
The Role and Rise of Interprofessional Continuing Education

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ABSTRACT: For decades, health leadership organizations have identified interprofessional education and team-based care as a critical component of health care quality and safety. The Institute of Medicine (IOM) has issued a series of reports demonstrating the relationship between poor team performance and negative patient outcome and has called on accreditors, licensing and certifying bodies to use their oversight processes as levers for change. Toward that end, three of the national accreditors in medicine, nursing and pharmacy collaborated to create a unified accreditation system, setting standards for interprofessional continuing education (IPCE) and establishing an IPCE credit that designates activities planned by and for health care teams. There is evidence supporting the relationship between engagement in IPCE and improvements in health care professionals' knowledge, attitudes, competence and performance, as well as patient and system outcomes. The accreditors believe that this evidence base is strong enough to justify including IPCE in regulatory requirements. In 2018, the Federation of State Medical Boards (FSMB) recognized IPCE credit as an additional means of satisfying CME requirements for medical license renewal. The increasing recognition of IPCE demonstrates the pivotal role of accreditors and regulators in driving the advancement of IPCE and team care now and in the future.

Introduction

For decades, national and international health leadership organizations have identified interprofessional education and team-based care as a critical component of health care quality and safety. When teams fail to collaborate and communicate, patient care can suffer. Failures in communication are consistently one of the top three root causes of sentinel events, as reported to The Joint Commission each quarter.¹ Communication problems include inadequate communications between caregivers during patient transitions, poor communications in the operating room leading to complications, and rigid hierarchies between clinicians, contributing to medical errors.² The Institute of Medicine (IOM) has issued a series of reports demonstrating the relationship between poor team performance and negative patient outcome. In 1999, the IOM's landmark report *To Err is Human: Building a Safer Health System*, described the impact of medical errors on human lives.² Recommendations from the report included establishing interdisciplinary team training and implementing an interdisciplinary collaborative approach to re-designing complex systems of care. Interdisciplinary education and training were seen as critical for success because most care is delivered by teams of people, yet health care training is focused on individual responsibilities. (The term "interdisciplinary" has evolved to "interprofessional" to reflect members

of two or more professions, differentiated from members of different disciplines within professions.) The IOM's 2003 report *Health Professions Education: A Bridge to Quality* stated that health professionals need to "cooperate, communicate, and integrate care in teams to ensure that care is continuous and reliable."³ In addition, the World Health Organization (WHO) issued a framework for action, describing the imperative for health care professional education to address interprofessional collaborative practice (IPCP) globally; WHO defined IPCP as health care professionals working together with patients and caregivers to deliver the highest quality of care.⁴

The field of interprofessional continuing education (IPCE) is evolving to address these priorities. There is evidence supporting the relationship between engagement in IPCE and improvements in health care professionals' knowledge, attitudes, competence and performance.^{5,6} There is also evidence that patient and system outcomes are improved.⁶ It is critical that health professionals have access to team education in the practice setting, can receive credit for their participation and have the support of their institutional leadership.

Responsibility for creating interprofessional lifelong learning environments requires the investment of multiple stakeholders, including regulators. The IOM called on accreditors, licensing and certifying bodies

to use their oversight processes as levers for change.³ Toward that end, three of the national accreditors in medicine, nursing and pharmacy collaborated to create a unified accreditation system to incentivize development of and participation in IPCE. They set IPCE standards and established an IPCE credit that designates activities planned by and for health care teams.

Regulatory bodies can elevate the visibility and value of IPCE by recognizing IPCE credit toward requirements for licensure, as appropriate. They can motivate individuals to participate in IPCE by requiring a percentage of continuing education (CE) for certification or re-licensure to be team-based education. The Federation of State Medical Boards (FSMB) took a major step in support of IPCE at its 2018 Annual Meeting by adopting a resolution that recognized IPCE credit as an additional means of satisfying CME requirements for medical license renewal (see sidebar). The Georgia Board of Pharmacy has also recognized IPCE credit for relicensure of pharmacists, in addition to Accreditation Council for Pharmacy Education (ACPE) credit.

The evolution of IPCE and the increasing recognition of its value demonstrates the capacity of accreditors and regulatory bodies to be “levers for change” in response to the IOM call for action. By exploring this evolution, regulators and other stakeholders can identify leadership opportunities to drive the advancement of IPCE now and in the future.

Facilitating Health Care Education by the Team, for the Team

Cofounded by the Accreditation Council for CME (ACCME), the Accreditation Council for Pharmacy Education (ACPE) and the American Nurses

Credentialing Center (ANCC), Joint Accreditation for Interprofessional Continuing Education™ established the standards for CE planned by the health care team for the health care team. This collaboration offers organizations the opportunity to be simultaneously accredited to design and deliver CE for multiple professions through a single, unified application process, fee structure and set of accreditation standards.

To create Joint Accreditation, the collaborating accreditors applied the principles of interprofessional collaborative practice for health care professionals to their own collaboration: trust, mutual respect, a willingness to build consensus and relinquish or adapt some individual approaches and commitment to collaborate. The accreditors aimed to decrease the documentation burden for accredited CE organizations, harmonize their systems and requirements, maintain strict standards for educational quality and independence and create foundational principles for IPCE. Joint Accreditation standards reflect the accreditors’ shared principles and apply regardless of whether the activity is designed by and for a single profession or by and for an interprofessional team. All educational activities must be based on an identified professional practice gap(s), reflect adult learning principles and include evaluation. Content must be valid, evidence-based and independent of commercial influence or bias.

IPCE activities require additional considerations above and beyond the core standards for educational quality and independence (Table 1). It is not enough to simply include multiple professions as learners in an activity; for example, an educational intervention does not qualify as an IPCE activity if it is designed by and for physicians, and nurses are also invited to

Table 1
Characteristics of Interprofessional Continuing Education Activities

To attain and maintain Joint Accreditation for Interprofessional Continuing Education, the organization’s CE mission statement must highlight team education. Educational activities classified as interprofessional must demonstrate:
• An integrated planning process that includes health care professionals from two or more professions.
• An integrated planning process that includes health care professionals who are reflective of the target audience members the activity is designed to address.
• Content designed to address the professional practice gaps of the health care team.
• An intent to achieve outcome(s) that reflect a change in skills, strategy or performance of the health care team and/or patient outcomes.
• Reflection of one or more of the interprofessional competencies (e.g., Institute of Medicine competencies, Interprofessional Education Collaborative core competencies).
• Active learning: An opportunity for learners to learn with, from and about each other.
• Activity evaluations that seek to determine changes in skills, strategy and performance of one’s role or contribution as a member of the health care team; and/or impact on the health care team; and/or impact on patient outcomes.

attend. IPCE activities must meet this definition, adopted by the three collaborating accreditors: IPCE is when *members* from two or more professions *learn with, from and about each other* to enable effective collaboration and improve health outcomes.⁷ Activities designed by and for teams must address interprofessional competencies (Table 2).

To be eligible for Joint Accreditation, organizations must demonstrate not only the aspiration to deliver team-based care, but they also must show that they have developed an effective system to deliver IPCE. An organization must demonstrate that its structure and processes to plan and present education by and for the health care team have been fully functional for the previous 18 months and that at least 25% of its educational activities have been designed by and for health care teams.

The joint accreditors expect jointly accredited organizations to develop strategic education plans that identify opportunities for team-based education by thoughtfully analyzing gaps to determine if they can best be addressed by team-based education, single profession education or a combination of both. Defining the team is another important aspect of IPCE: Teams not only include clinicians from multiple professions, but any professionals and support personnel who are involved in the performance gaps and patient outcomes that the activities are addressing. Jointly accredited organizations report that involving patients and caregivers in IPCE as planners, faculty and learners, can motivate powerful and lasting change.⁸

As part of the process for developing a strategic education plan, jointly accredited organizations are encouraged to determine how their activities can support institutional improvements, such as clinician wellness initiatives. Research shows that, across all sectors, high-performing organizations have

high-performing teams and that training plays an essential role in reducing turnover and burnout, and improving morale, productivity and the quality of services.⁹ Many institutions have seen tangible results after investing in the formation and maintenance of functional teams.¹⁰ Empowered teams can more effectively solve complex problems, watch out for and take care of each other and help team members see the value of their contributions — not only in patient care but also in the collaboration itself.¹¹ Breaking down silos among professions also improves efficiency and resource allocation across an institution’s educational offerings.¹¹ An integrated environment enables professions to share conferencing space, learning management systems and other resources, which helps to drive team development.

Jointly accredited organizations are expected to design IPCE activities to address health care priorities at the institutional, community, national or international level. These organizations are particularly well positioned to lead efforts to promote improvement in cross professional competencies, such as change management, leadership, communication skills, professionalism, cultural competency, compassionate care, faculty development and how to teach and learn in teams.¹¹ IPCE activities are partners in quality-improvement and safety initiatives, and can be the stimulus for collaboration with public-health departments and other stakeholders.¹² IPCE is a key resource for addressing public-health issues, such as chronic diseases, antibiotic resistance, infectious disease outbreaks and the opioid crisis.¹³ All members of the team have a crucial role in addressing these issues.

Joint Accreditation has shown steady growth and success. The first organizations received Joint Accreditation in 2010. Each year the number of

Table 2
Professional Competencies for Interprofessional Collaborative Practice

1. Values/Ethics for Interprofessional Practice: Work with individuals of other professions to maintain a climate of mutual respect and shared values.
2. Roles/Responsibilities: Use the knowledge of one’s own role and those of other professions to appropriately assess and address the health care needs of the patients and populations served.
3. Interprofessional Communication: Communicate with patients, families, communities and other health professionals in a responsive and responsible manner that supports a team approach to the maintenance of health and the treatment of disease.
4. Teams and Teamwork: Apply relationship-building values and the principles of team dynamics to perform effectively in different team roles to plan and deliver patient/population-centered care that is safe, timely, efficient, effective and equitable.

Source: Interprofessional Education Collaborative Expert Panel, 2011.

applicants has grown exponentially. By 2018, 84 organizations across the United States had achieved Joint Accreditation, including medical schools, academic medical centers, hospitals, health systems, and government agencies.¹⁴

Evolution of Interprofessional Continuing Education

The joint accreditors monitor the evolving health care environment and engage in discussions with the community of jointly accredited organizations and other stakeholders to identify opportunities and challenges for IPCE. To elevate the value and visibility of IPCE, the joint accreditors established the IPCE credit for learning and change in 2017. This new type of credit designates activities that have been planned by, and for, the health care team. Only organizations that have achieved Joint Accreditation can offer this credit. The IPCE credit for learning and change enables health care stakeholders — including certifying, licensing and regulatory bodies; health care leaders; educators and faculty; and health care team members — to identify activities specifically designed to improve team collaboration and patient care.

As the community of jointly accredited organizations gained expertise in designing and delivering IPCE, educators realized they could improve the effectiveness and reach of activities by including professions beyond medicine, nursing and pharmacy. Building on the established model for Joint Accreditation, the joint accreditors created a process for inclusion of other professions and engaged in dialogue with accreditor colleagues to explore the opportunity for them to join. From 2018 to 2019, four more professions joined Joint Accreditation: optometry, physician assistants, psychology and social work (Table 3). With this expansion, jointly accredited organizations can offer IPCE for seven professions without needing to retain separate accreditations.

As jointly accredited organizations gained more experience in offering IPCE, they sought ways to advance the value of their programs. The joint accreditors, together with the IPCE community, created a set of criteria for achieving Joint Accreditation with Commendation. Set for implementation in 2020–2021, the goal of the commendation criteria is to elevate the value of IPCE programs, encourage the continued evolution of the IPCE field, respond to emerging health care challenges and

INCREASINGLY, LEADERS AND EMPLOYERS ARE ASKING FOR EDUCATIONAL STRATEGIES THAT WILL SUPPORT INTERPROFESSIONAL TEAMWORK WITHIN THEIR INSTITUTIONS.

reward organizations that implement exemplary practices. The criteria will recognize organizations that include patients in team education, develop IPCE research and scholarship, integrate health and practice data in IPCE, address social determinants of health and population health issues and demonstrate measurable improvements in team performance, health care quality and patient care.¹⁵

To support the ongoing evolution of IPCE, the joint accreditors created a community of practice. They convened leadership summits for the IPCE community, produced educational resources and reports and initiated collaborations across the continuum of health care education and professions to further the development of IPCE. These strategies have led to a significant increase in the number of organizations developing team-based education, and an increase in the ability to measure team performance and patient outcomes.⁸ Increasingly, leaders and employers are asking for educational strategies that will support interprofessional teamwork within their institutions.

Table 3
Collaborating Accreditors: Joint Accreditation for Interprofessional Continuing Education

Accreditation Council for Continuing Medical Education (ACCME): Co-founder
Accreditation Council for Pharmacy Education (ACPE): Co-founder
American Nurses Credentialing Center (ANCC): Co-founder
American Academy of PAs (AAPA)
American Psychological Association (APA)
Association of Regulatory Boards of Optometry's Council on Optometric Practitioner Education (ARBO/COPE)
Association of Social Work Boards (ASWB)

Demonstrable Results: What the Research Shows

While the preponderance of evidence has evaluated relationships between health care professional students participating in interprofessional education (IPE) and outcomes, a 2016 systematic review published by Reeves and colleagues reveals a significant increase in studies evaluating the relationship between post-licensure/certification health care professionals' participation in IPCE and outcomes, from 2007 (29%; 6 of 21 studies) to 2016 (39%; 18 of 46 studies).⁶ In general, the studies drew on adult learning theories; some of the studies employed quality-improvement principles, social-psychological perspective and contact theory, social cognitive perspectives and learning principles and perspectives.⁶

The outcomes of IPE/IPCE were predominantly positive. Studies generally reported more than one outcome. Studies involving practicing health care professionals were more often linked to levels 3, 4a, or 4b, as highlighted below. Results from the studies included:

- **Level 1: Reaction.** Valued and supported the IPE experience; were satisfied with involvement; found the experience enjoyable and/or rewarding.
- **Level 2a: Modification of attitudes/perceptions.** Positive attitude maintained over time; some studies reported positive attitudes initially, growing more negative over time.
- **Level 2b: Acquisition of knowledge/skills.** Self-reported improvements in knowledge and skills; two studies validated change in skills by additional assessment.
- **Level 3: Behavioral change.** Self-reported change in behavior; two studies validated change in behavior by additional assessment (emergency department teamwork and breaking bad news).
- **Level 4a: Change in organizational practice.** Improvements in service delivery (illness prevention, patient screening, safety practices).
- **Level 4b: Benefit to patients/clients.** Improvements in mortality rates, reduced clinical errors and patient length of stay; improvements in patient clinical status (BP and cholesterol levels).

Outcomes achieved by jointly accredited organizations reflect those published in the systematic review by Reeves and colleagues.⁶ Jointly accredited organizations have demonstrated:

- **Learner outcomes** — such as self-reported increases in understanding the role of the health care team in patient management, expanded

understanding of roles and responsibilities of different professions and team members, ability to collaborate more effectively with members from other professions and improvements in team-based clinical and interprofessional skills.

- **Improvements in patient clinical outcomes** — such as average patient length of stay, number of infants on ventilators, maternal complication rates and overall maternal health.
- **Team performance clinical outcomes** — such as improvements in application of guidelines and evidence into practice and identifying the most appropriate treatment interventions for patients.
- **Improvements in team performance non-clinical outcomes** — such as communication skills, respect between professions, leadership and teamwork skills and confidence in decision-making.
- **Improvements in jointly accredited providers' own ability to teach and learn in teams.**¹⁶

Case Examples

Jointly accredited organizations report that 94% of their educational activities are designed for changes in the skills and strategy of the learners; 67% are designed for changes in learners' performance; and 15% are designed for changes in patient outcomes.¹⁷ Jointly accredited organizations have described case examples illustrating the specific positive outcomes achieved as a result of IPCE programs. Here are a few examples:⁸

- **Improving pediatric cardiac care.** A children's hospital implemented a team-based simulation to teach clinicians the proper care of children presenting with supraventricular tachycardia, including how to access EKGs. Outcomes included changes in protocols, processes and procedures, including the increased utilization of the hospital emergency care system and the pediatric inpatient unit's inclusion of EKG technicians as a resource.
- **Decreasing morbidity-mortality rates:** A health care system delivered a sepsis workshop to change the team's response and recognition of sepsis symptoms and to improve monitoring and outcomes for the sepsis patient. Outcomes included more efficient recognition of sepsis systems by the team and a decrease in the sepsis morbidity/mortality rate in the health system.
- **Improving end-of-life care:** A hospital system implemented a multi-year, multifaceted IPCE

program to increase end-of-life care discussions and decisions and to honor patients' wishes. Outcomes included significant increases in the number of patients with advance care planning discussions documented in the electronic medical record, the number of provider orders for life sustaining treatment and the number of patients whose wishes were honored.

Role of Regulatory Bodies

Attaining support from leadership is critical to the success of IPCE programs. Studies show that organizational support in providing access to resources such as time, space and finances, is one of the factors critical to both the development and successful sustainability of IPCE.⁶ Accreditors and regulatory bodies have a pivotal role to play in addressing this need by leading efforts to identify and promote the value of IPCE. Research shows that support from regulatory bodies serves to drive the development of IPE for health profession students, and, by extension, IPCE. The motivation to develop IPE and IPCE is linked to either top-down approaches, such as government policies, professional regulations or bottom-up approaches, such

FSMB Resolution in Support of Interprofessional Continuing Education

The Federation of State Medical Boards (FSMB) took a major step in support of team-based education at its 2018 Annual Meeting. The House of Delegates adopted Resolution 18-4, Interprofessional Continuing Education (IPCE), which states:

“Resolved, that the Federation of State Medical Boards supports and recognizes Interprofessional Continuing Education for physicians that is identified by IPCE credit and is accredited by the Joint Accreditation system launched by the Accreditation Council for Continuing Medical Education (ACCME), the Accreditation Council for Pharmacy Education (ACPE), and the American Nurses Credentialing Center (ANCC), as an additional means of satisfying continuing medical education requirements for medical license renewal.”

Source: Federation of State Medical Boards House of Delegates Annual Business Meeting, 2018. <https://www.fsmb.org/siteassets/annual-meeting/hod/april-28-2018-fsmb-hod-book.pdf>. Accessed September 5, 2019.

as local champions and organizational support. A mixture of those two drivers is particularly effective in motivating the implementation of IPE and IPCE.⁶

The joint accreditors believe that the evidence-base supporting the relationship between IPCE and improvements in practice and patient outcomes is strong enough to justify including it in regulatory requirements. Regulatory bodies can elevate the visibility and value of IPCE by recognizing IPCE credit towards requirements for licensure as appropriate, as the FSMB and Georgia Board of Pharmacy have done. The joint accreditors encourage other state licensing boards to consider recognizing IPCE credit as a means of meeting licensure requirements.

IPCE has the potential to support the creation of a transdisciplinary regulatory framework: By building consensus and collaboration, regulators in the health professions can help to improve the operational efficiency, resource utilization, effectiveness and reach of CE programs, as well as amplify the contributions of CE to health care improvement. Clinicians learn best when they are able to choose from a diverse array of educational activities that are relevant to and meet their needs. The recognition of IPCE will encourage clinicians to continuously improve their ability to deliver optimal care for their patients.¹⁸

To maximize the benefits of IPCE, institutional leaders need to think of it as a professional development vehicle that can help them to achieve their goals in clinical and nonclinical areas, such as quality and safety, process improvements, professionalism, team communication and workforce cohesiveness and motivation. Leaders need to invest in training their IPCE administration professionals, faculty and mentors to ensure that the IPCE program supports strategic priorities by delivering effective, efficient education that meets regulatory and accreditation requirements.¹¹

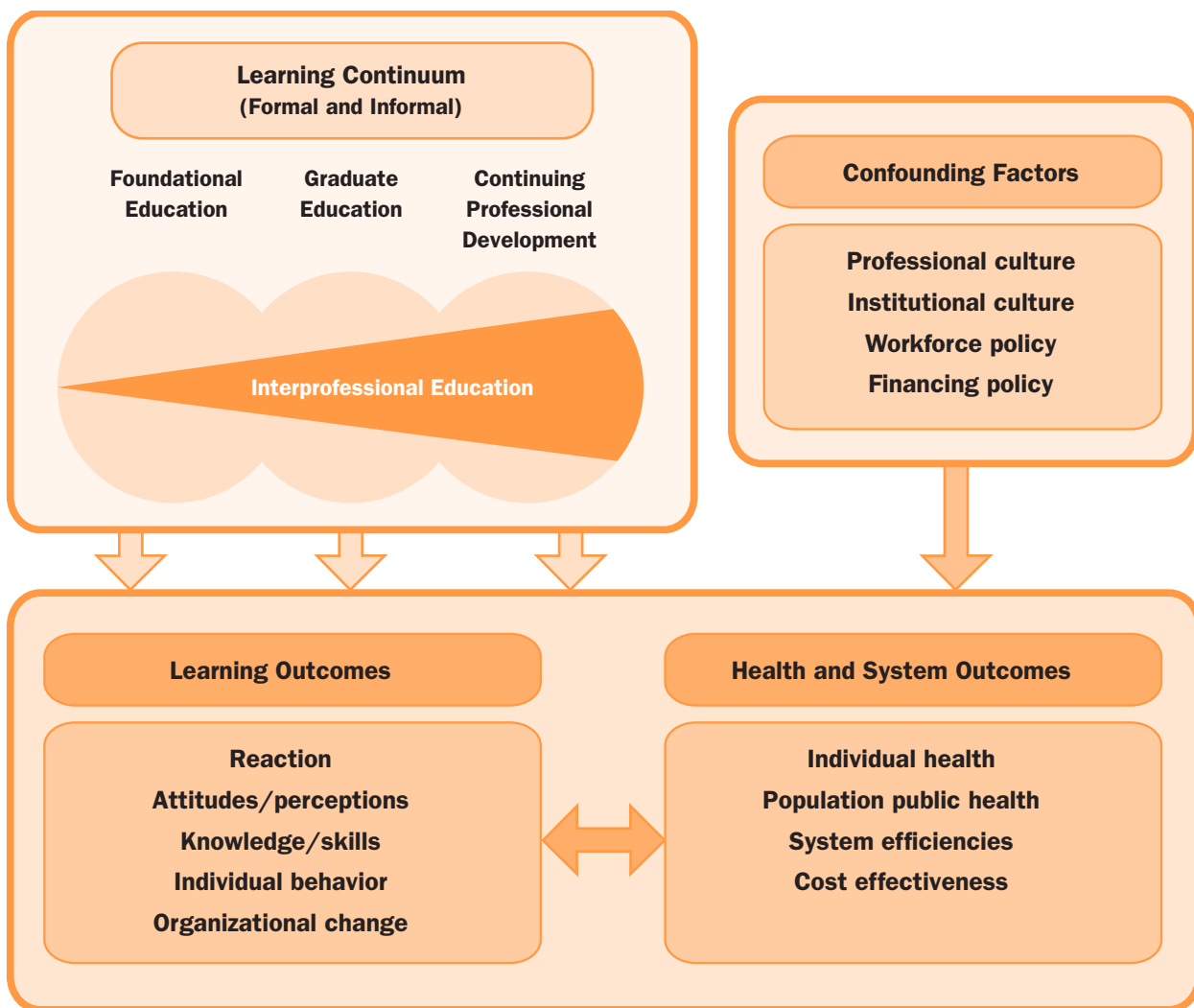
To ensure the continued evolution of IPCE, it is essential to build a body of research and scholarship that identifies effective IPCE practices and measures outcomes. Evaluating the success of IPCE is complex, as there are numerous intervening variables between IPCE, individual clinician change, changes in team performance and patient care. Health system and institutional structures present barriers. Health care professionals are working in environments that often include rotating shift schedules, limited time and resources to engage in professional development activities, a long history of behaviors that reflect professional hierarchies and care or tasks segmented

into specific and assigned professional roles, among many others. Clinicians may participate in IPCE activities as individuals and not with their colleagues, making it difficult to assess team-based outcomes. Despite these challenges, it is imperative to develop cost-effective strategies for identifying best practices for designing and implementing IPCE, evaluating change in the interprofessional team and assessing the impact of IPCE on health care delivery and patient outcomes. To advance the field of IPCE research, the joint accreditors convened several summits to generate strategies and recommendations for research and outcomes measurement, and have introduced a commendation criterion that rewards organizations for engaging in research and scholarship.

Conclusion

To deliver high-quality, safe team-care, teams need to learn together. Most of the emphasis in interprofessional education has been on the undergraduate or graduate levels, accounting for about eight years in the life of the health care professional. During the decades they spend in practice, health care professionals rely on accredited CE to improve their practice and patient care (Figure 1). IPCE is an extension of—not a replacement for—CE for individual professions. It is not a different system; it is continuing the loop from undergraduate and graduate education. To effectively integrate interprofessional collaborative practice throughout health care systems across the world, IPCE needs to become an integral part of

Figure 1
The Interprofessional Learning Continuum Model



Source: Institute of Medicine. 2015.

Note: For this model, “graduate education” encompasses any advanced formal or supervised health professions training taking place between completion of foundational education and entry into unsupervised practice.

lifelong learning for all health professions. Each health care stakeholder has an important role to play in this evolution. Accreditors and regulatory bodies are service organizations whose mission is to reflect

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and meet the needs of the public as well as to maintain the integrity of the systems they regulate. To continue to fulfill their responsibilities in the future, regulators and others need to be willing to relinquish some methods that have served them in the past and adopt new approaches that will enable them to better promote a culture of collaboration, alignment and engagement. With this evolution, regulators will be well positioned to generate new models for regulatory systems that contribute to health system transformation with the goal of optimizing the care, health and wellness of patients and communities. ■

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