Creating the Health Care Team of the Future: The Toronto Model for Interprofessional Education and Practice

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Creating the Health Care Team of the Future: The Toronto Model for Interprofessional Education and Practice

Abstract

[Excerpt] In 2000, the Institute of Medicine’s landmark report To Err Is Human launched the contemporary patient safety movement with its clarion call to the health care systems all over the globe to act to prevent the errors that kill over 100,000 patients a year and harm many thousands more in the United States alone. Ten years later, in 2010, the World Health Organization's (WHO) "Framework for Action on Interprofessional Education and Collaborative Practice" was released, as was the Lancet Commission report "Health Professionals for a New Century: Transforming Education to Strengthen Health Systems in an Interdependent World." In fact, over the past decade or more, studies have documented that, far from improving, in countries such as the United States and Canada, there has been little progress in preventing patient deaths and harm. Original calculations such as those done by the Institute of Medicine in 2000 are now considered to have been dramatic underestimations of the harm done to patients in health care institutions around the world.

Although the complexity of today’s high-tech health care systems is often used as a rationalization for the maintenance of the status quo, all these groundbreaking reports argue that team-based, or interprofessional, care is a key strategy to move our current underperforming health care systems toward a more safe, efficient, integrated, and cost-effective model. Contemporary health care institutions do indeed have a bewildering number of players. Despite this, the responsibility for ensuring that patients receive the right care at the right time from the right providers relies on a few basic principles:

1. Practitioners need to understand they are part of a diverse team.
2. Practitioners must communicate effectively with the patient and family, as well as with other members of their team.
3. Practitioners need to know what other team members do to limit duplication and prevent gaps in care.
4. Practitioners need to know how to work together to optimize care so that the patient journey from inpatient care to home care, or from primary care to the specialist clinic is experienced as seamless.

Since 2000, the eleven health professional programs at the University of Toronto and the forty-nine teaching hospitals associated with them have developed an Interprofessional Education and Care (IPE/C) program that begins in the first year of a health professional student’s entry into his or her program, continues through various educational activities throughout their studies, and straddles the education/practice divide. Over the past decade, the university and teaching hospital partners have been engaged in the co-development and support of the IPE curriculum for learners. They are also investing in the development of faculty and the ongoing training of staff to support and model collaborative practice and team-based care. What we have come to think of as the "Toronto Model" is integrated across all sites and professions and includes classroom, simulation, and practice education.

Keywords
medical education, Centre for Interprofessional Education, University of Toronto, health care

Comments
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Creating the Health Care Team of the Future

The Toronto Model for Interprofessional Education and Practice

Sioban Nelson, Maria Tassone, and Brian D. Hodges

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INTRODUCTION

Why a Toronto Model Workbook?

In the spring of 2012, when a group of University of Toronto Centre for Interprofessional Education faculty finished up a workshop at Indiana University, they got a big surprise: the forty participants simultaneously rose to their feet and applauded. The senior academic leaders in medicine and nursing present at the workshop were clapping excitedly about the interprofessional education (IPE) training program they had just completed.

What evoked a standing ovation from an audience that day in Indiana? A small group of dedicated IPE proponents had successfully convinced the University of Toronto’s health faculties and teaching hospitals that to best serve the needs of complex patients, better promote health, improve quality, and increase patient safety, they needed to adopt a new model of education and practice—interprofessional education and care (IPE/C). The audience response was also inspired by the willingness of the Toronto team to share not only their successes but their frustrations, mistakes, wrong turns, and solutions to the vexing problems that many of those struggling to establish IPE programs share. This response also reflected the audience’s desire to respond to the problems of patient safety, job stress and caregiver burnout, and escalating health care costs that have been highlighted in countless reports over the past two decades.

In 2000, the Institute of Medicine’s landmark report To Err Is Human1 launched the contemporary patient safety movement with its clarion call to the health care systems all over the globe to act to prevent the errors that kill over 100,000 patients a year and harm many thousands more in the United States alone. Ten years later, in 2010, the World Health Organization’s (WHO) “Framework for Action on Interprofes-
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Although the complexity of today’s high-tech health care systems is often used as a rationalization for the maintenance of the status quo, all these groundbreaking reports argue that team-based, or interprofessional, care is a key strategy to move our current underperforming health care systems toward a more safe, efficient, integrated, and cost-effective model. Contemporary health care institutions do indeed have a bewildering number of players. Despite this, the responsibility for ensuring that patients receive the right care at the right time from the right providers relies on a few basic principles:

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None of this can happen if there is no education in teamwork from the very beginning of the health care professional’s educational journey—in a health professional school—and if that education is not continued throughout their entire career in whatever practice setting they work in. Since the traditional education of the health care professional has most often taken place in siloed programs that have little connection to one another, and traditional care tends to involve parallel play in the practice setting, it has become clear to those concerned with patient safety and health care education that a profound culture change is required to produce interprofessional care and optimal teamwork. Patient safety will improve only when we change the way health professionals relate to each other, the way they see their profession and recognize the value of change cannot be learned, most professional committees on this path of partnership first there must be some identification of what is committed to working together.

All over the world, we are seeing a growing recognition of the need for change and a move toward interprofessional education. In response to these new models of care, North America and Europe have launched collaborative learning models. In the United States, for example, the Josiah Macy Jr. Foundation has been at the forefront of this movement, with a series of workshops and faculty development initiatives. The goal is to move from an era of parallel practice to one of integrated care, with a focus on patient safety and quality improvement.

This shift is not surprising, given the increasing interest in interprofessional education. Schools of health professions will need to include interdisciplinary learning with little guidance from the beginning. In response to the movement, the University of Texas at Austin established the Interprofessional Education and Practice Center, which is dedicated to improving patient care through interprofessional practice. Since 2000, the Center has provided training and resources to support the development of interprofessional education programs, continuing education for health care professionals, and research on interprofessional collaboration.
"Why a Toronto Model Workbook?

Way they see themselves in relation to members of their own profession and to colleagues from other disciplines. This kind of change cannot be an abstract classroom exercise. It must be learned, modeled, and reinforced. There must be organizational commitment and professional willingness to go down this path of partnership between education and practice. But first there must be an education program that starts learners on this road and brings them together with mentors who are committed to new ways of delivering care and working together.

All over the world, educators and practitioners are beginning to recognize this and have embarked on efforts to set up interprofessional education and practice programs. In response to these influential calls for a new way of practice and new models of education, health professional programs across North America have begun to pilot programs that introduced collaborative learning opportunities into their curricula. The Josiah Macy Jr. Foundation has been a major supporter of this movement, seeding educational initiatives across the United States through their funding program and supporting faculty development through their fellowship program. Accreditation and certification agencies have likewise supported this shift. In 2012, the Liaison Committee on Medical Education (LCME) adopted a new accreditation standard (ED-19-A) that will come into effect in 2015 for medical schools in North America. This standard will require all medical education programs in the United States to prepare students to function collaboratively on health care teams that include other health professionals. For their part, hospitals and other health care settings are being similarly challenged to fulfill their mandate to begin to practice in a more interprofessional way and to conduct in-house education to teach clinicians and other health care workers how to do so.

This transition of IPE from "nice to do" to "must do" has, not surprisingly, been accompanied by an enormous upsurge in interest in models of IPE/C from the many health professional schools struggling to respond to the new mandate to include interprofessional education in their curricula, often with little guidance or support. That is why we have written this workbook.

Since 2000, the eleven health professional programs at the University of Toronto and the forty-nine teaching hospitals associated with them have developed an Interprofessional Education and Care (IPE/C) program that begins in the first year of a health professional student's entry into his or her program, continues through various educational activities throughout their studies, and straddles the education/prac-
tice divide. Over the past decade, the university and teaching hospital partners have been engaged in the co-development and support of the IPE curriculum for learners. They are also investing in the development of faculty and the ongoing training of staff to support and model collaborative practice and team-based care. What we have come to think of as the “Toronto Model” is integrated across all sites and professions and includes classroom, simulation, and practice education.

The Toronto Model has been developed through trial and error over the past decade. But how did we move from a series of abstract principles to an impressive array of concrete programs that span educational and practice institutions? This is the question Maria Tassone, the director of the Centre for Interprofessional Education, is always asked when she speaks about the activities at Toronto in North America and around the world (see Figure 2). This and other frequently asked questions (FAQs) that educators and practitioners all over the world ask Tassone and others at the university are what inspired this book and form its core. Everyone, it seems, wants to know:

- How did you start?
- How did you get everyone to participate?
- How did you find common curriculum time?
- How did you make it mandatory?
- How did you find placements? How did you find faculty?
- How do you continue to grow and sustain this work in education and practice?

We decided to focus this book on these practical questions. This is not to say our approach has been atheoretical or unscientific. However, we have found that presenting a lot of theory does not help people struggling to figure out what to teach, how to teach it, and how to begin to travel down the challenging and meaningful road of changing both pedagogy and practice.

What we have tried to do in this workbook is capture the collective activity and creativity, and to relay the outcomes and lessons learned. We do not wish to suggest that these successes are the result of individual initiatives or that others simply replicate what we have done; rather, we aim to share lessons learned and show how this collective work has been fundamental to the successes achieved thus far. Every school or service provider will have its own cultural specifications to which an IPE/C approach must be adapted. We can share what our issues were and how we managed them.

This workbook is geared toward a broad audience of health professional teachers (pre- and post licensure) charged with revising curricula, teams, and to clinician training programs. It also addresses the quality and patient to their institutions clinical teachers, faculty, and practice.

What worked of this text. As a struggle to both that are willing a share how far we may be helpful for where to start, getting things moving beyond to a formally mandated component of work. The journey is the way we are dealing, and clinicians all our efforts.

Through the curricula, teams, a how to get started cultural change. the narrative, we umms, and box “drop in, drop the theoretical a development, we end of the book work that has bility. We would field of IPE/C, t

Over the year array of tools into diverse env cate-the-educator some of these l
revising curricula to include interprofessional components, as well as to clinical faculty who are introducing IPE/C in their clinical training programs and professional development activities. It also addresses those who are charged with enhancing quality and patient safety—and even patient satisfaction—in their institutions. It is drawn from the experiences of faculty, clinical teachers, and health care practitioners across university and practice settings and across all the health sciences.

What worked for us, as well as what did not, is at the core of this text. As professional programs and service providers struggle to both create and train teams of health professionals that are willing and able to work together, and to raise the bar with respect to service integration and better patient care, we share how far we have come along this path. These lessons may be helpful for those who are just setting out and wondering where to start. Or, if you have been building bridges and getting things moving, but are not sure how to take the program forward to build interprofessional approaches to care, this book aims to help. “Scaling up” is a common challenge in IPE/C; that is, how to move from innovative pilot studies to systemwide change. At the University of Toronto we have moved beyond the “thousand points of light” of innovations to a formally mandated curriculum that has made IPE a core component of what it means to be a health sciences student. The journey is not over; the end is not even close. But along the way we are learning about the power of process, collaboration, and collective vision. For the thousands of educators and clinicians all over the world on a similar journey, we share our efforts.

Through the case studies we present different kinds of curricula, teams, and clinical settings. We provide insights on how to get started and the important role of champions in cultural change. Some of these case studies are presented in the narrative, while others are pull-out case studies, side columns, and boxes. These design features are to facilitate the “drop in, drop out” nature of the text. For those interested in the theoretical and methodological aspects of IPE/C program development, we have added a Further Reading section at the end of the book, which provides detail on selected published work that has been produced over the years by Toronto faculty. We would also direct readers to the key journal in the field of IPE/C, the Journal of Interprofessional Care.

Over the years, the Centre for IPE has built an impressive array of tools to assist the process of implementing IPE/C into diverse environments and to build capacity through educate-the-educator approaches. In this workbook we provide some of these basic tools and information. We also provide
QR Codes (matrix, or two-dimensional, barcode) in the margins for the reader to link directly with more extensive and continually updated resources on the website.

These resources are much requested, heavily accessed from our website, and disseminated through multiple workshops and education programs offered around the world. But people want more. The Centre for IPE is being constantly contacted directly by those downloading the resource material who love the resources but are not sure how to apply them to their specific context, or even where to begin. This workbook responds to this need by guiding the reader step-by-step through the various aspects of program development and implementation. The workbook provides an integrated framework through which to decide what tools are appropriate for your program and a guide for how to use them.

A workbook is not intended to be read sequentially or at one sitting. The emphasis is on “how to,” and areas of interest will vary both among readers and, over time, for individual readers. Thus some of the descriptive material is intentionally repetitive to demonstrate core principles and process issues that must be dealt with in varying sites and contexts, with different clinical populations and different constellations of team members. The goal is to facilitate the reader’s ability to work with the examples that are most relevant to their needs.

Finally, a note on evaluation of IPE/C and outcome data. Interprofessional education is an emerging field, and we are at the beginning stages of a mass movement. The University of Toronto is a global leader in IPE/C and yet, even for us, the full mandatory curriculum is barely four years old. While we are constantly evaluating these programs, it is not yet possible for us to state what outcomes they have produced at this stage of development. That said, the current priority for Toronto and other IPE programs around the world is to develop an evaluative framework and build the data sets. It will come. Right now we are on the cusp of having the critical mass necessary to generate robust data, and we expect to see very different discussion around IPE/C over the next decade. What we can say is that all around the world people are struggling with the problem of how to bring large-scale paradigm-breaking change without the “evidence” usually required to justify such change. We believe the program at Toronto is, in itself, a major outcome. It has been implemented, is supported, and has become a core mission for both the university and the clinical setting—no small feat. This book provides an analysis of what led to that outcome.

In the spirit of IPE/C, multiple voices are heard in this book. Contributors range from undergraduate students to senior clinicians. Stakeholders, deans, and CEQs are involved. While this mirrors the complex many issues around coordinating, teaming teams, coordinating needs, is the daily.

Many of the IPE programs directly engage patients, doctors, and other professionals, and this has been an important development. Students have benefited from the interactions and their voices are heard in the text.

A NOTE ON TERMINOLOGY

Team-based care and team care are terms that are often interchangeably used, both in the literature and in practice. The University of Toronto is a global leader in IPE/C and yet, even for us, the full mandatory curriculum is barely four years old. While we are constantly evaluating these programs, it is not yet possible for us to state what outcomes they have produced at this stage of development. That said, the current priority for Toronto and other IPE programs around the world is to develop an evaluative framework and build the data sets. It will come. Right now we are on the cusp of having the critical mass necessary to generate robust data, and we expect to see very different discussion around IPE/C over the next decade. What we can say is that all around the world people are struggling with the problem of how to bring large-scale paradigm-breaking change without the “evidence” usually required to justify such change. We believe the program at Toronto is, in itself, a major outcome. It has been implemented, is supported, and has become a core mission for both the university and the clinical setting—no small feat. This book provides an analysis of what led to that outcome.

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INTRODUCTION | WHY A TORONTO MODEL WORKBOOK?

clinicians. Stakeholders include service providers, administrators, deans, CEOs, faculty, patients, and point-of-care clinicians. While that may appear an unwieldy and eclectic mix, it mirrors the complexity and diversity of the health care system. Figuring out how to help all these players align into high-functioning teams, configured to optimally meet patient and client needs, is the daily challenge of health care around the world.

Many of the IPE activities described in this workbook directly engage patients and clients as facilitators, curriculum developers, and consultants. Capturing that patient/client voice has been an important commitment in this book. Similarly, students have been an integral part of the story in Toronto, and their voices are also reflected in the IPE/C journey.

A NOTE ON TERMINOLOGY

Team-based care, collaborative practice, and interprofessional care are terms that are often used interchangeably in the literature. The University of Toronto has adopted the WHO operational definition for interprofessional education: “Interprofessional education occurs when two or more professions learn about, from and with each other to enable effective collaboration and improve health outcomes.”

Furthermore, we characterize interprofessional collaboration as the integration and modification of different professions’ contributions in light of input from other professions. Rather than merely learning with other health professional students, the hallmark of IPE is the cognitive and behavioral change that occurs in participants who develop an understanding of the core principles and concepts of each contributing discipline and are familiar with the basic language and mindsets of the various disciplines.

In terms of interprofessional care, we use the Ontario Ministry of Health and Long Term Care definition of the provision of comprehensive health services to patients by multiple health caregivers who work collaboratively to deliver quality care within and across settings.
CREATING THE HEALTH CARE TEAM OF THE FUTURE

Chapter 1: The importance of champions

The book is organized into five chapters. A compass illustration guides the reader at the beginning of each chapter (see Figure 1).

Chapter 1 provides the history and the impetus that propelled educators and clinicians at the University of Toronto to begin this journey. It demonstrates that a broad group of committed leaders was integral to the launch of such an ambitious plan. Catharine Whiteside, the current dean of the Faculty of Medicine and vice-provost, Relations with Health Care Institutions, was a standout leader in this initiative; as a result, medicine has been front and center to the IPE/C program at Toronto. The department (as it was then called) and the University of Toronto (as it was then called) Pharmacy at the faculty’s level. As a result, as were the other schools of the University, recruited Ivy Ogilvie, the director of Interprofessional Education, as the first director of Interprofessional Education, with the task of bringing the concept across the health sciences to practice. Her commitment from the very beginning set the practice setting for the IPE/C program at the University of Toronto. It outlined the importance of leadership in the practice setting, as well as the need for contextual information in the teaching field between the health professions that compose the Interprofessional Health Sciences Network (TAHSN), and the important role of leadership.

However, cultural change is necessary to resolve the challenges faced by the health professions. In order to lead from within the leadership roles, as well as the enthusiasm of these leadership roles, is necessary for building a collaborative type of practice. This occurs through the leadership of individuals into overcomes that of individuals into clique-like leadership roles.

Of all the questions that were asked of the University of Toronto, the largest and most pressing was: How do we improve the curriculum and the education of future health professionals? As the question, addressed for the first time, negotiating the development of the actual IPE curriculum, was approved, and it became clear that leadership in negotiating the development of the curriculum was necessary. These elective courses were not something for the future but something that was being conducted on campus.
INTRODUCTION | Why a Toronto Model Workbook?

Toronto. The deans from the Council of Health Science Deans (as it was then called), led by Wayne Hindmarsh, the dean of Pharmacy at the time, were fully in support of the IPE/C initiative, as were the CEOs of the teaching hospitals. These leaders recruited Ivy Oandasan to the role of director of the Office of Interprofessional Education at the University of Toronto, with the task of making IPE a reality across the hospitals and across the health professional programs. Without that strong commitment from the leadership at both the University and the practice settings, it is difficult to see how IPE/C could ever have moved from the periphery to the mainstream of health professional education at Toronto.

Chapter 2 describes the structure of the University of Toronto. It outlines the programs, partners, and relationships between the teaching hospitals and the various university programs, as well as within the university overall. It gives the contextual information necessary to understand the overlapping field between the university and the teaching hospitals that compose the Toronto Academic Health Science Network (TAHSN), and this network constitutes the greatest distinguishing feature of Toronto and its model of IPE/C.

However, culture change is not a top-down exercise. Senior leadership is required to sanction the efforts and, where necessary, to resource them. For a program that involves all health professional programs at all clinical sites to be instituted, there has to be an army of willing innovators and pioneers leading from where they stand, in both formal and informal leadership roles. Creating and sustaining the energy and enthusiasm of these champions involves structures and processes for building a cross-cutting curriculum and creating a new type of practice. Once that is accomplished, the hurdle becomes that of implementing the content and IPE/C opportunities into overcrowded and pressured curricula.

Of all the questions educators from around the world ask of Toronto, the key question is: “How did you create space in the curriculum for this?” Chapter 3 deals squarely with this question, addressing the political economy of curriculum time, negotiating space, and maintaining the engagement of champions and faculty to ensure the commitment continues even as faces change around the table. We present what the actual IPE curriculum looks like and how it was created, approved, and implemented. One of the important strategies in negotiating precious curriculum space and time was the development of core and elective curriculum components. These elective components are enormously varied and offer something for everyone. We have electives developed and conducted on campus, while others are offered in the teach-
ing hospitals; one of the examples we share was developed and is run by students.

**Chapter 4** examines the implementation of IPE/C beyond the university and focuses on the clinical setting. We know how quickly lessons learned in the “ivory tower” can be scuttled by the “hidden curriculum” enacted daily in the workplace. How does one prepare clinical preceptors and faculty for a cohort of students being educated in a new way? How do the multiple clinical programs, professional training programs, and services begin to engage in IPE/C? What kind of experiences can be developed for prelicensure learners, postgraduate and graduate trainees, and staff professional development programs? In this chapter the diversity of TAHSN allows for a rich variety of examples of innovation. From the large comprehensive hospitals such as the University Health Network and St. Michael’s Hospital, to the specialist service providers such as the Centre for Addiction and Mental Health, the Hospital for Sick Children, and Holland Bloorview Kids Rehabilitation Hospital, General and Toronto offer IPE initiatives with support from their staff to implement these initiatives.

**Chapter 5** looks at the implications of IPE interactions and collaborations on hospitals, competency, and expectations of outcomes. The idea that clinical providers must function in a coordinated and integrated fashion is a critical component of the TAHSN. The evidence that this is possible and that professionals are prepared in this way is demonstrated by the professional development programs and evidence that this is possible and that professionals are prepared in this way is demonstrated by the professional development programs.
Future

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INTRODUCTION

WHY A TORONTO MODEL WORKBOOK?

Chapter 5 looks at the most recent thinking in IPE/C and discusses the implications for accreditation for programs and hospitals, competency frameworks within and across professions, and directions in evaluation for learning and patient/client outcomes. The idea that is gaining currency across the world, as demonstrated in Figure 2, is that we need teams of interprofessional providers to address health promotion and wellness, the social determinants of health, chronic disease self-management and management, and acute episodic care. For team care to become institutionalized as the “new normal,” the mechanisms that oversee training, accreditation, and regulation of health professional programs need to fully engage. Already there is evidence that this is happening, and much of the recent debate
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on health professional education reform is premised on the notion that teams are the preferred future.

In what follows we offer the story, the tools and our lessons learned in the spirit of collaboration and sharing. We look forward to supporting those who are just beginning this journey, as well as those who may be “stuck” at the stage of multiple small initiatives with no systemwide traction. Others who have well-developed and sophisticated IPE/C programs in place may find this book a source of different ideas or approaches they may wish to try. Interprofessional education and care is about living the message of collaboration and the belief that no one has anything to lose from sharing. This workbook has been produced in that spirit.

FIRST—LOOK

UNDERSTAND of IPE. In describing our programs, learners in professional education in Canada was characterized as state adopters. In this section we describe our programs, learn from the experiences of others, and partner with community hospitals and community colleges. The faculties of medicine, nursing, physical therapy, occupational therapy, and physician assistant education have significantly smaller than medici
Getting Started

First—Look at Your Context

Understanding your context is key starting down the path of IPE. In order to share the Toronto Model, we must first describe our context and our structures, and the types of programs, learners, and clinical partners that characterize health professional education at Toronto. More broadly the rise of IPE in Canada was stimulated by a series of key federal and provincial (or state) initiatives that provided the impetus for early adopters. In this chapter we share how we began.

What Does the Toronto Landscape Look Like?

The University of Toronto (U of T) is a large public research-intensive university with 80,000 plus students and 11,500 faculty. We have a large medical program with nearly 1,000 undergraduate students, 3,000 graduate students, 2,000 residents, and 3,000 postdoctoral and MD clinical fellows and partner with dozens of affiliated hospitals (teaching and community hospitals). In Ontario alone, one third of all family doctors have received training at U of T, and nationwide, one quarter of all medical specialists did all or some of their training here. Medical education therefore features prominently in the U of T story. The Faculty of Medicine also includes five distinct health science programs: medical radiation science, occupational science and occupational therapy, physical therapy, physician assistant, and speech-language pathology. The faculties of dentistry, kinesiology and physical education, nursing, pharmacy, and social work are by comparison much smaller than medicine. Nursing, for instance, is about a tenth the size of medicine overall at Toronto (see Figure 3).
In addition to size, the nature of the academic health science centre at U of T is unique. The Toronto Academic Health Science Network (TAHSN) is characterized by a strongly integrated set of linkages that functionally connect leaders in the hospitals with their academic partners at the university. The university doesn’t own or run the hospitals, as happens in some academic health science centres around the world. The U of T and the teaching hospitals form a consortium that is based on health professional education and research. This mix of strong sovereign identities among many partners, along with a cohesive purpose around education and research, is what makes TAHSN unique.

Every physician is engaged in teaching. Some are paid; many are not. Teaching expectations range dramatically, whereas others are modest.

WHAT ARE OUR STRENGTHS?

Ten of the eleven health science programs at U of T are engaged in undergraduate or graduate education. The exception is kinesiology, which is taken by undergraduate students only. Typically, the teaching expectations are high for some programs, such as rehabilitation science, whereas others are more modest.

THE IPE PROGRAM

The scale of integration in Toronto is remarkable, with students and physicians engaging in collaborative education.
makes TAHSN complex to maneuver and rich in potential. Every physician is appointed to the university, as are many hundreds of other health professionals. These appointments may be paid; many are unpaid. Appointments may come with teaching expectations or clinical supervision and mentorship, whereas others are largely research-focused.

**WHAT ARE OUR STUDENTS LIKE?**

Ten of the eleven health science programs at U of T (with the exception of kinesiology and physical education) are second-entry undergraduate or graduate programs, so students have undertaken university studies prior to entering their health science program. Typically the students have completed an undergraduate degree and, for some, a master’s degree (nursing, medicine, pharmacy, and dentistry fit this model). Other programs (such as rehabilitation sciences and social work) are offered only at the graduate level. What this means is that students tend to be roughly the same age—mid- to late twenties on average. The relative maturity of U of T students, we believe, becomes significant when students share learning and team activities.

**STUDENTS BY PROGRAM, 2013-2014**

<table>
<thead>
<tr>
<th>Program</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medicine</td>
<td>23.7%</td>
</tr>
<tr>
<td>Pharmacy</td>
<td>22.3%</td>
</tr>
<tr>
<td>Occupational Science and Occupational Therapy</td>
<td>3.9%</td>
</tr>
<tr>
<td>Pharmacology</td>
<td>22.3%</td>
</tr>
<tr>
<td>Social Work</td>
<td>9.07%</td>
</tr>
<tr>
<td>Physician Assistant</td>
<td>1.3%</td>
</tr>
<tr>
<td>Physical Therapy</td>
<td>4.05%</td>
</tr>
<tr>
<td>Speech-Language Pathology</td>
<td>0.22%</td>
</tr>
<tr>
<td>Kinesiology</td>
<td>10.2%</td>
</tr>
<tr>
<td>Dentistry</td>
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</tr>
<tr>
<td>Medical Radiation Sciences</td>
<td>6.8%</td>
</tr>
<tr>
<td>Nursing</td>
<td>8%</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
</tr>
</tbody>
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**THE IPE PROGRAM**

The scale of interprofessional education and care (IPE/C) in Toronto is remarkable. There are approximately 3,700 learners engaging in over 120 IPE learning activities offered across
"It's an absolute necessity for the accreditation standards to embrace interprofessionalism and IPE. The curriculum is absolutely packed. Accreditation standards drive curriculum planning, delivery and evaluation. If we're serious about linking our curriculum to the vision of truly improving health, we have to create standards around interprofessionalism that are specifically articulated, delivered and evaluated."

- Catherine Whiteside, the dean of Medicine at U of T

eleven professional programs in partnership with fourteen fully affiliated teaching hospitals and approximately thirty-five community hospital affiliated sites. Each year, these learning activities are supported by 620 mentors made up of student facilitators (30), IPE facilitators for practice-sector learning activities (150), and IPE facilitators for university-based learning activities (440) (see Figure 4).

At Toronto, IPE/C is not marginal—it is mainstream. There are teaching, practice, and leadership awards for faculty and students; a student association and a student-run clinic; faculty positions; teacher and clinician education; and leadership development programs. Students learn about, with, and from each other, and they learn how to work together in teams. They then get to practice in both academic and clinical settings.

For the most part, the IPE curriculum is an enhancement of the uniprofessional learning (i.e., learning within a single profession) that students undertake in each of their accredited programs. We are fully aware that it is not enough to simply put learners from different disciplines in the same class. We start from the philosophy that team learning needs to be an active component of the curriculum in order for the learning to be directed to improved team outcomes.

**Setting the Stage for IPE in Toronto**

**Early Efforts**

Health professional students learning together and practicing in teams is not a new idea. Over the course of the twentieth century, various experimental and model programs introduced co-learning and combined learning in which students from different health professional programs may sit in lecture theatres together learning anatomy or ethics. Students often learn in multidisciplinary groups to solve problem-based learning exercises, or they may be placed in teams, such as mental
programs in partnership with fully affiliated hospitals and participating university hospital affiliations. In the last year, these learning experiences supported by 620 mentors were facilitated by 30 student facilitators and were available for practice-sector activities (150), and IPE facilitation opportunities (see Figure 4).

IPE is not marginal. There are teaching leadership awards for students; a student run student clinic; preceptors, mentor and leadership development. Students learn from each other, how to work together and how to get to practice in clinical settings. Support, the IPE curriculum and the engagement of the university setting (i.e., learning the profession) that students programs. We are putting learners from the start from the philosophy and active component to be directed to

Figure 5—IPE annual participation data
“Pharmacy students need to know the unique strengths of the other professionals they will be working with upon graduation. With the increasing complexities of patient care and the need for more potent medications, the opportunity for detrimental and potentially life-threatening effects has increased.”

- K. Wayne Hindmarsh, Canadian Council for Accreditation of Pharmacy Programs

health teams or pain teams, as part of their clinical training. None of those approaches equates with IPE. Interprofessional education is something quite different. It directly addresses the issue of professional culture and identity and looks for ways to assist learners to grow and mature as health professionals (nurses, doctors, pharmacists, and so forth), as well as learning about what their colleagues do and know. It also helps them to develop the skills and capacities to work together to improve care.

Learning how to collaborate with colleagues is not the same as learning with colleagues. If we want practice to be team based, we have to do more than put people into teams. We have to teach people how to collaborate. Importantly, IPE needs to address tenacious issues such as culture, tradition, and power. This is not a task for the faint-hearted.

By the 1980s, in several sites around the world, most notably in the United Kingdom, the idea of interprofessional care had begun to take hold. Studies published in the groundbreaking journal of Interprofessional Care began to pique the interest of Canadian health care leaders. Emeritus Dean of Nursing Dorothy Pringle at the U of T recalls that in the mid-1990s, a Council of Health Sciences Deans was created at the suggestion of the provost, which she subsequently chaired. Pringle remembers that although there was a growing number of initiatives that provided IPE learning opportunities for students at U of T—such as the Year 1 session that brought all first-year students together to attend a panel of patients and clinicians each year—the one thing that everyone felt was missing was practice-based experience in team work. The Council didn’t want IPE to be merely a classroom exercise and hit upon the idea that they would use the recently created medical academies, which were academic footholds in the teaching hospitals, as structures around which to build IPE. The ambitious goal of the time was to offer a handful of students from the different programs an opportunity to work with a strong team in a position to model collaborative practice.

Money was found to hire four interprofessional practice coordinators in each of the medical academies to look for great teams suitable for student placement, to work with and across the different hospitals to figure out what was needed and timetable issues to work with students placements. The experiment in several settings done to bridge the gap between hospitals and to integrate students in the practice process coordinators reported to the Health Sciences Council a scheme that would.

In 2000, when To Err Is Human: A N Appl is a more professional movement that medical error in that year galvanised health care in the States but also in Canada, the provincial and regional health care leaders were ready to take up the challenge of preparing health care are expected to improve the country to do so. The recommendation of the To Err Is Human report #17 began: “The existing education system is responsible for primary care practice in Canada. The Romanow Commission’s provincial initiative and the leaders were ready to take up the champions of change (Toronto Rehabilitation). The teaching hospital leadership role is important to start up the interprofessional chief nurse executive to appoint her. Sinclair says When the stars were align...
teams, as part of getting most things off the ground, you have to find a few individuals who have a bit of clout.”

- Mark Rochon, Associate with KPMG’s Global Center of Excellence for Health

across the different faculty programs to figure out what the curriculum and timetable issues were, and then to work with students during their placements. The whole thing was an experiment in seeing what could be done to bridge the faculties and the hospitals and to support the students in the practice placement. These coordinators reported to the Council of Health Sciences Deans and laid the groundwork for the more ambitious scheme that would follow when the timing was right.

In 2000, when the American Institute of Medicine released *To Err Is Human,* the report gave the Canadian interprofessional movement a big push forward. The public revelation that medical errors were killing thousands of patients every year galvanised support for change—not only in the United States but also in Canada.

**POLICY DRIVERS**

In Canada, the government agenda was also influenced by the 2002 release of *Building on Values: The Future of Health Care in Canada.* In this report, lead author Roy Romanow, a former provincial premier, recommended an integrated approach to preparing health care teams: “If health care professionals are expected to work in teams ... their education must prepare them to do so.” The Romanow Report made forty-seven recommendations for sweeping changes. Recommendation #17 began: “The Health Council of Canada should review existing education and training programs and provide recommendations to the provinces and territories on more integrated education programs for preparing health care providers.”

The Romanow Report led to a series of national and provincial initiatives to support team care, and some U of T leaders were ready to be part of the first charge. One of the great champions of IPE was the Toronto Rehabilitation Institute (Toronto Rehab; now part of University Health Network). The teaching hospital hired Lynne Sinclair, who was in a leadership role at U of T’s Department of Physical Therapy, to start up the facility’s IPE program and create a sustainable interprofessional learning environment. Sinclair credits the chief nurse executive at the time, Karima Velji, with the vision to appoint her to the city’s first IPE job in the practice setting. Sinclair says Velji just “got it” right from the beginning. The stars were aligning for IPE/C in the province of Ontario. Col-
In health care settings, we need to change the day-to-day structures that segregate the professions. We need to break down the physical barriers as well as other boundaries, such as scheduling. We need to put mechanisms in place so health care professionals can come together at the point of care.”

- Karima Velji, Canadian Nurses Association
a nurse there and a physiotherapist here, and a social worker and doctor over there.' Just because they're all on the same ward doesn't mean you have a team. What you have is a bunch of individuals working in parallel.”

The public wasn't as enamored with interprofessionalism as Tepper. “People said the government wanted interprofessional care because it was the cheap way,” he recalls. “That's a myth! It is far from a cheap way; in fact, it is probably more expensive. It took time for people to see that this way of delivering care would improve quality because it allows you to leverage a variety of skill sets.”

Tepper was eventually successful in pushing the IPE/C and quality care agenda in Ontario. IPE proponents at U of T were quick to apply for government dollars at both provincial and national levels, and an opportunity arose in 2005 when Health Canada, the federal government's health department, announced a competition for innovative, potentially transformative projects in IPE/C. Catharine Whiteside, then the Faculty of Medicine’s associate dean of Graduate and Inter-faculty Affairs, and Brian Hodges, the second director of the Wilson Centre, were part of the group who came up with a plan for U of T, which at the time had little experience applying for large-scale platform funding for IPE/C. “We stayed up late one night in Catharine's office submitting the final proposal to Health Canada,” recalls Hodges. “It was dark, and I remember being very tired. It wasn’t perfect, but in the end we decided to give it a shot and submit it.”

“There was variable enthusiasm from the other deans,” recalls Whiteside. “The reason was that at the time there was little solid evidence that IPE curriculum would lead to better care.”

The proposal marked the first collaboration of all of the teaching hospitals and university health faculties. “We had a huge committee, and it was the initial big platform project with everyone’s blessing,” says Hodges. Although every health faculty and teaching hospital agreed to the proposal, some signed off reluctantly.

“It was hard work to get all the hospitals to agree to the IPE proposal,” adds Hodges. “We were trying to make arguments from the emerging literature that interprofessionalism had an impact on patient care, but lots of our colleagues were not that

“Unless you instill in the next generation a commitment and expectation that collaboration is normal and will be accomplished, it can never be accomplished. We have to believe in interprofessionalism for it to become possible.”

– Sioban Nelson, Nursing at U of T
Some practitioners questioned whether interprofessional care was a new term for something they were already doing. Others claimed it was just the flavour of the month.

The proposal, submitted just hours before the deadline, was accepted and eventually led to the Structuring Communication Relationships for Interprofessional Teamwork (SCRIPT) program. This three-year research study funded by Health Canada and led by IPE champions Ivy Oandasan (family medicine), Lynne Sinclair (rehabilitation), and Merrick Zwarenstein (general internal medicine) examined how IPE/C could look in different contexts: primary care, rehabilitation, and general internal medicine. SCRIPT's ultimate goal was to transform the conduct, learning, and evaluation of interprofessional teamwork in the teaching hospitals by advancing the evidence base for IPE.

According to Sinclair, the SCRIPT project pulled together an interprofessional team that included rhetorician and qualitative researcher Lorelei Lingard, social scientist Scott Reeves, and nursing and pharmacy faculty Diane Doran and Zubin Austin, respectively, to support collaborative research in the area of IPE/C. Sinclair recalls it as an exciting and energized time when a broad team of colleagues strove to figure out how to work together within and across professions and across contexts and to build the evidence base for IPE/C.

Evidence that IPE would lead to better care was crucial to securing support. Oandasan notes that evidence was building in the early 2000s, including the Health Canada projects described above, her own two major literature reviews, and an environmental scan on IPE/IPC funded by and for Health Canada and the Canadian Health Services Research Foundation in 2004-2005. These projects created seminal documents that are now used internationally to advance interprofessional education and care and to try to establish the links between IPE and IPC. But despite emerging evidence, a common refrain, according to Hodges, was "Where are the data on the efficacy of IPE?" "Linking IPE to hard clinical outcomes remains a challenge—it is difficult to show that patients get better or live longer because of interprofessional education. There are so many factors involved in a patient's recovery that pulling out the variance attributable to IPE is a challenge. Yet, to make such major investments in changing the system, health care leaders want to see evidence."

Faced with a paucity of hard evidence about patient outcomes, in the words of Mark Rochon, founding president and CEO of Toronto Rehab (which in 2006 developed and piloted the first structured IPE placement in Toronto), "It became a question of common belief."

Team practice, as psychiatry, has what makes for well-put-together the practitioners, but they rarely chart. "We are asking for ways hard. We are not their days, who to how they chart."

When care is

Any health care down graciously and make decisive health care team professional care you don't know, but the team," says the director of the normal partnership.

Health Net care professional the answers then level of comfort a."

Around the same touted in clinical government was parti-tions that incre: the health profes-tice—notably for pharmacists, and. This overlap in for collaboration, practitioners because else could do part.

Power dynam struggles that remain inherent challenges confronted by the introduce inter-pro...
question of commitment and belief... we went down this path based on belief.”

Team practice is not in itself new, and some disciplines, such as psychiatry, have long lent themselves to this approach. But what makes for effective team practice? How do we ensure that it isn’t hit-and-miss and personality driven? Is getting on well together the same as good team practice? Despite most practitioners declaring themselves strong team players, many health care practitioners are not team-driven. To practice interprofessionally, they have to make a fundamental philosophical shift. “We shouldn’t kid ourselves,” says Tepper. “We are asking for a very pervasive change, and change is always hard. We are asking people to change how they structure their days, who they talk to and how they talk to them, and how they chart. Time is always a scarce resource for health practitioners, and we are asking them to allocate time to allow an interplay of the members of the team.”

When care is interprofessional, the hierarchy is flattened. Any health care practitioner still on a pedestal must step down gracefully and collectively problem-solve, share care, and make decisions not only with the other members of the health care team but also with the patient and family. “Interprofessional care requires the courage to step back and say you don’t know, and the humility to admit you need help from the team,” says Maria Tassone, a physiotherapist and the first director of the Centre for Interprofessional Education, a formal partnership of the U of T and TAHSN, with the University Health Network as the lead hospital. “Since many health care professionals have traditionally been socialized to have the answers themselves, IPE really challenges people to their level of comfort and discomfort.”

Around the same time as interprofessionalism was being touted in clinical settings, the government was passing new regulations that increased the overlap in the health professions’ scope of practice—notably for nurse practitioners, pharmacists, and physiotherapists. This overlap increased possibilities for collaboration, but it worried some practitioners because now someone else could do part of their job.

Power dynamics and the power struggles that result from them are inherent challenges that must be confronted by those who want to introduce interprofessional care and

“Being part of my health care team gave me confidence in my care and in my right as a patient to play an active role in my care, and it respects my input and that of my loved ones.”

— Patient Mentor
"Our mission as social workers is to work with individuals and their environment in the whole ecological context. We have to be aware of all aspects of the person – his physical health, his emotional health, his family, his community, his school. Interprofessional care ensures that all of the different professions are involved and see the person holistically."

- Faye Mishna, the dean of Social Work at U of T
CHAPTER 1 | GETTING STARTED

Canada, the Medical Council of Canada, and the Ontario International Medical Graduate Program. "As soon as you put something in an exam or on an evaluative form, it has a lot more currency with the students," he says. "The students realize it's serious and rise to the occasion. Teachers realize they have to teach it. By the end of the 90s, we had started to evaluate interprofessional care. The exams introduced a competence called 'collaborator' that needed to be assessed. That was a big change for medicine."

The former dean of nursing and now Vice-Provost Academic Sioban Nelson argues that, in comparison to medical education, nursing education is not so strongly structured around accreditation, standardized testing, or simulations. While collaboration is part of the nursing accreditation framework, clearer expectations need to come from the regulators for the schools to really make IPE a major priority. That change has already happened in pharmacy according to Dean Emeritus Wayne Hindmarsh who says "the drive in pharmacy is truly collaborative in nature, from practitioners, regulatory bodies, and educators. We are fortunate that we have interprofessional requirements in our new University and College [for Technicians] standards. It is required!" For the other regulated professions across the country, there is much variation between jurisdictions and professions. The push to adopt more interprofessionally focused education has in some instances come from regulators; in others, it is the educators, leaders in the practice setting, and government that are pushing it forward. In-training assessment forms and in competency frameworks drove the IPE agenda. "To really understand how to engage in IPC, it had to be part and parcel of the teaching," emphasized Whiteside.

Supporting the scholarship of IPE in Toronto was the Wilson Centre for Research in Education. Placing an educational research centre inside a teaching hospital—particularly one promoting an interprofessional approach to research to advance the strong education–practice partnership in Toronto—was a strategic move. Fifteen years on, every U of T extradepartmental unit focused on education, including the Centre for IPE, is now situated in a major teaching hospital. Established in 1997 through an innovative partnership between U of T's Faculty of Medicine and Toronto General Hospital (part of the University Health Network), the Wilson Centre is now one of the largest centres for health profession education research in the world. It replaced the university's Division of Student Medical Education, which, without a central office, had dispersed across campus. "The Wilson Centre needed the cachet of a physical centre," insisted Richard Reznick, a surgeon and...