Advisory Committee on Interdisciplinary, Community-Based Linkages

Continuing Education, Professional Development, and Lifelong Learning for the 21st Century Health Care Workforce
February 24-25, 2011
Hyatt Regency Bethesda Hotel, Bethesda, Maryland

Meeting Minutes

Attendance

ACICBL Members:
Jane Hamel-Lambert, PhD, MBA (Committee Chairperson)
Robert J. Alpino, MIA
Helen M. Fernandez, MD, MPH
David R. Garr, MD
Patricia A. Hageman, PT, PhD
Beth D. Jarrett, DPM
Linda J. Kanzleiter, MPsSc, DEd
Susan Kwan, MPH
Carmen L. Morano, PhD
James C. Norton, PhD
Elyse A. Perweiler, RN, MA, MPP
Sandra Y. Pope, MSW
Linda J. Redford, RN, PhD
Cecilia Rokusek EdD, RD
Ronald H. Rozensky, PhD, ABPP
Jay H. Shubrook Jr., DO, FACOFP, FAAFP
Carl M. Toney, PA
Laurie Wylie, MA, RN, SNP

Health Resources and Services Administration (HRSA) Staff:
Joan Weiss, PhD, RN, CRNP, Designated Federal Official, ACICBL and Director, Division of Public Health and Interdisciplinary Education (DPHIE)
Louis Coccodrilli, MPH, RPh, Branch Chief/Area Health Education Centers Program, DPHIE
Norma J. Hatot, CAPT, United States Public Health Service, Senior Program Officer/DPHIE
Madeleine Hess, PhD, RN, Deputy Director/DPHIE
Patrick Stephens, Technical Writer/DPHIE

Invited Guests:
Dave Davis, MD, CCFP, FACP
Eric C. Holmboe, MD

Jorge G. Ruiz, MD, FACP

Public Guests:
Melissa Ray, National League of Nursing

Format of Minutes

These minutes consist of four sections:

I. Introduction
II. Expert Presentations
III. Proposed Recommendations and Next Steps
IV. Committee Business

I. Introduction

Dr. Joan Weiss, Designated Federal Official, welcomed Committee members and discussed the purpose of the meeting. She extended congratulations to Laurie Wylie, who will be starting a new position with HRSA in March 2011.

Dr. Weiss provided details on an invitational meeting on the development of interprofessional competencies held on February 16-17, 2011. The meeting was organized by HRSA, along with the Macy Foundation, the American Association of Colleges of Nursing (AACN), the Association of American Medical Colleges (AAMC), and others. During the meeting, participants reviewed existing competencies and provided feedback on recommendations related to team-based education. An action plan will be developed to move the competencies forward.

Dr. Weiss provided an update on the status of the Committee's reports. Both the Ninth and Tenth Annual Reports have been completed and are ready for the clearance process . There was some discussion for one more review of the Ninth Annual Report, which will be accommodated.
Dr. Jane Hamel-Lambert, Committee Chairperson, welcomed Committee members and reviewed the agenda for the next two days.

II. Expert Presentations

Continuing Education in the Health Professions: Research and Practice Considerations

Dave Davis, MD, CCFP, FACPCFP
Senior Director, Continuing Education and Performance Improvement, Association of American Medical Colleges, Washington, DC
Adjunct Professor, Family and Community Medicine and Health Policy Management and Evaluation, University of Toronto

Dr. Davis opened his presentation by emphasizing the challenge facing clinicians in terms of the sheer volume of information that must be assimilated. For example, at least 25 guidelines related to hypertension have been released in the last five years. To illustrate the challenge faced by clinicians he presented the case of Vanessa Young, a young girl diagnosed with a mild eating disorder in 1998. Her family doctor prescribed cisapride, a drug whose release was accompanied by a massive multimedia launch in 1990. From 1992-1998, there were sporadic findings of cardiac arrhythmias; these findings were released in drug company bulletins and federal warnings. Vanessa died suddenly in 2000. During a coroner's inquest, the family doctor reported his inability to keep up with the information overload, even though he frequently attended CME events. This exemplifies the gap that exists between best available evidence and actual practice.

The gap has been highlighted over the past decade in numerous Institute of Medicine (IOM) reports. In particular, the 2009 report, *Redesigning Continuing Education in the Health Professions,* identified major flaws in the way continuing education is conducted, financed, regulated, and evaluated. Important recommendations included:

- Continuing education efforts should bring health professionals from various disciplines together into carefully tailored learning environments;
- A new comprehensive vision of professional development is needed to replace the culture that now envelops continuing education in health care; and
- Establishing a national interprofessional continuing education institute is a promising way to foster improvement in continuing education for health professionals.

Another important report, *Lifelong Learning in Medicine and Nursing*, which was released by AACN/AAMC in 2010, calls for education from admission to a health professions education program to retirement. This education should incorporate:

- Lifelong learning skills;
- Interprofessional and team-based education and practice;
- Tested, outcomes-based continuing education methods; and
- Linkages between health care education and delivery and the workplace.

The report calls for collaboration across various stakeholders—academic institutions, health care systems, accrediting bodies, licensing and credentialing boards, funders, and others.

Lifelong Learning Skills

- Critical appraisal, literature searching
- Understanding of sources of "knowledge," such as guidelines, evidence-based medicine statements, and reminders
- Knowledge management (e.g., literature retrieval, critical appraisal, knowledge application)
- Ability for self-assessment and reflection

According to Dr. Davis, the model for successful continuing education is centered around the patient and includes four key elements;

- Clinicians who are collaborative, competent, and up-to-date;
- Improved educational methods;

- An ample base of evidence; and
- A seamless, supportive health care and regulatory environment.

The success of this model is based on the clinician's ability to assess the evidence. Clinicians must be able to look at a study and determine the significance—asking important questions about the methodology, possible bias, and applicability across various settings.
The workplace is an especially important, and often overlooked, setting where learning can take place. However, the mindset of many clinicians must change for the full potential to be realized. Clinicians must feel comfortable both sharing and accepting information. In addition, time must be built into the delivery of care for clinicians to learn from their experiences.

Discussion Point

- The disciplinary silos and the culture that emphasizes seniority create barriers to team and point-of-care learning.
- Competency is not necessarily linked to time in practice (i.e., clinical hours). Knowledge and skill are the key elements.
- Faculty development is necessary (including training for community-based preceptors). Effective teaching methods must be integrated.
- It is necessary to educate providers on where they can find evidence-based information (e.g., Agency for Healthcare Research and Quality [AHRQ]) and to help them develop clinical appraisal skills.
- The way many people learn (e.g., reviewing literature, learning at the point-of-care) is not eligible for continuing education credit—this is an important consideration in developing new methods.
- Electronic health records (and the data contained in them) can serve as valuable learning tools.
- Promoting interdisciplinary continuing education could streamline the process, promote team work, and be more cost effective.
- Reimbursement is a significant barrier to promoting learning in the workplace.

Virtual Patients in Continuing Education

Jorge G. Ruiz, MD, FACP
Associate Professor of Clinical Medicine, Director, Geriatrics Fellowship Program, University of Miami, Miller School of Medicine

Virtual patients have been used for many years—the first virtual patient was developed by nursing students in 1966. Essentially, a virtual patient is a simulation. However, today virtual patients are associated with technology. Dr. Ruiz provided the following definition: *Virtual patients are computer-based programs that simulate real-life clinical scenarios or cases in which the learner acts as a health care professional obtaining a history and physical exam and making diagnostic and therapeutic decisions.*

Virtual patients optimize many aspects of effective continuing education. They utilize a "live" multimedia approach. They require interactive techniques and provide multiple exposures to problems and information. They can also build psychomotor and procedural skills. Virtual patients are being developed and made available via a wide range of organizations to address various patient scenarios (e.g., POGOe, CLIPP-SIMPLE, academic journals, and professional societies).

With virtual patients, case-based learning is one approach in which the methodology presents a problem, task, or situation that is context-based, relevant, realistic, and somewhat open-ended. Learners can build on their prior experience. It also allows the learner to control the experience. An important aspect of case-based learning is that it engages the learner so that they "feel" it is necessary to learn the information.

Virtual Learning

Advantages

- Improved patient safety
- Learner-centered
- Deliberate practice
- Standardized instruction and assessment
- Diverse settings
- Less threatening
- Economies of scale
- Practice in low-stakes environment
- Can be done anytime, anywhere
- Allows adaptation to the individual learner
- Provides clinicians access to rare cases

Challenges

- Lack of standardization
- Resource intensive (e.g., based on small groups, heavy faculty involvement)
- Restrictive
- Multimedia challenges

There are various conceptual frameworks that can be applied to virtual learning. These include:

- Script Theory: This theory is based on learning being a function of activity, context, and culture in which learners acquire, develop, and use cognitive tools in an authentic domain. Essentially, multiple reviews of a situation or scenario build expertise—the learner builds knowledge (scripts) that can be drawn upon in the future.
- Zone of Proximal Development: This theory is based on training for any scenario (e.g., pilots landing a jet plane on the Hudson river).

The use of virtual patients can be applied during various learning scenarios. For example, virtual patients can be used in small-group continuing education, continuing education for teams, via use of PDAs, and in online learning experiences. Virtual patients are also being used in assessment, such as the United States Medical Licensing Examination (USMLE) case simulation. In addition, virtual patients can be used in combination with other learning experiences. For example, a learner may take a history from a standardized patient and then conduct the exam on a mannequin. This hybrid approach is especially appropriate for novice learners who may not be able to suspend disbelief.

There are approximately 700 articles related to virtual patients. Most of this research has focused on students in training and not continuing education. The research indicates that the impact of these educational interventions is consistent with online learning in other fields. Qualitative studies have identified various advantages associated with virtual patients. These include: opportunity for independent learning; flexibility of scheduling; an efficient method for building a library of scripts; and low stress. However, the findings note that virtual patients should not replace education based on human patients. Dr. Ruiz noted that more research is necessary into the effectiveness of virtual patients and various types of interventions such as how to integrate virtual patients into curricula, instructional design, learners (e.g., individual vs. group, learner characteristics), and assessment and evaluation of interventions.

Virtual patients are expensive to develop. To develop a case, content experts must devote 40-60 hours. There is also peer review and editorial input. The technology is expensive but this cost is coming down over time. Dr. Ruiz estimates that the cost of developing a virtual patient is $10,000 to $50,000.

Discussion Points

- While virtual patients can provide an opportunity for adaptive learning (i.e., tailoring the learning experience to the needs of the learner), it is necessary to identify the desired competencies. While this is feasible, it would be necessary to create a "branching" virtual patient or direct the learner to lower level tutorials.
- Some allied health professions, such as dieticians, have moved toward the e-portfolio. Students participate because it is a requirement. However, they are not provided guidance on maintaining their portfolios over time. There is no follow up—no one reviews the portfolio once the student enters practice.
- E-portfolios could be linked to licensure renewals. It is important to integrate this form of self-assessment into the educational process. Accrediting bodies can promote this type of assessment.
- Reflection can be a difficult concept for students. They often think it is tied to their evaluation. It is necessary to separate reflection from assessment.

Evaluation/Outcomes in Continuing Professional Development

Eric C. Holmboe, MD
Senior Vice President and Chief Medical Officer, American Board of Internal Medicine (ABIM) and ABIM Foundation
Adjunct Professor, Yale University

Clinicians have a responsibility to the public to be current on new developments on the effective treatment of patients and to maintain their competence as care providers. Staying current can be a daunting task—10,000 to 15,000 scientific articles are published each year. Such self- regulation of knowledge and skills is dependent on effective and credible assessment.

There are other compelling reasons to assess practicing physicians. Most importantly, assessment often drives learning, even though education and assessment are often

conducted separately. However, it is difficult to evaluate clinicians once they enter practice. The challenges include:

- Lack of "formal" curriculum for practice;
- Decay of competence over time;
- Inaccuracy of "self-assessment" in isolation;
- Performance measurement and attribution;
- Influence of Microsystems (e.g., various workplaces);
- Increased time demands reduces time for learning and assessment; and
- Lack of structured assessment.

Research findings support the need for lifelong assessment. Studies have shown that clinical experience does not necessarily result in better outcomes or improved skills. In addition, fewer than 30 percent of physicians examine their own performance. Data and research indicate that physicians are poor at independent and accurate self-assessment.

Research by the AHRQ indicates that audit and feedback are established approaches to improving the quality of care. Also important in measuring performance are patient experience (e.g., patient surveys) and consideration of the system in which the clinician works.

There are various factors involved in the assessment of clinical performance. These include clinicians, patients, and systems. In addition, performance is dependent on multiple competencies (e.g., diagnostic reasoning, clinical care, communication with patients and peers, ability to work within a system, professionalism). However, different types of data and measures are needed to assess these factors and ideally, these factors are tracked over time.

Dr. Holmboe recommended that multiple methods of assessment be used since there is no single tool that can evaluate all the components of competence. If possible, assessment methods should be non-redundant and embedded in the work of the clinician.

Assessment: An Example

Dr. Holmboe provided the Comprehensive Care Project as an example of an effort to assess physicians. The study collected data from almost 250 general internists. The findings indicated that there was a great diversity in performance. In particular, lower performing physicians were those that had performed poorly in residency and on certification exams. Solo practice also appeared to be an indicator of poorer performance.

ABIM has developed Practice Improvement Modules (PIMs), which are web-based tools that guide physicians through the collection of patient data to identify gaps in care and to ultimately implement a quality improvement plan for their practices. Seventeen (17) modules are available and can be used in any setting (e.g., ambulatory). They are also used in training programs.

Another tool is the portfolio, which can incorporate various assessment methods such as simulations, multisource feedback, evidence-based practice logs, secure exams, and medical record audits.

Assessments can also be conducted at the team level. Important teamwork competencies include:

- Team leadership;
- Mutual performance monitoring;
- Back-up behavior;
- Adaptability;
- Team/collective orientation;
- Shared mental models;
- Mutual trust; and
- Closed-loop communication.

The needs of practitioners in solo and small group practices are an important consideration in terms of assessment and ensuring that clinicians are up-to-date with evidence-based practice. Solo and dual practices are still the predominant practice mode and most practices have four or fewer physicians. These practitioners cannot benefit from the expertise of other practitioners that is often available via work-based learning opportunities in larger settings.

Discussion Points

- While the amount of time in practice is not necessarily equated with better performance, the number of times a clinician performs a procedure can build expertise. "Deliberative practice"—thinking through how to improve performance—can increase expertise.
- Current training practices often provide random experiences. Trainees only see the cases that come through the emergency room. The necessary experiences should be sought out. Often they are available through community-based training and simulation.
- The way clinicians work together must be re-designed. Physicians need to be taught teamwork skills. Other clinicians must be allowed to work to the full extent of their licenses. Physicians do not need to do everything.
- Practicing clinicians focus their learning on recertification—once recertified, they take a break. The learning must be continuous. A more effective approach would be shorter assessments conducted every few years.
- There is variation across disciplines in terms of the type of training received. For example, nurses leave school unprepared for practice and the workplace is not set up to provide the necessary training. Some States and/or employers do not require continuing education. Models are needed to provide training in these situations.
- New methods are necessary to assess team-based care as it is generally not addressed in certification exams. Such an assessment could focus on hospital-based practice and address safety and teamwork.

III. Proposed Recommendations and Next Steps

Crafting Recommendations
Dr. Weiss reviewed the process for crafting recommendations and reminded Committee members that since only four recommendations should be included in each report, issues must be prioritized. She also announced that some of the presenters from the last meeting have offered to review the recommendations developed by the Committee.

Dr. Weiss encouraged Committee members to craft SMART recommendations.

S Specific
M Measurable
A Achievable
R Relevant
T Time Bound

Proposed Recommendations

Committee members identified four priority areas and then crafted recommendations. Multiple versions of the recommendations were discussed during the development process. The final versions are presented below.

Recommendation l: Continuing Professional Development Institute
The Secretary of the Department of Health and Human Services should appoint an ACICBL member to serve on the IOM-recommended Continuing Professional Development Institute (CPDI) planning committee. The ACICBL members are experts in the area of interprofessional education and practice, and as a body should be used as a resource, which can make significant contributions to the development of the proposed CPDI. The ACICBL represents Title VII, Part D programs whose core values and functions are aligned with the proposed tenets of the CPDI.

For rationale:

- A single point of reference is needed to advance continuing education.

Recommendation 2: Re-Engineering Continuing Education in Title VII, Part D Programs
The Congress and HRSA should re-engineer lifelong learning and continuing professional development activities within Title VII, Part D programs to achieve the five tenets of the IOM report, *Bridge to Quality*. The Title VII, Part D academic-community partnerships offer unique training opportunities, which should be leveraged and expanded to develop, assess, and disseminate innovative models of interprofessional lifelong education.

For rationale:

- Various elements should be incorporated including continuing professional development, evidence-based research, accreditation, pre-service education, and the evaluation of continuing education programs.
- These types of efforts focus on quality of care and translate into cost savings.
- The unique role of Title VII, Part D programs in the community and how grantees can engage community-based partners should be discussed.
- Opportunities for partnerships should be extended to patients, families, and caregivers.
- Discuss how the necessary changes will be driven by the transforming health care system (i.e., Affordable Care Act).

Recommendation 3: Assessment
HRSA should convene public-private partners, representative leadership of Title VII, Part D programs, and other stakeholders to collaborate to develop, refine, implement, and disseminate innovative and community-based methods for assessment of interprofessional competencies as part of lifelong learning and continuing professional development. Additionally, the All Advisory Committee should be encouraged to disseminate effective methodologies to other health professions.

For rationale:
- HRSA's activities could take various forms, such as a meeting of stakeholders (e.g., accrediting bodies), conference calls, or the development and evaluation of assessment tools.
- The stakeholders should be identified in the rationale.
- Any tools developed should be piloted by organizations outside of Title VII, Part D as this is essential for obtaining buy in.
- Build on activities to develop and disseminate interprofessional competencies.

Recommendation 4: Technology
HRSA should build infrastructure and capacity for interprofessional and team-based e-learning across Title VII, Part D programs to enable them to explore, evaluate, and disseminate these technologies to foster lifelong learning.

For rationale:
- Given that these methods are time and labor intensive and very costly, collaborative models should be encouraged so that schools can work together to develop the models. This collaboration/pooling of resources could be done at the regional level.
- Address learning theory and instructional design.
- Identify dissemination and collaboration methods.
- Existing e-learning activities by Title VII, Part D grantees should be inventoried.
- Faculty development for the use of e-learning methods is necessary. This should include community-based preceptors.

Next Steps

Writing Committees
Committee members volunteered to serve on recommendation-specific writing committees. Each committee will draft the rationale for the recommendation.

Recommendation 1: Jane Hamel-Lambert, Patricia Hageman, Barbara Logan
Recommendation 2: David Garr, Beth Jarrett, Linda Kanzleiter, Laurie Wylie
Recommendation 3: Helen Fernandez, Susan Kwan, James Norton, Cecilia Rokusek, Carl Toney
Recommendation 4: Robert Alpino, Carmen Moreno, Linda Redford, Ronald Rozensky

IV.Committee Business

Election of Committee Chairperson/Vice Chairperson
Dr. Linda Redford was elected Chairperson of the Committee; Dr. Carmen Morano was elected Vice Chairperson.

Ninth Report
Dr. Rozensky expressed concern that the discussion related to CMS and reimbursement has been deleted from the report. The Committee voted to move the report forward as is.

Expression of Gratitude
Dr. Weiss noted that 10 of the current 21 members will complete their terms by March 30, 2011. She thanked these members for their service and noted that a special gesture of gratitude will be forthcoming from Secretary Sebelius. The meeting of the All Advisory Committees is projected for November 9, 2011. The next scheduled meeting schedule of the ACICBL remains pending the appointment of new members, but the three required meetings for 2011 have been satisfied.