Best Practices for Designing Continuing Interprofessional Education

Sue Rose, MPH

Medical Education

Population health changes have resulted in new public health challenges for our clinicians. Delivery systems attempting to meet the needs of acute and chronic care have become larger and more complex. There is a greater reliance on technology and a severe shortage of health workforce resources to address primary care demands.[1] The need for effective interprofessional collaboration and teamwork to achieve better health outcomes is evident.

Interprofessional education (IPE) for collaborative patient-centered practice is considered an important way to ensure that health care providers have the necessary understanding, knowledge, training and tools to enable them to implement strategies designed to promote the active participation of each profession in patient care.[2] Additionally, IPE is a collaborative approach to develop healthcare students as future interprofessional team members and a recommendation suggested by National Academy of Medicine. Training future healthcare providers to work in such teams will help facilitate this model resulting in improved healthcare outcomes for patients.[3]

Continuing Interprofessional Development (CiPD) has become an increasingly important component of healthcare education; these activities have been designed to improve our clinician faculty effectiveness at all levels of the educational continuum.[2] To teach CiPD activities in a more effective and satisfactory manner and promote organizational change and development, there are unique aspects to planning to which must be adhered.

Best Practices to Designing CiPD:

1) **A Shared Vision:** Support IPE by incorporating a shared vision of multiple professions or divisions.
    a. Is your target audience interprofessional?
    b. What are the interprofessional competencies that should be addressed to meet this vision?
2) **Analyze the practice gaps:** This gap analysis should be conducted by clinicians who are representative of the interprofessional target audience.
    a. Identify gaps in teamwork and team-based care that affect outcomes of care. This provides the foundation for CiPD to address the identified gaps. [4]
3) **Identify the barriers:** Interprofessional barriers to practice change may include limited awareness of each other's knowledge, skills, and abilities relevant to team-based practice or poor communication between health care professionals.[4]
    a. Identified barriers, along with strategies for overcoming those barriers, should be utilized in developing you CiPD educational content.[4]
4) **Articulate the educational goals and objectives:** The goals and objectives for CiPD focus more on preparing health professionals to actually work together in teams in order to improve patient outcomes and safety.

    a. Interprofessional competency development should be integrated into the learning objectives.

5) **Design and implement the educational activities:** The design and implementation of the CiPD learning activity is based on the learning goals and objectives and incorporate interprofessional competencies into the teaching.
    a. What learning theories will best achieve these learning goals and outcomes?
6) **Evaluate the educational activities:** Changes in individual and team-based practice performance are measured using interprofessional competencies.
    a. Determine the value of the learning process, measure that learning occurred, and assess the changes in competence, performance and/or patient outcomes that have been achieved.[4]

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Integrating Interprofessional Education into Continuing Education: A Planning Process for Continuing Interprofessional Education Programs

JOHN A. OWEN, EDD, MSC; MADELINE H. SCHMITT, PHD, RN

Informal continuing interprofessional education (CIPE) can be traced back decades in the United States; however, interest in formal CIPE is recent. Interprofessional education (IPE) now is recognized as an important component of new approaches to continuing education (CE) that are needed to increase health professionals' ability to improve outcomes of care. Although there are examples of CIPE programs that are being successfully implemented, a clearly articulated, step-by-step planning process to help guide educators in providing effective CIPE programs is lacking. This lack of guidance poses a significant barrier to increasing the number of CIPE programs in the United States. In this article, we describe a process for developing, implementing, and evaluating CIPE programs using the familiar systematic CE planning process. Limitations of traditional CE also are addressed, and the relationship between CIPE and other new approaches to CE is clarified. Four examples of CIPE programs are provided to illustrate how the planning process can be adapted to include IPE, while implementing recommended changes in traditional CE offerings. The article is concluded with a discussion of some of the challenges that will face CE educators in moving toward a new vision of CE integrated with IPE.

Key Words: *interprofessional education (IPE), continuing interprofessional education (CIPE), continuing education (CE), continuing medical education (CME), interprofessional practice (IPP), educational planning process, integrative approach*

Introduction

It has been argued that informal continuing interprofessional education (CIPE) was the earliest form of interprofessional education (IPE) dating back decades in the United States.[1] It is only recently, however, that clear distinctions have been made between formal postlicensure IPE (ie, CIPE), and interprofessional practice changes.[2] Formal CIPE now has become a focal point of discussions about the changes needed in both continuing medical education (CME) and continuing education (CE) in other health professions.[3–7] These discussions have emerged from a reconsideration of the limitations of traditional CME for effecting practice change[3,6,7] and improving the safety and quality of care in US health care delivery systems,[8–10] and from the broader consideration of the importance of IPE learning, beginning with learning prelicensure and continuing into CME/CE[6] (see FIGURE 1). The Institute of Medicine report *Redesigning Continuing Education in the Health Professions,* emphasized that

> effective coordination and use of interprofessional teams of practitioners in the care setting requires practice and the development of a collaborative skill set that is not routinely taught at other levels of health professions education.[7(p 94)]

One of the numerous recommendations in this report focused on the vital role of CE. Continuing education efforts should bring health professionals from various disciplines together in carefully tailored learning environments. As team-based health care delivery becomes increasingly important, such interprofessional efforts will enable participants to learn both individually and as collaborative members of a team, with a common goal of improving patient outcomes.[7]

Disclosures: The authors would like to acknowledge funding for the University of Virginia CIPE program that was provided by Pfizer, Inc. The authors do not have an interest in selling a technology, program, product, and/or service to CME/CE/CPD professionals.

Dr. Owen: CME Faculty Coordinator, University of Virginia, School of Medicine and School of Nursing; *Dr. Schmitt:* Professor Emerita, University of Rochester, School of Nursing.

Correspondence: John A. Owen, University of Virginia, Office of Continuing Medical Education, McKim Hall, Room G166, P.O. Box 800711, Charlottesville, VA 22908; e-mail: jao2b@virginia.edu

DOI: 10.1002/chp.21173

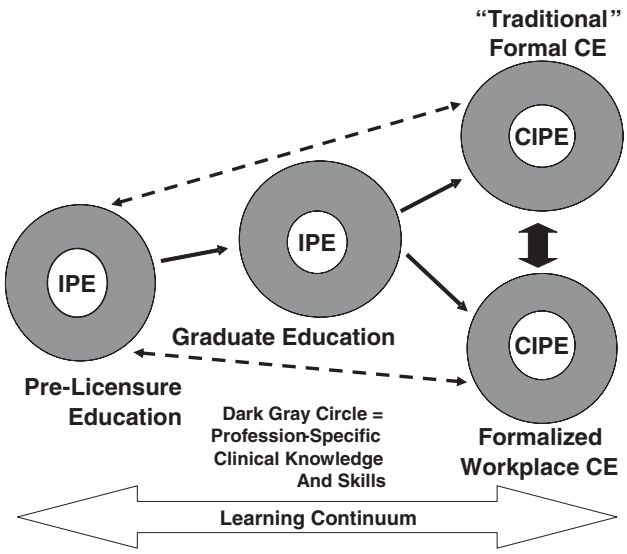

FIGURE 1. An IPE and CIPE Enhanced Professional Education Continuum

IPE occurs when 2 or more health and social care professions are interactively learning "about, from and with each other."[11] This description applies both to programs in health professions schools and to formal CIPE efforts. CIPE, as described in this article, incorporates this interactive learning model as well as the other recommended changes in health professions' CE, to include (1) a decreased focus on didactic presentations as the major format for CE, (2) an increased focus on workplace CE for practitioners, (3) a heightened attention to CE as a way to improve outcome-linked performance in the clinical setting, and (4) an emphasis on lifelong learning skills.[6] IPE-enhanced CE planning processes address both interprofessional and professional competencies, as well as performance in practice. Interprofessional competencies build on the foundation of each profession's disciplinary competencies as taught within the professions.[12] The development of interprofessional competencies requires adding IPE to profession-specific educational efforts to engage clinicians of different professions in interactive learning with each other. The overarching goal of this interactive learning is to improve the integration of care delivery and patient outcomes.

The move toward incorporating IPE into CE is gathering momentum. For example, the Accreditation Council for CME (ACCME), the American Nurses Credentialing Center, and the Accreditation Council for Pharmacy Education have developed a joint process for accrediting providers of team-based, outcome-focused education involving physicians, nurses, and pharmacists.[13] They are expanding the number of providers who are jointly accredited and report readiness to explore adding other professions to this joint accreditation process.[14] The Alliance for Continuing Medical Education, recently renamed the Alliance for Continuing Education in the Health Professions, is extending membership to other professions involved in health care education and has expanded its mission to include IPE.[15] Recognizing that formalization of processes for integrating IPE into CE is at the initial stages, a clearly articulated planning process will assist this formalization, increase the number of CIPE programs in the United States, and serve to advance the development of substantive CIPE-enhanced CE models.

Integrating IPE into CE: A Planning Process for Implementing CIPE Programs

Our approach for integrating IPE into the CE planning process involves enhancement of the familiar systematic CE planning process. This process comprises the following 6 steps: (1) support the mission statement, (2) analyze the practice gaps, (3) identify the barriers, (4) articulate the educational goals and objectives, (5) design and implement the educational activities, and (6) evaluate the educational activities.[6,16–18]

The ACCME accreditation criteria, which are based on educational principles derived from relevant adult learning theory, reflect a learner-centered model and provide guidance for the 6 planning process steps.[17,18] The criteria emphasize learning that is based on physicians' specific practice needs, CME that responds to those needs, and practice behavior changes that can affect patient outcomes. This shift from testing traditional classroom-type knowledge and skills in CME to more practice-based learning makes it clear that the practice behaviors of both physicians and all those who work together with physicians to deliver care in specific practice settings need to change. This need for a collective shift in behaviors to improve patient outcomes demonstrates the importance of CIPE. By incorporating CIPE into the current CME/CE planning process, the relationship between newer CME/CE educational approaches and CIPE is more readily apparent, and CIPE activities can be more easily supported by CME/CE faculty and staff.

Unlike traditional CE, which focuses primarily on the transfer of clinical knowledge delivered by experts to those less knowledgeable, and the newer individual physician-centered, outcome-oriented CME, CIPE occurs when learning is interactive across the professions. Although building on educational principles derived from adult learning theory[19] as well as the systematic CE planning process, integrating IPE into CE requires the application of theories and the creation of educational activities that are different in emphasis from traditional CME/CE activities. The social and experiential nature of IPE has led to the identification of social and learning theories foundational for IPE.[20] These provide the basis for interactive educational approaches to integrate IPE into the CME/CE planning process, which follows:

1. *Support CIPE in the CME/CE mission statement.* The mission statement describes the purpose, content areas, target audience, type of activities provided, and expected results of the CME program.[18] Inclusion of interprofessional competencies relevant to teamwork and team-based practice to improve patient care and outcomes as well as profession-specific competencies is a crucial part of a revised mission statement that supports CIPE activities. The target audience is expanded to include interprofessional as well as profession-specific participants, and the institutional support and shared vision of multiple divisions, units, schools, or colleges within and among educational systems are reflected in the revised mission statement.
2. *Analyze the practice gaps.* Professional practice gaps are the differences in current practice patterns compared to current evidence and standards of care or clinical guidelines designed to provide quality patient care. According to models for how physicians learn,[16,21] awareness of practice gaps can motivate engagement with appropriate CME learning opportunities. For CIPE, this gap analysis is conducted by clinicians who are representative of the interprofessional target audience. Identified gaps in teamwork and team-based care that affect outcomes of care provide the basis for CIPE to address those gaps.
3. *Identify the barrier*s. Patient compliance issues, health care delivery system issues, and insufficient reimbursement for treatments are commonly identified barriers to effective practice changes in CME. In contrast, interprofessional barriers to practice change may include limited awareness of each other's knowledge, skills, and abilities relevant to team-based practice or poor communication between health care professionals, all of which may contribute to care delivery gaps. Identified barriers, along with strategies for overcoming the barriers, are utilized in developing CIPE content. Interprofessional practice must contend with ingrained barriers at all levels—personal, interpersonal, and systems. Thus, barriers for interprofessional practice differ at the individual, team, and organizational levels and need to be identified in designing CIPE activities.
4. *Articulate the educational goals and objectives*. Clearly articulated goals and objectives outline the educational content and describe what the learners should be able to do after participating in the educational activity. For CIPE activities, the goals and objectives focus more on the care delivery process, that is, on preparing health professionals to actually work together in teams in order to improve patient outcomes and safety. Interprofessional competency development is integrated into the learning objectives.
5. *Design and implement the educational activities.* The design and implementation of CIPE activities is based on the learning goals and objectives, and incorporates specific CIPE approaches to teaching and learning that most effectively achieve interprofessional as well as profession-specific behavior changes that produce desired outcomes.[12,17–18] Social and learning theories such as social identity, communities of practice, reflective learning, and transformative learning are applied in making these educational decisions.[20] Examples of CIPE approaches to teaching and learning include recognizing the influence of professional identity on collaborative practice, going to the practitioners to support practice-based learning, helping professionals to reflect on their experiences, and encouraging professionals to see themselves and others as team members.[20] The educational approaches also take account of the learning location. Educational locations for CIPE may range from the traditional classroom setting to the workplace itself. Learning transfer to teamwork and team-based practice is facilitated by moving CIPE/CE closer to the practice situation and offering opportunities to practice using new information and receive feedback about one's practice, such as with the use of simulation activities.[22] It is recognized that clinical simulation used in a collaborative practice approach is an effective strategy to prepare health care providers for shared patient care responsibility.[23]
6. *Evaluate the educational activities*. Evaluating the educational activities involves determining the value of the learning process, measuring the learning that has occurred, and assessing the changes in learners' competence and performance or patient outcomes that have been achieved.[17,18] For CIPE activities, changes in individual and team-based practice performance are measured using IPE competencies.[24] Improved team process and patient outcomes also are assessed. However, formal CIPE is a newly emerging phenomenon, and assessing interprofessional teamwork is a challenging process.[24]

A summary of profession-specific CE planning steps compared with the CIPE-integrative planning steps as well as suggestions for implementing each step to assist the CE educator in practically applying the CIPE enhanced planning process are provided in TABLE 1.

Four CIPE Examples

Four examples of CIPE programs were selected conveniently by the authors to illustrate the integration of IPE into the CE planning process. All incorporate CIPE interactive activities and learning strategies, and respond to the previously described 4 recommendations for improving CE.[6] They were sequenced to illustrate progressively more complex implementation of the recommendations for integrating CIPE into CE efforts. The first example involves a "one-off" CIPE program provided in the familiar classroom setting. Examples 2 and 3 demonstrate acute and primary care approaches for providing CIPE programs situated in the workplace, with Example 3 emphasizing CIPE organizational learning and change to improve outcomes. Example 4 "closes the feedback loop" between workplace CIPE and prelicensure IPE learning. These 4 selected programs were not developed using the systematic IPE planning process described; however, they illustrate many of the planning principles discussed.

DOI: 10.1002/chp

TABLE 1. Comparison of Profession-Specific CE and CIPE With Suggested Actions for a CIPE Integration Process

Educational Planning Component	Profession-Specific CE	CIPE	Application to CIPE Design, Delivery, and Evaluation
Support mission	Focus on profession-specific knowledge and skills to improve patient care and outcomes.	Focus on interprofessional knowledge and skills to improve patient care and outcomes relevant to team-based practice.	CE Office reviews and integrates CIPE into existing mission statement; seeks interprofessional and institutional input and support to create a shared vision.
Analyze practice gaps	Profession-specific gap analysis. Profession-specific practice guidelines and self-reported interests are utilized.	Interprofessional shared, pooled gap analysis. Performance data of clinical teams are utilized.	Representatives from interprofessional target audience conduct gap analysis; analysis includes teamwork, and team-based care practice behaviors.
Identify barriers	Address anticipated barriers that could impede practice changes. (eg, insurance doesn't reimburse for treatments, patient compliance issues, and health care delivery system issues).	Address anticipated barriers that could impede teamwork practice changes (eg, poor communication between health care professionals and limited awareness of each others' knowledge, skills, and abilities relevant to team-based practice).	Course directors and CE educators identify interprofessional barriers at the individual, team, and organizational levels through literature reviews and by conducting interprofessional focus groups.
Articulate goals and objectives	Focus on transfer of new clinical knowledge. Develop profession-specific competencies. Describe changes in knowledge, competence, or performance.	Focus on care delivery process. Develop interprofessional competencies. Describe changes in team-based practice performance. Encourage knowledge sharing.	Write outcome-oriented goals and objectives that describe changes in interprofessional individual and team-based practice performance.
Design and implement educational activities	Build on what learners know; give ownership in their learning. Use multiple modalities to aid learning transfer.	Facilitate interactive learning (ie, learning about, from, and with other health professionals). Recognize the influence of professional identity on collaborative practice; facilitate reflective learning; encourage team member viewpoint.	CE faculty serve as IPE facilitators who give didactic presentations, engage learners in interactive, reflective learning opportunities, and role model collaborative practice; the educational setting resembles the practice situation; opportunities are available to apply new knowledge and skills in collaborative care.
Evaluate educational activities	Measure changes in profession-specific knowledge, competence and/or performance and patient outcomes.	Measure changes in individual interprofessional and team-based knowledge, competence, and/or performance and patient outcomes.	Modified form of the four-level Kirkpatrick typology[25] may be helpful to guide the assessment of CIPE outcomes.

Before describing the examples, we want to make an important conceptual distinction. Reeves et al observed that *workplace CIPE* is distinguishable from *workplace interventions*.[2] Workplace education is "situated" learning[20]; it occurs within the context of complex systems of practice. CIPE in the workplace is explicit interactive learning where various health professions and others participating in some part of a shared care delivery effort learn "about, from, and with" each other. This interactive learning occurs in the context of delivery of specific health services, and it incorporates

DOI: 10.1002/chp

both individual and team learning. Workplace interventions, however, are aimed at increasing interprofessional collaboration and consist of 2 types: (1) those intended directly to improve clinical care and (2) those occurring at the organizational level involving changes in policies, structure, culture, and staffing.[2] Examples 2 through 4 include descriptions of workplace CIPE.

Example 1. The first CIPE example, which involves integrating IPE into the familiar CE classroom setting, was a program held by the VA Pittsburgh Highland Drive Division for the Pittsburgh VA Healthcare System in June 2009. It was entitled "Finding Common Ground: Improving Interprofessional Communication."[26] A 1-day, classroom-based series of CIPE activities was planned by an interprofessional group that targeted medicine, nursing, pharmacy, and social work providers in the system. Their focus was on improving interprofessional communication—1 of the 4 domains targeted in the interprofessional core competencies report.[12] The Pittsburgh planners chose the framework of Seven Crucial Conversations[27] to focus the substantive content of the program. Their goal was to decrease poor interprofessional communication linked to breakdowns in safe care delivery.

Planners used a combination of activities and methods to address knowledge and skills relevant to improving interprofessional communication. Plenary sessions helped define the scope of the interprofessional problem; interactive panel discussions helped participants learn more about each other from each other and with each other; and interprofessional role-playing scenarios based on the planners' knowledge of relevant clinical examples helped to develop skills for better interprofessional communication in difficult-to-have professional conversations. Evaluation included a pre-post survey that demonstrated attitude change related to scope of knowledge about others' professions and confidence in handling difficult conversations. Participants also filled out a commitment-to-change[28] form. Obtaining self-report responses of behavior change 3 to 6 months later was difficult, which illustrates the limits of a 1-day, classroom approach for achieving and documenting practice-based interprofessional communication competence.

Example 2. This example, from the University of Rochester's program called "Building a Perinatal Culture of Safety," entails the application and refinement of "one-off" hospital-wide classroom learning to a specific workplace setting over time where CIPE is believed to be essential for improving the safety of perinatal care. This CIPE-enhanced CE program began with an institution-wide large classroom didactic introduction to the TeamSTEPPS[29] curriculum that targeted learning for improved teamwork and team-based care delivery. This introduction has been followed by a continuing series of monthly CE/CIPE activities in the OB/GYN Department of the University of Rochester Medical Center.

These activities include workplace teamwork training specific to perinatal care delivery, building on the initial TeamSTEPPS instruction. Simulation methods are used to target potential high-risk perinatal care events where improved individual clinical and interprofessional care delivery can be practiced.[30] Cyclical monitoring of safety attitudes assists in identifying new areas for improvement and adoption of best practices and guidelines. An expanded evaluation algorithm provides data on the following: (1) individual training; (2) improvements in teamwork behaviors; and (3) outcomes related to the costs of adverse perinatal events, which is an assessment that is part of a self-insurance malpractice collaborative for perinatal care across 5 institutions. Unlike classroom-based CIPE evaluation, specific-practice-setting CIPE evaluation can include assessment of changes in practitioner knowledge, skills, and attitudes; teamwork performance; and the care delivery outcomes that should follow those changes.

Example 3. The third example focuses on changes ongoing at the University of Minnesota Family Medicine Clinics and demonstrates a full integration of continuous CIPE learning in the workplace that explicitly includes interprofessional organizational changes.[2] Leadership in these clinics engaged a Lean[31–33] consultant to assess clinic practice and help redesign clinic care delivery processes to accomplish the following: (1) improve efficiency, timeliness, and effectiveness of care, (2) improve clinical outcomes, (3) increase patient and staff satisfaction, and (4) reduce the costs of care. Lean tools and disciplines provide the basis for building trusting relationships and clinic capacity to carry out health care home transformation[34] and were not regarded as simply isolated and impersonal process improvement tools.

This program began with explicit instruction to all staff regarding the Lean approach to change. Components of the Lean learning included: (1) providing 6 three-hour training sessions for all administrative and clinical leaders; (2) implementing 14 weeks of initial on-site training for local administrators, providers, and staff; (3) identifying champions to carry the process forward; (4) refining and standardizing work flow and processes, including all clinic roles, based on objective data, professional experience, and reflective work together; (5) training of 2 "internal" Lean consultants; and (6) reducing clinic "clutter." Leaders built in monthly staff feedback and shared reflection time. This process was repeated 1 clinic at a time in 4 clinics over 1 year; lessons learned from preceding iterations were used to institutionalize and continuously

DOI: 10.1002/chp

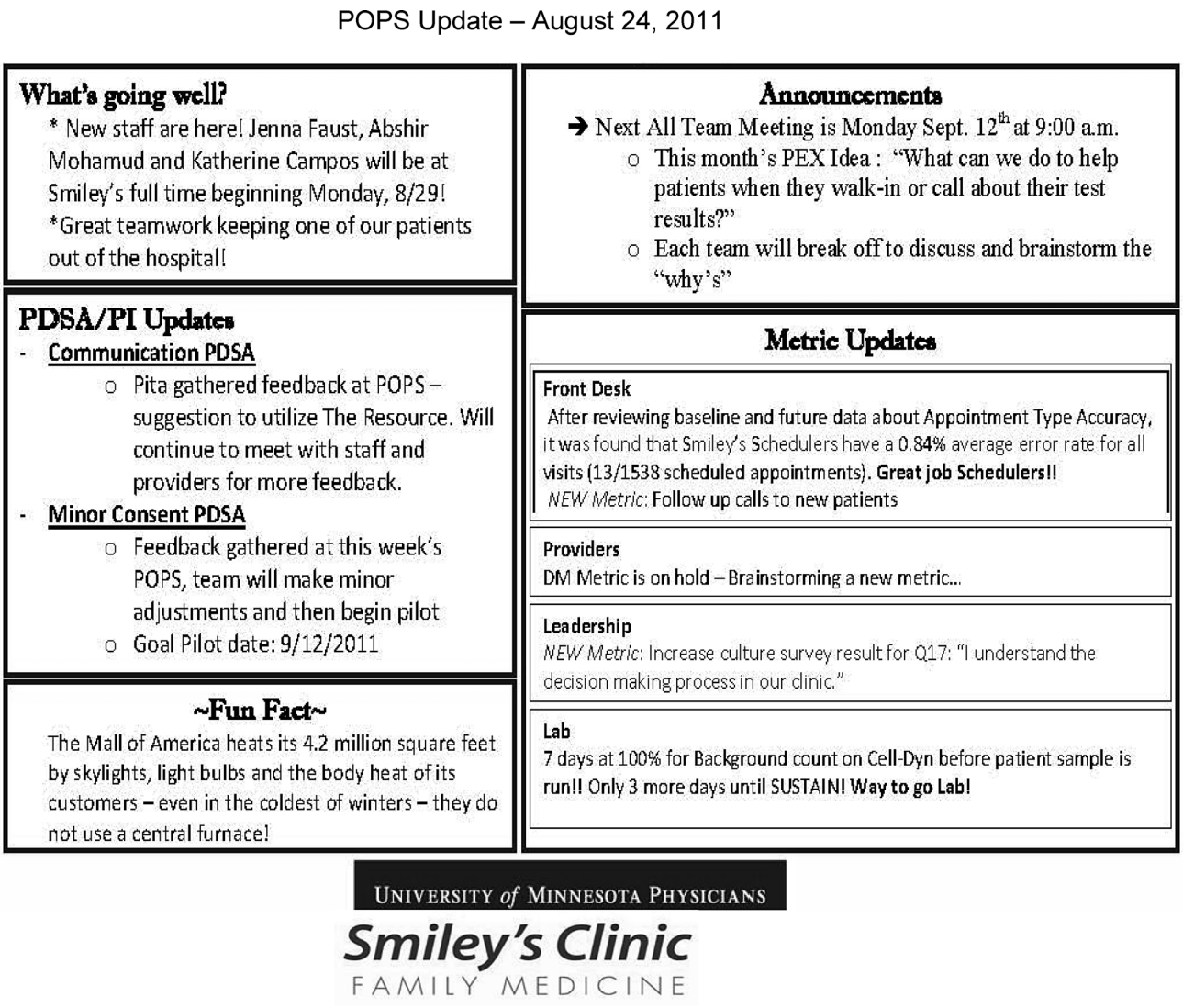

FIGURE 2. Integrating CE and CIPE as Part of Everyday Activities at Smiley's Clinic

improve learning. Evaluation included measures of effectiveness of these "Lean" changes for improved outcomes. These included workplace efficiency, quality of work environment, changes in 5 measurable diabetes clinical targets (eg, blood pressure, cholesterol control, smoking cessation), costs, and patient and staff satisfaction. FIGURE 2 reproduces a clinic bulletin introducing new team members, highlighting individual contributions to team-based PDSA improvement cycles, outlining the team meeting schedule, identifying an area needing team-based brainstorming for improvement, and presenting organizational performance metrics being tracked; this bulletin is provided to all team members of Smiley's family medicine clinic. This figure illustrates integrated, continuous CIPE workplace learning and change to improve clinic outcomes.

Example 4. This final example, which involves a program that integrated workplace CIPE into a tighter relationship between interprofessional practice (IPP) and student-focused IPE, illustrates in more detail the application of the CIPE planning process. This program, entitled "A Continuing Interprofessional Education Program to Improve Sepsis Care by Enhancing Healthcare Team Collaboration," entailed 3 major activities to facilitate CIPE, IPP, and student-focused IPE: (1) implement an IPE development program for University of Virginia (UVA) physician and nursing faculty and UVA physicians, nurses, acute care nurse practitioners, and respiratory therapists in the emergency medicine and critical care settings where the resuscitation bundle for Surviving Sepsis[35] is implemented; (2) present a Sepsis IPE Simulation Case to those who received the IPE development training, thus shifting

DOI: 10.1002/chp

from individual to team learning; and (3) create a "Collaborative Care Best Practices Model"[36] to facilitate the translation of CIPE from the classroom to the real world of interprofessional practice, and then back to student-focused IPE.

Activity 1 was the implementation of an IPE development program to assist faculty in understanding the differences between IPE and uniprofessional education and the appropriate use of simulation as an IPE teaching strategy. The University of Toronto (UT) "educating health professionals for interprofessional care (EHPIC)" program[37] was selected, and the UT faculty and the UVA Planning and Evaluation Team, composed of clinicians from medicine and nursing, health system leaders, and educators, engaged in a collaborative process for co-creating the program content. During the program, the ongoing co-creative process led to the UT faculty's being responsive to "real-time" feedback from participants, allowing for fluid modification of daily content.

Activity 2 involved participating in the Sepsis IPE Simulation Case entitled "Interprofessional Implementation of the Surviving Sepsis Campaign" high-fidelity simulation exercise. A video of the simulation case was created and placed on the university "Collab" site. Prior to viewing the video, participants were asked to assign each step in the guideline of the Surviving Sepsis Resuscitation bundle as the responsibility of a physician, nurse, acute care nurse practitioner, or respiratory therapist to implement. After viewing the video, the learners repeated the process so that there would be a "pre/post" comparison of who each learner had assigned the responsibility of implementing each step of the guideline. In addition, participants were asked to complete a "Behaviors Checklist" to identify the interprofessional practice behaviors they observed that effectively supported collaborative team function.

Activity 3 involved the creation of a Sepsis "Collaborative Care Best Practices Model" based on the Sepsis IPE Simulation Case that not only had implications for interventions to improve IPP in that setting, but also facilitated the translation of the CIPE effort from the real world of practitioners back to student-focused IPE. This model was created using the top 10 most important collaborative behaviors identified by participants in Activity 2. Participants also were asked to complete a "commitment to change" survey form[28] on which they identified several collaborative behaviors they wanted to promote in their practice; follow-up occurred 1 month after the completion of Activity 3.

In summary, although there are some illustrative examples of CIPE programs being successfully implemented, a clearly articulated step-by-step planning process to help guide CE educators in providing effective CIPE programs is lacking in the literature. In offering a systematic process for integrating CIPE using a familiar CE planning process as the starting point, we hope to reduce a significant barrier to increasing the number of CIPE programs in the United States. The availability of such a process does not preclude numerous other challenges to successful CIPE programs.

Future Challenges for Integrating CIPE Into CE

Many challenges face educators in formally integrating CIPE into CE and developing CE/CIPE substantive models. Most educators, including CE educators, have not been prepared to deliver or evaluate IPE; therefore, faculty development is critical to integrating IPE into CE.[38] CIPE requires the integration of a wider variety of learning theories and methods than have typically been used.[20] Successful CIPE requires the ability to move across professional silos in CE for joint assessment. Effective evaluation of CIPE programs depends on the availability of better tools for linking professional and interprofessional performance changes to care outcomes.[39] Successful CE/CIPE efforts need to address the relationship between individual, lifelong learning and organizational changes to improve the care delivered. It has been stated that effective workplace learning occurs

Lessons for Practice

- CIPE integrated into CE is identified as an educational vehicle for improving teamwork and team-based care, reducing medical errors, and improving the quality of care in health care delivery systems.
- Step-by-step planning processes are needed to guide CE professionals in developing, implementing, and evaluating CIPE programs.
- Planning processes that integrate IPE into the CE planning process clarify the relationship between CE and CIPE, strengthen the support for CIPE programs, and facilitate the development of CE/CIPE substantive models.
- Approaches needed for successful CIPE are consistent with other changes recommended in CE to better position CE to influence practice change and outcomes of care.

DOI: 10.1002/chp

when the goals and interests of the workplace and those of individuals who participate in it are shared.[40] Achieving this synchrony will require closer alignment and integration between formal CE, workplace learning efforts, and lifelong learning approaches. New accrediting,[17] certification,[41] and financing[3,6] models are needed to support these CE/CIPE developments.

Finally, as noted earlier, CE/CIPE is the practitioner end of a lifelong learning continuum and integrating interprofessional as well as professional competency development across this continuum will require development of more comprehensive and substantive models that address this continuum.

Acknowledgments

This article draws on content developed by the authors for a 2011–2012 Webinar hosted by the Alliance for Continuing Education in the Health Professions. An adaptation of that content also was presented at the Japanese Society of Wound, Ostomy and Continence Management annual meeting in Kobe, Japan, on May 11, 2012. The authors would like to thank Barbara Brandt, PhD, at the University of Minnesota for her feedback on the Webinar content, and both Dr. Brandt and Valentina Brashers, MD, at the University of Virginia for their feedback on manuscript drafts. Our thanks also to Hollis Day, MD, at the University of Pittsburgh, James Woods, MD at the University of Rochester, and Macaran Baird, MD at the University of Minnesota, for reviewing the accuracy of example descriptions provided from their respective institutions. We want to acknowledge Keith Littlewood, MD; Dorothy Tullmann, PhD, RN; and Elisabeth Wright, ME, as creators of Activity 2, the Sepsis IPE Simulation Case, which formed the basis for Activity 2 in the UVA Example 4. We want to thank Dr. Littlewood for his review of the accuracy of the brief description provided. Additional thanks are extended to Dr. Baird for providing FIGURE 2, and to Hugh Barr for insightful comments informing final manuscript revisions. We look forward to continuing dialogue with Professor Barr and others related to CE/CIPE models in development.

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DOI: 10.1002/chp