

# An Update on Interprofessional Education and Practice in North Carolina: the State of the State

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Team-based care, the optimal result of interprofessional education and often referred to as interprofessional practice, is a critical ingredient in the success of efforts to address health and workforce needs. Articles in this issue provide an update on what has occurred across North Carolina related to team-based care since this journal last covered it in 2018, highlighting innovations and infrastructure that address health equity, population-based care, reducing costs, and increasing quality.

## Introduction

The *North Carolina Medical Journal* published “Team-Based Care in North Carolina” in 2018 [1], at a time when value-based care was taking off, Medicaid expansion was a future dream, and the last pandemic was a distant memory. Many of the articles in the 2018 edition focused on how to maximize teamwork to achieve the Quadruple Aim [2]. The 2018 North Carolina Institute of Medicine (NCIOM) annual convening focused on exploring what team-based care looks like in practice, as well as the challenges and opportunities it presents, especially in a rapidly changing health care environment [3]. Fast-forward to 2024; the COVID-19 pandemic has revealed and exacerbated massive health disparities across the state and Medicaid expansion will increase health care access for approximately 600,000 more North Carolinians, amidst a worsening health workforce shortage. The Quadruple Aim advanced to the Quintuple Aim in 2021—adding a focus on health equity [4]. Many organizations, including the NCIOM, co-publisher of this journal, have initiated task forces to address workforce shortages and the uncertainty of health care in a rapidly changing system. What remains clear is that team-based care is a critical ingredient in the success of efforts to address health and workforce needs. In this edition of the *NCMJ*, we will provide an update on what has occurred across the state related to team-based care, highlighting innovations and infrastructure that address health equity, population-based care, reducing costs, and increasing quality, while also promoting health care worker well-being in the work we do (Quintuple Aim).

As we reimagine our health care workforce, we must invest in interprofessional education and practice. Since the 2018 *NCMJ* issue on this subject, the Health Professions

Accreditors Collaborative published its “Guidance on Developing Quality Interprofessional Education for the Health Professions,” which outlined specific guidance for schools and partners on delivering optimum didactic and clinical opportunities for students to “learn from, with, and about each other” [5]. One clear recommendation from this guidance is that institutional leadership support for interprofessional education (IPE) allows for the development of infrastructure for successful IPE endeavors. In this edition of the *NCMJ*, the article “Building Interprofessional Teams to Support Population Health” (Livsey, Aliaga, and Wells) further supports the call for institutional investment in IPE [6]. Advocating for interprofessional education and practice (IPEP) experiences throughout the learning continuum, in the academic and practice settings, and by default in the clinical learning environment, the authors offer recommendations for how IPEP can impact population health and ultimately help achieve the Quintuple Aim.

## The North Carolina Interprofessional Education Leaders Collaborative

On a statewide level, the North Carolina Area Health Education Centers (AHEC) formed the North Carolina Interprofessional Education Leadership Collaborative (NC IPELC) in response to the Health Professions Accreditors Collaborative (HPAC) recommendation for leadership and infrastructure, as well as the need for IPE in prelicensure and graduate education. The purpose of the NC IPELC is to facilitate communication, partnership, and teamwork among and between existing and future interprofessional health care-related education initiatives within the state of North Carolina, with the goal of sharing, implementing, and refining best practices for IPEP.

The NC IPELC pertains to higher education health sciences or health sciences preparation programs, to include two- and four-year programs, community colleges, technical schools, colleges, and universities, with the goal of having at least one representative from each of the state’s higher

Electronically published May 6, 2024.

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**N C Med J. 2024;85(3):165-168.** ©2024 by the North Carolina Institute of Medicine and The Duke Endowment. All rights reserved. 0029-2559/2024/85305

education institutions with a health affairs program (as appointed by each school) and representatives from regional NC AHEC centers. NC IPELC has a wide range of participants, ranging from faculty with formal leadership positions related to interprofessional education to individuals who are informally leading efforts to advance IPEP at their home institution and those who are simply interested in learning more about IPE across the state. The collaborative's main goal is to enhance IPEP to prepare and retain a workforce that is ready for collaborative practice, ultimately enhancing the health and well-being of the people of North Carolina. Initiatives are based on didactic education and student and preceptor (health professional) preparation for interprofessional practice, thus closing the gap between what is taught and what is seen in practice.

In January 2020, right before the world as we knew it changed, the NC IPELC held its inaugural meeting to set strategic direction. One of the group's goals was to determine the "state of the state" for IPE in health professions institutions via a survey. The responding 28 schools represent over 150 health professions programs, nearly 3,000 faculty members, and over 10,000 students. Of those programs, six had a dedicated budget for IPE and 10 were in institutions with a designated IPE leader. More than half were part of institutions with no mention of IPE in their mission or vision statement and reported limited to moderate senior leadership support for IPE, compared to 92% of institutions nationally that require IPE for some or all students nationally, according to the American Interprofessional Health Collaborative Data Survey in 2019 [7]. Despite HPAC recommendations for institutional support for IPE, the primary model for faculty participation in IPE for the majority of respondents was informally based on faculty interest and not officially encouraged by the institution. In fact, 67.9% of respondents in the NC IPELC survey reported that IPE was done voluntarily, outside of their formal academic responsibilities (Forcina J. Unpublished presentation: NC interprofessional education leaders collaborative baseline needs assessment. NC AHEC; 2020). The survey results supported what we already knew: we have made a lot of progress since forming the IPELC infrastructure was just the first step in a long journey. For the past four years, the NC IPELC has convened virtually every quarter to share best practices, build teaching tools for IPE, and develop faculty training activities. The NC IPELC also worked interprofessionally and inter-institutionally throughout the pandemic to address common challenges and share best practices and innovative educational strategies for engaging students. Many of the discussions, highlights, and strategies shared via the IPELC are highlighted in this edition of the *NCMJ*.

## **A Collaborative Move Toward Health Equity**

In February 2024, the Interprofessional Education Collaborative (IPEC), the national organization made up of the health accreditation schools and partners invested in

IPE, revised the IPEC competencies. Further aligning with the Quintuple Aim, the revised competencies have an intentional focus on health equity, population health, and learners across the continuum. An interview in this issue with Jeffery Stewart, DDS, MS, Senior Vice President for Interprofessional and Global Collaboration at the American Dental Education Association, describes his work on the national revision and provides an overview of changes to the competencies as well as rationale for these changes [8]. IPEC's approach to the competency revision is worth noting, as community engagement principles were used to meet with multiple engaged parties involved with IPE, soliciting feedback and then making changes based on recommendations.

In this issue, authors McNeill and Brown further highlight these changes, especially those focused on health equity and language, in their article "New IPEC Competencies, the State of the Science, and a Focus on Equity" [9]. Their overview provides a framework for implementation and a call to utilize these competencies in practice. The NC IPELC baseline survey showed that 13 of the 28 reporting institutions noted that they used the core competencies in their curriculum, while only seven reported longitudinal integration. Responses were also varied across evaluation methods. Nine respondents reported that they evaluate learner satisfaction with IPE; eight assessed attitudes; and seven examined knowledge, skills, and abilities, while no single common evaluation tool was shared among the programs (Forcina, unpublished presentation, NC AHEC; 2020). With the current revision of these competencies, an opportunity exists to share best practices for longitudinal integration into health professions curriculums and to create a shared evaluation tool across programs and clinical experiences across the state.

## **Building an Infrastructure for Team-Based Care**

Even with emphasis on the IPEC competencies, IPE is not easily implemented. As McCullough, Powers, Watts-Isley, Brown, Smith, and Vaughn emphasize in their article "Interprofessional Education and the University Level: Evidence, Models, and Future Directions," the structure of academia does not support easy collaboration, leading to the need for faculty development and innovation [10]. Despite this, our faculty in North Carolina have demonstrated that they are up for the challenge. From Wingate University's interprofessional fundamental skills fair to Appalachian State's Beaver College of Health Sciences Digital Badge Program, North Carolina health professions faculty are finding innovative ways to engage in and promote IPE. McCullough and coauthors remind us that "IPE is not a competition. If, in fact, it can actually improve patient care and health outcomes, then it's imperative that students receive effective IPE beginning at the right time and have it as part of their continuing education" [10]. We encourage readers to reflect on ways of recognizing the efforts of those in your institution who are building and sustaining interprofessional efforts.

Support for preceptor development and IPEP professional development has also been identified as necessary for advancing collaborative practice. Rodgers shares his personal narrative as a preceptor, often working in silos, and growth toward exploring how preceptors can work collaboratively. His commentary “Developing Preceptors to Teach in an Interprofessional Practice” offers some personal tips for how to be an “interprofessional preceptor” and identifies specific challenges and opportunities in this work, noting the value of the TeamSTEPPS training curriculum and the need to increase psychological safety among preceptors [11]. Further building on the importance of these two topics, the sidebar “Fostering Psychological Safety: Building Team-Based Care Communication Skills” (Zerden and Zomorodi) provides examples of effective communication principles that have been shown to advance team-based care [12].

In addition to the need for preceptor development, we also need to find ways to engage students across pathways in health care. As noted by Watts-Isley, Heflin, Byrd, and Turnley in their article “Building an Interprofessional Health Workforce through Pathways, Training, and Retention,” the North Carolina workforce has not recovered quickly from the COVID-19 pandemic [13]. The state of the state for clinical practice can be summed up as a critical workforce shortage across the interprofessional team, leading to burnout, stress, and high job dissatisfaction. In order to create a more resilient health workforce, efforts need to start in recruitment and result in retention. Watts-Isley and coauthors provide examples of the work being done statewide to understand the needs of the current workforce and the critical areas within our workforce that require additional attention. This aligns with the examples and calls to action to support population health that are highlighted by Livsey, Aliaga, and Wells [6]. Paying attention, replicating, and building on the key strategies in pathways, training, and retention efforts that these articles highlight.

## **Investing In and Rewarding a Future Focused on Collaboration**

Further along the pathway are opportunities for current health professions students to gain exposure to shortage areas and underserved communities. As previous editions of the *NCMJ* have highlighted, the rural areas of North Carolina are in greatest need of team-based care and its optimal health outcomes. In this issue, “The Rural Interprofessional Health Initiative” by Zomorodi, Alexander, and Rodgers provides an overview of one strategy for exposing students to the unique needs of rural populations, engaging those who have a passion for working in rural areas to transform practice [14]. Additional issues of the *NCMJ* have also highlighted the importance of addressing mental health across our state. The article in this issue titled “Behavioral Health Access and Workforce Competence for Integrated Care: Highlighting Interprofessional Initiatives from Two North Carolina Social Work Programs” by Kulkarni, White, Reinsmith-Jones, and

Powers, focuses on efforts at ECU and UNC-Charlotte to build opportunities for students to develop the skills needed for integrated health care and provide recommendations for future workforce needs [15]. The innovative ways of bringing together oral health and mental health needs and raising more awareness and referrals across professions among social workers are of special interest.

As these articles suggest, faculty and preceptors in North Carolina are invested and interested in designing and implementing innovative team-based learning opportunities for students. However, the greatest need remains the implementation of these activities outside of the classroom setting. Just as preceptor and faculty development is key, site development needs are also important to consider. The Rural Interprofessional Health Initiative (RIPHI) model, described in this issue, embodies the need to engage partners in developing sites for interprofessional collaboration [14]. For greater effectiveness, we need to use assessment tools to help us determine what a site needs to maximize interprofessional collaboration and team-based care. Sanders and Lynn describe their work on the Interprofessional Clinical Learning Environment Assessment Reflection (IP-CLEAR) tool in the sidebar “Determining a Pathway to Assess Interprofessional Collaboration at Clinical Learning Sites: Methodology on Developing the IP-CLEAR Tool,” sharing their vision for testing this tool across North Carolina [16]. The article ends with a call for interested sites to partner for further testing and refinement of this work.

Throughout this issue, many of the authors refer to reimbursement challenges and barriers to implementing team-based care. Khalili states this need clearly in the article “Transforming Health Care Delivery: Innovations in Payment Models for Interprofessional Team-Based Care” [17]. He writes, “We need a health care system that places greater emphasis on interprofessional team-based care...Payment methods in health care significantly shape clinician behavior, with fee-for-service models often incentivizing a focus on individual billable services at the expense of non-billable services that contribute to positive health outcomes” [17]. In other words, we need models that reinforce collaboration, rather than creating barriers to its implementation.

North Carolina’s Medicaid expansion has created great opportunity and excitement for new team-based models, and the state appears to be at a crossroads. Educators, clinicians, and policymakers across professions agree that there is a solution in team-based care. In a roundtable interview conducted by Tilson and Zolotor, interprofessional panelists of the North Carolina professional organizations for medical physicians, physician assistants, nursing, and social work recognize that “we practice the way we train” and that the focus on IPE amongst North Carolina health professions schools is evident to their members [18]. Educators, clinicians, and policymakers across professions agree that action is no longer an option but a requirement. In that same interview, leaders agree that more intentional efforts are needed

to strengthen interprofessional education and practice across clinical settings [18]. Designing intentional interprofessional practice experiences for students where they see firsthand the value of team-based care needs to be a goal for the future. Identifying and supporting interprofessional sites and preceptor development, while also rewarding and recognizing sites of distinction, can create opportunities for recruitment and retention to address the workforce needs across North Carolina.

We all can agree that the patient's experience is first and foremost. Tilson and Zolotor asked the interprofessional panelists about the relationship between interprofessional practice and patient care, and they unanimously agreed that teamwork is vital to effective patient care [18]. Lysaght's article, "It Takes a Village: A Conversation with the Interprofessional Diabetes Clinic at the ECU Health Family Medicine Center," describes the experience of interprofessional practice from both the health care team and patient perspective [19]. Interviewees emphasized mutual respect and appreciation for each other and each other's expertise, for communication of each team member's role in caring for the patient with diabetes, and for coordination that supports team well-being, noting that the team model reduces the workload for individuals on the team.

## Conclusion

The articles in this issue highlight common ground that makes right now the prime time for impactful change in interprofessional education and practice in our state. Academic, practice, government, and regulatory bodies in North Carolina should learn with, about, and from each other and take advantage of the opportunity to set common goals for interprofessional education and practice. The NC IPELC sees value in setting multi-level goals focused on learner, faculty, provider, and patient satisfaction; knowledge, skills, abilities, attitudes, and behaviors; organizational practice; and clinical outcomes. These goals should be set across individual professions in academics and practice, cross-sector partnerships, networked partnership regions, and at the state level. The patient in Lysaght's interview expresses the impact of being "the common goal" for the health care team caring for her [19], and similarly, at the systems level, improving the health outcomes of North Carolinians should be the shared vision across professions.

While this issue describes many interprofessional activities already occurring across North Carolina, we recognize that it is largely academia-focused. We see opportunity for stronger symbiotic partnerships with the practice sector to build robust clinical learning environments and mechanisms for improved dissemination, replicability, and accessibility of effective interprofessional education and practice initiatives. The NC IPELC, in collaboration with multi-level partners across the state, is ready to lead this work. NCMJ

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## Acknowledgments

We would like to acknowledge all participants in the NC IPELC for their contributions to the statewide IPE strategic plan, which included this update to the 2018 issue of the *North Carolina Medical Journal* on Team-Based Care in North Carolina. We also want to thank the NC IPELC team for their enthusiasm in creating an outline and, with truly exemplary teamwork, writing every article for this updated issue. If you are interested in learning more about the NC IPELC and/or would like to participate in NC IPELC work, please reach out to ncipelc@ncahec.net.

Jill Forcina and Meg Zomorodi report no potential conflicts of interest outside their participation with NC IPELC.

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