Building Interprofessional Teams to Support Population Health

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High-functioning teams can positively impact health care delivery and support population health. The authors discuss enabling and interfering factors that impact team-based care delivery and how the AHEC system can promote interprofessional education and practice across North Carolina.

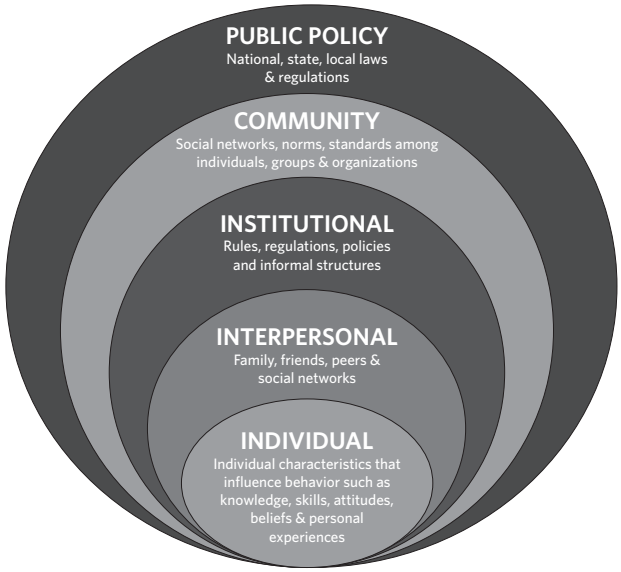
Introduction

Public health and health care systems are responsible for ensuring conditions that promote and improve population health. The decline in life expectancy in the United States is influenced by increased mid-life mortality and worsening socioeconomic inequities [1]. The reality that poor health and mortality are often driven by preventable conditions further highlights the systemic failures present within our health systems. Quality client care that is safe and error free is best promoted by a team-based-care approach [2]. A team-based approach to delivery of high-quality health care and design of societal interventions is critical to improving overall health outcomes.

At its most basic level, population health refers to the health outcomes of a group and the distribution of such health outcomes within that group. A broader definition states that the field of population health should address patterns of health determinants and the policies and interventions that link health determinants to health outcomes [3, 4]. For the purposes of this paper, we have applied the socio-ecological framework to conceptualize how different levels of our public health, health care, and health professions education systems (stakeholders) can influence population health (Figure 1).

While definitions of population health often vary by stakeholder (e.g., health care education accreditation bodies, public health, community health clinics), within the broader concept of population health we must acknowledge that all health care stakeholders' outcomes are interdependent. Despite calls for implementation of interprofessional education and collaborative practice, institutional, financial, and cultural factors continue to hinder rather than enable collaboration.

FIGURE 1.
The Socioecological Model



Source. https://pubh110.digital.uic.edu/section-1-4-defining-the-determinants-of-health/

Enhancing Teamwork

The importance of effective teams is well established. We need effective high-functioning interprofessional teams at *all* stakeholder levels and across clinical care delivery settings and health care workforce training environments. Stakeholders can use the socio-ecological framework at multiple levels, including the *individual* (e.g., patient or population of patients), *interpersonal* (e.g., health care teams, students, educators, family, neighbors), *institutional* (e.g., hospitals, community health clinics, universities, schools, workplaces), *community* (network of institutions that influence health, health education accreditation bodies), and *public policy* (laws and regulations that determine how health care providers do their work). Having consistent, collaborative partnerships to provide multidisciplinary structure also decreases caregiver burnout as the different fields are functioning as a unit [2]. Further investment in achieving high-functioning teams across all levels in this

Electronically published May 6, 2024.

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N C Med J. 2024;85(3):182-186. 0029-2559/2024/85310

framework is needed along with development of intentional strategies to support interprofessional teams across the entire health care system.

While there have been widespread calls to integrate interprofessional education in health professions curricula and to integrate interprofessional practice to enhance outcomes, much work remains within the US health system to promote team-based care. Challenges to full implementation of team-based care include financial systems within the US health care system, a continued need for education to support effective teamwork that fully acknowledges all team members' contributions, and redesign of care delivery systems to support team-based models. Of course, these challenges are not universal across all health care systems in the United States; some do better than others in supporting team-based care. Nevertheless, additional intentional strategies are needed to bridge gaps between interprofessional education and fully realized interprofessional practice to achieve positive impacts on population health outcomes.

Alignment among health care educators, health system leaders, and policymakers is a requirement for supporting sustainable and optimal learning environments, development of an effective health workforce, and improvement of population health [5]. Thus, educational systems, health care delivery systems, and public policy leaders need to engage in intentional collaborative discussions, planning, and implementation of strategies to achieve this goal. Alignment needs to include an enhanced understanding of which population health outcomes are critical to each stakeholder and finding commonality in how outcomes may align even though they initially appear very different.

The number of professions that contribute to health is large and continues to grow. Most, if not all, have roles and responsibilities at all levels, as described by the socioecological framework (Figure 1). Therefore, the formation and sustainability of effective interprofessional teams is essential to promoting population health.

Effective teams are characterized by shared understanding, psychological safety, and prosocial purpose (voluntary behavior intended to benefit another person) [6]. Complementary skills, diversity, and alignment on goals/accountability are critical to the success of effective teams [7]. Effective teams are the result of the *intentional,* active process of "teaming". The inclusion of experts in a group does not automatically produce effective and sustainable teams, whether it be in the education, clinical, institutional, or policy spaces. The teaming process should be guided by the determination of the knowledge, skills, and attitudes needed for the work of that team [8]. Effective teams also have fluid leadership, and membership of the team should be representative of those affected by the team's recommendations [7]. In health care, leadership is often "uniprofessional" (or individual) rather than conceptualized as a shared process. Effective teams also proactively self-assess their process, performance, and outcomes to make improvements in their "teaming."

The Learning Continuum for the Health Care Workforce

Here we describe some of the enabling and interfering factors of the interprofessional learning continuum model, which describes how individual experiences—both formal and informal—can support learning outcomes that may contribute to system change and can support population health (Figure 2). The model also acknowledges the enabling or interfering factors that may impact individual learning outcomes, which for the focus of this discussion includes gaining skills to support interprofessional practice and teamwork.

In its current form, this model has no defined connection between the learning continuum and enabling and interfering factors that exist in both interprofessional education and the practice environment. Thus, we need to find better solutions to bridge the education-to-practice gaps and demonstrate how team-based care can support population health outcomes.

Enabling Factors

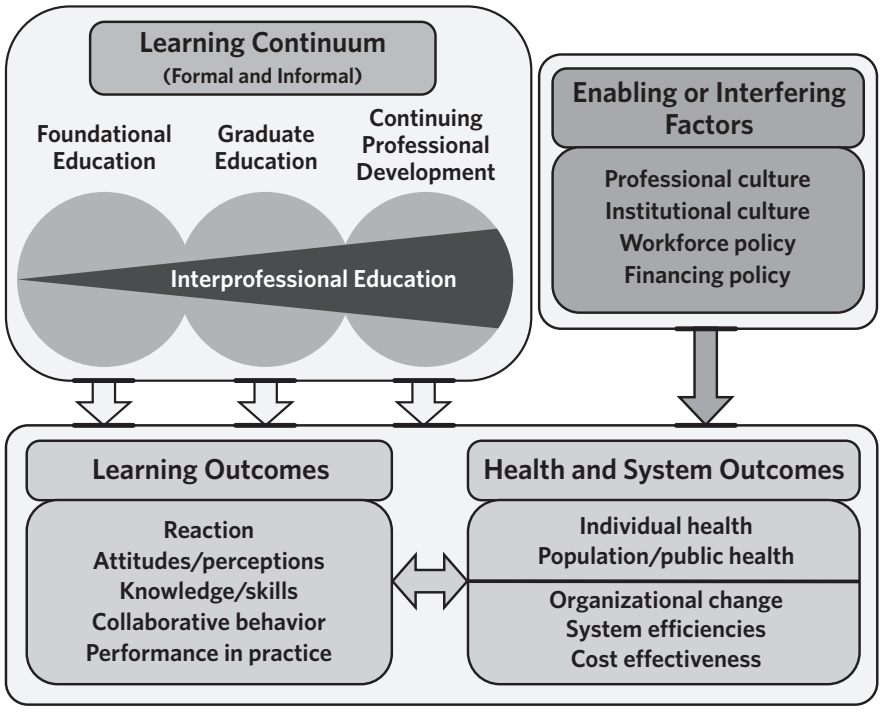
Enabling factors supporting the increased emphasis on interprofessional education include various accreditation requirements across many health discipline educational programs. Studies have found that high-functioning teams can contribute to positive quality and care utilization outcomes [9]. The National Academies of Sciences Engineering and Medicine (NASEM) has highlighted the need to support effective teams in order to promote high-quality primary care [10]. The Agency for Health Care Research and Quality (AHRQ) offers a wide range of resources to support team-based care, including TEAM STEPPs training programs and a guide to supporting patient and family engagement [11, 12]. Integrating effective teams can maximize resources under value-based care reimbursement strategies as well as bundled or capitated payment models, as long as the teams are properly developed, created, and supported.

Interfering Factors

While enabling factors can provide opportunities to engage in team-based care and to improve outcomes related to population health, a number of interfering factors described here exist that limit realization of high-functioning interprofessional teams.

Educational silos. Health professions are grounded in teaching a specific discipline and few are designed to regularly incorporate the care team approach. In recent years, we have seen growth in the integration of interprofessional education, yet professions continue to be educated with discipline-specific programs and curricula. In practice, disciplines tend to diverge to their own specific areas during the academic phase, and are often unprepared to converge as effective teams in the clinical, institutional, or policy space.

FIGURE 2.
The Interprofessional Learning Continuum Model



Source. Institute of Medicine. 2015. *Measuring the Impact of Interprofessional Education on Collaborative Practice and Patient Outcomes.* Washington, DC: The National Academies Press. https://doi.org/10.17226/21726.

The siloed nature of how we deliver health care services is mirrored in the way we educate health care professionals. Each discipline has its own educational pathway or pathways with varying scopes of practice, and unless students are in an educational institution with multiple health care disciplines, they may not be exposed to other disciplines. Delivery of interprofessional education is complicated—each discipline has its own curriculum structure and practicum requirements, making coordination of even the logistics of offering interprofessional experiences extremely challenging. For example, in North Carolina, there are only two medical schools in the UNC system, but many other health discipline programs are offered across universities and community colleges. Learners in these programs may not have the ability to collaborate with medical students and/or medical residents, and vice versa.

Financing policies. Care delivery is often structured around payment for health care services. Most financial reimbursement mechanisms in place, especially fee-for-service mechanisms, remain physician centric in terms of what is considered a reimbursable service. For example, services provided under Medicare Part B (ambulatory services) are generally required to be billed "incident to" the physician. Even the term "midlevel provider" (which is considered offensive to some) comes from the fact that service provision by these providers is paid at a lower rate than those same services conducted by a physician. Thus, staff are either considered a cost or a revenue generator for the practice, based on who can generate billable services. This dichotomy produces an incentive to ask, "What is the least costly staff available to deliver services to remain profitable?" However, to support population health and improved health outcomes, financial incentives are needed to facilitate a reframing of the question from, "Who can I afford on the team?" to, "Whom do we need on the team to support positive patient and practice outcomes?"

For example, in the primary care environment there have been improvements in integration of pharmacists and social workers, but less integration of registered nurses (RN), who can contribute to care coordination and care management activities. The clinical acumen, skills, and competencies that registered nurses contribute can directly relate to improved population health outcomes and performance metrics such as quality measures. Unlike other providers of services, such as social workers or pharmacists, according to Part B of Medicare costs for RN services are considered indirect (like supplies or equipment).

This dichotomy also exists in acute-care and long-term-care settings. Medical providers generate revenue for the hospital; other staff, such as nursing and housekeeping staff, exist on the cost side of the balance sheet. This model has most significantly impacted the delivery of nursing services, which are considered part of the "bed cost," largely contributing to challenges of overload. Nurses may be asked to practice in an environment that may not support nurse, patient, or staff safety, which undoubtedly affects

patient outcomes as well as nurse retention and turnover. Movement to value-based, bundled, and capitated payment can provide incentives to support team-based care, as long as there is clear understanding of what skills and competencies each discipline brings to care delivery and a recognition that all members of the team contribute to patient and population outcomes.

Lack of knowledge of team members' skills and competencies. A lack of understanding of what different disciplines bring to the table continues to be a problem, despite increased IPE requirements by many accrediting bodies of health professions programs. Learners may be exposed to other disciplines through interprofessional education. However, what is learned in school may not always translate into practice given the way care delivery is designed.

Furthermore, as new roles such as community health workers (CHWs) emerge on teams within public health and ambulatory care and behavioral health services, the need for role clarity and support for non-professional team members is critical. For example, CHWs work best when connected to a team [13], and this is a relatively new role, which will require other team members to clearly understand both benefits and limitations of the CHW role. Lack of role clarity also remains an issue when considering integration of RNs into the primary care team and in other disciplines.

Organizational culture/distribution of work. In some acute care environment settings, care delivery is organized via decentralized assignment of tasks. The RNs are communicating with one another and the patient to whom they may be assigned, and the medical team and/or other referral team members (such as physical or speech therapists) are making their own rounds, not necessarily with the other members of the nursing staff. While some settings have integrated strategies like multidisciplinary rounding, these tend to be the exception and not the rule.

As mentioned, the ***"uni-professional" leadership*** model that is deeply embedded in the health care system also presents challenges in moving to a shared model of leadership, which is necessary for high-functioning teams. Our strong Area Health Education Centers (AHEC) system in North Carolina can be an asset in promoting interprofessional education, but also should be supported to help translate team-based care into practice settings. NC AHEC can do this by serving as conveners and coaches in support of team-based care to improve population health.

Role of AHEC in Supporting Team-Based Care

The national AHEC grew out of the Carnegie Commission on Higher Education for the purpose of workforce development in the 1970s [14]. Connecting community and academic resources to students training in health professions in underserved and rural areas is essential to fostering this goal. Each state focuses on individual ways of meeting common needs.

The Human Resources Services Administration (HRSA) provided resources to AHECs across the United States to initiate interprofessional education (IPE) in 2017 [2]. The objective was to increase opportunities for diverse students in medically underserved areas to work together as a multidisciplinary team to improve health outcomes. Providing opportunities for IPE fits well into the mission of AHEC.

For these reasons, AHEC is in a unique position to build strong population health teams in North Carolina. Initiatives such as the NC AHEC Scholars Program support health profession program education by building multidisciplinary teams that endeavor to transform health care through use of community services [15]. In this two-year program, students in an array of health professions receive both didactic and clinical training together, from experts in the field as well as educators across the state.

The NC AHEC Community Health Worker Program also provides opportunities for bolstering population health [15]. The program focuses on management of chronic illness in the community, with the aim of decreasing lengthy and costly inpatient organization stays. CHWs are newer and highly valuable members of our health care teams. They contribute to care coordination and have been recognized by some benefit and insurance packages, including by the Centers for Medicare & Medicaid Services [16].

Since 2020, NC AHEC has sponsored the North Carolina Interprofessional Education Learning Collaborative (NC IPELC), which is made up of health care professional educators from a wide variety of disciplines working to identify how to improve IPE within health professions programs in North Carolina. The group has developed training modules and is working on training and assessment methods to support learners in meeting key interprofessional competencies. Continued funding for this effort can also support enhancements across health education programs in the state.

The NC AHEC system can also help support team-based care in practice by expanding the current practice support functions it provides to include specific training and coaching in support of interprofessional teams across care delivery settings.

System change will not occur overnight. Long-term commitment to investing in interprofessional team development is warranted in order to realize the benefits of team-based care delivery, reduce health care costs, and ultimately improve the health of our communities. NCMJ

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Acknowledgments
All authors declare that they have no conflicts of interest.

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