Using the Interprofessional Education Collaborative (IPEC) Core Competencies to Build a Microcredentialing Framework for Interprofessional Curriculum Development

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**Issue Statement**

We are developing a framework to 1) guide the development of a comprehensive interprofessional curriculum and 2) organize learning activities and assessments to enable student achievement of each domain outlined in the IPEC Core Competencies (IPEC, 2016). Within the framework, each of the four IPEC Core Competency domains represents a microcredential that could be earned by a student. An interprofessional curriculum built on a framework of microcredentials will reflect the four characteristics that define quality interprofessional education (IPE)—rationale, outcome-based goals, deliberate design, and assessment and evaluation (Barzansky et al., 2019). The design and implementation of this interprofessional microcredential system will influence the way in which interprofessional collaboration is incorporated into curricula across professions. The curriculum will be designed to extend over the entirety of any given student’s program, and will incorporate expected outcomes into existing curricula and co-curricular activities.

This work is being conducted at a public university with six Schools of the Health Sciences (Health and Rehabilitation Sciences, Dental Medicine, Medicine, Nursing, Pharmacy, and Public Health). While we have an over 10-year history of innovative interprofessional learning activities, anchored to the IPEC Core Competencies since their initial release in 2011, we have not yet developed a deliberate interprofessional curriculum to weave learning activities together in a meaningful and comprehensive manner.

**Background**

A microcredential recognizes achievement of specific competencies; it provides clear, distinct information regarding the skills and abilities of the learner. Microcredentialing systems have proven to be effective in many settings, especially where educational content already exists and where expectations for assessment of competencies are manageable (Hickey & Willis, 2017). They are flexible in how they can be implemented, and position programs to meet profession-specific accreditation expectations for interprofessional education. Microcredentials are attainable, partly due to their flexibility, because individuals can take different paths to achieve the same microcredential. This value and attainability will motivate students to complete this type of program and achieve the stated interprofessional competencies.

The assessment component to the microcredentialing system documents that a specific competency has been met and must measure more than just attendance or participation. There is flexibility in the type of assessment depending on the learning activity. For example, assessments may include a written reflection on what occurred or was discussed, a short quiz on main concepts, or an application activity such as a charting activity, if a patient case is involved. Having an assessment also gives

**Figure 1. Excerpt from Microcredentialing Framework**

<table>
<thead>
<tr>
<th>Microcredential</th>
<th>Values/Ethics for Interprofessional Practice</th>
<th>Roles/Responsibilities</th>
<th>Interprofessional Communication</th>
<th>Teams and Teamwork</th>
</tr>
</thead>
<tbody>
<tr>
<td>Competency 1 (with corresponding IPEC competencies)</td>
<td>Work with individuals of other professions to maintain a climate of mutual respect and shared values</td>
<td>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 health of populations</td>
<td>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</td>
<td>Apply relationship-building values and the 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</td>
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<tr>
<td></td>
<td>Discuss the cultural diversity and individual differences that characterize patients, populations and the health team—VE3/VE4</td>
<td>Discuss the roles and responsibilities of each member of the healthcare team (including own) —RR1/RR4</td>
<td>Practice giving and receiving timely, sensitive, instructive feedback—CCS</td>
<td>Initiate shared patient-centered and population-focused problem solving—TT3</td>
</tr>
<tr>
<td></td>
<td>• Learning activity 1</td>
<td>• Learning activity 3</td>
<td>• Learning activity 5</td>
<td>• Learning activity 8</td>
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<tr>
<td></td>
<td>• Learning activity 2</td>
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opportunity for students to receive feedback from facilitators.

The envisioned framework reflects all of the characteristics of quality IPE as defined in the Health Professions Accreditors Collaborative (HPAC) Guidance on Developing Quality Interprofessional Education for the Health Professions (HPAC, 2019). The outcome-based goals are clearly articulated, achievable, and measurable. The deliberate design allows for curricular and co-curricular activities to be included. The same assessment strategies will be used across all of the health professions involved.

Methodology
A student pharmacist studying instructional design and contemporary approaches to interprofessional education in a Special Topics elective course has produced the initial draft of the framework. The faculty mentor for the project serves interprofessional leadership roles on campus as well as at the national level.

We are designing the framework so that each component microcredential reflects one of the four domains of the IPEC Core Competencies: Values and Ethics, Roles and Responsibilities, Interprofessional Communication, and Teams and Teamwork (IPEC, 2016). As currently drafted, each microcredential comprises five competencies that represent adaptations of the IPEC competencies written as performance-based abilities. Initial feedback on the concept and draft framework was obtained from members of the University’s Working Group on Interprofessional Education (WG). The WG is composed of academic leaders from each of the six Schools of the Health Sciences, the School of Social Work, the Health Sciences Library System, the Office of Health Sciences Diversity, and the Office of the Senior Vice Chancellor for Health Sciences.

In addition to the feedback and suggested refinements to the framework, the WG also provided results of an inventory of interprofessional learning activities conducted in 2013 to populate the framework. The inventory will be updated in early 2020 and new learning activities will be developed to address identified gaps in the framework (i.e., stated competencies within a microcredential domain for which few or no learning activities exist). Our goal is to build the menu of learning opportunities over time so that the framework is populated with a sufficient and varied array of opportunities for any given health professions student to earn any or all of the microcredentials regardless of the professional program in which they are enrolled.

Results
This is a work in progress. To date, a framework for four microcredentials has been outlined. Five supporting competency statements, which are adaptations of the competencies within each corresponding domain of the IPEC Core Competencies, have been drafted, and existing interprofessional learning activities across campus have been linked to the appropriate competency. The emerging structure of the framework is shown in Figure 1.

Implications
Valuing interprofessional learning with the awarding of microcredentials is different from traditional courses because microcredentials contain detailed claims about learning and direct supporting evidence for each claim outside of the traditional course structure. As health professions programs struggle to meet profession-specific expectations and accreditation standards, a microcredentialing framework that integrates interprofessional learning opportunities and achievements across programs may provide an efficient and effective approach to emerging interprofessional expectations. A deliberately designed and focused interprofessional curriculum has the potential to ensure that students enter their professions with the skills necessary to practice effectively as members of interprofessional patient- or community-focused teams.

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REFERENCES