Mayo CME Consensus Conference

September 25-26, 2008

Mayo Clinic, Rochester, MN

"To develop a consensus on an agenda for the evolution of research and strategic management of CME that will positively impact the integrity and effectiveness of the whole CME enterprise."

Co-sponsored by

Accreditation Council for Continuing Medical Education

Mayo School of Continuing Medical Education

Society for Academic Continuing Medical Education

CONFERENCE PROCEEDINGS

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EXECUTIVE SUMMARY

An invitational CME Consensus Conference was held at Mayo Clinic, Rochester, MN, on September 25-26, 2008 and was co-sponsored by the Society for Academic Continuing Medical Education (SACME), Accreditation Council for Continuing Medical Education (ACCME), and the Mayo Clinic. The stated purpose of the event was

"To develop a consensus on an agenda for the evolution of research and strategic management of CME that will positively impact on the integrity and effectiveness of the whole CME enterprise."

The event addressed criticisms of the effectiveness and integrity of CME that were recently raised, including those within the reports from the Agency for Healthcare Research and Quality (AHRQ)[1] and Josiah Macy Jr. Foundation[2]. The event provided an opportunity to develop a research agenda to address both these concerns and the CME enterprise and profession's own desire for improvement. The unique feature of this conference was the mandate to identify not only a CME research agenda, but also a strategically aligned plan to support and implement it. Thus, there were two discrete streams of participants, CME researchers and CME administrators, working in collaboration to develop and prioritize this agenda.

The conference organizers invited leaders from diverse areas of CME administration and research to attend the conference in Rochester, Minnesota. A survey was sent to all invitees, soliciting their opinions on priority problems and research issues. A total of 49 were able to attend, and participated in an intensive 48-hour semi-structured period devoted to brainstorming and consensus building. The event was conducted using a modified nominal process in a series of small group sessions that alternated with report-back presentations and discussion plenary sessions. The groups were sometimes heterogeneous, i.e., a mixture of people who described themselves as primarily researchers and those that described themselves as administrators, or they were rearranged into homogeneous groups. Groups were given specific tasks to help identify the essential issues and prioritize them. ACCME staff facilitated the group sessions, and dedicated recorders captured issues and comments. Further data was captured from audiotapes of the discussions. The survey results provided a useful starting point for the brainstorming.

Meeting Outcomes

1. **A bank of important research questions that address the effectiveness and integrity of the CME Enterprise identified and thematically grouped**
   Categories include theoretical constructs; learning, behavior and change; curriculum; instruction; evaluation and measurement; CME research infrastructure; CME value and culture; knowledge translation and dissemination

2. **Strategies Identified to Implement the Research Agenda**

[1] SS Marinopoulos et al. Effectiveness of Continuing Medical Education available at http://www.ahrq.gov/downloads/pub/evidence/pdf/cme/cme.pdf

[2] S Fletcher. Continuing Education in the Health Professions: Improving Healthcare for Lifelong Learning, available at http://www.josiahmacyfoundation.org

Infrastructure for a research agenda

- Create an adequate infrastructure to support research
- Develop strategic collaboration and partnerships
- Identify stakeholders and their interests
- Obtain adequate and stable funding
- Develop accessible learning management system (LMS) and databases
- Organize a cadre of qualified researchers, and build a pipeline for training future researchers
- Leverage and build on existing research
- Enhance processes to disseminate and implement research findings

Culture and Status of CME Enterprise

- Create a CME culture that supports research
- CME units must have the appropriate skill sets/competencies and organizational structure and relationships for effective leadership, program development, staffing support and research
- Medical school CME researchers require academic status, with protected time for scholarly work, promotion, and access to tenure
- Apply CME research to CME practice and create standards of best CME practice
- Showcase successful examples of institutionalizing research function to encourage more CME offices to participate in research
- Communicate the need for CME research to stakeholders

Enhancing credibility and awareness of CME Enterprise

- Develop a value proposition for CME Enterprise
- Create and sustain the value proposition at the national level
- Create a coordinated structure with governance and staff
- Need to name and brand, and trademark entity
    - Provide a clear articulation of what CME does
    - Create a virtual home for CME
    - Create a blueprint for future
- Coordinate a change management campaign and identify champions to lead it.

3. Immediate action items:

- Mayo Consensus Conference Planning Committee to form core of National Steering Committee to operationalize and lead these changes.
- Next Consensus conference to refine agenda to be held in June 2009
- Detailed report of conference proceedings completed
- Ongoing analysis of data from 2008 Mayo Consensus Conference; findings will be published in a peer-reviewed journal
- Present outcomes of 2008 Mayo Consensus Conference at SACME and Alliance meetings, and to other interest groups, such as Institute of Medicine
- Preparation of an inventory of what has been learned from research to date

ORGANIZERS AND ACKNOWLEDGEMENTS

Planning Committee

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I would also like to acknowledge the wisdom and foresight of Michael Fordis MD who played a key role in the inception of this conference.

The Mayo School of CME offered gracious and generous hospitality and logistical support. ACCME provided professional facilitators and staff that made the collection of data possible, elevating this conference to a much higher level.

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INTRODUCTION, BACKGROUND AND PURPOSE

An invitational CME Consensus Conference was held September 25-26, 2008 at Mayo Clinic, Rochester, MN, and was co-sponsored by SACME, ACCME and the Mayo Clinic. The stated purpose of the event was

"To develop a consensus on an agenda for the evolution of research and strategic management of CME that will positively impact on the integrity and effectiveness of the whole CME enterprise."

The event addressed criticisms of the effectiveness and integrity of CME that were raised in the recent AHRQ and Macy reports. The event provided an opportunity to develop a research agenda to address both these concerns and the CME enterprise and profession's own desire for improvement. The unique feature of this conference was the mandate to identify not only a CME research agenda, but also a strategically aligned plan to support and implement it. Thus, there were two discrete streams of participants, CME researchers and CME administrators, working in collaboration to develop and prioritize this agenda.

The conference organizers invited leaders from diverse areas of CME administration and research to attend the conference in Rochester, Minnesota. A survey was sent to all invitees, soliciting their opinions on priority problems and research issues. A total of 49 were able to attend, and they participated in an intensive 48-hour semi-structured period devoted to brainstorming and consensus building. The event was conducted using a modified nominal process in a series of small group sessions, report-back presentations and discussion plenary sessions. Structured exercises were used in the first sessions to generate ideas and to organize the large volumes of quite disparate information, but flexibility was built into the program to maximize the capture of new ideas and suggestions.

Participants were asked to indicate whether they considered themselves primarily researchers or administrators. Based on the information supplied, and taking into consideration that some had overlapping roles, the planning committee assigned participants to one of four heterogeneous groups of ten, evenly balanced with researchers and administrators. They were also assigned to their homogeneous groups, with two groups each of researchers and administrators. Groups were given specific tasks to help identify the essential issues and prioritize them. They also conducted a SWOT analysis to help create an implementation plan. ACCME staff facilitated the group sessions, and dedicated recorders captured issues and comments. This greatly assisted the group representatives to prepare PowerPoint slides for the plenary presentations, and has provided us with clear records of the proceedings. These records and presentations have been collated and summarized for this report. Audiotapes of the discussions helped with clarification and verification. The survey results provided a useful starting point for the brainstorming, and will be re-analyzed in light of the findings.

DAY 1 WELCOME: SETTING THE STAGE

Attendees were welcomed to the conference by the representatives of the three hosting organizations: Dr. Richard Berger, Dean of Mayo School of Continuing Medical Education, Dr. Murray Kopelow, Chief Executive, ACCME, and Ms. Melinda Steele, President, SACME. Dr. Terrence Cascino, Director for Education, Mayo Clinic College of Medicine gave a talk on the Transformation of Education, outlining how modern medical practice aims to provide patient-focused care that is of the highest quality and safety at a reasonable cost. He described his vision of health care reform and the delivery models of the future, and the role incentives and rewards would play in this view, and stressed that CME must be aligned with transformations of healthcare.

Drs Morris (Moss) Blachman and Gabrielle Kane took turns Setting the Stage for the Consensus Conference Program, outlining the tasks for the next 48 hours to the conference participants. Dr Blachman defined some of the principles and terminology of the program. He explained that, in a healthcare context, efficacy indicates the capacity for beneficial change for a given intervention[3]. Strategic Management for this aim means that we need to have the right organizational structure(s), culture, personnel, and management and leadership. We also have to identify the right processes, resources, relationships and alliances, as well as the outcomes we want to achieve.

A strategic management process that focuses on the integrity of an enterprise needs to deal in a convincing, transparent and accountable manner issues such as commercial interest influence, conflicts of interest, bias, sources of evidence and the quality of product, process and delivery. How we do what we do is critical to success so we must ensure that we are organized to succeed, use the latest research to inform our decisions, and constantly engage in performance improvement. This way we are effective change agents, can demonstrate the value of CME and can best exercise power and influence effectively. He also stressed that no one provider (or small group) can engage in strategic collaboration at the Enterprise level to address system or national level issues, but provided examples of the benefits of linking to strategic partners. He suggested that we identify the appropriate role for research in the work of a CME program, and also how we translate research into CME practice.

Dr. Kane presented a synopsis of the pre-conference survey results. Respondents reported feeling as if CME were under siege, due to perceptions that CME is tainted by commercial influence and that it doesn't work. They also reported that CME has low non-professional status, lacking skills training, that has to operate in circumstances of unrealistic expectations, cost recovery with no money for research and development. They commented that having multiple competing organizations results in power struggles and regulatory overload. They felt that there was limited "proof" of CME's impact on behavior and health care, and that it was necessary to get the appropriate metrics, outcomes, data, and theoretical paradigms to do so. They wanted to know how research can be best integrated into CME, and also how research and CME can be integrated, highlighting the importance of having not only researchers, but also administrators and other leaders in the CME enterprise in attendance at a research consensus conference.

[3] After much discussion, we substituted the term "effectiveness", since this describes the result of an intervention under real-life situations, instead of the controlled situation related to "efficacy"

DAY 1 REPORTING: ISSUES RELATING TO INTEGRITY AND EFFECTIVENESS

Format of Discussion and Reporting: Four heterogeneous groups of researchers and strategic planners identified issues relating to Integrity and Efficacy of the CME Enterprise. Each group presented their findings in a plenary session, answered questions, and participated in a large group discussion.

Enterprise

The Enterprise refers to the CME business and the process of providing an educational service. It was noted that, unlike undergraduate and graduate medical education, the customers or audience are not always apparent or defined. Is the physician the customer? What about the organization, payer or program funder? The CME Enterprise does not have shared values and vision, and these must be generated.

Participants felt that CME was marginalized in medical education. Those in medical schools said that their position was very peripheral. Some queried how the Enterprise was supposed to get research done, with no money in their budget for research or scholarly activities, and needing to compete with clinical research for scarce funds. Consistently, people said that CME professionals lack expertise and training for research, and are not situated to run, or participate in, the sort of multicenter research studies with collaboration between institutions and medical continuum that are necessary for the best results. However, even if not conducting research, they need to be knowledgeable enough to utilize and apply CME research to their own practices.

CME can provide vital support to physicians in terms of tools, support and access to appropriate resources for their learning needs, and helping them to balance their multiple and competing needs. We do need to know why physicians attend CME, and be more cognizant of learning needs and styles. Physicians frequently report feeling under siege and disempowered despite being highly motivated to provide best health care. CME has traditionally been about them learning as individuals yet practicing as part of a team. Currently, curriculum content is narrow, mostly driven by regulatory reasons, such as MOC and tests, and narrowly focused only on AMA PRA category 1. We need a comprehensive curriculum as part of an integrated system of continuing professional development, expanded to cover all competencies, with needs assessment at its core.

Faculty development can be applied in two directions: 1) to the medical faculty, who have content knowledge, but less about CME process, and 2) to CME professionals who usually do not have adequate training or expertise, and limited opportunity for training, promotion, and tenure. CME professionals do not feel part of a larger, integrated community, and are not members of a guild, or community.

Integrity

Participants identified structural and organizational issues that affected the integrity of the CME Enterprise. Concerns were expressed about the structural soundness and stability of the Enterprise; it lacks support and leadership, as well as a national identity and presence. The Enterprise is not coordinated or coherent, and needs to develop relationships with key individuals in health care reform, align initiatives, minimize bureaucracy. It also needs to show respect for other organizations and stop functioning in silos (especially in team training). We currently use diverse, and confusing,

terminology (CME, CPD, CHE, KT etc) and would be better served by a shared vocabulary. The structure of CME is constrained by funding issues.

Other important components of integrity are CME's culture, values and credibility. We have historical baggage, such as "junket CME", that contributes to incorrect perceptions and negative preconceptions, as well as unrealistic expectations of CME. We need to know the value of CME to physicians, to others, e.g., public. We need to address outside scrutiny, public accountability and transparency of CME so that we can rebuild public trust and negate the cynicism about CME. Changing the philosophy of CME should result in a change in structure, and we must expect resistance to change within CME, but even more so outside it, for example, from physicians and medical schools. CME should now be centered on patient care, even though it didn't start out that way, and it should be driving improvements in healthcare systems, and applying an orchestrated plan to make change. The credit-for-time system of MOC is still the driving force of CME function.

Effectiveness

Some were hopeful, but not certain, that CME contributes to improved health care. CME presumes learning takes place, but it focuses on surface learning only, not life long learning. The diversity of activities makes it difficult to have clear findings, and it was recognized that systems issues well beyond CME can distort findings, causing a high signal to noise ratio that makes it difficult to figure out CME's impact. Research models in use may be overly simplistic, but we still need data for needs assessments to inform content, and to identify and validate performance measures. This is difficult without standards, or electronic medical records. The development of outcomes measures requires faculty input and may compete with clinical research. We need to translate and disseminate the research that has already been done.

DAY 2 REPORTING: THE BIG GAPS

Format of Discussion and Reporting: On the second day, after the previous day's findings and the day's agenda were reviewed, participants worked in homogenous groups. There were two research groups and two strategic management groups.

The first mandate for the research groups was to identify the biggest gaps in CME research. Although their reports were arranged in somewhat different formats, the content of each report, when combined, fit well into five categories.

Concurrently, the two strategic management homogeneous small groups were asked to identify a) the biggest gaps in effective CME management, and b) the gaps in strategic management of CME in order to carry out a research agenda. Their findings are summarized below; between them, these two groups produced the greatest volume of data. It is very rich material, and it relates more to the first question about effective CME management, rather than management of CME to carry out a research agenda. Many of the points raised could be considered "answers" rather than gaps, but are included in this section.

REPORT FROM RESEARCH GROUPS:

Gaps in understanding and knowledge

The groups both noted that there are still gaps in theoretical concepts that enhance our understanding of topics in CME, and are necessary frameworks to develop research projects. We need to adopt and adapt learning theories related to learning and change, cognition, behavior, and motivation. We need to do further work on relevant social constructs, and apply them, for example, to studies of individual and team learning. We must explore the applicability of multiple research paradigms to CME.

Gaps in Research methods and measurement tools

There is a pressing need for more research in the fields of evaluation methods and measures, especially measurement of changes in practice performance, and some specific techniques such as cost-benefit analysis.

One of the largest gaps is in relation to data, in particular the availability of, and access to, data streams representing performance in real settings. We need to know how to compile the data sets appropriately, and how to manage aggregation of heterogeneous and unreliable data that are going to be used for high stakes decisions, as well as cope with longitudinal versus episodic data collection. More work needs to be done on developing comparators, benchmarks from like physicians, national performance measures and "within-physician" changes over time. Furthermore, we need to decide how these measures can be used in low stakes self-improvement and high stakes regulation. Other issues include ways of measuring the influence of bias and attribution, the influence of age on learning and practice performance, effectiveness of self-assessment, teamwork and knowledge transfer. On a broader basis, there are still

fundamental gaps in the measurement of behaviors, skills, processes of care, and outcomes.

Topics that need further research

The development of theory and appropriate measurement facilitates research into specific topics and examination of how theory works in practice. Workable models allow the examination of processes involved in translating knowledge into practice, lifelong learning, and the factors impacting healthcare provider behavior. Models would also facilitate examination of gaps in systems issues, such as team learning, behavior, effectiveness and function. The group felt that there were gaps in instructional design and innovative delivery methods; capturing and understanding learner outcomes; and regulatory aspects of assessment and feedback.

Gaps in Collaborative infrastructure for research

There are gaps in knowing how to create a new collaborative model for research as well as identified gaps (even holes) in the existing infrastructure. These holes are in policy: we need an agenda to facilitate the choice of research topic, and the dissemination of research agenda. A research agenda needs the "Guiding hand" of mentorship, RFP and scope management. It needs to be proactive, collaborative and patient care orientated.

Funding is missing, as are research skills. The CME research workforce does not have a critical mass or appropriate mix of skill sets. We need to develop a community of interest, with partnerships, so that we can find shared research agendas, skills, and data, as well as efficiently disseminate research findings

REPORT FROM STRATEGIC MANAGEMENT GROUPS:

The first group divided their report into Gaps that they identified in effective management, including value and marginalization; financial and human resources; vision, mission, and guiding principles; learners; and the structure of the Enterprise. The Gaps in research identified were dissemination of current research; translation and synthesis; and a common language.

The second group also identified a gap in the value of CME and its personnel, but added the Transformation of CME, Learner Tracking, coordination and collaboration.

Gaps in Effective Management
Marginalization and the Value of CME

This group felt marginalized within medical education. Representative comments include "on a scale of 1-100, CME is a 3" and "it is not on the radar." It was noted that this is a "global" issue and applies both in medical schools and other organizations. CME was reported to be under-appreciated, have low visibility and poor credibility.

It was felt that there was a lack of understanding of CME by the leadership of the organizations involved, and that stakeholders in general did not agree what (if any) value there was in CME. Across the board in healthcare institutions, CME is seen as very narrow: providing only certification for credit and meeting planning for fragmented

episodic education, and constrained by Category 1 credits. To be valued by customers, their needs must be met.

Financial and Human Resources
CME is perceived as a revenue source to parent organizations whose own revenues are decreasing. In economic uncertainty, it is almost impossible to predict revenue and set budgets. There is a lack of diverse funding source.

There is a gap in skills of CME staff; they have no formal training or degree track for CME, with variation in standards, so that CME is a job with high turnover rates and not a career. It should be a profession, with everything that professionalism entails. For those in universities, there are no tenure track, promotion or reward criteria. Furthermore, CME staff need adequate measurement skills.

Enterprise – Structure
There is a lack of a clear definition and scope of responsibility of CME, or a vision of how it should be transformed, and a Gap in strategic management, and in knowledge and skills of strategic leaders. There is Gap in "organizational leaders" in CME, especially engaged physicians, and there is no way to encourage or generate new physician leaders through coaching, mentoring, or succession planning. Although there was discussion about rebuilding the whole structure, there were several people who commented that looking at the structure is not the way to identify the gaps. One participant felt that the gaps are in the education itself and with the learners. There was also a suggestion that instead we examine management of CME that works the best – academic, society, etc, and also to consider how leadership of CME connects with and within institutions. There was a criticism of having a 'woe is me' attitude – power and leadership need skills and know how, and another suggestion that there are ways to exercise power even from a small position and that an academy would be a good way to talk about this. We need a common CME language.

Collaboration & coordination
There is a lack of collaboration and coordination between all types of providers, including business schools, practice management groups, insurers and quality improvement (QI) offices. QI is about improving outcomes and changing behavior, but not considered "education". QI does not have to generate revenue, so there are budgetary differences. This can be seen as either a threat or an opportunity.

There is a lack of coordination of other mandates – MOC, MOL etc. There is also a lack of mechanisms for regional and national collaboration, but there is a cluster of people in networks who are talking and this needs to expand. Need collaboration within your institution or with others. Too many CME providers are trying to do too much, and there are regional provider consortia that could be used more effectively. Two thirds of these could go away and the remainder could make a difference. The spread is not so much between the groups but within the groups (hospitals, academic, etc.) Having a variety of types of CME providers can provide richness to the system and we need all of them, but it was noted that the "800-pound gorilla" is the for-profit provider; should CME stay within the realm of academics, societies, etc?

Internal and external gaps
CME units need to make sustained connections with the rest of their institutions, and align CME program and activities with the institution's mission statement and clinical

objectives. There was a suggestion that cultivating relationships could be done with the self-study process, and also with steering committees with everyone at the table (QI, CEO, Nursing, Research, dept chairs, etc.) to talk about issues. There is a lack of strategic thinking and cultivation of these relationships to see value in CME. An external gap was also noted – AAMC, and others, need involvement, collaboration.

Learners
There were several examples cited of learner-related gaps, including lack of interest, learner accountability, and learner initiative. The expectations demanded of physician learners are changing, but what is their responsibility? There is a need for the learner to be accountable – this raises level of expectation for the provider. We should focus on the learning and the learner's commitment. We also need commitment from faculty to change teaching models.

Learner Tracking
There is not enough focus on improvement or performance data, but CME organizations are not designed to positively impact on patient care. Only a handful succeed in making a demonstrable difference to the people they serve. We don't have the tools to measure the impact, but if we don't have good measurement tools to meet criteria we need to fix this gap, and get updated – this is sometimes a validation for learners too. We have some good opportunities, e.g., tumor boards, but don't recognize them. Lots of organizations are doing spectacular things but this is not the majority of what they do. The evaluation of teaching as well as learning is necessary. We must build CME that entices. There is too much emphasis on documentation of tasks, and different paperwork requirements.

Research
What do we mean by (R)esearch? We need good research on the management side too and there is a lack of dissemination of research. We also need a common CME language.

DAY 2 REPORTING: THE BIG QUESTIONS

Format of Discussion and Reporting: In this session, the research homogeneous groups were asked to identify the big questions that need to be answered by CME research.

The strategic management group were asked to identify a) research questions in management, b) the strategic management changes needed to support answering these questions, and c) the priorities or key questions for efficacy and integrity in strategic management?

For both streams, reports are presented as a series of questions.

REPORT FROM RESEARCH GROUPS:

THEORY RULES !! Both groups agreed that this was the guiding principle, and should include application of other theoretical principles and bodies of knowledge, as well as common nomenclature/vocabulary.

Group 1 identified the following questions

1. How do we align the educational agenda with the desired outcomes (population health needs/priorities)?
2. How can we create environments that support and address the learning needs of individuals and teams within the context of healthcare delivery system? (meta level)
3. How do we facilitate the desired learning and change?
4. How do we assess/evaluate that we achieved what we set out to accomplish? (process and product)

Group 2 continued with the topics identified in the previous session

1. Factors impacting healthcare provider behavior
2. Instructional design and delivery
3. Theory to practice
4. Measurement of work
5. Collaborative infrastructure for research

Group 1 reported with 4 main questions, with examples. Group 2 reported back on 5 topics groupings of multiple smaller questions. Two categories in each group – instruction and measurement - had considerable overlap, and are thus combined for this report.

Combined results

Theoretical constructs

- Theory to practice
    - What are the theoretical frameworks that can drive effective CME and behavior change?
    - How do you match the theory to the intervention?
    - How do teams learn?

- How do we balance individual versus team learning in the workplace to maximize patient benefit?
- Which models / processes do you use to translate knowledge into practice?

Learning, change and behavior

- Factors impacting healthcare provider behavior
    - How do we understand the system model that motivates / de-motivates physicians?
    - Separate CME and non-CME influences on physician behavior
    - How do we influence change in complex systems?
    - How do internal and external factors influence behavior change and the impact of CME?
    - How do we design CME interventions to either overcome the barriers or utilize facilitating factors in order to be more effective?
    - How do physicians learn the process to obtain information at the bedside rather than memorize data?
    - How do physicians manage knowledge?
    - How do we evaluate knowledge management?
    - How do we make feedback supportive of self-improvement rather than punitive?

Curriculum

- How do we align the educational agenda with the desired outcomes (population health needs/priorities)?
    - What are the desired outcomes?
    - What forces drive the CME educational agenda?
    - Selecting Topics
    - Addressing Systems Gaps (patients, society, institutions, industry, …?)
- How can we create environments that support and address the learning needs of individuals and teams within the context of healthcare delivery system? (meta level)
    - Self regulation
    - Self assessment / Life-long learning
    - Formative Evaluation (feedback)
    - Multi-disciplinary / Teams

Instruction:

- How do we facilitate the desired learning and change? (specific level)
- Innovative delivery methods
- Instructional methods and design
- Linking education to outcomes
- Understanding learning and change (individual, team, organizational levels)
- How do we translate what we know into practice
- How do physicians learn in the workplace and is it effective?
- What is the comparative durability of workplace learning versus discrete education?

Evaluation and measurement

- Measurement of work (process and product)
- How do we assess/evaluate that we achieved what we set out to accomplish?
- Innovative assessment methods
- Evaluation methods and measures
- Standardized methods and validated tools/measures
- Across the educational continuum (UME,GME, CME)
- Cost / benefit analysis
- How do you compile needed data sets?
- How do we aggregate heterogeneous and unreliable data for high stakes decisions?
- Measurement at different levels of "unit of analysis" from individuals, from micro- through macro systems

CME Research Infrastructure

- Collaborative infrastructure for research
- Research intensive meeting with other related fields (quality, measurement, informatics)
- Self-organizing groupings of organizations and individuals around a community of interest?
- Approaching funding institutions to support research?
- Establish incentives, publish research, encourage others to participate
- Use partnerships to bring people together
- Share data and resources: facilitating participation from small providers
- Benchmarks for success: data, dollars available, practitioners applying principles, more published research
- Leverage the research opportunities and findings that we already have

REPORT FROM STRATEGIC MANAGEMENT GROUPS:

Both strategic management groups covered a wide range of topics. It was noted that research is outside of the scope of current responsibilities, and that even medical school CME offices are not linked to academic departments, and so are not involved in research, and don't have the skills to do so, and it is not reasonable expectation of them. However, the scope of research is broad, and we need to know what kind of research we are talking about, as there is such a difference between applied education research such as program evaluation and laboratory-based scientific research. We do need to be aware of where research fits in the CME enterprise, to demonstrate the effectiveness, and thus the legitimacy of CME. Within the CME office, the role of research is to inform our practice, so that CME practice is evidence-based. Thus even though we are not conducting research, we need to understand the research, follow it and link the learning with effectiveness. It is essential that we have access to data, and that we are not duplicating efforts. We also need to develop a common language. In order to support research, and improve its quality, CME management needs to think of the big research picture and not only on small finite projects. Baldridge's criteria [http://www.quality.nist.gov]

were suggested as a framework to organize strategic management and research priorities.

Questions developed by the strategic management group

Value / Marginalization

- What is the CME value proposition within your organization?
- What are the effective means for changing the perception and commitment?
- Who needs to be involved in this effort within your organizational structure and healthcare environment?
- Are there data or information available?
- Are there resources available to get the data?

Financial Resources

- Is funding adequate for meeting the service and/or revenue expectations of your organization?
- How do we assure that we have adequate funds?
- What other sources are available?
- How do we assure the highest integrity in managing funds?
- Who needs to be involved in this effort within your organizational structure and healthcare environment?
- Are there data or information available?
- Are there resources available to get the data?

Human Resources

- What is gap between current skill sets/competencies and what we need; and how do we bridge it?
- What are examples of best practices?
- How do we engage physicians and other health professionals?
- Do we have an infrastructure for coaching/mentoring both faculty and staff?
- How do we get the CME office more actively involved in developing physicians/other health professionals as faculty and scholars?

Vision, Mission, and Guiding Principles

- Is your practice of CME appropriate to meet the needs of the physicians and health professionals in your organization?
- What is the contribution of CME in healthcare delivery?
- Who is responsible for CME?
- How do we ensure integrity and congruence of CME vision and mission with that of the overall organization?

Learners

- Do we know who our learners are?

- Do we understand the expectations of our learners and do the learners understand the expectation for them to be life-long learners?
- Do we understand the various learning styles of our learners and appropriate learning modalities to match these?
- Do we understand the environment in which they learn?
- How do we engage learners?
- Do we provide our faculty with information about their learners?

Enterprise – Structure

- How do we get the major healthcare related institutions to have an alignment of view and understanding of the value proposition of CME?
- How do we bring about alignment and support of CME and relevant organizations?
- Should there be a coordinating council for CE of health professionals?
- What can we learn from research done in our field or other fields that address these issues?
- What additional research needs to be done to inform good strategic leadership decision-making?

Suggested Framework for Strategic Management and Research Priorities:[4]

Baldridge Criteria	What do we value / our expectations of ourselves?		Where are we?		What is our strategic plan from where we are to where we want to be?		How do we implement/strategies?		How to tell the story?	
	Internal	External	Internal	External	Internal	External	Internal	External	Internal	External
Leadership										
Strategic Planning										
Student, Stakeholder and Market Focus										
Workforce Focus										
Process Management										
Results										

[4] http://www.quality.nist.gov

DAY 2 REPORTING: THE BIG ANSWERS

Format of Discussion and Reporting: By the end of Day 2, the research groups combined to identify and discuss the requisites for success. They opted to use a SWOT analysis approach to facilitate this. The strategic management groups each presented their findings individually, and these have been collated for this report.

REPORT FROM RESEARCH GROUP

It was decided that the final homogenous small group sessions for researchers would be combined into a single group. To focus their discussion, they were asked to identify the requisites for success, what it would take to implement their suggestions, and to identify and design elements for an operational agenda and game plan.

The requisites for success
These were identified as the development of strategic collaboration and partnerships; adequate and stable funding, a cadre of qualified researchers, and a pipeline for training future researchers. Furthermore, it was considered to be necessary to communicate the need for CME research, and provide a clear articulation of the role and function of CME. There must be standards of CME practice in place, which have been translated from CME research, along with processes to disseminate and implement research findings. Medical school CME professionals require status, with protected time for scholarly work, promotion, and access to tenure. There must be an adequate infrastructure for research, but also a culture that supports it. We can leverage and build on existing research, and use research findings in practice. We can study and showcase successful examples of institutionalizing research function to encourage more CME offices to participate in research.

Implementing these suggestions
We need to first identify those partners with whom we can collaborate, then determine when the collaboration should occur, and invite them to join forces with us. We must ensure that we help ensure that the importance of research in CME gets national recognition, and lobby major institutions to provide training scholarships for future researchers. We must develop a defining statement, and use this for branding and recognition. We must establish a "home" for CME that has mandated research. We need to coordinate a change management campaign and identify a champion to lead it.

Identify and design elements for an operational agenda and game plan
We need a coordinating committee to operationalize and lead these changes. Key members would be from ACCME, ACME, SACME, AAMC, CMSS, IOM, and UHC. The Conjoint Committee already has another mandate and is thus not the organization to coordinate and manage this effort. It is essential to move quickly, as these issues are time sensitive, with a rapid cycle change. We must also write a vision and value proposition, and produce a position paper with an action agenda. We must take an inventory of what we do now, and coordinate our efforts to do so. We also need a concise summary of what has been learned from research to date. Finally, we must identify the stakeholders and their interests.

SWOT ANALYSIS OF CME ENTERPRISE

Led by Dr Blachman, the research group conducted a SWOT analysis. Identifying the strengths, weaknesses, opportunities and threats of an organization – or enterprise! – can be a useful step in strategic planning.

Strengths of the CME Enterprise	
	• Life long learning is essential, important • New knowledge has been brought forward and translated into practice • Skills and research created to date; grown significantly in quantity and quality • Perception of CME contributing to physician competence • Industry (including funders) require QI/demonstration element – simulating integrated learning • Movement away from passive learning • Willingness to cooperate
Weaknesses of the CME Enterprise	
	• We have a defensive, threatened posture • CME functions in silos • There is a perception of CME as the short course • Practitioners locally and nationally are not sensitive to CME research • Entitlement mentality: "someone else is responsible to teach me and pay for my education" • Focus on independent physician learning apart from team • CME research not required
Opportunities for the CME Enterprise	
	• MOC, MOL • Need mechanism to bring exploding knowledge forward • Partnerships, e.g., quality improvement • New construct and branding of CME • Publicize research done on a national and local level • CME now at the table with peer review and granting committees • CME major stakeholder in health care reform • Shift focus from teaching to facilitating learning • Multidisciplinary integrated accreditation • Internal and external opportunities to collaborate • Global need for CE leadership
Threats to the CME Enterprise	
	• MOC/MOL: another organization will take this opportunity and run with it • Privilege of professional self-regulation may be taken away • Specialty societies/ABMS/FSMB/CME silos • Financial uncertainty • Stakeholders don't all see CME as relevant

REPORT FROM STRATEGIC MANAGEMENT GROUPS:

The final homogenous small group sessions for administrators in the strategic management stream focused their discussions on the requisites for success, how to implement their suggestions, and identifying and designing elements for an operational agenda and game plan. The reports from the two groups have been combined to reduce repetition. Some fundamental principles were identified. The dominant one was the need to put forward a research agenda that is a coordinated national effort for action that is data driven, evidence based and informed by current practices. There are two levels of implementation: institutional and national levels, but it is the fractionated national effort that needs to be coordinated before research and strategic management can advance. The ongoing dissemination of current research, including its translation and synthesis, is of fundamental importance, as is the agreement on a common language. Throughout the process, the physician learner must remain the focus.

Value / Marginalization

- Goal: To create a CME value proposition

Enterprise – Structure

- Goal: Create and sustain the value proposition at the national level
- Goals: Create a coordinated structure with governance and staff
    - Need to name and brand, and trademark entity
    - Create a virtual home
    - Create a blueprint for future

Financial and Human Resources

- Goal: Adequate, diversified, stable funding sources, including in-kind
- Need LMS/database (software and techie)
- Goal: CME units should have the appropriate skill sets/competencies for leadership, program development, staffing support and research

Vision, Mission, and Guiding Principles

- Goal: Alignment of the CME mission/vision with the organization mission/vision

Learners

- Goal: Provider/learner mutual engagement that cultivates life-long learning.

Leadership

- Goal: Rapid Response Team approach
- Planning Committee will be leadership team to be/identify SWAT team
    - Need governance and staff
    - Staffing can be within an existing organization but needs to be organizationally neutral

Outcomes:

- Improved Patient Outcomes
- Good Value
- Renewed Public Trust

DAY 3 RECOMMENDATIONS

Format of Discussion and Reporting: On day 3, participants opted to remain together in a large group. Dr. Don Moore presented an insightful and eloquent talk that summarized the key issues. This prompted the participants to further refine what they felt were the requisites for success, the measures needed to implement their suggestions, and to draft an operational agenda and game plan. Their recommendations are collated below by topic.

Recommendation 1. To build an infrastructure for a research agenda
To achieve this goal, it is important to create an adequate infrastructure to support research activities. This includes the development of strategic collaboration and partnerships, the identification of stakeholders and their interests, and obtaining adequate and stable funding. Furthermore, it is necessary to organize a cadre of qualified researchers, and build a pipeline for training future researchers. Accessible databases must be developed, existing research leveraged, and processes to disseminate and implement research findings enhanced.

Recommendation 2. To develop a scholarly culture within the CME Enterprise
To create a CME culture that supports research, CME units must gain the appropriate skill sets and competencies for leadership, program development, staffing support and research. Medical school CME researchers require academic status, with protected time for scholarly work, promotion, and access to tenure. CME research must be integrated into CME practice, and standards of CME practice set. Successful examples of institutionalizing research function are to be showcased in a way that encourages more CME offices to participate in research, and the need for CME research communicated to all stakeholders.

Recommendation 3. To enhance awareness of and the credibility of the CME Enterprise
The first priority is to develop a value proposition for the CME Enterprise, and then to create and sustain it at the national level. It is essential to create a coordinated structure with governance and staff, and then to name, brand, and trademark the CME entity. In the meanwhile, we must deliver a clear articulation of what CME does, create a virtual home for CME and a blueprint for future. To achieve these goals, it is necessary to coordinate a change management campaign and identify champions to lead it.

Immediate action items:

- Mayo Consensus Conference Planning Committee to form core of National Steering Committee to operationalize and lead these changes.
- Next Consensus conference to refine agenda to be held in Spring 2009
- Publish report of conference proceedings
- Ongoing analysis of data from 2008 Mayo Consensus Conference findings; findings to be published in a peer-reviewed journal
- Present outcomes of 2008 Mayo Consensus Conference at SACME and Alliance meetings, and to other interest groups, such as Institute of Medicine
- Develop an organized and accessible “question bank”
- Preparation of an inventory of what has been learned from research to date