American Academy of Family Physicians (AAFP)
American Academy of Pediatrics (AAP)
American College of Physicians (ACP)
American Osteopathic Association (AOA)

Joint Principles for the Medical Education of Physicians as Preparation for Practice in the Patient-Centered Medical Home

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INTRODUCTION

The Patient-Centered Medical Home (PCMH) is an approach to providing comprehensive, continuous healthcare that is based on the foundation of a healing personal relationship between a patient, their physician, and members of a proactive, collaborative care team. Care provided through a PCMH is facilitated through partnerships between these individuals and the patients' families. Since the original adoption of the Joint Principles of the Patient Centered Medical Home in February 2007, it has been recognized that a remaining need exists for a similar set of principles to guide the education of medical students, in order to provide a foundation in primary care medicine and PCMH relevant for all students, irrespective of their eventual specialty choice.

In June 2010, representatives from the AAFP, AAP, ACP and AOA (the original organizations that ratified the Joint Principles of the PCMH) re-engaged to create the following principles to guide the education of physicians who graduate from medical schools within the United States. While similar principles can, and should, be applied to other health professions students, it was the specific charge of this committee to create training principles for physician education.

A matrix was created to support the cross-walk among the original Joint Principles of the PCMH, the attributes and competencies needed to address them, and the corresponding educational sub-principles to support each one. In addition, each educational sub-principle was linked with the pertinent ACGME/ABMS core competencies of medical education. [Appendix A]

PRINCIPLES OF THE PATIENT CENTERED MEDICAL HOME

Personal physician - Each patient has an ongoing relationship with a personal physician trained to provide first contact, continuous and comprehensive care.

Attributes/Competencies Needed

Medical students should demonstrate knowledge about the definition of patient-centeredness and must be able to demonstrate the ability to provide patient centered care in their clinical encounters.

Corresponding Educational Sub-Principles

Medical students are expected to:

1. experience continuity in relationships with patient(s) in a longitudinal fashion within practices that deliver first-contact, comprehensive, integrated, coordinated, high-quality and affordable care.
2. communicate effectively and demonstrate caring and respectful behaviors when interacting with patients and their families and fellow professionals.

Physician directed medical practice **-** The personal physician leads a team of individuals at the practice level who collectively take responsibility for the ongoing care of patients.

Attributes/Competencies Needed

Medical students should be able to demonstrate collaborative care via leadership skills that result in effective information exchange and teaming with patients, their patients' families, and professional associates.

Corresponding Educational Sub-Principles

Medical students are expected to:

1. work effectively with others as a member or leader of a health care team or other professional group via interdisciplinary team experiences (i.e. those involving nurses, social worker, case managers, mental health professionals, diabetes educators, community partners, pharmacists, etc).
2. articulate the roles, functions and working relationships of all members of the team.
3. apply knowledge of leadership development, quality improvement, change management and conflict management.

Whole-person orientation **-** The personal physician is responsible for providing for all the patient's health care needs or taking responsibility for appropriately arranging care with other qualified professionals. This includes for all stages of life: acute care; chronic care; preventive services; and end-of-life care.

Attributes/Competencies Needed

Medical students should be able to provide patient care that is compassionate, coordinated, appropriate, and effective for the treatment of health problems and the promotion of health.

Corresponding Educational Sub-Principles

Medical students are expected to:

1. demonstrate knowledge and an appreciation of life cycle concepts.
2. practice motivational interviewing and utilization of other tools to promote patient and family engagement and health behavior change.

3. promote patient and family self-efficacy and shared decision-making.
4. experience partnerships with health coaches and care coordinators who care for patients with complex conditions.
5. demonstrate sensitivity and responsiveness to patients' culture, age, gender and disabilities via opportunities to elicit from patients and/or their families their cultural, spiritual, and ethical values and practices.
6. understand the importance of health literacy and its impact on patient care and outcomes; utilize effective listening and other skills in the assessment of health literacy.
7. describe and discuss strategies needed to address patient transition(s) of care.

Care is coordinated and/or integrated across all elements of the complex health system (e.g. subspecialty care, hospitals, home health agencies, nursing homes) and the patient's community (e.g. family, public and private community based services). Care is facilitated by registries, information technology, health information exchange and other means to assure that patients get the indicated care when and where they need and want it, in a culturally and linguistically appropriate manner.

Attributes/Competencies Needed

Medical students should be able to demonstrate an awareness of and responsiveness to the larger context and system of health care and the ability to effectively call on system resources to provide care that is of optimal value.

Corresponding Educational Sub-Principles

Medical students are expected to:

1. know how the economics of health care systems across a community, including all settings of care, affect patient care and outcomes.
2. apply knowledge of the relationship between payment models and health care delivery models.
3. experience the use of electronic health records, e-visits, e-prescribing and electronic billing.
4. learn the basics of medical informatics and the technologies that support care coordination, population health management, quality management, care management and decision support.
5. understand basic principles of population health, including how patient registries can be used to manage population health
6. use information technology to manage information, access on-line medical information; and support their own education.
7. know and apply the principles of patient safety.
8. assess and recommend solutions to address patient risk during transitions of care including use of tools such as care plans.

9. demonstrate knowledge of community resources and the importance of working with non-physician partners
10. understand how to collaborate with specialists from various disciplines to provide patient-focused co-management of care over time.

Quality and safety are hallmarks of the medical home:

- Advocacy for attainment of optimal, patient centered outcomes defined by collaborative care planning process
- Evidence based medicine and clinical decision support tools guide decision making
- Physicians accept accountability for quality improvement (QI) through voluntary engagement in performance measurement and improvement
- Patients actively participate in decision making and patient feedback is sought to assure expectations are being met
- HIT is used to support optimal patient care performance measurement, patient education and enhanced communication
- Practices go through a voluntary recognition process to demonstrate that they have PCMH capabilities
- Patients and families participate in quality improvement activities at the practice level

<u>Attributes/Competencies Needed</u>

Medical students should be able to use of point-of-care evidence-based clinical decision support and know principles of performance improvement, measurement and how to use information to make decisions within practice via interpretation of quality reports, patient and family engagement, self-assessment of one's own performance, knowledge of the principles of community health assessment and awareness of the need for patient and family advocacy skills.

<u>Corresponding Educational Sub-Principles</u>

Medical students are expected to:

1. understand evidence-based medicine as the standard of care.
2. participate in teams within practices as they develop a culture of learning to improve the care process and patient experience.
3. learn how health care is operationalized outside of the hospital setting.
4. participate in multi-disciplinary patient safety training experiences.
5. engage in opportunities to review quality data and recommend evidence-based systems changes to respond to performance measurement.

Enhanced Access to care is available through systems such as open-access scheduling, extended hours, and new options for communications between patients, their personal physician and practice staff.

Attributes/Competencies Needed

Medical students should be able to demonstrate knowledge about the rationale and principles of enhanced access and practice the use of non-traditional encounter types including telephone medicine, E-visit care, group visits, visits with non-physician providers, and care outside of the location of the physical practice.

Corresponding Educational Sub-Principles

Medical students are expected to:

1. experience a variety of different encounter types such as face-to-face, telephone and electronic messaging, home-based care and group visits.
2. use information technology to support patient care decisions and patient education.
3. apply knowledge of care partnership support and demonstrate understanding of the role of that support in addressing patient access and communication related to roles/responsibilities, appointments, emergency/urgent situations, etc.

Payment appropriately recognizes the added value provided to patients who have a PCMH.

- Recognizes and values work that is done outside of face-to-face visit
- Pays for care coordination, ancillary providers and community resources
- Supports adoption of HIT for quality improvement
- Supports provision of e-communication
- Recognizes values of physician work associated with remote monitoring of clinical data using technology
- Maintains fee-for-service (FFS)
- Recognizes case mix differences
- Allows shared savings from reduced hospitalizations
- Allows for quality bonus or incentive payments for measurable improvement

Attributes/Competencies Needed

Medical students should demonstrate knowledge of the elements of population-based care, non-visit work, and have an appreciation of the value of these aspects of care through an understanding of enhanced payment opportunities and both an understanding and capacity to apply the principles of advocacy and effective negotiation.

Corresponding Educational Sub-Principles

Medical students are expected to:

1. know various physician payment methodologies (including those encompassing of past, current and future policies).
2. assist patients in dealing with system complexities via advocacy and negotiation

3. be informed of the public and private policy development processes that establish and/or influence coverage and payment determinations.
4. understand the importance of effectively advancing those policies that are in the best interests of their patients and the nation's health care system.
5. be familiar with current data on the overall cost of health care including an understanding of the proportion of health care dollars spent on various segments of the health care system, those costs incurred by patients, as well as the overall costs of health care for employers and the government.

RESOURCES

Adding these components to undergraduate education in a cohesive manner will also require additional resources. Some of the sub-principles can be implemented by adding students into already existing patient-care and practice-based activities. However, in other cases, it will be necessary to dedicate faculty and staff to create and oversee new experiences for the students. This may require including disciplines that have not traditionally taught medical students, including faculty with expertise in economics, health policy, or business administration. Additionally, it may be necessary to find ways to better assist and compensate community-based ambulatory practices for taking on students. Finally, resources may be needed for infrastructure development to provide students with the necessary tools, including access to electronic health records, registries, and quality improvement tools, to experience some of the systems-based aspects of the PCMH.

UNMET NEEDS

Professional development to prepare faculty for health reform changes is a prerequisite to training medical students in both primary and specialty care. It is recognized that resident physicians will also be integral components of medical student education in PCMH concepts. Faculty development is a current ***unmet need*** of this generation of faculty members with respect to how to teach medical students and residents about the PCMH.

The current educational system lacks the necessary tools for the evaluation and the assessment of learners with regard to the education of medical students and residents in the principles and attributes/competencies of the PCMH.

There is an urgent need for demonstration projects that will inform both methods of faculty development as well as the development of assessment tools and outcomes measures.

BACKGROUND OF THE MEDICAL HOME CONCEPT

The American Academy of Pediatrics (AAP) introduced the medical home concept in 1967, initially referring to a central location for archiving a child's medical record. In its 2002 policy statement, the AAP expanded the medical home concept to include these operational characteristics: accessible, continuous, comprehensive, family-centered, coordinated, compassionate, and culturally effective care.

The American Academy of Family Physicians (AAFP) and the American College of Physicians (ACP) have since developed their own models for improving patient care called the "medical home" (AAFP, 2004) or "advanced medical home" (ACP, 2006).

WORKING GROUP CONTRIBUTORS

Members of the working group who volunteered their time and expertise to prepare this document are listed in Appendix B.

FOR MORE INFORMATION:

American Academy of Family Physicians
http://www.futurefamilymed.org
http://www.aafp.org/online/en/home/membership/initiatives/pcmh.html
http://www.transformed.com/
http://www.stfm.org/fmhub/fm2007/January/Ardis24.pdf

American Academy of Pediatrics:
http://aappolicy.aappublications.org/policy_statement/index.dtl#M
http://www.medicalhomeinfo.org
http://www.pediatricmedhome.org
http://www.medicalhomeinfo.org/how/performance_management.aspx

American College of Physicians
http://www.acponline.org/running_practice/pcmh/
http://www.acponline.org/advocacy/where_we_stand/medical_home/

American Osteopathic Association
http://www.DO-Online.org

Appendix A

Joint Principles Mapping Grid for Educational Sub-principles Development Project
July 2010

Column 1 – Existing Joint Principles of the Patient Centered Medical Home

Column 2 – Attributes/competencies needed by physicians for medical home practice. Listed are a few examples – this will be developed by working group members based on their knowledge and experience in the PCMH module and the relevant literature provided.

Column 3 – This is intended for listing key concepts that the working group desires to have included in the language of the educational sub-principles

Column 4 – This is intended to cross walk the educational sub-principles to the core competencies.

Joint Principle of the PCMH	Attributes/Competencies Needed	Corresponding Educational Sub-principle	Crosswalk to Core Competencies Key: PC = Patient Care; MK= Medical Knowledge; IC= Interpersonal & Communication Skills; P= Professionalism; PBL= Practice-based Learning & Improvement; SBP= Systems-based Practice
Personal physician. Each patient has an ongoing relationship with a personal physician trained to provide first contact, continuous and comprehensive care	• *Defining and demonstrating patient-centeredness in their clinical encounters* • *Demonstrating enhanced, timely, multi-modal communications between the practice and patients/families to assure continuous care* • *Including patients/families as advisors to the medical home, eliciting input and feedback on a continuous basis*	• *Curriculum should provide students with longitudinal experience(s) in continuity relationships with patient(s) in practices that deliver first-contact, comprehensive, integrated, coordinated, high-quality and affordable care.* • *Curriculum should include training in communication skills with patients, families and fellow professionals.*	• *PC, P, SBP* • *IC, P*
Physician-directed medical practice. The personal physician leads a team of individuals at the practice level who collectively take responsibility for the ongoing care of patients.	• *Collaborative care* - *All team members are accountable for their roles and responsibilities in delivering high-quality care* - *All team members demonstrate respect for all other team members* • *Team building* • *Leadership skills* • *Change and conflict management*	• *Students should experience interdisciplinary teams (i.e. nurses, social workers, case managers, mental health professionals, diabetes educators, community partners and/or pharmacists)* • *Students should be able to articulate the roles, functions and working relationships of all other members of the team.* • *Curriculum should include experiences in leadership development, quality improvement, and change management.*	• *SBP, IC, P, PC* • *SBP, P* • *P, PBL*
Whole-person orientation. The personal physician is responsible for providing for all the patient's	• *Life cycle knowledge/appreciation* • *Patient engagement /motivational interviewing*	• *Students should be taught to assess patient/family readiness to engage in health behavior change, to promote patient self-efficacy, and to facilitate health behavior change.*	• *MK, IC,*

health care needs or taking responsibility for appropriately arranging care with other qualified professionals. This includes for all stages of life: acute care; chronic care; preventive services; and end-of-life care.	• *Promotion of patient self-efficacy* • *Promotion of shared decision-making* • *Transitions of care* • *Promotion of health and wellbeing* • *Assessment of and respect for cultural values and practices* • *Assessment of health literacy*	• *Students should be exposed to health coaches and care coordinators who care for patients with complex conditions.* • *Students should have opportunities to elicit from patients and/or their families their cultural, spiritual, and ethnic values and practices.* • *Students should be taught how to assess and accommodate to diverse levels of health literacy.*	• *MK, SBL, IC, P* • *MK, PC* • *MK, PC, IC*
Care is coordinated and/or integrated across all elements of the complex health system (e.g. subspecialty care, hospitals, home health agencies, nursing homes) and the patient's community (e.g. family, public and private community based services). Care is facilitated by registries, information technology, health information exchange and other means to assure that patients get the indicated care when and where they need and want it in a culturally and linguistically appropriate manner.	• *Effective transitions of care* • *Knowledge of community resources and working with non-physician partners* • *Use of EMRs/HIT at points of care* • *Registry use* • *Population health* • *Coordination/collaboration with specialists, co-management of care over time* • *The value of patient advocacy*	• *Students should be exposed to the economics of health care systems across a community, including all settings of care.* • *Students should learn the relationship between payment models and health care delivery models.* • *Students should learn the basics of medical informatics and the technologies that support care and population management..* • *Students should be exposed to electronic health records, e-visits, e-prescribing and electronic billing.* • *Students should be taught principles of population health, including how patient registries can be used to manage population health.* • *Students should be taught principles of patient safety.* • *Students should be able to assess and recommend solutions to address patient risk during transitions of care, including use of tools such as care plans.*	• *SBP* • SBP • *MK, PBL* • *PBL, SBP* • *MK, SBP* • *PBL, MK* • *PBL, MK*
Quality and safety are hallmarks of the medical home: • Advocacy for attainment of optimal, patient centered outcomes defined by collaborative care planning process • Evidence based medicine and clinical decision support tools guide decision making • Physicians accept accountability for quality improvement (QI) through voluntary engagement in performance measurement and improvement • Patients actively participate in decision making and patient feedback is sought to assure expectations are being met • HIT is used to support optimal patient care performance measurement, patient education and enhanced communication	• *Use of point-of-care evidence based clinical decision support* • *Interpretation of quality reports* • *Knowing principles of performance improvement, measurement and how to use information to make decisions within practice* • *Patient and family engagement* • *Self-assessment of one's own performance* • *Knowledge of the principles of community health assessment* • *Patient and family advocacy skills*	• *Students should participate in teams within practices as they develop a culture of learning to improve the care process and patient experience.* • *Students should learn how health care is operationalized outside of the hospital setting.* • *Students should participate in multi-disciplinary patient safety training experiences.* • *Students should have opportunities to review quality data and recommend evidence-based systems changes to respond to performance assessment.*	• *SBP, PBL* • *SBP* • *PBL, P, MK* • *PBL*

• Practices go through a voluntary recognition process to demonstrate that they have PCMH capabilities • Patients and families participate in quality improvement activities at the practice level			
Enhanced Access to care is available through systems such as open scheduling, extended hours, and new options for communications between patients, their personal physician and practice staff	• *Understanding of rationale and principles of enhanced access* • *Phone medicine* • *Electronic communication* • *Group Visits* • *Visits with non-physician providers* • *Care outside of the location of the physical practice*	• *Students should experience a variety of different encounter types provided by other team members (e.g. shadowing experiences with pharmacists, nurses, social workers, schedulers and receptionists)* • *Students should experience a variety of different encounter types such as face-to-face, telephone and electronic messaging, and group visits*	• *PC, IC* • *PC, IC*
Payment appropriately recognizes the added value provided to patients who have a PCMH • Recognizes and values work that is done outside of face-to-face visit • Pays for care coordination, ancillary providers and community resources • Supports adoption of HIT for QI • Supports provision of e-communication • Recognizes values of physician work associated with remote monitoring of clinical data using technology • Maintains FFS • Recognizes case mix differences • Allows shared savings from reduced hospitalizations • Allows for quality bonus or incentive payments for measurable improvement	• *Knowledge of elements of population-based care, non-visit work and appreciation of value of these aspects of care* • *Understanding of enhanced payment opportunities* • *Understanding and application of the principles of advocacy*	• *Students should receive well-balanced instruction on physician payment methodologies that is encompassing of past, current and future policies.* • *Students should be informed of the public and private policy development processes that establish and/or influence coverage and payment determinations. It is desirable that students learn how they, as future physicians, can effectively advance those policies that are in the best interests of their patients and the nation's health care system.* • *Students should be familiar with current data on the overall cost of health care. This should include an understanding of the proportion of health care dollars spent on various segments of the health care system, those costs incurred by patients, as well as the overall costs of health care for employers and the government, and to the extent known, the relationship between costs and quality of care..*	• *MK* • *MK, SBP* • *MK, SBP*

*** Prerequisite to training: Faculty development is a current ***unmet need*** of this generation of faculty members, with respect to how to teach medical students and residents about the PCMH – this needs attention.

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