AAMC
Tomorrow's Doctors, Tomorrow's Cures

Competence as a Framework for Progression across the Continuum in Pediatrics

Maryellen E. Gusic MD
Chief Medical Education Officer

Learn
Serve
Lead

Association of
American Medical Colleges

Important definitions

Domains of competence: broad areas of competence; in aggregate these domains provide a descriptive framework for a profession

Englander R et al. Acad Med 2013; 88(8): 1088-1094.

Competency = an ability that integrates multiple components (knowledge, skills, values and attitudes)

Competence = array of abilities across multiple aspects of performance (domains); context and stage of training is relevant

Frank JR et al. Med Teach 2010; 32: 638-645.

AAMC

Additional definitions

Milestones: description of a behaviors that mark developmental progression/trajectory toward competency

Orgill BD and Simpson D. JGME 2014; 6(2): 203-206.

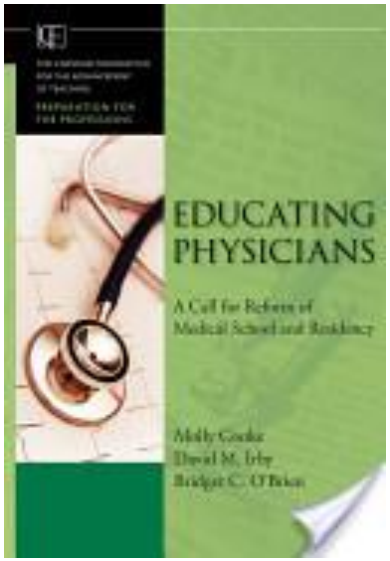
Entrustable professional activities (EPAs): tasks/responsibilities that faculty entrust to a trainee to execute without supervision, once adequate competence has been obtained

ten Cate O. AM Last Page. Acad Med 2014; 89(4): 691.

AAMC

Shifting The Paradigm: Competency-based Medical Education

- Standardization of learning outcomes with an individualization of the learning process
- Integration of knowledge and clinical experience
- Development of habits of inquiry and innovation
- Formation of professional identity



Cooke M, Irby DM and O'Brien BC. *Educating physicians: A call for reform of medical school and residency*. Jossey-Bass/Carnegie Foundation for the Advancement of Teaching 2010.

AAMC

A Continuum Based on the Development and Assessment of Competence

AAMC

Where We Are Going: General Physician Competencies

8 domains; 58 competencies

- Patient care
- Knowledge for practice
- Practice-based learning and improvement
- Interpersonal and communication skills
- Professionalism
- Systems-based practice
- Interprofessional collaboration
- Personal and professional development

Englander, R, et al. *Acad Med.* 2013; 88(8): 1088-1094.

AAMC

The importance of assessment

For learners and teachers

- For progression in training/advancement decisions
- For decisions related to required level of supervision

For healthcare systems

- For certification/licensing

For patients

AAMC

Assessment of learning and assessment *for* learning

Assessment for learning: assessment is “embedded” in the educational process, is information-rich (multiple sources), identifying strengths and weaknesses to steer and foster learning for each student

Schuwirth L and van der Vleuten CPM. Med Teach 2011; 33: 478-485.
and
Schuwirth L and van der Vleuten CPM. Med Teach 2011; 33: 783-797.

AAMC

Authentic assessment requires direct observation of behaviors in context

Evaluation (judgments about learners) must be integrative and synthetic using data from an adequate (broad sample) of learner performance

Holmboe ES et al. Med Teach 2010; 32: 676-682.

AAMC

Assessing performance (workplace) is challenging

Activities/tasks in the “real world” are unpredictable and are not standardized

Authenticity of observation

- Introduced and inherent biases of observers
- Subjectivity of assessments
- Various expertise/experience of observers

Generalizability of tasks/performance being assessed

- Intra-individual variability (emotional, physical state)
- Impact of others in the work environment

Govaerts M and van der Vleuten CPM. Med Educ 2013; 47. : 1164-1174.

AAMC

Longitudinal assessment activities optimize learning and allow high stakes decision making

Appropriate sampling can overcome the subjectivity of assessment

- More data points should be aggregated for higher stakes decisions
- Data from multiple assessors can “average out” biases
- Aggregation of data across methods of assessment provides more meaningful information

Professional judgment is critical in interpreting assessment results

Van Der Vleuten CPM et al. Med Teach 2012; 34: 205-14.

AAMC

Questions

AAMC

Using EPAs to Measure the Activities of Professional Work

- Parts of essential professional work *in a given context*
- Require adequate knowledge, skills, attitudes
- Lead to recognized output of professional labor
- Should be confined to qualified personnel
- Should be executed within a time frame
- Should be observable and measurable *in process and outcome*
- Should reflect one or more competencies

ten Cate O and Scheele F. Acad Med 2007; 82: 542-547.

AAMC

“But if the old way of assessing learners was essentially

‘I’ll know it when I see it,’

then EPAs move us to

‘I’ll know what’s important for a learner to perform and I’ll know it when I see it.’

The addition of behavioral descriptors to the equation moves us to

‘I’ll know what’s important for the learner to perform, I’ll know what specifically to look for so I can recognize it when I see it, and I’ll be looking for and recognizing the same thing as my colleague.’”

AAMC

The importance of a shared understanding and of narrative evaluation

Specific, behavioral descriptions of expected performance (relative to a standard) allow assessors to use the same “data points” to arrive at decisions and provide learners with detailed information

- Particularly important for learners who are struggling or who need remediation

AAMC

Faculty development is vital to develop a shared understanding

Effective use of workplace-based assessment to ensure learning requires that faculty receive training on the use of the tools/instruments and on methods to provide appropriate and useful feedback

Bok HGJ et al. BMC Med Educ 2013; 13: 123.

Training in:

- Behavioral observation
- Performance measurement
- Setting and applying a unified frame of reference

Carraccio C and Englander R. Acad Med 2013; 88(8): 1067-1073.

AAMC

Making entrustment decisions…

Learner trustworthiness involves consideration of a learners:

- Knowledge/skill
- Discernment of limitations
- Truthfulness
- Conscientiousness

Kennedy TJ, Regehr GG, Lingard L. Acad Med 2008; 83(10): S89-92.

Recognizes competence as well as habits of mind and traits that predict future behavior

Hauer KE et al. Adv in Health Sci Educ 2014; 19: 435-456.

AAMC

Supervisor factors that impact trust

Expertise in clinical practice

Expertise in learner assessment

Experience

Attitudes (reflective behavior, self-confidence, propensity to trust)

Perceived accountability

Hauer KE et al. Adv in Health Sci Educ 2014; 19: 435-456.

AAMC

Learner factors impacting trust decisions

Competence (aptitude, prior experience, reasoning skills)

Attitudes (self-awareness, habits of lifelong learning, insight, willing to incorporate feedback)

Self-confidence

Hauer KE et al. Adv in Health Sci Educ 2014; 19: 435-456.

AAMC

The supervisor-trainee relationship

Trust formation relies on:

Shared experience and expectations

Amount of contact/over time

Environment that promotes learner's active involvement in care (context)

Appropriate sequencing of tasks (building of responsibility)

Hauer KE et al. Adv in Health Sci Educ 2014; 19: 435-456.

AAMC

Questions

AAMC

Defining When Learners are Ready to Transition to GME

Premedical

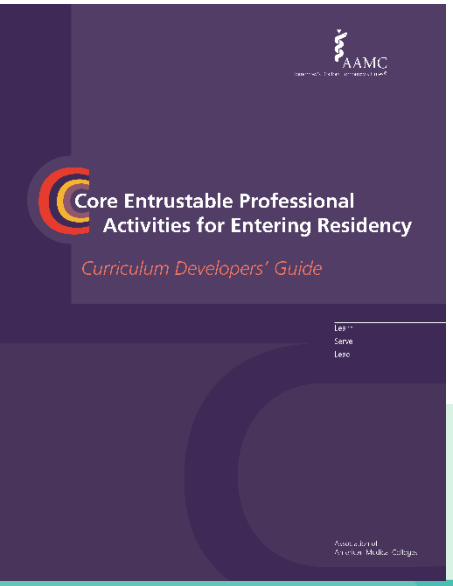
Medical School

Residency and Fellowships

Practice

AAMC

The Core Entrustable Professional Activities For Entering Residency



www.aamc.org/initiatives/coreepas/

AAMC

Core EPAs for Entering Residency

1. Gather a history and perform a physical examination
2. Prioritize a differential diagnosis following a clinical encounter
3. Recommend and interpret common diagnostic and screening tests
4. Enter and discuss orders/prescriptions
5. Document a clinical encounter in the patient record
6. Provide an oral presentation of a clinical encounter
7. Form Clinical Questions and retrieve evidence to advance patient care

AAMC

Core EPAs for Entering Residency

8	Give or receive a patient handover to transition care responsibility
9	Collaborate as a member of an interprofessional team
10	Recognize a patient requiring urgent or emergent care, and initiate evaluation and management
11	Obtain informed consent for tests and/or procedures
12	Perform general procedures of a physician
13	Identify system failures and contribute to a culture of safety and improvement

AAMC

The Relationships of EPAs, Competencies and Milestones

- Each EPA is “mapped” to its critical competencies
- Milestones established for the pre-entrustable and entrustable learner for each competency
- Expected behaviors for the pre-entrustable and entrustable learner delineated based on the milestones
- Vignettes created to illustrate the expected behaviors for the pre-entrustable and entrustable learner

AAMC

Using an EPA framework in UME

Core EPAs—all students

Specialty specific EPAs—students preparing for specific GME programs

Optional EPAs—based on student's capacities and interests

Chen HC et al. Acad Med 2015; 90(4): 431-436.

AAMC

Expanded supervision for UME students

Not allowed to practice EPA

- Inadequate knowledge/skill-not allowed to observe
- Adequate knowledge/some skill-allowed to observe

Allowed to practice EPA only under proactive/full supervision

- As coactivity with supervisor
- With supervisor in room, ready to step up as needed

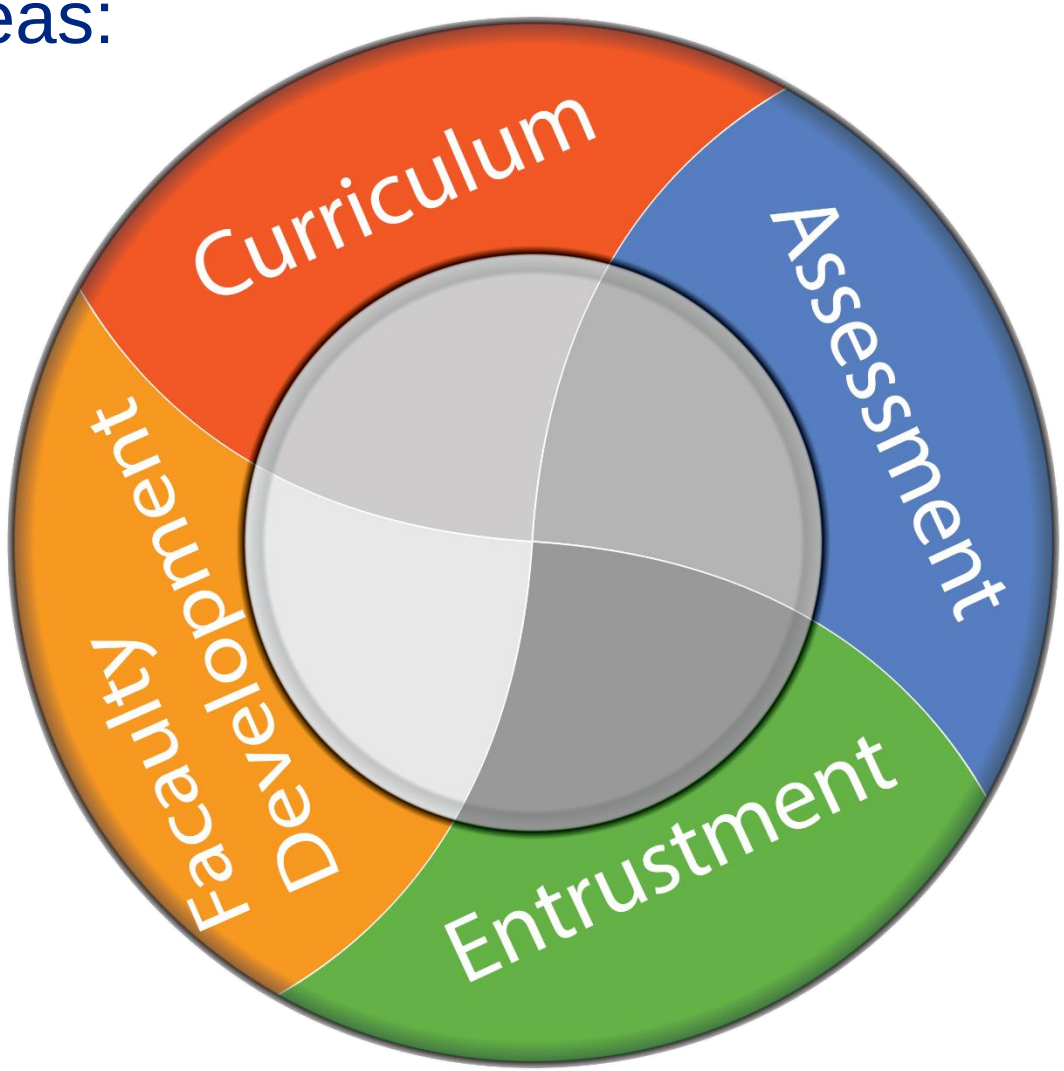
Allowed to practice EPA only under reactive/on-demand supervision

- With supervisor immediately available, all double-checked
- With supervisor immediately available, key items checked
- Supervisor distantly available, findings reviewed

AAMC

Current Work: Pilot Project

Goal-to study the implementation of EPAs in four areas:



AAMC

Pilot Schools

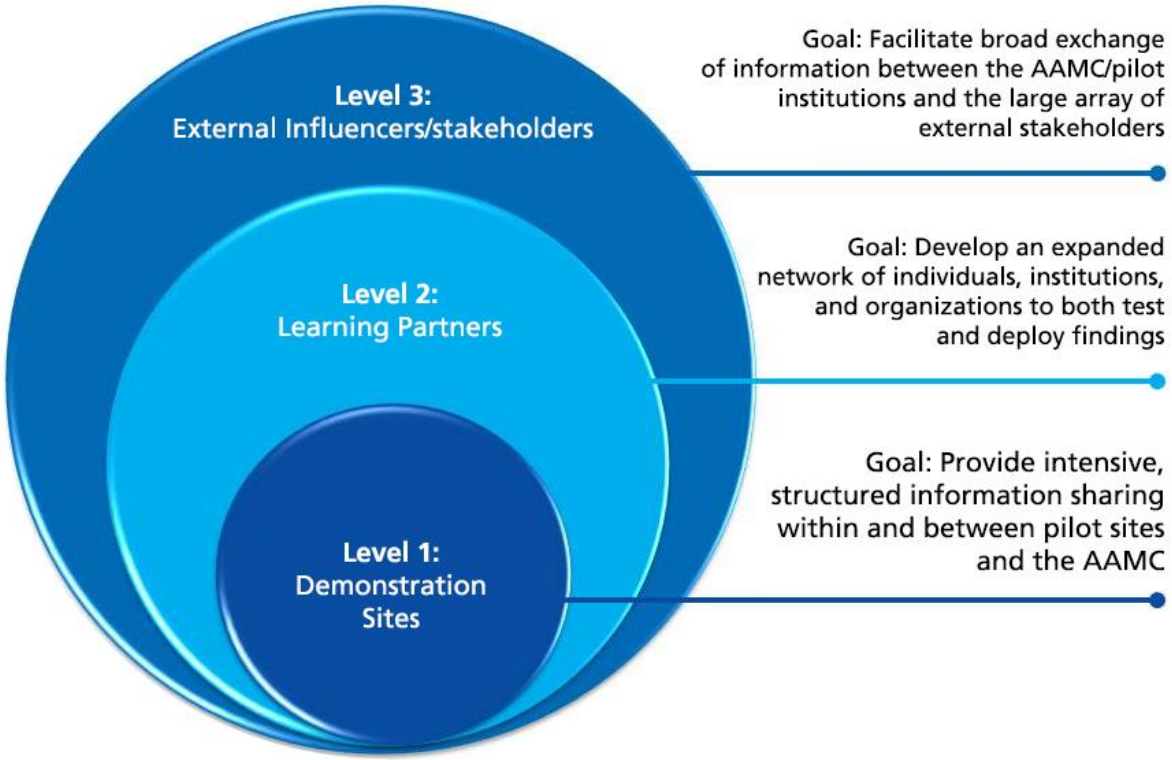
- Columbia University College of Physicians and Surgeons
- Florida International University Herbert Wertheim College of Medicine
- Michigan State University College of Human Medicine
- New York University School of Medicine
- Oregon Health & Science University School of Medicine
- University of Illinois College of Medicine
- University of Texas Health Science Center at Houston
- Vanderbilt University School of Medicine
- Virginia Commonwealth University School of Medicine
- Yale School of Medicine

AAMC

Beta-testing and Building a Community of Practice

LC listserve: subscribe-coreepas@lists.aamc.org

Learning Collaborative Model



Model and graphic adopted with permission from Urban Universities of Health

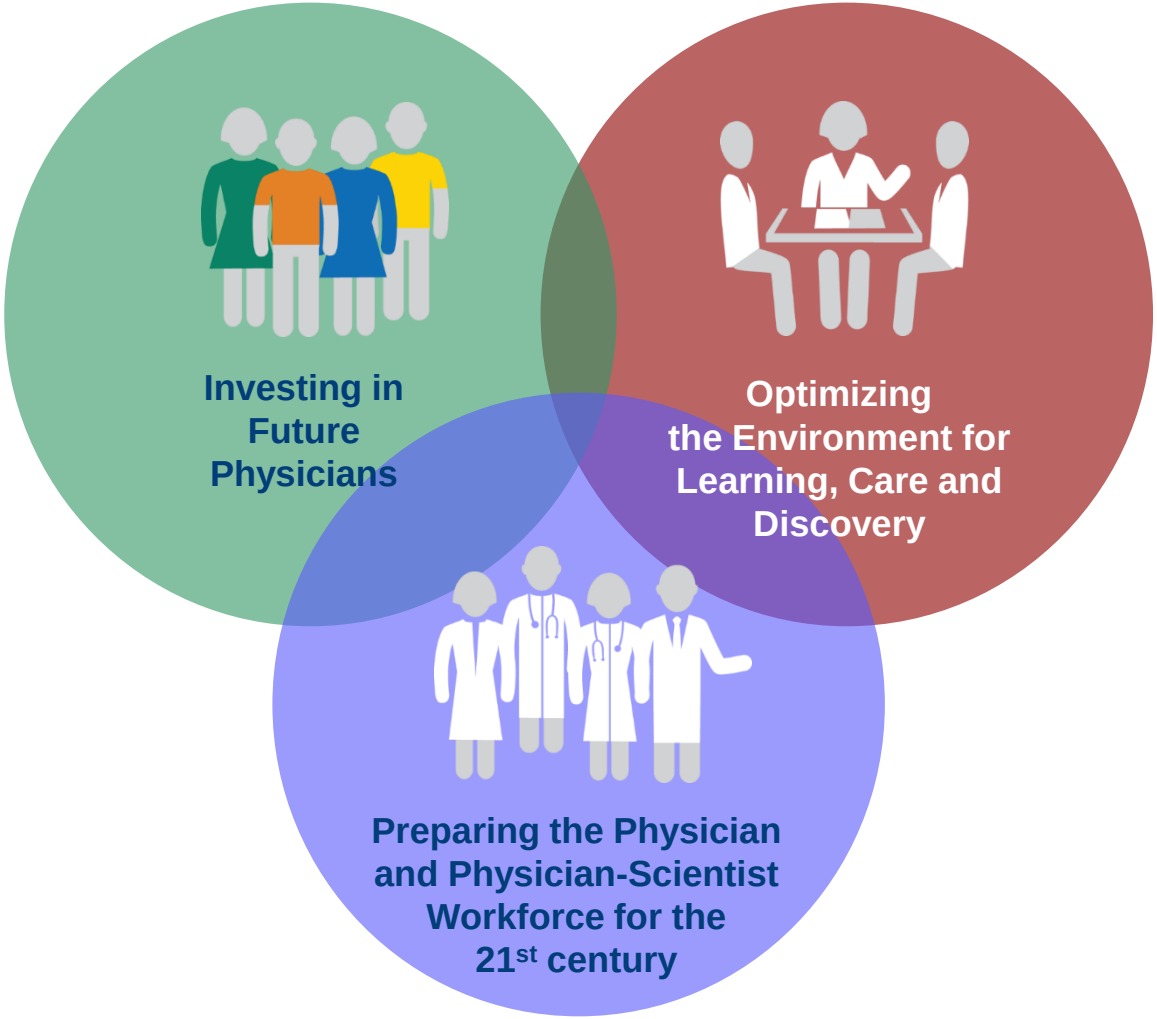
AAMC

The AAMC Optimizing Graduate Medical Education Initiative

To address the challenges GME faces today, and driven by our mission to serve and lead the academic medicine community to improve the health of all, the Association of American Medical Colleges (AAMC) is committed to leading a comprehensive and sustained effort to optimize GME.

AAMC

Three Focus Areas for the Initiative



AAMC

Preparing the Physician and Physician Scientist Workforce for the 21st Century

Goal: elevating the performance of entering residents and new practitioners

- Expand learning to develop competencies in all domains

Goal: Develop models and demonstrate ways to optimize the duration of education and training

AAMC

Education in Pediatrics Across the Continuum Pilot

Education in Pediatrics Across the Continuum (EPAC)

UCSF SCHOOL OF MEDICINE

The University of Utah School of Medicine

School of Medicine
UNIVERSITY OF COLORADO
ANSCHUTZ MEDICAL CAMPUS

University of Minnesota Medical School
Driven to Discover

Competency-based advancement across both UME and GME and GME to practice transitions

https://www.aamc.org/initiatives/epac/

AAMC

Goals of the EPAC project

Establish a model for meaningfully assessed, time variable demonstration of performance across the UME-GME continuum

Use a learner centered approach that incorporates pediatric-centric UME and career-focused GME

Progression based on performance of specific outcomes

- EPAs for general pediatricians
- Core EPAs for entering residency
- Continuity of relationships

AAMC

Sample EPAs for pediatrics

Provide recommended pediatric health screening

Manage patients with acute, common diagnoses in the ambulatory, emergency or inpatient setting

Facilitate the transition from pediatric to adult health care

Apply public health principles and QI methods to improve care and safety for populations, communities and systems

Lead an interprofessional healthcare team

Facilitate handovers either within or across systems

Use of the core EPAs in the EPAC project

2	Prioritize a differential diagnosis following a clinical encounter
7	Form Clinical Questions and retrieve evidence to advance patient care
8	Giving or receiving a patient handover
10	Recognizing a patient needing emergency care
13	Identifying system failures

AAMC

Questions

AAMC

AAMC

Tomorrow's Doctors, Tomorrow's Cures

Learn

Serve

Lead

Association of
American Medical Colleges