



**Competency Assessment: Forethought Not Afterthought**  
***Current Practices and Innovations for Graduate Medical Education***  
**September 10–12, 2003**  
**Boston, MA**

## **Overview and Summary**

More than 200 residency program directors, designated institutional officials, and medical educators from across the country attended Tufts Health Care Institute's 7<sup>th</sup> annual conference, "*Competency Assessment: Forethought, Not Afterthought: Current Practices and Innovations for Graduate Medical Education,*" held Sept. 10-12, 2003, in Boston. The conference included seven plenary and panel presentations, supplemented by six workshops and group discussions. This overview and summary and the full Proceedings, which will soon be published, include content covered during the plenary and panel presentations.

### **Keynote Address**

#### ***A Vision for the Future – Transforming Medical Training Through Competency-based Education***

Deborah E. Powell, MD, dean of University of Minnesota Medical School and assistant vice president for Clinical Affairs, laid out a vision for the attendees of the future of medical education, one that is radically different than today's system. Dr. Powell believes that competency-based education (CBE) can and should be the foundation of this new system, and can play an important role in restoring the public's trust in the medical profession because of its potential to transform medical education and improve the overall quality of health care in this country.

CBE is rooted in a model developed by Hubert and Stuart Dreyfus and colleagues at the University of California, Berkeley. It identifies five distinct stages of skill and knowledge acquisition through which learners progress: novice, advanced beginner, competent, proficient, and expert.

Dr. Powell reviewed the six ACGME "general competencies," noting that they have had a "ripple" effect throughout the medical education system. For example, the American Board of Medical Specialties (ABMS) endorsed the six general competencies as being needed by practicing physicians in every specialty. Dr. Powell pointed out that she has been working with her colleagues to incorporate the competencies into undergraduate medical education at University of Minnesota Medical School. But she believes that the ACGME general competencies must become more than just a framework for developing medical school curriculum. Rather, she envisions far-reaching, potentially radical implications of the competencies for the nation's continuum of medical education and health care system.

- ◆ **What if we planned for the education of a physician, not the education of a medical student, resident, or fellow?** Rather than viewing a physician's education as being in three distinct phases (undergraduate, graduate, and continuing medical education), Dr. Powell endorsed the idea of looking at a physician's education as an unbroken chain, beginning with the start of medical school and continuing throughout his or her career.
- ◆ **What if clerkship directors and residency program directors planned curriculum together?** Dr. Powell envisions a day when clerkship directors work with residency program directors to develop a

curriculum. Each individual needs to think differently than in the past, to conceive of a curriculum designed for learners at different levels.

- ◆ **What if we educated for capability as well as competence?** Competence relates to what individuals know or are able to do in terms of knowledge, skills, and attitude. Another important concept relates to capability, which is the extent to which individuals can adapt to change, generate new knowledge, and continue to improve their performance. Education needs to address both. The master physician is not just competent, but capable, able to understand the links between things, and to incorporate new knowledge across disciplines.

### ***Realizing the Vision – Assessment, Research, and Faculty Development***

The remainder of the conference focused on practical lessons related to implementing the vision of a radically different medical education system, using the ACGME general competencies, the process for assessing competence, and CBE as a foundation for the transformation.

### ***Session I: Integrating Assessment into Curriculum Development***

#### **Assessment as a Discipline and Habit of Mind**

Hershey S. Bell, MD, FAAFP, former chief medical officer and vice president for medical education and quality at Hamot Medical Center in Erie, PA, and assistant dean of clinical education at LECOM (also in Erie), noted that systematic and supportive assessment is a critical component of CBE. Good assessment systems and tools play a major role in determining whether the educational program meets its objective of making competency a “habit” among all of its learners. A major change needs to take place with respect to assessing individual students within educational programs. If someone is not learning, it should be viewed as the fault of the teaching, not the individual, and the environment must be changed to create a new, more effective learning situation for the student.

Dr. Bell believes that there is chronic dissatisfaction among both faculty and students with respect to evaluation today. To redesign the system, Dr. Bell called for the clear delineation of two distinct purposes of evaluation: first, to monitor how well residents meet performance standards through a faculty-controlled quality control system; and second, to provide guidance for residents' professional development through coaching, resident-controlled self-assessment, and reflection.

Formative evaluation should be the cornerstone of CBE, as it helps shape the development of the learner. Formative evaluation represents the convergence of three components for the teacher: feedback, direction based on the competency objectives of the curriculum, and encouragement. Feedback helps move things from the “hidden world” to the “known world” (a process called “discovery”). But it can also help learners to have “aha” moments where something previously unknown to them becomes part of their world (a “revelation”).

Good assessment and feedback measures actual performance, identifies areas for improvement, and provides accountability in a practical manner. It is conducted over time in order to discern growth. Not surprisingly, good assessment relies on good tools that formalize what has historically been a largely informal process. The purpose of any of these tools is not to tell residents what you think of them, but rather to help facilitate dialogue and to foster student self-discovery. Different learners learn at different paces and through different means. The challenge is to work effectively with all learners regardless of the particulars of their specific learning patterns. Encouragement plays a critical role as well. By emphasizing trust, acceptance, and even love, teachers can tap into real learning potential. Along with encouragement, students must also feel that they are in a safe environment for learning.

#### **Working Backward, Moving Forward**

Carol Carraccio, MD, associate chair for Education at University of Maryland School of Medicine, laid out a process for curriculum development that starts at the endpoint – outcomes – and works backward. Dr. Carraccio described each phase of this six-step process: outcomes, competencies, benchmarks, thresholds, curriculum, and evaluation.

Within the context of training, the key outcome is to have the resident develop the overarching skill set desired or expected of a practicing physician. The ACGME has defined these outcomes in its six areas of general competency. Working backward from outcomes, it is useful to define more specific competencies that help build the desired skill set. These competencies typically relate to the possession of certain knowledge, skills, and attitudes. The next step is the development of measurable and discrete benchmarks or performance indicators. These indicators take the relatively complex construct of a competency and break them down into a series of benchmarks that collectively make up the competency. Benchmarks should be behaviorally-based and measurable. Once benchmarks are defined, the next step is the development of thresholds, which are predetermined standards that are pegged to the level of training.

The next step is to develop the curriculum, a process that includes identifying the content and determining when (i.e., at what point in the training experience) and where (i.e., in what setting) it should be taught. The curriculum should define the content and skills necessary for the learner to achieve the predetermined thresholds for each performance benchmark. The final step is evaluation. The evaluation phase essentially "closes the loop" on the process. Two key questions relate to who will evaluate, and how it will be done (i.e., what tools will be used).

Dr. Carraccio closed her presentation by reviewing key lessons for moving forward. These include:

- ◆ “divide and conquer” – divide responsibilities for evaluation among different rotations where they are most relevant;
- ◆ recruit early adopters – champions are invaluable to the process;
- ◆ insure the transparency of the process for learners, faculty, and evaluators; and
- ◆ provide bi-directional feedback – faculty to student and student to faculty.

### **Strengthening the Foundation – from Critical Learning Objectives to Improved Assessment**

Donald R. Bordley, MD, professor of Medicine and associate chair for Education at University of Rochester, laid out innovative approaches to teaching and assessment. Dr. Bordley highlighted three guiding principles for this work: Do not start over from scratch; direct faculty observation of residents should always be the cornerstone of assessment; and keep it simple, since faculty and learners will not embrace the new competencies unless doing so fits easily within their busy day.

Closely related to these principles are three key steps for success. Collectively these steps can serve to strengthen the foundation of the teaching and assessment process.

- ◆ Step 1. Include faculty, residents, and other evaluators.
- ◆ Step 2. Define critical learning objectives for the program and for specific rotations.
- ◆ Step 3. Design assessment tools to rate performance on the objectives.

Dr. Bordley shared a few specific tools that have been developed at his institution, as well as some real-life examples of evaluation forms based on these principles and the three-step process.

### **Seamless Surgical Training and Assessment**

Reed G. Williams, PhD, professor and vice chair for Educational Affairs at Southern Illinois University (SIU) School of Medicine, discussed how the department of Surgery residency program is implementing the ACGME general competencies. Dr. Williams highlighted six take-home messages.

- ◆ **Do it for yourself.** Dr. Williams is using the ACGME general competencies as a stimulus to change things internally, not to meet outside requirements. Integrating them into the educational program is something to be done for the good of the program, not just to meet external requirements.
- ◆ **Start small (but have a big plan).** The SIU surgical residency program developed a blueprint that broke the work down in discrete parts; for each ACGME general competency and sub-competency, SIU developed teaching methodologies and measurement instrument(s), and defined who will fill out the evaluation instrument and how often measurement will occur.

- ◆ **Don't kid yourself.** Dr. Williams warned that an all-purpose evaluation instrument would not work. SIU uses a number of instruments, including some they have developed on their own.
- ◆ **You can't evaluate all of the residents all of the time.** Patient satisfaction is assessed only in the trauma clinic, while practice-based improvement logs are completed only for mortality and morbidity cases. Operating room performance ratings are reserved for sentinel cases using forms designed for select procedures at each level of training.
- ◆ **Create zero degrees of separation between training and assessment.** Training and assessment should be inextricably linked. Assessment should be viewed as a training opportunity and as a critical element of the training process. SIU uses a variety of tools that combine training and assessment.
- ◆ **Confront the brutal facts.** Educators need to recognize that some things are bound to fail and thus should be rooted out quickly.

## ***Session II: Understanding and Applying Assessment Tools to Measure and Document Resident Competence***

### **The Assessment Toolbox: Experience to Date**

Patrick Alguire, MD, FACP, director of Education and Career Development at the American College of Physicians, provided an overview of the current ACGME assessment toolbox for assessing four of the six ACGME general competencies: Practice-based Learning and Improvement (PBLI), Systems-based Practice (SBP), Professionalism, and Interpersonal Skills and Communication:

- ◆ **Patient surveys** – Patient surveys are used to assess satisfaction with resident care. They relate to each of the four competencies listed above, and are highly reliable.
- ◆ **Global ratings** – Global ratings evaluate categories of abilities, rather than specific skills, in all six competencies. Reliability varies according to what is being measured and by whom.
- ◆ **360-degree evaluation** – This increasingly popular survey tool is completed by a variety of individuals (e.g., peers, discharge planners, nurses, social workers) within the resident's "sphere." They are highly reliable, but can present some challenges, including constructing an appropriate survey and managing data collection.
- ◆ **Portfolios** – Portfolios are a collection of products prepared by the resident to provide evidence of learning. They are used to evaluate competencies that may be difficult to otherwise gauge, including those related to SBP, PBLI, and Professionalism.
- ◆ **Record review/chart audit** – Reviews of patient records evaluate competencies related to SBP and PBLI. While fairly reliable, they do present some challenges, such as having a sufficient number of records with the condition under study, and having appropriately trained staff.
- ◆ **Checklist evaluation** – Checklists of specific behaviors, activities, or steps that make up a more complex competency can be developed to evaluate competencies related to PBLI and Interpersonal and Communication Skills.
- ◆ **Observed structured clinical examination or OSCE**– OSCEs involve several standardized patient or task encounter stations that are particularly useful to evaluate competencies related to Professionalism and Interpersonal and Communication Skills.

Dr. Alguire concluded by noting that there are many assessment methodologies available to evaluate each of the competencies. While more than one methodology is likely required to assess performance, individual programs can decide what is most practical and affordable in their setting.

### **How Residency Programs Are Changing Their Approach to Assessment**

Susan Swing, PhD, director of the Department of Research at ACGME, built upon Dr. Alguire's remarks by highlighting three distinct ways in which residency programs are changing their approach to assessment. Dr. Swing sees wide variability in how the tools are being implemented, which suggests that a variety of approaches can work for a given program.

- ◆ **Involving other evaluators.** Roughly 200 of the 700 programs that Dr. Swing has reviewed have begun to include "other" evaluators (besides faculty members) in their reviews of resident competence. These other evaluators can include the resident himself or herself, nurses, care coordinators, attending physicians, patients, and/or peers (i.e., other students).
- ◆ **End-of-rotation evaluation form.** These forms are being overhauled to include explicit references to the competencies, typically by adding a handful of questions at the end.
- ◆ **Focused evaluation.** A number of residency programs, especially those in family practice and internal medicine, are using focused evaluations to allow faculty to observe and evaluate resident behavior. Dr. Swing described several tools for focused evaluation.

Dr. Swing concluded by reviewing ACGME's recommendations on assessment within the major general competency areas (see full Proceedings for details). She also urged educators to think about assessment as a multi-component system.

### **Session III: Research Initiatives and Opportunities**

#### **Opportunities for Scholarship – Leveraging Competency Assessment to Study Clinical Impact**

Martha Regan-Smith, MD, EdD, professor of medicine at Dartmouth Medical School and senior associate for health care improvement leadership development at the Center for Evaluative Sciences at Dartmouth, discussed the nascent movement to assess resident performance by looking at the patient care outcomes in teaching settings. Dr. Regan-Smith noted that while most medical educators believe that good education produces good care, the link is not intuitively obvious to outsiders, including the general public. Given the emphasis of the Institute of Medicine (IOM) and other organizations on the importance of improving health care quality, Dr. Regan-Smith believes that educators need to show that their activities related to training physicians make a difference for patients. Unfortunately, it is difficult to make this case.

The trick is to prove that outcomes improve as a result of competency-based education. But Dr. Regan-Smith urged those conducting research in this area to think of outcomes broadly. In addition to biological outcomes, researchers need to consider a balanced set of measures that include functional outcomes, patient satisfaction, and costs (broadly defined).

Dr. Regan-Smith reviewed the findings from six studies in which the impact of medical education on patient outcomes has been evaluated.

- ◆ Mohr, et al.<sup>1</sup> evaluated the impact of integrating PBLI and SBP into a pediatric residency curriculum. Resident improvement teams implemented five changes in the clinical process, which resulted in a significant increase in immunization rates.
- ◆ In Gould et al.<sup>2</sup>, second-year medical students conducted continuous quality improvement projects on diabetes mellitus care, thereby learning PBLI and evidence-based care management. Performance of foot and eye exams increased significantly, while mean glycohemoglobin dropped.
- ◆ Allison et al.<sup>3</sup> evaluated Medicare data from 4,361 hospitals that had acute myocardial infarction (AMI) admissions between February 1994 and July 1995. The study found that admission to a teaching hospital was associated with lower mortality and better outcomes.

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<sup>1</sup> Mohr, JJ, et al. "Integrating Improvement Competencies into Residency Education," *Ambulatory Pediatrics* 2003;3:131-136.

<sup>2</sup> Gould, BE, et al. "Improved Patient Care Outcomes by Teaching Quality Improvement to Medical Students in Community-based Practices," *Academic Medicine* 2002;77:1011-1018.

<sup>3</sup> Allison JJ et al. "Relationship of Hospital Teaching Status with Quality of Care and Mortality for Medicare Patients with Acute MI. *Journal of the American Medical Association* 2000; 284:1256-1262.

- ◆ Levy et al.<sup>4</sup> evaluated the association of physician education with prescription of beta-blockers after discharge for survivors of heart attack. Cardiologists, recent graduates, and graduates of specific medical schools were found to be more likely to prescribe beta-blockers.
- ◆ Regan-Smith et al.<sup>5</sup> conducted a six-month observational study in a clerkship in gynecology. The study found that patient satisfaction improved and average patient waiting times and clinic half-day overruns decreased after implementing an innovative teaching model.
- ◆ Clark et al.<sup>6</sup> found that pediatricians who attended an interactive seminar based on self-regulation theory had shorter patient-doctor encounters, improved patient-doctor communication and physician prescribing patterns, and more favorable clinical patient responses to physician actions than did non-attendees, leading to lower health care utilization.

Dr. Regan-Smith concluded that medical education teaching innovations can provide improved patient outcomes if the evidence is sought out and identified.

### **Assessing Outcomes of Medical Education**

Robyn Tamblyn, PhD, associate professor of Medicine, Epidemiology, and Biostatistics at McGill University and a scientist at the Canadian Institutes of Health Research, discussed the reasons for the relative dearth of research on outcomes linked to medical education and her strategies for promoting such research. One key reason is skepticism about the relationship between training and practice. In addition, there is a lack of funding and methodologies for such research. Finally, the lack of evidence thus far on the impact of medical education is itself a barrier to further research.

Dr. Tamblyn offered her advice on where and how to get started on such research and shared her organization's strategies for doing so. The first critical step is to pick the right topic for research. She highlighted five criteria for choosing a research topic: a "hot" area, such as medical errors; an area with identified quality problems and variations in practice patterns; an area where the link between practice and outcome has been established; an area where practice patterns can be linked to individual physicians; and an area with a close temporal link between practice and outcomes.

Dr. Tamblyn has focused much of her work in the area of prescribing, which meets all of these criteria. Her work on suboptimal management of NSAID therapy has found that community physicians are more likely than those working in academic medical centers to misuse NSAIDs. She has also found that graduates of certain medical schools are more likely to use these drugs incorrectly.<sup>7</sup> Her work in the area of long-acting sedatives suggests that most excess prescribing came from graduates of one Canadian medical school (all of her research looked at graduates of Canadian schools), leading her to believe that something about training at that school is responsible for the inappropriate use.<sup>8</sup> With respect to beta-blocker prescribing, graduates of one medical school appear to do a much better job of prescribing the drugs for secondary prevention of heart attacks, while graduates of another school do quite poorly.<sup>9</sup> The reasons for these patterns are not clear and need to be tested.

In another example of research examining links between medical education and patient care outcomes, Dr. Tamblyn has also conducted research in the area of breast cancer screening and treatment. Studies indicate that graduates of certain medical schools were much more likely to use breast-conserving surgery

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<sup>4</sup> Levy AR et al. "The Effect of Physicians' Training on Prescribing Beta-Blockers for Secondary Prevention of Myocardial Infarction in the Elderly," *AEP* 2002;12:86-89.

<sup>5</sup> Regan-Smith M et al. "An Efficient and Effective Teaching Model for Ambulatory Education," *Academic Medicine* 2002;77:593-599.

<sup>6</sup> Clark NM et al. "Impact of Education for Physicians on Patient Outcomes," *Pediatrics* 1998;101:831-836.

<sup>7</sup> Tamblyn et al. *Annals of Internal Medicine* 1997.

<sup>8</sup> Monette et al. 4976 Quebec Physicians Prescribing for Elderly Patients in 1990. *Evaluation and the Health Professions* 1997.

<sup>9</sup> Levy et al. *Annals of Epidemiology* 2002.

than are graduates of others.<sup>10</sup> Dr. Tamblyn has also found a strong association between licensing exam scores and mammography screening rates during the first five to eight years of primary practice.<sup>11</sup>

## **Developing Competent Teaching Systems for Patients and Learners**

Linda A. Headrick, MD, MS, professor of Medicine and senior associate dean for Education and Faculty Development at the University of Missouri-Columbia, focused on the link between the teaching clinical system and the system's impact on patient outcomes. It is easy for clinical leaders to forget that clinical systems must serve both patients and learners simultaneously. Losing sight of this fact can lead to inadequately informed decisions with unintended consequences, and to competition and antagonism between educational and clinical leaders.

Too often educators and clinicians are working independently to improve the system. The key is for both clinicians and educators to work together to produce a system that generates great outcomes for both patients and learners. To that end, Dr. Headrick and colleagues have been conducting research on various systems improvements that can lead to better patient outcomes. One 1992 study looked at strategies for improving compliance with the National Cholesterol Education Program Guidelines developed in the early 1990s.<sup>12</sup> During this five-week intervention, residents attended a standard lecture on the guide lines, and then were broken into three different groups: one that received patient-specific reminders, one that received generic chart reminders, and one that received no chart reminders.

The study showed that, after three months, those who attended the lecture were more likely to know about the guidelines. All three groups improved their lipid screening and management modestly, but surprisingly there was no real difference across the groups, suggesting that the chart reminders had no impact. Dr. Headrick believes that this study shows that while knowledge improved, the program failed to create the type of *system* in which both learner and patient were well served. The key going forward is to create that type of system. Measurement is critical, and Dr. Headrick reiterated the need for use of balanced measures of patient and learner outcomes.

## **Research Considerations**

Dr. Regan-Smith led a panel of experts who discussed research considerations for studying the impact of medical education approaches on health outcomes.

### *AHRQ's Role and Perspective*

Helen Burstin, MD, MPH, director of the Center for Primary Care, Prevention, and Clinical Partnerships at the Agency for Healthcare Research and Quality (AHRQ), called for the establishment of a clearer link between practitioner performance and education. Some earlier efforts have set the stage for further research in the area, including a 1993 agenda-setting conference that led to the creation of centers for medical education research. Today the push for research in this area is coming from a variety of sources, including AHRQ, ACGME, the government, foundations, and other stakeholders. In addition, researchers are getting better at measuring outcomes and quality, in part due to advances in information technology.

Going forward, Dr. Burstin believes that medical education research needs to demonstrate that trainees do the following: become lifelong learners; identify their own inadequacies; obtain new knowledge and skills; and translate knowledge into care improvement, something that too often fails to occur today. Several challenges exist, including the latency of the educational effect and the many confounding factors that relate to the student, the health system, patients, and the training itself. Despite these challenges, Dr. Burstin believes that conducting such research and establishing the link between medical education and outcomes is possible. She advocated a multi-method approach that brings together medical education and health services researchers across institutions, using new statistical methods that include both quantitative and qualitative assessments of performance. In addition to focusing on systems change – a major priority

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<sup>10</sup> N Shen Doctoral Dissertation 2003.

<sup>11</sup> Tamblyn et al. *Journal of the American Medical Association* 1998,2002.

<sup>12</sup> Headrick LA, Speroff T, Pelecanos HI, Cebul RD. "Efforts to Improve Compliance with the National Cholesterol Education Program Guidelines: Results of an RCT," *Archives of Internal Medicine* 1992;152:2490-2.

today – she also urged evaluation of the role of individual performance. Ultimately, this evaluation needs to drive curriculum development.

Medical education and training represents an important part of AHRQ's work. If grant proposals are framed in the context of important priorities for the agency (e.g., safety and quality issues), there are funds available for medical education research.

Dr. Burstin is also beginning to see grant proposals that pull together staff focused on training and those focused on quality improvement within organizations. She encouraged those developing such proposals to form partnerships that include medical educators, outcomes researchers, and quality experts at the same table, and reiterated that those proposals – even "risky" ones testing new ideas – should be appropriately framed within the field of quality assessment and improvement.

#### *Research Issues from a Researcher's Perspective*

Sheldon Greenfield, MD, former director of The Primary Care Outcomes Research Group at Tufts University School of Medicine and now Donald Bren Professor of Medicine, University of California College of Medicine in Irvine, offered the perspective of a health services researcher with clinical and teaching ties. Dr. Greenfield suggested two reasons for the lack of research on the outcomes of education. First, it is logistically difficult to conduct the research; and second, there are major differences between education evaluation and outcomes research that need to be reconciled before research on examining the effectiveness of training on practice behaviors and patient outcomes can proceed. (See full Proceedings for details.) Fortunately, some advances have been made, e.g., improvements in information technology, measurement methodologies, training tools that have reduced the barriers, thus facilitating research on the link between training and practice. Because of these promising advances, Dr. Greenfield believes that the time has come for education research and outcomes research to come together, as both fields will benefit from the union.

#### **Session IV: First Things First--Faculty Development Back Home**

Karen Bradley, DMD, MBA, associate director of Managed Care, CME, and Faculty Development at University of Florida College of Medicine, and Robin Richman, MD, FACOG, chief medical officer at Tufts Health Care Institute, discussed one of the most important immediate tasks facing medical education leaders – faculty development. Without buy-in from the faculty, medical education reform is not possible. The more faculty members understand the competencies and how they fit into the medical education continuum, the more likely they are to incorporate the competencies into their everyday activities by adapting and/or changing what they are already doing.

At University of Florida College of Medicine, the senior associate dean, who views the ACGME general competencies as the appropriate “currency” for medical education, spearheaded faculty development. Rather than "mandating" change, the senior associate dean believes the better strategy is to provide the resources and training necessary to get faculty buy-in for reform, so that they will be willing, even active, participants in promoting change. The school's primary objective was to engage the program directors by giving them a baseline introduction to the competencies and to the appropriate evaluation processes, with a focus on two of the competencies that were most unfamiliar to the program directors – SBP and PBLI.

Dr. Bradley reviewed a number of key steps and implementation decisions related to the program, including conducting a needs assessment survey; recruiting "champions" to spearhead the effort; and partnering with THCI to assist with agenda development, program organization and execution, and fundraising. All 76 of University of Florida College of Medicine's residency program directors were invited to attend, along with the GME leaders and program directors from other institutions in the southeastern U.S. The hope was that representation from multiple institutions and specialties would facilitate the sharing of ideas. The quality improvement staffs from the system's two hospitals were also invited in an effort to spur collaborative efforts between the hospital and the school.

Dr. Richman shared some sample objectives from the program, which lay out key tasks that participants will be able to accomplish upon completion (see full Proceedings for details). The one-day session, which THCI conducted in conjunction with University of Florida College of Medicine, included a plenary session, workshops, and a group discussion, as outlined below:

- ◆ Plenary session on general competencies and CBE, designed to make sure everyone was on the same page and “speaking the same language.”
- ◆ Case-based workshop on the PBLI and SBP competencies and teaching opportunities. This session allowed participants to see how everyday clinical cases can be used to teach the competencies.
- ◆ Workshop on best practices and resources in SBP and PBLI training. This session allowed the sharing of best practices and of future plans.
- ◆ Full-group workshop on principles, models, and instruments for assessment.
- ◆ Full-group discussion on integrating CBE and the competencies in each participant’s program.

Participants were asked to write down three ideas they wanted to implement upon their return home. The ideas were collected and mailed to participants a month later as a reminder.

The program evaluation indicated that participants felt that it did a reasonably good job in conveying the knowledge that participants needed to achieve the objectives set out at the beginning of the day. The most rewarding aspect of the results was that 47 out of 53 participants indicated that they intended to take specific action steps as a result of the conference. Looking ahead, the school plans to build on the success of the conference. One major effort relates to organizing data collection, while a second involves additional workshops to promote faculty development.