AMERICAN ACADEMY OF FAMILY PHYSICIANS

Recommended Curriculum Guidelines for Family Medicine Residents

Health Promotion and Disease Prevention

This document was endorsed by the American Academy of Family Physicians.

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 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

Family medicine is at the forefront of health promotion and disease prevention due to the inherent presence of the field throughout all stages and milestones of life. Health promotion is a process by which individuals become active participants in improving their overall health. It is centered on salutogenesis, which entails protecting oneself from future disease by enhancing physical, social and mental well-being in the absence of disease. Disease prevention is focused on identifying individuals at risk for diseases of concern before issues arise. This involves strategies such as timely health screenings, patient education, appropriate therapeutic interventions, collaboration with health professionals and community leaders and surveillance. Due to the critical importance of these concepts in managing chronic multi-morbidities, these must remain at the forefront of family medicine resident education.

Patient Care

At the completion of residency, residents should be able to:

1. Approach preventive care systematically
    a. Risk assessment
    b. Risk reduction
    c. Screening
    d. Immunization
    e. Chemoprophylaxis
2. Gather information on personal history
    a. Family history
    b. Vaccination history
        i. Access to local departments of health office records
    c. Diet
    d. Substance use
    e. Vitamin/supplement use
    f. Physical activity
    g. Stress management
    h. Socioeconomic status
    i. Health literacy
    j. Occupation and recreational activities
    k. Cultural and spiritual beliefs regarding health
    l. Emotional well-being
    m. Domestic violence
    n. Safety practices
3. Familiarity with a patient-centered medical home as a model to provide integrated care based on patient needs
    a. Clinic infrastructure
        i. Pharmacy
        ii. Imaging
        iii. Laboratory
    b. Allied health providers
        i. Diabetes educators
        ii. Dietitians
        iii. Behavioral health counselors
4. Order and interpret tests to screen, diagnose, and monitor identifiable and preventable diseases
5. Knowledge of medical referrals to specialists for the co-management of chronic diseases
    a. Chronic kidney disease
    b. Chronic obstructive pulmonary disease
    c. Congestive heart failure
    d. Diabetes mellitus
    e. Addiction and pain management

f. Cancers
g. Blood disorders
h. Mental health conditions
i. Rheumatologic conditions
j. Musculoskeletal conditions
k. Neurologic conditions
l. Gastrointestinal conditions

6. Determine how the social determinants of health impact individual patient care and treatment options for chronic disease
    a. Referrals to community resources
        i. Local and state health departments
        ii. Food banks
        iii. Shelters
        iv. Housing assistance programs
        v. Early intervention programs for newborns, infants, children
7. Knowledge of health issues of specific age groups
    a. Newborn/infant
        i. Breastfeeding promotion
        ii. Assessment of developmental milestones
        iii. Vaccines
    b. Children/adolescents
        i. Vaccines
        ii. Assessment of home and school safety
            a) Safe gun storage
            b) Identifying and reporting trauma, child abuse
            c) Screen time recommendations
            d) Screening for depression/anxiety
            e) Anti-bullying measures
            f) Assessment of alcohol, tobacco and drug use, including e-cigarettes
            g) Assessment of sexual behavior and counseling
                1. Sexually transmitted diseases
                2. Contraceptive counseling
    c. Adults
        i. Appropriate screenings
        ii. Vaccinations
    d. Older adults
        i. Health care planning
        ii. Dementia screening (e.g., Montreal Cognitive Assessment)
    e. Gynecology
        i. Discussion of contraception options
        ii. Cancer screening
8. Application of periodic health screening guidelines when providing patient care
    a. U.S. Preventive Services Task Force
    b. American Academy of Family Physicians
    c. American Academy of Pediatrics
    d. American Congress of Obstetricians and Gynecologists

e. American Geriatric Society
f. Centers for Disease Control and Prevention
g. American Cancer Society
h. American College of Lifestyle Medicine
i. American College of Preventive Medicine

9. Explain the natural history and course of chronic diseases to patients to reinforce preventive strategies
10. Basic understanding of current public health issues and concerns on global, national, state, and local levels
    a. Be able to communicate with patients at appropriate education levels about public health issues

Medical Knowledge

Family medicine residents should demonstrate the ability to apply knowledge of the following:

1. Five categories of prevention:
    a. Primordial, primary, secondary, tertiary and quaternary
2. Criteria used for screening tests, such as sensitivity, specificity, predictive values, bias, safety, cost and prevalence
3. Risk stratification based on age, gender, family history, socioeconomic status, lifestyle choices, environmental factors and co-morbid medical conditions
4. Specific age groups' preventive measures
    a. Newborns/infants
        i. Neonatal sepsis prevention
            a) Prenatal care, Group B streptococcus penicillin prophylaxis
        ii. Breastfeeding guidelines
            a) Knowledge of contraindications
        iii. Vaccine schedule
        iv. Awareness of developmental milestones and taking appropriate measures if there is a concern (i.e., monitoring, referral to a specialist)
    b. Children and adolescents
        i. Vaccine schedule
    c. Adults
        i. Vaccine schedule
        ii. Screening tests and procedures
    d. Older adults
        i. Review Beers Criteria and risks of polypharmacy
        ii. Dementia screening
        iii. Advanced care planning discussion
5. Safe sexual practices, sexually transmitted infections and pregnancy planning
    a. Sexual health assessment, counseling, vaccination and antimicrobial-based preventive strategies
        i. Pre- and post-exposure prophylaxis of sexually transmitted infections

ii. Hepatitis A vaccine, hepatitis B vaccine, human papillomavirus, Mpox (formerly known as monkeypox) virus
iii. Promotion of consistent barrier protection use

b. Appropriate counseling of available contraception methods
i. Long-acting reversible contraception
a) Intrauterine device (hormonal vs. non-hormonal)
b) Hormonal implants
ii. Injectables, pills, patches, rings, diaphragms
iii. Condom, withdrawal method, sponge, spermicide
iv. Permanent sterilization
a) Tubal ligation, vasectomy
v. Fertility awareness-based methods

6. Physical activity and exercise guidelines for health benefits, fitness and maintaining healthy body composition
7. Assessment of potential addiction to substances, including but not limited to tobacco, alcohol, and opioid use and appropriate harm reduction and cessation practices
a. Knowledge of tobacco smoking cessation strategies and medication
i. Nicotine patches, nicotine gum, varenicline, bupropion
ii. Quitline, counseling, online resources
iii. Lung cancer screening guidelines
b. Knowledge of alcohol cessation strategies, medication and health concerns associated with prolonged alcohol use
i. Local organization support services (i.e., Alcoholics Anonymous)
ii. Use of naltrexone
iii. Management of outpatient and inpatient alcohol withdrawal with appropriate referrals to specialists
iv. Progression of alcoholic liver cirrhosis and screenings (i.e., Model for End-Stage Liver Disease Score, Fibrosis-4 assessment)
c. Knowledge of risks associated with the development of opioid use disorder, harm reduction and cessation practices
i. Appropriate procedures for chronic pain management
ii. Local organization support services (i.e., Narcotics Anonymous, rehabilitation services, counseling)
iii. Medication-assisted treatment strategies, including buprenorphine, methadone and Suboxone
8. Fundamental understanding of the natural history of chronic diseases to educate patients about potential complications and outcomes
a. Chronic kidney disease
b. Asthma
c. Chronic obstructive pulmonary disorder
d. Congestive heart failure
e. Diabetes Mellitus
f. Hypertension
g. Osteoporosis

    h. Liver diseases (alcoholic liver cirrhosis, nonalcoholic fatty liver disease, chronic hepatitis)
9. Influences on psycho-social well-being
    a. Adverse childhood events
    b. Internal perceptions
    c. External stressors perception
    d. Significant life events
    e. Identifying social isolation and encouraging the development of social networks
    f. Promoting the healthy and safe use of social media
        i. Information quality
        ii. Distraction and displacement
        iii. Sleep
        iv. Role modeling
10. Understand current guidelines for injury and violence prevention
    a. Domestic
    b. Recreational
    c. Road safety
    d. Gun safety measures
    e. Pedestrian safety
    f. Bullying measures
11. Prevention of diseases of all ages through the appropriate use of immunizations, medications, vitamins, and minerals as supported by scientific evidence
    a. Resources available to discuss with parents and patients about risks associated with non-immunization and poor medication management
    b. Review statewide immunization record systems
    c. Review vaccines and immunization recommendations
12. Environmental issues that influence personal health
    a. Secondhand smoke
    b. Pollution
    c. Sanitation
    d. Safe housing
        i. Exposure to lead or other toxic substances, including radon gas levels in homes
        ii. Safe water
        iii. Home monitoring systems (i.e., fire alarms, carbon monoxide monitors)
    e. Occupational exposures
    f. Infrastructure promoting healthy lifestyles (i.e., parks, sidewalks, bike trails)

Systems-Based Practice

At the completion of residency, residents should be able to:

1. Utilize the PCMH model and demonstrate leadership, integration and optimization of care teams to provide high-quality, individualized, patient-centered care and follow-up

    a. Establishing a system-based notification of specialty consults, hospitalizations, urgent care and emergency departments for continued management of care
2. Identify the SDOH during wellness or clinic visits to inform community partners to improve health outcomes
    a. Appropriate referrals made to community organizations, allied health providers and medical providers
    b. Familiar with and entry of SDOH into medical health records as an International Classification of Disease code
    c. Identify enrollment criteria for local, state and federal programs that are available to patients free of charge or at low cost
3. Promote healthy behaviors as foundational to medical care, disease and injury prevention
    a. Emphasis on providing anticipatory guidance using nationally accepted practice guidelines for gender and age-specific groups
4. Familiar with the policy-making and legislative process
    a. Identify policies and communicate with community members, stakeholders and local leaders addressing issues affecting health outcomes
    b. Willingness to advocate for a health care system that is available, accessible and affordable for all
5. Awareness of the financial impact of medications, diagnostic testing, referral processes and adopting an approach based on Choosing Wisely
6. Unconscious bias training that potentially impacts the delivery of health to patients

Practice-Based Learning and Improvement

At the completion of residency, residents should be able to:

1. Assess knowledge of guidelines associated with chronic disease prevention and management
    a. Regularly schedule self-test knowledge assessments
    b. Evaluation by faculty/attending patient management during medical encounters
        i. Clinic visits
        ii. Hospital inpatient care and discharge planning
2. Present and evaluate clinical practice guidelines
    a. Application of clinical practice guidelines to case-based patient interactions
    b. Appraise and assimilate evidence that is the basis for clinical practice guidelines
3. Evaluate clinical notes and medical records to assess health maintenance goals according to age and sex
    a. Peer review
    b. Use of information technology to assess benchmark goals of quality of care (e.g., Hemoglobin A1c, blood glucose monitoring, health care screening assessments)

4. Develop, implement, and evaluate clinic and/or hospital quality improvement projects addressing health care promotion and disease prevention
    a. Use of Plan-Do-Study-Act cycle
5. Opportunities for faculty/attendings to observe family medicine residents' ability to utilize counseling strategies, assess awareness of patient readiness and use principles of motivational interviewing
6. Facilitate opportunities with patients, allied health providers and local community organizations to inform of preventive health strategies
    a. Collaborate with allied health providers (i.e., nutritionists, diabetes health educators, medical subspecialists) to practice evidence-based preventive care medicine
7. Monitor and analyze evidence alerts of studies associated with increasing health promotion and disease prevention strategies
8. Assess SDOH clinic surveys and discuss results with patients, families, community allied health partners, local community leaders and stakeholders

Professionalism

At the completion of residency, residents should be able to:

1. Demonstrate healthy behaviors essential to medical care, disease prevention and health promotion amongst colleagues, faculty, health facilities staff and administration
2. Demonstrate evidence of the impact that health promotion and disease prevention can have on patient health behaviors and health outcomes
    a. Assess patient, family and community commitment and willingness to change regarding behavior change associated with health promotion and disease prevention
    b. Recognize the socioeconomic limitations of patients, which limit the impact of the benefits of health promotion
        i. Seek guidance from other providers, allied health professionals and community members to address the limitations and to provide appropriate, socioculturally sensitive recommendations to patients and community members
        ii. Provide reasonable recommendations to patients that advance health promotion and disease prevention
3. Demonstrate compassion, empathy and cultural sensitivity to patient behaviors that adversely affect health
    a. Improve cultural competence and cultural humility
    b. Improve patient outcomes
    c. Improve patient experiences

Interpersonal and Communication Skills

At the completion of residency, residents should be able to:

1. Maintain self-awareness of personal upbringing (family experiences, community resources, etc.) and attitudes that contribute to or limit the impact of lifestyle measures and preventive medicine
2. Understand the importance of self-care practices
    a. Improve personal health
    b. Maintain work-life equilibrium
    c. Serve as a role model for patients, staff and colleagues
3. Collaborate with patients, families and support systems in a culturally sensitive manner
    a. Use evidence-based, achievable and specific written action plans
4. Communicate strategies to affect behavioral changes in patients, including motivational interviewing techniques and assessment of patient's readiness to change
    a. Recognize and support individual and household efforts in disease prevention and management
    b. Maintain support and modify patient and family disease prevention and health prevention strategies if unable to fulfill the initial objective
5. Enable partnerships with physicians, community providers and stakeholders to enable programs and policies that concentrate efforts on health promotion and disease prevention, such as vaccination programs and expanded health care screenings
6. Promote a safe environment where patients and others involved in their care can actively engage in their care decisions
7. Assist patients and others involved in their care in locating reputable medical information on the internet and other sources
8. Discuss internet safety and the protection of health information

Implementation

This curriculum should be taught longitudinally with learning experiences offered throughout the residency program. Curricular content should traverse learning formats that include didactic conferences, journal clubs, small group discussions, preceptor room discussions and patient care in all settings. The curriculum should consist of content that teaches residents to critically evaluate clinical prevention recommendations and approaches to motivating healthy behavior change, along with a focus on the SDOH for their patient population. Reference materials should be available to support these endeavors.

Preventive medicine and health promotion lessons should occur in settings consistent with the PCMH (www.aafp.org/about/policies/all/medical-home.html). Residents should be able to observe and partner with other health care professionals (i.e., diabetes educators, lactation consultants, nutritionists, behavioral health counselors, community health workers and officials from local health departments).

Residents should engage in preceptor-supervised interactions with patients in the contexts of lifestyle and mental health counseling. The family medicine residency clinic should function as a medical home so that health promotion and preventive medicine

become part of patients' active care plans. Residents should actively participate in group determination of clinical policy and procedures regarding preventive medicine and health promotion. Residency programs are encouraged to participate in legislative curriculum sessions and speak with local officials regarding preventive health policies. Electronic health records should be structured to efficiently support this model of care. Resident records of contact with patients should be reviewed for appropriate inclusion of notes regarding health promotion and disease prevention.

Health promotion and disease prevention in the residency setting should be taught by example and implied by structure. Faculty should model healthy and balanced lifestyles, demonstrating dedication to family, patients, and community and the care of the self through exercise, community service and other valued activities. The resident's responsibilities should be structured to ensure opportunities for similar self-care. Consideration should be given to residency policies that ensure the active connection between residents and their physicians. Residency-sponsored social activities should be focused on healthy themes, such as exercise and safe recreation. Residency programs should seek opportunities for residents to participate in community outreach, education and collaboration with public health entities. This can help residents learn to act as community leaders and experts and provide other settings to actively promote healthy lifestyles, behavior change and environmental factors that influence community health.

Resources

American Academy of Family Physicians. Adolescent health. https://www.aafp.org/dam/AAFP/documents/medical_education_residency/program_directors/reprint278-adolescent-health-2023.pdf

AAFP. Care of infants and children. https://www.aafp.org/dam/AAFP/documents/medical_education_residency/program_directors/Reprint260_InfantChild.pdf

AAFP. Men's health. https://www.aafp.org/dam/AAFP/documents/medical_education_residency/program_directors/Reprint257_Men.pdf

AAFP. Patient education. https://www.aafp.org/dam/AAFP/documents/medical_education_residency/program_directors/Reprint284_PatientEd.pdf

AAFP. Practice-based learning and improvement. https://www.aafp.org/dam/AAFP/documents/medical_education_residency/program_directors/Reprint289C_Learning.pdf

AAFP. Substance use disorders. https://www.aafp.org/dam/AAFP/documents/medical_education_residency/program_directors/Reprint277_Substance.pdf

AAFP. Women's health and gynecologic care. https://www.aafp.org/dam/AAFP/documents/medical_education_residency/program_directors/Reprint282_Women.pdf

AAFP, American Academy of Pediatrics, American College of Physicians, American Osteopathic Association. Joint principles of the patient-centered medical home. https://www.aafp.org/dam/AAFP/documents/practice_management/pcmh/initiatives/PCMHJoint.pdf

World Health Organization. Helsinki Statement on Health in All Policies. https://iris.who.int/bitstream/handle/10665/112636/9789241506908_eng.pdf?sequence=1

Website Resources – Evidence-Based Medicine

American College of Lifestyle Medicine. What is lifestyle medicine? https://lifestylemedicine.org/

Website Resources – General

Agency for Healthcare Research and Quality. Guidelines and measures. https://www.ahrq.gov/gam/index.html

American Academy of Pediatrics. Promoting the healthy and safe use of social media. https://downloads.aap.org/AAP/PDF/Bright%20Futures/BF4_HealthySocialMedia.pdf

American Geriatrics Society. AGS Beers Criteria®. https://agsjournals.onlinelibrary.wiley.com/doi/epdf/10.1111/jgs.18372

Centers for Disease Control and Prevention. https://www.cdc.gov/

CDC. Chronic disease. https://www.cdc.gov/chronic-disease/

CDC. Preventing opioid use disorder. https://www.cdc.gov/overdose-prevention/prevention/preventing-opioid-use-disorder.html

Tulane University. School of Public Health and Tropical Medicine. How to improve cultural competence in health care. https://publichealth.tulane.edu/blog/cultural-competence-in-health-care/

U.S. Department of Health and Human Services. National Culturally and Linguistically Appropriate Services Standards. https://thinkculturalhealth.hhs.gov/clas/standards

U.S. Department of Health and Human Services. Office of Disease Prevention and Health Promotion. Healthy People 2030. https://health.gov/healthypeople

Recommended Readings

Coulston AM, Boushey C, Ferruzzi MG, Delahanty LM. *Nutrition in the Prevention and Treatment of Disease*. Academic Press; 2017.

Coviello JS. *Health Promotion and Disease Prevention in Clinical Practice*. Wolters Kluwer; 2020.

Egger G, Binns A, Rossner S. *Lifestyle Medicine: Lifestyle, the Environment and Preventive Medicine in Health and Disease*. McGraw-Hill; 2017.

Fung J. *The Obesity Code: Unlocking the Secrets of Weight Loss*. Greystone Books; 2016.

Rose G. *The Strategy of Preventive Medicine*. Oxford University Press; 1993.

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