CME HISTORY: IMPACT ON CURRENT PRACTICE AND IMPLICATIONS FOR THE FUTURE

*Linking CME to Quality of Care*

Joseph S. Green, Ph.D.
May, 2016
Massachusetts Medical Society
I. EARLY CME -- THE FIRST 64 YEARS (1906-1970’S)

PROGRESS THROUGH THE AGES

- **1906**: ‘weekly programs’ on therapy and basic science for county medical societies
- **1916**: ‘circuit courses’ for rural physicians in North Carolina
- **1935**: Rural physicians completing ‘practice-based courses’ by Vanderbilt University School of Medicine
- **1955**: Vollan Report on Postgraduate Education (AMA) reported most popular methods for CME included: reading, conferences and communication with colleagues
PROGRESS THROUGH THE AGES

- **1960s**—*bedside teaching* combined *case-based Instruction* with some didactic
- Clem Brown and the “Bi-cycle approach” to CME—one wheel is quality assurance and one is CME
- Dryer Report recommended: *films, TV, self-assessment exams and treatment guidelines*
- Michael E. DeBakey, MD proposed: *bedside teaching* from regional medical program to physicians involved in caring for heart, stroke and cancer
- AMA expert panels on *treatment guidelines* for PCP’s

PROGRESS THROUGH THE AGES

1970's - Limitations of formal class-room education - trying to develop ways of learning from experience, including the AMA's Interactive Multi-medial Self-Instruction Program with Self-Assessment

Video-disc technology to simulate real world 'educational scenarios' for physician learning, along with M&M conferences

Concepts of adult education, problem-based, self-directed and practice integrated learning

AMA commissioned follow-up study of most popular CME: reading of journals and books; consultations and hospital meetings

1980's - Value of smaller group interactive techniques

Reminder systems, simulated patients and chart-stimulated recall integrated into medical education

1990's - Linking CME activities to the Quality Improvement efforts within hospitals and practices and patient-driven CME, linking to P&T committees, licensure, credentialing and certification efforts

Creation and dissemination of treatment algorithms, TQI process, QA methods, P&T committees, credentialing activities, JCAHO compliance, patient simulators
TRADITIONAL CME

• Lecture dominated format
• Little evidence of impact
• Minimal collaboration
• Lack of timely response
• Emphasis on credit
• Focus on course production

RETIRED PHYSICIANS’ BREAKFAST CLUB
ADULT LEARNING PRINCIPLES

- Link new knowledge to previous experience
- Need to understand what they don’t know and have a clear vision of what should be achieved
- Desire involvement in the learning process
- Have moved self concept from dependence to self-directedness in the pursuit of knowledge
- Undertake mechanisms for obtaining feedback on performance and reinforcement of learning
- Address practical problems with useful and immediate applications

ADULT LEARNING PRINCIPLES: KNOX, KNOWLES AND HOULE

<table>
<thead>
<tr>
<th>Assumptions</th>
<th>Andragogy</th>
<th>Pedagogy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self concept</td>
<td>Learning is self-directed</td>
<td>Learning is instructor-directed</td>
</tr>
<tr>
<td>Experience</td>
<td>Accumulated experience is learning resource</td>
<td>Experience is neither broad nor deep</td>
</tr>
<tr>
<td>Readiness to learn</td>
<td>Relates to tasks in their real life social roles</td>
<td>Relates to tasks that correspond to development stage</td>
</tr>
<tr>
<td>Orientation to learning</td>
<td>Problem-centered</td>
<td>Subject-centered</td>
</tr>
<tr>
<td>Motivation</td>
<td>Internal</td>
<td>External rewards</td>
</tr>
</tbody>
</table>
TRADITIONAL PLANNING MODEL

- Decide on topic
- Location
- Select faculty
- Faculty select content
- Put content into lectures and panels
- Assess success
  - #'s, $$, happiness

TRADITIONAL “CME”: PASSIVELY PROVIDING INFORMATION TO PHYSICIANS

- Linear planning models that start with content or faculty
- Exclusive use of passive formats & methods
- No required involvement of learners in improving performance in practice
- No commitment of planners/faculty to designing learning experiences to impact performance or studying outcomes of learning
TYPICAL EDUCATIONAL FORMATS

- Medical Schools
- Hospitals
- Specialty Societies
- Communication Co's
- Managed Care Org's
- Grand Rounds, Outreach, Symposia
- Grand Rounds, Hands-on Workshops
- Symposia, Annual Mtgs, Enduring Materials
- Enduring Materials, Dinner Mtgs, Satellite Symposia, Teleconf
- Problem-based Learning

III. SHIFT HAPPENED—COMPLIANCE OVERSIGHT & MOVING FROM CME TO CE (2000-2010)
PEDICLE SCREW LITIGATION 1988-1993

- The law forbids presentations of false and misleading information at CME events
- Involved organizations sued 400 times in 42 states
- Defendants: Specialty Society and other CME providers and faculty
- Spent millions of dollars proving they should not have been sued

Presentation by Shawn Collins, Esq. at ACCME Workshop

SHIFT HAPPENS

- 1997 FDA Guidance
- 2002 PhRMA Code
- 2003 HHS OIG
- 2004 Advamed Code
- 2005 Updated SCS
- 2006 Updated ACCME Criteria
- 2009 IOM Report
FOUR LANDMARK IOM REPORTS

► To Err is Human: Building a Safer Health System—1999
► Crossing the Quality Chasm: A New Health System for the 21st Century—2001
► Health Professions Education: A Bridge to Quality—2002
► Redesigning Continuing Education in the Health Professions—2009

VISION FOR CE/CPD

► Focus on learning and health care outcomes.
► Planning based on practice data.
► Help physicians apply “new” knowledge in practice.

Bennett, Green, et. al., Acad Med, December 2000.
DESIGNING LEARNING FOR IMPACT

Traditional Concepts
- Use our typical format
- Include panels with lectures
- Add small groups

Newer Concepts
- Start with outcomes-based objectives
- Develop and use criteria for most appropriate methods
- Focus on barriers and strategies for application of learning
- Consider reinforcements for learning
- Provide levels of evidence for patient care recommendations

INNOVATIVE FORMATS AND METHODS FOR CME ACTIVITIES
- Distance Learning
- Quality/physician performance
- Academic detailing
- Patient simulators
- Simulated patients
- Web-based, e-learning
- Blended learning
- ARS and case studies
- Hands-on skill building
- Just-in-time training
- Practice-based learning
- Point-of-care learning
- Chart stimulated recall
INNOVATIVE FORMATS AND METHODS FOR CME ACTIVITIES

- Distance Learning
- Quality/physician performance
- Academic detailing
- Patient simulators
- Simulated patients
- Web-based, e-learning
- Blended learning

IV. CHANGES IN HEALTHCARE—TRANSFORMING FROM CE TO CPD (2008-PRESENT)
Why is ‘life-long learning’ important to physicians and other clinicians?

PHYSICIAN EDUCATION

- Medical School (UME)
- Residency (GME)
- Life-long (CME-CE-CPD)
NEW DRIVERS FOR TRANSFORMING HEALTHCARE AND EDUCATION

- Maintenance of certification (national)
- Maintenance of licensure (states)
- Credentialing (local)
- Economy (world-wide)
- US Healthcare reform (Affordable Care Act)
- New funding sources
- Additional regulatory oversight and COI
- Learner-centered process for developing curriculum, rather than subject-centered (Dewey, early 20th century)

Health Care in the US is changing--we are now in the midst of a radical healthcare and now, political ‘revolution’—

The Affordable Care Act! Will it survive?
CHANGES IN HEALTHCARE

• Specialty dominated to primary care driven
• Incentives for prevention
• Reimbursement based on meeting quality standards
• Physicians and groups involved in tracking performance in registries
• More team-based care

CHANGES IN HEALTHCARE

• Use of accountable care organizations
• More physicians joining hospitals—private practice of medicine on life-support
• Increasing demand for ‘appropriate use criteria’ (especially in imaging)
• More use of outcome measures
• Starting to look at data related to reducing racial, ethnic and gender disparities in care
“DEFENSIVE ROUTINES ARE COMMON TO HIGH PERFORMING, INTELLIGENT PEOPLE…TO QUESTION EVEN ONE STEP IN THE DECISION-MAKING PROCESS WOULD BE TO FALTER…PHYSICIANS ARE UNCOMFORTABLE IN ABANDONING BEHAVIOR THAT HAS SERVED THEM WELL…”

Argyris-1995
Harvard Business School

Where is CME/CPD going?
THE LEARNING EXPERIENCES FOR WHICH YOU HAVE RESPONSIBILITY ARE BEING PLANNED TO BRING ABOUT WHAT LEVEL OF OUTCOMES?

1. Participant satisfaction
2. Learning
3. Competence
4. Performance
5. Patient care outcomes
6. Community health
7. Unsure, don’t know, can’t tell, won’t tell, never thought of it
WHAT IS THE MOST IMPORTANT PART OF THE PROCESS FOR BEGINNING THE PLANNING OF LEARNING ACTIVITIES FOR PHYSICIANS?

1. Selecting the best faculty
2. Making sure the venue and meeting rooms meet the expectations of participants
3. Picking the latest breaking changes in the scientific content
4. Understanding the current competence and/or performance of participating learners
5. Making sure that all faculty have an opportunity to share their knowledge and experience with the learners
CME ‘VISION’ STATEMENTS

- AAMC Academic Medicine Article
- CMSS ‘Repositioning’ Document
- Congress 2000 Deliberations
- ‘New Paradigm’ JCEHP Article

CME ‘VISION’ STATEMENTS

- Davis Articles on CME Outcomes
- ACCME in the 21st Century Presentation
- IOM ‘Bridge to Quality’ Paper on Health Professions Education
- AMA Book-- *The Continuing Professional Development of Physicians*
COMMON ELEMENTS--THE BIG **FOUR**

1. Linking to physician practices and competencies
2. Enhanced learning opportunities
3. Learning outcomes measurement and research
4. Funding sources and content validity

V. TRANSFORMATIONAL STRATEGIES—MOVING TO THE FUTURE--CPD
IMPLEMENTING TRANSFORMATIONAL CHANGE

Our iceberg is melting!

CME IS NOW **SERIOUS** BUSINESS--
THE NATURE OF THE DIALOGUE HAS CHANGED

- Fines levied against Pharma companies
- Threats to Academic Health Centers without adequate firewalls
- CME Colleagues having to testify before Justice Dept and FBI
- CME Faculty being taken off the podium to jail and indicted
“Deep Change assumes that one person can change the larger system or organization in which he or she exists.

“We live in a tumultuous time. Change is everywhere, and we are surrounded by circumstances that seem to demand more than we can deliver.”

“We must continually choose between deep change or slow death.”
### CME-CPD: A CONTINUUM OF STRENGTHENING

<table>
<thead>
<tr>
<th>CME</th>
<th></th>
<th></th>
<th></th>
<th>CPD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lecture dominated format that is episodic and non-reinforcing.</td>
<td>Increased emphasis on learning.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Little evidence of impact on clinician practice or patient outcomes.</td>
<td>Data-based planning.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Minimal collaboration between learners and CME providers.</td>
<td>Blending of quality management and CME.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lack of timely response to clinician learner needs.</td>
<td>Collaborative learning system.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Emphasis on credit.</td>
<td>Focus on improving patient outcomes.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Focus on course production driven by an enrollment economy.</td>
<td>CME as integral part of healthcare system.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### PURPOSES HAVE SHIFTED!

- **Previous CME Office Purposes:**
  - Put on educational activities
  - Raise $$ with grants and tuition
  - Provide CME Credit

- **New CPD Office Purposes:**
  - Create learning experiences that assist physicians in adapting to new realities
  - Link learning to physician performance
  - Contribute to enhancing quality of healthcare, reducing costs and increasing patient safety
EXAMPLES

- **Hospital:** Working with clinical departments to enhance communication, increase organizational efficiencies and improve quality of care
- **Medical School:** Working with Administration to create a physician executive leadership program to allow MD’s to participate in organizational decision-making
- **Specialty Society:** Use learning experiences to link guidelines and registry data on physician performance to MOC Part 4 requirements
- **Medical Education and Communication Companies:** Interviewing physicians in multiple practice settings to better understand barriers as a needs assessment process for formal learning activities

HOW CAN THIS TRANSFORMATION HAPPEN?

- **Move from an independent Office of CME to an interdependent Office of Physician Learning and Change within your parent organization**
- **Become an integral and invaluable part of your hospital, specialty society or medical school**
- **Become a LEARNING ORGANIZATION !**
STRATEGIES

1. Start with the ‘Fundamental Linkage’—CPD, Quality of Care and Context
TRANSFORMATIONAL LEARNING MODEL

- Working collaboratively with QI efforts within parent organizations and/or regional consortia
- Assessment driven, competency-based curricula
- Linking learning to QI and payment reform efforts and other aspects of what's coming in healthcare reform
- Point-of-care learning: using sophisticated search technologies and web-based learning platforms

POSITIONING AND STAKEHOLDERS

- Fundamental Linkage
  - Education and health care system
  - CME-CPD must be part of that linkage
2. Use Backward Planning and the Learning Sciences to Enhance Delivery and Assessment of CPD

NEW PLANNING MODEL

- Identify gaps in physician performance
- Measure self-perceived gaps in learner competence
- Delineate desirable outcomes for learning intervention (objectives) based on gaps
- Create content needed to satisfy objectives
- Pick most effective methods to meet objectives
- Select best expert faculty to provide content
- Determine the success of the activity in relation to desirable outcomes
HOW TO…GET YOUR PLANNING COMMITTEES OUT OF THEIR RUT!

- Provide alternatives to planners
- Show examples of unique approaches
- Find ‘risk taking’ faculty
- Show data about impact of new approaches
- Use outside design experts

GUIDING PRINCIPLES – LEARNING SCIENCES

<table>
<thead>
<tr>
<th>Stages of learning</th>
<th>Recognizes opportunity for learning</th>
<th>Searches for resources for learning</th>
<th>Engages in learning</th>
<th>Tries out what was learned</th>
<th>Incorporates what was learned into practice</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instructional Design</td>
<td>Predisposing</td>
<td>Enabling</td>
<td>Reinforcing</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Presentation</td>
<td>Example</td>
<td>Practice</td>
<td>Feedback</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Outcomes Framework</th>
<th>Enroll in Continuing Education Activity</th>
<th>Satisfaction with Continuing Education Activity</th>
<th>Learning Declarative Knowledge</th>
<th>Learning Procedural Knowledge</th>
<th>Competence</th>
<th>Performance</th>
<th>Patient Health Status</th>
<th>Community Health</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Level 1</td>
<td>Level 2</td>
<td>Level 3a</td>
<td>Level 3b</td>
<td>Level 4</td>
<td>Level 5</td>
<td>Level 6</td>
<td>Level 7</td>
</tr>
<tr>
<td></td>
<td>Knows what</td>
<td>Knows how and when</td>
<td>Shows how</td>
<td>Does</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Assessment</th>
<th>Needs Assessment</th>
<th>Formative Assessment</th>
<th>Summative Assessment</th>
</tr>
</thead>
</table>

55

56
## Timing Program Planning Process成人学习原则

<table>
<thead>
<tr>
<th>Timing</th>
<th>Program Planning Process</th>
<th>Adult Learning Principles</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Before Activity</strong></td>
<td>A. Assess gaps and needs</td>
<td>1. Address gaps in competence and performance and assess learning needs</td>
</tr>
<tr>
<td></td>
<td>A. Define Outcomes, Goals and Objectives</td>
<td>2. Provide motivation for learning</td>
</tr>
<tr>
<td></td>
<td>A. Develop measurement strategies</td>
<td>3. Lead to verifiable outcomes through constructive alignment</td>
</tr>
<tr>
<td><strong>During Activity</strong></td>
<td>A. Identify teaching methods</td>
<td>4. Promote learner engagement</td>
</tr>
<tr>
<td></td>
<td>A. Define delivery formats</td>
<td>5. Create relevance and enable translation to real world settings</td>
</tr>
<tr>
<td></td>
<td>A. Develop content</td>
<td>6. Provide and seek feedback</td>
</tr>
<tr>
<td></td>
<td>A. Establish M &amp; E tools</td>
<td>3. Lead to verifiable outcomes through constructive alignment</td>
</tr>
<tr>
<td></td>
<td>A. Implement formative assessments</td>
<td></td>
</tr>
<tr>
<td><strong>After Activity</strong></td>
<td>A. Implement measurement and evaluation tools</td>
<td>3. Lead to verifiable outcomes through constructive alignment</td>
</tr>
<tr>
<td></td>
<td>A. Allow for reflection</td>
<td>7. Promote reflection</td>
</tr>
<tr>
<td></td>
<td>A. Provide summative feedback</td>
<td>6. Provide and seek feedback</td>
</tr>
</tbody>
</table>

### 3. Provide Faculty Development
TEACHING OUR CLINICAL FACULTY ABOUT LEARNING AND CHANGE

CLINICAL FACULTY—NEW ROLES AND RESPONSIBILITIES
FACULTY AS CLINICAL EDUCATOR/LEARNER

- Course Chair
- Education Committee/Commission member
- Speaker
- Small group facilitator
- Faculty Mentor
- Moderator
- Panelist
- Learning planning committee member
- Evaluator

FACULTY ROLE IN CME

- **Faculty**: cornerstones of Continuing Professional Development

- **Faculty role**: assure validity of content (along with clinicians on the planning committee) and share content expertise with colleagues
FACULTY ROLE IN CME (CON’T)

- Because of new federal government oversight of CME…
- To prevent healthcare fraud and abuse…

*Faculty must understand regulatory environment*

---

CHALLENGE ASSUMPTIONS IN YOUR FACULTYS’ ROLE!

- Don’t use same formats and methods just because they have always done it that way
- Expand their comfort with new formats and methods
- Learn about new educational methods: “From Curricular Goals to Instruction: Choosing Methods of Instruction” Patricia Thomas, MD and David Kern, MD, MPH (in Methods for Teaching Medicine)
- Use methods that:
  - Tied to competencies and key learning outcomes
  - Most effective to accomplish goals
  - Promotes interaction of learner with content, faculty and other learners
  - Authentic—closest to reality of practice setting
4. Initiate Internal and External Partnerships: Collaborate: On Local, Regional, National, or International Basis

COLLABORATION AND PARTNERSHIPS

- Complimentary organizations
- Joint or co-sponsors
- Division of labor—who does what
- Partnership agreements
- Delegating responsibilities
- Grants
IDEAL ORGANIZATIONAL CHARACTERISTICS

- Administrative competence
- Content validity
- Regulatory sensitivity
- Educational sophistication

CONTEXT

- What contextual factors might be important in the success or failure of a project designed to strengthen CME-CPD.
- Several levels of context:
  - Administrative unit for CME-CPD.
  - The organization that it lives in.
  - The community that surrounds it.
  - The regional healthcare system.
  - The national healthcare system.
  - The developmental level of the country.
POTENTIAL PARTNERS IN CME VENTURES

- **Communication/Education Companies**
  - Some accredited, some not
  - Full service educational organizations
  - Dependent on Pharmaceutical resources
  - Very responsive to time demands
- **Academic Medical Centers/Schools**
  - Access to Key Opinion Leader’s and other faculty
  - Not dependent on Pharmaceutical grants
  - Can be bureaucratic and slow
  - Some leaders understand regulations, some do not

POTENTIAL PARTNERS FOR GRANTORS IN CME VENTURE

- **Specialty Societies**
  - Dedicated to education of its members
  - Bring resources to the table
  - Are not necessarily tied to Pharmaceutical support
  - Have access to KOL’s and other faculty
- **Hospitals and Health Systems**
  - Closest to actual patient care
  - Minimal resources brought to partnership
  - Opportunity to measure outcomes
- **Payers and/or FEDS**
INTERNATIONAL CPD LITERATURE


International Environment: Problem Analysis

- Health Care is changing around the world and needs to improve
- CE for Health Professionals is not typically designed to improve the quality of health care provided by health systems or clinicians
- Significant amounts of money are spent annually on CE for Health Professionals that do not result in any demonstrable improvements in clinician competence, performance or patient outcomes
2013 WHO PUBLICATION

1. Continuous development programs for faculty
2. Adapting curricula to the evolving health-care needs of their communities
3. Implementing inter-professional education (IPE)
4. CPD of health professionals relevant to evolving health-care needs

6. Expand *funding* sources
POSSIBLE FUNDING FOR CPD

- Members (increasing dues)
- Physician Learners (philanthropy)
- Physician Learners (increasing registration revenues)
- Pharma and Device Companies IME Grants
- Philanthropic Foundations
- Government Agencies
- Payors
- Other Commercial Interests (e.g. car dealers, computer companies, etc.)

5. Improve Strategic Leadership of CPD Offices
NEVER LOSE SIGHT OF THE ULTIMATE GOAL, AND FOCUS ENERGY ON SHORT-TERM OBJECTIVES.

- Make sure objectives are concrete
- Make sure participants understand why the objective is important
- Ensure stakeholders have had input into objectives
MASTER CONFLICT -- DEAL WITH ANGER IN SMALL DOSES, ENGAGE DISSIDENTS, AND AVOID NEEDLESS POWER STRUGGLES.

- Is this the ‘hill to die on’?
- Life is too short to spend your time hitting your head against brick walls
- Where can you compromise?? Start there with those who disagree

INSTILL OPTIMISM AND SELF-CONFIDENCE, BUT STAY GROUNDED IN REALITY.

- Combine optimism and realism—rubber band analogy
- Obliged to constantly point to the vision, but also be honest about current status
- Realism and pessimism—there is a difference
FIND SOMETHING TO CELEBRATE AND SOMETHING TO LAUGH ABOUT.

- If you can’t laugh about a situation, you have lost perspective
- You can have a sense of humor and still be serious
- Laughing and celebrating can sometimes do more than intense negotiation

BE WILLING TO TAKE THE BIG RISK.

- Sometimes you can get there with a lot of little steps, sometimes you have to leap
- Since we are doing CME every day, wouldn’t it be nice to make a difference
- What is the ‘risk’—no one is dying here
NEVER GIVE UP -- THERE'S ALWAYS ANOTHER MOVE.

- Seek advice from others with totally different perspectives
- Contemplate changing the goal
- Sometimes it is ‘time for you to go’

CONCLUSIONS
TRANSFORMATIONAL QUESTION

- Can the CE Community fit into this new model?
- Is there a logical bridge to get to CPD?

The following represent eight PATHWAYS TO ORGANIZATIONAL TRANSFORMATION for Offices of CE in the health professions in academic settings:
TRANSFORMATIONAL PATHWAYS

1. Getting accredited, staying accredited and obtaining accreditation with commendation

2. Creating a strategic planning process to determine priorities for transformation

3. Establishing an assessment and evaluation strategy to measure gaps and impacts on learner competence, performance and quality patient-care outcomes

4. Developing a competency based curriculum for the organization and the target learners

5. Designing a faculty development program to insure physician involvement in organizational transformation and enhance learning activities through a backwards planning process

6. Using the new technologies to enhance learning formats, with methods and media

7. Improving organizational effectiveness and revenue by dealing with politics, internal stakeholders and external collaborators, consultants, contractors, industry groups and foundations

8. Publishing outcomes of transformation and contributing to the profession

REFERENCES


Fox R. and Miner C., Motivation and the Facilitation of Change, Learning, and Participation in Educational Programs for Health Professionals. Journal of Continuing Education in the Health Professions Volume 19, Number 3, Summer 1999


REFERENCES

