses to concerns, warnings, and citations must be reviewed and approved by the DIO to ensure a "second set of eyes" on these responses. Additionally, in most institutions, the DIO is part of the appellate process for adverse resident personnel decisions such as probation and termination; obviously, the PD cannot fill an appellate roll in the grievance process.
    d. Thus, Residency Program Solutions (RPS) recommends that Programs of Excellence

separate the program director and DIO roles, whenever possible, and provide specific unique support for the DIO. In addition to the need for adequate protected time to perform DIO duties, RPS has found that having two GME leaders working together in support of a residency program ensures alignment with the sponsoring institution's mission, vision, and goals to best support programs aiming for excellence. RPS further recommends specific, dedicated administrative support that is distinct from program administrative support. For institutions that are Single-Program Sponsoring Institutions (SPSIs), such as those in which the family medicine program is the only one sponsored, RPS specifically recommends that Programs of Excellence should have leadership staffing of a minimum of 0.1 full-time equivalent (FTE) for the DIO role; newly accredited SPSIs should have an additional 0.1 FTE until the program is fully mature. In addition, RPS recommends the same FTE level for dedicated institutional administrative support staff.

5. The GMEC is empowered with significant oversight responsibilities for the institution's GME programs and has a mandate to ensure the quality of the learning and working environment for graduate training at all participating sites. The potential importance of this committee in supporting GME programs cannot be overemphasized. However, the degree to which the GMEC actually fulfills its responsibilities varies among institutions.
6. The GMEC can play an important role for its programs, particularly if membership is recruited from key "influencers" from the medical staff and administration. Discussions within the GMEC can enhance understanding of GME processes and more materially integrate GME residents and faculty into systems. The GMEC can also include residents and fellows as essential voices in institutional planning and create a groundswell of pride and ownership in the programs to help ensure ongoing support from institutional leadership and the broader medical, nursing, and administrative staff.
7. Sponsoring and participating institutions should be involved in developing and reviewing the family medicine residency program's philosophy, vision, core values, and mission statement, as appropriate. Education must be a distinct part of the SI's mission and/or vision and be articulated clearly in its formal mission and/or vision statements.

REFERENCES

1. Accreditation Council for Graduate Medical Education. ACGME Institutional Self-Study. February 2020. Accessed August 22, 2022. https://www.acgme.org/globalassets/PDFs/SelfStudy/Institutional-Self- Study-Overview.pdf

View this section's self-assessment.

7. PROGRAM ACCREDITATION

Authors: John Gazewood, MD, Alan Douglass, MD, Judith Pauwels, MD

A Program of Excellence is fully accredited without significant areas of concern, including both the core program and any dependent tracks and/or fellowships. Programs of Excellence are leaders in the discipline by meeting and exceeding expectations on the Accreditation Council for Graduate Medical Education (ACGME) Core Requirements and Outcome Requirements and by innovating to meet the Detail Requirements. These programs have systems in place to monitor outcomes, predict areas of challenge for strategic planning, look for opportunities for improvement, and proactively develop action plans to maximize success.

A Program of Excellence has specific, recurrent process timelines related to the following:

- Systematic reporting and monitoring of content
- Assessment of competence (i.e., Milestones)
- Systematic documentation of compliance
- Program review
- Paths for receiving feedback

The self-study process and the need for continuous self-monitoring line up directly with the process of strategic planning. Program administration must identify patterns and have real-time systems of data collection, analysis, tracking, and reporting.

The Program Requirements have two stated levels of adherence or compliance:

1. **Core Requirements**: These are inflexible major areas to which the residency must adhere exactly as stated. All programs must comply with the Core Requirements.
2. **Detail Requirements**: These requirements expand on some of the Core Requirements. They are explanatory in nature and may add information to a core statement to describe what the ACGME expects compliance with the Core Requirement to encompass. New programs are expected to comply exactly with the Detail Requirements. By contrast, established programs without major concerns are given some leeway. These programs may judiciously use an equivalent alternative approach to meet the intent of the detail statement. However, significant innovation around a requirement should always be cleared in advance with the ACGME Review Committee.

Programs of Excellence seek not just to meet the baseline requirements set forth by the ACGME but to exceed them. Robust systems of process and quality improvement are

embedded in the residency program so that efficient change can be a continuous activity that is part of the program's administrative workflow. Programs of Excellence are nimble enough to respond to change while maintaining compliance and full accreditation. They meet new or evolving requirements, improve systems, and respond to deficiencies using a robust set of process and quality improvement tools (e.g., Plan-Do-Study-Act [PDSA] cycles, Lean Six Sigma) that are widely used in industry to identify weakness and push change.

Support for Process and Quality Improvement

Key factors and activities that support effective change in the residency program and promote progress include the following:

1. **Human resources**: Key members of the residency administration include the program director (PD), associate PD, administrator, and coordinator. Appropriate recruitment, education, and retention are essential. Recruitment of appropriate staff depends on the organization's human resources/recruiting staff's understanding of the unique attributes of commonly hired positions relative to the educational needs of the program (e.g., information technology [IT] staff) and the positions unique to residency programs (e.g., residency coordinators and/or managers).
2. **Program staff**
    a. The residency coordinator and/or manager is an essential part of every residency program's administration. Their many roles include providing essential accreditation system organization, supporting the PD and faculty, and supporting residents and fellows. They can provide an early warning to the PD about areas in which compliance lags to help monitor resident engagement, provision of information by the residents, work-hour compliance, and proactive scheduling. They are also core personnel that can help identify areas for process improvement.
    b. The residency program or sponsor's IT staff must be responsible for and responsive to data collection and processing of information essential to the accreditation process. The residency coordinator also plays a key role in helping to monitor data collection and progress toward resident goals by ensuring the flow of ongoing, accurate, and current data from IT and from residents documenting experiences.
3. **Engaged faculty**: Core faculty must be thoroughly educated in the accreditation requirements, including the need to monitor residents' acquisition of required experiences. The faculty advisor role is essential for monitoring the successful outcome of individual resident's educational needs to ensure graduates' success and keep the program in full compliance.
4. **Ongoing program evaluation**: Programs can identify areas of curricular weakness by conducting an annual review of curriculum to determine compliance with the Review Committee for Family Medicine (RC-FM) requirement for accreditation and by using In-

Training Examination (ITE) scores. An active and engaged Program Evaluation Committee (PEC), with support staff to assist in gathering data and monitoring and tracking interventions and recommendations, is key to ongoing assessment and improvement. To proactively ensure quality, programs may seek external validation of innovations and programmatic compliance (e.g., through a formal external program review).

5. **Professional development**: The Common Program Requirements and the Institutional Requirements are in rapid evolution, as are their interpretation and best practices for their implementation. Program leadership must actively participate in continuous learning about application, interpretation, and best practices through attendance at appropriate educational conferences and other activities. Leadership and faculty should be encouraged to innovate and to present their curricular innovations at national educational forums.
6. **Local issues**: Community and health system concerns may impede the program's achievement of some of the ACGME requirements for accreditation. Sponsoring institutions (SIs), hospitals, and clinical systems also have priorities that could be viewed as conflicting with a residency program's educational mission and requirements. Actively engaging hospital and clinical administration in the educational process with the PD is essential to gain understanding and support for required activities and to promote appropriate participation by the larger physician community. In partnership with the SI or other physician leadership, the PD must identify and directly address productivity pressure on the clinical system, data "protection" in the system, institutionalized and/or historical community standards, and scopes of practice. Program requirements specific to family physicians who provide maternity care, inpatient adult and pediatric care, and procedural care must be recognized as mandatory, and residents must be able to acquire these skills in a supportive environment.
7. **Structured educational support and assistance**: A Program of Excellence has resources for residents who need academic support (e.g., test-taking skills, remediation of deficits in clinical reasoning and/or understanding of core knowledge content). It also offers confidential employee assistance programs and other resources to address behavioral health concerns and needs. The standard curriculum is structured, documented, and tracked to guarantee each resident has the learning experiences necessary to meet each core requirement, and the program can redirect residents' work if they fall behind.

Best Practices for Self-assessment Benchmarks

Benchmarks for self-assessment can be a helpful starting point for improvement, either to define future goals or to identify areas of success. The following describe best practices seen in a Program of Excellence:

- The self-study/accreditation cycle length and the number of resolved and unresolved citations or concerns reflect overall compliance with RC-FM requirements. For a Program of Excellence, a self-study cycle length of 10 years with no stated areas of concern or past lingering citations is the goal or current state.
- Milestone tracking throughout residency proactively identifies program- wide and individual resident concerns to ensure that plans for curriculum, schedules, and individual mentoring can occur as needed. The Clinical Competency Committee (CCC) functions independently of the PD. The PD makes promotion and graduation decisions based on the CCC's recommendations in all or most cases.
- A Program of Excellence encourages continuous professional development by faculty and provides resources so leadership can acquire information on evolving accreditation systems and requirements on an ongoing basis. Faculty and leadership get encouragement and support to learn and share best practices in resident education by participating in and contributing to national educators' forums annually.
- A Program of Excellence has robust self-assessment tools that support continuous review of current accreditation status and point toward an ideal future state. The PEC meets regularly and is charged with providing an in- depth, interdisciplinary document annually. This Annual Program Evaluation proactively identifies potential deficiencies and areas for growth, as well as any accreditation threats or concerns.
  Recommendations for improvement are tied to timelines and specific outcomes with clearly delineated responsibilities for achievement.
  Progress and success in addressing action items is specifically reported upon in subsequent annual reviews.
- Board passage rate in a highly functioning program is 100%, with rare exceptions. Residents who have knowledge and/or test-taking skill issues are identified early in residency and given support to remediate these weaknesses.

Key Resources

- Allen S. Learning from the implementation of Milestones. *Fam Med*. 2021;53(7):593-594. Accessed August 22, 2022.
- Clements DS, Holmboe ES, Newton WP. Milestones in family medicine: lessons for the specialty. *Fam Med*. 2021;53(7):618-621. Accessed August 22, 2022.
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View this section's self-assessment.

8. PROCESS OF EDUCATION

Authors: John Gazewood, MD, Alan Douglass, MD, Judith Pauwels, MD

The process of resident education is more than simply assigning residents to various rotations and learning experiences and assuming they will learn and be competent to practice quality family medicine in the 21st century. It is necessary to have an overarching philosophy, as well as guiding principles focused on the adult learner, for the entire residency education process at a global level. (See the Curriculum Development section for information regarding individual residents' development plans.)

A Program of Excellence has a written, well-defined philosophy of education that articulates the culture and atmosphere of education at the program level. This philosophy of education serves to supplement—not replace or restate—the residency's specific overall outcome goals. It defines both how the program will achieve those goals and the environment in which residents will be able to maximize their educational experiences. It includes descriptions of the education- to-service balance, the inpatient-to-ambulatory balance, unique features of the learning environment, and the integration of the mission and vision of the program and its sponsoring institution.

The process of education must be competency based and outcomes driven, actively developed with an eye to the ever-changing health care landscape. A Program of Excellence's outcomes address the evolving scope and style of practice, both locally and nationally, and specifically anticipate what its graduates' practices might look like in 10 years. Local and regional community needs for family physicians are also specifically considered, and there is an active process to place the program's graduates into these areas of need. Furthermore, the process of education recognizes and considers the needs and desires of residents during curriculum design.

In a Program of Excellence, feedback from measurement of defined outcomes is used to continually modify and improve the educational process. Therefore, the process of education must be regularly reviewed and updated by identifying the correct outcomes and appropriately achieving those outcomes. The Plan-Do- Study-Act (PDSA) quality improvement process, or a similarly structured improvement process, should be applied continuously to the residency program's process of education and integrated into the Annual Program Evaluation and Program Improvement Plan.

A Program of Excellence's process of education is committed to the adult education model, which states that adult learners want to do the following:

- Apply what they learn soon after they learn it.
- Proceed at their own pace.
- Learn concepts and solve problems rather than just learning facts.
- Help define their learning objectives.
- Receive feedback and evaluate their own progress.

The educational strategies developed by a Program of Excellence incorporate these principles. In addition, residents' individual learning styles and needs are assessed and addressed in individual learning plans to maximize the effectiveness of residents' acquisition of the desired skills and knowledge. The program director and core faculty must be familiar with evaluation types and domains and trained in the appropriate use of evaluation tools. (See the Evaluations and Assessments section for additional information and resources.)

A Program of Excellence fosters lifelong learning as a habit for residents. It stimulates and supports the intellectual curiosity of residents about the conditions affecting their patients. It also encourages them to have a spirit of self-discovery as they search resources for answers.

A Program of Excellence utilizes multiple forms of technology to enhance the educational process and match the needs and abilities of learners. The program will continuously look for new ways to utilize evolving technology in the educational process.

Finally, a Program of Excellence is innovative in approaching the process of education. Not only are new ideas, concepts, and methods welcomed, but they are sought out and adopted, while preserving the best of proven educational processes.

View this section's self-assessment.

8.A. CURRICULUM DEVELOPMENT

A Program of Excellence ensures that its educational curriculum meets the minimum requirements outlined in the Accreditation Council for Graduate Medical Education (ACGME) Program Requirements. It also uses the flexibility permitted within these requirements to execute innovative curricular design. The residency curriculum is a tool to achieve specific educational aims. Formal curriculum documents communicate expectations about the learning goals and environment to residents, faculty, and other stakeholders. This section is not a prescription for a defined curriculum. It is intended to help programs create a forward-thinking curriculum that meets the needs of its residents and the community.

Curriculum-Related ACGME Program Requirements

The ACGME Program Requirements related to curriculum can be distilled into the following broad areas:

1. Overall educational goals for the program available to and understood by residents and faculty
2. Competency-based goals and objectives for each assignment at each educational level
3. Regular interactive educational activities to explore and analyze pertinent evidence related to the specialty.
4. Clear delineation of patient care responsibilities for the resident, with progressive responsibility over time and related necessary supervision
5. Intentionally designed experiences that maximize opportunities for direct observation of residents to accurately assign Milestones and assess professional development.
    a. Direct observation of incoming first-year residents, and others as needed, is emphasized.
    b. Examples of these opportunities include simulation, video precepting, bedside rounds, and supervision of procedures. (See the Evaluations and Assessments section for additional information.)
6. Integration into the curriculum of a meaningful process for measuring progress utilizing Milestones in the six ACGME Core Competencies: 1) Patient Care; 2) Medical Knowledge; 3) Interpersonal and Communication Skills; 4) Professionalism; 5) Practice-Based Learning and Improvement; and 6) Systems-Based Practice
7. Specific content related to core clinical areas (e.g., care of children, care of the older adult)
8. Activities contributing to the clinical learning environment at both the program and larger system levels, including active engagement by residents in quality improvement and safety event monitoring and reporting.

The content and environment of care, including means and location of care delivery, are rapidly evolving. Programs must meet existing ACGME requirements while developing the

ability to change and respond to evolving external demands from patients, communities, and payers. Many residencies have long histories in their communities. As a result, communities and hospital systems may have fixed expectations regarding curriculum, residency contributions to their systems, and service-related activities by residents. Over time, these expectations may become inconsistent with current needs. The residency program must continually engage and educate its sponsors about growth and change in resident education. This ensures that expectations remain aligned with current curriculum. It also helps sponsoring institutions understand how the residency program facilitates institutional success.

New programs face challenges in integrating their systems, residents, faculty, and expectations into established medical communities. They may find that some curricular areas (e.g., maternity care, hospital-based care) conflict with established or developing practice patterns in the health care community. It is important to promote understanding of the educational need to support these areas of practice.

Keys to Successful Curriculum Development

A Program of Excellence's curriculum is a constant work in progress. Some benchmarks are available to help programs succeed in these efforts. Programs can access examples of curriculum documents and content from resources including the Family Medicine Residency Curriculum Resource (login required), the Association of Family Medicine Residency Directors (AFMRD) PD Toolbox (login required), and the Society of Teachers of Family Medicine (STFM) Resource Library (no login required).

As a Program of Excellence considers curriculum development, the following principles are key to success:

- The program must meet minimum requirements in all areas of the ACGME Program Requirements.
- If the program can demonstrate adequate volume and teaching expertise, current Review Committee for Family Medicine (RC-FM) requirements permit considerable flexibility in developing longitudinal curriculum and bringing expanded experience (e.g., pediatrics, maternal care, care of the older adult, gynecology, behavioral health) into the family medicine practice.
- A Program of Excellence is familiar with Detail Requirements that offer opportunities for innovation in programs in good standing. Faculty engaged in these innovations are expected to assess the outcomes and present their findings regionally or nationally as scholarly activity. (See the Research and Scholarly Activity section for additional information.)
- Both faculty and residents are engaged in the process of curriculum design. The larger

the change considered, the greater the need for such involvement. Residents' direct involvement in curriculum development is fundamental to acceptance, engagement, and good educational outcomes. Residents should understand the requirements and goals of the program's curriculum and participate in designing workflows and education to meet them.

- A Program of Excellence has clear learning goals and objectives. This is the fundamental task of curriculum development, but it is too often given short shrift. Curriculum design should always flow from a program's learning goals and objectives to what activities will best help achieve them, not the reverse. This will require faculty to understand the difference between goals and objectives and know how to write good ones. Kern's six-step approach to curriculum development and evaluation is a gold standard for teaching methods that follow goals and objectives.[1]
- The program's goals and objectives must clearly address the six ACGME Core Competencies and lead to competency-based evaluation tools. Evaluations are much easier to develop when goals and objectives are clear and well written. (See the Evaluations and Assessments section for additional information.)
- The Entrustable Professional Activities (EPAs) for family medicine are one agreed-upon way to describe the work of being a family physician. A Program of Excellence should refer to the EPAs as it is developing or evaluating its curriculum. (See the Entrustable Professional Activities section for additional information.)
- Programs are required to have a mechanism for curriculum review that includes, but is not limited to, the Program Evaluation Committee (PEC). The PEC should be a significant part of residency function. Each curricular area should be evaluated on goals and objectives, as well as locations, faculty, and content. Curriculum decisions should be made with attention to the shifting needs of residents, the training community, and graduates' community of practice. This can take place as part of the Annual Program Evaluation or in a separate process. Major curricular changes should be included in the annual Program Improvement Plan.
- Family medicine is a specialty with a substantial ambulatory focus, so family medicine residencies need to prepare residents to succeed in outpatient medicine in the context of broad-scope, whole-person care. A Program of Excellence has specific curriculum to address resident learning in the outpatient setting. The Building Blocks of Primary Care Assessment for Transforming Teaching Practices (BBPCA-TTP) are an excellent starting point for the process of developing a Clinic First curriculum.
- Curriculum for a Program of Excellence relies on the expertise of family physicians as much as possible, with specialty collaboration as needed. Faculty should strive to develop areas of expertise. When members of other specialties are involved in curriculum development and delivery, it is crucial for family physicians to guide outside faculty regarding the exact nature of what family medicine residents should be expected to learn. This is often a delicate discussion that requires careful guidance to reinforce the expertise of both family physicians and other specialists.

- Curriculum for a Program of Excellence explicitly addresses residents as adult learners. It takes advantage of residents' natural curiosity, engagement, and special skills, and it utilizes emerging technology to develop residents' skills and knowledge. Wherever possible, passive learning modalities (e.g., lectures, assigned readings) should be replaced with robust, active educational engagement between faculty and residents.
- With limited exceptions, a faculty member other than the program director should be responsible for each discrete curricular content area and the ongoing evaluation and improvement of that area. (See the Leadership Team and Staffing section for additional information.) The responsible faculty member is expected to collaborate with faculty around the country through conference attendance and learning collaboratives.

The setting for a Program of Excellence's clinical training is a health care system. When developing curriculum, the program must address the following areas:

1. **Team-based care and the patient-centered medical home (PCMH) model**
2. **Workflow efficiency in a highly functioning practice**: Reasonable productivity goals for both faculty and residents should be embedded in the curriculum. Achievement of these expectations will improve the program's financial strength and also prepare residents to meet practice expectations after graduation.
3. **Resident leadership**: Residents must be recognized and valued as future colleagues and partners in the community, region, and health care system. Communicating regular updates to the system and medical community regarding residents' roles will reinforce this. For internal and external faculty and administration, residents are the embodiment of the learner and should be able to describe their educational goals. Support should be available so that residents can attend national educational conferences to participate in presentations about curricular changes they had a role in leading.
4. **Quality and system improvement and patient safety**: Every residency program should be engaged in a structured curriculum in these areas.
5. **Integration of technology into health care**: This includes electronic health records (EHRs), social media, medical informatics, and health care decision aids.

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View this section's self-assessment.

8.B. QUALITY IMPROVEMENT AND PATIENT SAFETY

Programs of Excellence have a culture of continuous quality improvement (QI). They engage staff, residents, faculty, and patients in a shared culture. Residents are actively involved in quality initiatives with the expectation that they will be prepared to lead care teams and design/implement QI programs in their future practices. The importance of quality and safety processes in residency programs is underscored by their inclusion as critical components of accreditation in the Accreditation Council for Graduate Medical Education (ACGME) Common Program Requirements.

Common barriers to achieving excellence in the areas of quality and safety include lack of time for teams to meet to do this work and lack of resources needed to implement some team recommendations. Other barriers include electronic health record (EHR) systems that lack robust registry functionality and lack of staff support to manage and display data in ways that promote effective QI cycles. Confusing and conflicting external reporting expectations are also burdensome to many programs. Some barriers can be addressed by embedding quality and safety in nearly all of the routine processes of patient care. Prioritizing resident participation on clinical teams and in other developmental work through innovative scheduling will reinforce the importance of these systematic improvement efforts.

Quality Improvement

Programs of Excellence participate in mandated quality activities such as those required by The Joint Commission and the Quality Payment Program (QPP) under the Medicare Access and CHIP Reauthorization Act (MACRA). (See the Models of Care Delivery section for additional information.) They adapt to the local care environment by adopting best practices in their medical community, or they become thought and practice leaders in their health system. Within the context of mandated options, a Program of Excellence identifies the most important areas of improvement based on its unique circumstances.

A resident must have a reasonable understanding of QI tools and participate as the leader or co-leader of at least one QI project through a complete Plan-Do- Study-Act (PDSA) cycle as required by ACGME Program Requirements. The curriculum must include adequate time for residents to fulfill this requirement.

QI Principles for Residency Programs

Critical QI principles for any residency program include the following:

1. **The care improvement process is systematic and data driven**.
    a. It includes the following:
        i. Regular review of evidence-based best practices for common and high-

risk conditions
   ii. A systematic process designed to improve and support adoption of best practices
   iii. Regular measurement of adherence to best practice standards of care
   iv. Data sharing on performance with team members through team-based performance improvement activities
b. Example: The program has care process model (CPM) development teams that focus on achieving high performance for chronic conditions such as diabetes, chronic obstructive pulmonary disease (COPD)/asthma, congestive heart failure (CHF), depression, and preventive care.

2. **The QI process focuses on outcomes that matter to patients**.
   a. Patients are involved in determining meaningful outcomes.
      i. The practice shares performance measures, including individual patient metrics, with patients.
      ii. Examples:
         1. The program convenes a patient advisory panel composed of a representative sample of patients served by the family medicine practice who can give meaningful feedback.
         2. The program posts QI results in the waiting room and/or on the practice website.
         3. The program provides patients with “report cards” on their own preventive and chronic care measures.
3. **Quality of care is enhanced by collaborative interprofessional teams**.
   a. Team members do the following:
      i. Share responsibility/accountability for patient care
      ii. Practice at the top of their licensure and training, with ongoing, purposeful processes to enhance staff training and performance
      iii. Function within the constraint of practice finances as a robust care team of health professionals to meet all of the primary care needs of patients, including physical, behavioral, and social health needs
      iv. Engage in proactive, real-time communication with other team members
      v. Become involved in safety and QI activities as a team and take accountability for these activities
   b. Examples: Team “huddles” prior to clinic session; pre-visit planning; integrated behavioral health in primary care; clinical pharmacist review of high-risk medications; joint pharmacy practice; health coach or care navigator assigned to clinical team

4. **Patient engagement is a key element of care quality**.
    a. The practice routinely communicates with patients between visits and facilitates communication between patients and their care team.
    b. Patient-driven care goals and preferences are systematically requested, documented, and followed.
    c. Social determinants of health are considered and incorporated into the care plan, as appropriate.
    d. Patients are provided a written care plan and visit summary at each visit and transition of care.
    e. Examples:
        i. Patients receive notification of all test results.
        ii. Patients receive a meaningful printed or electronic summary of each visit.
        iii. A patient reminder system is used routinely for important follow-up and preventative care.
        iv. Patients can pose questions and receive prompt responses from their care team between visits (e.g., through a secure web portal).
5. **Health outcome disparities are a key element of data collection, analysis, and process improvement**.
    a. The program collects appropriate demographic data on all patients, which allows analysis of disparate patient access, process measures, and outcomes based on these demographic characteristics.
    b. The program considers both internal and external barriers to care when designing and carrying out process improvements.
    c. The program demonstrates commitment and outreach to vulnerable populations in its catchment area.
    d. Examples:
        i. Performance in multiple areas, including prevention, chronic care measures, and patient satisfaction, can be broken down by race/ethnicity, geographic area, payer type, etc.
        ii. Apparent disparities in performance are addressed by including patients in the target population when identifying barriers to care.
        iii. The curriculum includes self-reflection on inherent personal biases of clinicians and staff toward certain diseases, conditions, or types of patients.
        iv. The program works closely with community-based organizations that employ community health workers who perform outreach to underserved or vulnerable populations.

Patient Safety

Patient safety is a complex construct that requires robust process design and individual professional commitment. In the hospital environment, required safety practices are often embodied in facility licensing and The Joint Commission requirements. Residents need to be aware of these requirements and have time for instruction and participation in required safety activities.

Patient safety expectations are not always as explicit in the residency ambulatory practice environment. All communities have some facility requirements in areas such as fire safety and handicapped access. However, office procedures for dealing with incidents such as fires, medical emergencies, or disruptive or violent patients are equally important. Storage of biologicals and vaccines; infection control; procedural safeguards including training, credentialing, and supervision; and compliance with laboratory regulations are also important in an ambulatory setting. As in the hospital, some type of Unusual Occurrence Reporting (UOR) system needs to be in place, and an environment conducive to UOR needs to be established and reinforced.

Patient Safety Principles for Residency Programs

Principles of best practices for patient safety in both inpatient and ambulatory environments include the following:

1. **Safe care depends on creating a culture of safety.**
    a. Creation of this culture includes the following:
        i. Stressing personal/professional responsibility to recognize impairment
        ii. Creating a no-blame environment without undermining the need for professional accountability
        iii. Demonstrating institutional and individual desire to know about all errors and correct unsafe processes
        iv. Examples: Training residents and staff to recognize and report when they are fatigued, stressed, or distracted; administering the Agency for Healthcare Research and Quality (AHRQ) patient safety culture survey annually to all staff to measure success in achieving a no-blame environment; rewarding staff for reporting near-miss events; involving all staff in process improvement activities
2. **Special attention is given to redesigning and monitoring high-risk steps in the care process.**
    a. These steps include the following:
        i. Structured, supervised handoffs between care teams and clinicians

ii. Planned, closely monitored processes to facilitate transitions in care (e.g., hospital to home)
iii. High-risk medication prescribing and monitoring
iv. Management of patients with complex or potentially unstable medical conditions

b. Examples: Formal checkout rounds between shifts supervised by senior clinicians; multidisciplinary team rounds at the bedside of patients being discharged, with direct communication with the outpatient care team; anticoagulation clinic; chronic pain multidisciplinary group visits; clinical pharmacist review of patients on multiple or complex drug regimens; in-room precepting of complex patients

3) **Safe practices to proactively identify safety issues are in place.**
   a. These include the following:
      i. Conducting routine near-miss reporting
      ii. Incorporating near-miss events by priority into team-based performance improvement
4) **Opportunities to learn from mistakes are provided.**
   a. These include the following:
      i. Reviewing all adverse events and serious near-miss events in a nonjudgmental process
      ii. Providing emotional support for clinicians and staff involved with an adverse event
   b. Examples: Root cause analysis; case review moderated by a behavioral health specialist to address the emotional impact of mistakes
5) **Patients deserve to be engaged in discussions of safety and errors.**
   a. This includes the following:
      i. Disclosing mistakes and errors to patients
      ii. Apologizing to patients for mistakes and adverse outcomes (as allowable by state law and risk management)
   b. Examples: Role-playing sessions to facilitate conversations with patients, including a patient communication plan with remediation of a near-miss or adverse event

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8.C. ARTIFICIAL INTELLIGENCE: TOOLS AND CHALLENGES FOR RESIDENCY PROGRAMS AND FAMILY MEDICINE

Authors: Steven Crane, MD, Roger Garvin, MD, Bryan Hodge, DO, Hobart Lee, MD and Bill Gillanders, MD

While artificial intelligence is not a new technology, recent rapid advancements present significant opportunities and challenges for family medicine. This chapter provides an overview of AI, its current and potential use in clinical practice and graduate medical education, and the broader implications as this technology becomes widely implemented.

Programs of Excellence should promptly develop curricula and faculty development programs to equip residents and faculty with the necessary skills to use AI properly. They should be sure to emphasize the essential skills that are unique to a human-centered approach to primary care delivery. This is crucial preparation for the major changes in the practice of family medicine that are anticipated.

Understanding AI

Traditional computer programs are essentially complex series of instructions created by software engineers. By contrast, AI is based on a simple algorithm that compares the likelihood of one data point following another. These probabilities are linked together in layered nodes to form a virtual neural net that is similar to the human brain. This structure allows AI to “learn” and produce outcomes that programmers could not necessarily predict based on the input.

Early machine learning has been used in focused AI — or so-called “narrow AI” — to perform or assist with specific tasks. This includes algorithms for social networks and online shopping, facial recognition programs and medical applications (e.g., image interpretation programs used by radiologists for mammography).

Large language models, or LLMs, are AI programs that utilize the same principle to create complex layers of natural language neural nets from vast databases. They power intelligent chatbots and other natural language processing applications. Due to the high cost of developing the core model AI, LLMs are being developed by large, well-funded tech companies such as Microsoft, OpenAI, Google and Meta (the company formerly known as Facebook). Large electronic health record companies like Epic are now actively working to further integrate AI into their platforms.

Depending on the types of large datasets they are trained on, LLMs can generate complex responses to a wide variety of questions, and their outputs can be remarkably like human-

written material. They often produce surprising results that humans would not have been able to produce due to the large amount of information required to generate such a response.

Despite the power and flexibility of this new technology, there are inherent barriers and concerns related to the widespread adoption of AI in clinical medicine and medical education.

Applications for Clinical Care

The pace at which clinical applications for AI are advancing is truly remarkable. The following list, while not exhaustive, highlights the wide range of current and potential clinical uses for this technology:

- **Creating notes from patient interactions**: A growing number of companies have developed “virtual scribe” applications that create a SOAP (Subjective, Objective, Assessment and Plan) note from a transcript of the patient encounter. These applications effectively eliminate a clinician’s need to type, use templates or dictate to produce an accurate record of the clinical encounter.
- **Patient education handouts**: Several LLMs, including OpenAI’s ChatGPT and Google’s Gemini (formerly known as Bard), can produce patient education handouts on almost any clinical topic at different reading levels and in different languages.
- **Diagnosis and treatment recommendations**: Given sufficient context in a query, LLMs can produce a comprehensive differential diagnosis, including information about the likelihood of a particular diagnosis, and provide detailed treatment recommendations.
- **Population health**: AI can utilize its vast databases to create detailed maps and highlight population-level causes of disease that might otherwise go unnoticed.
- **Risk prediction**: AI applications can use data from a large number of patient care records to identify people at risk for deterioration and alert clinicians.
- **Advice and triage**: Visual and speech facsimile AI that can generate digital avatars that communicate with interactive natural language has rapidly evolved. This technology could be used to collect clinical information from patients and provide advice based on unique answers. In this sense, AI could eventually be viewed as an essential part of team-based care.
- **Hospital at home**: Wearable monitoring equipment can continually monitor patients at a distance and alert clinicians when the data suggest a possible clinical deterioration.
- **Digital health coaching**: Coupled with home digital assistants, AI can design and implement a sophisticated set of reminders and encouragements to help patients establish and maintain new health habits.

Applications for GME

In addition to clinical applications for AI, there are a number of ways AI can be used for educational purposes. Current and potential applications for GME include the following:

- **Didactic education materials:** Learners can use LLMs to generate patient education materials that provide clear explanations for common medical conditions and treatments.

- **Scholarly work:** LLMs can quickly produce research proposals, including references and suggestions for what types of statistics would be most appropriate for the proposed study.

- **Virtual simulated patient consultations:** LLMs can create realistic patient scenarios that allow learners to practice interviewing skills and clinical decision-making and communication skills in a virtual simulated environment.

- **Differential diagnosis:** Interactive exercises powered by LLMs can help learners develop clinical reasoning skills by inputting symptoms and receiving potential diagnoses.

- **Curriculum development:** Faculty members can use AI to provide guidance and generate drafts of curriculum, learning objectives and knowledge development plans.

- **Exam preparation:** LLMs can design practice questions and quizzes for learners so they can test their knowledge, identify knowledge gaps and receive feedback to enhance their exam preparation.

- **Development of individualized learning plans:** An LLM can produce a detailed ILP draft based on information about a particular resident's educational goals, weaknesses and strengths.

Challenges and Threats

In 2019, Stanford University researchers estimated that the computational power of AI was doubling every 3.4 months.[1] Despite the remarkable power and flexibility of AI as a tool, this technology poses significant challenges and potential threats as well. These include the following:

- **Copyright infringement:** Training an LLM requires providing the AI program with templates of useful responses to queries, which are nearly always copyrighted material.

AI developers are facing lawsuits from multiple sources for copyright infringement. It is unclear how the courts will resolve this issue.

- **"Hallucinations:"** LLM responses to queries may appear to be authoritative and logical. However, on close inspection, they may not be based on real, factual material. Also, because of the dynamic nature of LLMs, submitting the same query on different days may result in somewhat different responses.

- **Bias:** The huge database used to create the original base AI model (i.e., the contents of the internet) is inherently biased. Because internet content often reflects inherent biases, LLM queries can produce biased responses. For example, when asked to create an image of a physician examining a patient, most LLMs will produce a picture of a white male physician examining a female patient.

- **Lack of transparency:** Due to the complex architecture of the neural net, it is presently very difficult or impossible to track what data inputs an LLM actually used to create its response to a query. In early 2024, the Office of the National Coordinator for Health Information Technology published recommended standards for data transparency in LLMs.

- **Plagiarism:** It is easy to produce seemingly well-researched responses to a query using an LLM, but it is difficult to determine whether the content it produces is plagiarized. Educators in other fields are discovering that this can be a huge issue among learners. It is an extremely challenging problem because most content is derivative of previous work in some ways. There must be clear standards for citation and disclosure of AI-generated content and sources.

- **Atrophy of analytical skills:** A basic tenet of learning analytical skills is that it takes repeated practice to improve competence. AI is such a powerful shortcut that it will be difficult to keep learners from using fast LLM queries rather than "slow learning" techniques. For example, a person could use an LLM query to quickly generate an accurate summary of the lack of evidence for use of ivermectin to prevent COVID-19 without having ever actually read or analyzed the appropriate prospective trials.

- **Confidentiality breach:** Collaborative databases like Epic's Cosmos contain de-identified patient data from EHRs. However, as data sharing becomes more common, there are concerns that breaches of actual patient information will occur.

- **Inequitable access:** Although some LLMs and AI applications are currently available to use at no charge, eventually development companies will need to recoup their investments and monetize access. This could put smaller entities, rural entities and

entities that serve historically marginalized communities at a serious disadvantage and further exacerbate health inequities.

- **Potential for harm:** Nearly every transformative technology has been used to cause harm to humans. Although AI has the potential to revolutionize the practice of medicine, it could also be used to do things like create unique and deadly pathogens, generate misinformation that promotes fear of effective treatments or produce incentives to remove humans from the healing process. Also, even if companies attempt to use filters to remove the most objectionable LLM responses, humans with malicious intent will continue to discover ways to "jailbreak" these restraints to access potentially dangerous content.

- **Replacement of primary care physicians:** The first AI applications will likely be used as tools to unburden physicians from time-consuming tasks. For example, automated scribes can produce office notes, and AI programs can read and summarize ancillary paperwork. However, as AI algorithms are perfected and tested, much of routine primary care could become a candidate for automation. Additionally, AI algorithms could lead to more encroachment on primary care physicians' scope of practice by family nurse practitioners and physician assistants, who already provide a quarter of all health care visits in the United States.[2]

Ultimately, family medicine educators will need to find good answers to the following key questions[3]:

- "When any question can be immediately and reliably answered by a chatbot at the point of care, how will doctors become effective lifelong learners?"
- "What will health care look like when medicine is assisted by AI models that filter ethical decisions through opaque algorithms?"
- "What will it mean to practice as a physician when much of that cognitive work could be offloaded to AI?"

Criteria for Excellence in Adopting AI Into Practice and Education

Programs of Excellence should do the following:

1. **Develop and implement an AI curriculum and a faculty development plan to cover AI core competencies in the following domains**[4-5]:
   - *Foundational knowledge* – Understand AI concepts and health care applications.
   - *Critical evaluation of AI tools* – Assess the quality, accuracy, safety, bias and appropriateness of AI tools.

- *Utilization of AI tools in patient care* – Integrate AI tools into clinical workflows to provide patient-centered care.
- *Workflow optimization with AI integration* – Analyze and adapt workflows to smoothly implement AI tools.
- *Patient communication* – Communicate information about AI tools effectively in simulated and real-world settings.
- *Consequences* – Demonstrate awareness of how AI can impact justice, ethics and equity in health care.

2. **Establish protocols regarding the transparency of AI sources and queries.**
   Given current issues regarding the accuracy of LLM responses and the potential for inherent bias, Programs of Excellence should ensure that all responses are curated by a knowledgeable human. Faculty members should confirm that AI-generated information is accurate before applying it to patient care or presenting it to learners as factual.

3. **Create guardrails around activities to preserve acquisition of critical thinking and analytical skills.**
   Programs should determine a sufficient number and variety of educational experiences to be completed independent of AI. They should also require learners to gather original source data, analyze the data and present their analysis so that they develop mastery of these skills.

4. **Collaborate with other family medicine and primary care programs on AI curricula and responsible use and adoption of AI in practice.**
   It will be essential for Programs of Excellence to collaborate on the rapid development of best practices regarding this transformative technology. Collaboration should occur not only among family medicine programs but also across primary care disciplines at a local level in institutions that support multiple programs.

5. **Collaborate with their existing hospitals and sponsoring institutions to ensure that any use of AI aligns with existing policies.**
   If no current policies on AI use exist or local policies and implementation plans are in flux, a Program of Excellence should take a leadership role in developing and implementing AI policies.

6. **Review and refocus curricula on skills that are unlikely to be supplanted by AI.**
   As LLM responses rapidly become more focused and reliable, much of the cognitive work done in routine primary care will likely be done by chatbots. As Programs of Excellence train residents now to work in a health care environment that will certainly be transformed by this technology in the future, they should ensure that graduates master

skills that will not be replaced by AI. These could include the following:

- *Empathetic communication*
  Humans will always have an advantage over AI in providing personalized care, particularly care provided by an empathetic physician who has exceptional skills in active listening and coaching.

- *Broad procedural skills and training*
  AI will never be able to "do" things in the real world. As robotic procedural assistance evolves and enhances procedural interventions, physicians with a wider range of procedural skills will continue to thrive in an AI environment.

- *Complex care and problem-solving*
  Increasingly, subspecialists manage the care of patients with complex medical problems. This results in fragmented care for patients who have more than one complex medical problem. AI could work in favor of well-trained generalist physicians who can offer high-quality care and continuity for patients with complex medical needs. For example, a family physician could use AI to help personalize and refine a medication strategy for the treatment of congestive heart failure so that a cardiology referral is not necessary.

- *Community health and health coaching*
  AI could greatly enhance family physicians' ability to expand their scope beyond the office to address social determinants of health in their communities and support healthy behavior change in their patients' homes. For example, a physician might use AI to help create an advocacy strategy for confronting a major community polluter who is contaminating the local environment and directly causing an increase in respiratory illness.

- *Implementation science*
  The health care system will need generalist physicians to find creative uses for AI to help achieve the quintuple aim of enhancing the patient experience, improving population health, supporting the care team's well-being, reducing costs and advancing health equity. Programs of Excellence should produce physicians who have the skills to lead this effort.

RESOURCES

- AI in Family Medicine: Transforming Your Practice (2023) -- Free online CME from the American Academy of Family Physicians
- AI in Medicine -- Review article series from the *New England Journal of Medicine*

- Al-Zaiti SS, Alghwiri AA, Hu X, et al. A clinician's guide to understanding and critically appraising machine learning studies: a checklist for Ruling Out Bias Using Standard Tools in Machine Learning (ROBUST-ML). *Eur Heart J Digit Health*. 2022;3(2):125-140.
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8.D. COMPETENCY-BASED MEDICAL EDUCATION

Authors: Roger Garvin, MD, Randy Pearson, MD and John Gazewood, MD

Overview

Competency-based medical education (CBME) is an outcomes-based approach to education that moves the focus away from skill measurement based on time spent training, knowledge acquisition, and proxy assessments and toward considerations of time as a resource, knowledge application, and authentic assessments of real-world activities. *Table 1* shows the five core components of CBME. The central concept of this approach is starting with the end in mind. Therefore, a program of excellence focuses on what abilities a physician graduate will have and specifies these abilities in a clear, unambiguous way that can be understood by learners, faculty, and patients. The program's curriculum, assessment process, and entire learning environment will flow from this understanding. Since each graduate has individualized, personal goals, the abilities they will have are also individualized. However, a program of excellence has a process in place to recognize the individual goals of residents while also ensuring the competence of all graduates.

Table 1. Van Melle Framework for Competency-Based Medical Education

Component	Description
An Outcomes-Based Competency Framework	• Desired outcomes of training are identified based on societal needs. • Outcomes are paramount so that the graduate functions as an effective health professional.
Progressive Sequencing of Competencies	• In CBME, competencies and their developmental markers must be explicitly sequenced to support learner progression from novice to master clinician. • Sequencing must consider that some competencies form building blocks for the development of further competence. • Progression is not always a smooth, predictable curve.
Learning Experiences Tailored to Competencies in CBME	• Time is a resource, not a driver or criterion. • Learning experiences should be sequenced in a way that supports the progression of competence. • There must be flexibility to accommodate variation in individual learner progression. • Learning experiences should resemble the practice environment. • Learning experiences should be carefully selected to enable acquisition of one or many abilities.

	• Most learning experiences should be tied to an essential graduate ability.
Teaching Tailored to Competencies	• Clinical teaching emphasizes learning through experience and application, not just knowledge acquisition. • Teachers use coaching techniques to diagnose a learner in clinical situations and give actionable feedback. • Teaching is responsive to individual learner needs. • Learners are actively engaged in determining their learning needs. • Teachers and learners co-produce learning.
Programmatic Assessment (i.e., Program of Assessment)	• There are multiple points and methods for data collection. • Methods for data collection match the quality of the competency being assessed. • Emphasis is on workplace-based assessment. • Emphasis is on providing personalized, timely, meaningful feedback. • Progression is based on entrustment. • There is a robust system for decision-making. • Good assessment requires attention to issues of implicit and explicit bias that can adversely affect the assessment process.

CBME = competency-based medical education.

Information from reference 1.

Reprinted with permission from Holmboe ES, Lobst WF. ACGME assessment guidebook. 2020. Accessed February 16, 2024. https://www.acgme.org/globalassets/pdfs/milestones/guidebooks/assessmentguidebook.pdf

Over the last 25 years, medical education has been moving toward CBME. The adoption of Entrustable Professional Activities (EPAs) in undergraduate medical education is one example of this shift.[2] EPAs are descriptions of actual tasks that physicians do in the real world. (See the Components of CBME section for additional information.) The process of incorporating CBME into graduate medical education (GME) started in 1998 with a call to train to competency that led to the 1999 introduction of six Accreditation Council for Graduate Medical Education (ACGME) Core Competencies[3]: 1) Patient Care; 2) Medical Knowledge; 3) Interpersonal and Communication Skills; 4) Professionalism; 5) Practice-Based Learning and
Improvement; and 6) Systems-Based Practice. These were followed by specialty-specific subcompetencies and associated Milestones. The subcompetencies and Milestones for family medicine were revised to a second iteration — Milestones 2.0 — that went into effect on July 1, 2020.[4]

All residents are assessed using the subcompetencies and Milestones twice a year, and the results are reported to the ACGME and shared with residents. The information in the

semiannual ACGME Milestone Reports is primarily used for program improvement. However, residencies employing CBME seek to use these program-level data to develop individualized progress reports that can track each resident's progress toward the end goal of residency education: the ability to practice family medicine independently in all settings.

Outcomes-Driven Program of Assessment

The assessment program is a structured process within the educational program. It is multisource and grounded in assessment that is as close to the real world as possible. Since CBME starts with the end in mind, assessment is described first or very early in the process of curriculum development. This ensures that the curriculum's outcomes are meaningful to residents, faculty, and patients.

Rather than assuming competency in the context of time-based educational experiences, a program of excellence establishes metrics to assess true competency in the context of performance. A variety of means for program faculty to assess competency are available. While the gold standard for assessing competency is direct observation using scales such as the scale of entrustment, other data sources should become part of the overall assessment.

In order to participate optimally in CBME, residents must be able to engage in accurate self-assessment. This is not a natural skill, so it will need to be instilled in residents and assessed, as will their ability to understand that being "not yet competent" for a task is not an assessment of their worth or skill as a physician. It is simply a descriptor of their current status along a continuum of competence.

Faculty Development for Outcomes-Driven Assessment

Much like the implementation of ACGME Milestones represented a clear shift in focus for residency education, the movement toward CBME requires a program of excellence to invest significant time and resources into developing faculty skills in the use of assessments for resident advising and coaching. The in-person ACGME course "Developing Faculty Competencies in Assessment" is one resource that programs can use to begin this development process. In addition, the ACGME offers a complete faculty toolkit on developing assessment skills at Learn at ACGME.

Implementation of CBME and a program of assessment also requires faculty training on EPA development and consistent entrustment decisions. This is not just "writing rotation documents in competency language." It requires deep thought about the exact real-world skills residents must develop and demonstrate for each part of the curriculum. The Society

of Teachers of Family Medicine (STFM) task force on CBME has compiled assessment tools and strategies as part of its Competency-Based Medical Education Toolkit for Residency Programs.

Components of CBME

EPAs in Resident Education

Core competencies, subcompetencies, and Milestones describe the knowledge, skills, and attitude required to be a family physician but not the actual work of being a family physician. A competency can be assessed by an examination, but residents must actually perform certain tasks to be assessed on EPAs. In addition, EPAs more clearly communicate to learners, educators, employers, and society what skills a family physician is expected to have. Thus, programs of excellence are encouraged to use EPAs in the creation of their educational program and to stress the concepts of CBME throughout the residency.

As descriptors of a family physician's activities, EPAs are a natural starting point for developing individualized learning plans (ILPs) for all residents. Linking EPAs to Milestones can provide faculty members and residents with more specific, observable behaviors to inform educational plans that will help residents attain entrustment in specific EPAs. In resident remediation, EPAs can be used to clarify areas of needed improvement for both the resident and faculty. Ideally, this will allow earlier identification of residents who are "falling off the curve" of progression of skills.

Programs can also use EPAs to do the following:

- **Communicate to faculty, community preceptors, residents, and staff about key tasks to be learned in a family medicine residency:** EPAs use language that is clearer and more natural than the language used for subcompetencies and Milestones.
- **Create meaningful assessments using EPA language:** It is easier for faculty members to use EPA language for assessments because the process of entrustment is more intuitive than trying to assign Milestone levels.
- **Create new curriculum and evaluate current curriculum:** Since EPAs describe the ultimate work of being a family physician, residency programs should include EPA language in any new curriculum being developed. Current curriculum should be evaluated to determine how completely the skills described by the EPAs for family medicine are addressed.

Scale of Entrustment

In traditional assessment, programs relied on a “gestalt” impression of resident performance. Rather than being based on actual measures of performance, the impression was often shaped by the assessor’s previous experiences with other residents. In some cases, the resident's likeability may have figured heavily into the evaluator’s ratings.

By contrast, in competency-based assessment, the assessor relies on concrete measures of the resident’s ability to perform required curricular elements. The goal is to ensure the resident’s progression toward independent performance of the measured task. Evaluation should be directed toward entrustment of the resident for independent practice using scales such as the following:

1. Observation only
2. Act under direct supervision
3. Act under indirect supervision
4. Act independently with clinical oversight (independent practice)
5. Supervise others

Entrustment Decisions

Entrustment decisions are dependent on the context of observation (e.g., time of day, facilities available) and may be affected by a number of factors, including trainee and supervisor attributes and the nature of the EPA (e.g., rare and complex versus common and easy) (*Table 2*). In addition, factors that enable entrustability include the resident’s ability (i.e., level of knowledge, skills, and attitude), conscientiousness, truthfulness (i.e., truth-telling and absence of deception), and discernment (i.e., knowledge of one’s limits and willingness to seek help).

Table 2. Factors That Affect Entrustment Decisions

Trainee attributes	• Fatigue • Confidence • Resident experience
Supervisor attributes	• Lenient vs. strict • Family medicine vs. other specialty
Care setting	• Outpatient vs. inpatient • Night shift vs. days
Entrustable Professional Activity (EPA) type	• Rarely occur • Frequent/common

	• Complexity • Global vs. specific
Program setting	• Rural vs. urban • Community vs. university • Large vs. small • Single residency vs. multiple residencies

Adapted with permission from Association of Family Medicine Residency Directors. EPAs as a tool for resident evaluation. Accessed March 13, 2023. https://www.afmrd.org/d/do/1891

Guidelines for Creating EPAs

A program of excellence may choose to use EPAs created externally, such as those developed by Family Medicine for America's Health. However, programs are encouraged to create their own EPAs to facilitate the CBME process. Characteristics of a good EPA include the following:

- Describes an important routine care activity that defines the specialty or subspecialty.
- Is observable and measurable.
- Requires an integration of competencies within and across domains to perform.
- Allows residents to be deemed "entrustable" based on their readiness to safely perform the activity without supervision.

Table 3 provides guidelines for creating EPAs that are clear and detailed enough to effectively set residents' expectations and guide assessors' entrustment decisions. One possible approach to developing program-specific EPAs is to use the proposed core outcomes of residency training as a framework. (See the Core Outcomes of Residency Training section for additional information.)

Table 3. Components of an EPA

Title	Make it short; avoid words related to proficiency or skill. Ask yourself: Can a trainee be scheduled to do this? Can an entrustment decision for unsupervised practice for this EPA be made and documented?
Description	To enhance universal clarity, include everything necessary to specify the following: What is included? What limitations apply? Limit the description to the actual activity. Avoid justifications of why the EPA is important or references to knowledge and skills.

Competencies	Which competency domains apply? Which subcompetencies apply? Include only the most relevant ones. These may serve to build observation and assessment methods.
Required knowledge, skills, and attitude	Which KSAs are necessary to execute the EPA? Formulate this in a way to set expectations. Refer to resources that reflect necessary or helpful standards (books, a skills course, etc.).
Information to assess progress	Consider observations, resident work products, monitoring of knowledge and skill, and multisource feedback.
When is unsupervised practice expected?	Estimate when full entrustment for unsupervised practice is expected, acknowledging the flexible nature of this. Expectations of entrustment moments can shape an individual workplace curriculum.
Basis for formal entrustment decisions	How many times must the EPA be executed proficiently for unsupervised practice? Who will judge this? What does formal entrustment look like (documented, publicly announced)?

EPA = Entrustable Professional Activity; KSA = knowledge, skills, and attitude.

Adapted with permission from Ten Cate O. Nuts and bolts of entrustable professional activities. *J Grad Med Educ*. 2013;5(1):157-158.

Core Outcomes of Residency Training

In 2023, the American Board of Family Medicine (ABFM), ACGME Family Medicine Review Committee, and other stakeholders developed 12 “core outcomes” to describe the broad scope of what graduates should be able to do when they complete family medicine residency training.[5] Although the ABFM decided not to call these outcomes EPAs, all of the components of EPAs described in *Table 3* also apply to the core outcomes. The ABFM subsequently identified additional outcomes focused on robust continuity of care and specific aspects of the care of pregnant people and children.[6] It also proposed a three-year time frame for phasing in reporting on the attainment of each outcome by individual residency graduates.

The following are the desired outcomes of ACGME-accredited training in family medicine:

- Practice as personal physicians, providing first contact, comprehensive and continuity care, to include excellent doctor-patient relationships, excellent care of chronic disease and routine preventive care and effective practice management.

- Diagnose and manage acute illness and injury for people of all ages in the emergency room or hospital.
- Provide comprehensive care of children, including diagnosis and management of the acutely ill child and routine preventive care.
- Develop effective communication and constructive relationships with patients, clinical teams, and consultants.
- Model professionalism and be trustworthy for patients, peers, and communities.[6]
- Practice as personal physicians, to include care of women, the elderly, and patients at the end of life, with excellent rate of continuity and appropriate referrals.
- Provide care for low-risk patients who are pregnant, to include management of early pregnancy, medical problems during pregnancy, prenatal care, postpartum care and breastfeeding, with or without competence in labor and delivery.
- Diagnose and manage common mental health problems in people of all ages.
- Perform the procedures most frequently needed by patients in continuity and hospital practices.
- Model lifelong learning and engage in self-reflection.[6]
- Practice as personal physicians, to include musculoskeletal health, appropriate medication use and coordination of care by helping patients navigate a complex health system.
- Provide preventive care that improves wellness, modifies risk factors for illness and injury, and detects illness in early, treatable stages for people of all ages while supporting patients' values and preferences.
- Assess priorities of care for individual patients across the continuum of care — in-office visits, emergency, hospital, and other settings, balancing the preferences of patients and medical priorities.
- Evaluate, diagnose, and manage patients with undifferentiated symptoms, chronic medical conditions, and multiple comorbidities.
- Effectively lead, manage, and participate in teams that provide care and improve outcomes for the diverse populations and communities they serve.[6]

For assessment strategies for each outcome, see the *Journal of the American Board of Family Medicine* article "Implementing Competency Based ABFM Board Eligibility." Other assessment strategies and tools are discussed at the end of this section.

Individual Learning Plans – Road Map to the Core Outcomes

The revised program requirements for family medicine residency education call for an ILP for each resident. The goal of this requirement is to start the process of developing a master adaptive and lifelong learner.[7] A resident's ILP should be reviewed regularly by the

resident and faculty to assess progress and revise both the document and educational activities. An ILP should address all of the following:

- Resident goals and needs: accurate self-assessment, accepting of assessment of others.
- Program needs and mission: Milestones, etc.
- Institution needs and mission: should align with the program and vice versa.
- ABFM core outcomes: How will resident activities help achieve these?

The ACGME states the following regarding ILPs:

> An ILP should be formulated by the learner, should include personal learning objectives, and should identify resources and strategies to achieve them. While the learner should be able to create an initial ILP, the ILP content should be guided by a facilitator (faculty member, associate program director, or program director). The draft ILP created by the resident can provide enormous insight to the program director and/or [Clinical Competency Committee]. The information contained in the ILP is one major way to determine if the learner can honestly self-reflect based on feedback, and has the insight required to be successful in remediating. Learners should be actively engaged in creating an ILP to take ownership of their own learning. ILPs allow learners to focus on priority areas, re-evaluate learning needs, identify measures of success, and have regular discussions about achieving learning goals.[8]

Further, the ACGME's executive summary on ILPs provides the following description:

> **Components of an ILP:**
> - Reflection on goals and honest self-assessment of strengths and weaknesses
> - Generation of goals, which should include focus on the Core Competencies
> - Explicit plans or strategies to achieve each goal
> - Description of the assessment method or tool that will be used to measure progress on each goal
> - Eventual revision of goals or creation of new goals based on performance
> - Identified faculty facilitator
>
> **ILPs are:**
> - tools for every resident/fellow;
> - formulated by the individual (resident/fellow);

- guided by a facilitator (faculty member, associate program director, or program director);
- an exercise in self-assessment and self-reflection;
- iterative;
- a requirement; and,
- an indicator of insight and ability to become an independent lifelong learner.

ILPs are NOT:

- set in stone — they can and should be revisited by both the learner and the facilitator;
- a portfolio;
- evaluations; or
- created by faculty members or the program.[8]

Monitoring of ILPs

An ILP must be developed for each resident who matriculates into the residency program, and it must be reviewed and updated at least semiannually by the resident and their advisor or the program director (PD). Each resident must meet with a faculty advisor at least every six months to review their existing ILP, current progress and concerns, and preparations for future learning and career opportunities. This meeting should include review of the following:

- All formative and summative evaluations compared with program goals and objectives.
- The resident's Milestone attainment.
- All relevant clinical data, including volumes and quality performance metrics.
- Teaching evaluations.
- Participation in scholarship, quality improvement, health system committees, and community engagement.

In addition, faculty advisors must work with residents to help them develop professional and personal learning goals that can be achieved during residency, as well as post-graduation goals. Aspirational goals should be encouraged but must be tempered by the reality of residency.

Faculty Development

It will take some time for residents and faculty to become comfortable with the ILP process. In particular, faculty will require significant professional development regarding ILPs. One

strategy is to have each faculty member develop their own ILP with feedback from peers. Faculty will need to be well versed in the residency program's mission, competencies, Milestones, and core outcomes and be able to clearly articulate these to residents. They will also need guidance on how to create SMART (specific, measurable, achievable, relevant, and time-based) goals with residents. In particular, faculty members must be able to help residents concretely define objective measures of success in fulfilling their ILP. The STFM Resource Library offers one example of an ILP outline.

Development of ILPs requires a paradigm shift on the part of residency faculty. Faculty members are familiar with the role of an advisor who reviews residents' progress toward goals (e.g., academic goals, future practice plans) and suggests future rotations/experiences and the role of a mentor who guides and supports residents based on personal experience. These roles are supportive, but they do not provide the resident-centered focus necessary for developing and using ILPs. Rather, the appropriate faculty role is that of a coach who requires each resident to begin and maintain the process of development as a family physician. Coaching is a resident-driven process that includes the following:

- Reflection on past experiences
- Problem-solving
- Performance-based educational process

A successful faculty coach works with the resident to do the following:

- Reflect on successes and challenges.
- Create goals.
- Solve problems (e.g., barriers)
- Identify resources.
- Develop and execute plans.

Evaluations and Assessments

To ensure that its graduates have attained the ABFM's proposed outcomes of residency education, a program of excellence has a robust assessment system. The ABFM estimates that the average family medicine graduate from a U.S. residency has between 50 and 75 assessments over three years of residency.[9] By contrast, the average family medicine graduate from a Canadian residency will undergo over 1,000 assessments throughout two years of training. While the "right number" of assessments needed to document competency upon completion of training is not clear, it is likely much closer to the number in the Canadian assessment system than the number in the current U.S. system. Getting to

that level will require gradual development and use of tools until the program approaches at least daily assessment of each resident.

Feedback and Evaluation

In CBME, assessment drives learning. Trainees attend to areas in which they are assessed, and feedback from these assessments leads to improved performance. Residency programs are responsible for providing learners with feedback on a regular basis. Feedback powers the learning cycle, allowing residents to reflect upon their performance, compare it to their goal, and adjust it to attain their goal. Modern feedback models view feedback as a conversation between a trainee and a faculty member that facilitates the learner's self-awareness and self-efficacy in identifying improvement objectives and strategies for achieving them. Programs of excellence use feedback models shown to be effective in improving trainee performance (e.g., ADAPT [Ask-Discuss-Ask-Plan Together], R2C2 [Relationship, Reaction, Content, and Coaching]).

Programs have a duty to monitor resident learning and performance on an ongoing basis to facilitate resident progress (i.e., formative evaluation) and provide a determination of where residents are along the continuum of their residency program experiences (i.e., summative evaluation). Programs of excellence use both formative and summative evaluations to guide resident performance. It is useful for faculty and residents to review and reflect upon both types of assessment when developing and revising ILPs. In addition, the Clinical Competency Committee (CCC) uses these evaluations to assess a resident's progress on the ACGME Milestones.

- **Formative evaluations** are provided consistently to help residents learn to identify their strengths and weaknesses in providing patient care and determine educational opportunities to target areas that need work. These evaluations help programs identify areas in which residents need help so they can intervene immediately. Formative feedback should be specific and timely. It can be provided at a daily, case-based, or mid- and end-of-rotation frequency.
- **Summative evaluations** assess a resident's learning by comparison to the goals and objectives of the rotation and program and, ultimately, to the core outcomes of residency training. Examples of summative evaluation include assessments of whether a resident "passed" a rotation, whether a resident is ready to serve as a supervisory resident, and whether a resident is ready for promotion to the next postgraduate training year. Summative evaluations encompass all ACGME competencies.
- **Rotation evaluations** include both formative and summative components. Every block rotation must have an evaluation, and residents should have access to these

evaluations. Longitudinal experiences (e.g., continuity clinic) require evaluations every three months.

Evaluation Domains

Residents should have evaluations that address their knowledge, skills, and attitude in all curricular areas. A program of excellence maps these evaluation domains to curricular components to ensure that the necessary knowledge, skills, and attitude are taught. It also ensures that residents demonstrate the knowledge, skills, and attitude required for independent practice by mapping these domains to the outcomes of family medicine residency training and all EPAs developed by the program.

- **Knowledge:** Evaluation of a resident's learning and study skills includes an assessment of their ability to acquire, organize, access, and retain knowledge.
- **Skills:** This evaluation domain includes assessing the following skills:
  - History and physical examination
  - Clinical reasoning
  - Organization and time management
  - Procedural
  - Technology and data management
  - Critical appraisal and evidence-informed decision-making
  - Practice management (e.g., coding, billing, management principles, quality improvement, population management)
  - Interpersonal communication, education, and advocacy
- **Attitude:** Evaluation of attitude includes assessing the following for each resident:
  - Self-awareness
  - Openness and response to feedback
  - Commitment to excellence, growth, learning, and professionalism
  - Willingness to work effectively as a member of an interprofessional team
  - Commitment to community engagement and health equity

Clinical Competency Committee

The CCC is responsible for assigning each resident a Milestone rating for each subcompetency. A resident's level of Milestone attainment is determined by developing a consensus of experienced faculty based on all of the assessment data available for the resident. The CCC must provide this information to the PD on a semiannual basis. The PD or designated faculty member must then use the information to help residents develop ILPs. Programs of excellence ensure that residents address their ILPs on at least a

semiannual basis. Furthermore, through their CCC, programs of excellence develop or modify evaluation tools so they can better assess resident attainment of Milestone competencies and identify curricular areas in which residents need improvement (i.e., consistently underperform in attaining expected Milestone levels). The CCC should also assess residents' progress toward achievement of the core outcomes of family medicine residency training and provide guidance to help the PD determine when the resident has achieved these core outcomes.

Evaluation Tools

A variety of effective, validated evaluation tools are available to residency programs. Tools that use criterion-based standards that describe the range of observable and expected behaviors (e.g., the Patient-Centered Observation Form) are particularly useful for evaluation. A program of excellence is familiar with a range of validated evaluation tools and employs multiple tools based on the program's available resources, the faculty's training, and learners' needs. It is important to note that the Milestones themselves should not be used as an evaluation tool. Rather, all evaluation tools should be mapped to the Milestones to ensure that all subcompetencies and associated Milestones are assessed.

Faculty development in the use of evaluation tools is critical. The faculty member who completes the evaluation tool is the real instrument; the tool itself is simply a means of capturing their measurement. Faculty members are the primary source of inter-rater variability in evaluation. Programs of excellence provide faculty with ongoing training in the use of the program's evaluation tools to ensure that they have a shared mental model of the behaviors evaluated by the tools and how to use the tools to evaluate those behaviors.

Considerations for Evaluations and Assessments

Other key considerations regarding evaluations and assessments include the following:

- **Narrative data:** Narrative data recorded on evaluation forms can provide important information for CCC members assigning Milestone levels. These data also provide residents and faculty with useful descriptive information to guide growth and learning. Programs of excellence maximize opportunities to collect narrative evaluations that describe residents' performance.

- **Direct observation:** There has been growing recognition of the power and necessity of direct observation as an assessment tool. It should be performed frequently by faculty directly observing care either in person or remotely using technology (e.g., via video observation or recording).

- **Interpersonal communication skills:** Observational data from residents' interactions with patients, as well as data from recorded or other directly observed patient care encounters, should be provided to residents to help them improve their performance. Providing residents with timely feedback regarding performance in all behavioral science areas allows for early and continued performance improvement. In promotion deliberations, the weighting of evaluation strategies for resident performance in all behavioral science-related curricula and competencies should be consistent with the weighting for other curricular areas. Assessment of interpersonal communication skills should include patient satisfaction scores.

- **Multi-rater perspective:** A program of excellence obtains evaluations from a 360-degree perspective. These evaluations may come from staff, other residents, attending physicians, and rotation preceptors. In addition, patient satisfaction surveys can provide important information to residents and assessors.

- **Clinical performance:** Evaluation should also include performance data, such as time to chart closure, patient panel quality metrics, and patient volume and coding distributions. Chart reviews and chart-stimulated recall also provide assessors with important information regarding residents' management of patients and clinical decision-making. A portfolio is a useful way to gather additional data (e.g., completion of scholarly projects, training certificates, lectures provided by the resident) to inform a well-rounded evaluation of the resident's performance.

- **Resident well-being and resilience:** Physician well-being affects the quality of clinical care. Patients cared for by physicians suffering from burnout have worse quality outcomes than patients who receive care from physicians who are not burned out. In addition, it is estimated that hundreds of physicians, including students and residents, commit suicide each year.[10] Programs of excellence recognize the complex interplay between personal wellness, clinical care, and level of educational engagement, and they regularly assess resident well-being. They also demonstrate measurably high levels of resident and faculty well-being through a combination of education and intentional system redesign. (See the Resident and Faculty Well-being chapter for additional information.)

- **In-training assessment:** The ABFM administers the In-Training Examination (ITE), and the American College of Osteopathic Family Physicians (ACOFP) administers the In-Service Exam (ISE). The ACOFP also offers the shorter 75-question Clinical Osteopathic Recognition Training Examination (CORTEx) as an alternative to having osteopathic residents take both the ITE and the ISE. Taking the ITE and the CORTEx

allows residents in programs with Osteopathic Recognition status to meet the ACGME requirement that a formative exam must be conducted.

These standardized objective evaluation methods deserve special attention. They can be used as an evaluation mechanism to help the program and the resident design and improve the resident's individual experience. In addition, performance on the ABFM-administered ITE has strong positive predictive value for future performance on the ABFM certification exam.[11] (A Bayesian Score Predictor is available from the ABFM.) Thus, the data should be provided to the resident and made part of an ILP. Programs of Excellence also utilize data from the ITE or ISE, along with ABFM or ACOFP certification examination results, to evaluate the effectiveness of the program's overall curriculum.

Evaluation Resources

- General Resources:
  - PD Toolbox – See the EPA and Evaluations Folder (Association of Family Medicine Residency Directors [AFMRD]; available to AFMRD members)
  - Resource Library – Search "milestones" or "evaluations" (STFM; available to STFM members)
- Clinical Reasoning: Assessment of Reasoning Tool (Society to Improve Diagnosis in Medicine; free)
- Interpersonal Communication: Patient Centered Observation Form (University of Washington School of Medicine; free)
- Interprofessional Teamwork: Teamwork Effectiveness Assessment Module (TEAM) (ACGME; free)
- Observation: Direct Observation of Clinical Care (DOCC) app (ACGME; free)
- Wellness:
  - Mini-Z (Institute for Professional Worklife; free for educational purposes)
  - National Academy of Medicine – Provides links to a number of validated instruments for measuring work-related dimensions of well-being, including the Maslach Burnout Inventory

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View this section’s self-assessment.

8.E. COACHING IN FAMILY MEDICINE RESIDENCIES

Authors: Deb Clements, MD, Hobart Lee, MD, and Randy Pearson, MD

Introduction

Family medicine has long been a leader in developing innovative educational resources for graduate training. In 2024, the Accreditation Council for Graduate Medical Education (ACGME) instituted new program requirements that underscore the dynamic role of family medicine education in helping residents develop master adaptive learning skills that will serve them throughout their professional careers. In addition, new requirements for individualized learning plans (ILPs) are designed to help residents take ownership of the course of their education. The topics of master adaptive learning and ILP development are covered in other *Criteria for Excellence* chapters. Development of coaching skills is essential for equipping faculty to provide meaningful guidance in these areas and help ensure optimal educational outcomes for every resident. It can also enhance other aspects of faculty work, including scholarly activities and development of teaching skills and leadership abilities.

The Role and Value of Coaching in Family Medicine Residency

Although coaching is a relatively new concept in medical education, most people have had contact with coaches in other areas, such as sports or the arts. Coaching has also been embraced within the business community. When employed effectively in a residency program, coaching by faculty can help motivate residents to own their educational process by encouraging self-reflection, assessment and direction. It also fosters a mindset of continuous inquiry and self-motivated improvement that can persist throughout a learner's career.

Residency program faculty are familiar with their roles as advisors and mentors. A faculty advisor serves the program-centric function of tracking the resident's progress based on ACGME Milestones, In-Training Examination (ITE) results and other measures of performance to ensure that programmatic requirements are being satisfied. Mentorship involves a more personal relationship, with the faculty mentor offering their own experience as an example for the resident. The role of a coach is not as familiar within the graduate medical education structure. Coaching is a resident-centric activity. It relies on each resident's insights and an individualized agenda based on the resident's short- and long-term career goals and self-assessment of their progress and educational deficiencies.

Implementation of Coaching in a Residency Program

Resident advising and mentoring have traditionally been critical parts of medical education. Coaching can also be helpful in several areas within a residency program and can be implemented in a variety of ways. Some programs may decide to have a single faculty coach champion who coaches all of the residents. This approach can be particularly advantageous for smaller programs with limited faculty and smaller residency cohorts. Coaching may be done one-on-one, but small-group coaching and resident peer coaching may also be beneficial to the program.

Best practices for implementing coaching in a residency program include providing training for faculty and giving them opportunities to practice before they begin coaching residents. Faculty development focused on coaching skills is critical to prepare them to do the following successfully:

- Develop a relationship with the learner based upon mutual trust and vulnerability
- Balance the self-directed nature of the interaction with progress toward achieving core outcomes
- Encourage dialogue with the learner rather than a monologue by either party
- Incorporate active listening and open-ended questions into the interaction

Ideally, a faculty coach champion would be available to give feedback and provide support for ongoing faculty development.

Residency programs should be sensitive to the additional time coaching requires. Advising or simply telling a resident what to do is fast but not particularly effective. By contrast, coaching requires time for questions, discussion and self-reflection. This takes longer but ultimately generates more meaningful change. Residency programs should give faculty and residents protected time to meet for their coaching sessions. In addition, support for scheduling coaching sessions is recommended so that they do not happen spontaneously. Meeting with a resident between clinic patients, during a hurried lunch or right after they have been on call generally does not lead to in-depth discussions.

Before a coaching session, the resident should be asked to prepare for a productive conversation by either identifying topics for the coach to address or updating their ILP. Within the coaching construct, the resident is assumed to have the answers as they set their goals. The faculty coach’s role is to facilitate the resident’s self-reflective process.

Residency programs should establish appropriate boundaries for the coaching relationship. When coaching is used as part of remediation or to address other significant educational challenges, faculty should be advised to stay as neutral as

possible, and the resident should be encouraged not to view the coaching as a punishment. It is imperative for faculty in a coaching role not to provide therapy or serve as a resident's primary care physician. If it becomes clear during the coaching process that a resident needs additional support for physical or mental health needs, their faculty coach should connect them to appropriate resources rather than personally addressing these needs.

Coaching and Individualized Learning Plans

Coaching helps residents develop an effective process for self-assessment and learning, which will be crucial to support continued development throughout their careers. Implementing coaching in residency programs is especially beneficial now that all residents will have an ILP to facilitate their path through residency. The Society of Teachers of Family Medicine (STFM) task force on competency-based medical education (CBME) recommends updating ILPs quarterly.[1] Through coaching, faculty can help residents stay on track with their learning plans, making ILP development feel like a dynamic, continuous and iterative process in which each update builds on the last rather than being an isolated event.

ILPs often incorporate self-reflection on current performance and development of career goals. This may reveal gaps and overlooked areas that faculty can explore through coaching. An ILP also involves setting personal goals, and it is a best practice to ask residents to develop at least one wellness goal. Residents may find a goal-creation framework—such as SMARTIE (specific, measurable, achievable, relevant, time-bound, inclusive, equitable) or WOOP (wish, outcome, obstacle, plan)—helpful as they self-reflect and develop competency-based targets for each quarter. Residency programs should also use the ILP templates and tools developed by the STFM CBME Task Force.

Faculty coaches can facilitate residents' self-reflection by asking questions about their individual performance over the past quarter. Using coaching models that focus on what is working and positive (e.g., Appreciative Inquiry) can help residents reflect on their strengths and identify areas of success and growth. Faculty coaches should also challenge residents to think critically about their progress and include growth opportunities and/or stretch goals for the next quarter in their ILPs.

Support for Resident Growth and Well-being

Faculty advisors and mentors often address career planning. Coaching can also help residents clarify their career aspirations and what is most important to them when choosing a future job. With the high burden of debt, many residents default to choosing

a job with the highest pay when other factors—such as purpose, legacy, work/life balance and meaningful collegial relationships—might be better markers of a successful work environment.

Coaching can be applied to help residents develop their skills in clinical reasoning, leadership and teaching, and it can also support professional identity formation and wellness. It has become increasingly important for residency programs to address these topics. Traditional faculty advising and mentoring might focus on evaluations, ITE scores, elective planning and scholarly activities. While each of these areas is important, development related to professional identity formation is often overlooked. Using a coaching model and concepts like “ikigai,” which is related to a person’s reason for being, faculty can help residents clarify their purpose and mission, leading to greater career satisfaction and lower risk for burnout. Through coaching conversations, faculty can feel more connected to their residents and foster deeper mentoring relationships based on shared values and beliefs.

Resources for Faculty Development in Coaching Skills

Successfully incorporating a coaching approach—or a more formalized coaching program—into residency training requires faculty development. Faculty coaches must be skilled in remaining curious, asking appropriate questions, fostering an environment of psychological safety, and providing space for learners to identify their own goals and solutions. A variety of resources are available to help residency programs develop coaching initiatives and support the personal and professional growth of faculty seeking more in-depth training in coaching.

Books

1. Hammoud MM, Deiorio NM, Moore M, et al. *Coaching in Medical Education*. Elsevier; 2022.
This handbook offers a practical framework for educators and administrators who want to implement or enhance coaching programs within medical schools. It covers operational considerations, case vignettes and best practices.

2. Deiorio NM, Hammoud MM. *Coaching in Medical Education: A Faculty Handbook*. American Medical Association; 2017.
This free PDF handbook from the AMA includes case vignettes, practical coaching structures and advice on program implementation.

3. Schein EH, Schein PA. *Humble Inquiry*. 2nd ed. Berrett-Koehler Publishers; 2021.

This book encourages honest, open interactions and shows how humility can overcome cultural, organizational and psychological barriers. Multiple examples and exercises are included in this edition.

4. Simpson MK. *Powerful Leadership Through Coaching: Principles, Practices, and Tools for Leaders and Managers at Every Level*. Wiley; 2019.
This book provides a comprehensive toolkit that leaders can use to enhance their coaching capabilities across organizational levels.

5. Stanier MB. *The Coaching Habit: Say Less, Ask More & Change the Way You Lead Forever*. Page Two; 2016.
In this simple and effective guide to using a coaching approach, the practice of coaching is divided into seven core questions.

6. White D. *Coaching Leaders: Guiding People Who Guide Others*. Jossey-Bass; 2013.
Author Daniel White offers strategies for coaching leaders, with insights from executive coaching experiences.

Peer-Reviewed Articles

1. Tippit TL, Chi I, Servey JT. A model curriculum for new faculty coaches in undergraduate medical education. *J Med Educ Curric Dev*. 2024;11:23821205231217896.
This article details the development, implementation and early evaluation of a curriculum designed to train faculty members as coaches in undergraduate medical education settings.

2. Richardson D, Landreville JM, Trier J, et al. Coaching in competence by design: a new model of coaching in the moment and coaching over time to support large scale implementation. *Perspect Med Educ*. 2024;13(1):33-43.
The authors describe a coaching model developed by the Royal College of Physicians and Surgeons of Canada that emphasizes two distinct coaching roles—coaching in the moment and coaching over time—to support postgraduate medical education.

Institutional Programs and Initiatives (as of 2025)

1. University of Washington (UW) School of Medicine – Faculty Development Through Coaching
The UW School of Medicine offers individual and group coaching programs led by International Coaching Federation (ICF)-trained coaches that focus on faculty growth,

resilience and leadership development.

2. Duke University School of Medicine – Executive Coaching
Duke's Office for Faculty sponsors coaching engagements for faculty members, including 360-degree assessments and one-on-one sessions, aimed at professional development across various career stages.

3. University of Arkansas for Medical Sciences College of Medicine – Executive Coaching
This executive coaching program supports faculty's personal and professional growth, with coaches trained and credentialed through the ICF.

4. UC Davis Health – Executive Coaching
Through its faculty development office, UC Davis Health provides executive coaching that focuses on self-awareness, goal-setting and leadership development for faculty leaders.

5. Anne Burnett Marion School of Medicine at Texas Christian University – Coaching Initiatives
This program offers personalized executive coaching to faculty and staff, aiming to enhance academic excellence and professional performance by developing leadership and management skills.

Core Coaching Tools and Frameworks

The following tools can help faculty develop a coaching mindset and structure coaching conversations effectively:

- GROW Model – Guides goal-setting and problem-solving discussions using the structured GROW (goal, reality, options, will) framework
- SMART goals tool – Often used in academic coaching sessions to help learners create specific, measurable, achievable, relevant and time-bound goals
- 360-degree feedback – Used in coaching to help faculty and learners gain insight into performance from peers, students and supervisors
- Appreciative Inquiry framework – Focuses on identifying strengths and past successes to serve as a foundation for growth and change
- Motivational interviewing – Adapted for academic coaching to facilitate learner reflection and intrinsic motivation
- Mindset and self-compassion tools – Help faculty and learners reframe failure and stress; based on work by Carol Dweck and Kristin Neff

- WOOP framework – Introduces learners to goal-setting by using WOOP (wish, outcome, obstacle, plan) to explore obstacles and barriers

Training Programs and Curricula

- Stanford Coaching Framework – Structured program that includes foundational coaching training, role-plays and self-assessment tools; often used in faculty development
- Coaching in Medical Education Toolkit – Resource from the Association of American Medical Colleges that offers sample curricula, competency frameworks and implementation guides; available at www.aamc.org
- ICF-aligned coach training programs for medical educators – Internal faculty development programs at institutions including Duke University, University of California, San Francisco and UW that use elements of ICF competencies
- Coaching for Professionalism curriculum – Developed to help faculty use coaching approaches in professionalism remediation

Digital Tools and Platforms

- Coaching log templates (e.g., Google Sheets, REDCap) – Used to track coaching sessions, learner goals and follow-up actions
- Coaching apps and AI assistants (e.g., BetterUp, CoachAccountable) – Commercial platforms used by some institutions to augment their coaching programs
- E-portfolios with coaching notes – Used in CBME to align learner reflection and coaching documentation

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8.F. OSTEOPATHIC PRINCIPLES AND PRACTICE

The creation of a single accreditation system for graduate medical education (GME) for both allopathic and osteopathic programs under the Accreditation Council for Graduate Medical Education (ACGME) was intended to do the following[1]:

- Create a uniform system for evaluation and accountability for resident physicians' competency across all accredited GME programs
- Eliminate duplication in GME accreditation
- Achieve efficiencies and cost savings for institutions currently sponsoring "dually" or "parallel" accredited allopathic and osteopathic programs
- Ensure that all residency and fellowship applicants are eligible to enter all accredited programs in the United States

One of the challenges inherent in that process was the risk of losing the richness of Osteopathic Principles and Practice (OPP). Special attention continues to be necessary to ensure the identity of osteopathic medical school graduates by preserving osteopathic principles and to create opportunities for allopathic physicians to gain exposure to osteopathic medicine. To facilitate the achievement of these goals, the ACGME created an optional pathway for ACGME-accredited residency programs to seek and obtain Osteopathic Recognition.

Osteopathic Recognition

Osteopathic Recognition is "a designation conferred by the ACGME's Osteopathic Recognition Committee upon ACGME-accredited programs that demonstrate, through a formal application process, the commitment to teaching and assessing Osteopathic Principles and Practice (OPP) at the graduate medical education level."[2]

The American Osteopathic Association (AOA) defines the tenets of osteopathic medicine as the following[3]:

1. The body is a unit; the person is a unit of body, mind, and spirit.
2. The body is capable of self-regulation, self-healing, and health maintenance.
3. Structure and function are reciprocally interrelated.
4. Rational treatment is based upon an understanding of the basic principles of body unity, self-regulation, and the interrelationship of structure and function.

In many ways, the holistic tenets of OPP are closely aligned with the principles of patient-

centered care embraced by family medicine. A Program of Excellence should carefully consider the option to seek Osteopathic Recognition as part of its strategic planning process. (See the Strategic Planning chapter for additional information.) Program leadership should carefully consider the pros and cons and the opportunities and challenges associated with Osteopathic Recognition since it is an option, not an accreditation requirement.

Requirements for Osteopathic Recognition

The requirements for Osteopathic Recognition, a robust set of related frequently asked questions, and other resources can be found on the ACGME website.
Program requirements for Osteopathic Recognition include the following[4]:

- Have at least one resident per program year, averaged over a period of three years, in the osteopathic track
- Teach OPP and integrate it into the six ACGME Core Competencies
- Have a director of osteopathic education and at least one additional faculty member who is qualified to teach OPP (although external resources may be shared)
- Have enough resources to teach osteopathic manipulative treatment (OMT) (e.g., suitable exam/treatment tables)
- Require osteopathic-focused scholarly activities for residents and faculty participating in the osteopathic track
- Participate in a community of learning that promotes the continuum of osteopathic medical education

Opportunities and Challenges Associated With Osteopathic Recognition

Osteopathic Recognition may present a program with potential opportunities that include, but are not limited to, the following:

- Facilitating the recruitment of osteopathic medical school graduates, especially those who wish to maintain their osteopathic identity and practice OMT during training and into practice
- Providing training opportunities for allopathic medical school graduates who wish to gain a greater understanding of OPP and learn OMT skills
- Improving all residents' skills in musculoskeletal medicine
- Potential challenges for some programs may include the following:
- Lack of qualified faculty to teach OPP
- Cost of equipment and/or affiliations needed to fulfill the teaching requirements

- Lack of resident interest in participating in an osteopathic track

A careful read of the ACGME's FAQs captures several potential solutions to overcome possible barriers and fulfill the requirements.

In summary, a Program of Excellence should carefully determine if Osteopathic Recognition can serve as a tactic to achieve its strategic plan, with a larger goal of incorporating the values and skills of OPP to enhance patient care.

REFERENCES

1. Accreditation Council for Graduate Medical Education. History of the transition to a single GME accreditation system. Accessed March 3, 2023. https://www.acgme.org/about/transition-to-a-single-gme-accreditation- system-history/
2. Accreditation Council for Graduate Medical Education. Osteopathic Recognition. Accessed January 10, 2023. https://www.acgme.org/what- we-do/recognition/osteopathic-recognition/
3. American Osteopathic Association. Tenets of osteopathic medicine. Accessed November 20, 2022. https://osteopathic.org/about/leadership/aoa-governance-documents/tenets-of-osteopathic-medicine/
4. Accreditation Council for Graduate Medical Education. Osteopathic Recognition requirements. July 2021. Accessed November 20, 2022. https://www.acgme.org/globalassets/pfassets/programrequirements/801_osteopathicrecognition_2021v2.pdf

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8.G. INNOVATIVE APPROACHES TO TRAINING

To build on its strengths, a Program of Excellence may develop innovative approaches to training that highlight its unique capabilities and resources. This can be accomplished in multiple ways, including the following:

- Developing focused tracks within a standard three-year program using elective time
- Adding accredited or non-accredited fellowships that are either integrated within residency training or follow completion of core family medicine training
- Extending the length of residency training beyond three years
- Offering advanced degrees such as a master's degree in public health, medical education, or business administration
- Offering training in locations outside of traditional hospitals
- Combining training in family medicine with accredited training in psychiatry, internal medicine, emergency medicine, preventive medicine, or neuromuscular medicine

Innovation in family medicine residency training with a focus on competency- based education and extended length of training is currently being encouraged through the joint Accreditation Council for Graduate Medical Education/American Board of Family Medicine (ACGME/ABFM) Advancing Innovation in Residency Education (AIRE) program with a goal of 10% of all programs participating.

Essential Elements of an Innovative Curriculum

A Program of Excellence that develops an innovative curriculum will incorporate appropriate educational rationale and a clear evaluation method when designing and implementing it. To be successful offering an innovative curriculum, a program must meet the Review Committee for Family Medicine (RC-FM) expectations and have the following four essential elements in place:

1. Faculty members who have competency in the areas of focus and are capable of teaching the curricular content with defined goals and objectives
2. A volume of patients with appropriate conditions that is adequate for learning in the areas of focus without negatively affecting the teaching of family medicine core content
3. Specific assessment methods for achievement of the desired competencies
4. A robust evaluation process to measure impact and outcomes and provide regular follow-up data on graduates' success

Criteria for Deviation from Core Requirements

The RC-FM encourages programs to be innovative, although any deviation from core program requirements must be approved in advance based on the following criteria:

- Approval from the RC-FM is sought before the proposed innovations are initiated. Failure to receive RC-FM approval puts the program at risk for citation or other regulatory action.
- Programs ensure that their proposed innovations will still allow graduates to meet the eligibility requirements of their certifying specialty boards (i.e., the ABFM and the American Osteopathic Board of Family Physicians [AOBFP]).
- The rationale for innovation is clearly documented.
- A competency-based educational process that is in keeping with ACGME requirements is used.
- Institutional support is documented.
- A robust programmatic evaluation process is in place to generate outcomes data and determine the program's degree of success in meeting its stated aims.

View this section's self-assessment.

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8.H. RESEARCH AND SCHOLARLY ACTIVITY

A Program of Excellence supports and develops a culture of intellectual curiosity, scientific inquiry, and advancement of new knowledge in order to train residents to be lifelong learners and contribute to scholarship in family medicine. Family medicine faculty members are integral to both patient care and the incorporation of scholarly activity in resident education. A Program of Excellence makes consistent contributions to the body of knowledge in family medicine. In addition to traditional publications and presentations, there are a variety of other ways to contribute scholarly work. For example, a Program of Excellence may participate in a learning collaborative, working with other residencies to create and share scholarly activity.

ACGME Requirements for Faculty Scholarly Activity

The Accreditation Council for Graduate Medical Education (ACGME) Program Requirements state that program faculty must demonstrate scholarly activity in at least three of the following domains of scholarship[1]:

- Research in basic science, education, translational science, patient care, or population health
- Peer-reviewed grants
- Quality improvement (QI) and/or patient safety initiatives
- Systematic reviews, meta-analyses, review articles, chapters in medical textbooks, or case reports
- Creation of curricula, evaluation tools, didactic educational activities, or electronic educational materials
- Contribution to professional committees, educational organizations, or editorial boards
- Innovations in education

Additionally, faculty members must disseminate scholarly work inside and outside of the program via the following methods[1]:

- Participation in grand rounds, posters, workshops, QI presentations, podium presentations, grant leadership, and webinars
- Contribution to non–peer-reviewed print/electronic resources, articles, or publications
- Contribution to book chapters or textbooks
- Service on professional committees
- Service as a journal reviewer, journal editorial board member, or editor
- Contribution to peer-reviewed publications

Program Commitment to Scholarship

In addition to meeting the ACGME Program Requirements, Programs of Excellence do the following to fully embrace a commitment to scholarship:

1. Provide support, resources, and protected time for residents and faculty to accomplish scholarly activities (e.g., access to statistical analysis; resources to support state, regional, and national presentations)
2. Document and track resident and faculty scholarly activity to ensure guidelines are met or exceeded
3. Strongly encourage each core faculty member to complete at least one scholarly project every five years
4. Provide an opportunity for all residents to participate in a QI project as team leader or co-leader and take their project through at least one Plan- Do-Study-Act (PDSA) cycle
5. Strive to achieve scholarly activity that consistently includes works in the scholarship of integration and the scholarship of discovery[2]
6. Assign mentors to residents, fellows, and new faculty members to develop and encourage a culture of scholarly activity and to support scholarly projects
7. Have at least one core faculty member—in addition to the program director—who contributes to the discipline of family medicine on the national level (e.g., presenting at a national meeting, holding a leadership position in a national organization, contributing to peer-reviewed publications)
8. Have a structured curriculum that specifically teaches principles of research design, use of statistics, and principles of evidence-based medicine to all residents
    a. The curriculum should support and encourage residents' abilities to accomplish scholarly activities and establish habits of lifelong learning and scientific inquiry.
    b. The curriculum should include didactics, group discussions, and formal critical appraisal of appropriate literature.
9. Provide faculty development sessions that include specific training in the following skills[1]:
    a. Appropriately questioning residents to stimulate use of learning resources
    b. Challenging the evidence that residents use in making medical decisions
    c. Encouraging residents to teach using a scholarly approach

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9. THE FAMILY MEDICINE PRACTICE: THE PRACTICE IS THE CURRICULUM

Authors: Bryan Hodge, DO, Bill Gillanders, MD, Louis Sanner, MD, Steve Crane, MD

Family medicine residency training is the foundation for creating physicians who will care for communities across multiple settings. The family medicine practice (FMP) is where residents train and "imprint" the principles of patient care for decades to come. The goal of the specialty is to train "generalists who care for diverse individuals in the context of their families and communities through accessible, comprehensive, continuous, and coordinated care."[1]

This chapter serves as a guide to facilitate residency programs' attainment of clinical and educational excellence in practice. To provide an optimal overview, the content is broken into three sections that describe the principles grounding the family medicine practice, the form and function of the FMP site, and the models of care delivery. As the health care environment continues to evolve, clinical care delivered in a residency training program will be foundational to the family medicine specialty's core principles for generations to come.

9.A. PRINCIPLES GROUNDING THE FAMILY MEDICINE PRACTICE

The following principles of excellence should be at the core of any residency practice and drive the form and function of the care delivered by residents, faculty, and team members:

- Community context
- Accessible care
- Comprehensive care
- Continuous care
- Coordinated, team-based care
- Sustainability and innovation

Background and justification for the metrics for excellence listed in this section can be found in Appendix 1.

Community Context – *The setting for care inclusive of diverse individuals in the context of their families and communities*

A Program of Excellence should clearly define the community it serves. This includes a process by which the program identifies the key attributes of that community, engages with key stakeholders, and specifically applies data-driven strategies to its practice. At a minimum, considerations include race, ethnicity, primary language(s) spoken, and social characteristics, as well as identified community assessments and partnerships. Patients with complex needs

should be identified so that specialized care plans can be developed and accommodations take into account social determinants of health.

Metrics for Excellence

- On an annual basis, at a minimum, residents, faculty, the care team, and leadership analyze key demographics of the population served.
    - Age
    - Sex
    - Race
    - Ethnicity
- The program identifies the top priorities for the defined community it serves, engages with community-based organizations, and leads efforts for programming to better address community needs.
- The program utilizes registries to identify and stratify patient cohorts based on disease states, social factors, and utilization patterns.
- The program prioritizes diverse strategies and collaborations to enhance access and compassionate care for the most vulnerable populations, including:
    - Frail and elderly patients
    - Patients who have severe mental illness
    - Patients who have intellectual and developmental disabilities
    - Unhoused individuals
    - Patients who are “high utilizers” of emergency and hospital care

Accessible Care – *The first contact for people to obtain needed care*

Prompt access to care is of utmost importance to patients and must remain a top priority for the FMP. Family physicians should also be recognized as the point of first contact for the individuals served and the health system. Advances in technology can change care delivery and the way patients access care, but in all cases, prompt access should be balanced with prioritizing physician-patient continuity.

Metrics for Excellence

Care access metrics define how easy it is for patients to get the care they need. For needed care to be provided in a timely fashion, patients must have access to their continuity resident physician during every workday, whether in person or by video, phone, or email.[2] Residency programs must restrict rotation demands that prevent residents from responding to patients within one business day.

1. The practice has same-day access for established patients available.

2. The practice actively tracks metrics such as the time to third next available appointment and the percentage of slots open.
    a. The time to third next available appointment goal is less than seven days.
3. The types of visits offered include person-centered, alternative formats (e.g., e-visits, group visits, virtual encounters, shared medical appointments).
4. Phone response rates are tracked and a system of surveillance ensures timely responses based on triaged urgency.

Comprehensive Care – *Provision of community-centered, whole-person care with a comprehensive scope*

Comprehensive care focuses on the whole person, including family, social, and environmental contexts. At the physician level, this means that most health problems patients have should be cared for in the primary care setting, except when referral to a subspecialist is appropriate. Trusting patient-physician relationships are central to comprehensive care because they give physicians the best understanding of both what care matters to their patients and what care is needed. Comprehensive care services include wellness promotion and disease prevention, such as programs to screen for issues related to exercise, nutrition, and mental health and promote healthy lifestyle choices. Evidence-driven, person-centric, team-based chronic disease management should be coordinated across the continuum of care. Comprehensive care must be delivered in a way that continually evaluates and improves quality.

<u>Metrics for Excellence</u>

1. The program tracks practice and individual clinician referral rates and provides normative data to residents and FMP leadership.[2]
    a. Goal of less than 20% per year for population
2. The program maintains diverse resident panels that represent the population served and include multimorbid conditions.
    a. By the second year, each resident's panel includes at least 50 patients with two or more chronic diseases.[2]
3. The program uses a preventive services index to track receipt of immunization, screening, counseling, and chemoprophylaxis services recommended by the U.S. Preventive Services Task Force (USPSTF).
4. The program's formative resident evaluation process includes discrete quality of care metrics for chronic conditions such as:
    a. Major depressive disorder: screening, treating, tracking
    b. Diabetes
    c. Hypertension
5. Residents have the opportunity to be directly involved in the care of conditions currently amenable to primary care that were previously in the realm of subspecialists

(e.g., hepatitis C, HIV, substance use disorder).[2]

Continuous Care – *An implicit contract between physician and patient in which the physician assumes ongoing responsibility for the patient*

Continuity allows patients to establish knowledge, trust, and an understanding of the situational context with a physician as their usual source of care. A residency practice's ability to foster patient-physician relationships over time remains core to providing the opportunity to develop skills in trust building and compassion.

Programs should take advantage of this opportunity to model and teach skills in actively listening, expressing empathy, and connecting in meaningful ways with a diverse panel of patients to help them engage in improved health behaviors and self-care.

Furthermore, during residency training, the emphasis on continuity across time and settings provides essential exposure to observing the course of disease and health and reaping the rewards of the vital patient-physician partnership.

Emerging evidence reinforces that higher primary care continuity leads to improved outcomes for individuals and the health system.[3] Successful residency practices balance their service commitment to patients with the education of their learners.

<u>Metrics for Excellence</u>

1. Health care visits result in the outcomes that are most important to the patient.
    a. Patients are offered the opportunity to set SMARTIE (strategic, measurable, ambitious, realistic, time-bound, inclusive, and equitable) goals.
    b. Individual success is tracked over time to achieve patient-directed outcomes.
2. The program routinely evaluates continuity at the patient and physician levels.
    a. Physician-level continuity rates
        i. Goal of 70% for faculty
        ii. Goal of 50% for PGY-2
        iii. Goal of 60% for PGY-3
3. The program maintains a curriculum introduced early in residency to promote mastery of active listening skills, expression of empathy, and person-centered goal setting.

Coordinated, Team-Based Care – *Coordination across complex systems to improve effectiveness, safety, efficiency, and equity*

Coordination of care involves leading, organizing, and integrating patient care across various locations, specialties, and phases of care. The core location of care is the residency practice. Given the complexities of primary care, family physicians ideally work in the context of a larger

care team. Teams that include registered nurses (RNs), pharmacists, and behavioral health professionals, as well as non-licensed team members such as medical assistants (MAs) and community health workers/peer support, add to family physicians' capacity to see more patients, manage increasing stress, and coordinate care beyond the walls of the practice. Residency programs should strive to develop a culture that promotes learning and continually improves the quality of patient care delivered. Adequate time for practice team activities must be built into the residency schedule.

Safety is a key element of excellent care. Reporting near misses and maintaining a culture of safety are useful methods to discover and correct potentially unsafe processes and practices before patients are harmed. Programs should use simulation to train residents so they can develop competency to perform procedures safely before they are allowed to perform them on patients.

Metrics for Excellence

1. The FMP uses co-empanelment to provide resident and faculty coverage for one another and define team member roles and expectations.
2. The FMP tracks staffing ratios and turnover.
    a. The MA-to-physician ratio is 1:1 during clinic sessions for all faculty and upper-level residents.
    b. Team continuity is 90% for care provided during usual office hours (excludes after-hours or urgent care).
    c. The turnover rate for staff is below the median for support staff in the region or based on industry trends.
3. The FMP utilizes standardized protocols to coordinate clinical care.
    a. The FMP has protocols for refills, appointment access to re-engage patients, and prior authorizations.
    b. When residents are away or on busy rotations, the FMP has reliable systems in place for team staff, resident practice partners, or faculty to support electronic health record (EHR) inboxes and urgent patient issues.
    c. The FMP has clear protocols for transitioning patients to new physicians when residents graduate so that patients are not lost in transition and complex patients are handed off effectively.[4]
    d. The FMP clearly defines roles of team members who provide external care coordination for subspecialty referrals and transitions after hospitalizations and emergency department (ED) visits.
4. Care management services are integrated into the FMP and the flow for patients.
    a. Social support services are immediately available at the time of care.
    b. The FMP has systems in place to support chronic disease management,

preventive care registries, and self-management education.

5. The program collaborates with public health and community-based organizations.
    a. The program tracks the number of projects and community organizations engaged.
6. The FMP is co-located and integrated with key interprofessionals.
    a. Behavioral health professionals and continuity physicians are able to directly coordinate with each other, whether in person or virtually.[2]
    b. The FMP is able to provide or directly coordinate treatment for substance use disorder.[2]
    c. The FMP promotes integrated care delivery and group visits that are offered in partnership with the team for RN, pharmacist, and behavioral health visits.
7. Leadership promotes an open and empowering culture for residents and clinic teams.
8. The FMP has an organized process for staff to report near-miss events, and staff are assured that reporting an error does not have negative consequences.
9. Early in residency training, the program uses simulation to train residents to perform invasive procedures, examinations, and uncomfortable interviews.

Sustainability and Innovation – *The strategic forces necessary to endure*

Although finances and payment systems often dominate definitions of value, the greater purpose of the FMP—which is to improve health outcomes for the community served—should be emphasized. Desired health outcomes should be evaluated and shared with key stakeholders on an annual basis to best demonstrate the overall value of the program. Residency programs should sustain a learning culture and show willingness to innovate and change. These qualities separate average programs from those that achieve excellence.

In order for the rest of the system to follow their lead, practices undergoing innovative transformation will need to demonstrate their value by improving patient health status, as well as demonstrating fiscal stability and growth. To understand health outcomes that matter to patients, the FMP needs to include patients in some meaningful way in the planning and innovation process.

Designing methods to promote health behavior changes and improve integration of mental and physical health can go a long way toward improving overall health outcomes and patient satisfaction.

It remains essential for leadership, residents, faculty, and staff to be directly engaged with sustainability, strategic visioning, and planning. Inclusion and transparency in this process promotes not only practice management education but also equity and empowerment. A Program of Excellence creates a vibrant culture that empowers the team to be a part of the

creative process of working toward more positive clinic experiences for all involved. Continually improving the FMP serves as a reminder to residents of the greater purpose of care delivery and ingrains the attitudes necessary for a successful career in family medicine.

Metrics for Excellence

1. The program has an inclusive strategic planning process with an annual review of progress toward its goals.
2. The program is financially viable within the context of its health system, and it receives regular financial data and can make practice-specific changes to maintain viability.
3. Residents are encouraged to engage in community and practice improvement projects that test new models and processes to improve health outcomes and the practice's efficiency.
4. The FMP's overall decision-making process is inclusive, and diverse ideas from all levels of the practice are encouraged.

View this section's self-assessment.

9.B. FORM AND FUNCTION OF THE FAMILY MEDICINE PRACTICE SITE

The form and function of the family medicine practice (FMP) site is made up of various elements, including the facility's physical design, the practice's staffing model, the flow of patients, and the model of care used to provide services in a truly patient-centered way.

Background and justification for the metrics for excellence listed in this section can be found in Appendix 2.

Face-to-Face Encounters

A Program of Excellence should maintain a family medicine residency practice with enough volume and diversity that no resident will have any difficulty achieving minimum training requirements, including the minimum volume of pediatric and elderly patients. Residents should receive regular encounter volume reports, and faculty advisors should intervene early to ensure adequate volume performance so there will be no need for special catch-up electives during the PGY-3 year.

Overall rotation design for the duration of residency should provide enough clinic session opportunities that each resident can easily have over 2,000 face-to-face visits. Some residents may require fewer visits to achieve competency in ambulatory family medicine care, and some may require more. However, without a structure in place to provide at least 2,000 face-to-face encounters for each resident, it will be nearly impossible to achieve this number by modifying schedules late in the residency. The projected annual goal number of face-to-face visits for **all** clinicians at the FMP site is an important metric. It should be calculated and monitored for all clinicians who require the use of exam rooms.

At least 10% of face-to-face encounters should be with patients who have complex medical and social needs that are co-managed by an interdisciplinary team.

Facilities

The FMP site should be inviting to patients and to clinicians and staff. It should have enough exam rooms to accommodate all physician time assigned to the site. Facilities should have core components that include procedure rooms, a precepting area (adequate in size to accommodate the teachers of interprofessional learners), counseling and education space, and adequate space for group visits. In addition, it should offer opportunities to use technology for direct observation of encounters. There should be faculty offices, resident and team workspace, a library (electronic and/or hard copy), and support staff offices, as well as a well-appointed reception area and laboratory.

Residency Program Solutions (RPS) has tools to help determine the number of exam rooms needed based on the number of residents, faculty, and advanced practice providers (APPs) at the FMP site and their clinical job descriptions. In most cases, the FMP should have a minimum of one exam room per 1,000 patient visits per year.

Staffing

Family physician faculty who are fully engaged with the clinical and academic operation of the residency are fundamental to the quality of the residency education and clinical care provided (*Table 1*).

Table 1. Essential Core Program Job Descriptions

Program Director	Minimum	Maximum
Patient care without residents	10%	30%*
Precepting (direct resident supervision)	10%	30%
Administrative/Academic	50%	80%
Associate Program Director	**Minimum**	**Maximum**
Patient care without residents	20%	40%*
Precepting (direct resident supervision)	20%	40%
Administrative/Academic	40%	50%
Core Faculty	**Minimum**	**Maximum**
Patient care without residents	10%	40%
Precepting (direct resident supervision)	30%	40%
Administrative/Academic	25%	70%

*Accreditation Council for Graduate Medical Education (ACGME)-stated maximums

The Accreditation Council for Graduate Medical Education (ACGME) Family Medicine Program Requirements state that “faculty members are a foundational element of graduate medical education.”[5] Faculty are expected to fulfill a number of roles and responsibilities, including the following[5]:

- Teach residents how to care for patients
- Ensure the highest quality of patient care
- Serve as models by showing that they are compassionate, professional, committed to excellence in teaching and patient care, and dedicated to lifelong learning

- Exhibit pride and joy in fostering future colleagues' growth and development
- Take a scholarly approach to patient care
- Recognize and respond to patient, resident, community, and institutional needs
- Lead and serve on committees, boards, and groups within the residency program, hospital, health system, and community
- Promote patient safety by providing appropriate supervision
- Attend to personal and resident well-being

In addition to having sufficient faculty to fulfill these vital obligations, Programs of Excellence also need to provide robust support for continuous improvement of skills among faculty and create a collegial environment that retains excellent, motivated faculty members.

Modeling tools may be utilized to show the following: the net effect that the number of core faculty, APPs, residents, and other clinicians has on the annual visit volume for the FMP site; the number of exam rooms and rooming nurses needed; and the mix of precepting, direct patient care, and hospital attending that results from having more or less core faculty. The ideal staffing model also supports powerful interprofessional teams that include registered nurses (RNs), pharmacists, community health workers, and behavioral health professionals.

A well-trained support staff that is competitively compensated to maintain long- term engagement is a key metric of an excellent FMP. Staff should be included in quality improvement (QI) and safety programs in the practice. In most cases, a highly functional Program of Excellence should expect to have 3.0 to 5.0 support staff to each full-time equivalent (FTE) clinician, contingent on practice size, location, care delivery model, and resources available to provide excellent clinical care in a learning environment.[6] The FMP's staff turnover rate should average below the median for health clinics in the region to ensure commitment to this objective. FMP staff should reflect the community at large. A Program of Excellence should maintain an outreach and development program to increase the availability of qualified candidates of diverse backgrounds.

Patient Panel Size

Residents should have a panel of sufficient size and diversity for them to gain broad clinical experience. In general, residents should have the following panel sizes:

- PGY-1: 120-160 patients
- PGY-2: 270-330 patients
- PGY-3: 450-520 patients

A resident's panel should allow them to have the recommended number of continuity

encounters and give them maximum opportunities to develop meaningful relationships during training. Panel size considerations include hours of availability, patient expectations, and average number of annual visits projected or derived from current practice. The earlier residents can grow their panel, the more opportunities they will have to develop these relationships. Programs of Excellence should consider models such as Clinic First to provide opportunities to build a patient panel early in training.

Additionally, the program curriculum should require sufficient time for residents to care for their panel of patients, establish relationships, maintain continuity, and provide comprehensive services. A reasonable expectation for continuity experience cannot be met by fulfilling the ACGME requirements for each family medicine resident to provide patient care in an FMP for at least 40 weeks per program year and for each graduate to complete a minimum of 1,000 hours caring for FMP patients.[5] A curriculum map with at least 1,600 to 2,000 total clinic hours is desirable to attain program goals.

Telemedicine

There are evolving questions about the technology, payment model, and patient desire for telemedicine versus face-to-face care. However, it is clear that telemedicine visits will be a part of all family medicine practices. The capacity for privacy-assured video visits with simultaneous electronic health record (EHR) documentation should be available to all clinicians who are scheduled for telemedicine visits. In addition to the skills required for excellent face-to-face care, education in telemedicine should be emphasized for residents and medical students.

Clinical Operations Management

A clinic management team should be responsible for ensuring that the FMP provides safe, accessible, high-quality, person-centered care. This team is composed of the program director, a core faculty member who serves as clinic medical director, the clinic manager, and other team leaders. It should meet regularly to review clinic operations and provide support for continuous performance review and improvement.

All members of the FMP (i.e., staff, faculty, and residents) should understand their role in improving patient care and have the opportunity to work with team members to solve problems and discuss how to make improvements. Patient safety must be prioritized in a manner that promotes patient-centered care and transparent relationships across the complex medical environment. The values of trust, justice, and accountability must be fundamental to efforts for continual improvement.

Patient Advisory Committee

A high-functioning patient advisory committee (PAC) meets at least every two months, has a set agenda, and shares patient satisfaction comments relevant to practice improvement. It also creates space for all group members to have their voices heard and help steer the direction of care at the FMP. The PAC should have clearly defined roles, expectations, established guidelines, and goals. It should include residents, staff, medical leadership, and a diverse group of patients who have knowledge of the community and are invested in the health and education of family physicians. A mission statement is helpful, and the PAC should agree upon values to guide discussion and a method to handle disagreement. Community members can be rotated off after a set term, but the term should be long enough to give the group stability.

Data Collection and Analysis

Programs need to manage data for each resident to ensure breadth and depth of educational experiences, QI, and safety. This includes the demographic makeup of each resident's panel (i.e., age, race, ethnicity, gender identity), as well as the diagnoses and care complexity of patients on each panel. Additional quality metrics for all clinicians in the FMP and patient satisfaction/feedback data should be available. Most of this information will be embedded in the practice EHR or in the hospital data system. Extracting the needed reports in a timely fashion to allow FMP leaders to monitor panel assignment/quality metrics and clinical productivity is key to providing data-driven care and meeting ACGME requirements. It is also helpful to have at least one faculty member with informatics training who can communicate the educational needs and intention of the reports to the data analysts.

Finance

The FMP should have robust revenue stream management. Financial reports should be given to all clinicians, including residents, on a regular basis so that they can discuss practice goals and their performance. These reports should be paired with a continuous QI process to address adverse findings or expand on areas for improvement identified throughout the reports.

A financial assessment resource from RPS and the National Institute for Program Director Development (NIPDD) is available with an RPS consult or through NIPDD participation.

Continuity of Care Across Locations

The FMP is the curriculum, but it is not the sole source of resident education. Family medicine residents learn to be family physicians in the FMP through caring continuity relationships with patients. Residents learn the skills they will bring into the FMP for their patients by rotating with

other specialties in the community. They also need educational opportunities to care for their patients in a range of settings. For example, residents need to know when a patient on their panel is admitted to the hospital so they can maintain contact during the hospitalization. Other opportunities may include caring for patients when they become homebound, are in rehabilitation facilities or at pediatric care facilities, or are admitted to the maternity ward.

Metrics for Excellence

1. Residents average approximately 2,000 continuity encounters (face-to- face or telemedicine) in the FMP or alternative practice sites by the end of three years, including the required number of pediatric, geriatric, and complex patients.
2. The program has a sufficient number of faculty members for its size, with sufficient protected administrative and program/faculty development time.
   a. The program maintains a low faculty turnover rate (goal of less than 20% over three years), with compensation that is competitive with the local physician employment market. Each faculty member has a professional development plan that is updated annually and includes sufficient time and resources to accomplish the stated objectives.
   b. The program mean for the annual ACGME faculty survey consistently exceeds the national mean.
3. The clinic has a minimum of 3.0 to 5.0 support staff per FTE clinician.
   a. Staff should reflect the diversity of the patients and community served.
   b. The turnover rate for staff is below the median for support staff in the region or based on industry trends.
4. The FMP has at least one available exam room per 1,00 patients seen per year.
5. Residents have the following panel sizes:
   a. PGY-1: 120-160 patients
   b. PGY-2: 270-330 patients
   c. PGY-3: 450-520 patients.
   d. The curriculum requires sufficient time in continuity practice to care for empaneled patients, establish relationships, maintain continuity, and provide comprehensive care.
   e. The minimum threshold to accomplish these goals over three years is 1,600 to 2,000 hours.
6. The FMP maintains telemedicine and portal options with secure technology, appropriate space within the FMP to provide these visits, and a curriculum to train residents in the skills required to provide diligent care using these options.
7. The FMP has a functional management team to provide direction for clinic operations and perform improvement, and engages all residents in staff-and team-based performance improvement activities.

8. The practice has an efficient means of collecting important practice and individual performance data and has sufficient information technology (IT) resources to generate reports and produce changes to support practice improvement.
9. Practice leadership has input into determining the annual budget to maintain a vibrant teaching practice. They also have access to monthly practice finance reports and regularly share portions of the reports with staff to improve efficiency, as appropriate.
10. Residents can provide continuity care in more than one setting, and care across settings is coordinated.

View this section's self-assessment.

9.C. MODELS OF CARE DELIVERY

Background and justification for the metrics for excellence listed in this section can be found in Appendix 3.

The Patient-Centered Medical Home

Models of primary care delivery continue to evolve, and the desire to deliver the Quadruple Aim will drive further pressure to accelerate change. The challenge faced by many programs is how to provide the best clinical and educational environment for all stakeholders and mitigate stressors that accompany change. The patient-centered medical home (PCMH) describes the core tenets of primary care with a team-based approach. A Program of Excellence focuses on using this framework for providing care that is accessible, comprehensive, coordinated, and patient centered.

Clinic First: Teaching Practice Transformation That Embraces "Patient First"

Residency teaching programs have two equally important missions: educating tomorrow's physicians and caring for today's patients. In the past decade, innovative family medicine teaching programs have begun a shift in the balance between inpatient teaching and ambulatory teaching, moving toward creating a more leading role for ambulatory care. In this framework—called Clinic First—the clinic is the curriculum. In the new paradigm, education and service to patients are inseparable, so this shift in paradigm may more aptly be termed "patient first."

The Clinic First framework was developed at the University of California San Francisco (UCSF) Center for Excellence in Primary Care based on their work on transforming primary care education using the 10+3 model. This model extends the 10 building blocks of high-performing primary care to include three elements unique to teaching clinics: resident scheduling, engagement, and work-life balance. Programs of Excellence engaged in transforming to a Clinic First model can use the Building Blocks of Primary Care Assessment for Transforming Teaching Practices (BBPCA-TTP) as a guide.

Residency Program Solutions (RPS) recommendations are based on research on Clinic First innovators conducted by the UCSF Center for Excellence in Primary Care and other recent studies. An increasing number of Clinic First residency programs have demonstrated that providing excellent ambulatory patient care is the foundation of excellent family medicine graduate medical education. However, RPS believes family medicine residencies are early in this transformation trajectory. While Clinic First residency programs are embracing a new balance between inpatient and ambulatory rotations, other residency programs are exploring earlier stages of the transformation of teaching practices.

Advanced Primary Care Models

It is important for all residents to have a working understanding of the principles of advanced primary care practice and available models. A Program of Excellence will keep current with the range of primary care demonstration projects, as well as the outcomes of these projects as they become available. In addition, it will consider how advanced practice models can be implemented in the family medicine practice (FMP) as specific funding becomes available.

Medicare Access and CHIP Reauthorization Act

The Medicare Access and CHIP Reauthorization Act (MACRA) became law on April 16, 2015. The most important aspect of MACRA is that its initiatives move away from fee-for-service (FFS) payment toward value-based payment models. MACRA created the Quality Payment Program (QPP) with two tracks of payment:

- Merit-based Incentive Payment System (MIPS), which adjusts FFS payment based on quality, cost, improvement activities, and promotion of interoperability.
- Advanced Alternative Payment Models (AAPMs), which provide a type of incentive, plus bonuses based on quality and utilization.

A Program of Excellence needs a curriculum component focused on non-FFS payment methodology with specific instruction regarding the QPP. The program also needs an experiential component wherein the clinical practice takes advantage of enhanced payment opportunities provided by MACRA as these opportunities become available in a service area.

Metrics for Excellence

- The practice participates in an organized, comprehensive performance improvement process, such as PCMH recognition.
- The program continuously enhances residents' primary care experience, including adopting models such as Clinic First.
- Residents participate in a curriculum that gives them a working knowledge of developing innovations in primary care.
- Residents and faculty understand the principles of MACRA and how to successfully navigate in that system.

View this section's self-assessment.

APPENDIX 1. PRINCIPLES GROUNDING THE FAMILY MEDICINE PRACTICE

Community Context – *The setting for care inclusive of diverse individuals in the context of their families and communities*

Family physicians remain committed to preventing disease, treating illness, and promoting the health of individual patients and communities, and these goals are being highlighted in the move to value-based payments. Neutze et al[2] note:

> Current challenges with widening gaps of [inequity] remain rooted in our inability to address the underlying driving systems at the community level.[7,8] Training in community settings that includes public and population health provides the adaptability required to respond to a variety of our patients' needs.[9] Longitudinal and experiential models of training lend themselves to greater appreciation for cultural competencies and social drivers of health, especially in [underserved] settings and areas with significant health care disparities.[10]

Residents should be given opportunities to integrate community and public health into their practice during family medicine residency training.[11] Ensuring that residents attain the right knowledge, skills, and attitudes requires intentional changes to the training setting, didactic content, and overall experience. In particular, curricula around social determinants of health must be improved.[12]

The community served has a direct impact on the practice environment and the trajectory of trainees. Regardless of whether a training location is in a rural, urban, or suburban area, the process by which a practice grounds itself "in place" influences training. A Program of Excellence should actively engage in defining its community and strategize how it can provide care to best serve that community.

Key Resources

- Folsom Group. Communities of solution: the Folsom Report revisited. *Ann Fam Med*. 2012;10(3):250-260.
- Gotler RS, Green LA, Etz RS. What 1966 can teach us about the future of primary care: the case for communities of solution. *Milbank Q Opinion*. Published June 10, 2020. Accessed October 26, 2022. https://www.milbank.org/quarterly/opinions/what-1966-can-teach-us-about- the-future-of-primary-care-the-case-for-communities-of-solution/

- Longlett SK, Kruse JE, Wesley RM. Community-oriented primary care: historical perspective. *J Am Board Fam Pract*. 2001;14(1):54-63.
- National Commission on Community Health Services. Health is a community affair. Harvard University Press; 1967.
- Starfield B, Shi L, Macinko J. Contribution of primary care to health systems and health. *Milbank Q*. 2005;83(3):457-502.
- Westfall JM. Cold-spotting: linking primary care and public health to create communities of solution. *J Am Board Fam Med*. 2013;26(3):239-240.

Accessible Care – *The first contact for people to obtain needed care*

Access to primary care has been associated with lower cost of care and improved health outcomes, and it is a major driver in patient satisfaction.[13] In residency clinics, access to care is influenced by complex dynamics such as resident and faculty visit numbers, panel size, urgent needs, and scheduling. A Program of Excellence should recognize the broad scope of practice and the range of needs from the patient perspective and should ensure that services are readily available via a variety of methods.

Key aspects of establishing improved access include the overall number of care opportunities provided, the facility in which they are provided, measurement and control of the panel size, and the size and function of capacity-enhancing teams established within the practice.

To provide person-centered, prompt access to care, practice leadership must develop systems to facilitate follow-up access, urgent same-day access, night and weekend access, and phone access. Excellence in the practice management function cannot be realized without fully utilizing available tools within the practice's electronic health record (EHR) and scheduling systems.

Core tenets of accessible care include the following:

- **Equity promotion**: Care is equitable and free of discrimination.
- **Cultural competency**: Care is provided in a context of cultural competency and cultural humility and takes patients' health literacy into account.
- **Care integration**: Availability, quality, and integration of health care services is ensured throughout the health system. Practices demonstrate this by doing the following:
    - Actively measuring the quality of referred care

    - Maintaining ongoing communication with any patient who is referred for significant services
    - Having early in-person or phone contact with hospitalized patients and/or their families
    - Demonstrating willingness and availability to intervene in the referred care process
    - Communicating closely with the preferred health care professional(s) to maximize comprehensiveness and efficiency of care
- **Person-centered and relational approach**: The patient-physician partnership results in decisions that respect patients' wants, needs, and preferences. Patients receive the education and support they need to make decisions regarding their own care.

Use of Technology to Enhance Access

Family medicine residency practices are in a key position to eliminate barriers to access. A Program of Excellence models the ideal medical practice by utilizing multimodal communication, providing transparency of medical records, and taking a person-centered approach to appointment scheduling. Efforts to meet the demand for convenient and timely access to care create challenges given patients' elevated expectations and clinicians' need for work-life balance.

Technology should be utilized in a manner that enhances the patient and clinician experience. This should result in enhanced personal relationships, clarity of medical plans, and convenience in accessing services.

Communication barriers can be partially eliminated through use of a multimodal path that allows for contact between the patient and the practice by phone, in person, through portals, and through internet accessibility. Technology should be available to enable patients to control access to their own personal medical records and laboratory results by phone or a secure patient portal. Patients should be able to use secure email to communicate directly with the practice regarding medical problems, scheduling, and billing issues.

Electronic Health Records

The EHR system can be a key tool in the provision of care, but it can also be a barrier. A Program of Excellence is only able to achieve the Quadruple Aim by continually refining the efficiency of EHR use. Studies have shown that EHRs have the potential to generate huge cost savings,[14] but current functionality and lack of interoperability limit EHRs' ability to be utilized to their full potential.

EHRs do have many benefits. They enable clinicians to better document clinical encounters, actively engage patients, and follow patients longitudinally. However, there are also many barriers to EHR implementation. EHRs are expensive, hard for clinicians to adapt to, and riddled with incompatibility across platforms. In addition, clinicians cannot modify the EHR as they see fit. The costs and benefits of EHRs result in clinicians' love-hate relationship with these systems. EHR functionality needs to be improved to support continuity, comprehensiveness, and patient centeredness, particularly for primary care.

Aside from EHR functionality, the biggest problem is the lack of timely access to individual and population data. EHRs gather health data that can be harnessed to inform clinical care and improve population health, but this potential is not yet well utilized. In the residency training setting, being able to transfer information efficiently across systems and to the primary care outpatient record is critical for achieving better care at lower costs.

Scheduling for Timely Access and Appropriate Care

Scheduling is a critical part of ensuring that patients can access clinical care in a timely manner. Additional complexities come into play when building an optimal clinical environment that incorporates residents, core faculty physicians, and faculty functioning as part-time clinicians. Resident schedules must balance the priorities of clinic and inpatient settings. Scheduling residents in the clinic regularly, predictably, and far in advance with short intervals between clinic times maintains stable teams and provides more predictable patient continuity. Block scheduling eliminates the tension between simultaneous inpatient and outpatient duties. A small core of faculty physicians dedicated to ambulatory primary care and resident teaching should be in the clinic most of the time to lead clinic improvement.

A Program of Excellence can best meet the varying needs of its patients by incorporating the following key elements of advanced appointment scheduling:

- Patients have multiple access paths to make appointments.
- Assistance is available to determine the urgency of the appointment.
- Ideally, patients are able to make appointments with an appropriate team member when desired.
- Patients have access to care and information after hours (i.e., 24/7).
- Nontraditional care appointments, such as group visits, are offered.
- Patients have access regardless of their financial status.
- Resident schedules are made far in advance so that clinics can plan their work.
- Inpatient services do not control resident schedules. Schedules are worked out

collaboratively between the clinic and the hospital, and the clinic's needs are taken seriously.
- Resident presence in the clinic is predictable so that teams can function smoothly.

Key Resources

- Chang CH, Stukel TA, Flood AB, et al. Primary care physician workforce and Medicare beneficiaries' health outcomes [published correction appears in *JAMA*. 2011;306(2):162]. *JAMA*. 2011;305(20):2096-2104.
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Comprehensive Care – *Provision of community-centered, whole-person care with a comprehensive scope*

The family medicine residency practice must provide care services for people of all ages and for all health conditions within the medical home. Primary care physicians coordinate the complex chronic care of patients who often have multiple morbidities. A study of 148 primary care practices found that 45.2% of patients had two or more chronic conditions.[15] Furthermore, trends in chronic illness in relation to current public and community needs offer a broader role for primary care physicians in areas including mental health, obesity, addiction, chronic infections (e.g., HIV, hepatitis C), palliative care, telehealth, and expanded outpatient care beyond the walls of the practice. Ultimately, by taking care of the whole person and many of the patient's needs, family physicians can manage multimorbidity and know how to adapt and learn for their communities.

For a Program of Excellence, comprehensiveness goes beyond just delivering high-quality care for both prevention and chronic disease. Residents must practice in a setting that recognizes the evolving health needs within the community served. Part of comprehensive care is orienting residents to the population's assets and needs in order to provide the ideal environment for training expert adaptive learners.

The practice's culture should aspire to go beyond the checkboxes of quality improvement (QI). Residents should not simply have access to data on quality. They must actively engage in QI that translates to meaningful patient improvement and community impact.

Comprehensive Services

A Program of Excellence should offer the following comprehensive services:

1. Wellness promotion and disease prevention programs and services
    a. These should be available throughout the office and should include exercise, nutrition, preventive care, and mental health programs.
    b. Appropriate disease screening and testing procedures should be present.
2. Planned chronic disease management
    a. The program should integrate evidence-driven, person-centric chronic disease management for its patients.
        i. The practice should promote self-management with attention to health literacy and cultural competency. This may be manifested through multimodal patient communications, group visits, home care and monitoring, and use of self- management resources.
        ii. The practice should offer support for physicians and patients using clinician education, consultation support, and patient guidelines with personalized targets and recommendations.
        iii. The practice's delivery system should emphasize a team approach to patient care that includes planned visits with proactive follow-up; a clear set of performance goals; team members who possess appropriate training/expertise; a means to identify all patients in the practice who could benefit from team management; creative use of resources for efficient and effective care (e.g., group visits, web-based services); and ways of measuring and tracking the team's performance.
        iv. The practice should utilize clinical information systems (e.g., registries) that provide clinical prompts for tracking patients with certain conditions; offer mechanisms for tracking performance of physicians and teams; and provide risk- factor analysis to predict health outcomes.
        v. The practice should assess self-management needs of patients and match them to appropriate community resources to foster improved outcomes.
        vi. The practice should coordinate consultation and referral of patients within the health care organization by facilitating communication.
3. Procedures and ancillary services
    a. The medical home should provide a variety of procedures and ancillary services that can be safely performed to improve patient outcomes in the practice.
4. Behavioral health services
    a. Many patients have comorbid conditions, including mental health disorders, and primary care remains the point of first contact for these patients.

Quality Improvement and Patient Safety

Data-driven improvement is a continual process undertaken by the best practices. Bodenheimer et al[4] list the following key features of data-driven improvement:

- Robust, clear data are available and transparent across clinic, team, and [clinician] (including resident) levels.
- Data include a range of clinical, operational, cost, patient, and staff experience, including resident experience.
- Practice improvement goals related to the metrics are clearly defined.
- Measures are made meaningful and actionable for residents and teams.
- Meeting structures exist for discussing and improving performance.
- Resident schedules prioritize participation.

Principles of QI and patient safety include the following:

- Evidence-based care
- Physician competency in providing care
- Focus on patient safety
- Outcome analysis and a system for monitoring variance

Patient safety can be emphasized by holding regular morbidity and mortality conferences that utilize root-cause analysis, if appropriate; credentialing physicians for competency; and reporting unusual occurrences. Outcomes can be analyzed through key indices, such as quality of evidence-based medical care, patient satisfaction, access to care, practice efficiency, staff morale, and practice finances. The system can be monitored by reviewing quality measures, improved outcomes, and patient/learner satisfaction.

In the residency practice, each resident should be involved with a care committee and should design and implement at least one patient safety or QI project during their three years in the residency. This will emphasize the importance of the principles of QI and patient safety. Residents should participate in discussions with team members about access, availability, patient safety, quality/improvement issues, disease trends, and patient/learner satisfaction. These activities should enable residents to function as effective managers of safe, high-quality, acceptable, and user-friendly practices.

Key Resources

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Continuous Care – *An implicit contract between physician and patient in which the physician assumes ongoing responsibility for the patient*

Practically speaking, continuity of care is associated with improved preventive and chronic care, higher patient and clinician satisfaction, and lower costs.[16] It underlies the patient-physician relationship and is key to the educational value of teaching clinics. This principle involves increased availability and continuity between the patient and their physician and care team. Most outpatient service needs should be provided by individuals who have a longitudinal relationship with the patient. Key services include preventive medicine, acute care, and chronic disease management. The model of care used by the residency practice should connect to the community and to a patient population.

The ways family physicians achieve continuity with their patients continue to evolve. Achieving continuity in residency is challenging for a variety of reasons, particularly if residents are scheduled for only the minimum required time in clinic. Programs of Excellence prioritize both the amount and predictability of scheduled time in the clinic. Continuity of care has demonstrated improvements related to the Quadruple Aim, but more than anything, it represents the trusted connection necessary to care for patients over time.

<u>Core Principles for Continuity of Relationship</u>

While access and continuity have the potential to be in tension with one another, practices can build protocols that allow patients the flexibility to decide which takes precedence. Continuity

of care for residency training and practice should not be reduced to transactional percentages and metrics. The purpose of continuity is to allow time and space for a meaningful relationship to develop between the physician and patient. When individuals know one another better, their longitudinal partnership makes it easier to determine the things that matter most to the patient and also leads to improved adherence and potential for behavior change. The experience shared across settings through face-to-face consults, phone messages, and portal exchanges develops a connection that impacts a person's ability to engage in their healing and support their own wellness.

To better understand these dynamics at the local level, it is imperative for residency practices to measure continuity and access and maintain an elevated level of both. At a minimum, residents should be assigned a continuity panel at the beginning of residency, and practices should ensure that all patients in the practice are empaneled. The EHR must support resident primary care physician assignment and provide flexibility to update and modify patient panels for a variety of circumstances. Even though panel sizes for residents vary widely across training programs and time in training, this metric provides some guidance on the availability and workload of an individual physician. For physicians in training, panel size should be designed to balance visit volume, access, scope of disease, and continuity.

Best Practices

Residency programs should model continuity of care with the following qualities:

- Regular/predictable schedules
- Patient care sessions daily, with more frequent and longer sessions for senior residents
- Partnership or team coverage of patients on a regular basis
- Daily resident contact with the site by phone or through electronic means (e.g., the EHR) when the resident is not physically present at the family medicine practice (FMP) site
- Ability to contact patients during and between office visits
- Use of protocols to guide the right type of care at the right time through multiple alternatives visit types including, but not limited to, e-visits through a patient portal, phone and video encounters, group visits (also called shared medical appointments), and visits with non-clinician team members

A culture of learning rooted in evidence-based medicine should be developed, with an emphasis on point-of-service learning. The practice should develop a system for all patients to access their medical home and ensure continuity of care for both the patient and the clinician. Measures of continuity should be determined on a regular basis to define success and ways to improve continuity.

Key Resources

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Coordinated, Team-Based Care – *Coordination across complex systems to improve effectiveness, safety, efficiency, and equity*

Coordinated, team-based care is essential to improve the patient experience, deliver better health outcomes, and preserve physician well-being. Coordination within teams has the potential to optimize capacity in access and scope of services. In residency teaching practices, care coordination inherently has additional complexities that include multiple “part-time” clinicians, competing priorities, and the transient nature of residency training. Increased transitions of care and handoffs raise the risk of medical errors, inconsistent care plans, and patients lost to follow-up.[17]

Models that foster the ability to better coordinate team-based care may offer potential solutions to ongoing shortages of primary care clinicians and the increasing gap between supply and demand for primary care services. While current capacity may be limited, access to primary care must be addressed in an inclusive process that acknowledges team members are vital to successfully providing services and managing the systemic stressors of care delivery.

Additionally, non-licensed team members (e.g., medical assistants [MAs], support staff, social workers, community health workers) can provide health coaching, community outreach, health education, panel management, and her documentation (scribing) assistance to round out the residency practice’s logistics and capacity for whole-person care. The direct practice-based care team should utilize effective communication techniques, including huddles, frequent reviews of roles and responsibilities, and plans for both individual patients and registries of patients.

Public Health Integration and the Social Determinants of Health

Family physicians should retain a leadership role in identifying and addressing issues that impact a patient's comprehensive ability to thrive and be well. The goal of team-based care is to improve patient-centered care while expanding the practice to adapt to patients' needs. The community context and patients' social needs require team-based care to extend beyond the walls of the physical FMP. In a Program of Excellence, the practice leadership will facilitate care delivery by teams that share a common mission of placing the patients' needs first, and they will incorporate collaboration with public health and community-based organizations. Screening for social determinants of health has the potential to improve overall patient health because these factors can influence a patient's access to medical care.[18] Training practices should screen for social determinants of health and help connect patients to available resources once needs are identified.

Behavioral Health Integration

As behavioral health is accepted as an integral part of whole-person care, mental health services must also be integrated into primary care so that it can be truly coordinated and comprehensive. The current body of evidence shows that such integration does improve health outcomes.[19] However, a better understanding of implementation strategies and payment models is needed before integration can occur in all practice settings.

Surrounding family physicians with the appropriate multidisciplinary team allows them to distribute responsibilities to ensure improved care for their patients, decrease the non-physician workload, and expand access by managing a larger patient panel.

Key Resources

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Sustainability and Innovation – *The strategic forces necessary to endure*

Value-based financial models should improve upon sustainability for high- functioning primary care practices. However, value-based care delivery principles must be demonstrated for primary care clinics and residency programs to be successful. Until value-based measures are clearly established, productivity and financial planning remain important. Impact assessments of proposed changes to the business model should be thorough and transparent. Members of the practice and residents should receive at least quarterly data, including metrics related to the Quadruple Aim. During the transition to value-based payments, members of the practice and residents should continue to receive reports analyzing the number of patients seen, diagnostic and demographic data, work relative value units (wRVUs) generated, gross billings, and collections. Residents should also receive feedback on their documentation and coding.

Key Resources

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APPENDIX 2. FORM AND FUNCTION OF THE FAMILY MEDICINE PRACTICE SITE

Facilities

Facility Planning

Different concepts drive the square footage space needed in a clinic. Historically, 10,000 square feet has been used for a 4-4-4 program to allow for both the clinical operation of the family medicine practice (FMP) site and administrative space for the residency, including the required conference room. The real requirement, however, is that there are enough exam rooms so that each clinician can have at least two available during their clinical time. The FMP needs at least one available exam room per 1,000 patients seen per year. To estimate the needed clinical space, it is reasonable to start with the expected number of clinicians and their clinical contributions and then include room for expansion to accommodate additional residents, faculty, staff, advanced practice providers (APPs), and other health care professionals in the future.

Although there are more nuances with changing practice models that allow for some flexibility, facility planners like to deal with the total square footage needed—usually in ballpark numbers—as they contemplate finding space and designing the facility. A common problem encountered in the experience of some Residency Program Solutions (RPS) consultants is that planners underestimate the number of exam rooms needed. The preferred approach is to provide hard numbers, if possible.

Whether square footage and the number of exam rooms are based on an estimate or a more concrete calculation, there are common components to consider (*Table 1A*). The FMP site must include some of these components, although they do not all have to be in the same building.

Table 1A. Common Components of a Family Medicine Practice Site

Clinical Space	Always/Sometimes Included	Size/Location	Calculation
Exam rooms	Always		See notes under "Exam Rooms"
Waiting rooms	Always	Enough to accommodate sick patients, well patients, children, and family members; welcoming for patients with all abilities	

Reception staff and clinic manager space	Always		
Nurse area for rooming staff	Always		One rooming nurse (one seat and computer) per 2,500 visits per year in a traditional model. Advanced models with scribes or scribing medical assistants change this ratio.
Clinician space when seeing patients	Always		One chair (or standing desk) per 2,500 visits per year
Precepting space	Always	Enough to accommodate seats and computers for two preceptors and two residents (for conversation time) for 4-4-4 program	
Lab, X-ray, pharmacy	Sometimes	Sometimes in other parts of the building complex	
Call center, triage nurses, care coordination nurses	Sometimes	Sometimes located off site	

Residency Support Space	Always/Sometimes Included	Size/Location	Calculation
Faculty offices, faculty academic support staff, resident office(s)	Always	Often better located in or next to clinical space, but remote space is an option in some cases	
Program director (PD) suite (PD, associate PDs, program coordinator, recruitment coordinator, chief resident)	Always	Co-location strongly recommended	
Conference and meeting space	Always		

Exam Rooms

The following is an example of how to calculate the number of exam rooms a practice needs:

1. Estimate the number of visits per year by family medicine clinicians, including residents, faculty, and APPs (i.e., nurse practitioners [NPs] and physician assistants [PAs]). One option is to assess the clinic schedule per half day and plug in all of the clinicians' clinic schedules to get a sense of the maximum number of clinicians who will be seeing patients each half day. (Note: A common error is underestimating clinic visits by not accounting for faculty and APPs, and thus not planning enough space for exam rooms.)
    a. This requires deciding on the practice model (e.g., mostly resident visits, significant faculty practice without residents, use of APPs).
    b. The FMP site should have at least one available exam room per 1,000 patients seen per year.
    c. Family medicine clinicians should have at least two exam rooms when in clinic.
    d. Faculty and third-year residents (and fourth-year residents and fellows, if applicable) could each be assigned three rooms when in clinic.
2. Add other health care professionals who see patients at the FMP site (e.g., mental health professionals, substance use disorder treatment professionals, subspecialists).
3. Add one to two procedure rooms for a clinic that has at least 25,000 patient visits per year.

The estimate that one exam room is needed per 1,000 patient visits per year at the FMP site assumes that all clinicians have at least two exam rooms when in clinic. Often, a faculty physician or senior resident may get three exam rooms, particularly when they are working with students. It is possible to have a tighter schedule in which PGY-1s get one exam room and other clinicians never get more than two exam rooms, but this becomes impractical when the number of clinicians assigned to clinic on a given day is variable, as is often the case in residency clinics.

Having medical students and other learners at the FMP site increases the need for exam rooms, particularly for senior students. To maintain a full schedule and stay on time, a senior student needs space in which they can spend time with each patient doing their own interviews, exams, assessments, and patient education while their supervising faculty or resident is seeing other patients on their own schedule.

Rooming tasks for nurses have expanded as more comprehensive care is expected at every visit. If the number of exam rooms in the FMP is limited, nursing time can become a barrier to efficient physician time with patients. Some clinics operate on a “self-rooming” model, which can greatly decrease the need for waiting room space but requires enough open exam rooms for self-rooming to be practical.

In light of all these considerations, a Program of Excellence should not increase the “one exam room per 1,000 patient visits per year” estimate to one exam room per 1,200 to 1,300 annual patient visits. This will put stress on the FMP site and is not an excellent plan for patient care, clinic flow, or resident and student education.

Additional Space

In addition to having an adequate number of exam rooms, a Program of Excellence will have precepting space that provides enough room for the number of faculty physicians needed on a busy resident day. The space should be arranged so that each faculty physician can have a reasonably private—or at least not easily heard—conversation with one or two residents or a resident and a student without excessive wait times for residents who need real-time guidance about patient care.

The FMP site should have space for group visits, as well as areas in which residents and faculty can conduct telemedicine visits with separation that meets Health Insurance Portability and Accountability Act (HIPAA) privacy standards. There should also be adequate conference room space in or near the clinic. The practice space’s design should facilitate close communication between clinicians and nurses. To facilitate warm handoffs and ongoing communication, comprehensive support services (e.g., behavioral health professional,

pharmacist, nurse educator) should be readily accessible to clinicians within the practice. Waiting room space should be attractive and allow patient distancing, and it should be scaled to the practice's clinic flow model (e.g., self-rooming, traditional nurse rooming).

Innovative Design and Construction

A Program of Excellence that is considering innovative design and construction should incorporate elements to address changes in health care delivery systems. In some cases, movement to an evolved team-based care model can be impeded by the physical layout of the clinic. An innovative approach may also be important to attract and retain patients, residents, and staff.

Design and construction that support care delivery system changes may include some or all of the following elements:

- Involve all staff in building planning and remodeling to increase their sense of ownership and commitment to the clinic. The Quadruple Aim includes clinician and staff satisfaction. Satisfied clinicians and staff are known to deliver better care and increase patient satisfaction.
- Design a waiting room that meets the needs of the practice's care model and size. Ideally, it should have separate sick and well patient sections. Depending on the practice, the waiting room may include beverage service, a health bar, patient education information, celebrations of local diversity, or kiosks for electronic check-in and checkout. A self-rooming model can decrease the amount of waiting room space needed if the number of exam rooms is generous.
- Provide central team space that allows clinicians and other members of the care team to sit near each other while managing visits and allows for non-visit panel management.
- Include fewer private offices and more team space.
- Provide a room that allows nurse care coordinators to conduct panel management and also interact with visit-based daily workflow.
- Include a room that can be used as a residency meeting room and can also be used for other department functions, for clinic functions and meetings, and/or for meetings with community groups, as needed.
- Incorporate flexibility into the design to give the option of a smaller operation in a reduced number of exam rooms on evenings and weekends. This requires fewer nurses and less front desk staff and maintains building security by locking off much of the rest of the building.
- Depending on the practice's staffing and care model, designate space for provision of dental care and mental health services, as well as space for pharmacists to educate

patients and interact with clinicians and nurses.
- Consider creative ideas such as having a community garden and/or a farmer's market in the parking lot on weekends.
- Consider clinic design that promotes staff wellness (e.g., space for yoga classes) and provide a nice outside dining area.

Staffing

A preliminary review of patient-centered medical home (PCMH) staffing, with a discussion of types of staff and staffing ratios per physician full-time equivalent (FTE) was published in the *American Journal of Managed Care*. The average staffing per physician FTE was 4.25, an increase by 1.57 FTE over a mean baseline of approximately 2.68 per physician FTE.[6] This increase represents a 59% increase/lift over the standard Medical Group Management Association (MGMA) fee-for-service (FFS) models and does not fully take into account the academic learning environment. Staffing models are contingent on the practice's care delivery model, size, location, and resources available. Regardless of the desired ratio, the model staffing plan should prioritize patient-centered care and a commitment to fostering a learning environment.

Residency practices often use a hospital model of staffing, in which the number of staff allowed is driven by the number of filled beds. In the outpatient setting, this translates to the need to see more patients before more staff can be hired. Often, more emphasis is placed on the quantity of care than the quality of care. The resultant workflow will not adequately support the introduction of new models of care.

Patient Panel Size

There is no set size for panels; however, programs can look at the size of the patient population and the size of the program. In a non-teaching group practice, the typical FTE panel size is between 1,600 and 1,800 patients, with allowance for severity adjustment. Calculations from the *Association of Family Medicine Residency Directors* (AFMRD) have approximated that the average panel size is 120 patients for a PGY-1, 270 patients for a PGY-2, and 520 patients for a PGY-3. Individual programs may have higher numbers. RPS suggests that a program should have panels sized at 120 to 160 patients for each PGY-1, 270 to 330 patients for each PGY-2, and 450 to 520 patients for each PGY-3.

Another method for sizing panels is to use the following American Board of Family Medicine (ABFM) recommendation: 700 patients for each PGY-1; 1,200 patients for each PGY-2; and 1,600 patients for each PGY-3 **prorated by the number of half days in the FMP**. The goals for panel size per resident year will become better calibrated as individual programs gain more experience dealing with the empanelment requirement and publish their experience.

Programs may adjust the panel size. If so, the adjustments should facilitate easier handovers upon promotion and graduation. For example, the 450 patients in each graduating PGY-3's panel can be divided into 150 patients for the incoming PGY-1s and 300 patients for the upcoming PGY-2s. Care should be taken to prevent excessive reassignment for individual patients (e.g., assigning many current patients to upcoming PGY-3 residents who will be leaving less than a year later). Care should also be taken to balance the panel size for PGY classes so that residents who are more junior have the time to manage a panel that is not excessive.

A balanced spectrum of ages, conditions, complexity of care, and populations in the community should be represented in each resident’s panel. Panel complement adjustments should be made at the time of promotion, if necessary.

For example, a resident’s panel may need more patients in a certain age range so that they have an adequate number to ensure quality experience.

APPENDIX 3. MODELS OF CARE DELIVERY

The Patient-Centered Medical Home

The concept of the patient-centered medical home (PCMH) can be traced back to 1967 when the American Academy of Pediatrics (AAP) introduced the term “medical home” to describe the function of a single information source for children with complex medical illnesses. In 2007, the PCMH concept was codified by the American Academy of Family Physicians (AAFP), the AAP, the American College of Physicians (ACP), and the American Osteopathic Association (AOA) as the Joint Principles of the Patient-Centered Medical Home.

The Future of Family Medicine report provided a framework for the PCMH as a model of care that encompasses the core principles of family medicine and emerged to address the public’s long-standing perception that their medical care did not meet their needs for both comprehensive and continuous care. The principle of comprehensive care implies that family physicians will assume responsibility for the total health care of the individual and family, considering social, behavioral, economic, cultural, and biological dimensions. The principle of continuity of care implies that the family physician will provide medical services for patients throughout their lifetime in multiple settings, irrespective of gender, race, ethnic origin, or organ system involved in the disease process.

A Program of Excellence must guide residents to embrace and internalize the PCMH concept to guide the care they provide. A successful PCMH comprises the following seven elements that provide a deeper understanding of the principles of comprehensive care and continuity of services:

1. Access to care and information, including electronic health records (EHRs), after hours and online
2. Long-term patient-physician relationships
3. Shared decision making
4. Patient engagement on health and health care
5. Interprofessional team-based care
6. Better quality and experience of care
7. Lower overall cost of care

The core principles defined by the PCMH are incorporated into the Merit-based Incentive Payment System (MIPS), which is a part of the Quality Payment Program (QPP) of the Medicare Access and CHIP Reauthorization Act (MACRA).

The National Committee for Quality Assurance (NCQA) and other accreditation and certification organizations developed standards by which a practice could receive certification or

recognition for exemplifying the principles of the PCMH. These standards continue to evolve. The most well-known PCMH recognition comes from the NCQA, which has developed three levels of recognition.

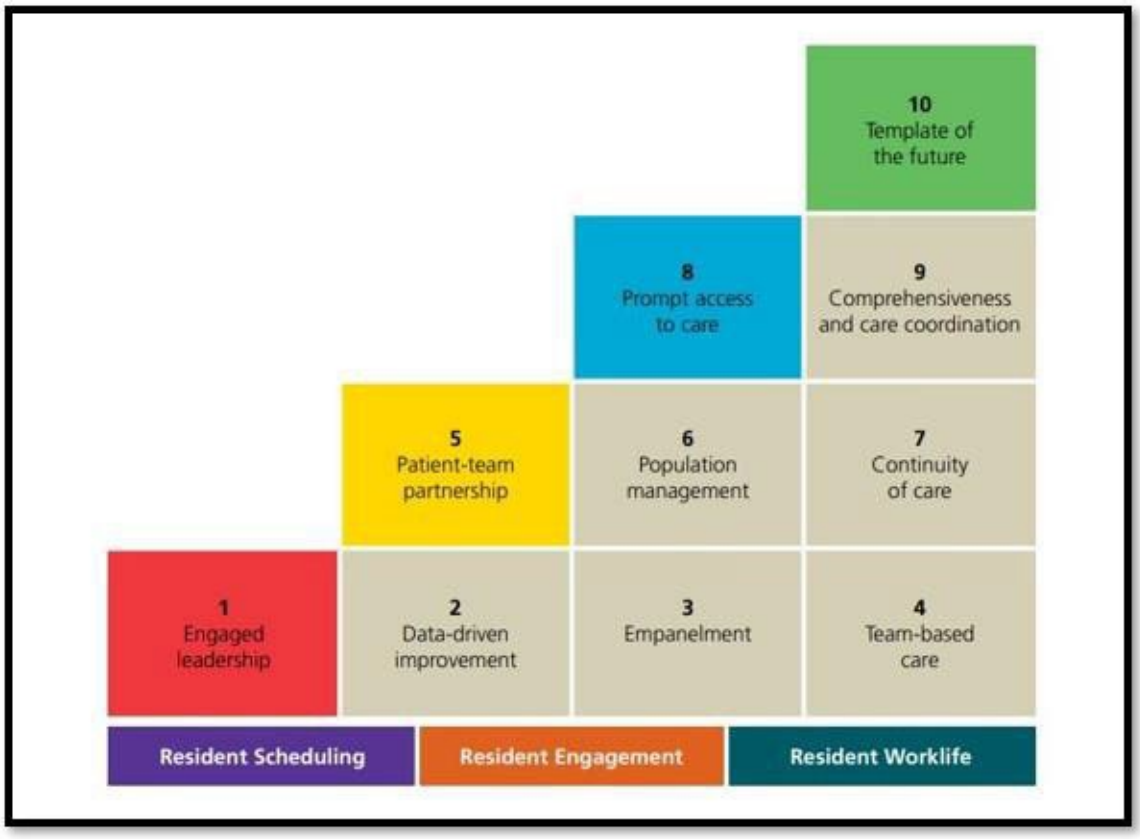
A Program of Excellence should obtain PCMH recognition by the NCQA or a similar organization as a step in creating a high-quality clinical environment for family medicine residency education. However, this alone is insufficient to ensure a culture of quality health and health care. There is growing realization in the quality and educational communities that recognition alone does not equal quality; rather, it is a marker that a practice has processes and systems in place that could lead to improved quality of care.

While people have different expectations regarding what a PCMH should accomplish, the general model has become the backbone of multiple physician and commercial practices. Evidence of the effectiveness of the PCMH model remains mixed. Improvement in quality indicators seems consistent, but the effect on cost and patient satisfaction is less clear. The PCMH model continues to be refined, and the evidence base for PCMH practice continues to grow.

Clinic First: Teaching Practice Transformation That Embraces "Patient First"

The 10+3 Building Blocks model includes ten building blocks of high-performing primary care practices, as well as three additional blocks that are specific to residency programs with a Clinic First orientation (*Figure 1A*).

Figure 1A. The 10+3 Building Blocks Model for Residency Teaching Clinics



Reprinted with permission from Bodenheimer T, Gupta R, Dubé K, et al. High-functioning primary care residency clinics. Building blocks for providing excellent care and training. Association of American Medical Colleges; 2016. Accessed November 20, 2022. https://store.aamc.org/downloadable/download/sample/sample_id/126/

Table 2A highlights some of these fundamental building blocks for providing excellent care and training that are likely to resonate with most program leaders as they reflect on their own program improvement efforts.

Table 2A. Selected Building Blocks of High-Performing Primary Care

Building Block 1. Engaged leadership	Clinic and residency leaders work closely together and prioritize missions of both patient care and education—"the clinic is the curriculum."
Building Block 2. Data-driven improvement	Performance data on a range of clinical, operational, cost, patient, resident, and staff experience are available and transparent across clinic, team, and clinician (including resident) levels. Measures are made meaningful and actionable for residents and teams. Resident schedules prioritize participation.

Building Block 3. Empanelment	Each patient chooses or is assigned to a faculty member or resident. Clear processes exist for reassigning panels when residents graduate.
Building Block 4. Team-based care	Clinicians and staff, including residents, always work on their team and are not shuttled back and forth from one team to another. These stable teams allow team members (faculty, midlevel providers, and nursing personnel) to provide continuity when residents are not in clinic. Co-location and huddles enhance a cohesive team culture and facilitate communication among team members. Small teams, or large teams subdivided into teamlets, allow patients to know their team members and team members to know their patients.
Resident Building Block 1. Resident scheduling*	Resident schedules balance the priority of clinic and inpatient settings. Residents are scheduled in clinic regularly, predictably, and far in advance, with short intervals between clinic times, in order to maintain stable teams and provide patient continuity. Block scheduling eliminates the tension between simultaneous inpatient and outpatient duties. A small core of faculty physicians—dedicated to ambulatory primary care and resident teaching—are in clinic the majority of the time to lead clinic improvement.
Resident Building Block 2. Resident engagement	Residents learn about practice transformation through engagement in, and leadership of, sustainable clinic-improvement projects based on clinic priorities.
Resident Building Block 3. Resident worklife	Resident experience and burnout are assessed, and structures exist for actively responding to resident feedback. Well-functioning clinics create positive clinic experiences for residents and, thus, positive attitudes toward primary care careers.

Residency Program Solutions (RPS) is interested in the many radical redesigns throughout the country that involve significant changes in resident schedules,such as the 2+2 programs in which residents spend time solely in the hospital and clinic, avoiding split time. Some have required waivers from the American Board of Family Medicine (ABFM) continuity requirements

for eligibility for the initial certification examination. RPS recognizes that each program is unique in its culture and situation and believes that practice transformation and innovation endorsing the fundamental Clinic First building blocks will likely take many forms. The details of each program's improvement efforts will vary in part because of its unique sponsor and condition. For example, military-sponsored programs, academic programs, community hospital-sponsored programs, teaching health centers, and large health care systems will all lead change differently.

RPS wants to highlight the fact that transformation is a journey. It takes years of skillful, adaptive leadership that respects the challenges of changing culture, traditions, and the very DNA of any program. Programs of Excellence will proceed cautiously when addressing the challenges of leading transformational change. Using the Criteria for Excellence self-assessment tools and resources will help programs be better prepared to succeed over time.

Advanced Primary Care Models

Shortly after the original Joint Principles of the Patient-Centered Medical Home were released in 2007, many recognized that it would be extremely difficult to achieve the aims of the PCMH without attending to the behavioral health needs of patients through an integrated approach. Key stakeholders in the primary care and behavioral health communities developed Joint Principles: Integrating Behavioral Health Care Into the Patient-Centered Medical Home in 2014.

Through the Patient-Centered Primary Care Collaborative (PCPCC), a diverse group of stakeholders that included physicians, consumers, employers, health plans, behavioral and oral clinicians, and others collaborated to develop the Shared Principles of Primary Care. This further expanded upon the Joint Principles of the Patient-Centered Medical Home to add emphasis on team- based care, stewardship of resources, and health equity.

The Centers for Medicare & Medicaid Services (CMS) is attempting to move beyond the PCMH model and accelerate to more advanced models of primary care to improve care and control or reduce health care costs. The Center for Medicare & Medicaid Innovation (CMMI) was created as part of the Patient Protection and Affordable Care Act (ACA), which was signed into law in 2010.

The CMMI was tasked with developing and funding demonstration projects to improve the quality of care for patients.

Comprehensive Primary Care Plus

The CMMI launched the Comprehensive Primary Care Initiative (CPCI) in 2012 and a follow-up expansion called Comprehensive Primary Care Plus (CPC+) in 2017. CPC+ involved more

than 3,000 practices nationwide, including 500 residency practices. It concluded in 2021, and interim findings are available on the CMS Innovation Center website.

CPC+ was a national advanced primary care medical home model designed to improve primary care quality, access, and efficiency by transforming care delivery across the following five comprehensive primary care functions:

1. Access and Continuity – The goal is to recognize that the needs of patients are not limited to the hours that the practice may be open for care. Tools such as secure email and a web portal allow patients to access their medical information when they need it.
2. Care Management – The goal is to help patients achieve optimal health by preventing disease, stabilizing current chronic conditions, and preventing acceleration to higher-risk categories. The practice can assign a health risk status to each patient and direct its resources accordingly. The AAFP and others have illustrative tools that can become the basis for care management at the practice level.
3. Comprehensiveness and Coordination – The goal is to work closely with other health care professionals to exchange information and to coordinate and manage referrals and care transitions.
4. Patient and Caregiver Engagement – The goal is to engage patients and caregivers in a process of shared decision making in all aspects of care, utilizing decision aids.
5. Planned Care and Population Health – The goal is for practices to proactively assess patients to determine their needs and provide appropriate and timely chronic and preventive care, including medication management and review. Team-based care is personalized to the needs of the patient. This includes integration of behavioral health to address motivation and behavioral issues that can impact overall health. It also includes medication management and review by a clinical pharmacist.

The most interesting interim finding of the CPCI and CPC+ model review was the lack of clear benefit for the comprehensive primary care approach. Specifically, compared to matched non-participating practices, CPC+ practices did not improve quality metrics, patient satisfaction, or physician and staff satisfaction more than the control practices. (There were improvements in all domains over the period, but CPC+ practices did not outperform the PCMH-certified controls). There were cost savings in emergency department (ED) and hospital utilization, but these were offset by the additional primary care resources devoted to the CPC+ practices, so there was no significant net economic benefit.

Evaluation of the CPC+ model pointed to the following important staffing implications of advanced practice models:

- Staffing must be considered in terms of functions and team organization. For example, all advanced practice models require robust information technology (IT) with multiple

population-based registries and effective health information exchange capabilities. Currently, no EHR has out-of- the-box functionality to meet advanced practice IT needs, so some dedicated internal IT resources are required. In larger groups, this expertise often can be shared across several practices, but smaller groups and single practices often have difficulty finding and retaining appropriate staff and have much higher costs per full-time equivalent (FTE) for adequate IT support.

- Solid data on the number of FTEs or FTE/severity-adjusted panel size are not yet well calibrated and there are no clear benchmarks. Support for these models requires either capitation at a reasonable per member per month (PMPM) rate or a significant care management fee in addition to fee-for-service (FFS) revenue or some form of cost-based or bundled reimbursement. These innovations are not sustainable in a strictly FFS environment.
- Database manipulation and patient outreach for chronic illness and patient outreach for preventive services are most effectively done by team members other than the physician. This requires some dedicated non- physician time, frequently by medical assistants (MAs), physician assistants (PAs), or nurse practitioners (NPs).
- PAs/NPs are valuable team members, especially if they can provide expanded access and deal with same-day appointments. They also can handle much of the patient portal activity and effectively deal with triage questions that are beyond the capacity of MAs.

CMS Primary Cares Initiative

In 2019, CMMI announced new alternative payment models for primary care physicians. The CMS Primary Cares Initiative provides five new payment model options under two paths: Primary Care First (PCF) and Direct Contracting (DC). Both were intended to be Advanced Alternative Payment Models (AAPMs) tested for five years. PCF was launched in January of 2021, and the second wave began in January 2022.

The PCF models are designed to be transparent and simple and to create opportunities for practices ready to take on more risk through payments based on utilization outcomes. PCF practices are required to provide the five key functions of a medical home. However, CMS is not prescriptive regarding the interventions a practice uses to meet these functions.

The DC models are built on the Next Generation Accountable Care Organization (ACO) model and offer new forms of population-based payment, enhanced cash flow options, and an increased flexibility that allows practices to meet beneficiaries' medical and social needs. These models aim to reduce costs and improve the quality of care for beneficiaries in Medicare FFS.

Direct Primary Care

The Direct Primary Care (DPC) model gives family physicians a meaningful alternative to FFS insurance billing, typically by charging patients a monthly, quarterly, or annual fee (i.e., a retainer) that covers all or most primary care services, including clinical, laboratory, and consultative services, as well as care coordination and comprehensive care management. Various DPC models exist, and practices that utilize this alternative payment model do not necessarily practice advanced care delivery. There is a need for exposure to DPC during training, but it has not served as the base practice model for major family medicine training programs.

Summary

A Program of Excellence will keep current with the range of primary care demonstration projects (e.g., CPC+, the PCF models) and incorporate outcomes of these projects as they become available. Residency programs should also consider how some efforts that support the five comprehensive primary care functions can be implemented within the current payment system (e.g., risk stratification, patient and family advisory councils), even without targeted funding. For example, in many settings, behavioral health integration can be budget neutral because the practice can bill for mental health services. Also, efforts at reducing ED and hospital utilization are facilitated by properly billing transitional care management and chronic care management CPT codes.

Medicare Access and CHIP Reauthorization Act

QPP is rapidly evolving, particularly with some of the reporting and rule changes resulting from the COVID-19 pandemic, and information will need to be updated regularly. To earn positive MIPS payment adjustments and avoid negative adjustments, eligible clinicians (ECs) must submit performance data in three categories:

1. **Quality**: Report at least six measures, one of which must be an outcome measure
2. **Promoting interoperability**: Report on required measures regarding certified electronic health record technology (CEHRT) capabilities
3. **Improvement activities**: Report two high-weighted activities, four medium-weighted activities, or a combination of both; full credit is automatic for certified or recognized PCMHs.

Family medicine practices can submit data as individuals or as a group. Eligible clinicians excluded from MIPS include:

- ECs who are below the volume threshold
- ECs in their first year of participation in Medicare
- Qualifying and partial qualifying AAPM participants who qualify for the AAPM bonus

Residents may be MIPS-eligible if they moonlight in their second or third year of residency. Residents who moonlight in the third year become eligible for MIPS in their first year of practice.

Educational materials available for free to AAFP members and on the CMS Quality Payment Program website provide information regarding data submission and options and can be of use in developing curricula.

Some residency practices can avoid MIPS and participate in qualifying AAPM models available in their area. However, even if the practice is not participating in a qualifying AAPM, it is important for all eligible faculty to participate in the QPP and for residents to get regular feedback on nationally benchmarked quality performance metrics.

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10. FINANCES

The mission, services, and income/expense model for primary care practices is in a state of rapid evolution. This can lead to confusion when income and costs change due to practice changes that would have occurred even if there were no academic program. Residency finances are best approached by separating the income and costs associated with the clinical operation from those associated with the academic operation. The test should be simple: How would each income and expense item change if there was no residency and the faculty physicians and other nonresident providers cared for all patients directly?

The program director and other residency leaders should fully understand the budgeting and accounting process for the program and actively participate in budget development and ongoing financial reviews. All income streams and expense savings to hospitals and other associated health care entities that would be lost if the residency were to cease functioning should be attributed as income to the residency. Only expenses that are dependent on the residency (i.e., would go away if the residency ceased operation) should appear as expenses on the residency budget. The residency income and expenses should be fairly divided between the clinical and academic enterprise, such that the clinical enterprise is:

- Financially comparable to other non-residency family medicine clinical centers within the larger parent health care organization (if any)
- Financially comparable to other regional/national organizations that provide state-of-the-art family medicine care with and without residents

If the organization's accounting practice (i.e., chart of accounts) does not clearly separate clinical from academic finances according to the above standard, then the program should have a relationship with the chief financial officer (CFO) and financial analysts that facilitates the development of a commonly agreed-upon analysis that provides this separation.

The academic enterprise of the residency should be funded to provide enough support staff and to support adequate time for the program director and other faculty to accomplish the academic mission of the residency. See Staffing for a detailed explanation). The program director should be funded to provide a minimum of 50% of his or her week for "residency academic/administrative time." Similarly, each core physician faculty should be funded to provide a minimum of 25% of his or her week for "residency academic/administrative time," defined as time spent educating residents apart from direct supervision, faculty academic endeavors (e.g., research, publication, presentations, state/regional/national residency organizational involvement), and local residency administration. This is exclusive of time that faculty spend caring for patients and supervising the care residents provide for patients. The test for whether activities fall into this "residency academic/administrative time" category is whether those activities would occur if this was not a residency program. Therefore, this does not include administrative duties (e.g., that of clinic/hospital/nursing home medical director)

and medical school teaching duties that would be expected to continue if there was no residency program.

The program should analyze its impact on the stakeholders and present that analysis to stakeholder leaders annually.

There are many common challenges in meeting the above goals:

- Residency leaders may not have a working relationship with hospitals' and other stakeholders' financial managers such that fair and complete operating statements (or analyses beyond the standard statements) are being used for residency financial analysis.
- Residency leaders may not fully understand the residency finances and/or may not have any direct participation in budget development and approval.
- Income to hospitals via the Medicare graduate medical education system, such as direct graduate medical education (DGME) and indirect medical education (IME), may not be fully attributed to the residency. Particularly hospitals may argue that the IME should not be attributed as residency income—even though IME would go away if there were no residencies and it can be shown (using the hospital's own data system) that family medicine residents who help provide care in the hospital do NOT increase the cost of care. Capitol IME payments may also not be attributed to the residency.
- Medicaid GME income (if any) may not be fully attributed to the residency.
- Savings in expenses (e.g., fewer hospitalists hired by hospitals, reduced recruiting expenses) may not be considered in the direct financial model or in larger residency impact analyses.
- There may be no or poor apportionment of income and expenses to the academic side of the residency compared with the clinical side of the residency. The residency clinical operation may then be judged as losing money when the reality of the situation is that the parent organization(s) do not adequately support the academic enterprise.
- If the residency family medicine practice (FMP) provides disproportionate care for poor/uninsured/underinsured patients, then the finances must take into account how that serves the larger organization and its mission, and must ensure that it results in some income (e.g., disproportionate share hospital [DSH] payments) that should be partially attributed as income to the residency, or at least seen as offsetting residency costs as part of the residency impact analysis. It is important to note that the Patient Protection and Affordable Care Act (ACA) introduced significant changes to DSH payments, so these may no longer be a predictable form of revenue for hospitals.

A "program impact analysis" or "larger financial model" should be developed for the program and include value provided to stakeholders by the residency beyond directly attributable costs

and revenues, as discussed in the article, The Direct, Indirect, and Intangible Benefits of Graduate Medical Education Programs to Their Sponsoring Institutions and Communities. This analysis should be updated and reviewed with stakeholders annually.

While the amount of financial support received by residencies can vary dramatically from program to program and locale to locale, a minimum amount of $150,000 per full-time equivalent (FTE) resident per year is considered “adequate” for a Program of Excellence, calculated as follows:

- Add all net hospital support credited to the residency (DGME, IME, other support from DSH and/or margin).
- Add in any direct state or sustaining local support (Medicaid GME, other state support).
- Divide by total number of active FTE residents.

This amount should provide coverage for the following expenses:

- Resident salaries and benefits
- Faculty salaries and benefits for “academic/administrative time” (excludes patient care time and time spent directly supervising resident care in clinic or hospital for billed services). This should include non-core faculty and paid specialty faculty, if any.
- Residency support staff salaries and benefits (including dean’s tax or designated institutional official [DIO] office, if applicable)
- Continuing medication education (CME) for faculty and residents, including faculty development expense
- Administrative space lease, rent, or depreciation, plus all administrative supplies, utilities, taxes, and insurance
- Resident malpractice coverage. Faculty malpractice coverage expense should be considered a “clinical” expense
- Information technology (IT)-related expenses attributable to the academic function of the residency
- Library and educational software expenses

This document does not attempt to define the specific dollar amount that sets the standard for “excellence” due to the many variables associated with program financing.

The following example* illustrates how revenues and expenses can be apportioned between academic and clinical work. An interactive version of this financial workbook is provided to all Residency Program Solutions (RPS) clients who opt for a detailed financial consultation, as well as to participants in the National Institute for Program Director Development (NIPDD).

*Workbook below developed by Lou Sanner, MD, MSPH, FAAFP, for Residency Program Solutions

View this section's self-assessment.

Sample – Revenue Calculation

	Totals	%	hand enter $	Academic portion final $	%	Clinical portion final $
Revenue directly credited to FMR						
Professional Fees	4,431,526	0%		-	100%	4,431,526
Technical Fees	-	0%		-	na	-
HMO Contracts	-	0%		-	na	-
HMO Carve Out Return Payments	197,116	0%		-	100%	197,116
Other Contracts	97,500	67%		65,325	33%	32,175
Grants (federal, AHEC, private)	5,000	0%	3,000	3,000	40%	2,000
Charitable Contributions (private, industry, etc.)	-	100%		-	na	-
Other	-	100%		-	na	-
Other	-	100%		-	na	-
State Funding	654,000	100%		654,000	0%	-
TOTALS	5,385,142			722,325		4,662,817

Hospital(s) Revenue partially credited to FMR

Hospital A Name (select):	unlisted hospital			if unlisted hospital enter name here:	New planned hospital in Sample City			GME analysis		
CMS num: 999999	FTE residents claimed									
GME $	total (cap)	FM res FTE	total $ rec by Hosp	credited to FMR	Academic portion		Clinical portion	$ rec by Hosp per resident	credited to FMR per res	%
Medicare Direct GME	46	31	2,140,463	1,297,250	100%	1,297,250	0% -	46,532	41,847	90%
Medicare Indirect IME	42	28	13,673,902	3,688,812	100%	3,688,812	0% -	325,569	131,743	40%
Medicaid Direct GME	46	31	536,201	217,381	100%	217,381	0% -	11,657	7,012	60%
Medicaid Indirect IME	46	31	2,347,715	652,143	100%	652,143	0% -	51,037	21,037	41%
Disproportionate Share			20,382,179	3,209,792	0%	-	100% 3,209,792			
Marginal Revenue				2,000,000	0%	-	100% 2,000,000			
total Hospital A				11,065,378		5,855,586	5,209,792	434,795	201,639	46%

Hospital B Name (select):	unlisted hospital			if unlisted hospital enter name here:	New planned hospital in Sample City			GME analysis		
CMS num: 999999	FTE residents claimed									
GME $	total (cap)	FM res FTE	total $ rec by Hosp	credited to FMR	Academic portion		Clinical portion	$ rec by Hosp per resident	credited to FMR per res	%
Medicare Direct GME	8	8	168,083	168,083	100%	168,083	0% -	21,010	21,010	100%
Medicare Indirect IME	8	8	83,924	80,335	100%	80,335	0% -	10,491	10,042	96%
Medicaid Direct GME	8	8	7,312	7,312	100%	7,312	0% -	914	914	100%
Medicaid Indirect IME	8	8	201,000	136,998	100%	136,998	0% -	25,125	17,125	68%
Disproportionate Share			30,000	-	0%	-	na -			
Marginal Revenue				1,000,000	0%	-	100% 1,000,000			
total Hospital B				1,392,728		392,728	1,000,000	57,540	49,091	85%

Hospital C Name (select):				if unlisted hospital enter name here:				GME analysis		
CMS num: 0	FTE residents claimed									
GME $	total (cap)	FM res FTE	total $ rec by Hosp	credited to FMR	Academic portion		Clinical portion	$ rec by Hosp per resident	credited to FMR per res	%
Medicare Direct GME					100%	-	na -	#DIV/0!	#DIV/0!	#DIV/0!
Medicare Indirect IME					100%	-	na -	#DIV/0!	#DIV/0!	#DIV/0!
Medicaid Direct GME					100%	-	na -	#DIV/0!	#DIV/0!	#DIV/0!
Medicaid Indirect IME					100%	-	na -	#DIV/0!	#DIV/0!	#DIV/0!
Disproportionate Share					0%	-	na -			
Marginal Revenue					0%	-	na -			
total Hospital C				-		-	-	#DIV/0!	#DIV/0!	#DIV/0!

Hospital D Name (select):				if unlisted hospital enter name here:				GME analysis		
CMS num: 0	FTE residents claimed									
GME $	total (cap)	FM res FTE	total $ rec by Hosp	credited to FMR	Academic portion		Clinical portion	$ rec by Hosp per resident	credited to FMR per res	%
Medicare Direct GME					100%	-	na -	#DIV/0!	#DIV/0!	#DIV/0!
Medicare Indirect IME					100%	-	na -	#DIV/0!	#DIV/0!	#DIV/0!
Medicaid Direct GME					100%	-	na -	#DIV/0!	#DIV/0!	#DIV/0!
Medicaid Indirect IME					100%	-	na -	#DIV/0!	#DIV/0!	#DIV/0!
Disproportionate Share					0%	-	na -			
Marginal Revenue					0%	-	na -			
total Hospital D				-		-	-	#DIV/0!	#DIV/0!	#DIV/0!

total ALL Hospitals	12,458,106	6,248,314	6,209,792
Total Revenue (including marginal revenue from hospital)	17,843,248	6,970,639	10,872,609
Total Revenue (excluding marginal revenue)	14,843,248	6,970,639	7,872,609

Sample – Expense Calculation

						Splits		Totals
Number of FTE Residents (all 3 years)	**39**							
				% academic	% clinical	Academic	Clinical	
REVENUE (from prior spreadsheet)				39%	61%	6,970,639	10,872,609	17,843,248
EXPENSES				academic FTE	clinical FTE	Academic	Clinical	
Salaries and Benefits	FTE	tot salary	tot benefits					
Faculty and Residents	*53.4*	*5,136,960*	*1,546,369*	*43.57*	*9.79*	*4,393,578*	*2,289,752*	*6,683,329*
FMC Staff	*18.2*	*1,007,999*	*287,930*	*0.43*	*17.77*	*35,368*	*1,260,563*	*1,295,930*
Residency admin staff	*3.3*	*141,000*	*39,480*	*3.275*	*0.025*	*179,648*	*832*	*180,480*
Total Salaries and Benefits	*71.6*	**6,144,959**	**1,834,299**	*47.275*	*27.585*	***4,428,945***	***3,550,314***	
		average benefit rate:	*30%*					
				% academic	% clinical			
Malpractice Insurance				0%	100%	-	277,337	277,337
Contracted Services (i.e. physicians)				0%	100%	-	228,954	228,954
Family Medicine Center expenses (not salary or benefits)				11%	89%	79,305	625,661	704,966
Residency Operating/Admin expenses (not salary or benefits)				100%	0%	139,284	-	139,284
Recruitment (and program advertisement)				100%	0%	9,506	-	9,506
Captial Equipment Costs				25%	75%	123,298	369,894	493,192
Hospital DME (Director of Medical Education)				100%	0%	121,083	-	121,083
Depreciation of FPC (equipment)				0%	100%	-	1,383,242	1,383,242
Department of Family Practice Costs				75%	25%	7,500	2,500	10,000
Medical School (Dean's) "Taxes"				100%	0%	38,000	-	38,000
Legitimate Hospital Step Down				0%	100%	-	3,652,076	3,652,076
Other				0%	100%			
Other				0%	100%			
Other				0%	100%			
Other				0%	100%			
Total Expenses				33%	67%	4,946,921	10,089,978	15,036,899
net P/L						2,023,718	782,631	2,806,349
net P/L excluding marginal revenue						2,023,718	(2,217,369)	(193,651)

per resident (including DSH and marginal revenue):	
clinical revenue per resident FTE	278,785
clinical expense per resident FTE	(258,717)
net clinical P/L per resident FTE	20,067
academic revenue per resident FTE	178,734
academic expense per resident FTE	(126,844)
net academic P/L per resident FTE	51,890
per resident (excluding both DSH and marginal revenue):	
clinical revenue per resident FTE	201,862
clinical expense per resident FTE	(258,717)
net clinical P/L per resident FTE	(56,856)
academic revenue per resident FTE	178,734
academic expense per resident FTE	(126,844)
net academic P/L per resident FTE	51,890

Sample – Detailed Expense Calculation

back	Faculty and Residents	FTE	tot salary	tot benefits	% academic	% clinical	Academic	Clinical	
	Faculty Physician A	1	175,000	57,750	25%	75%	58,188	174,563	
	Faculty Physician B	1	164,000	54,120	20%	80%	43,624	174,496	
	Faculty Physician C	1	185,000	61,050	25%	75%	61,513	184,538	
	Faculty Physician D	1	212,000	69,960	50%	50%	140,980	140,980	
	Faculty Physician E	0.9	155,000	51,150	25%	75%	51,538	154,613	
	Faculty Physician F	1	199,000	65,670	15%	85%	39,701	224,970	
	Faculty Physician G	0.6	87,000	28,710	25%	75%	28,928	86,783	
	Faculty Physician H	1	223,000	73,590	20%	80%	59,318	237,272	
	Faculty Physician I	1	275,000	90,750	20%	80%	73,150	292,600	
	Faculty Physician J	1	212,000	69,960	20%	80%	56,392	225,568	
	Faculty Physician K	0.8	155,700	51,381	0%	100%	-	207,081	
	Faculty Physician L			-	0%	100%			
	Faculty Physician M			-	0%	100%			
	Faculty Physician N			-	0%	100%			
	Faculty Physician O			-	0%	100%			
	Faculty Physician P			-	0%	100%			
	Faculty Physician Q			-	0%	100%			
	Faculty Physician R			-	0%	100%			
	Faculty Physician S			-	0%	100%			
	Faculty Physician T			-	0%	100%			
	Faculty Physicians	*10.3*	*common ben rate?->*	*33%*	*2.325*	*7.975*	*613,330*	*2,103,462*	
	Other Fac A	1	87,000	26,100	33%	67%	37,323	75,777	
	Other Fac B	0.66	54,000	16,200	25%	75%	17,550	52,650	
	Other Fac C	1	61,000	18,300	75%	25%	59,475	19,825	
	Other Fac D	1	63,000	18,900	100%	0%	81,900	-	
	Other Fac E	0.4	29,260	8,778	0%	100%	-	38,038	
	Other Fac F			-	0%	100%			
	Other Fac G			-	0%	100%			
	Other Fac H			-	0%	100%			
	Other Faculty	*4.06*	*common ben rate?->*	*30%*	*2.245*	*1.815*	*196,248*	*186,290*	
	Residents PGY-1s	13	800,000	224,000	100%	0%	1,024,000	-	
	Residents PGY-2s	13	900,000	252,000	100%	0%	1,152,000	-	
	Residents PGY-3s	13	1,100,000	308,000	100%	0%	1,408,000	-	
	Residents	*39*	*common ben rate?->*	*28%*	*39*	*0*	*3,584,000*	-	
	Faculty and Residents totals:	*53.4*	*5,136,960*	*1,546,369*	*43.57*	*9.79*	*4,393,578*	*2,289,752*	*6,683,329*

back	FMC Staff	FTE	tot salary	tot benefits	% academic	% clinical	Academic	Clinical	
	Nursing A	1	35,000	10,150	0%	100%	-	45,150	
	Nursing B	1	28,000	8,120	0%	100%	-	36,120	
	Nursing C	1	46,000	13,340	0%	100%	-	59,340	
	Nursing D	1	38,000	11,020	0%	100%	-	49,020	
	Nursing E	0.6	21,000	6,090	0%	100%	-	27,090	
	Nursing F	1	44,000	12,760	10%	90%	5,676	51,084	
	Nursing G	1	75,000	21,750	25%	75%	24,188	72,563	
	Nursing H	1	52,000	15,080	0%	100%	-	67,080	
	Nursing I	0.8	46,000	13,340	0%	100%	-	59,340	
	Nursing J	1	82,000	23,780	0%	100%	-	105,780	
	Nursing K	0.7	37,000	10,730	0%	100%	-	47,730	
	Nursing L	1	65,000	18,850	0%	100%	-	83,850	
	Nursing M			-	0%	100%			
	Nursing N			-	0%	100%			
	Nursing O			-	0%	100%			
	Nursing	*11.1*	*common ben rate?->*	*29%*	*0.35*	*10.75*	***29,864***	***704,147***	
	Lab/Xray A	1	54,000	15,120	0%	100%	-	69,120	
	Lab/Xray B	1	36,000	10,080	0%	100%	-	46,080	
	Lab/Xray C	1	74,000	20,720	0%	100%	-	94,720	
	Lab/Xray D	0.3	13,000	3,640	0%	100%	-	16,640	
	Lab/Xray E			-	0%	100%			
	Lab/Xray F			-	0%	100%			
	Lab/Xray G			-	0%	100%			
	Lab/Xray	*3.3*	*common ben rate?->*	*28%*	*0*	*3.3*	-	***226,560***	
	Other staff A	1	103,000	28,840	0%	100%	-	131,840	
	Other staff B	1	78,000	21,840	0%	100%	-	99,840	
	Other staff C	0.8	43,000	12,040	10%	90%	5,504	49,536	
	Other staff D	1	38,000	10,640	0%	100%	-	48,640	
	Other staff E			-	0%	100%			
	Other staff F			-	0%	100%			
	Other staff G			-	0%	100%			
	Other staff H			-	0%	100%			
	Other staff I			-	0%	100%			
	Other staff J			-	0%	100%			
	Other staff K			-	0%	100%			
	Other staff L			-	0%	100%			
	Other staff M			-	0%	100%			
	Other staff N			-	0%	100%			
	Other staff	*3.8*	*common ben rate?->*	*28%*	*0.08*	*3.72*	***5,504***	***329,856***	
	FMC Staff totals	*18.2*	*1,007,999*	*287,930*	*0.43*	*17.77*	***35,368***	***1,260,563***	***1,295,930***

Sample – Detailed Expense Calculation (cont.)

					% academic	% clinical	Academic	Clinical	
back	*Residency admin staff*	FTE	tot salary	tot benefits					
	Residency Staff A	1	60,000	16,800	100%	0%	76,800	-	
	Residency Staff B	1	42,000	11,760	100%	0%	53,760	-	
	Residency Staff C	0.5	13,000	3,640	95%	5%	15,808	832	
	Residency Staff D	0.8	26,000	7,280	100%	0%	33,280	-	
	Residency Staff E			-	100%	0%			
	Residency Staff F			-	100%	0%			
	Residency Staff G			-	100%	0%			
	Residency Staff H			-	100%	0%			
	Residency Staff I			-	100%	0%			
	Residency Staff	3.3	*common ben rate?->*	28%	*3.275*	*0.025*	179,648	832	
	Residency admin staff totals	*3.3*	*141,000*	*39,480*	*3.275*	*0.025*	*179,648*	*832*	*180,480*

				% academic	% clinical	Academic	Clinical	
back	Family Medicine Center expenses (not salary or benefits)							
			expense	% academic	% clinical	Academic	Clinical	
	FMC Rent		420,000	0%	100%	-	420,000	
	Conference room/offices		136,000	50%	50%	68,000	68,000	
	Building utilities		83,000	10%	90%	8,300	74,700	
	Telephone		15,023	20%	80%	3,005	12,018	
	Supplies		22,000	0%	100%	-	22,000	
	Answering Service		28,943	0%	100%	-	28,943	
	FMC Exp Category G			0%	100%			
	FMC Exp Category H			0%	100%			
	FMC Exp Category I			0%	100%			
	FMC Exp Category J			0%	100%			
	FMC Exp Category K			0%	100%			
	FMC Exp Category L			0%	100%			
	FMC Exp Category M			0%	100%			
	Totals		**704,966**	11%	89%	79,305	625,661	**704,966**

				% academic	% clinical	Academic	Clinical	
back	Residency Operating/Admin expenses (not salary or benefits)							
			expense	% academic	% clinical	Academic	Clinical	
	Residency Admin building rent		38,573	100%	0%	38,573	-	
	Telephone		8,045	100%	0%	8,045	-	
	Supplies		16,490	100%	0%	16,490	-	
	Travel		37,465	100%	0%	37,465	-	
	Miscellaneous		38,711	100%	0%	38,711	-	
	Residency Exp Category F			100%	0%			
	Residency Exp Category G			100%	0%			
	Residency Exp Category H			100%	0%			
	Residency Exp Category I			100%	0%			
	Totals		**139,284**	100%	0%	139,284	-	**139,284**

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11. KEY TERMS AND CONCEPTS

This chapter contains two parts. The first part lists general terms and concepts related to family medicine that may be helpful to know as you use this document. The second part lists terms and concepts specific to graduate medical education (GME) finances.

GENERAL TERMS AND CONCEPTS

Accountable Care Organization (ACO)—An ACO is a group of physicians, hospitals, and other health care providers that come together voluntarily to give coordinated, high-quality care to their Medicare patients. The goal of coordinated care is to ensure that patients, especially the chronically ill, get the right care at the right time, while avoiding unnecessary duplication of services and preventing medical errors.

Accreditation Council for Graduate Medical Education (ACGME)—The ACGME is a private, nonprofit organization that reviews and accredits U.S. graduate medical education (GME)—residency and fellowship—programs and the institutions that sponsor them. https://acgme.org/

American Academy of Family Physicians (AAFP)—The AAFP is the national association of family physicians, with more than 129,000 members. The AAFP was founded in 1947 to promote and maintain high-quality standards for family physicians who are providing continuing comprehensive health care to the public. https://www.aafp.org/home.html

American Association of Colleges of Osteopathic Medicine (AACOM)—The AACOM provides leadership for the osteopathic medical education community by promoting excellence in medical education, research, and service, and by fostering innovation and quality across the continuum of osteopathic medical education to improve the health of the American public. https://www.aacom.org/

American Board of Family Medicine (ABFM)—The ABFM is the professional board for family medicine and maintains additional training requirements for programs to meet for graduates to be eligible to become board certified in family medicine. https://www.theabfm.org/

American College of Osteopathic Family Physicians (ACOFP)—The ACOFP is a professional medical association that represents more than 20,000 practicing osteopathic family physicians, residents, and students throughout the United States. The ACOFP works to promote excellence in osteopathic family medicine through quality education, visionary leadership, and responsible advocacy. https://www.acofp.org/acofpimis/

American Osteopathic Association (AOA)—The AOA serves as the professional family for more than 110,000 osteopathic physicians (DOs) and osteopathic medical students. It promotes public health and encourages scientific research. In addition to serving as the primary certifying body for DOs, the AOA is the accrediting agency for all osteopathic medical

schools through the Commission on Osteopathic College Accreditation (COCA) and has federal authority to accredit hospitals and other health care facilities. https://osteopathic.org/

American Osteopathic Board of Family Physicians (AOBFP)—AOBFP purpose is to determine the qualifications required of osteopathic family physicians seeking initial and continued certification awarded by the American Osteopathic Association (AOA) in the field of family medicine and any other field that may be assigned; develop the methods of examination to assess those family physicians; administer and evaluate examinations to assess competency and excellence in those fields; and issue the appropriate certification upon the approval of the AOA. The AOBFP is the osteopathic counterpart to the allopathic American Board of Family Medicine (ABFM). https://certification.osteopathic.org/family-physicians/

Association of American Medical Colleges (AAMC)—The AAMC is a nonprofit association representing all accredited medical schools in the U.S. and Canada, nearly 400 major teaching hospitals and health systems (including 51 U.S. Department of Veterans Affairs [VA] medical centers), and nearly 90 academic and scientific societies. https://www.aamc.org/

Association of Departments of Family Medicine (ADFM)—The ADFM is the organization of departments of family medicine and is devoted to transforming care, education, and research to promote health equity and improve the health of the nation. http://www.adfm.org/

Association of Family Medicine Residency Directors (AFMRD)—The AFMRD is a nonprofit organization that exists to inspire and empower family medicine residency program directors to achieve excellence in family medicine residency training. https://www.afmrd.org/

Clinical Competency Committee (CCC)—CCC is the ACGME "required body comprising three or more members of the active teaching faculty who is advisory to the program director and reviews the progress of all residents in the program."

Community-Oriented Primary Care (COPC)—The COPC model strives to efficiently distribute, organize, and systematize existing health care resources. In addition to promoting healthy lifestyles within the community, the COPC model enables the health care team and the community to cooperate in identifying and prioritizing health issues. Together, they develop and implement prevention and treatment plans for those priority areas.

Core Faculty—There are two core faculty definitions for family medicine. One is the Common Program Requirements definition (see ACGME Glossary of Terms, July 2013); all specialty residencies in the United States must comply). A second, expanded one defines core faculty for family medicine residencies (addressing the issues that administration/teaching of family medicine is more complex than most specialties given its scope) as follows:

- ACGME Review Committee-Family Medicine Core Faculty Definition – In addition to the program director, there must be one additional core faculty for each six resident

full-time equivalents (FTEs) (2-2-2). For a 24-FTE (8- 8-8) resident program, there must be four FTEs of core faculty. For a 30- FTE (10-10-10) resident program, there must be five FTEs of core faculty. For a 36-FTE resident program, six core faculty are required. These positions cannot be shared, and each must dedicate at least 24 hours per week (or 1,200 hours per year, which is 60% of time based on a 40-hour workweek) to non-direct patient care activities supporting the residency (e.g., educational activities, supervision, scholarly work, advising, residency administration).

Council of Academic Family Medicine (CAFM)—CAFM consists of the four academic family medicine organizations: The Association of Departments of Family Medicine (ADFM), the Association of Family Medicine Residency Directors (AFMRD), the North American Primary Care Research Group (NAPCRG), and the Society of Teachers of Family Medicine (STFM). Founded in 2008, CAFM coordinates activities where there is overlap and acts upon strategic initiatives that support academic family medicine and the discipline.

Entrustable Professional Activities (EPAs)—Olle ten Cate, PhD, defines EPAs as units of professional practice, defined as tasks or responsibilities to be entrusted to the unsupervised execution by a trainee once he or she has attained enough specific competence. EPAs are independently executable, observable, and measurable in their process and outcome, and therefore, suitable for entrustment decisions.

Family Medicine Center (FMC)—The former term for the physical location of the family medicine clinic or practice. Now called **family medicine practice (FMP) site**.

Family Medicine Practice (FMP)—The place(s) where patients receive their care, which can often be beyond the walls of the family medicine center (FMC) / family medicine practice site (FMP site).

Family Medicine Practice Site (FMP Site)—The physical location of the family medicine clinic or practice, formerly called the **Family Medicine Center (FMC).**

Graduate Medical Education (GME) finances—See a list of GME finance-related terms at the end of this chapter.

Health and Medicine Division (HMD)—The HMD – formerly the Institute of Medicine (IOM) – is a division of the National Academies of Sciences, Engineering, and Medicine. The academies are private, nonprofit institutions that provide independent, objective analysis and advice to the nation and conduct other activities to solve complex problems and inform public policy decisions related to science, technology, and medicine. http://www.nationalacademies.org/hmd/

Medicare Access and CHIP Reauthorization Act of 2015 (MACRA)—A ground- breaking revision of the Medicare payment system that moves away from the traditional fee-for-service system to one based upon value-based care. This law repeals the flawed Medicare

sustainable growth rate (SGR) formula that calculated payment cuts for physicians. MACRA establishes an alternative set of predictable annual baseline payment updates and two payment tracks: the alternative payment model (APM) track and the merit-based incentive payment system (MIPS) track.

Milestones—A milestone is a significant point in educational development. For accreditation purposes, the Milestones are competency-based developmental outcomes (e.g., knowledge, skills, attitudes, performance) that can be demonstrated progressively by residents and fellows from the beginning of their education through graduation to the unsupervised practice of their specialties.

National Board of Osteopathic Medical Examiners (NBOME)—The NBOME is an independent, nongovernmental, not-for-profit organization with a mission to protect the public by providing the means to assess competencies for osteopathic medicine and related health care professions. https://www.nbome.org/

National Institute for Program Director Development (NIPDD)—The NIPDD is a nationally recognized fellowship program that uses a one-of-a-kind adult learning model to enhance knowledge, attitudes, and skills to groom effective residency program directors. https://www.afmrd.org/page/about-the-nipdd-fellowship

Next Accreditation System (NAS)—The NAS is the ACGME accreditation system, which focuses on educational outcomes and a process of continuous improvement. It introduced new terms and processes related to setting outcome measures and assessments, including the Milestones, Clinical Competency Committee (CCC), and Program Evaluation Committee (PEC).

North American Primary Care Research Group (NAPCRG)—NAPCRG is an interdisciplinary, multi-national volunteer association committed to nurturing primary care researchers to improve health and health care for patients, families, and communities. http://www.napcrg.org/

Osteopathic Recognition/Osteopathic Recognition Track—Osteopathic Recognition is conferred upon any ACGME-accredited graduate medical education (GME) program providing requisite training in the Osteopathic Principles and Practice (OPP). Programs may be deemed to have Osteopathic Recognition after appropriate application, evaluation, and review of the standards outlined below. Programs receiving Osteopathic Recognition may designate the entire program as osteopathic-focused or designate a portion of the program as an osteopathic-focused track. https://www.acgme.org/What-We- Do/Recognition/Osteopathic-Recognition

Process Improvement Methodologies—Process improvement is defined as a systematic approach to closing process or system performance gaps through streamlining and cycle time reduction, and identifying and eliminating causes of below-specifications quality, process variation, and non–value-adding activities. A variety of methodologies are available for process improvement, including Six Sigma, lean management, Lean Six Sigma, agile management,

Total Quality Management, and Kaizen, among others.

Program Evaluation Committee (PEC)—Appointed by the program director, the PEC comprises at least two program faculty members and should include at least one resident. The PEC must meet at least annually. It is responsible for addressing areas of noncompliance with minimum Accreditation Council for Graduate Medical Education (ACGME) standards, and it may improve the program to go beyond minimum standards.

Quadruple Aim--A framework that uses the Triple Aim as its core and adds a fourth dimension: improving work life of health care providers, including clinicians and staff. See Triple Aim.

Quality Improvement (QI)--The Health Resources and Services Administration (HRSA) defines QI as a series of systematic and continuous actions that lead to measurable improvement in health care services and the health status of targeted patient groups. The Health and Medicine Division (HMD) of the National Academies of Sciences, Engineering and Medicine defines quality in health care as a direct correlation between the level of improved health services and the desired health outcomes of individuals and populations.

Review Committee for Family Medicine (RC-FM)--The RC-FM is the ACGME committee that is responsible for reviewing family medicine residency programs to determine compliance with requirements.

Single GME Accreditation System--The single accreditation system allows graduates of allopathic and osteopathic medical schools to complete their residency and/or fellowship education in ACGME-accredited programs and demonstrate achievement of common Milestones and competencies. It also allows for incorporation of training of osteopathic principles through the Osteopathic Recognition Requirements for allopathic programs and residents.

Society of Teachers of Family Medicine (STFM)--STFM exists to advance family medicine to improve health through a community of teachers and scholars, including medical school professors, preceptors, residency program faculty, residency program directors, and others involved in family medicine education.

Triple Aim--The Triple Aim is a framework developed by the Institute of Healthcare Improvement (IHI) that describes an approach to optimizing health system performance which involves new designs to simultaneously pursue three dimensions (ie, the "Triple Aim"): (1) improving the patient experience of care (including quality and satisfaction); (2) improving the health of populations; and (3) reducing the per capital cost of health care. See Quadruple Aim.

United States Medical Licensing Examination (USMLE)—The USMLE program supports medical licensing authorities in the United States through its leadership in the development, delivery, and continual improvement of high-quality assessments across the continuum of physicians' preparation for practice. https://www.usmle.org/

GRADUATE MEDICAL EDUCATION (GME) FINANCES - KEY TERMS & CONCEPTS

Critical Access Hospital (CAH)—A CAH is a hospital certified under a set of Medicare Conditions of Participation (CoP), which are paid differently than an IPPS hospital (see below). The CAH program is designed to financially support rural hospitals that otherwise would not be viable if paid under the standard IPPS method. Some of the requirements for CAH certification include having no more than 25 inpatient beds; maintaining an annual average length of stay of no more than 96 hours for acute inpatient care; offering 24-hour, 7-day-a-week emergency care; and being in a rural area, at least 35 miles drive from any other hospital or CAH (fewer in some circumstances). Since a CAH is NOT paid under the DRG system by Medicare it is not eligible for traditional Medicare GME payments (DGME and IME). A CAH however may claim residency training costs and can get reimbursed some of this via Medicare billings. This is roughly the math equivalent of DGME.

Disproportionate Share Hospital (DSH)—A DSH serves a significantly disproportionate number of low-income patients and receives payments from the Centers for Medicare & Medicaid Services (CMS) to cover the costs of providing care to uninsured patients. When a residency practice provides a large amount of indigent care this may push the hospital into qualifying for DSH payments they otherwise would not receive.

Graduate Medical Education (GME) Funding—Residency training is funded primarily through the Centers for Medicare & Medicaid Services (CMS) with payments to hospitals that participate in residency training. Medicare GME comprises two parts: direct and indirect medical education funding.

- Direct Graduate Medical Education (DGME) Funding—DGME is designed to reimburse hospitals to compensate for Medicare's share (based on bed days) of the direct costs of training residents (including salary, benefits, liability costs, etc.). DGME usually represents about one-third of the amount paid to hospitals for GME.
- Indirect Medical Education (IME) Funding—IME is designed to cover the "non-direct" costs of residency education (including the cost of additional tests, longer lengths of stay, etc.) that have been attributed to the presence of residents in a hospital. In most residencies' financial plans, IME does not represent excess costs of care. Instead, it functionally makes up for the "non-Medicare share" in the DGME calculation. IME is typically two-thirds of the total GME Medicare payments to a hospital.

Hospital Cap (Cap)—Established inpatient prospective payment system (IPPS) teaching hospitals are subject to a cap on the number of residency positions that can be funded by the Medicare graduate medical education (GME) program. With rare exceptions, these caps are fixed after five years once a new residency is established that involves a new IPPS teaching hospital.

Inpatient Prospective Payment System (IPPS) —Most U.S. hospitals are IPPS hospitals and receive Medicare payments for patient care via the diagnosis- related group (DRG) system.

Medicaid GME—States can elect to fund graduate medical education (GME) through Medicaid and are eligible to receive federal matching funds if they choose to invest in this model.

Per Resident Amount (PRA)—The PRA is a key determinant of Direct Graduate Medical Education (DGME) funding, and, once established, is a permanent dollar amount (with annual inflation adjustment) for the hospital in perpetuity. The PRA times “Medicare’s share of bed days” equals the DGME payment per eligible FTE resident.

Rural vs. Urban Hospitals—For purposes of graduate medical education (GME) funding, the Centers for Medicare & Medicaid Services (CMS) designates hospitals as “rural” or “not rural” based on a set of criteria found on the CMS website. Hospitals located outside metropolitan CBSAs are generally classified as rural. Rural hospitals have some GME flexibility in being able to add new specialty residencies and restart their cap-building process. Other hospitals cannot do this and must build whatever single or multi-specialty GME system they desire within five years at which time the hospital is capped.

Sole Community Hospital (SCH)—SCH is designated by the Centers for Medicare & Medicaid Services (CMS) as meeting certain criteria based on location, size, or distance. An SCH receives payment for its operating costs based on the federal inpatient prospective payment system (IPPS) rate or on its hospital-specific rate, whichever results in the greatest aggregate payment. Although all SCHs can receive direct graduate medical education (DGME) payment, only those that receive the federal rate for inpatient services can receive indirect medical education (IME) payment. SCHs that are paid their hospital-specific rate are not eligible for IME payments except for IME calculated for Medicare Advantage care.

TABLE OF CONTENTS – SELF-ASSESSMENT

Criteria For Excellence – Self-Assessment (Sa)

The Criteria for Excellence Assessment Questions are available via the AAFP's free Online Residency Assessment Tool. This interactive tool provides expert-backed recommendations, identifies strengths and areas for improvement, and delivers a detailed report to guide continuous quality enhancement.

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HOW TO USE SELF-ASSESSMENT

As stated in the Foreword of the Criteria for Excellence, the hallmark of a Program of Excellence is continuous self-improvement. This Self-Assessment Tool is provided to stimulate questions and help initiate conversations with key stakeholders, and to become part of a process of continuous improvement for program and administrative leaders.

Each section contains statements for evaluation on a Likert scale ranging from 5 to 1, with 5 representing a Program of Excellence (i.e., that the activity "Always occurs/Is done extremely well"), and 1 indicating that the activity "Never occurs/Is done poorly." In the following example, the program has scored an average of 3, indicating strengths in some areas, weaknesses in others, and an overall opportunity for improvement.

A Self-Assessment Summary is provided at the end of this section to provide you with a single, comprehensive view of your program's performance.

	5 Always occurs/ Is done extremely well				**1** Never occurs/ Is done poorly	
SAMPLE SECTION	**5**	**4**	**3**	**2**	**1**	**TOTAL** (not to exceed 5 on any line)
1. Sample evaluative statement.		4				4
2. Sample evaluative statement.				2		2
3. Sample evaluative statement.			3			3
SCORE FOR THIS SECTION				Total score 9 divided by / **3** (# of questions) = Average score 3		

The Criteria for Excellence Assessment Questions are available via the AAFP's free Online Residency Assessment Tool. This interactive tool provides expert-backed recommendations, identifies strengths and areas for improvement, and delivers a detailed report to guide continuous quality enhancement. For more information on RPS consultations, visit aafp.org/rps.

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CRITERIA FOR EXCELLENCE – SELF-ASSESSMENT

SA.1. WORKFORCE/MISSION

5 Always occurs/ Is done Extremely well

1 Never occurs/ Is done poorly

	5	4	3	2	1	TOTAL (Not to exceed 5 on any line)
1. The program has a defined 'workforce plan' which is reviewed regularly.						
2. COPC tools are used to assess community health needs.						
3. The residency practice supports at least one collaborative effort with community partners directed at community needs identified through the COPC analysis.						
4. The program has an active, intentional student recruiting plan to assure a good Match with residents who can meet the needs of the sponsoring institution and the community served by the program.						
SCORE FOR THIS CHAPTER				Total score _____ / 4 = Average score _____		

NOTES: _____

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Jump to Self-Assessment Contents

CRITERIA FOR EXCELLENCE – SELF-ASSESSMENT

SA.1.A. HEALTH EQUITY, BIAS, AND STRUCTURAL BARRIERS TO CARE AND OPPORTUNITY

5 Always occurs/ Is done Extremely well

1 Never occurs/ Is done poorly

	5	4	3	2	1	TOTAL (Not to exceed 5 on any line)
1. Our program includes implicit bias training for all residents and faculty.						
2. Our program participates in activities to achieve a candidate pool for residents, faculty and staff that reflect the goals of our program and the needs of our community.						
3. Our program has carefully evaluated the resident selection process and made improvements to reduce areas of potential bias.						
4. Our program has adopted standard procedures to maximize the potential of every resident and faculty member.						
5. Faculty evaluations and promotions are based on specific observable and transparent criteria.						
6. All faculty have the opportunity to participate in professional and career development.						
7. Our program's mission and values statements reflect a commitment to the value statement in the ACGME program requirements.						
8. Our program anonymously surveys all staff annually regarding perceptions of bias.						
9. Our program has developed a robust plan with outcome measures to address health disparities in the communities it serves.						
10. Our program has a mechanism to report on the progress of its health equity program to those communities.						
SCORE FOR THIS CHAPTER				Total score _____ / 10 = Average score _____		

NOTES: _____

Jump to Self-Assessment Contents

CRITERIA FOR EXCELLENCE – SELF-ASSESSMENT

SA. 2. RESIDENCY LEADERSHIP MANAGEMENT

5 Always occurs/ Is done Extremely well

1 Never occurs/ Is done poorly

	5	4	3	2	1	TOTAL (Not to exceed 5 on any line)
1. The program has a compelling strategic vision that enables it to adapt to changes in its community and workforce needs.						
2. The program creates processes to measure key outcomes (e.g., engagement, linkages).						
3. The leadership team meets regularly and is able to effectively manage the program by setting clear goals and implementing programs to achieve them.						
4. Adequate resources are available for the program to achieve its vision and goals.						
5. Leadership roles are defined.						
6. Nonclinical administrative time is adequate to fulfill leadership roles.						
7. The percentage of program academic and administrative full-time equivalent (FTE) exceeds Accreditation Council for Graduate Medical Education (ACGME) requirements and meets Residency Program Solutions (RPS) recommendations.						
8. There is a collaborative relationship between the program's leadership team, the program's sponsor, and external stakeholders.						
9. An advisory committee or board meets regularly and actively contributes to the program.						
10. Decision making by the leadership team is communicated well to all parts of the organization.						
11. The program has adequate academic space for its size.						
12. Sufficient time to facilitate leadership activities are scheduled and protected.						
13. Faculty development is available.						
14. Academic staff development is available.						
SCORE FOR THIS CHAPTER				Total score _____ / 14 = Average score _____		

Jump to Self-Assessment Contents

CRITERIA FOR EXCELLENCE – SELF-ASSESSMENT

SA. 3. PROFESSIONAL DEVELOPMENT

5 Always occurs/ Is done Extremely well — 1 Never occurs/ Is done poorly

	5	4	3	2	1	TOTAL (Not to exceed 5 on any line)
1. The program provides resident access to an enhanced and active educational process through direct observation, bedside rounds, and supervision of procedures.						
2. The program provides staff professional development opportunities in areas such as project management, use of communication technologies, and use of hardware and software.						
3. The institution supports specific program director development in areas such as personal professional growth, developing faculty, human resource management, practice transformation, change theory, technology advancements, negotiation, communication and financial management.						
4. The program actively promotes and encourages resident, staff, and faculty participation in, and knowledge and application of, business improvement processes (e.g., Lean Six Sigma, Kaizen).						
5. The program promotes scholarly activity for residency faculty and residents, including peer-reviewed funding; publication of original research or review articles in peer reviewed journals, or chapters in textbooks; publication or presentation of case reports or clinical series at local, regional, or national professional and scientific society meetings; or participation in national committees or educational.						
SCORE FOR THIS CHAPTER				Total score _____ / 5 = Average score _____		

NOTES: _____

Jump to Self-Assessment Contents

CRITERIA FOR EXCELLENCE – SELF-ASSESSMENT

SA. 4. RESIDENT AND FACULTY WELL-BEING

5 Always occurs/ Is done Extremely well — 1 Never occurs/ Is done poorly

	5	4	3	2	1	TOTAL (Not to exceed 5 on any line)
1. Program completes annual Wellness Inventory which includes work-life balance and burnout for faculty members using a standardized tool, and the assessment reviewed and discussed individually with their supervisors. When well-being is at risk, an agreed upon individual action plan should be developed and faculty held accountable to implement the plan. **This process should be distinct and different from the faculty evaluation process with assurance and trust that there will be no reprisals for gaps in well-being.*						
2. Program addresses resilience and well-being by incorporating faculty viewpoint on system issues that would mitigate stress and burnout. The DIO and GMEC is held accountable for addressing these suggestions. **This process should be distinct and different from the faculty evaluation process with assurance and trust that there will be no reprisals for faculty suggestions put forward about systems issues.*						
3. Faculty development includes training for faculty concerning recognizing burnout and well-being gaps and skills to address them and support residents with well-being issues.						
4. Residents are oriented to well-being issues annually, and as part of orientation.						
5. Resident well-being is assessed annually using a standardized tool with the assessment reviewed and discussed individually with their advisor. When well-being is at risk, an agreed upon individual action plan should be developed and the resident held accountable to implement the plan.						
SCORE FOR THIS CHAPTER				Total score _____ / 5 = Average score _____		

NOTES: _____

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Jump to Self-Assessment Contents

CRITERIA FOR EXCELLENCE – SELF-ASSESSMENT

SA.5. STRATEGIC PLANNING

5 Always occurs/ Is done Extremely well — 1 Never occurs/ Is done poorly

	5	4	3	2	1	TOTAL (Not to exceed 5 on any line)
1. The program completes a strategic plan that is reviewed and updated on a regular basis, at a minimum of every five years.						
2. Sponsoring institution has a regular dialog with the program leadership to refine and update the strategic vision.						
3. The program demonstrates a process that evaluates progress on the specific action steps in the strategic plan and adapts the action plan to support the strategic vision.						
SCORE FOR THIS CHAPTER				Total score _____ / 3 = Average score _____		

NOTES: _____

Jump to Self-Assessment Contents

CRITERIA FOR EXCELLENCE – SELF-ASSESSMENT

SA.6. INSTITUTIONAL ENGAGEMENT

5 Always occurs/ Is done extremely well — **1 Never occurs/ Is done poorly**

	5	4	3	2	1	TOTAL (Not to exceed 5 on any line)
1. Sponsoring institution leadership works proactively and collaboratively with program leadership to robustly support graduate medical education (GME) programs, as shown by the following: • Annual reports to the governing board with reaffirmation of program return on investment. • Competitive compensation for faculty and program staff. • Full engagement of the Graduate Medical Education Committee (GMEC) in oversight of the learning and working environment.						
2. The sponsoring and participating institutions work proactively with their GME programs to promote best practices and continuous improvement planning toward integrating program faculty and residents into key institutional initiatives in patient safety, quality improvement, and other goals related to the learning and working environment as delineated in the Common Program Requirements.						
SCORE FOR THIS CHAPTER				Total score _____ / 2 = Average score _____		

NOTES: _____

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Jump to Self-Assessment Contents

CRITERIA FOR EXCELLENCE – SELF-ASSESSMENT

SA.7. PROGRAM ACCREDITATION

5 Always occurs/ Is done extremely well — **1 Never occurs/Is done poorly**

	5	4	3	2	1	TOTAL (Not to exceed 5 on any line)
1. The program has full accreditation without deficiencies or concerns from the Review Committee for Family Medicine (RC-FM) and has a 10-year cycle for self-study, with systems in place to meet, record, and document compliance with requirements.						
2. All residents meet Level 4 Milestones at graduation.						
3. The program conducts an Annual Program Evaluation that defines an action plan and timeline for continuous program improvement.						
4. Board passage rate is 100%, with rare exceptions.						
5. The program has processes in place to identify, address, and remediate resident performance issues to ensure board certification at the time of graduation.						
SCORE FOR THIS CHAPTER				Total score _____ / 5 = Average score _____		

NOTES: _____

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Jump to Self-Assessment Contents

CRITERIA FOR EXCELLENCE – SELF-ASSESSMENT

SA. 8. PROCESS OF EDUCATION

5
Always occurs/
Is done
extremely well

1
Never occurs/
Is done poorly

	5	4	3	2	1	TOTAL (Not to exceed 5 on any line)
1. The program has a written philosophy of education that is reevaluated regularly to adapt to the changing health care and learning environment.						
2. The program demonstrates how the adult learning model is applied in the program (e.g., minimizing the use of the lecture format in didactic sessions).						
3. The program demonstrates that various forms of direct observation are the primary means of assessing residents' progress in the program.						
4. The program fosters an environment of intellectual curiosity and self-discovery to establish habits of lifelong learning.						
5. The program demonstrates utilization of various innovative and technological means of enhancing the educational experience for residents.						
SCORE FOR THIS SECTION				Total score _____ / 5 = Average score _____		

NOTES: _____

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Jump to Self-Assessment Contents

CRITERIA FOR EXCELLENCE – SELF-ASSESSMENT

SA.8.A. CURRICULUM DEVELOPMENT

5
Always occurs/ Is done extremely well

1
Never occurs/ **Is done poorly**

	5	4	3	2	1	TOTAL (not to exceed 5 on any line)
1. Competency-based goals and objectives for all curricular areas are well defined, aspirational, and understood by both learners and faculty.						
2. There is a defined family medicine practice curriculum.						
3. There is a structured process for annual curriculum review, including a system for tracking progress on improvement goals.						
4. Opportunities for innovative curricula are identified and pursued.						
5. All curricula (not just formal didactics) incorporate adult learning principles.						
SCORE FOR THIS SECTION				Total score _____ / 5 = Average score _____		

NOTES: _____

CRITERIA FOR EXCELLENCE – SELF-ASSESSMENT

SA.8.B. QUALITY IMPROVEMENT AND PATIENT SAFETY

5 Always occurs/ Is done Extremely well — 1 Never occurs/ Is done poorly

	5	4	3	2	1	TOTAL (not to exceed 5 on any line)
QUALITY PRINCIPLES						
1. The practice has developed care models for chronic and preventive care and has an ongoing process to update and expand the measured conditions.						
2. The patient record includes structured elements that are routinely used to elicit and record patients' goals, preferences, and important social determinants of health. This information is used to formulate the care plan.						
3. The family medicine practice (FMP) site is organized into discrete care teams that each have an identifiable panel of patients. Each team regularly receives data on the team's clinical performance and has the opportunity and responsibility for performance improvement on these measures.						
4. The practice encourages regular communication between patients and their care team between office visits to support the care plan.						
5. The practice employs validated means to sample patient satisfaction with clinicians, staff, and practice operation. This information is shared with all staff, faculty, and residents.						
SAFETY PRINCIPLES						
1. The FMP administers the Agency for Healthcare Research and Quality (AHRQ) patient safety culture survey annually to all staff, faculty, and residents. The results are used to improve the safety culture.						
2. The FMP utilizes a structured system to maintain accurate medication lists for all patients.						
3. The FMP has a safety committee and a functional Unusual Occurrence Reporting (UOR) system that encourages faculty, residents, and staff to report safety concerns in a nonjudgmental environment.						

4. The FMP reviews all adverse outcomes and serious near-miss events to explore root causes and inform system safety improvement.						
5. The FMP has a culture in which errors or mistakes are shared with patients and families.						
SCORE FOR THIS SECTION				Total score _____ / 10 = Average score _____		

NOTES: _____

CRITERIA FOR EXCELLENCE – SELF-ASSESSMENT

SA.8.C. ARTIFICIAL INTELLIGENCE: TOOLS AND CHALLENGES

5
Always occurs/
Is done
Extremely well

1
Never occurs/
Is done poorly

	5	4	3	2	1	TOTAL (Not to exceed 5 on any line)
1. We have developed and implemented an AI curriculum and a faculty development plan to cover AI core competencies.						
2. We have established protocols regarding the transparency of AI sources and queries.						
3. We have guardrails around activities to preserve acquisition of critical thinking and analytic skills.						
3. We collaborate with other family medicine and primary care programs on AI curricula						
5. We have agreements with our clinical partners and sponsoring institution to ensure that any use of AI aligns with existing policies.						
6. Our PEC is actively reviewing our present curricula to determine if we need to refocus on skills that are unlikely to be supplanted by AI.						
SCORE FOR THIS SECTION				Total score _____ / 6 = Average score _____		

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Jump to Self-Assessment Contents

SA.8.D. COMPETENCY-BASED MEDICAL EDUCATION

5 Always occurs/ Is done extremely well — **1 Never occurs/ Is done poorly**

	5	4	3	2	1	TOTAL (Not to exceed 5 on any line)
1. The program uses a variety of tools to assess learner performance in a variety of clinical and educational settings.						
2. The program's evaluation methods demonstrate appropriate use of competencies, sub-competencies, Milestones, Core Outcomes (CO) and Entrustable Professional Activities (EPAs).						
3. The program incorporates CO or EPAs into evaluation tools, links those results to Milestones, and uses these data to assess residents and the program.						
4. An individualized education plan (IEP) is developed for each resident and updated semiannually. Residents set personal and professional goals that can be achieved during residency and document goals to which they aspire after graduation.						
5. CO or EPA language is incorporated into curriculum documents.						
6. The program communicates resident competency status to faculty and the resident.						
7. The program uses CO, EPAs or other competency-based language when communicating with key stakeholders (e.g., rotation orientation documents, faculty development).						
SCORE FOR THIS CHAPTER				Total score _____ / 7 = Average score _____		

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CRITERIA FOR EXCELLENCE – SELF-ASSESSMENT

SA.8.E. COACHING IN FAMILY MEDICINE RESIDENCIES

5 Always occurs/ Is done extremely well ... **1 Never occurs/ Is done poorly**

	5	4	3	2	1	TOTAL (Not to exceed 5 on any line)
1. The program understands the difference between coaching, advising and mentoring and has fully implemented this understanding.						
2. The program understands the role of coaching within the individualized learning plan (ILP) process and has fully implemented this understanding.						
3. The program has fully implemented a coaching framework that focuses on residents' strengths and prior successes as a foundation for growth (eg. Appreciative Inquiry).						
4. The program fully understands appropriate boundaries for the coaching relationship and has them in place for both coaches and residents.						
5. The program has developed and fully implemented a structured approach to goal-setting and problem-solving in coaching conversations.						
SCORE FOR THIS CHAPTER				Total score _____ / 5 = Average score _____		

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CRITERIA FOR EXCELLENCE – SELF-ASSESSMENT

SA.8.F. OSTEOPATHIC PRINCIPLES AND PRACTICE

5 Always occurs/ Is done Extremely well — 1 Never occurs/ Is done poorly

	5	4	3	2	1	TOTAL (Not to exceed 5 on any line)
1. The regular review of the program's strategic plan includes a review of the extent to which it operationalizes the Osteopathic Principles and Practice (OPP).						
2. Programs with Osteopathic Recognition actively recruit skilled, qualified osteopathic faculty.						
3. Programs with Osteopathic Recognition develop an evaluation method to assess incoming applicants on their osteopathic skills and have a policy to that effect.						
4. Programs with Osteopathic Recognition offer hands-on training in didactics by skilled, qualified osteopathic faculty.						
SCORE FOR THIS SECTION				Total score _____ / 4 = Average score _____		

NOTES: _____

Jump to Self-Assessment Contents

CRITERIA FOR EXCELLENCE – SELF-ASSESSMENT

SA.8.G. INNOVATIVE APPROACHES TO TRAINING

5 Always occurs/ Is done Extremely well

1 Never occurs/ Is done poorly

	5	4	3	2	1	TOTAL (Not to exceed 5 on any line)
1. All four essential elements of an innovative curricula are achieved annually.						
2. Any program "focus" that deviates from the Accreditation Council for Graduate Medical Education (ACGME) Family Medicine Program Requirements has been through an approval process from the Review Committee for Family Medicine (RC- FM) and achieved all other listed elements.						
3. The rationale for the program focus is clearly documented.						
4. Institutional support for the program focus is documented.						
5. A programmatic evaluation process is in place to establish outcomes data regarding the success or failure of the program focus.						
SCORE FOR THIS SECTION				Total score _____ / 5 = Average score _____		

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Jump to Self-Assessment Contents

CRITERIA FOR EXCELLENCE – SELF-ASSESSMENT

SA.8.H. RESEARCH AND SCHOLARLY ACTIVITY

5
Always occurs/ Is done extremely well

1
Never occurs/ **Is done poorly**

	5	4	3	2	1	TOTAL (Not to exceed 5 on any line)
1. The sponsoring institution and the program provide support, resources, and protected time for residents and faculty to accomplish scholarly activities.						
2. The program documents and tracks resident and faculty scholarly activity to ensure guidelines are met or exceeded.						
3. The program provides an opportunity for all residents to participate in a quality improvement (QI) project as team leader or co-leader and to take their project through at least one Plan-Do-Study-Act (PDSA) cycle.						
4. The program assigns mentors to residents, fellows, and new faculty members to develop and encourage a culture of scholarly activity and to support scholarly projects.						
5. At least one core faculty member—in addition to the program director— contributes to the discipline of family medicine on the national level.						
6. The program has a structured curriculum that specifically teaches principles of research design, use of statistics, and principles of evidence-based medicine to all residents.						
7. The program provides specific faculty development sessions to train faculty to encourage resident scholarship.						
SCORE FOR THIS SECTION				Total score _____ / 7 = Average score _____		

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CRITERIA FOR EXCELLENCE – SELF-ASSESSMENT

SA.9.A. PRINCIPLES GROUNDING THE FAMILY MEDICINE PRACTICE

5 Always occurs/ Is done extremely well — **1 Never occurs/ Is done poorly**

	5	4	3	2	1	TOTAL (Not to exceed 5 on any line)
ACCESS						
1. Access to the individual physician or team is measured.						
CONTINUITY						
2. Continuity of patient care is measured, and benchmark measures of continuity are demonstrated with the following standards:						
a. Patients see their primary care team for 100% of routine appointments and, within that, see their primary physician for 70% of routine appointments.						
QUALITY						
3. One hundred percent (100%) of residents participate in at least one quality improvement project that is attempting to improve measured performance.						
TEAM-BASED						
4. FMP demonstrates partnership or team coverage of patients on a regular/daily basis.						
5. FMP surveys all its providers and staff at least annually to evaluate the quality of the practice environment.						
PRACTICE MANAGEMENT						
6. All residents receive structured data and feedback related to their personal practice performance on at least a quarterly basis.						
INFORMATION SYSTEMS						
7. An electronic health record (EHR) system is fully implemented with all elements described in the above chapter.						
ADVANCED PCMH						
8. Practices have a seamless process to evaluate patients discharged from the hospital within three to five days, and to track readmission rates.						
SCORE FOR THIS CHAPTER				Total score _____ / 9 = Average score ____		

NOTES: _____

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Jump to Self-Assessment Contents

CRITERIA FOR EXCELLENCE – SELF-ASSESSMENT

SA.9.B. FORM AND FUNCTION OF THE FAMILY MEDICINE PRACTICE SITE

5 Always occurs/ Is done extremely well — 1 Never occurs/ Is done poorly

	5	4	3	2	1	TOTAL (not to exceed 5 on any line)
1. Family medicine practice (FMP) site has a highly functional design and is physically attractive to patients.						
2. The team model of care is robust, with adequate staffing.						
3. The practice incorporates regular team meetings to determine better ways to improve the health and outcomes for its patients.						
4. Practice quality data are shared with providers and staff on a regular basis, and the practice utilizes these data to improve care. This includes outcomes data, continuity data, and data the team has chosen to track as part of their quality improvement activities.						
5. There are regular and anonymous provider and staff satisfaction surveys, and the results are used as part of an overall quality improvement process.						
SCORE FOR THIS CHAPTER				Total score _____ / 5 = Average score _____		

NOTES: _____

CRITERIA FOR EXCELLENCE – SELF-ASSESSMENT

SA.9.C. MODELS OF CARE DELIVERY

5
Always occurs/ Is done Extremely well

1
Never occurs/ Is done poorly

	5	4	3	2	1	TOTAL (Not to exceed 5 on any line)
1. The clinical residency practice has applied for and obtained National Committee for Quality Assurance (NCQA) recognition status.						
2. The practice actively maintains continued NCQA recognition.						
3. The practice keeps current with the range of primary care demonstration projects and outcomes of these projects as data becomes available.						
4. The practice leadership actively explores funding opportunities to support practice transformation.						
SCORE FOR THIS CHAPTER				Total score _____ / 4 = Average score _____		

NOTES: _____

CRITERIA FOR EXCELLENCE – SELF-ASSESSMENT

SA.10. FINANCES

5 Always occurs/ Is done extremely well — 1 Never occurs/ Is done poorly

		5	4	3	2	1	TOTAL (Not to exceed 5 on any line)
	PROGRAM DIRECTOR COMPETENCIES						
1.	Program director can describe the financial process and the way budgets are negotiated.						
2.	Program director has a working knowledge of all revenues and expenses attributable to the program.						
3.	Program director understands how to apportion "academic" and "clinical" revenue and expenses in a way that allows the family medicine practice (FMP) clinical operations to be compared to other health system family medicine practices and is commonly agreed to by all financial stakeholders.						
4.	Program director participates fully in the budget process with the sponsoring and partner institutions.						
5.	Faculty salary ranges are at competitive levels (50^{th}-75^{th} percentile) for practicing nonteaching family physicians for the region and are reviewed regularly for market competitiveness.						
6.	Compensation models incorporate practice productivity, efficiency, quality, and academic achievement elements.						
	PROGRAM FINANCIAL STABILITY						
7.	FMP clinical operations are financially viable as judged by the residency and any parent health system that sponsors the FMP.						
8.	Residency academic operations are fiscally sustainable.						
9.	There is enough capacity to fund potential deficit operational periods (In most situations, this would be satisfied by the presence of an adequate operational reserve; an attestation from the parent institution may suffice). Reserves are considered adequate if they cover three to six months of operating expenses.						

STAKEHOLDER IMPACT						
10. The program conducts an annual analysis of its impact on stakeholders, including the direct, indirect, and intangible benefits of the program, and presents this analysis to stakeholders. The analysis includes:						
a. Direct finances						
b. Larger financial impact (downstream revenue, physician recruiting/retention, etc.)						
c. Organizational missions						
d. Production of new family physicians						
e. Service to poor patients						
SCORE FOR THIS CHAPTER				Total score _____ / 14 = Average score ____		

NOTES: _____

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CRITERIA FOR EXCELLENCE SELF-ASSESSMENT SUMMARY

CHAPTER	AVERAGE SCORE
SA.1. WORKFORCE/MISSION	
SA.1.A. HEALTH EQUITY, BIAS, AND STRUCTURAL BARRIERS TO CARE AND OPPORTUNITY	
SA.2. RESIDENCY LEADERSHIP MANAGEMENT	
SA.3. PROFESSIONAL DEVELOPMENT	
SA.4. RESIDENT AND FACULTY WELL-BEING	
SA.5. STRATEGIC PLANNING	
SA.6. INSTITUTIONAL ENGAGEMENT	
SA.6.A. SPONSORING INSTITUTION	
SA.7. PROGRAM ACCREDITATION	
SA.8. PROCESS OF EDUCATION	
SA.8.A. CURRICULUM DEVELOPMENT	
SA.8.B. QUALITY IMPROVEMENT AND PATIENT SAFETY	
SA.8.C. ARTIFICIAL INTELLIGENCE: TOOLS AND CHALLENGES	
SA.8.D. COMPTENCY-BASED MEDCIAL EDUCATION	
SA.8.E. COACHING IN FAMILY MEDICINE RESIDENCIES	
SA.8.F. OSTEOPATHIC PRINCIPLES AND PRACTICE	
SA.8.G. INNOVATIVE APPROACHES TO TRAINING	
SA.8.H. RESEARCH AND SCHOLARLY ACTIVITY	
SA.9. THE FAMILY MEDICINE PRACTICE: THE PRACTICE IS THE CURRICULUM SA.9.A. PRINCIPLES GROUNDING THE FAMILY MEDICINE PRACTICE	
SA.9.B. FORM AND FUNCTION OF THE FAMILY MEDICINE PRACTICE SITE	
SA.9.C. MODELS OF CARE DELIVERY	
SA.10. FINANCES	
TOTAL AVERAGE SCORE (SCALE OF 1-5)	Total score _____ / 21 = Average score _____

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