

Improving Genetics Education



Tomorrow's Doctors, Tomorrow's Cures

Learn

Serve

Lead

Myths and Mistakes in Graduate and Continuing Education

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Senior Director, Continuing
Education & Performance
Improvement



Association of
American Medical Colleges

Mistakes/myths about educating health professionals

1. More information is good
2. Education = lectures, conferences
3. Lectures = behavior change
4. CME and GME are only about doctors
5. 'CME' is only about credit
6. CME (and GME to some extent) are isolated phenomena, unrelated to health systems, healthcare delivery or patient outcomes...i.e., the clinical care gap

Framing questions

1. What's the clinical care gap? Why is it a special American problem?
2. What causes it?
3. What mistakes have we made in medical education that have contributed to the gap?
4. What can we learn from them? Can we apply them to genomics education?

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The clinical care gap....



**Ideal,
evidence-based practice**



Current practice



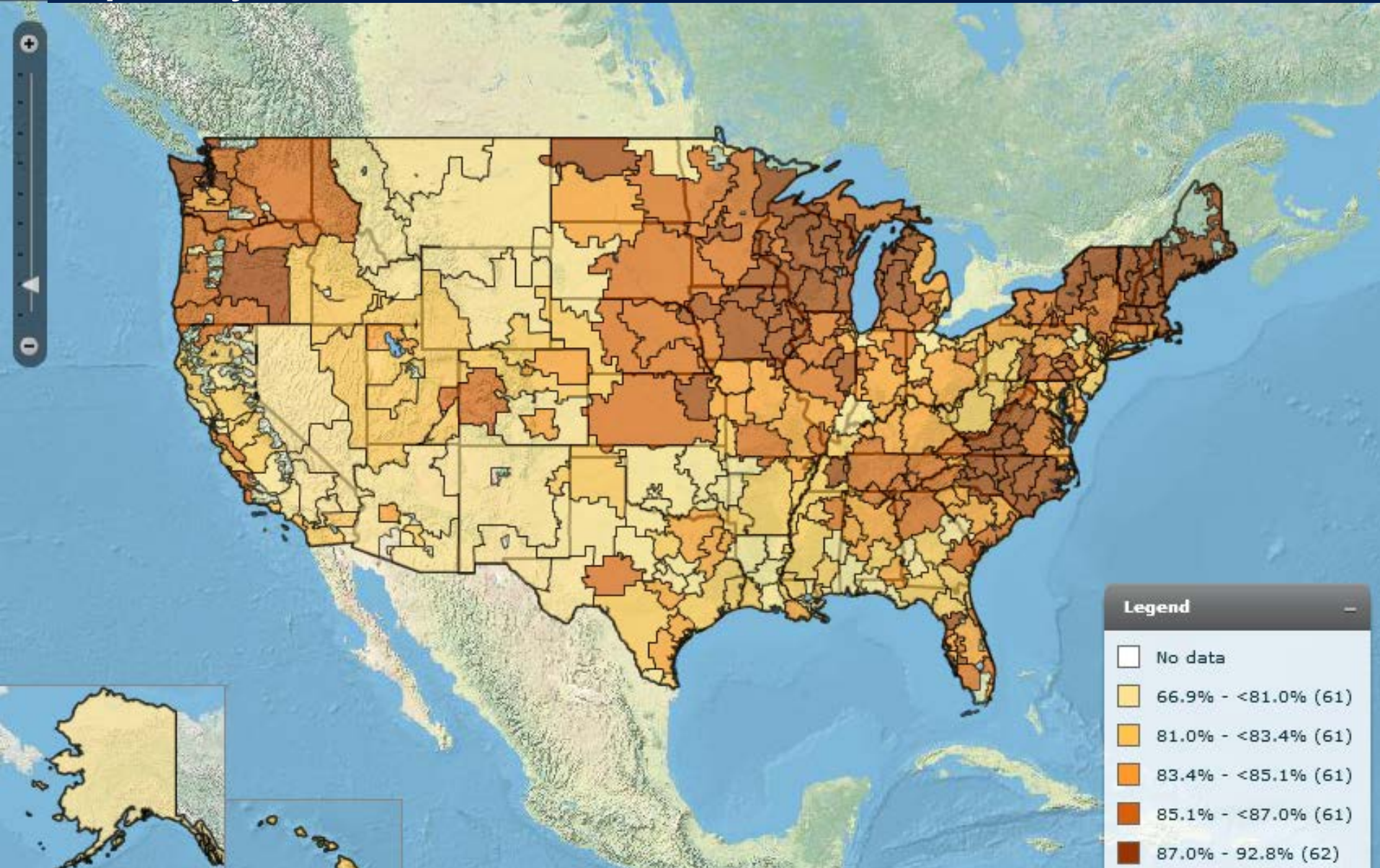
The clinical care gap



© Corbis

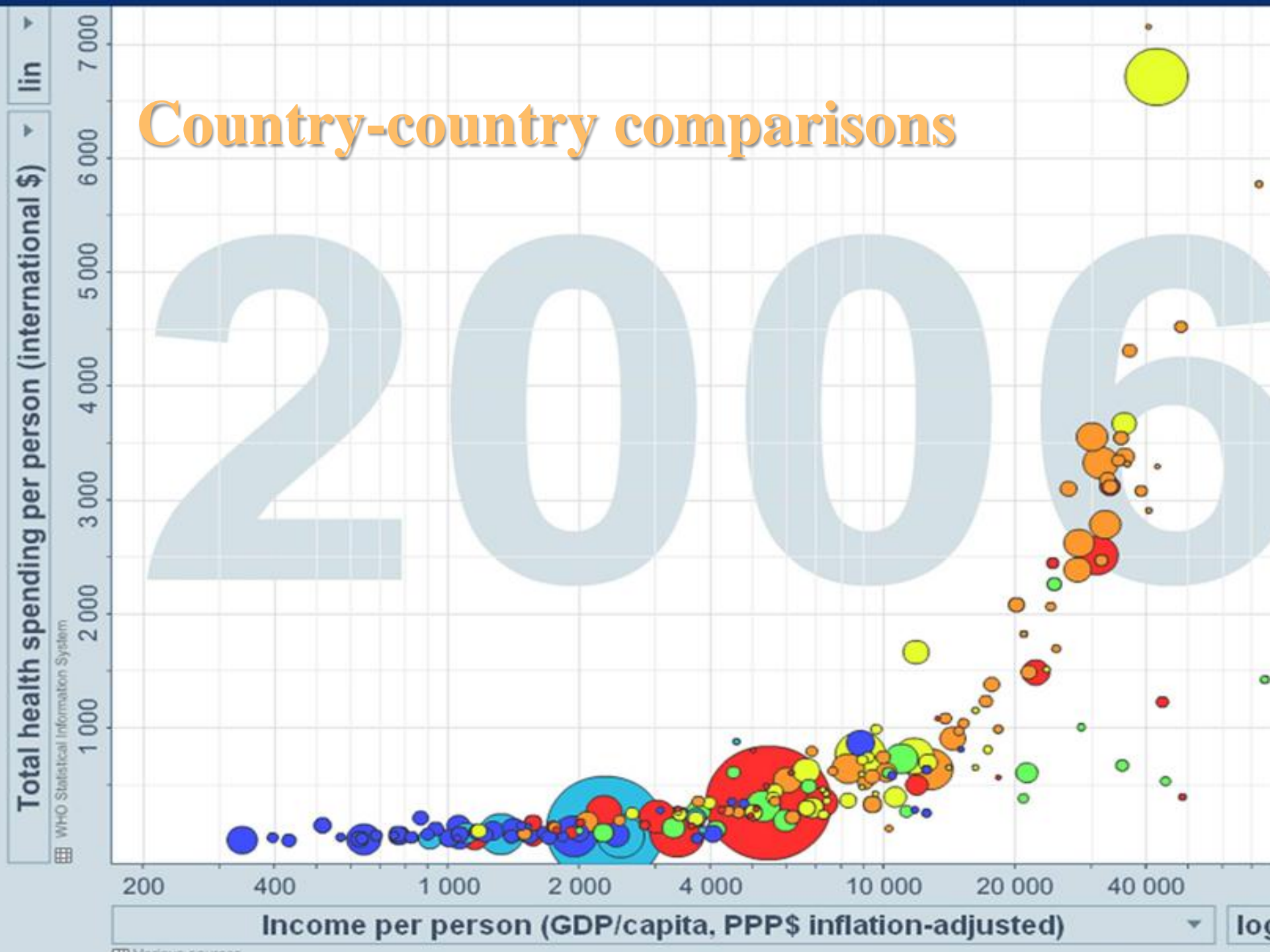
Dartmouth Atlas 2010

..quality of care indicators: HbA1c data 2010



Country-country comparisons

2006



And for this expenditure, what do we get?

U.S. Comparison to Developed Nations



2009 Life Expectancy

Bottom Third

(78.2 yrs compared to Japan at 83)



2008 Infant Mortality

4th Highest

(6.5% compared to average 4.6%)



2008 Adult Obesity*

1st

(Over 1/3 of U.S. population)

*Only 7 nations reported data on this indicator

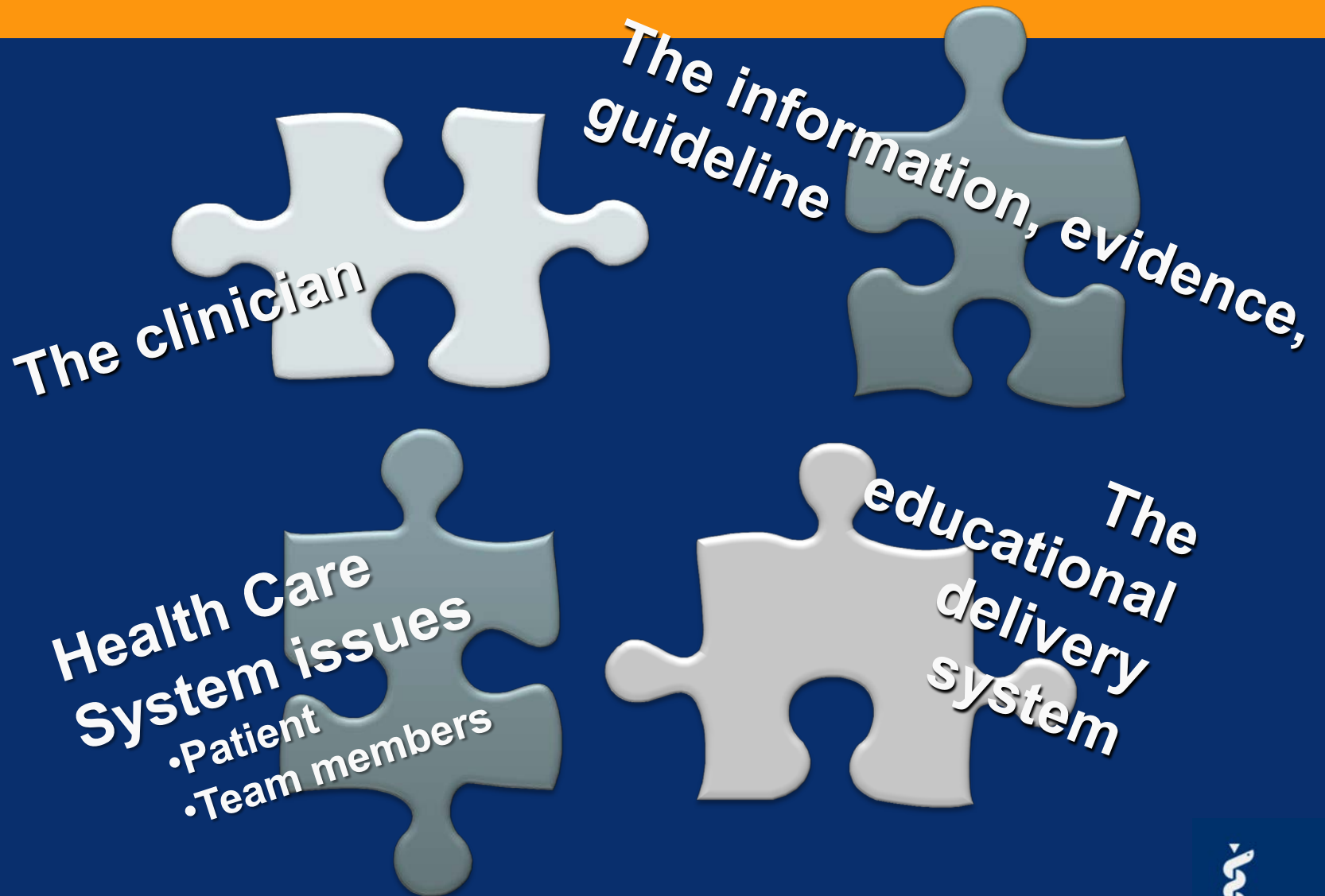


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What causes the gap?

The evidence-to-practice puzzle



What causes the gap?

The evidence-to-practice puzzle



The clinician

The evidence/guideline

Health Care
System issues

- Patient
- Team members

The
educational
delivery
system

The knowledge pyramid:

Haynes, Straus et al



NGC currently contains +/- 3000 individual guideline summaries

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Microvascular Complications of

More...

Think about TACOS:

- ☐ Trial-ability
- ☐ (Relative) advantage
- ☐ Compatibility, complexity
- ☐ Cost
- ☐ Observability
- ☐ Sustainability

Courtesy, David Price, U Colorado

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What causes the gap?

The evidence-to-practice puzzle



The clinician

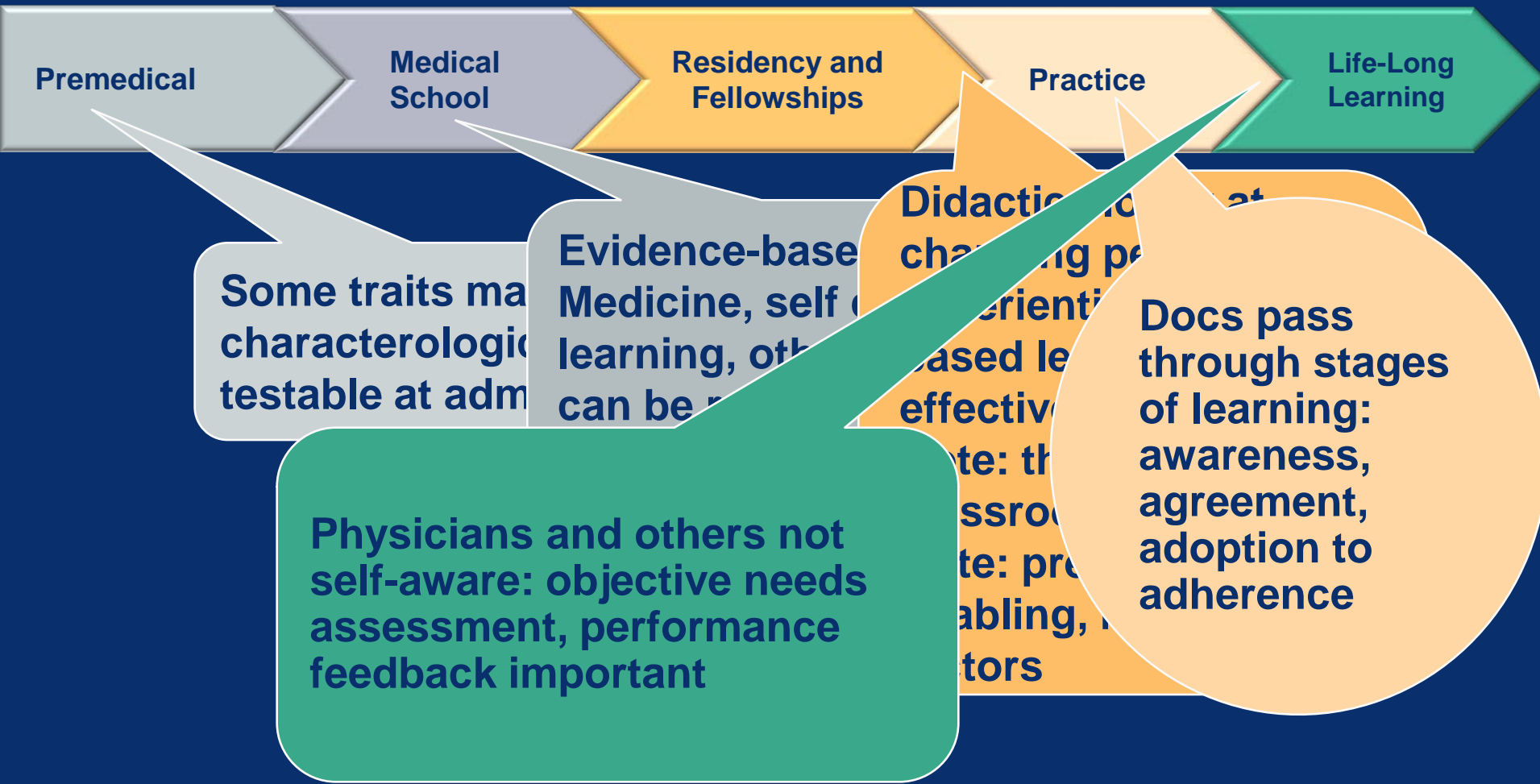
The evidence/guideline

Health Care
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The
educational
delivery
system

the Continuum: what we know



What causes the gap?

The evidence-to-practice puzzle



The clinician

The evidence/guideline

Health Care
System issues

- patient
- team members
- utilization of resources

The
educational
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What causes the gap?

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Mistake #1: The purpose of CPD

**1977:
Does
CME
work?**

REPUTATION

Referrals

revenue

registrations



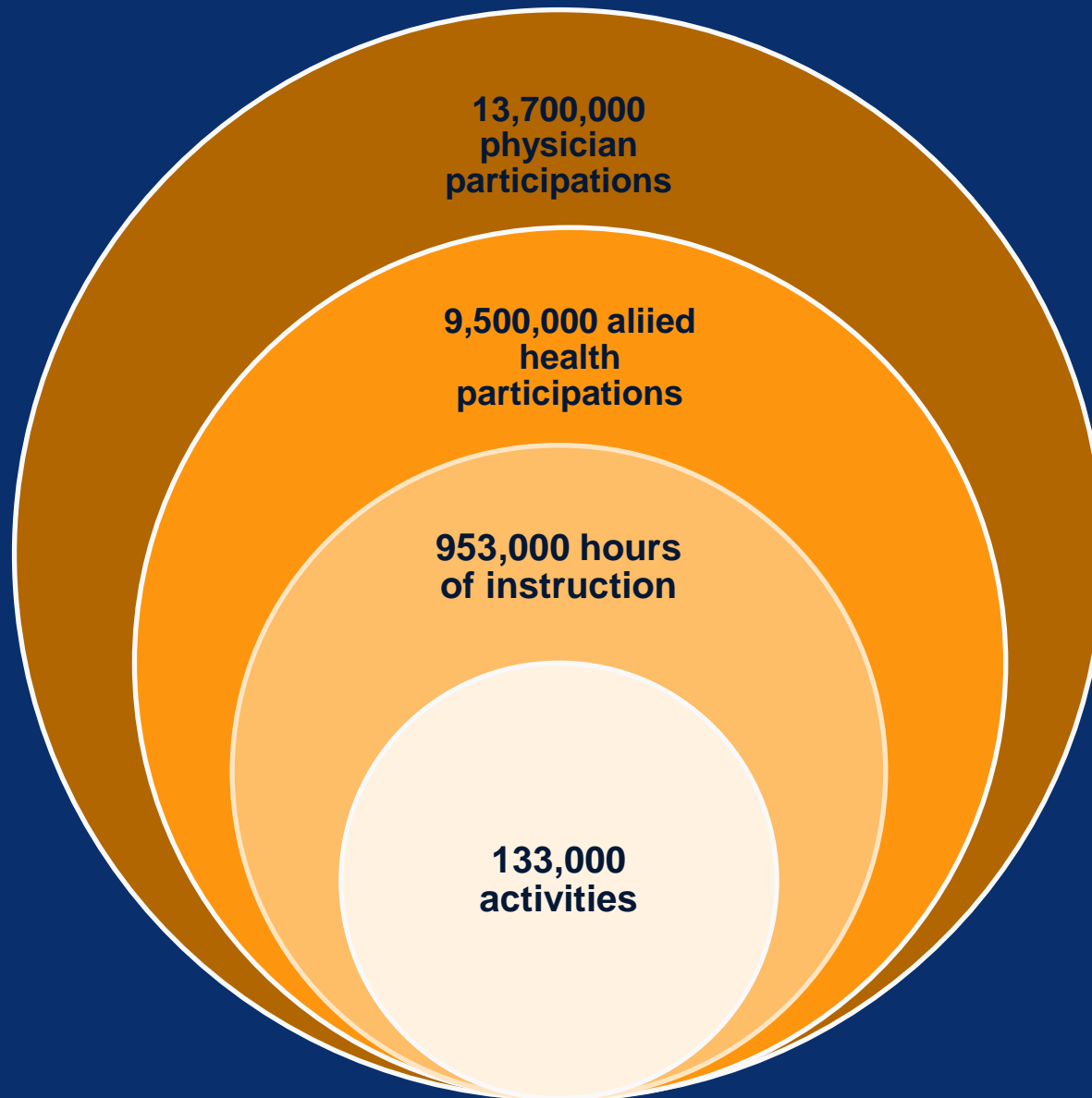
**Does CME change
physician
behavior?
Healthcare
outcomes?**

And in fact, there are still some mis- (and some accurate) perceptions about 'CME*'?

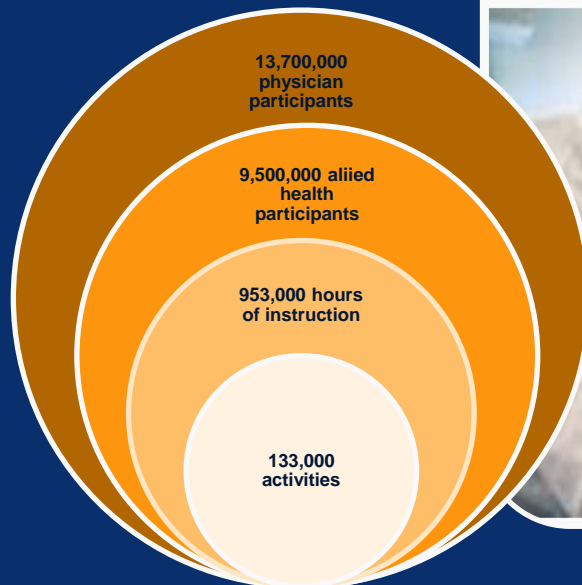


*Continuing medical education, continuing education, lifelong learning, continuing professional development,

Size, scope of CME (US data, ACCME, 2011)



*The size, scope and effect of CME vs the clinical care gap



**The
clinical
care gap**



Mistake # 2: not paying attention to the research in CME and GME

Physicians and others not self-aware: objective needs assessment, performance feedback important

Knowledge necessary but not sufficient for change; didactics lousy at changing performance by themselves

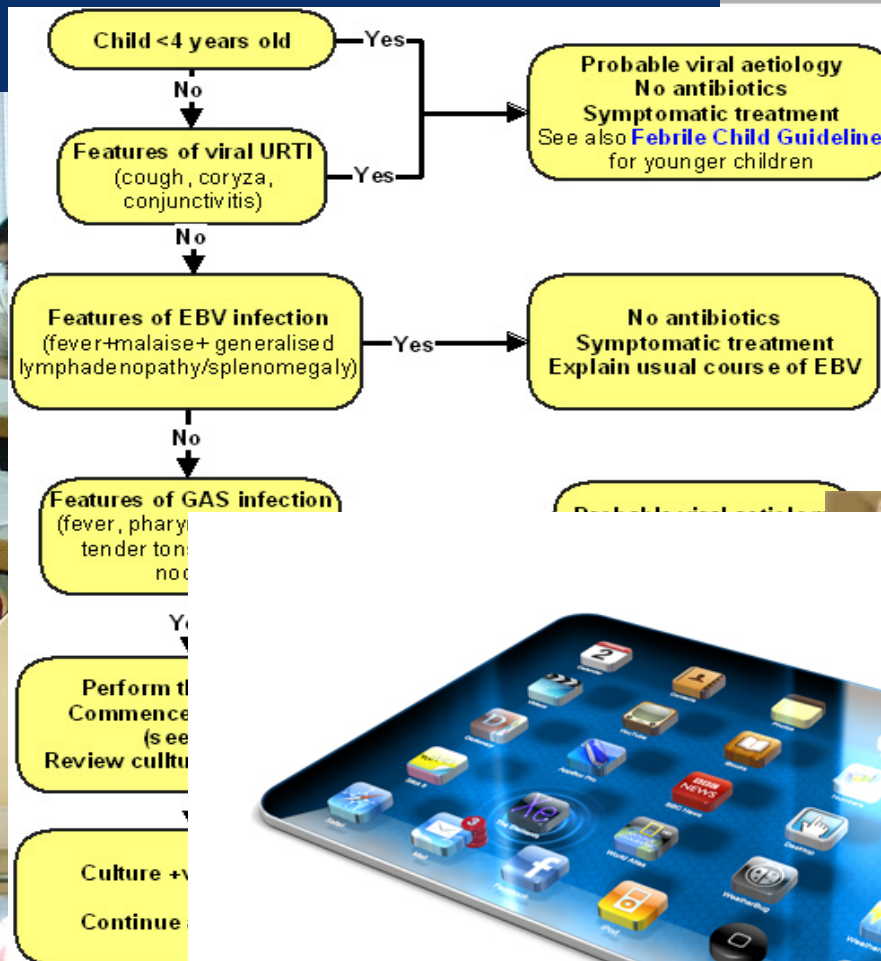
‘CME’ and GME > conferences; = practice-based tools (reminders, audit-feedback, protocols & training)

Effective education possesses three characteristics: *predisposing, enabling and reinforcing strategies*

What works in standard continuing education (and probably GME)? *interactivity; sequencing*

.....Cochrane reviews, AHRQ/EB reviews, others

Mistake #3: thinking of 'CME' only as the event

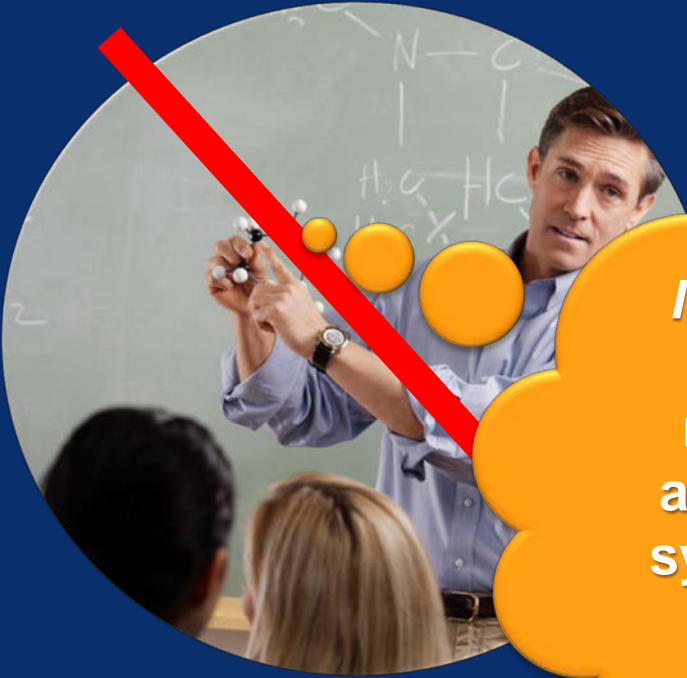


The formats (and effect) of 'CPD'?

Formal CPD: lectures, courses, educational materials

PLUS

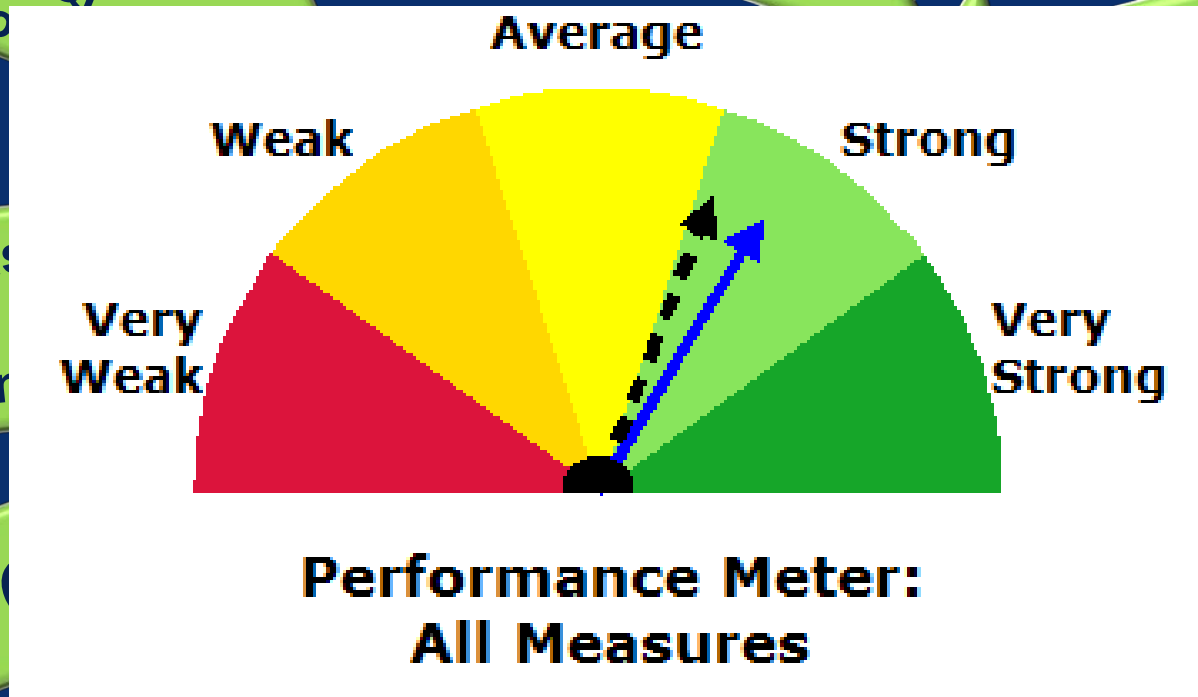
- ▶ Outreach visits
- ▶ Small group learning
- ▶ Opinion leaders



Interactivity: Q&A, case discussion, reflection, MCQs, audience response systems, think-pair-share

...detailing
...ed strategies
...computerized, etc)
...nsive, QI- or practice-
...interventions
...ther ICT-enabled tools (web-based, video-conferencing, PDAs, social networking, etc)

Mistake #4: thinking of CME & GME in isolation

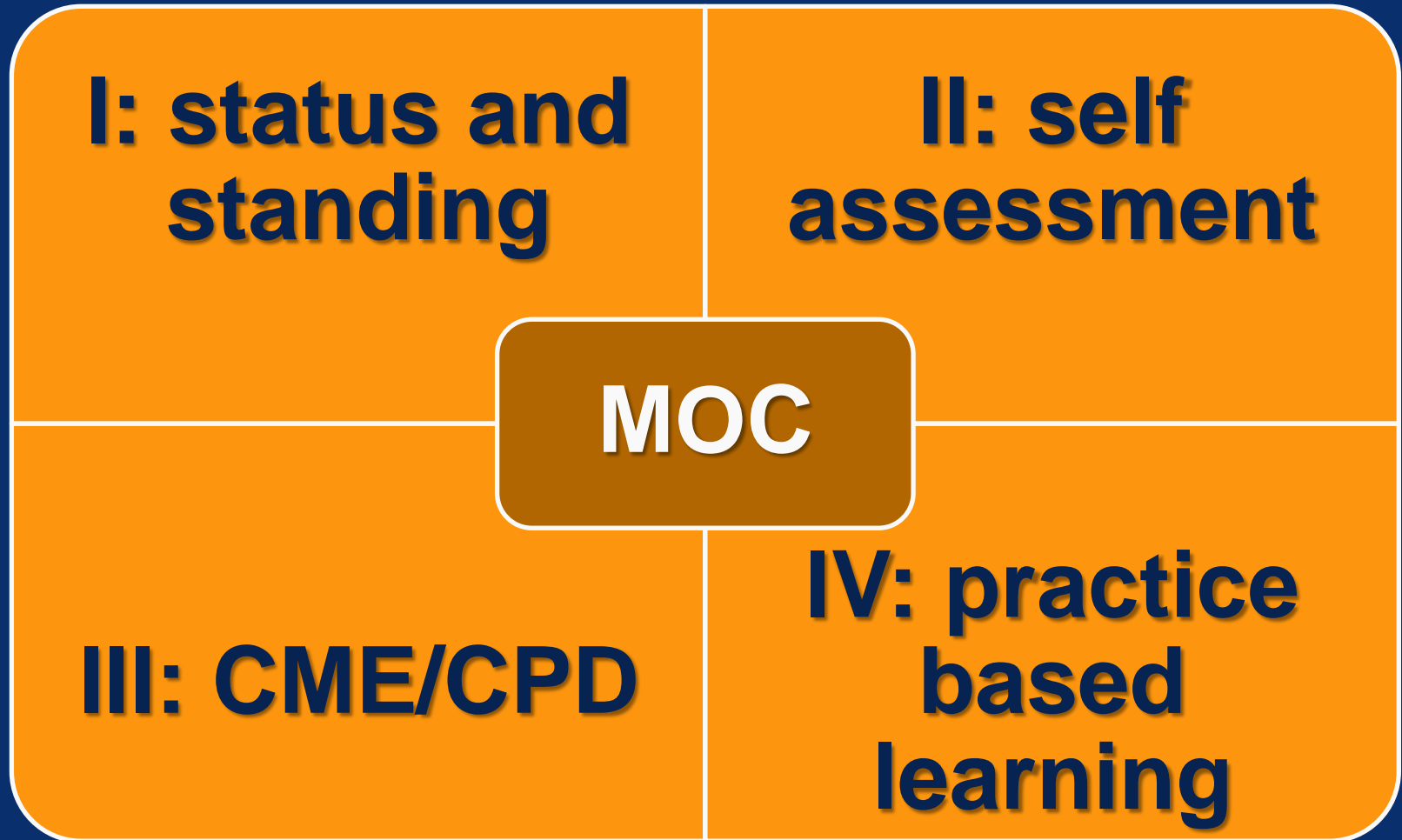


www.ahrq.gov/snapshots

The Reports

- AAMC: interprofessional education
- IOM: Redesigning CE in the Health Professions: a call for a CPD Institute
- Health Information Technology
- Unmet Needs/Lucian Leape Report
- Evidence-based medicine, guidelines, Comparative effectiveness
- IOM Health Professional Education
- IOM Quality Chasm

National initiatives: ABMS – MOC framework



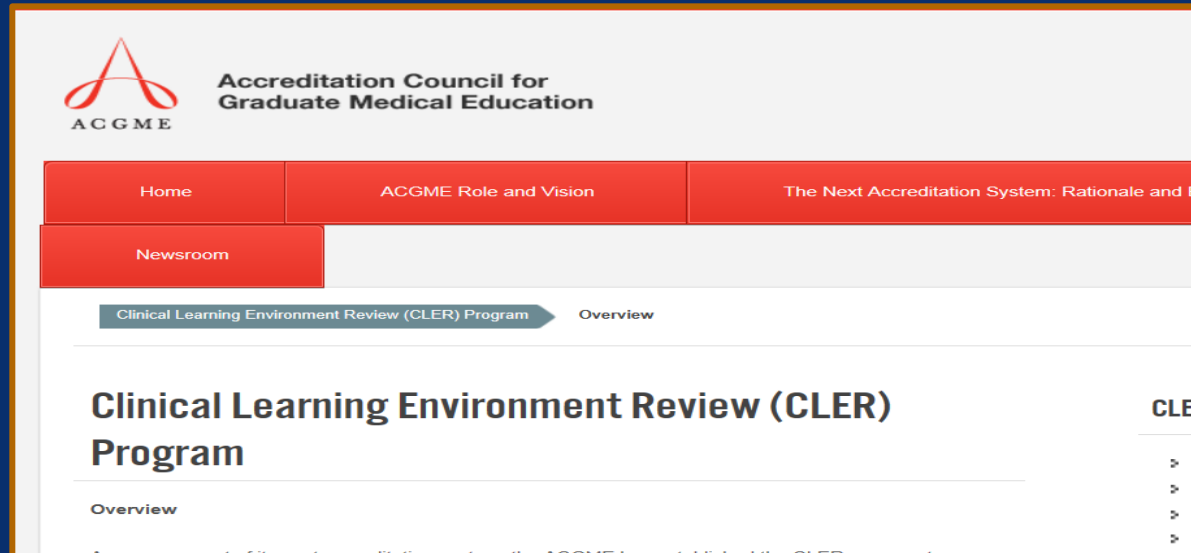
Other national initiatives

- ❑ Maintenance of licensure

- ❑ ACGME –
NAS, CLER

- ❑ Government

- ❑ Others



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Lessons learned

1. Think about the message; remember TACOS
2. Leverage the change, aligned with others
3. Apply *more effective means* of education: Use all kinds of GME/CME methods, including Just in Time; increase relevance, interactivity
4. Consider all health professionals
5. Think about the pipeline
6. Stage the educational innovation or intervention
7. *Use already-present resources; imbed (ae4Q) and spread (Te4Q) the message*

Think about the pipeline



**EBM, self directed learning
can be taught, modeled and
*assessed...so can thinking
about genomics***

**Note: the flipped classroom,
other educational methods**

**A question: where will we
get the faculty?**

Stage genomics education: Pathman, PROCEED and a CME-based implementation planning guide

Davis et al, BMJ, 2003

Methods/ Stages	Awareness	Agreement	Adoption	Adherence
Predisposing				
Enabling				
Reinforcing				

Use already-developed resources **AAMC's medEdPORTAL**

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Imbed the message

The clinician

The evidence/guideline

ae4Q – aligning
and educating
for quality

The

ery

system

SPREAD THE MESSAGE

A train-the-trainer model

QI/PS trained
faculty/staff



	Current picture	Possible Future
More effective		
Less Effective	<p>Traditional, Didactic education</p> <p>Little attention to Genomics</p> <p>Little attention to system-linked, effective educational systems</p>	

More information:

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This morning.....

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