

A Statewide Interprofessional Education (IPE) Digital Badging System

Preparing Health Care Graduates for Team-Based Care

In collaboration with a working group of Interprofessional Education leaders from 2-year and 4-year colleges and universities across Maryland, the William E. Kirwan Center for Academic Innovation is working with interested health care academic programs in the first phase (18 months) of a statewide project aimed at increasing the availability, quality, and visibility of Interprofessional Education (IPE) through digital badging.

A Need to Make IPE Competency Development More Robust and Visible

In today's collaborative, patient-centered health care environment, studies have demonstrated that team-based care improves patient-related clinical outcomes, especially for patients with chronic medical conditions and historically inequitable access to health care.¹ As such, healthcare practitioners need to have the knowledge and skills to function capably in interprofessional teams. An international movement to offer interprofessional education (IPE) to health professions students has taken hold in response to this workforce need for collaborative practice. IPE is defined as “occasions when two or more professions learn from, with, and about each other to improve collaboration and the quality of care.”² Student participation in IPE activities for health professions disciplines is paramount to preparing them for team-based care.

While many two-year and four-year institutions of higher education in Maryland offer an array of IPE experiences for their students, these experiences are often elective and can be sporadic. Relatively few health professions students will participate in IPE activities with the duration and intensity necessary to build competency. Moreover, even with robust IPE programs, there is a need to help students “connect the dots” across their IPE experiences and help make their competency development more visible, to themselves and to prospective employers.

Digital Badging as a Means to Strengthen IPE Competency Development

To address this challenge and help ensure that all health professions students graduate with core competencies needed for the provision of team-based care, an IPE working group from across two-year and four-year colleges and universities in Maryland have embarked upon the creation of an IPE Digital Badging system. An IPE Digital Badging system will provide a means by which faculty and staff can align existing and newly developed IPE activities with nationally recognized IPE competencies and ensure sustained opportunities for students to practice and improve. Just as importantly, an IPE Digital Badging

¹ See, for example, Rowe GC, Congdon HB, et al. (2021, Sept.). Interprofessional education clinics and improved outcomes for primary care patients with diabetes. *Journal of Interprofessional Education and Practice*, 24; Hutchison RW, Jr. (2014, Nov.). Treating diabetes in underserved populations using an interprofessional care team. *Journal of Interprofessional Care*, 28(6), 568-569.

² World Health Organization. (2010). Health Professions Networks Nursing & Midwifery Human Resources for Health: Framework for Action on Interprofessional Education & Collaborative Practice, p. 13. Available at <https://www.who.int/publications/i/item/framework-for-action-on-interprofessional-education-collaborative-practice>

system will provide the means by which students can more clearly communicate their achievement of IPE competencies to employers.

The Maryland IPE Digital Badging system will capitalize on the ability of digital badges to signal evidence of students' competency as well as the institution's validation of students' proficiency in a given competency area. This allows employers and others more insight into exactly what the badge earner accomplished to achieve that badge. Additionally, because they are openly accessible, these badges can be shared through digital portfolios and social and professional networks such as Facebook and LinkedIn. Badges are also "stackable," which means that students can display earned badges as they go and follow a trajectory to higher levels of competency. This organizing principle for conveying levels of competency to others aligns well with existing tiered frameworks for IPE skill development.³

Background: Drivers of Interprofessional Education

A number of forces are coalescing to drive institutional interest in IPE, suggesting that now is an opportune time to develop and pilot an IPE Digital Badging system.

Accreditation Standards

Academic program accreditation is one of the most significant drivers for curricular change related to interprofessional education. Most accrediting bodies have now incorporated, or are planning to incorporate, IPE into their standards. The American Association of Colleges of Nursing, for example, has integrated interprofessional collaboration behavior expectations into their standards.⁴ The Association of American Medical Colleges has identified IPE as an issue of action. Accreditation standards for dental education programs contain language promoting collaboration with other health professionals,⁵ and pharmacy accreditation requirements now incorporate consistent language around cooperation in an interprofessional team.⁶

Strengthening the Health Care Workforce

In 2016, the University System of Maryland (USM) Board of Regents and Chancellor convened a Health Care Workforce Working Group to investigate the role of USM in preparing a robust and highly trained health care workforce for the state. The Working Group produced a final report in 2018 that included a threefold vision for interprofessional education across the USM:

- 1) Establish Maryland and USM as a national leader in IPE,
- 2) Ensure that our students receive a distinctive educational experience that sets them apart from others educated elsewhere, and
- 3) Provide the citizens of Maryland access to an unmatched level of high-quality care because of

³ See, for example, the [University of Toronto Framework for the Development of Interprofessional Values and Core Competencies](https://ipe.utoronto.ca/general-curriculum) [PDF], which is also linked on this page: <https://ipe.utoronto.ca/general-curriculum>.

⁴ Commission on Collegiate Nursing Education. (2009). *Standards for accreditation of baccalaureate and graduate degree nursing programs*. Retrieved Sept. 9, 2021, from <https://www.aacnursing.org/Portals/42/CCNE/PDF/Standards-Final-2018.pdf>

⁵ Commission on Dental Accreditation. (2010). *Accreditation Standards for dental education programs*. Retrieved Sept. 9, 2021, from https://www.ada.org/~media/CODA/Files/predoc_standards.pdf?la=en

⁶ Accreditation Council for Pharmacy Education. (January 2011). *Accreditation standards and guidelines for the professional program in pharmacy leading to the Doctor of Pharmacy degree*. Retrieved Sept. 9, 2021, from <https://www.acpe-accredit.org/pdf/Standards2016FINAL.pdf>

our IPE model.⁷

As part of the work that led to the developing of this IPE vision, the Working Group conducted an environmental scan across the USM institutions. All of the institutional respondents indicated that IPE was either a “high” or “moderate” priority at their institution. Participant responses suggested that major drivers for enhancing IPE across USM included accreditation requirements, institutional culture and support, and faculty interest. The scan, conducted in 2017, also inventoried IPE activities and assets available to students across the USM.

Nationally, entities such as the Josiah Macy Foundation have highlighted the demand for graduates trained in IPE. Today’s health care students need practice developing IPE skills at increasingly sophisticated levels to help them transition seamlessly to contemporary health care workplaces.⁸

An Urgent Need to Address Health Care Disparities

It has been well documented that, even after controlling for social determinants of health such as socioeconomic status, health behaviors, comorbidities, level of insurance, and level of access to providers, racial disparities in health care still exist.⁹ Eliminating racial inequities requires addressing the uncomfortable reality that healthcare professionals simply do not provide BIPOC (Black, Indigenous, and people of color) patients with the same level of care as they do white patients. IPE that reflects principles of diversity, equity, and inclusion has an important role to play in helping to better attune healthcare professionals to their biases and equip them with skills and tactics needed to address them.

The Formation of IPEC and the Development of Competencies for Interprofessional Collaborative Practice

As interprofessional education and collaboration become more mainstream, it became apparent that a set of competencies was needed to provide structure to interprofessional learning. In 2009, six of the major health profession associations formed the Interprofessional Education Collaborative (IPEC), which today has grown to 21 national health professions associations.¹⁰ In 2011, IPEC put forth a set of Core Competencies for Interprofessional Collaborative Practice.¹¹ IPEC representatives felt that competencies were needed to create a coordinated effort across the health professions to embed essential content in all health professions education curricula as well as guide professional and institutional curricular development of learning approaches and assessment strategies to achieve productive outcomes. The IPEC Core Competencies include four domains (see Appendix A).

⁷ To access the report, see <https://www.nursing.umaryland.edu/media/umb/umson-mnwc/Health-Care-Workforce-Report-FINAL-Jan-2019.pdf>.

⁸ See, for example, the Macy Foundation’s priority area related to “increasing collaboration among future health care professionals” -- <https://macyfoundation.org/our-priorities>.

⁹ See, for example, Institute of Medicine. (2003). *Unequal treatment: Confronting racial and ethnic disparities in health care*. Washington, DC: The National Academies Press; Institute of Medicine. (2012). *How far have we come in reducing health disparities? Progress since 2000: Workshop summary*. Washington, DC: The National Academies Press.

¹⁰ The full list of IPEC members is available at: <https://www.ipecollaborative.org/membership>

¹¹ Interprofessional Education Collaborative Expert Panel. (2011). *Core competencies for interprofessional collaborative practice: Report of an expert panel*. Washington, D.C.: Interprofessional Education Collaborative. Retrieved Sept. 9, 2021 from <https://ipec.memberclicks.net/assets/2011-Original.pdf>

The National Center for Interprofessional Practice and Education

In addition to IPEC, the National Center for Interprofessional Practice and Education is increasing the visibility of IPE as a critical component of health professions education and advancing knowledge about effective models for team-based care that can be effectively integrated into different clinical and learning environments. The National Center is a unique public-private partnership that provides the leadership, evidence and resources needed to guide the nation on the use of interprofessional education and collaborative practice as a way to enhance the experience of health care, improve population health, and reduce the overall cost of care.

The Maryland IPE Digital Badging System

The Maryland IPE Digital Badging system draws on the IPEC Core Competencies for Interprofessional Collaborative Practice and focuses on developing students' skills in four domains:

- Interprofessional Communication Practices
- Roles and Responsibilities for Collaborative Practice
- Values/Ethics for Interprofessional Practice
- Interprofessional Teamwork and Team-based Practice

The four domains would each span three tiers of IPE experiences that help students develop increasing levels of competency.¹² An IPE digital badge could be earned for each tier for a total of three badges per domain:

- Exposure IPE (introductory IPE experiences)
- Immersion IPE (simulation experiences to practice skills learned in the Exposure IPE tier)
- Competence IPE (experiential/clinical practice IPE experiences with direct patient care)

In phase one, the intent behind the IPE Digital Badging System is for participating institutions to:

1. Test a draft digital badging framework that is being developed based on IPEC competencies. Initial development is being undertaken by Dr. Heather Congdon, co-director of the UMB Center for Interprofessional Education, with input from the IPE working group.
2. Curate and make visible the existing curricular, co-curricular, and experiential/clinical experiences that constitute the "landscape" of badge-earning opportunities at their institutions. Additionally, new IPE experiences would be developed where necessary to meet IPE Digital Badging system parameters.
3. Design the parameters for achievement of each of the three "tiers" in the badge-earning process.
4. Develop assessments that, in addition to requiring students to present artifacts from the activities in which they have engaged, asks them to reflect on their growth, articulate the skills they have developed and areas for improvement, and support their claims with evidence.

¹² The Maryland IPE Planning Group drew on a tiered IPE framework produced by the University of Toronto. See University of Toronto Center for Interprofessional Education's 2012 [Framework for the Development of Interprofessional Values and Core Competencies](https://ipe.utoronto.ca/general-curriculum) [PDF], which is also linked to this page: <https://ipe.utoronto.ca/general-curriculum>.

Benefits of Badging IPE

The IPE Planning Group believes that the IPE Digital Badging system can benefit institutions, students, and employers by providing a mechanism to increase intentionality and transparency across curricular and co-curricular offerings. Moreover, digital badges complement traditional credentials by giving students a way to communicate to employers what they know and are able to do in relation to important skills surrounding team-based care. In turn, badges help employers improve fit and match between graduates and employment opportunities.

Project Timeline

January 2022 - points of contact identified by January 7, informational webinar on January 14th, finalize institutional participants in phase one.

February-June, 2022 - project kick off, review of working group efforts to date, institutional inventory of existing IPE offerings (scope and scale), institutional mapping of existing activities to badging framework (three tiers), draft common assessment tools, begin initial pilots of one or more badge tiers if feasible.

July-December, 2022 - review results of any initial pilots to inform ongoing improvements to the framework, launching of new pilots/expanding existing pilots, begin to develop new IPE offerings if gaps are uncovered, examine the ways in which students connect to IPE offerings/marketing of IPE badges.

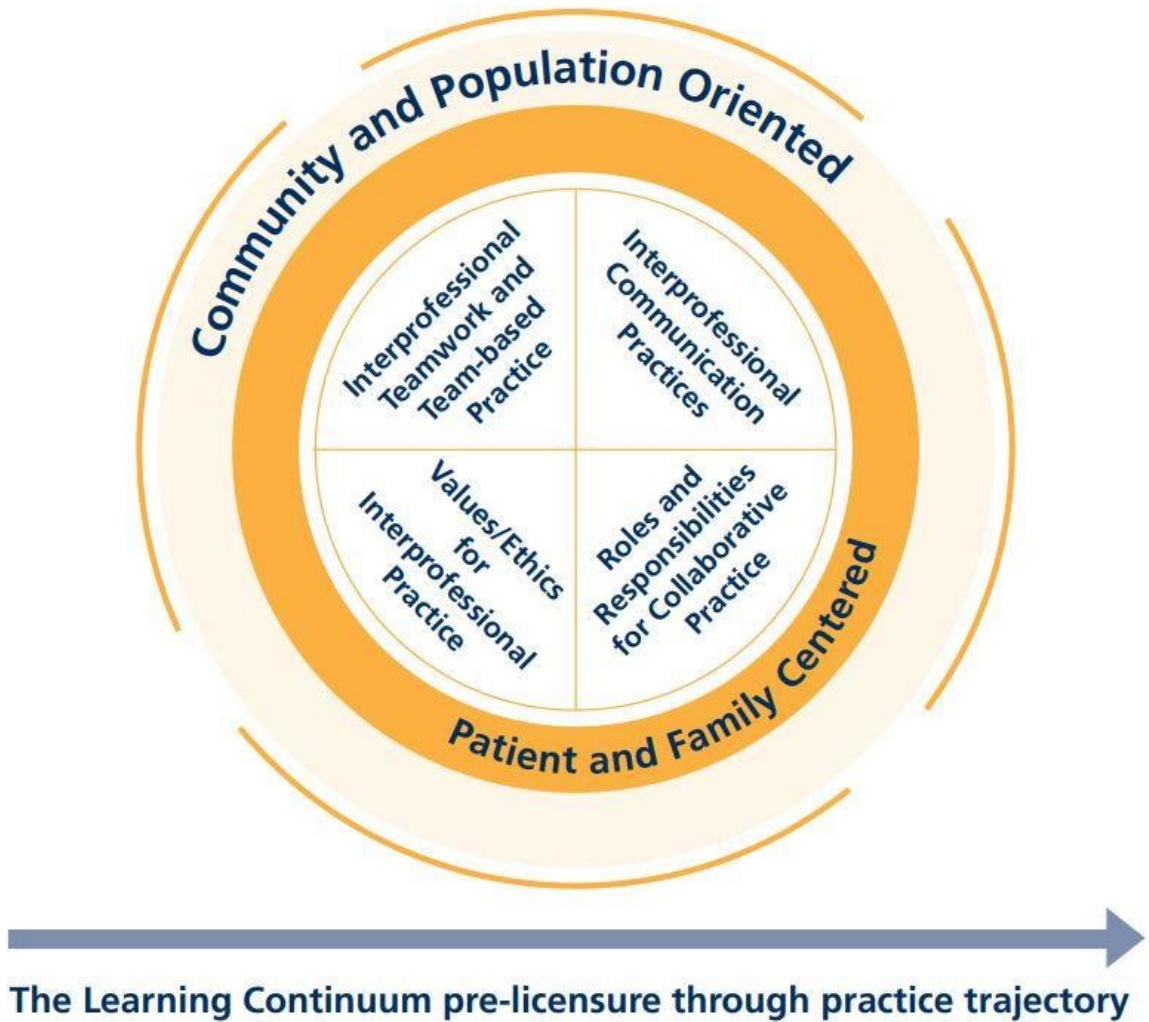
January-June, 2023 - work with senior leaders to plan for sustainability into later phases, continue with development and assessment of IPE offerings, develop evaluation and dissemination opportunities.

July 2023 onward - to be developed in conjunction with participating institutions, but future directions could include cross-institutional IPE offerings for students, building badge pathways across institutions, addressing questions of continuous improvement and sustainability of IPE offerings, continue with evaluation and dissemination opportunities.

Maryland Interprofessional Education Team Leads, June 2023

Institution	FName	LName	Title	Department
Coppin State University	Mona	Calhoun	Chairperson and Associate Professor	Health Information Management
Coppin State University	Joan	Tilghman	Chairperson DNP program	College of Health Professions
Salisbury University	Kelly	Fiala	Dean	College of Health and Human Services
Salisbury University	Kimberly	van Vulpen	Associate Professor	School of Social Work
Towson University	Tab	Uhrich	Associate Dean	College of Health Professions
University of Maryland Baltimore	Heather	Congdon	Assistant Dean and Co-Director, Center for Interprofessional Education	School of Pharmacy, Shady Grove campus
University of Maryland Eastern Shore	Lana	Sherr	Assistant Dean for Professional Affairs and Associate Professor	School of Pharmacy and Health Professions
University of Maryland Eastern Shore	Hoai-an	Truong	Professor and Director of Public Health	School of Pharmacy and Health Professions

Appendix A: Interprofessional Education Collaborative (IPEC) Competency Domains



Reprinted from: Interprofessional Education Collaborative Expert Panel. (2011). *Core competencies for interprofessional collaborative practice: Report of an expert panel*. Washington, D.C.: Interprofessional Education Collaborative, p. 15.