AMERICAN ACADEMY OF FAMILY PHYSICIANS

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Recommended Curriculum Guidelines for Family Medicine Residents

Health Systems Management

This document is endorsed by the American Academy of Family Physicians (AAFP).

Introduction

Each family medicine residency program is responsible for its own curriculum. The AAFP Commission on Education's Subcommittee on Graduate Curriculum has created this guide as an outline for curriculum development, and it should be tailored to the needs of the program.

Through a series of structured and/or longitudinal experiences, the curricula below will support the overall achievement of the core educational competencies defined by the Accreditation Council for Graduate Medical Education (ACGME) and provide guideposts to program requirements specific to family medicine. For updates and details, please refer to the ACGME website at www.acgme.org. Current AAFP Curriculum Guidelines may be found online at www.aafp.org/cg. These guidelines are periodically updated and endorsed by the AAFP and, in many instances, other specialty societies, as indicated on each guideline.

Preamble

Health systems management (HSM) is a core ACGME requirement for all family medicine residencies, representing the ability to operate effectively as clinicians within health care systems to deliver care. This includes competencies in patient care (PC), medical knowledge, systems-based practice (SBP), practice-based learning and improvement (PBL), professionalism (Pro), and interpersonal and communication skills (IPCS).

This curriculum is best taught over the course of residents' education, with integrated longitudinal training in systems practices, such as billing and coding, that evolves in

step with growing clinical skills.

The HSM curriculum instills in residents an understanding of health care systems as a whole, as well as the role within systems of individual clinicians and practices. This understanding allows residents to navigate complex systems effectively on behalf of patients. It also informs career decisions and provides a foundation to step into leadership roles within health care systems.

Patient Care

At the completion of residency, a family medicine resident should be able to:

- Demonstrate an adequate understanding of the health care system to be able to help patients successfully navigate, utilize, and understand it
- Establish and maintain a medical record that contributes to efficient patient care
- Demonstrate knowledge of common patient safety events, system factors that lead to patient safety events, and how to report and participate in analysis of patient safety events (SBP1. 1&2&3)
- Understand and utilize multidisciplinary initiatives to manage patient populations with chronic medical conditions and comorbidities (PC2. 5)
- Participate in patient care guideline development and/or patient care guideline implementation across a system (PC3. 5)
- Identify specific patient health and health care inequities and disparities, and utilize system-based and local resources to efficiently meet individual patient's needs (SBP2. 2&3)
- Identify the importance of activities that advocate for patients and communities with health and health care inequities and disparities (SBP2. 5, SBP4. 1)
- Identify and perform safe and effective transitions of care in routine and complex clinical situations in the ambulatory and/or inpatient settings (SBP2. 2&3)
- Understand and manage components of complex health care systems in order to provide effective, equitable, and efficient patient care (SBP3. 2&4)
- Demonstrate the ability to communicate effectively with the patient, the patient's family, and caregivers to ensure that care is streamlined appropriately within the health care system
- Demonstrate the ability to advocate for patient-centered care and the physician-patient relationship
- Understand the functions and limitations of the U.S. Department of Health and Human Services (HHS); agencies such as the U.S. Food and Drug Administration (FDA), Drug Enforcement Administration (DEA), Centers for Disease Control and Prevention (CDC), and National Institutes of Health (NIH); and state-level regulatory and oversight agencies regarding patient care and patient outcomes

- Be aware of the limitations and scope of practice for other ancillary professionals (e.g., dentists, physical therapists, occupational therapists, speech therapists, dietitians, optometrists)

Interpersonal and Communication Skills

At the completion of residency, a family medicine resident should be able to:

- Be aware of and appreciate the complexity of the health care system as it pertains to patient care across all domains that directly and indirectly affect patients
- Understand how major participants in the health care system work, including, but not limited to, government, commercial insurance networks, the veterans' health care system, indigent health care system models, and Native American health care delivery systems
- Appreciate the role professional medical societies play in advocacy and policy making
- Be aware of the role of county and state health departments
- Understand the value of quality improvement initiatives in their own practice
- Appreciate and participate in problem resolution in their practice, including communications improvement with their staff
- Understand risk management with respect to their personal practice
- Understand appropriate online behavior and social media presence, cybersecurity, and Health Insurance Portability and Accountability Act (HIPAA)-appropriate patient communication modes
- Utilize active listening techniques and clear language in routine and challenging workplace encounters (IPCS1. 2&3)
- Use appropriate language and nonverbal behaviors that demonstrate respect, communicate their role within the health system, and establish rapport with patients and team members (IPCS1. 1)
- Demonstrate understanding of the barriers to effective and efficient communication (e.g., language, culture, health literacy, political preference, religion) (IPSC1. 2)
- Dedicate time to understanding personal biases and work to independently and proactively minimize communication barriers with patients and team members (IPCS1. 4)
- Understand and participate in clear and respectful receipt and provision of consult recommendations (IPCS2. 2&3)
- Coordinate various recommendations from multiple direct and interdisciplinary team members in order to optimize patient care and health system processes (IPCS2. 4)

- Actively participate in and understand the importance of the feedback process with learners, peers, and supervisors (IPCS2. 3&4)
- Use the patient medical record to efficiently document patient information and encounters in an organized, timely manner (IPCS3. 1&3&4)
- Understand and use appropriate system-based communication channels (e.g., patient reporting systems, pagers, phone) in a respectful manner (IPCS3. 1&2)
- Understand and convey the importance of a well-supported primary care department within a health system (e.g., lower costs, better utilization patterns, reduced mortality) (Phillips RL Jr, McCauley LA, Koller CF. Implementing high-quality primary care: a report from the National Academies of Sciences, Engineering, and Medicine. *JAMA*. 2021;325(24):2437-2438.)
- Actively engage teams and workflow processes to modify systems to prevent patient safety events (SBP1. 5)
- Demonstrate ability to reflect on, discuss, and address microaggressions and macroaggressions among colleagues and patients

Medical Knowledge

In the appropriate setting, a family medicine resident should demonstrate the ability to apply knowledge of the following:

1. Commonly used classifications in health care delivery
    a. International Statistical Classification of Diseases and Related Health Problems, 10th revision (ICD-10) and International Classification of Diseases, 10th Revision, Clinical Modification (ICD-10-CM)
    b. Current Procedural Terminology (CPT)
    c. Healthcare Common Procedure Coding System (HCPCS)

2. Models of health care delivery, including, but not limited to:
    a. Solo practice/small-group practice
    b. Employed physician
    c. Government and military employment
    d. Independent contractors
    e. Direct primary care
    f. Concierge care
    g. Hospital medicine
    h. Urgent care
    i. Long-term care/assisted living care

3. Principles of team-based care
    a. Patient-centered medical home (PCMH)
    b. Program of All-Inclusive Care for the Elderly (PACE) units

4. Current health care purchasing models and their implications for physician practices, including, but not limited to:

    a. Commercial insurance plans
        i. Health maintenance organization (HMO), preferred provider organization (PPO), vertically integrated models
    b. Accountable care organizations (ACOs)
    c. Medicare Access and CHIP Reauthorization Act (MACRA)
        i. Merit-based Incentive Payment System (MIPS)
        ii. Alternative Payment Model (APM)
    d. Bundled payment programs
    e. Medicaid and other state/federal government-funded plans, including the U.S. Department of Veterans Affairs (VA)
        i. Public Hospital Redesign and Incentives in Medi-Cal (PRIME) measures

5. Measures of physician productivity
    a. Resource-based relative value scale (RBRVS) and relative value units (RVUs)

6. Measures of physician quality
    a. Healthcare Effectiveness Data and Information Set (HEDIS)
    b. Physician Quality Reporting System (PQRS)

7. Quality improvement processes
    a. Find, Organize, Clarify, Understand, Select–Plan, Do, Study, Act (FOCUS–PDSA)
    b. Six Sigma
    c. Familiarity with quality improvement tools such as run charts, root cause analysis, fishbone diagrams, and process maps

8. Legislation relevant to health care
    a. Patient Protection and Affordable Care Act (ACA)
    b. HIPAA
    c. MACRA
    d. Children’s Health Insurance Program (CHIP)
    e. Genetic Information Nondiscrimination Act
    f. Health Information Technology for Economic and Clinical Health (HITECH) Act
    g. Physician Payments Sunshine Act
    h. Food and Drugs Act
    i. Mental Health Parity and Addiction Equity Act (MHPAEA)
    j. Stark Law and Anti-Kickback Statute reform
    k. Public Health Emergency (PHE) waivers (i.e., expansion of telehealth visits, Medicare beneficiaries)

9. Legislation applicable to businesses
    a. Federal Equal Employment Opportunity Commission (EEOC) laws
    b. Federal and state workers’ compensation laws

c. Americans with Disabilities Act (ADA)
d. Occupational Safety and Health Administration (OSHA) regulations
e. Family and Medical Leave Act (FMLA)

10. Basic knowledge of billing and patient accounting systems, including knowledge and practice of telehealth visit billing

11. Federal and state taxation systems and models pertinent to operation of a business/practice

12. Professional liability issues
    a. Occurrence-based policy versus claims-made policy
    b. Federal Tort Claims Act
    c. Risk mitigation
    d. Tail coverage
    e. Limitations of coverage and need for consideration of other types of coverage
        i. Errors and omissions
        ii. General liability

13. Racial disparities in health care
    a. Roles of interpersonal, institutional, and structural racism in health care
    b. Implicit and unconscious bias
    c. Anti-racism
    d. Business coverage
    e. Personal insurance: disability (long-term and short-term), life, property

Systems-Based Practice and Practice-Based Learning and Improvement

At the completion of residency, a family medicine resident should be able to:

- Understand the complex dynamics involved in patient care, including types of medical coverage, community and health care resources, and cultural needs within the context of their medical practice
- Demonstrate awareness of the interdependence within the health care system of patients, their physicians, insurance companies, and government agencies at all levels
- Incorporate population health metrics and management strategies into practice
- Help patients understand systems and laws that impact health care, such as workers' compensation, OSHA regulations, and FMLA (Systems-Based Practice)
- Recognize the essential elements that make a practice a PCMH
- Engage in ongoing improvement in the quality of health care provided to their patients by maintaining clinical competence and actively participating in

development of measures to optimize outcomes, with a focus on health disparities and inequities

- Interpret quality data in the context of their own practice and design quality improvement projects with a focus on health disparities and inequities
- Differentiate various types of health care purchasers, including commercial insurance networks, the veterans' health care system, indigent health care system models, and Native American health care delivery systems
- Demonstrate familiarity with insurance terminology and government rules and regulations at the federal and state levels, including knowledge of where to locate information on existing health care systems and learn about emerging concepts and ideas
- Code and charge appropriately for services performed by family physicians in outpatient and inpatient settings, including nursing homes, other domiciliary facilities, and patients' homes, and use common modifiers correctly
- Recognize the business operations of their clinical practice, including revenue streams, human resources and staffing, and contracts (i.e., all aspects of running a successful practice)
- Interpret reports of physician productivity and practice performance
- Understand different types of physician compensation models, including incentivized compensation, production, capitation, and partnership models, and use information from the Medical Knowledge section to aid in job searches and negotiations
- Understand risk-management contracts and liability insurance concepts, including tail coverage
- Use continuous quality improvement tools to improve patient care quality and reduce health disparities and inequities
- Incorporate population health metrics and management strategies into practice
- Understand risk-management contracts and liability insurance concepts, including tail coverage
- Demonstrate adequate understanding of the principles of billing and coding in the most common domains of primary care (i.e., ambulatory care, hospital medicine, procedural medicine, nursing homes, assisted living, home visits, and maternity care)

Professionalism

At the completion of residency, a family medicine resident should be able to:

- Recognize signs of physician burnout, utilize resources to enhance physician well-being, and be involved in systems that promote professional satisfaction
- Understand when and how to report professionalism lapses, and utilize

appropriate resources to report, manage, and/or resolve these events on the appropriate system, local, state, or national level (Pro1. 2&4)

- Understand the importance of ensuring patient care and health system team needs are met in a timely manner with attention to detail, and implement strategies to meet these needs (Pro2. 3&5)
- Demonstrate reflective practice by committing to personal growth and seeking feedback on performance data (PBL2. 4)
- Engage in the lifelong journey toward becoming anti-racist by reflecting on, discussing, and addressing microaggressions and macroaggressions, with the goal of creating a safe learning environment for patients and colleagues. Residency institutions should strive to become multicultural, anti-racist organizations.

Implementation

This curriculum is taught primarily through didactics and longitudinal clinical experience over the course of the residency program. The curriculum begins with basic training in the PGY-1 year, teaching skills such as charging and coding appropriately. As residents progress and build their medical skills, the curriculum incorporates more advanced aspects of practice management, enabling the residents to begin to understand and participate in solving systems-level problems in parallel with their growing facility with complex medical care.

Regular billing and coding training should be conducted for residents, with content geared toward their level of training. Residents should be given opportunities for participation in group/clinic practice meetings. Where resident clinical care intersects with health care systems, such as navigation of prior authorization requirements or peer-to-peer communications, residents should be involved in these activities.

Residents should have ongoing conversations with and receive feedback from their clinic managers, faculty, etc. regarding quality improvement, quality metrics, clinic flows, and patient satisfaction, as well as how to use this information to improve their own practices. There should be special attention to identifying health disparities and inequities.

Other methodologies to enhance resident understanding of the health care system should be employed, as available, such as scheduling speakers who have expertise in human resources, financial management, contract management, staff and physician recruitment, and other relevant areas. Residents can gain insight into the realities of the health care system by meeting with past graduates and working with community preceptors.

Residency programs may consider designating a faculty champion to direct HSM training. Offering protected time for residents to participate in a structured curriculum may facilitate didactic training in complex HSM topics.

Residency programs should incorporate training and safe environments for learners to address microaggressions and macroaggressions. Residency programs should strive to become multicultural, anti-racist organizations.

Resources

Departmental

- Ongoing survey results from patients
- Periodic survey results from staff regarding resident attitudes and behaviors
- Practice billing reports from accounting (ideally quarterly per resident)
- Regular feedback to residents, including performance comments on billing, coding, and communication
- Regular meetings with faculty advisors/program directors to review collected data with each resident

General

Accreditation Council for Graduate Medical Education. ACGME Program Requirements for Graduate Medical Education in Family Medicine. July 1, 2020. Accessed April 1, 2022. https://www.acgme.org/globalassets/PFAssets/ProgramRequirements/120_FamilyMedicine_2020.pdf

Phillips RL Jr, McCauley LA, Koller CF. Implementing high-quality primary care: a report from the National Academies of Sciences, Engineering, and Medicine. *JAMA*. 2021;325(24):2437-2438.

Suggested Periodicals

FPM. www.aafp.org/journals/fpm.html

Medical Economics. www.medicaleconomics.com/journals/medical-economics

Website Resources

American Medical Association (AMA). www.ama-assn.org/

Physicians Practice. www.physicianspractice.com/

U.S. Department of Health and Human Services:

- CDC. www.cdc.gov
- Centers for Medicare & Medicaid Services. Accountable Care Organizations (ACOs). www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/ACO
- Medicare.gov. www.medicare.gov

- NIH. www.nih.gov

U.S. Department of Justice, Drug Enforcement Administration. The Controlled Substances Act. www.dea.gov/drug-information/csa

Local Web Resources

- AAFP state chapter
- Local health department
- Other state agencies
- State medical society

Anti-Racism Resources

Continuum on Becoming an Anti-Racist Multicultural Organization. https://philanos.org/resources/Documents/Conference%202020/Pre-Read%20PDFs/Continuum_AntiRacist.pdf

How Microaggressions Are Like Mosquito Bites (<2-minute video). www.youtube.com/watch?v=hDd3bzA7450&t=0s

Stanford University. Upstander Interventions. https://sara.stanford.edu/upstanderlife

Whitgob EE, Blankenburg RL, Bogetz AL. The discriminatory patient and family: strategies to address discrimination towards trainees. *Acad Med*. 2016;91(11 Association of American Medical Colleges Learn Serve Lead: Proceedings of the 55th Annual Research in Medical Education Sessions):S64-S69.

Health Equity Resources

Amutah C, Greenidge K, Mante A, et al. Misrepresenting race -- the role of medical schools in propagating physician bias. *N Engl J Med*. 2021;384(9):872-878.

Green AR, Tan-McGrory A, Cervantes MC, et al. Leveraging quality improvement to achieve equity in health care. *Jt Comm J Qual Patient Saf*. 2010;36(10):435-442.

Institute for Healthcare Improvement (IHI). A Framework for Improving Health Equity. www.ihi.org/resources/Pages/Publications/Framework-Improving-Health-Equity.aspx

Williams DR, Lawrence JA, Davis BA. Racism and health: evidence and needed research. *Annu Rev Public Health*. 2019;40:105-125.