

## Strengthening collaborative practice: building the Des Moines area interprofessional education collaborative across five educational institutions

Julie Ronnebaum<sup>1</sup>, Amy Morris<sup>2</sup>, Jessica Edler Nye<sup>3</sup>, Melody Bethards<sup>4</sup>, Diane Preston<sup>5</sup>, and Michelle Bottenberg<sup>6</sup>

<sup>1</sup>PT, DPT, PhD, Professor, Chair, Department of Physical Therapy, Des Moines University, West Des Moines, United States

<sup>2</sup>PhD, Assistant Vice President of Institutional Effectiveness, Des Moines University, West Des Moines, United States

<sup>3</sup>PhD, LAT, ATC, Associate Professor, Grand View University, Des Moines, United States

<sup>4</sup>EdD, MSN, RN, CNE, CHSE-A, Simulation Coordinator, Nursing Faculty, Des Moines Area Community College, Des Moines Iowa, United States

<sup>5</sup>MSN, RN, CNE, Professor of Practice, Nursing Department, Grand View University, Des Moines, United States

<sup>6</sup>PharmD, BCPS, Professor of Pharmacy Practice, Drake University College of Pharmacy and Health Sciences, Des Moines, United States

### Abstract

This manuscript describes the development, structure, and lessons learned at the Des Moines Area Interprofessional Education Collaborative (DMAIPEC). DMAIPEC is a regional, multi-institution partnership designed to prepare health professions students for collaborative, team-based care in an increasingly complex healthcare system. Grounded by the Institute of Medicine's call for improved teamwork and the Interprofessional Education Collaborative (IPEC) Core Competencies, DMAIPEC was formalized through a Memorandum of Understanding among five founding institutions in the Des Moines metropolitan area. The collaborative utilizes a shared governance model with rotating leadership, coordinated financial and in-kind support, and a centralized planning committee that

designs and implements approximately 12 Interprofessional Education (IPE) activities that serves an average of 2,000 learners annually. Systematic processes align each activity with specific IPEC competencies and learner levels, incorporate structured reflection, and use common assessment items modeled for longitudinal use. Lessons have been learned and challenges have been met with collaborative solutions. DMAIPEC now represents a scalable, community integrated model of interprofessional education that operationalizes best practices in collaborative, patient-centered training and offers a framework for others to advance healthcare quality, safety, and workforce readiness through interprofessional learning.

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**Email:** Julie Ronnebaum (julie.ronnebaum@dmu.edu)

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### Introduction

Recent evidence confirms that major quality and safety concerns continue to challenge healthcare systems, with preventable harm frequently linked to insufficient interprofessional collaboration and communication among providers. The Institute of Medicine's initial call for improved teamwork across health disciplines is in response to the growth of chronic diseases and increasingly complex care environments underscoring the necessity for coordinated, team-based practice rather than isolated professional efforts.<sup>1,2</sup> We offer a multi-institutional model for educating students about

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coordinated team-based practice, based on our experience in an American city.

Interprofessional education (IPE) is a cornerstone in preparing healthcare students to provide collaborative, patient-centered care. Research shows that IPE consistently develops key competencies such as teamwork, clearer roles and responsibilities, and effective interprofessional communication skills associated with improved educational outcomes and measurable gains in patient care and system resilience.<sup>3</sup> Healthcare students overwhelmingly recognize IPE's value:

over half fully agree that it enhances knowledge of other disciplines, improves teamwork, and builds a foundation for safer, higher-quality care.<sup>3</sup>

As the complexity of healthcare environments increases, there is a need to ensure that educational institutions are delivering quality IPE events. Therefore, most health profession programs have accreditation standards that reinforce the importance of achieving IPE competencies.

However, efforts at successful implementation continue to face barriers including educating professions in silos, logistical complexity, faculty workload, and sustainability challenges. A recognized need remains for scalable, community-integrated IPE models that cross single-institution boundaries to better reflect the real-world interprofessional context of healthcare delivery. In the Des Moines metropolitan area, a unique inter-institutional partnership was established to meet this need. This partnership allows institutions to design experiences that promote their respective students' interactions with professionals outside their institutions — enhancing broader training exposure rather than just learning within university silos.

### **History and Background**

The Des Moines Area Interprofessional Education Collaborative (DMAIPEC) originated as a grassroots initiative driven by faculty and community partners across multiple institutions, located in the greater Des Moines, Iowa metropolitan area. The founding institutions: Des Moines University, Drake University, Grand View University, Des Moines Area Community College, and Mercy College of Health Sciences formalized the partnership through a Memorandum of Understanding (MOU) in December 2014.

Early champions recognized that the next generation of healthcare professionals required immersive experiences in collaborative practice to address complex health, social, and cultural needs. Foundational planning began with a shared purpose: “*Recognizing the why.*” This guiding principle emphasized IPE’s essential role in improving patient outcomes, fostering cultural humility, and strengthening the workforce’s capacity for interprofessional and collaborative care.

The group knew that together they had more opportunities than singly to improve the educational experience of health profession students. They developed a mission focused on supporting health professions education through experiential learning that explicitly meets the Interprofessional Education Collaborative Core Competencies:<sup>4</sup>

- Values and Ethics
- Roles and Responsibilities
- Interprofessional Communication
- Teams and Teamwork

A formal governance structure was established, comprising a Provost Council, Administrative Council, and Planning Committee to ensure transparency and sustainability. Leadership rotated among member institutions, promoting shared ownership and member development and engagement. Monetary and in-kind support were identified as important elements to sustain and grow the collaborative. This framework positioned DMAIPEC as a model of regional innovation and collaboration in healthcare education.

As part of the creation of DMAIPEC, vision and mission statements were developed.

**Vision:** To be a recognized regional model in the development of competent healthcare professionals who promote and practice effective interprofessional collaborative care.

**Mission:** The Des Moines Area Interprofessional Collaborative supports health professions education through experiential learning aligned with IPEC competencies to prepare future practitioners to provide high quality team-based, patient-centered care.

### **Facilitation of Activities**

DMAIPEC offers a diverse portfolio of IPE activities engaging students from 10+ disciplines. These disciplines include certificates through graduate-level programs. Some programs are offered by multiple institutions, while others have only one institution offering the program. Academic program cohort size ranges from 10 to over 400 students. These activities align with IPEC competencies while accommodating varying

curricular needs and delivery modes. There are approximately 12 activities that serve up to an average of 2,000 students annually.

The Planning Committee has a process in place to review and approve the activities for the appropriate professions, level of the learner (novice, intermediate, advanced), and the IPEC competencies targeted. As part of this process, the

Planning Committee ensures all IPEC competencies are addressed across activities, and assessed, as well as offering opportunities for all levels of learners. Each event includes structured reflection and assessment using shared IPE learning outcome tools collected via QR Codes. This fosters consistent longitudinal tracking of learner development. This process also facilitates continuous quality improvement for each activity.

**Table 1: Key events held annually by DMAIPEC are shown in the table below**

IPE Activity	IPEC Competencies	Learner Level	Session Information
<i>Des Moines Area Student IPE Day:</i> The flagship event each spring brings together students from all five institutions for case-based simulations rooted in community health scenarios.	Roles and Responsibilities; Teams and Teamwork	Novice	Offered once annually, 800-1000 students from all 5 institutions attend
<i>Poverty Simulation:</i> This immersive event helps students experience the socioeconomic determinants of health and their impact on care coordination.	Values and Ethics; Roles and Responsibilities	Intermediate	Offered twice annually, 80 students in each session serving 160 students annually
<i>Virtual Pediatric Case Collaboration:</i> A-hybrid virtual experience allowing interprofessional teams to manage complex pediatric care using digital platforms.	Values and Ethics; Interprofessional Communication	Intermediate	Offered 7 times each semester, 10-12 students per session serving 140-170 students annually
<i>Critical Care Sim IPE:</i> This event is a collaborative opportunity for an interprofessional team to work together to care for a patient in the simulated critical care setting.	Roles and Responsibilities; Teams and Teamwork	Advanced	Offered 8 times each semester, 8 students per session. Serving 128 annually

## Challenges and Lessons Learned

### 1. Scheduling

Scheduling and coordinating interprofessional education (IPE) across five educational institutions is a complex undertaking. It requires the Des Moines Area Interprofessional Education Collaborative (DMAIPEC) to navigate both substantial achievements and persistent challenges. Central to this complex collaboration is the ongoing need to align academic calendars, course schedules, and simulation facilities among partner schools, each governed by unique curricular priorities, resource constraints and accreditation standards. Initially some activities were required by all students, and some were optional. This created a scheduling issue where we could not anticipate which professionals were going to attend which

interprofessional event. To address this uncertainty, each institution identifies the specific number of students needed by a certain date and makes it a requirement for the students participating. Each institution provides their expected number of students participating in that semester's events. This ensures there are enough spots available for the institution's learners, and schedules the number of students needed for each activity.

### 1. Intended participant level

During scheduling, another challenge involved matching the level of programming to the appropriate profession. To avoid a learner selecting an event that is at an incorrect level we implemented a process requiring each institution to specify the intended participant level for the activity. It is now

predetermined which student groups are eligible for each activity, as part of the scheduling and sign-up process.

The Planning Committee evaluates the number of seats and sessions for each activity to ensure all required students can participate. To meet the challenge of varying schedules the Planning Committee has implemented a variety of virtual and in-person activities, including delivery during evenings and weekends to overcome timing challenges. We also have early deadlines for sign-ups, and black out dates where activities cannot be scheduled to address varying academic term calendars.

### **1. Administration and management**

Management of administrative tasks, including the collection of annual membership fees and the equitable distribution of shared resources, further compounds the intricacy of operations. Teaching assistants are funded to help navigate the scheduling process as well as manage the activities. A software to manage sign-ups is used to track learner participation and attendance across multiple institutions. Administrative support is extended beyond annual membership fees and included in-kind resources such as financial management, assessment coordination, and digital infrastructure.

### **1. Assessment**

Assessment poses a unique challenge for the group. Achieving consistency in assessment across the institutions poses the potential problem of maintaining the alignment of competencies outlined by the IPEC. Over time the planning team of the collaborative developed a standard set of assessment items that aligned with IPEC competencies and the IPE literature. After a thorough review of the literature, assessment items were modeled after validated and published tools. Although the standard set of assessment items are considered an indirect measure as they rely on students' perceived gains in skills, they are aligned with the objective and purpose of the event.

### **1. Faculty champions**

Sustaining faculty champions is essential for program continuity, yet personnel changes regularly underscored the importance of resilient leadership

structures. Ensuring inclusive representation from all health professions during large-scale events remained an ongoing challenge, demanding innovative approaches to scenario design that prioritized universal patient care competencies above discipline-specific tasks. In response to these barriers, DMAIPEC instituted several key innovations: a rotating chair and co-chair leadership model was adopted to share responsibilities equitably and sustain institutional engagement.

### **1. Resources and sustainability**

As the collaborative continues to grow there is a need for additional activities. A mini grant is available to provide resources for activity delivery when institutional support may be absent. These grants therefore provide the support needed for new or expanded activities that may not be available from individual institutions.

In order to continue a sustainable model, a consultant group was hired to aid with the process of developing a strategic plan. A SWOT analysis was performed and three matters were identified as high priority: onboarding, faculty guidebook, and assessment. The orientation packets for new members facilitate continuity and understanding of collaborative goals and subcommittees.

Collectively, these strategies mirror best practices in IPE, which emphasize adaptability, targeted faculty development, and enduring institutional support as prerequisites to successful, sustainable interprofessional education initiatives.<sup>5</sup>

### **Conclusion**

The Des Moines Area Interprofessional Education Collaborative represents a model of city-wide partnership dedicated to preparing healthcare students for the realities of modern, team-based care. Its success rests on shared vision, adaptive collaboration, and a commitment to aligning regional educational resources for the collective good. Through ongoing innovation and community engagement, DMAIPEC continues to advance the future of interprofessional learning and collaborative practice within the Des Moines healthcare ecosystem.

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