SECTION 1

Introduction to Interprofessional Education and Practice
**CHAPTER 1**

**Interprofessional Education: Context, Complexity, and Challenge**

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**INTRODUCTION**

The changing and challenging landscape of health care provides the environment in which graduates of health professions education will work. Graduates face a more diverse patient population, a growing number of people living with chronic illness, increasing rates of obesity and diabetes among our youth, and escalating health care costs. Once graduates move into clinical practice, they are often asked to work in interprofessional teams, yet these young health professionals often have little or no experience in team-based skills. How do we prepare graduates who have the competencies and skills to work in these challenging times? The response to this question continues to be the need and call for reform in health professions education.

The creation of this book represents a collective response from a group of health professionals (educators, clinicians, and community health center leaders) to create a resource for interprofessional education and practice and a stimulus for continued discussion, debate, and action in the field. Chapter 1 sets the context for the book as we address the following: (a) the key events that are triggering the national conversation in the United States and focus on interprofessional education and (b) the background and structure for this book.

Interprofessional education and interprofessional collaboration have not often found a place in the education and practice of health. . . . Each profession owns a professional jurisdiction or scope of practice, which impacts delivery.
of services. This silo-like division of professional responsibilities is rarely naturally nor cohesively integrated in a manner which meets the needs of both clients and the professionals (p. 9).  

We all know well the “silo culture” of health professions education as different units compete for resources across a campus. The building of a cohesive, shared approach to education and practice is challenging. We hope this book provides both a stimulus and resource for change.

INTERPROFESSIONAL EDUCATION IN THE UNITED STATES: KEY EVENTS

Numerous reports conclude that health professionals are neither adequately prepared in the academic or clinical settings to address shifts in the national’s patient population nor educated together or trained in team-based skills that would enhance their ability to work as part of interprofessional teams. Furthermore, these reports highlight the critical areas of practice that are in need of transformative educational reform.

The Institute of Medicine (IOM) report on Health Professions Education: A Bridge to Quality makes the case that education reform is critical to enhancing the quality of health care in the United States. This report represented the third phase of the IOM’s Quality of Health Care in America project that began in 1998. The IOM’s Committee on the Quality of Health Care in America focused on the first two phases of the quality initiative and authored the reports To Err Is Human: Building a Safer Health System and Crossing the Quality Chasm: A New Health System for the 21st Century. These reports documented the nature of the quality problem and laid the foundation for a vision of transforming the health care system. This vision of transformation is recommended to close the chasm that exists between what we know is good quality care and what actually exists in practice. The first two phases of the IOM’s quality initiative focused on developing a vision for health care system transformation. The IOM’s Committee on the Quality of Health Care in America was charged to

1. Review and synthesize findings in the literature pertaining to the quality of health care in the health care system;
2. Develop a communication strategy for raising the awareness of the general public and key stakeholders of quality of care concerns and opportunities for improvement;
3. Articulate a policy framework that provides positive incentives to improve quality and foster accountability;
4. Identify characteristics and factors that enable or encourage providers, health care organizations, health plans, and communities to continuously improve the quality of care;
5. Develop a research agenda in areas of continued uncertainty.

The first report, *To Err Is Human: Building a Safer Health System*, focused on a specific quality of care concern—patient safety. According to the committee, “to err is human, but errors can be prevented ... safety is a critical first step in improving quality of care.” This report sets an agenda and comprehensive approach for reducing medical errors and improving patient safety through the design of a safer health care system.4

The recommendations in this first report present a comprehensive approach organized according to the following themes:

1. Establishing a national focus to create leadership, research, tools and protocols to enhance the knowledge base about safety;
2. Identifying and learning from errors through immediate and strong mandatory reporting efforts and encouragement of voluntary efforts, both with the aim of making sure the system continues to be made safer for patients;
3. Raising standards and expectations for improvement in safety through the actions of oversight organizations, group purchasers, and professional groups;
4. Creating safety systems inside health care organizations through the implementation of safe practices at the delivery level. This level is the ultimate target of all the recommendations.

The second and final report of the IOM’s Quality of Health Care in America Committee, *Crossing the Quality Chasm: a New Health System for the 21st Century*,5 focused more broadly on quality-related issues and how the health care delivery system can be redesigned to innovate and improve care. The recommendations in this second report, organized according to the following themes, provided a strategic direction for establishing aims and redesigning the health care delivery system of the 21st century to ensure that all Americans receive care that is safe, effective, patient centered, timely, efficient, and equitable:

1. Formulating new rules to redesign and improve care;
2. Taking the first steps to providing evidence-based care that is responsive to individual patient’s needs and preferences and focusing greater attention on the development of care processes for the common priority conditions that affect many people;
3. Building organizational supports for change;
4. Establishing a new environment for care in four major areas—the infrastructure that supports the dissemination and application of new clinical knowledge and technologies, the information technology infrastructure, payment policies, and preparation of the health care workforce.

The preparation of the health care workforce and the need to reform clinical education was the focus of the third phase of the IOM’s quality initiative. Upon examination and review of the literature on clinical education, particularly medical education, the second report stated that “despite the changes that have been made [in undergraduate medical education], the fundamental approach to clinical education has not changed since the Flexner report of 1910.”

The specific recommendation in the second report that prompted the establishment of the IOM’s Committee on the Health Professions Education Summit and subsequent recommendations in the third report, Health Professions Education: A Bridge to Quality, was as follows:

Recommendation 12: A multidisciplinary summit of leaders within the health professions should be held to discuss and develop strategies for (1) restructuring clinical education to be consistent with the principles of the 21st century health system throughout the continuum of undergraduate, graduate, and continuing education for medical, nursing, and other professional training programs; and (2) assessing the implications of these changes for provider credentialing programs, funding, and sponsorship of education programs for health professions.

Health Professions Education Summit

With this recommendation in mind, the IOM established the Committee on the Health Professions Education Summit that included members with expertise in academic and continuing allied health, medical, nursing, and pharmacy education; multidisciplinary clinical training; health professions licensure and oversight processes; professional credentialing; and health care delivery and quality. In preparation for the summit, the committee reviewed the Quality Chasm chapter on “Preparing the Workforce.” This chapter examined three specific issues: clinical training and education, regulation of health professions, and legal liability issues.

The Quality Chasm report identified patient-centered concepts for the delivery of competent care in a redesigned health care system. In addition, the
Quality Chasm report also addressed key skills such as transparent communication, collaboration among health professionals, and the use of evidence in clinical decision making for all health professionals. The IOM’s Committee on the Health Professions Education Summit used these patient-centered concepts and key skills along with review of other seminal reform efforts to generate a set of core competencies applicable to all health professions (Table 1-1). The Health Professions Education Summit convened over 150 national experts in health professions education, regulation, quality, health policy, and industry to discuss and develop strategies for restructuring health professions education to advance quality and better prepared health care professionals to practice in the 21st century health system. Table 1-2 lists the five

Table 1-1. Core Competencies for Health Professionals

<table>
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<tr>
<th>Section</th>
<th>Description</th>
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<tbody>
<tr>
<td>Provide Patient-Centered Care</td>
<td>Identify, respect, and care about patients’ differences, values, preferences, and expressed needs; relieve pain and suffering; coordinate continuous care; listen to, clearly inform, communicate with, and educate patients; share decision making and management; and continuously advocate disease prevention, wellness, and promotion of healthy lifestyles, including a focus on population health.</td>
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<tr>
<td>Work in Interdisciplinary Teams</td>
<td>Cooperate, collaborate, communicate, and integrate care in teams that is continuous and reliable.</td>
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<td>Employ Evidence-Based Practice</td>
<td>Integrate best research with clinical expertise and patient values for optimum care, and participate in learning and research activities to the extent feasible.</td>
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<tr>
<td>Apply Quality Improvement</td>
<td>Identify errors and hazards in care; understand and implement basic safety design principles, such as standardization and simplification; continually understand and measure quality of care in terms of structure, process, and outcomes in relation to patient and community needs; and design and test interventions to change processes and systems of care, with the objective of improving quality.</td>
</tr>
<tr>
<td>Utilize Informatics</td>
<td>Communicate, manage knowledge, mitigate error, and support decision making using information technology.</td>
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Vision for Health Professions Education Transformation

In the Bridge to Quality report, the IOM’s Committee on the Health Professions Education Summit developed a comprehensive new vision for clinical education in the health professions that is centered on a commitment to, first and foremost, meeting patients’ needs. The committee recommended the following overarching vision for all programs and institutions engaged in the education of health professionals:

All health professionals should be educated to deliver patient-centered care as members of interdisciplinary teams, emphasizing evidence-based practice, quality improvement approaches, and informatics.

The committee proposed the aforementioned set of five core competencies that all health clinicians should possess (Table 1-1), regardless of their discipline, to meet the needs of the 21st century health care system. In the report, the committee recognized that these competencies are meant to be core, citing that there are many other competencies health professionals should possess, such as a commitment to lifelong learning, but believed those listed are the most relevant across the clinical disciplines. The committee believed that
the overall goal is a competency-based education system that better prepares clinicians to meet the needs of patients and communities and the requirements of a changing health care system.

Although the IOM’s reports provide strong recommendations for change, the implementation of such changes in health professions education continues to emerge at a rather slow pace. Competition for scarce resources in higher education as well as health care dollars only reinforces the tendency for health professions to focus, promote, and protect their core identity in both higher education and practice settings. In addition, external incentives such as federal funding for interprofessional activities have never been robust but have decreased significantly in recent years, particularly for nonphysician health professions. One critical reform strategy identified at the Health Professions Education Summit is to motivate and support education leaders (from academic, continuing education, and practice settings, including consumers and students) and monitor the progress of educational reform efforts. This book is an example of implementing such a reform strategy where educators, clinicians, and community members came together to discuss and plan what is needed to promote patient-centered, quality care that focuses on interprofessional teamwork.

**INTERPROFESSIONAL EDUCATION CONFERENCE AND BOOK CREATION: KEY EVENTS**

In the Fall of 2006 a conference was held at the University of Colorado Health Sciences Center in Denver for leaders in rural interprofessional education and practice. This book is the result of this conference funded in part by a Health Resources Services Administration grant (no. 1D36HP03158, Circles of Learning: Community and Clinic as Interdisciplinary Classroom, a Quentin N. Burdick Interdisciplinary Training Project). The conference, entitled Leadership in Rural Health Interprofessional Education & Practice: A Working Conference for Leaders in Rural Health Care, gathered 38 leaders in rural interprofessional education and practice to discuss best practices and to develop strategies for impacting the future of rural health care. The conference focused on the challenges and successful strategies for interprofessional education and practice in rural and underserved communities. The conference was a combined effort for funding; Creighton University’s Office of Interprofessional Scholarship, Service and Education, within the School of Pharmacy and Health Professions; and the Center for Health Policy and Ethics; and the University of Colorado’s Health Sciences Center. Although the key focus of the conference was on interprofessional work, the other core
competencies identified for all health professionals (patient-centered care, evidence-based practice, quality improvement, and the use of informatics) were also considered.

The working conceptual model for the conference focused on the integrative and interactive relationship between the practice environment in medically underserved areas and interprofessional education. The model in Figure 1-1 demonstrates the tightly integrated nature of these key concepts:

- Interprofessional education and practice is the foundation or critical building block for the conference. This includes a focus on the basic elements in health professions education: curriculum design, faculty

**Figure 1-1**
Conceptual model demonstrating the integrative and interactive relationships between practice in the medically underserved communities and interprofessional education.
development, assessment of student learning, and recruitment and re-
tention of clinicians in underserved areas.

• Rural health practice and education provide the clinical context for inter-
professional work.

• Community context is a critical aspect of education and practice in un-
derserved areas. The issues of health disparities, cultural sensitivity and
competence, and social justice are paramount.

• Educational context focuses on the role of faculty and students. The fac-
ulty role and reward system needs to embrace the scholarship of en-
gagement that can emerge from study of this community work. 
Assessment of student learning in this rich experiential setting is critical
and requires support of mixed methods to fully understand these trans-
formative learning experiences.

• Practice context is the place where mutual needs of health educators
and communities meet. The challenges of interprofessional work and
collaborative care must be addressed.

• Rural best practice exemplars provide a structure for sharing the essen-
tial practical knowledge that is created from critical reflection on inter-
professional work in a rural community setting.

This model was used to assist educators, clinicians, and community mem-
ers in thinking more deeply about interprofessional education and practice.

BOOK OVERVIEW

The book is divided into six sections focused on (a) introduction to interpro-
fessional education and practice, (b) community context applications, (c)
practice context applications, (d) educational context applications, (e) best
practice exemplars, and (f) future directions for interprofessional education
and practice.

In Section 1, Introduction to Interprofessional Education and Practice,
there are seven chapters that explore basic components in interprofessional
education from expert commentaries and theoretical concepts to accredita-
tion, assessment issues, and example educational strategies and frameworks.
As visible in the model (Figure 1-1), this first section of the book provides the
foundational elements for health professions education. This first chapter by
the editors provides the grounding for the book as well as an overview of the
historical summary of key interprofessional policy statements in the United
States. Chapter 2 provides a reflective analysis on the critical importance of
social justice and the common good in interprofessional work. Royeen, Terhaar, and Walsh describe the historical context of interprofessional education in accreditation and challenge us with their recommendations for the future in Chapter 3. In Chapter 4, the editors provide examples of how to connect theory to practice in interprofessional education. Coppard and colleagues focus on a critical element in interprofessional education, assessment of student learning, in Chapter 5. Chapter 6, by Roche, and Chapter 7, by Ryan Haddad and Doll, provide examples of successful strategies for implementing interprofessional education (IPE) in rural and underserved communities.

Application of critical educational concepts and foundational elements to an authentic environment is essential for student learning. The next three sections of the book explore three important contextual dimensions for application of the model (Figure 1-1): community, education, and clinical practice. Section 2, Community Context, contains five chapters that highlight different aspects of the academic–community interactions. In Chapter 8, Champ-Blackwell and Hartman outline the critical role of the librarian in rural outreach. Chapter 9 focuses on the cultural foundation that is essential in building interagency health delivery networks. This kind of network building requires skilled leadership. Lavin and colleagues provide a historical perspective of community development models as well as application of those models in practice in Chapter 10. Reynolds, in Chapter 11, explores the opportunities for service learning in interprofessional education and examples of the scholarship of engagement. This section ends with Chapter 12 by Velde on challenges and opportunities for promoting justice in rural communities.

Section 3, Practice Context, contains four chapters highlighting important elements that help build a successful community practice. In Chapter 13, Crowe, Burtner, and Torres-Aragon begin with a strong plea for building a diverse workforce. They provide strategies and recommendations for making this happen. Chapter 14 explores Campus–Community partnerships for rural health education. Swisher, in Chapter 15, gives us a sound rationale for specific focus and pedagogy that enhance student learning and professional formation as they struggle with issues of professional identity and socialization. The final chapter in this section, Chapter 16 by Doll and St. Cyr, is a reflective analysis of an example case from a Native American community where we have lessons learned from both challenging and successful strategies for practice in this community setting.

Section 4, Educational Context, is a cluster of five chapters each sharing a case example from education. Chapter 17, by Cummings, Bray, and Clay,
describes a structural process and institutional/community support for building a successful interprofessional model that continues to improve diabetes outcomes. Cross and Doll in Chapter 18 share educational strategies for developing student leaders in IPE. Chapter 19, by Kosoko-Lasaki, is a description of a successful educational model and institutional structure for increasing diversity in health professions education. In Chapter 20, Ruebling and associates provide us with several ideas for building an interprofessional curriculum through collaborative teamwork. Chapter 21, by Sekerek and colleagues, addresses the use of telehealth as a tool for health care delivery in rural areas.

In Section 5, Best Practice, we have selected four innovative cases. In the first case, Chapter 22, Brandt and Halaas provide a macro view of the challenges and opportunities in an academic health center for promoting IPE. Pierce and colleagues in Chapter 23 demonstrate the success of a mental health model in rural Appalachia. In Chapter 24, Wells reflects on lessons learned from working in a rural ethnic community. Wilkin in Chapter 25 shares an innovative application of a health report card in a Native American community-based quality improvement project.

Section 6 revisits our initial question—How do we best prepare graduates to have the skills and competencies to work in a diverse and challenging health care system? In Chapter 26, Lyons challenges us to address critical needs in demonstrating outcomes in IPE and outlines strategies for future progress in interprofessional education and practice. Chapter 27 summarizes our progress in interprofessional education and poses critical issues and potential next steps for continued growth and development.

We challenge the reader to think about what can be done to promote good, interprofessional work in difficult times.

REFERENCES