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GUIDANCE ON DEVELOPING QUALITY INTERPROFESSIONAL EDUCATION FOR THE HEALTH PROFESSIONS

Prepared by members of the Health Professions Accreditors Collaborative (HPAC) with the consultative assistance of the National Center for Interprofessional Practice and Education and endorsed by supportive boards or commissions of HPAC member accrediting agencies.

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Chiropractic	CCE	Council on Chiropractic Education
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Pharmacy	ACPE	Accreditation Council for Pharmacy Education
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SUGGESTED CITATION:

Health Professions Accreditors Collaborative. (2018). Guidance on developing quality interprofessional education for the health professions. Chicago, IL: Health Professions Accreditors Collaborative.

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EXECUTIVE SUMMARY

The Health Professions Accreditors Collaborative (HPAC) was established to formalize interactions across accreditors and to serve as a platform for proactive problem solving and sharing of information on a broad range of topics.[1] In response to emerging health system change and the creation of national competencies for interprofessional collaborative practice,[2] individual HPAC members have been independently creating accreditation policies, processes, and/or standards for interprofessional education (IPE). Early discussions among HPAC members identified the need to ensure that their individual actions facilitated and were not barriers to the development of quality IPE at constituent institutions.

Toward this end, HPAC embarked on a multi-year, multi-phase process to create a consensus guidance document to support the development and implementation of quality IPE. To do so, HPAC engaged the support of the National Center for Interprofessional Practice and Education at the University of Minnesota (National Center).[3] Consensus on the final guidance document was achieved through a series of drafts, HPAC member consultation with their boards/commissions, stakeholder reactions/feedback, revisions, and approvals.

This guidance is not intended to replace or subsume individual HPAC members' accreditation standards for IPE, nor is it intended for accreditors to have identical IPE standards. While maintaining individual accreditor's autonomy, the document seeks to encourage increased communication and collaboration and to provide guidance on expectations related to quality IPE.

To guide institutions with programs accredited by HPAC members that have endorsed this guidance (endorsing HPAC members), support individuals charged with implementing IPE, and facilitate communication and collaboration across accreditors, this document:

- Offers consensus terminology and definitions for interprofessional education (IPE) and related concepts to guide plans for developing, implementing and evaluating IPE;
- Encourages institutional leaders to develop a systematic approach to foster IPE in their own institution and, where appropriate, with collaborating academic institutions, health systems, and community partners;
- Provides a framework (rationale, goals, deliberate design, and assessment and evaluation) for program leaders and faculty to develop a plan for quality IPE;
- Provides opportunities for HPAC member accreditation boards/commissions to utilize the guidance to assess their IPE standards and to train site visit teams regarding essential elements of quality IPE.

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INTRODUCTION

The Health Professions Accreditors Collaborative (HPAC), founded in December 2014 by six accrediting bodies, grew to 24 members in 2017.[1] HPAC was established in order to formalize interactions across accreditors and to serve as a platform for proactive problem solving and sharing of information on a broad range of topics. In response to emerging health system change and the creation of national competencies for interprofessional collaborative practice,[2] individual HPAC members have been independently creating accreditation policies, processes, and/or standards for interprofessional education (IPE). Early discussions among HPAC members identified the need to ensure that their individual actions facilitated and were not barriers to the development of effective and quality IPE at constituent institutions. As a first step, HPAC embarked on a multi-year, multi-phase process to create a consensus document that would support the development and implementation of quality IPE. To advance this work, HPAC engaged the support of the National Center for Interprofessional Practice and Education (National Center) at the University of Minnesota.[3]

The urgent need for health professionals to work together and create new models of care is unprecedented. During the past decade, health care in the United States has become more complex and is rapidly evolving to be more team-based across professions, with the emphasis shifting from primarily acute care settings into greater attention to prevention, primary care, and the importance of the community, such as the social determinants of health. This expanded view of how to achieve health is driving new models for interprofessional education and collaborative practice.[4] In order to provide quality and cost-effective care, health professionals must be better prepared to lead and collaborate in interprofessional teams.

At the same time, interest in IPE continues to grow as a means to prepare students for collaborative practice in new models of care with the goal of improving Quadruple Aim outcomes[*] by simultaneously addressing population health, patient experience, per capita cost, and provider work-life balance.[3,5-11] The achievement of the Quadruple Aim requires active student participation and exchange of information across professions.[12] A growing body of evidence indicates that intentional IPE can have a beneficial impact on learners' attitudes, knowledge, skills, and collaborative competencies.[12,13] While small, the number of rigorously designed studies is increasing to suggest that IPE can have a positive impact on professional practice and improve clinical outcomes.[12,14] This growing evidence base is informing a better understanding about conceptual frameworks and important design elements for effective IPE and the importance of research necessary to measure its impact.[11,15]

Endorsing HPAC members recognize that accreditation must play an important role promoting quality IPE that leads to effective health outcomes,[†] including encouraging communication and collaboration across professions and the institutions that sponsor educational programs. To that end, this document was developed in collaboration with the National Center to provide guidance so that students in foundational and graduate education programs[‡] are prepared for interprofessional collaborative practice upon graduation.

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[*] Subsequent use of the term "outcomes" will denote Quadruple Aim outcomes as described/referenced above.
[†] Subsequent use of the term "quality IPE" will denote IPE that leads to effective outcomes.
[‡] Subsequent use of the term "program" will denote foundational and graduate education programs, as described in the Institute of Medicine Interprofessional Learning Continuum Model[11] and depicted in Figure 1 of this document.

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The guidance contained within this document emerged through a process that began in August 2016 with an IPE accreditation-focused presentation designed to engage and capture stakeholder input.[16] HPAC members agreed that they would benefit from collaboration with the larger national IPE movement following review of this input and additional consultation from the National Center and the Interprofessional Education Collaborative (IPEC).[17] HPAC subsequently developed a writing team of volunteer members and officially partnered with the National Center to begin work on this guidance document. Supportive endorsement from HPAC members on the final document was achieved through a series of drafts, stakeholder reactions/feedback, revisions, and approvals as depicted in Appendix A.

The goals of the provided guidance are twofold:

1. To facilitate the preparation of health professional students in the United States for interprofessional collaborative practice through accreditor collaboration; and
2. To provide consensus guidance to enable academic institutions in the United States to develop, implement, and evaluate systematic IPE approaches and IPE plans[*] that are consistent with endorsing HPAC member accreditation expectations.

Quality IPE requires interdependence across professions and an understanding of the roles and responsibilities of those involved in its planning, implementation, and evaluation. Therefore, this document was developed to inform three audiences simultaneously:

- Presidents, Chancellors, Vice-Chancellors, Provosts, and other leaders who have institutional responsibility for accreditation and IPE at their institutions of higher education;

- Deans, Department Chairs, Directors, faculty, and other health program leaders who are responsible for planning and implementing IPE learning activities that will meet the objectives of their own programs and the expectations of relevant accrediting bodies; and

- HPAC member accreditation board/commission members and evaluators who will be developing and/or reviewing IPE standards and procedures.

Some guiding principles in this document are germane to all three audiences while other guidance is audience-specific. This guidance is not intended to replace or subsume individual HPAC members' accreditation standards for IPE, nor is it intended for accreditors to have identical IPE standards. While maintaining individual accreditor's autonomy, the document seeks to encourage increased communication and collaboration and to provide guidance on expectations related to quality IPE. Program leaders are encouraged to work with their respective accreditors to determine the most effective manner in which to implement the guidance contained within this document.

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[*] Systematic IPE approaches and IPE plans are described in detail in the "Institutional Leaders" and "Program-Specific Leaders and Faculty" sections, respectively.

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GENERAL GUIDANCE

TERMINOLOGY

Several historical and contemporary developments have shaped endorsing HPAC members' approach to IPE and the creation of this specific guidance document. Over the course of several decades, influential organizations throughout the United States and globally have advocated convincingly that graduates of health professional degree and training programs need to be prepared for interprofessional collaborative practice.[2,3,8,10,11,18-23] The role of regulatory and accrediting bodies is considered integral to achieving this goal.[6,20] The incorporation of IPE accreditation standards across professions is a recognition of their importance to health care delivery in the United States and of the development and maturation of the field.[23-25]

The emergence of consensus terminology within the field, led by the World Health Organization (WHO)[8] and the Interprofessional Education Collaborative (IPEC),[2,22] has allowed endorsing HPAC members to collaborate and coordinate efforts in the development of this guidance document. Individual HPAC member standards may include variations of the specific terminology and definitions, but the variations are consistent in scope and purpose with the information below.

Table 1 includes consensus terminology in the published literature recognized by endorsing HPAC members as a significant contribution to the field of IPE. The rapidly evolving nature of the field is apparent in the emergence of modifications and elaborations upon these definitions since their publication. Consensus terminology and endorsing HPAC members' interpretation of key elements related to "about, from, and with" aspects of IPE follows.

Table 1. Consensus terminology in the published literature

Term	Definition	Organization
Interprofessional Education	"When students from two or more professions learn about, from and with each other to enable effective collaboration and improve health outcomes."	WHO*
Interprofessional Collaborative Practice	"When multiple health workers from different professional backgrounds work together with patients, families, carers†, and communities to deliver the highest quality of care."	WHO*
Interprofessional Teamwork	"The levels of cooperation, coordination and collaboration characterizing the relationships between professions in delivering patient-centered care."	IPEC‡
Interprofessional Team-Based Care	"Care delivered by intentionally created, usually relatively small work groups in health care who are recognized by others as well as by themselves as having a collective identity and shared responsibility for a patient or group of patients (e.g., rapid response team, palliative care team, primary care team, and operating room team)."	IPEC‡

* World Health Organization (2010). *Framework for action on interprofessional education & collaborative practice.* Retrieved June 27, 2018, from http://whqlibdoc.who.int/hq/2010/WHO_HRH_HPN_10.3_eng.pdf.

† The term "caregivers" is more commonly used in the United States.

‡ Interprofessional Education Collaborative (2016). *Core competencies for interprofessional collaborative practice: 2016 update.* Retrieved June 27, 2018, from https://nebula.wsimg.com/2f68a39520b03336b41038c370497473?AccessKeyId=DC06780E69ED19E2B3A5&disposition=0&alloworigin=1.

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Increasingly, IPE experiences are offered across foundational, graduate and residency education as well as in continuing professional development for current health professionals (Figure 1).[11,12] All involved in health care delivery are now considered interprofessional learners. Endorsing HPAC members recognize these developments as important, particularly that in this broader context, the term "students" can be replaced by "members and learners" in the WHO definition of IPE.* Because the focus of this guidance document is the stage of responsibility of the HPAC members; specifically, the foundational and graduate education of students or trainees, the original WHO definition's focus on students is appropriate. To create and implement effective IPE for these specific learners, all aspects of classroom, simulated and clinical learning environments need to be taken into consideration. To this end, endorsing HPAC members offer guidance as it relates to "about, from, and with" to facilitate the effective development and implementation of quality IPE. Furthermore, these HPAC members acknowledge that the target of IPE is to prepare graduates of programs for collaborative practice with the primary goal to improve outcomes.

"When students from two or more professions learn about, from, and with each other to enable effective collaboration and improve health outcomes."[8]

- ***About*** **–** Students will gain knowledge *about* professions, disciplines, specialties and health workers† for the purpose of collaboration to improve outcomes. Examples of this knowledge include roles and responsibilities, scopes of practice, licensure and the stereotypes that create barriers to quality health care. Because of the breadth of professions contributing to these outcomes, IPE content about professions will more likely than not extend beyond those represented at a single institution.

- ***From*** – In order for students to master interprofessional knowledge and skills and develop collaborative behaviors, IPE involves active participation and the exchange of information between learners of different professions.[12] Therefore, IPE needs to be designed so that students are learning *from* students enrolled in other programs on campus and/or collaborating institutions as well as *from* practitioners or professionals in health systems and the community.

- ***With*** **–** As a pre-requisite for effective IPE "about" and "from" as described above, using a variety of learning modalities, students in endorsing HPAC member-accredited programs need to be *with* students, practitioners, and professionals from other health professions at their own and/or collaborating institutions and at health system and community partners.

The adoption of consensus terminology is crucial to the development of quality IPE and acts as a contributor to collaboration across endorsing HPAC member programs. Similarly, adoption of consensus learning models and IPE measurement strategies can facilitate further collaboration across programs. The Institute of Medicine Interprofessional Learning Continuum Model provides one example (Figure 1).[11] A shared understanding of IPE terminology, learning, and measurement will guide more uniform expectations for the development, implementation and evaluation of quality IPE.

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* Subsequent use of the term "students" will be used to denote members and learners involved in IPE.
† Subsequent use of the term "professions" will denote "professions, disciplines, specialties, and health workers."

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Figure 1. The Institute of Medicine Interprofessional Learning Continuum Model

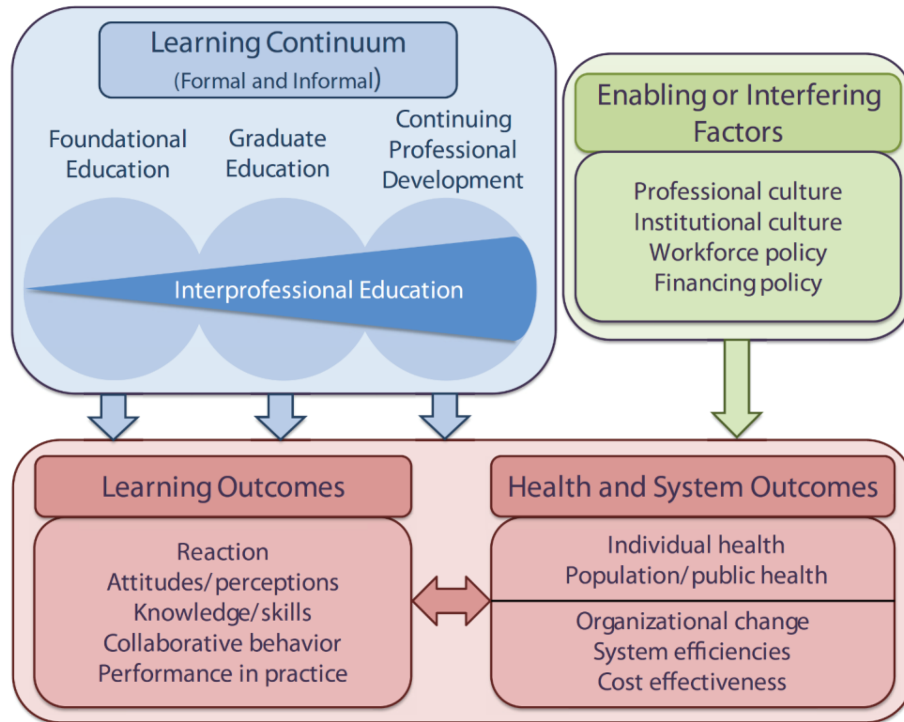

Figure reprinted with permission from *Measuring the Impact of Interprofessional Education on Collaborative Practice and Patient Outcomes*, 2015 by the National Academy of Sciences, courtesy of the National Academies Press, Washington, D.C.

To meet expectations for quality IPE, it is recommended that programs accredited by endorsing HPAC members utilize consensus terminology and learning models to create IPE plans that include the following four characteristics (described in more detail in the audience-specific guidance section "Program-Specific Leaders and Faculty"):

1. Rationale: Articulates a vision, framework, and justification for the IPE plan;

2. Outcome-based Goals: Stated in terms that will allow the assessment of students' achievement of objectives and interprofessional competencies for collaborative practice;[2]

3. Deliberate Design: Intentionally designed and sequenced series of classroom, extracurricular, and clinical learning activities integrated into the existing professional curriculum and longitudinal in nature, spanning the entire length of the program and including content and instructional formats appropriate to the level of the learner and to the outcome-based goals; and

4. Assessment and Evaluation: Methods to assess individual learners' mastery of interprofessional competencies and to evaluate the IPE plan for quality improvement purposes; and if appropriate, education and practice outcomes research and scholarship.

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THE INTERPROFESSIONAL EDUCATION ENVIRONMENT

Collaboration and coordination across academic institutions and with health system and community partners are required to implement a longitudinal, sequenced series of classroom, extracurricular, and clinical IPE learning activities as recommended by this guidance. Endorsing HPAC members recognize the complexities involved and acknowledge that IPE environments vary based on local circumstances. It is with this complexity in mind that this section of the guidance document recognizes the importance of creating supportive environments and opportunities for collaboration with the explicit goal of fostering and facilitating the successful implementation of coordinated program-specific IPE plans. HPAC also recognizes the high degree of variability across its constituents, which range from geographically isolated single programs to urban academic health centers with multiple programs located in close proximity to one another. The former will likely need to collaborate with external academic institutions in order to achieve quality IPE, while the latter may or may not have an appropriate mix of programs to do so within their single institution.

Today, the reality is that accreditors independently evaluate the IPE environments of their constituent programs. This is happening largely through the lens of an individual profession and is based on accreditation standards specific to that profession. While most accreditors have incorporated IPE into their standards, expectations for what constitutes quality IPE vary across accrediting agencies. Therefore, with potentially different interpretations of the field and expectations for what constitutes quality IPE, it is conceivable that evaluative feedback and guidance to programs participating in similar IPE activities could be contradictory. Thus, the discussions between endorsing HPAC member agencies to reach consensus through the development of this guidance in order to help programs develop quality IPE are truly historic.

AUDIENCE-SPECIFIC GUIDANCE

INSTITUTIONAL LEADERS

While grassroots faculty engagement and student enthusiasm for IPE are important, grassroots efforts alone are unlikely to create a sustainable IPE initiative. Institutional leaders have an important responsibility to assure that students are prepared for interprofessional collaboration for the rapidly changing health care environment in the United States. Collaboration among Presidents, Provosts, Chancellors, Vice-Chancellors and Councils of Deans to provide organizational support and resources such as time, space and finances is a critical success factor for IPE.[12,26,27] Quality IPE necessitates programs working across an institution, and often requiring engagement of external stakeholders such as other academic institutions, health systems and community partners. Institutional leaders can help stimulate and/or drive the creation of a systematic IPE approach, fostering a collaborative environment and negotiating important relationships for IPE within and, if necessary, outside the institution.

Endorsing HPAC members encourage each program to develop, implement, and evaluate an IPE plan that assures their graduates will be prepared for their specific profession or specialty. It is logical for the various IPE plans throughout a single institution to articulate with one another so that the objectives of each can be achieved. A systematic IPE approach that is strategic and coordinated at the institutional level with commitments and investments from institutional leaders, thus, is deemed optimal to ensure the success of program-specific IPE plans. A realignment of existing resources may be necessary.[10] For

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IPE to be successful and sustained, investments in support of the four characteristics of quality IPE plans will likely be required. For example, faculty protected time for creating interprofessional relationships across programs is critical. Similarly, IPE-related faculty development opportunities and promotion criteria that recognize IPE contributions encourage quality IPE. Furthermore, institutional leaders play an important role in addressing common barriers to successful IPE implementation. Examples include policies and procedures that may inhibit IPE, calendars that conflict across programs, logistical support infrastructure (e.g., classrooms, scheduling), and financing models such as tuition attribution across academic programs.

Endorsing HPAC members offer the following as examples of institutional commitment and leadership that can be tailored for institutional IPE approaches to support the development, implementation, and evaluation of IPE plans:

- Strategic direction and approach, through a compelling vision to “set the tone at the top” led by academic and institutional leaders (e.g., Presidents, Chancellors, Vice-Chancellors, Provosts, Council of Deans);

- Appropriate resources to develop, implement, evaluate, and sustain the IPE plan (e.g., dedicated faculty time to IPE, staff, space and finances) at the institutional and education and/or training program levels;

- Logistical support and management (e.g., alignment of academic calendars, scheduling, classroom and facilities planning and design, common affiliation agreements with health systems);

- Dedicated leader and/or team of leaders with sufficient protected time, responsibility and accountability for IPE at the institutional level;

- Coordinating structure to facilitate joint IPE curricular planning and oversight involving faculty and administrative leaders from participating education and/or training programs;

- Development of financing models, including tuition-attribution for IPE in concert with individual program models;

- Identification and development of solutions for institutional policies that may hinder interprofessional collaboration;

- Faculty development related to the planning, implementation, and assessment/evaluation of IPE activities in classroom, simulation and clinical/experiential education settings; and

- Formal recognition of faculty effort toward successful implementation of IPE (e.g., job expectations, the promotion/tenure process).

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PROGRAM-SPECIFIC LEADERS AND FACULTY

Program leaders (e.g., Deans, Department Chairs, Directors) and faculty of programs accredited by endorsing HPAC members have primary responsibility for the four characteristics of quality IPE plans (rationale, outcome-based goals, deliberate design, and assessment and evaluation) within and across programs. To be successful, this group needs to learn "about, from and with" faculty and other stakeholders in their own program and across programs to create IPE plans that articulate with others. Program leaders and faculty can benefit from and contribute to research, scholarship, and faculty development in the maturing field of interprofessional education and collaborative practice. The field now has its own growing body of research and peer-reviewed literature with best evidence to promote quality IPE planning, implementation and evaluation. The four components are discussed in detail in the subsections that follow.

Rationale

Quality IPE starts with a clear rationale for planning and implementation in a specific context to communicate to multiple audiences. This rationale serves as an aspirational vision for multiple audiences that may include the context, the reasons for the approach, expected competencies and learning outcomes, content, teaching/learning approaches, and measures of success. Because interprofessional planning and implementation are complex and likely new for many stakeholders, program leaders and faculty can provide a conceptual model to describe an overview for linking various activities to learning outcomes and health/wellbeing of patients and clients. One example is the Institute of Medicine Interprofessional Learning Continuum Model (Figure 1) that demonstrates the relationships between activities in developmental phases for entry-level and graduate students, residency and specialty trainees, and practicing health professionals.[11] While the continuum of IPE stretches throughout any given individual's career, this guidance document is designed to focus on students at the foundational and graduate education levels. As students progress through the IPE plan, learning outcomes are geared for their level of learning; from reactions and change in attitudes/perceptions for early learners to acquisition of knowledge/skills and demonstration of collaborative practice behaviors for later learners.

Outcome-based Goals

Program-specific IPE plans for student learning also benefit from clearly articulated, achievable, and measurable goals that are competency-based for appropriate levels of learning and outcome-based for the educational program. Charting expectations for individual students along the foundational and graduate education continuum provides indicators and developmental milestones for planning, implementing, and evaluating IPE learning activities at appropriate times. These expectations can be aligned with those for students in other programs and are essential for mastering collaborative practice competencies and establishing the basis for progression of learning assessments.[11] Furthermore, having a comprehensive conceptual model provides a framework for discussion of the evidence linking IPE with learning and the primary goal of health and system outcomes.

Endorsing HPAC members support student achievement of the four IPEC competencies contained in the 2016 update,[2] described below or with minor modifications that embrace the substance of these competencies:

- Competency 1, Values/Ethics for Interprofessional Practice: Work with individuals of other professions to maintain a climate of mutual respect and shared values.

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- Competency 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 patients and to promote and advance the health of populations.

- Competency 3, Interprofessional Communication: Communicate with patients, families, communities, and professionals in health and other fields in a responsive and responsible manner that supports a team approach to the promotion and maintenance of health and the prevention and treatment of disease.

- Competency 4, Teams and Teamwork: Apply relationship-building values and principles of team dynamics to perform effectively in different team roles to plan, deliver, and evaluate patient/population-centered care and population health programs and policies that are safe, timely, efficient, effective, and equitable.

In specific situations, other additional competencies may be appropriate.

Deliberate Design

In order to achieve the goals of the IPE plan and support students' mastery of interprofessional competencies, learning activities are optimized when they are integrated into the existing curriculum and longitudinal in nature, spanning the entire length of the program (i.e., from classroom-based to clinical/experiential-based IPE). In order for students of one profession to learn about and from another, student learning with students in other programs is critical to the success of IPE. In designing IPE that reflects students' current or future practice,[12] students may be located on the same campus or at one or more collaborating institutions. In assembling students to participate in a given IPE learning activity, attention is needed to the developmental stage of the students and how the students will work together to achieve the goals and learning objectives for their level of learning.

Principles of adult learning, engagement for understanding perspectives, and exchange of information are important features for facilitating quality IPE.[12,27] Examples of IPE learning activities include required and elective IPE courses, student-to-student IPE learning activities embedded in required courses, student-to-student IPE learning activities on clinical rotations, student-to-practitioner IPE learning activities during clinical observations/clinical rotations, and IPE simulations. Additionally, IPE learning activities can take place outside the formal classroom or clinical setting to achieve program goals. Examples include IPE service learning activities, student-run clinics, and student participation in IPE seminars and conferences.

Endorsing HPAC members acknowledge IPE activities will vary based upon institutional priorities and program-specific IPE plans, goals, design, selection of learning modalities (Table 2), types and levels of students involved, and the facilitators of interprofessional learning. Furthermore, the goals and objectives of the specific IPE course or the required course within which an IPE learning activity is embedded must be considered. Endorsing HPAC members also acknowledge that multiple learning modalities or combinations of learning modalities (due to expected overlap), can be used to achieve the goals and objectives of IPE learning activities. Educators are encouraged to select learning modalities based on the objectives of the IPE learning activity and the type and level of the students involved.

Examples of HPAC-recognized learning modalities include, but are not limited to, those listed in Table 2.

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Table 2. Interprofessional education learning modalities

Learning Modality	Description	Examples
In-Person Learning	Face-to-face, synchronous learning activities where students from one program learn with students from another program or with practitioners representing different professions from their own	• Case discussions • Simulations • Service learning • Clinical observations • Clinical rotations
Collaborative Online Learning	Online collaborative learning activities, completed synchronously or asynchronously, where students from one program learn with students from another program or with practitioners representing different professions from their own	• Video conference discussions • Mock electronic medical record collaborations • Interprofessional gaming • Chat room discussions • Simulations

Independent learning, online or traditional (e.g., reading assignments), has been proposed as a mechanism to acquire knowledge about other health professions and interprofessional collaborative practice. Examples include watching videos detailing roles/responsibilities of other professions or completing readings about the scientific basis of teams and teamwork. As a singular approach, this may be valuable in gaining knowledge; however, it would not be adequate, independent of other learning modalities, to achieve desired interprofessional competencies.

Figure 2 offers a visual example that combines the first three characteristics of the IPE plan, with the use of an interprofessional socialization framework to facilitate dual identity development as the underpinning rationale.[28] This image conveys an intention to ensure that students' professional identities are shaped via simultaneous exposure to experiences that promote uniprofessional and interprofessional socialization and competency development through longitudinal and developmentally appropriate classroom, extracurricular, and clinical learning activities. The emergence of a dual identity, as a member of a distinct profession and as a member of an interprofessional team, allows graduates to contribute their unique professional expertise to team-based care.

Figure 2. Longitudinal integration of professional and interprofessional competencies

[*] Adapted with permission from the UW-Madison School of Pharmacy Interprofessional Education Program

Assessment and Evaluation

IPE plans require a coordinated strategy for assessing learners on their development and mastery of interprofessional collaborative practice competencies, and for evaluating the implementation and immediate impact of the IPE plan.

- *Learner Assessment*: Learner assessment serves various purposes, including providing feedback to individual students and teams to promote their own learning and improvement; determining levels of competency to meet requirements for grading or certification; and providing aggregate data for IPE plan evaluation and scholarly research. A strategy for learner assessment, then,

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would take into consideration these various purposes. The scope of assessment includes reactions to IPE itself, changes in learner attitudes and perceptions of other professions, the acquisition of interprofessional collaborative practice knowledge and skills, the demonstration of collaborative behaviors in training, and the performance of these behaviors in practice (Figure 1).[11] Robust learner assessment would combine a variety of self-reported, teacher-observed, and objective measures. Such assessment would also provide qualitative feedback as well as comparative performance data to learners. The field of measurement in IPE is growing. There are many good instruments with evidence of validity that program leaders and faculty can choose from in designing their assessment strategy.[29-31]

- *IPE Supervision/Precepting*: Today, who can supervise and precept teams of students to ensure mastery of interprofessional collaborative practice knowledge, skills and behaviors as they develop their dual professional and interprofessional identities is still evolving. Current decisions about the role of individual profession supervision are guided by a variety of factors such as tradition, accreditation standards, state practice legislation, state board regulations, and individual program and faculty governance. Therefore, clear guidance at a national level is premature. It is expected that over time research and experience with IPE will inform what competencies are needed for IPE supervision/precepting.

- *IPE Plan Evaluation*: It is critical to monitor and evaluate the process of IPE plan implementation as well as its immediate impact on students and outcomes (e.g., percentage of students achieving desired levels of competency, the percentage of teams achieving clinical quality improvement benchmarks). IPE plan evaluations that are stakeholder-based and designed to address questions and needs of the specific audiences described in this document (e.g., institutional and program leaders, faculty, and accreditors) would be valuable. A robust evaluation would include not only learner assessment data, but the perceptions of IPE plan stakeholders (including students[12]) as well as neutral observers, and information related to its costs and benefits.

Given the complexity of the IPE environment, including partnerships between multiple programs, it would be advantageous for program leaders to consider ways to collaborate and coordinate their assessment and evaluation strategies across programs. This would likely gain efficiencies in data collection and reporting and conceivably provide sufficient sample sizes to support more rigorous evaluation.

The National Center for Interprofessional Practice and Education's "Assessment and Evaluation" webpage is designed to serve as a valuable online resource for IPE plan designers.[32] It contains a series of practical guides on assessment and evaluation, a measurement "primer," and several webinars on measurement geared for IPE and collaborative practice audiences. It also contains a curated collection of approximately 50 measurement instruments, which are searchable by target population, instrument type, content, and other parameters. Other important assessment/evaluation references are found in the literature.[33-36]

ACCREDITATION BOARDS/COMMISSIONS/EVALUATORS

Endorsing HPAC members have committed to learning about, from, and with each other in the true spirit of interprofessional collaboration. The HPAC collaboration with the National Center models the importance of connecting with and relating to other stakeholders, as needed, to foster quality IPE. Discussions at meetings and the committed effort in preparing this guidance document have better informed HPAC members of the societal importance of IPE and of the opportunity to educate others and each other about matters that will facilitate the achievement of quality IPE across endorsing HPAC member-accredited programs.

This guidance document will be useful to accreditors at a variety of levels. The endorsing HPAC member boards and commissions have supported the purpose and content of the guidance document. In their periodic revision of standards, policies and procedures, these HPAC member boards and commissions, and hopefully other accreditors, will have the guidance document as an important reference. Some HPAC member boards and commissions have already considered the concepts described in this guidance document in their standards revision processes. Moreover, further experience with the success stories of systematic IPE approaches and profession-specific IPE plans, including their assessment in the literature, feedback from stakeholders, and the collective evaluative experience will undoubtedly result in opportunities for further IPE guidance.

Endorsing HPAC member site visit teams are encouraged to consider the information in this guidance document in the context of their own profession's standards, policies, procedures and the desired professional outcomes. Thus, the site visit teams would benefit from the enhanced understanding of the concepts in this guidance document. Likewise, the accreditors are encouraged to consider how to guide their site visit teams and decision makers about the assessment of both the presence of a systematic IPE approach from institutional leaders and program-specific IPE plans from program leaders, relative to the context of the standards of the specific profession or specialty.

CONCLUSION

The endorsing HPAC members and the National Center are pleased to offer this document to assist health professions education and/or training programs in developing, implementing, evaluating, and improving IPE initiatives through the guidance contained herein. Endorsing HPAC members hope this historic collaboration will guide the development of quality IPE in the United States, with the ultimate goal of fostering improvements in the health, well-being, and outcomes of people/patients/clients, families, populations, and providers.

ACKNOWLEDGEMENTS

Endorsing HPAC members would like to acknowledge the writing team for facilitating and incorporating feedback throughout the iterative process employed to develop this document, the National Center for Interprofessional Practice and Education for its role contributing information regarding contemporary trends in the field, including scholarship and evidence, and the Association of Specialized and Professional Accreditors[37] for its support providing facilities for HPAC meetings where this document was discussed.

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APPENDICES

Appendix A. Process to reach consensus and endorsement of the guidance document

MONTH	YEAR	ACTIVITY
April	2017	HPAC meeting to expand membership, approve plan for development of guidance document, and approve volunteer HPAC/National Center writing team
June-July	2017	Guidance outline drafted by writing team
August	2017	National Center Conversation Café presentation with reactions/feedback to outline
September	2017	HPAC meeting to address Conversation Café presentation reactions/feedback and to reach consensus on outline
October	2017	Outline finalized by writing team and sent to HPAC boards/commissions for feedback and approval to draft document
March	2018	Guidance document drafted by writing team incorporating feedback from HPAC boards/commissions
April	2018	HPAC meeting to discuss and provide feedback on draft document
May	2018	Final feedback from HPAC members sent to writing team for incorporation into document
June	2018	Document finalized by writing team and sent to HPAC boards/commissions for endorsement

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