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Advancing the Global Health Workforce

ECFMG FAIMER

Introduction to Programmatic Assessment

Adapted from a workshop originally presented as part of
the ACGME Assessment Course

July 2024

Disclosures

- I work for Intealth and currently receive royalties from Elsevier Publishing for a textbook on assessment

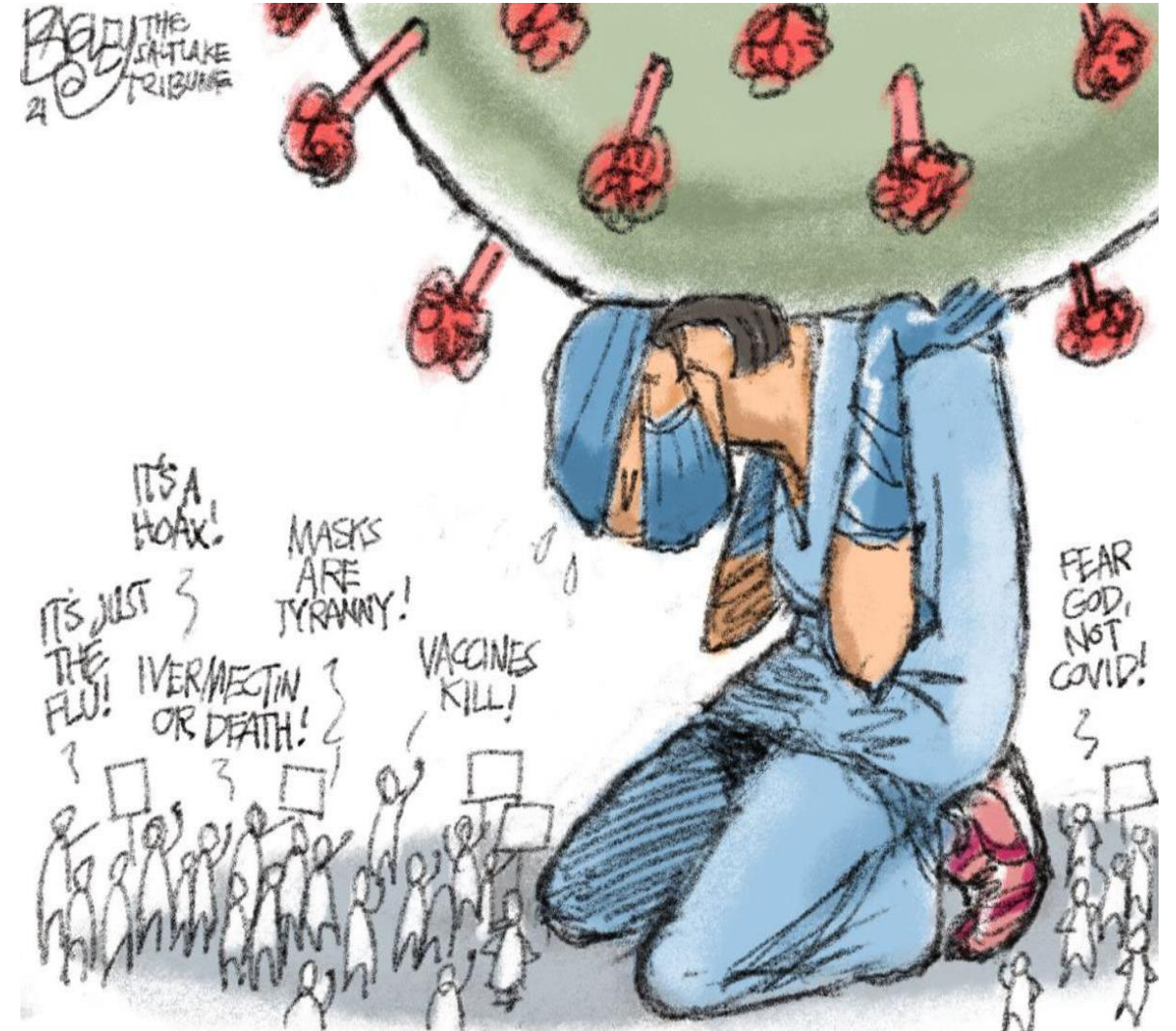
Objectives

- Brief review of outcomes and competency-based medical education (CBME)
- What is programmatic assessment (PA)?
- Programmatic assessment and context
- Creating and implementing programmatic assessment

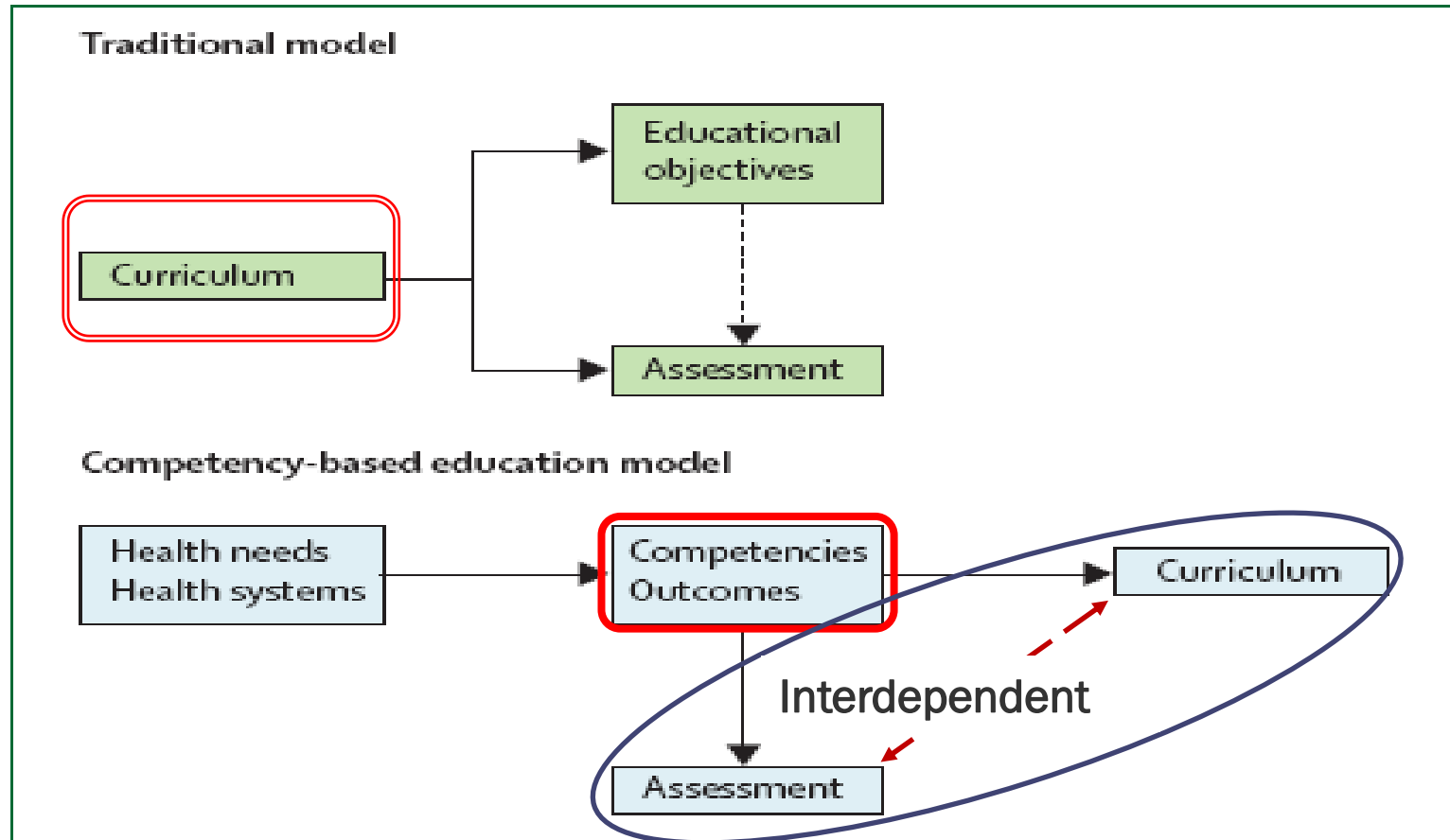
Thank You

It Has Been a Challenging 4+ Years

Héroes médicos: 198 caídos en la lucha

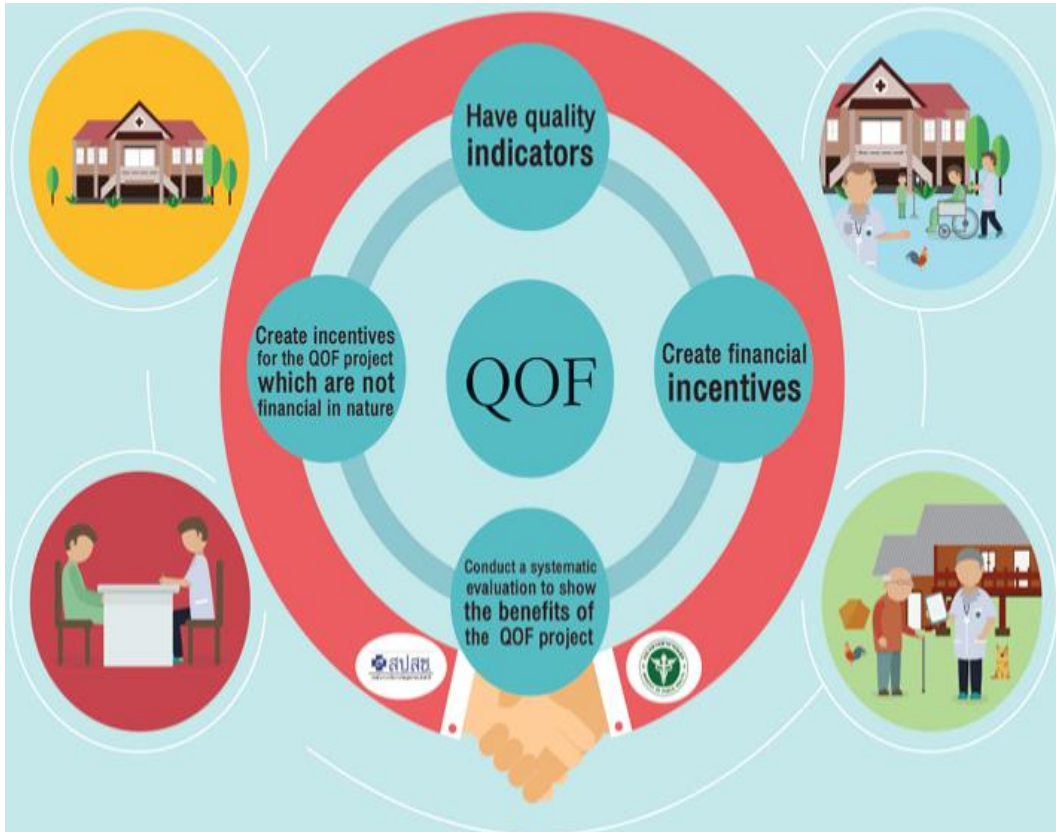


Designing Medical Education: Start with System Needs

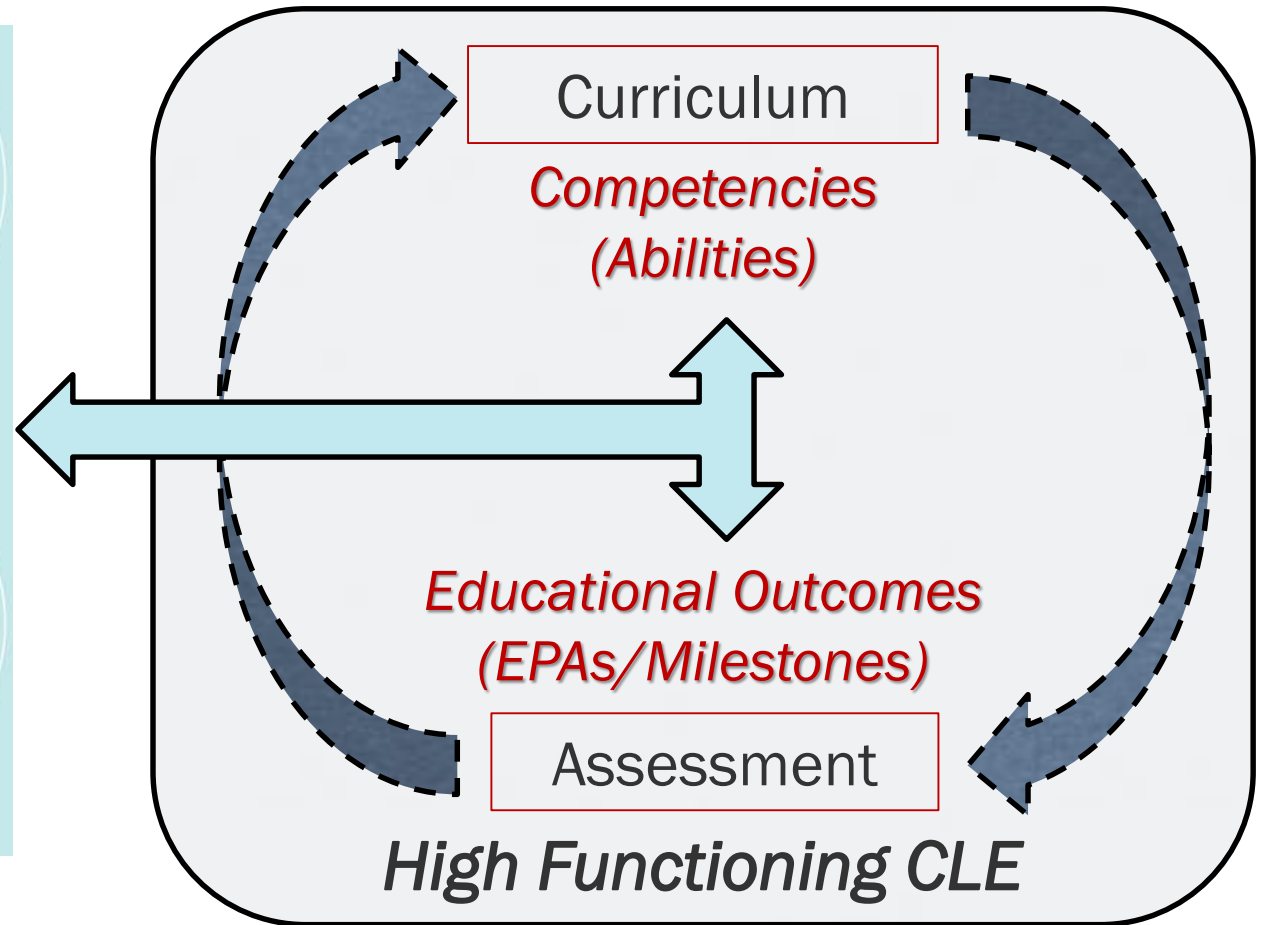


Frenk J, et al. Health professionals for a new century: transforming education to strengthen health systems in an interdependent world. Lancet. 2010

The Ultimate Goal of Medical Education



Quality Outcome Framework





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Key Definitions and Principles in Outcomes-based Education

Outcomes-based Education: What is it?

- Central tenet: *start with the end in mind*
 - Focus on what type of physician will be produced
 - Structure and process flow from the outcomes
- Educational outcomes should be “*clearly and unambiguously specified.*”
- These educational outcomes determine:
 - Curriculum, **assessment processes**, and the learning environment



<https://www.hospitalmanagementasia.com/talent-skills/find-out-how-this-thai-hospital-group-is-effectively-managing-their-manpower-during-covid-19/>

Harden RM. Outcomes-based education: Part 1-An introduction to outcomes-based education. Med Teach. 2009; 21: 7-14.

Operationalizing Outcomes: CBME

*An approach to preparing physicians for practice that is fundamentally oriented to graduate outcome abilities and organized around competencies derived from an analysis of **societal and patient needs**.*

It de-emphasizes time-based training and promises greater accountability, flexibility and learner-centeredness”

Frank et al. Toward a definition of CBME. Med Teacher 2010

“Time” Still Matters

- In OBME/CBME, time is viewed as a *resource* and not an *intervention/measure*
 - Time is too often used as a proxy for competence (measure lens)
- Shortening training is *not* the primary goal of OBME/CBME
 - Time should be used wisely
 - The amount of “training time” required should be based on outcomes
- The core principles of CBME can still advance GME within “fixed” program lengths, designing outcomes-based flexibility within a residency/fellowship

Core Components Framework

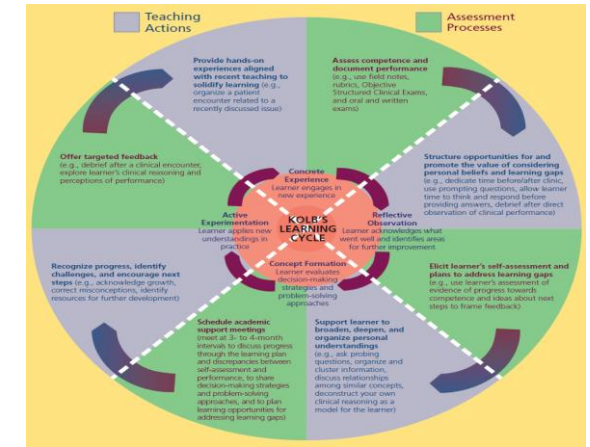
| Outcome Competencies | Sequenced Progression | Tailored Learning Experiences | Competency-focused Instruction | Programmatic Assessment (using Systems Thinking) |
|---|---|--|--------------------------------------|---|
| Competencies required for practice are <u>clearly articulated</u> . | Competencies and their developmental markers are <u>sequenced progressively</u> . | Learning experiences <u>facilitate...</u> | Teaching practices <u>promote...</u> | Assessment practices <u>support & document...</u> |
| | |the developmental acquisition of competencies. | | |

Van Melle E, et. al. A Core Components Framework for Evaluating Implementation of Competency-Based Medical Education Programs. Acad Med. 2019 Jul;94(7):1002-1009

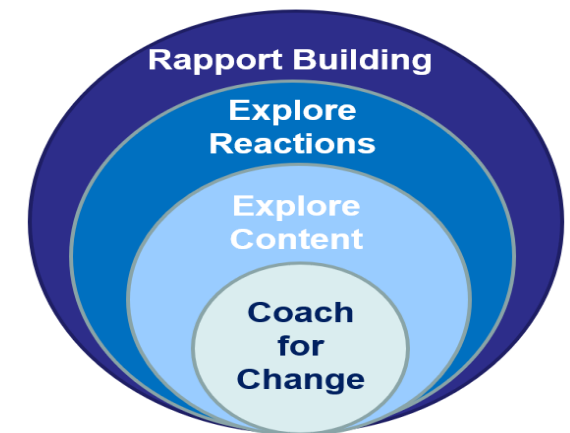
Critical CCF Philosophical Assessment Principles

Grounded in a “growth” mindset:

- Focused on promoting learner growth and development through *frequent formative assessment*
- Rich in feedback/coaching individualized to the learner and grounded in the desired competencies.



Kolb Learning Cycle



R2C2 Feedback Model

Van Melle E, et. al. A Core Components Framework for Evaluating Implementation of Competency-Based Medical Education Programs. Acad Med. 2019 Jul;94(7):1002-1009.



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Programmatic Assessment

Model for Programmatic Assessment

- Good assessment requires a programmatic approach in a deliberate and arranged set of longitudinal assessment activities.
- A model of programmatic assessment is possible that optimises the learning and certification function of assessment.
- Individual data points in the assessment programme are maximally informative to the learning.
- Aggregated data points are used for higher stake pass/fail and remediation decisions; the higher the stakes in the assessment decision the more data points are needed.
- Expert professional judgement in assessment is imperative and requires new approaches to deal with biases.

C. P. M. van der Vleuten, L. W. T. Schuwirth, E. W. Driessen, J. Dijkstra, D. Tigelaar, L. K. J. Baartman & J. van Tartwijk (2012) A model for programmatic assessment fit for purpose, *Medical Teacher*, 34:3, 205-214 14

System of Programmatic Assessment

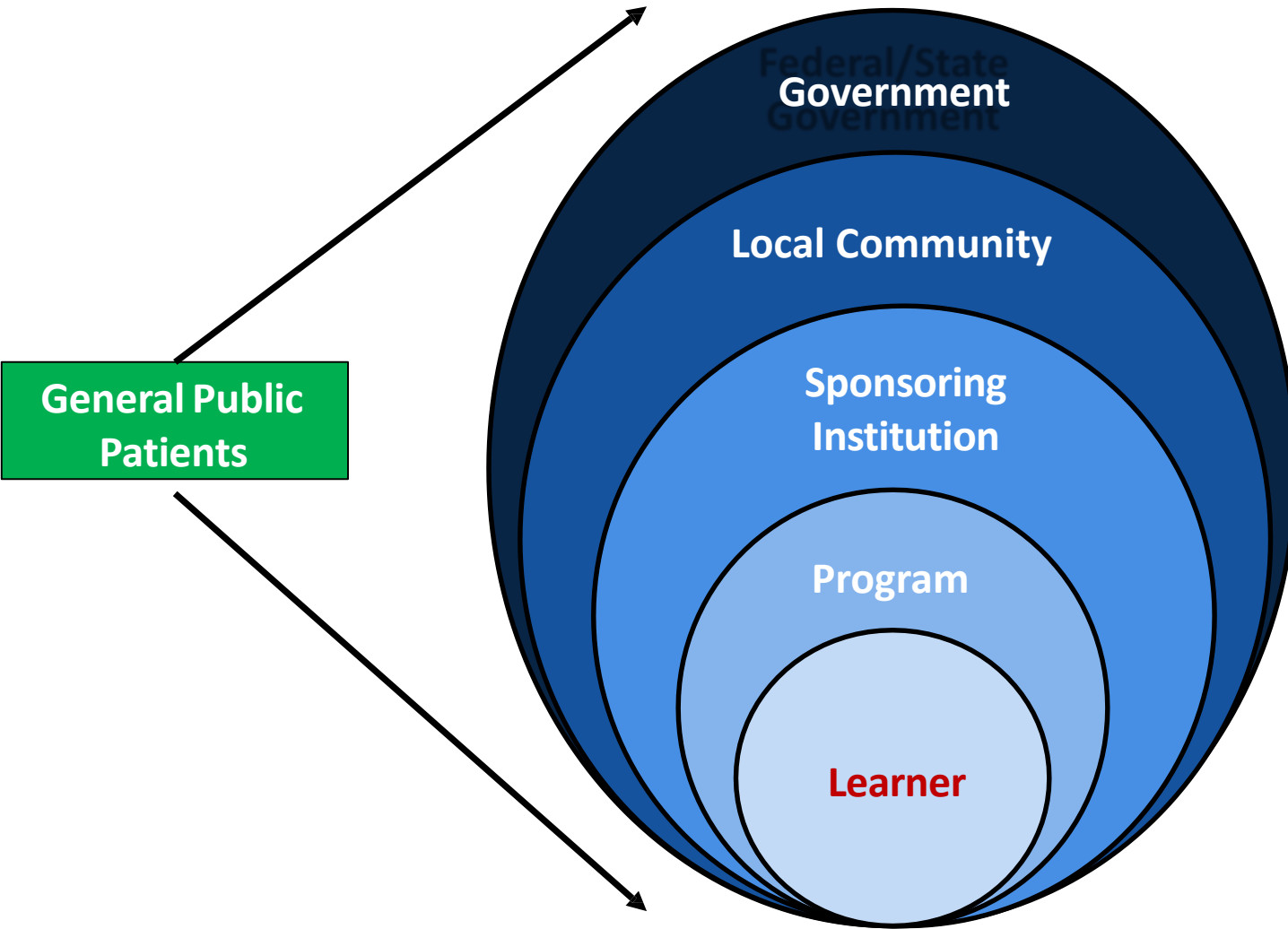
- Systems thinking is necessary for effective programmatic assessment.
- A programmatic assessment system can be defined *as a group of individuals who work together on a regular and longitudinal basis to perform, review, and improve assessments.*
- Individuals involved in this system include program directors/associate program directors, core faculty, peers, interprofessional staff, and patients.

Misra S, Iobst W, Hauer KE, Holmboe ES. J Grad Med Educ. 2022.

Assessment does not occur...

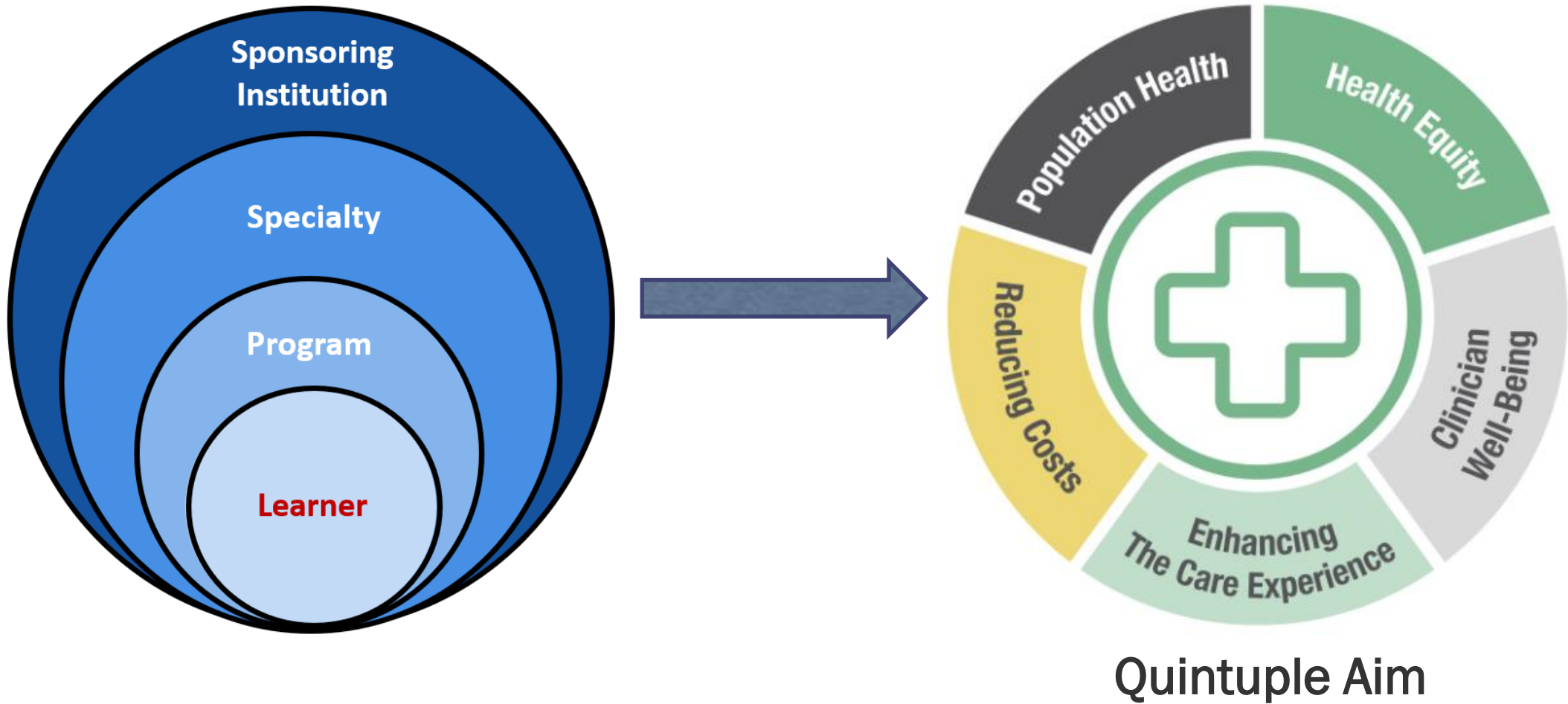
...In a vacuum

Nested Relationships



- Learners are *nested* within programs that are *nested* within institutions, all embedded within a community
- These interdependent relationships can affect both educational and clinical outcomes

Connecting Medical Education to Outcomes

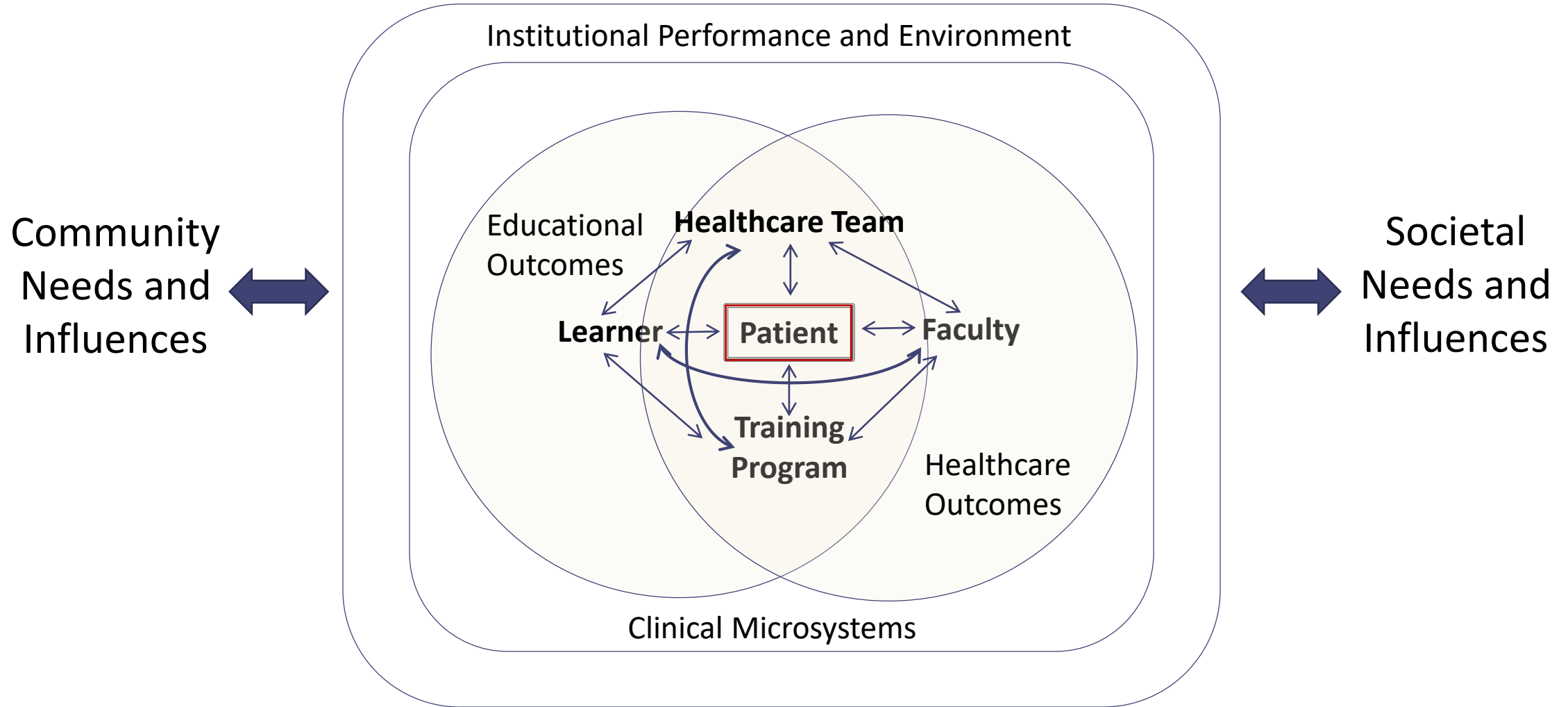


Training Environment and Future Practice

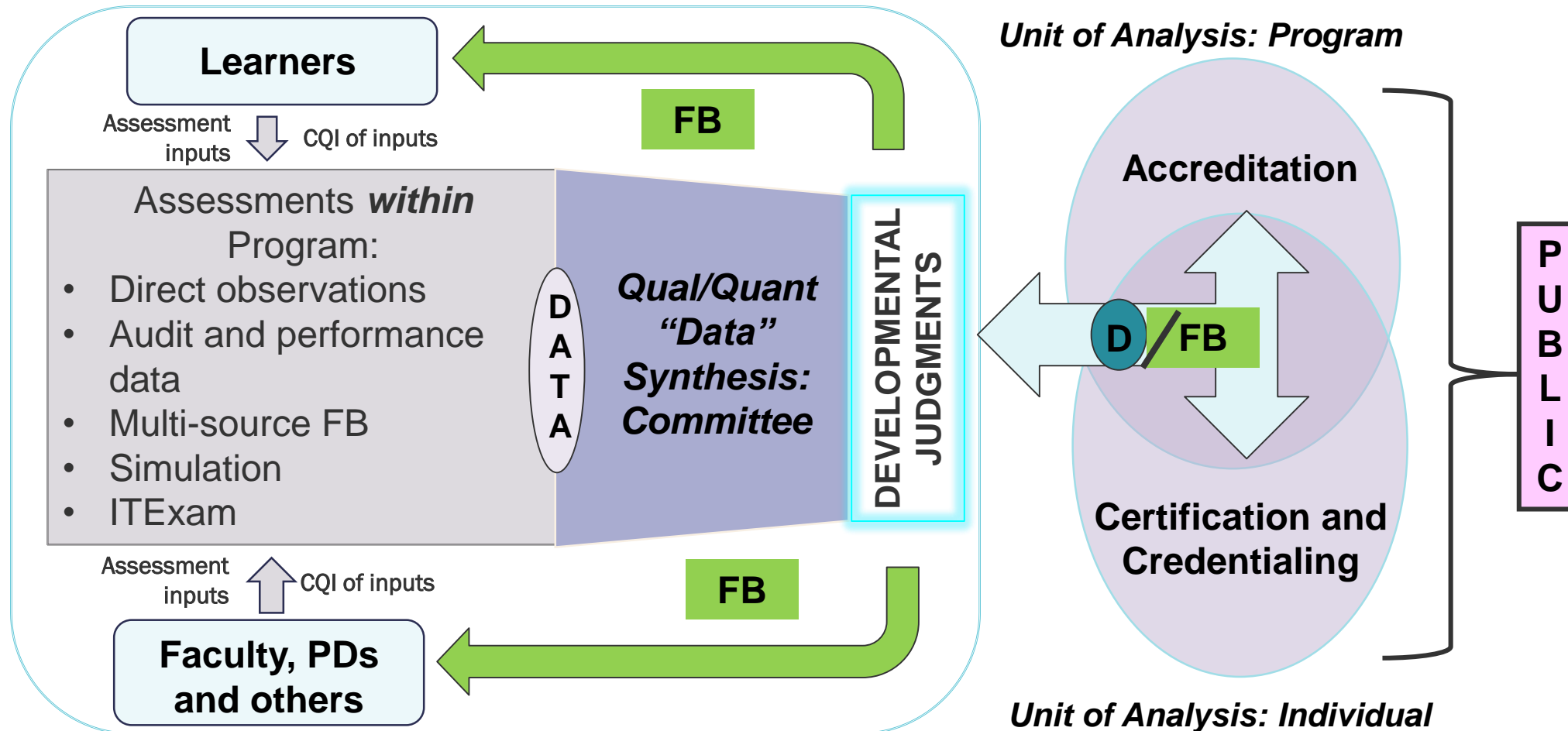
All these studies in the U.S. found an association between hospital level quality, safety or costs where the physician trained and their future practice after graduation:

- Asch (2009)
 - Obstetrical complications
- Chen (2014); Phillips (2017)
 - Costs of care in IM and FM practice
- Sirovich (2014)
 - Appropriate conservative management (on exam)
- Bansal (2015)
 - Surgical complications

Changing Perspective: Patients at the Intersection of Educational and Healthcare Outcomes



The MedEd Assessment “System”



Minimal Assessment Components: PGME

- Faculty summary assessments
 - Potentially multiple competencies
- Direct observation of 1:1 care (+/- questioning)
- Multi-source FB
- Audit and performance data (including patient experience)
- Simulation (when applicable)
- Practice Exam (if available)

Core Faculty Assessment Roles in CBME

- Direct observation of clinical skills
 - Narrative and ratings
- Assessment of clinical reasoning
- Feedback and coaching
- Ensuring safe, effective, patient-centered care through appropriate supervision
- Provide robust assessment information to program leadership and (if available) competency committees

Clarity of Assessment Roles

Frontline Faculty

Primary responsibilities:

- Provide accurate, rich, descriptive information
- Provide feedback and coaching
- Provide feedback to program for CQI

“CE” Faculty

Primary responsibilities:

- Provide accurate, rich, descriptive information
- Understand best practices: assessment & Milestones
- Provide feedback and coaching

PDs and Leadership

Primary responsibilities:

- Manage assessment program
- Understand best practices: assessment & Milestones
- Synthesize and aggregate assessment data
- Provide feedback and coaching
- Perform CQI of assessment program

Large Group Conversation

- How well does your program of assessment (i.e. package, combination) assess the competencies in Thailand?
 - What assessment methods and tools are you currently using in your program?
- How do your frontline faculty view their role(s) in the assessment system?

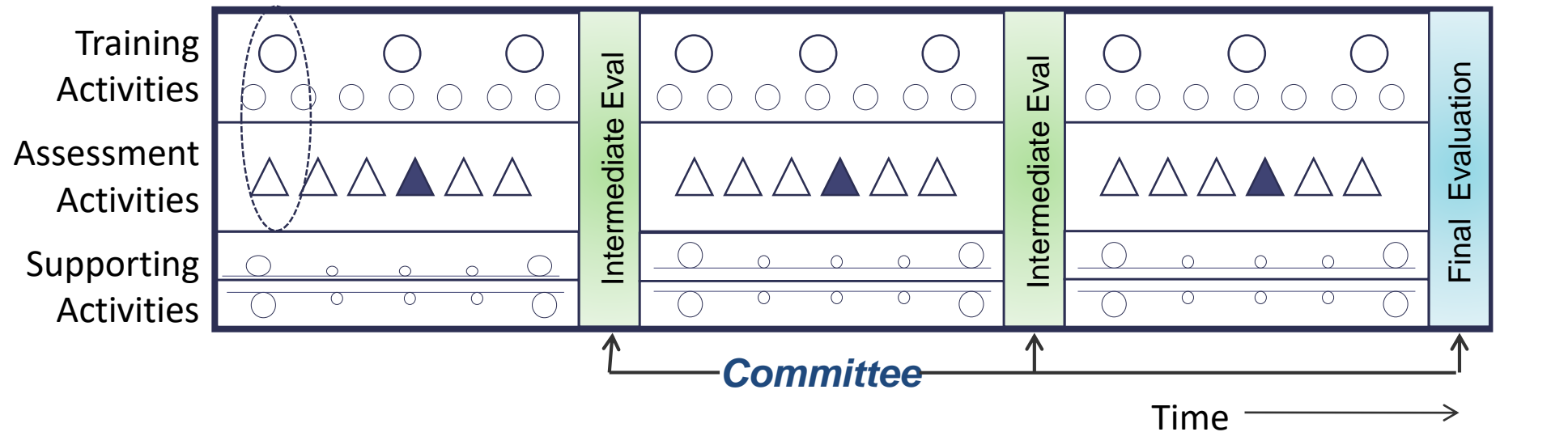
Creating Assessment Programs

- Competence is specific, not generic. Sample across contexts, assessors, time
- Use multiple assessment methods
- Quantitative not necessarily better than qualitative
- Move assessment back to workplace
- Use credible standards
- Validity resides in instrument user

Van der Vleuten CPM et al Med Educ 39:309–17.
Van der Vleuten CPM et al. Best Practice & Research Clinical
Obstetrics and Gynaecology. 2010(24):703–19

Model For Programmatic Assessment

(With permission from CPM van der Vleuten)



○ = learning task

○ = learning artifact

△ = single assessment data-point

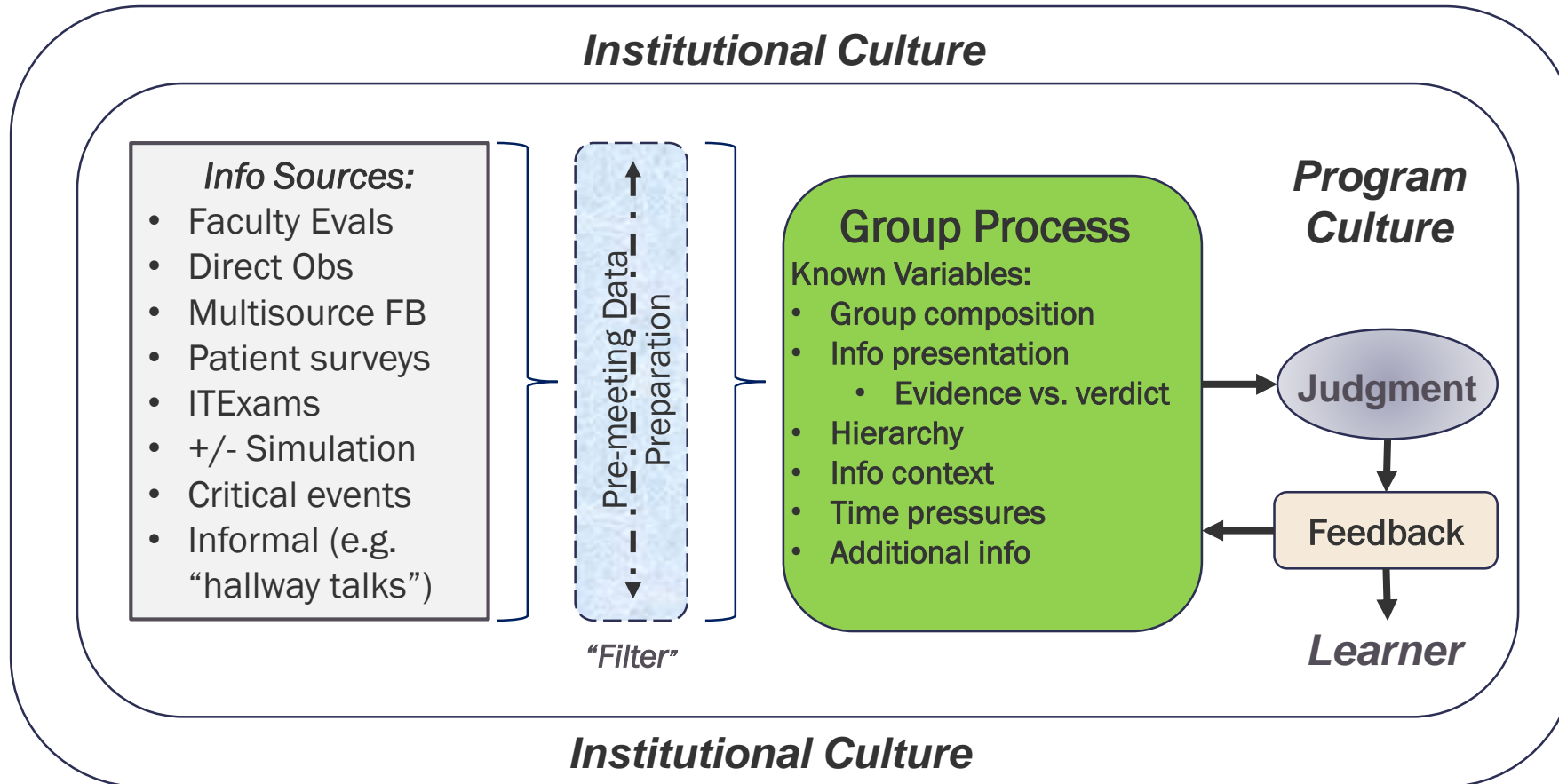
○ = learning task being an assessment task also

▲ = single certification data point for mastery tasks

○ = learner reflection and planning

○ = social interaction around reflection (supervision)

Group Judgment for Assessment



UCSF Six Programmatic Principles

1. Centrally coordinated plan for assessment aligns with and supports a curricular vision
2. Multiple assessment tools used longitudinally generate multiple data points
3. Learners require ready access to information-rich feedback to promote reflection and informed self-assessment

UCSF Six Programmatic Principles

4. Coaching is essential to facilitate effective data use for reflection and learning planning
5. The program of assessment fosters self-regulated learning behaviors
6. Expert groups make summative decisions about grades and readiness for advancement

Large Group Conversation

- What is currently working best in your assessment program?
 - Why is it working well?
- What aspect of your assessment program do you feel needs improvement?
 - Are there any lessons from what is working well?
- Where are the feedback loops?

Questions and Discussion

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