Client-centered healthcare is a contemporary goal throughout most healthcare systems. Independent of the health context any service that requires the interaction and coordination of complex professional disciplines to meet complex needs in a subject carries with it both technical and cultural challenges. In healthcare this always seems to be magnified. This book provides a valuable combination of experience-led enquiry, detached analysis and insight to illuminate the challenges in delivering interprofessional education in different settings, whether that be different clinical or hospital settings or different international contexts. The self-reflective style and the interweaving of case material with the authentic voice of the patient makes this a very rich contribution to the current debates.

Professor John Coyne  
Vice Chancellor  
University of Derby, UK

This book exemplifies and justifies the importance of leadership in IPE. It addresses a gap in IPE literature, is urgently needed and its publication is opportune. The use of narrative effectively embeds the text in practice. It can be used both as a practical resource and through the skilful use of questions, can be tailor-made for the circumstances of the reader. The authors demonstrate the importance within the IPE field of not being parochial and learning from the experience of those in other countries. It shows that mature IPE nations can equally learn from the experiences of emerging IPE nations. This book focuses on an important area with a new emphasis. It has helped us to move forward and adds effectively to the evolving IPE literature.

Richard Gray  
Chair of Centre for the Advancement of Interprofessional Education – CAIPE, UK

This book demonstrates both passionately and clearly the extent to which interprofessional collaboration in the health professions is evolving new leadership practice and knowledge. Challenging questions – and evolving solutions – concerning impact are ever-present in a lively, diverse collection of chapters which will inspire and motivate practitioners around the world.

Dr Paul Gentle  
Director of Programmes  
Leadership Foundation for Higher Education UK

I have experienced firsthand the difference strong leadership can make in the development and sustainability of an interprofessional culture both in a university and practice setting. This book shows how important interprofessional education and practice is internationally and how vital it is that leaders develop the collaborative health and social care models which are needed for the future.

Geoff Glover  
Higher Education Academy UK

If ever there was a time when professionals needed to learn with, from, and about each other to improve collaboration and the quality of patient care, it is now. This book is therefore a timely and stimulating resource for all those serious about improving the quality of care. Combining experiences from across the globe and drawing on important theories and models, it provides insights and offers solutions in the realms of leadership, change management, and interprofessional education. With the inclusion of case studies and probing questions it encourages self-reflection as well as providing practical strategies for achieving transformational change. In a world of increasing complexity and rising demands on health and social care, this book is a great resource for leaders, managers, educators, and healthcare professionals.

Kaye Burnett, Chair Health Education East Midlands, UK
Leadership development for interprofessional education and practice is energizing, practical, and full of important stories designed to guide and promote understanding for educators and practitioners alike. Read it and be inspired to lead, and take part in the emerging transformation of health professions education and practice!

Associate Professor Dr Betsy VanLeit
University of New Mexico, United States

The issue of leadership in healthcare, let alone in interprofessional team practice, has been a priority across a number of health ministries of late. In this book there is a concerted move away from leadership theories that are trait and hierarchical-based approaches. The attention to practical ways to implement strategies to create workplace environments that are conducive for co-learning from both the manager and the deliverer of services is refreshing. The authors are to be commended for this work. Our health systems, although purporting to support transformative leadership as models of practice, are at times difficult to see enacted when you are at the direct care interface. Focusing at this level is both novel and key for successful transformation of how patients/clients receive their health services. Thank you for helping many to see how such leadership can be enacted.

Professor Carole Orchard
Associate Professor, University of Western Ontario, Canada

This is an important and timely book. In many ways it constitutes a next stage of development work in the areas of interprofessional education and practice. As interprofessional practice is increasingly recognized as essential for achieving effective, patient/client-focused and sustainable health services, attention can now be given to a number of key issues such as how leadership in education and practice are defined, developed, and sustained. This book is a rich resource of ideas and experiences as to how leadership is being conceptualized, practiced, and evolved. It draws on narrative and conceptualization to stimulate thinking and guide practice. Importantly it addresses leadership across the broad range of contexts that constitute healthcare. It also breaks new ground and demonstrates a commitment to the interprofessional in its drawing together of stories and learning from many different countries and cultural contexts. It also exemplifies the underpinning tenet of interprofessional education and practice, that is, the importance and value added by learning with, from, and about each other. Each of the chapters in this book offers much to enrich our thinking and practice.

Associate Professor Roger Dunston
Associate Director, International Research Centre For Health Communication
University of Technology, Sydney, Australia

The essence of leadership is characterized by courage and perseverance. This is even more strongly the case when exercising leadership in a new world order. Interprofessional practice is such a new world order and the champions and leaders are pioneers in their leadership practice. This text introduces pioneering interprofessional leaders from around the world. Their stories of leadership and the strategies they have developed to advance their practice provide both a blueprint for emerging leaders and an inspiration to all interprofessional practitioners who know the challenges involved in achieving and maintaining interprofessional change. These narratives from locations as diverse as New Zealand and Colombia are testament to the courage and perseverance of these pioneering leaders and their evolving influence for improved service provision.

Associate Professor Monica Moran
Chair, Australasian Interprofessional Practice and Education Network, (AIPPN),
Program Lead Occupational Therapy,
Central Queensland University, Australia
Also by Dawn Forman

CREATING A COACHING CULTURE FOR MANAGERS IN YOUR ORGANISATION (with M. Joyce and G. McMahon)
GOOD PRACTICE IN THE ACCREDITATION OF PRIOR LEARNING (with L. Nyatanga and J. Fox)
MANAGEMENT IN NURSING (with J. Fox)

Also by Marion Jones

INTERPROFESSIONAL E-LEARNING AND COLLABORATIVE WORK: Practices and Technologies (Edited with A. Bromage, L. Clouder and F. Gordon)

Also by Jill Thistlethwaite

MAKING IT REAL: A Practical Guide to Experiential Learning (with G. Ridgway)
PATIENT-DOCTOR CONSULTATIONS IN PRIMARY CARE: Theory and Practice (with P. Morris)
PROFESSIONALISM IN MEDICINE (with J. Spencer)
MENTAL HEALTH ACROSS CULTURES: A Practical Guide for Health Professionals (with J. Benson)
VALUES-BASED INTERPROFESSIONAL COLLABORATIVE PRACTICE
A SOCIOLOGY OF INTERPROFESSIONAL HEALTHCARE PRACTICE: Critical Reflections and Concrete Solutions (Edited with S. Kitto, J. Chesters and S. Reeves)
INTERPROFESSIONAL E-LEARNING AND COLLABORATIVE WORK: Practices and Technologies (Edited with A. Bromage, L. Clouder and F. Gordon)
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Leadership Development for Interprofessional Education and Collaborative Practice

Edited by
Dawn Forman
*Curtin University, Australia*

Marion Jones
*Auckland University of Technology, New Zealand*

and

Jill Thistlethwaite
*University of Queensland, Australia*
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As a Canadian healthcare provider, educator, and researcher who came upon the world of interprofessional education (IPE) and interprofessional practice (IPP) in 2003, I marvel at how the field has grown exponentially. In truth, I stumbled upon the field myself by happenstance. An opportunity presented itself to conduct a literature review and an environmental scan to advance IPE and IPP in Canada (Oandasan et al., 2004). Based upon this work an evolving framework for interprofessional education for collaborative centered practice emerged (D’Amour and Oandasan, 2005). I was hooked. I became a passionate believer and advocate for the field. The stars aligned for us in Canada, and IPE and IPP became firmly rooted in many parts of the country. Now, a decade later, I see the stars aligning in other countries with opportunities for IPE and IPP rising. More than ever, our international community is able to learn about, from, and with each other, sharing experiences, best practices, helpful innovations, and research simply by the tap of a finger on a keyboard. Having had the privilege of meeting fellow colleagues committed to advancing IPE and IPP around the globe, I have seen the power of our collaborative approaches helping each other catalyse and lead change.

In this book Dawn Forman, Marion Jones, and Jill Thistlethwaite (2014) have provided the IPE/IPP community with a timely and much needed resource for our community of leaders. The book captures international stories shared by people like you and I who believe in the possibilities of IPE and IPP. This book reminds us of our history and provides us with inspiration, highlights accomplishments, and uncovers what yet needs to be done. To be successful, collaborative partnerships must be forged working directly with students and clients/patients/individuals; with educators and practitioners; administrators in organizations and institutions; and policymakers, including government. Leaders are needed to navigate through the complexity inherent in advancing change both in the education and practice sectors of health. Urgent resources are needed to help deepen our own ‘Leadership Development in IPE and IPP’.

While in the Middle East in 2011, providing a five-day interprofessional leadership course to twenty-eight healthcare providers in one of the country’s largest hospital organizations, an epiphany emerged for me. At first, the epiphany was quite jarring but, in time, quite apposite. The magnitude of change we, as leaders, have committed to is a revolutionary one. Seminal international IPE and IPP reports identified within the World Health Organization’s Framework for Action on Interprofessional Education and Collaborative Practice (WHO, 2010) recognize that systems change is urgently needed. Educators, practitioners, policymakers, leaders,
government, students, patients, and families are key partners in this effort. As a key partner yourself, in whatever role you play, have you asked yourself—why? Why are you engaged in this change movement? The fundamental premise of IPE and IPP is to enable healthcare and social service providers to collaboratively provide patient-centred care. In essence, those advancing IPE and IPP are advocates for systems change.

Before entering this field, as a young educational researcher, I was studying the concept of health advocacy. Looking back, my early research influenced my interest in IPE and IPP and it shaped my approach to leading change. Health advocacy can be described as:

Purposeful actions by health professionals to address determinants of health which negatively impact individuals or communities by either informing those who can enact change or by initiating, mobilizing, and organizing activities to make change happen, with or on behalf of the individuals or communities with whom health professionals work. (Oandasan, 2005)

This definition, derived from the work of Ezell (2001) suggests that advocacy is a practice or an action. It is more than a set of thoughts, feelings, or attitudes. Ezell emphasized that advocacy ‘consists of purposive efforts to change specific existing or proposed policies or practices on behalf of or with a specific client or group of clients’ (2001, p. 23). To this end, those of us advancing IPE and IPP are purposeful leaders of change.

It may be challenging for some reading this book to see themselves as leaders. I am drawn to the writings of Margaret Wheatley who describes leaders as anyone who sees an issue or opportunity and chooses to do something about it (Wheatley, 2008). If you use any part of this book to help advance IPE and IPP with individual students or patients, to work with communities and organizations, regions, and/or countries you are a leader and your leadership is creating a ripple effect—the same ripple effect that was started by our very first pioneers decades ago.

The editors have done an incredible job of weaving theory with practical examples from different parts of the world in different contexts. These contexts span the academic setting of undergraduate health professions education to IPE provided in clinical settings for both students and practitioners. Innovative interprofessional practices in primary care, hospitals, and community settings are showcased reflecting the enormous variability of how IPE and IPP can be implemented, in part because of the different political agendas, healthcare systems, and people involved. In all examples shared in this book, no matter what country, what era or what context, a constant remains: there are people in this world who believe there is a better way of providing education and care through IPE and IPP and are willing to invest time and energy to convince others that change is needed.
For you, right now, as you read the words written before you, ask yourself, why have I or why am I engaged in IPE and IPP? What’s in it for me? What's in it for others? Collins writes about Level 5 Leaders, who are highly successful individuals known to ‘channel their ego needs away from themselves and into the larger goal of building a great company’ (2001, p. 21). Our ‘company’ could be described as the international healthcare system within which we are all members. As champions in this system, striving to be Level 5 Leaders, we must learn how to weave together many of the key leadership styles and theories described in this book in order for us to successfully implement the changes needed for those who are often voiceless within the system.

As you flip through the book, you will meet various leaders including the authors of the different chapters. What is it that you have in common with these authors who may or may not be working in a context similar to yours? What actions did these authors take or describe that could be applied in your own context? How did they constitute the membership of teams working with them to advance IPE and/or IPP? How did they create collaborative partnerships?

‘Studies of system change show that things often get worse before they get better’ (Westley et al., 2006, p. 185). As leaders, we must recognize that advancing change is not easy. This book can be helpful to reinvigorate, remind, and re-enthuse those working in the field of IPE and IPP when faced with the challenges that will inevitably emerge. The authors and editors have all faced these types of challenges. Through their stories, they can remind you that no matter what, nothing is lost but so much can be gained if action is taken. The most impactful changes are often the ones that are invisible to the eye and/or unexpected, often built upon the advances made by others. As Collins notes:

In building greatness, there is no single defining action, no grand program, no one killer innovation, no solitary lucky break, no miracle moment. Rather, the process resembles relentlessly pushing a giant, heavy flywheel in one direction, turn upon turn, building momentum until a point of breakthrough and beyond. (Collins, 2001, p. 14)

Here’s to you as Leaders of Change. May we read another book in years to come that highlights your stories, your successes and challenges, and your theoretical approaches advancing the field of IPE and IPP. May we look towards the creation of a healthcare system that is integrated with a health education system producing healthcare and social service providers working in settings supporting them to provide quality-focused interprofessional patient-centred care with evidence of incredible healthcare outcomes.
Here’s to you and here’s to the success of this book for our IPE and IPP community.

Ivy Oandasan MD CCFP MHSc FCFP
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References
Oandasan, I. (2005) Health advocacy: bringing clarity to educators through the voices of physician health advocates. Academic Medicine, 80(10), S38–S41.
The editors and authors of this book would like to thank their institutions, colleagues, students and clients for their cooperation in the interprofessional ‘stories’ outlined in this book.

The editors would particularly like to thank Jeanne Clark for her patient editing and administrative assistance, and Kiran Bolla for all the guidance through the publishing process.
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Editors

Dawn Forman is an independent consultant working mainly with higher education and with health services internationally. She enjoys undertaking work with organizations that share her value base and she is a key associate for the Leadership Foundation for Higher Education (UK), a senior associate of Ranmore Consulting (UK), an associate of Feldman and Associates (Australia), and an associate of the Higher Education Academy. In her consultancy Professor Forman specializes in interprofessional education, executive coaching, governance and leadership development, scenario planning, and team development at board and executive leadership levels.

Dawn has recently returned to the UK from Perth, Australia, and has previously held executive and governing board positions in both universities and healthcare services.

Dawn is an adjunct professor at Curtin University and Auckland University of Technology and visiting professor at Chichester University, and has published five books, ten chapters and more than 50 articles in peer-reviewed journals.

Marion Jones is Professor and Dean of University Postgraduate Studies at Auckland University of Technology (AUT) and a director of the National Centre for Interprofessional Education and Collaborative Practice in New Zealand. A significant focus of her academic career has been the development of postgraduate study. For ten years she was Associate Dean Postgraduate to the Faculty of Health and Environmental Sciences at AUT. Her area of research expertise is interprofessional practice and education, postgraduate supervision and perioperative nursing. Her PhD was in the shaping of interprofessional practice in the context of health reform. Some of her national and international activities include being a board member of InterEd, the New Zealand representative on the Australasian Interprofessional Practice & Education Network (AIPPEN), and Professor of Interprofessional Education at the University of Derby in the United Kingdom. She is author or co-author of more than 30 journal articles, including ‘Cultural Power in Organisations: The Dynamics of Interprofessional Teams’, in Whiteford and Wright-St. Clair (eds), Occupation and Practice in Context; ‘Interprofessional Practice’, in Papps (ed.), Nursing in New Zealand – Critical Issues, Different Perspectives; and ‘Shaping Nursing Praxis’, in Thorne (ed.), Nursing Praxis, five books on topics of interprofessional education, perioperative nursing, and postgraduate supervision and has presented at more than 70 national and international conferences.
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Contributors

Esperanza Avellaneda is a nurse with specializations in health management and epidemiology. She has 28 years’ experience in public health, developing, implementing and analysing policy, planning and directing health and social development programs with emphasis on child health. She was the leader and coordinator of the Integrated Management of Childhood Illnesses (IMCI) Strategy for the City of Bogotá health secretariat between 2000 and 2012. Part of her experience with different health professional groups also included working with Tunjuelito Hospital and the Health Directions of the Local Districts of Usme and Mártires.

Hugh Barr is President of the UK Centre for the Advancement of Interprofessional Education (CAIPE), Emeritus Editor for the Journal of Interprofessional Care, Emeritus Professor of Interprofessional Education and Honorary Fellow at the University of Westminster with visiting chairs at Curtin University in Western Australia and Kingston with St George’s London and Suffolk universities in the UK. He was awarded honorary doctorates by East Anglia and Southampton universities for his role in promoting interprofessional education nationally and internationally. Related publications include surveys, guidelines, and reviews. He served on the WHO study group on interprofessional education and collaborative practice and currently coordinates the World Interprofessional Education and Collaborative Practice Coordinating Committee.

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**Margo Brewer** is the Director of Practice and Interprofessional Education in the Faculty of Health Sciences at Curtin University in Western Australia. She is a speech pathologist and life coach with extensive experience as a clinician, clinical educator, academic, and project manager. Her research publications are in interprofessional education frameworks, assessment, and practice. Margo has won multiple program excellence awards in the field of interprofessional education, including a national Office for Learning and Teaching award and the International Best Practice award at the World Business Capability Congress in 2012.

**Mollie Burley**, a Senior Lecturer in the Monash University Department of Rural and Indigenous Health (MUDRIH) in the School of Rural Health, leads the Interprofessional Collaboration Team. She holds a Master of Rural Health (Research) and is dedicated to improving rural health practice and supporting her rural colleagues. Her current passion is focused on interprofessional collaboration in healthcare, specifically in assisting educators and clinicians in improving their practice through more effective collaborative team working. Mollie also leads the Placement, Education and Research Unit (PERU) at Latrobe Community Health Service where the focus is on improving and enhancing student placements and facilitating education and research for staff underpinned by a capacity-building interprofessional collaboration model.

**Andy Carson-Stevens** qualified in medicine from Cardiff University, where he is a Clinical Lecturer in Health Care Improvement at the Cochrane Institute for Primary Care and Public Health. He is Chief Investigator of a NIHR study to characterize primary care patient safety incidents reported to the National Reporting and Learning System in England and Wales, and is a Consultant to the Safer Primary Care program at the WHO. He is the UK and Ireland Regional Leader of the Institute for Healthcare Improvement Open School – a global educational community preparing healthcare students and junior professionals to lead change in healthcare.
Nick Clutton is currently a B767 Captain with Ethiopian Airlines; he has previously flown for British Airways as a B737 Captain, and it was with British Airways that he qualified as a Crew Resource Management Instructor and completed training to deliver the Myers Briggs Type Indicator. His work in Crew Resource Management and Human Factors has been applied to the medical and healthcare industry using a strength-based approach for patient safety and the improvement of care.

Janice Chesters is a retired academic who maintains an active interest in working to improve interprofessional education and practice in both Australia and New Zealand. She is currently an adjunct professor at New Zealand’s AUT University. Janice’s research has been in the field of mental health sociology and rural health as well as interprofessional education. She worked in rural health education and research for Monash University in Victoria, Australia, for most of her career. In 2010 she took up an education, training and research leadership appointment in a major health service in Auckland, New Zealand. Janice has had the benefit of experiencing interprofessional education and practice from both academic and health service organizations in both Australia and New Zealand.

Alan Dow is the Assistant Vice President of Health Sciences for Interprofessional Education and Collaborative Care and an Associate Professor of Medicine at Virginia Commonwealth University in Richmond, Virginia. A practising hospitalist, he designs, implements, and studies new models for care delivery and education with a focus on interprofessional teams and clinical outcomes. He was selected by the Josiah H. Macy Foundation to the initial class of Macy Faculty Scholars, a program focused on developing the next generation of leaders in health professions education.

Rosa Durán teaches community health, project management, and health services management at the Faculty of Medicine of the University of La Sabana, Colombia. She has over 20 years’ experience in management and consulting in the area of public health at the national level (National Cancer Institute, National Department of Statistics, Ministry of Health and Social Protection). As an independent consultant she has been a coordinator of research projects and developments in maternal and child health and primary healthcare.

Mark Earnest is a Professor of Medicine and the founding Director of Interprofessional Education at the University of Colorado’s Anschutz Medical Campus in Aurora, Colorado, where he teaches and practices General Internal Medicine. In addition to his interest and work in interprofessional education, he has a longstanding interest in health policy, advocacy and leadership development. He is a former Soros Advocacy Fellow and serves on the Board of the American Interprofessional Health Collaborative.
Diane Franklin is a speech pathologist and a key member of the interprofessional education and practice team in the Faculty of Health Sciences at Curtin University, Western Australia. She coordinates the clinical placements for interprofessional teams of students within a variety of settings, for example hospital, aged care, schools, and primary care programmes. The role involves student inductions and ongoing support, training fieldwork educators in interprofessional education and group facilitation, and the evaluation of placement and partnerships. Diane project-managed the creation of an interactive online interprofessional education workshop in the area of dementia management. The success of this project led to further external funding for similar workshops.

John H. V. Gilbert is founding Principal and Professor Emeritus, College of Health Disciplines; founding Director, School of Audiology and Speech Sciences; Director, the School of Rehabilitation Sciences at the University of British Columbia. His honours include a Fulbright Scholarship; Medical Research Council of Canada Post-doctoral Scholarship; Outstanding Alumnus Award of the School of Liberal Arts, Purdue University; UBC Isaac Killam-Walton Outstanding Teaching Award; Fellow, Canadian Academy of Health Sciences; Order of Canada, July 2011; the Queen's Diamond Jubilee Medal, April 2012. He is a member of the Editorial Board of the Journal of Interprofessional Care, and Co-editor of the Journal of Research in Interprofessional Education; and an Adjunct Professor at the National University of Malaysia, Dalhousie University, and the University of Pittsburgh. He was Co-chair of the WHO Study Group on Interprofessional Education and Collaborative Practice.

Leah Irving is an Instructional Designer for interprofessional education in the Faculty of Health Sciences at Curtin University, Western Australia. She has a background in the visual arts and professional education and training. Leah has over 15 years of experience in designing, developing, and implementing technology-mediated learning that focuses on collaborative learning environments across all education sectors. Her current research interests include 3D virtual worlds and augmented reality in higher education teaching and learning, and the role of place in a technologized world.

Arun Jamkar is Vice Chancellor of Maharashtra University of Health Sciences (MUHS), India. He was conferred the ‘Award for outstanding contribution to education’ at the World Education Congress 2012 of the Global Advisory Council. He is the Founding President of the Association of Vice Chancellors of Health Science Universities in India. He is a FAIMER® Institute Fellow and his educational development initiatives at MUHS include quality assurance reforms, communication skills and disaster management programs, examination reforms, over 50 new fellowship courses, and a new postgraduate institute in medical science and research.
Sue Jones is Director of Learning Design and leader of a university-wide curriculum reform project at Curtin University, Western Australia. She was the Dean of Teaching and Learning in Health Sciences for six years and was responsible for leading and embedding interprofessional education within health sciences curricula as part of her faculty’s strategic plan. As part of the faculty’s interprofessional first year, Sue oversaw development of core units for over 2000 first-year students across 19 disciplines, including Indigenous Cultures and Health. Sue has led multiple university and national education and curriculum projects.

Shelley Cohen Konrad is Director of the Center for Excellence in Interprofessional Education (IPE) at the University of New England in Maine, USA, and an Associate Professor in the School of Social Work. Her research and scholarship focuses on health perspectives of vulnerable populations, relational learning, and interprofessional pedagogy for health education. She is an Associate Editor of the Journal of Interprofessional Care. Dr Cohen Konrad specializes in practice with children and families and end-of-life care. Her book, Practice with Children and Families: A Relational Perspective, was published by Lyceum Books in 2013.

Bryony Lamb’s background is in education and health psychology, with a range of experience within higher education as a senior manager and educator, having developed and managed interprofessional undergraduate and masters’ level programmes. She has recently been Chair of the Centre for the Advancement of Interprofessional Education (CAIPE) and currently holds an honorary post of principal lecturer at Kingston and St George’s, University of London. She also provides consultancy, research, and staff development services in interprofessional education, leadership, and teamwork development, working across the public and private sectors. Bryony underpins her work with strength-based approaches, for developing interprofessional teams to improve patient safety and care.

Francisco Lamus is a pediatrician and public health professional with academic and working experience in community health, maternal and child health, and health professions education. He has gained significant experience as leader of the Center of Studies for Community Health at Universidad de la Sabana (CESCUS), Colombia, and the research group Family Medicine and Population Health. He has been author and coauthor of various articles in primary health. Currently he acts as director of the research program ‘Equitable Start in Life’, a program that searches for ecological factors that contribute to building strategies for families to achieve children’s potentialities in early childhood.

Amy Leaphart is the Program Manager for the Office of Interprofessional Education: Creating Collaborative Care at the Medical University of South Carolina. Her graduate education in English and Composition and further
graduate education in Health and Exercise Science, in addition to 14 years’ experience teaching interdisciplinary courses in university settings, has served as a great preparation for understanding the complexities of interprofessional education and efforts to improve the student IPE experience.

Antoinette McCallin is an Associate Professor in the Faculty of Health and Environmental Sciences and a Director of the National Centre for Interprofessional Education and Collaborative Practice at AUT University in New Zealand. Antoinette teaches postgraduate students and coordinates research students enrolled in a professional doctorate. The focus of her research and writing has been on interdisciplinary teamwork, collaboration in professional–client relationships, and the development of interprofessional collaboration in health professional education. Her active involvement working with health professionals from wide-ranging disciplines and cultures situates her well to work with professional practitioners seeking professional development through higher education.

Simeon Kipkeoch Mining is Head of Immunology at the Moi University School of Medicine in Kenya. He trained in veterinary medicine in Moscow and received his PhD from Liverpool (UK). His academic career in Kenya began in 1993. Simeon is a member of the editorial boards of the Rural Health Journal (Australia) and the Kenya Journal of Health Sciences. He has been instrumental in the development of community-orientated and interprofessional education in Kenya. He was awarded an honorary Doctor of Medicine degree by the Linköping University, Faculty of Health Sciences, Sweden, for fostering and maintaining international staff/student exchange for the 20 years since 1994.

Louricha A. Opina-Tan qualified in medicine at the University of the Philippines. She finished residency training in Family and Community Medicine at the University of the Philippines Manila – Philippine General Hospital and is a fellow of the Philippine Academy of Family Physicians. She is a family medicine practitioner and a faculty member of the UP Manila Community Health and Development Program. She supervises health professional students while they are in their rural field placements.

Sukhmeet Panesar qualified in medicine from Imperial College London in 2006. He was a clinical adviser on the Chief Medical Officer’s Clinical Advisor Scheme with a subsequent appointment at the National Patient Safety Agency and the NHS Commissioning Board. His research interests focus on health services within the context of patient safety. He has been part of the core team of the Perioperative workstream (Patient Safety First) responsible for dissemination of the WHO Surgical Checklist in England and Wales and is currently project manager for the WHO Safer Primary Care Group. Clinically, he works as a public health registrar.
Elizabeth Paterno qualified in medicine at the College of Medicine of the University of the Philippines Manila (UPM) in 1977. After graduation, she worked for 12 years as a Community Physician for marginalized communities in the northern region of the Philippines. In 2001, she joined the faculty of the UP College of Medicine as an Associate Professor in Community Medicine. She acquired a master’s degree in Public Health in 2005 from the University of the Philippines – Open University. She presently holds the position of Director of the Community Health and Development Program, a university-wide community-based program.

Sonia Restrepo is a nurse with a Master’s in both Health Administration and Educational Technology. She has 25 years’ experience in development processes for the management of national and regional programs of prevention and care, especially in acute respiratory disease, and chronic diseases with emphasis on cervical cancer. She has been Professor of Social Determinants of Health at La Sabana University, School of Medicine, Colombia, and is currently Academic Director of the Technology Center, coordinating training processes for the academic community in ICT integration.

Scott Reeves is founding director of the Center for Innovation in Interprofessional Education, Professor, Department of Social and Behavioral Sciences and Department of Medicine, University of California, San Francisco, and also editor-in-chief of the Journal of Interprofessional Care. He is a social scientist who has also undertaken health professions education and health services research. Trained in the UK, he has worked for nearly 20 years developing conceptual, empirical and theoretical knowledge to inform the design and implementation of interprofessional education and practice activities.

Sarah Salvilla qualified in medicine from Imperial College London in 2006, trained as a surgeon in London, has a postgraduate degree in surgical education and is an honorary fellow at the Centre for Population Health Sciences (University of Edinburgh). She has a strong research background in patient safety, healthcare improvement and evidence synthesis. She is currently an external consultant to the World Health Organization (WHO) – Safer Primary Care Group and works as an associate medical director in the private sector.

Susan Shaw has a background in education and healthcare. She has worked at AUT University, New Zealand, since 1992 in several roles including teaching, academic leadership, and staff development. During this time she has maintained her clinical practice in surgical, medical, and palliative care settings. She is currently Associate Dean (Undergraduate), a director of the National Centre for Interprofessional Education and Collaborative Practice (NCIPECP), and Head of Nursing within the Faculty of Health and
Environmental Sciences at AUT. Her doctorate investigated nursing education in relation to chronic pain.

**Luz Soto** has 27 years’ experience in the field of public health. She has coordinated, developed, supported and evaluated programs aimed to help children in areas including community, health services, and academic study in Latin America and the Caribbean. Her experience also includes communication, education on health matters, and qualitative investigation focused on the design and assessment of strategies to promote health within peasant and indigenous communities as well as within marginalized rural and urban populations. Additionally, she has designed content for and worked as academic coordinator of virtual courses in platforms such as Moodle and Blackboard.

**Beatrice Tucker** is the Acting Director Assessment and Quality Learning at Curtin University, Western Australia. Beatrice is responsible for quality and evaluation in teaching and learning at the university and has been integral to the development, validation, implementation, and evaluation of eVALUate, Curtin’s online student evaluation system. She provides leadership and support at all levels for academic staff. She is currently completing her doctorate in the area of student evaluation and her research publication areas include the evaluation of teaching and learning, undergraduate student sources of stress, and cardiopulmonary physiotherapy science. She is a physiotherapist and has been an academic since 1989.
1
Introduction

Dawn Forman

This book is unique in taking the wealth of global experience in interprofessional education and practice, together with the huge amount of literature on leadership, and looking at the developments that have taken place internationally with regard to implementing interprofessional education and practice in a variety of settings.

The chapters represent the work of a number of internationally renowned authors and explore which leadership models ensure that interprofessional practice can be developed and implemented, and provide insight into how this can be sustained in the future. A key leadership concept in itself is storytelling (Denning, 2005) and the text provides stories from around the world. What is made apparent is the variety of contexts in which interprofessional education and practice is now taking place. The key challenge for leadership in interprofessional contexts is finding champions and leaders who not only establish this practice but also build in succession planning (Meads et al., 2009) to ensure that ongoing delivery and development of practice can be achieved; and securing the numerous consequential benefits of care for the patient/client and the community. Crisp (2010) advocates that we turn the world upside down to find solutions that have been developed internationally and that could be used as models to help healthcare provision. Mature IPE nations can equally learn from the experiences of emerging IPE nations. This book builds upon this philosophy in ensuring that leadership development for interprofessional education and collaborative practice utilizes the best global examples where individuals are ‘learning with, from and about each other to improve collaboration and the quality of care’ (CAIPE, 2002).

Where possible, the authors draw on research in interprofessional practice to provide evidence for their argument. They provide case studies, scenarios and literature reviews as appropriate to their context. In reviewing the experience of the variety of authors it is hoped that the reader will feel enabled to base the introduction and development of interprofessional education on firm theories and utilize the model appropriate to their context in ensuring
that interprofessional education is not only developed and embedded but is maintained in a sustainable fashion.

A variety of leadership models have been used in the book. Many of the chapters utilize transformational leadership as a background to facilitating the change that is needed within their own organization and within the practice setting. The transformational and change-management philosophies therefore enable an unfreezing movement and refreezing in the author’s context. Some build upon empowering and evolved leadership models to overcome barriers; some indicate that emotional intelligence and clear communication strategies are needed to both create an interprofessional environment and to sustain it. Interestingly, others, particularly within the developing world, look at servant leadership models and collaborative means of communication, and reinforce the concept of team development and group facilitation. Interprofessional collaboration and competency domains, as well as the development of professional identity, provide a clear context for consideration in two of the chapters.

It is hoped, therefore, that this book can be looked at from a leadership perspective, an interprofessional education and practice perspective, and a change-management perspective. But overall the reader is drawn to reflecting on the experience of others, learning from good practice and from the mistakes that have been made to ensure that, in their context when leading interprofessional education and practice, they can be assured of successful and sustainable developments in the future.

How to use this book

For ease of reading we have separated the book into three parts. Part I, ‘Historical Perspectives: Leaders and Champions’, provides two perspectives on the development of interprofessional leaders and the development of interprofessional practice internationally. Part II, ‘Linking Theory to Practice: Improving Client Care’, looks at some of the theoretical perspectives in interprofessional education and how these have been used to inform the development of practice. Part III, ‘Worldwide Perspectives’, provides ‘stories’ of leadership in interprofessional practice to give the reader an insight into the variety of developments that are taking place internationally.

Below are a series of tables: Table 1.1 indicates the country the chapter refers to, and the leadership model(s) highlighted, while Table 1.2 provides useful definitions for terms and concepts used in the book. Table 1.3 takes the leadership topic, indicates the chapter source and provides a list of further reading that may be helpful.

In whichever way you choose to read and use this book we hope you enjoy the experience and find new ways of leading the development, implementation and sustainability of interprofessional education and practice.
<table>
<thead>
<tr>
<th>Chapter</th>
<th>Country</th>
<th>Key leadership aspects highlighted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Part I</td>
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<td></td>
</tr>
<tr>
<td>2</td>
<td>Multiple international</td>
<td>Emotional intelligence, change management, communication, the servant-leadership model, team working, team building, empowering, professional identity, motivation, and role models (champions), empowering leadership/transformational leadership</td>
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<tr>
<td>3</td>
<td>Canada</td>
<td>Communication, team working, competency, collaboration and shared decision-making, empowering, professional identity, strategic/governance support</td>
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<tr>
<td>Part II</td>
<td></td>
<td></td>
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<tr>
<td>4</td>
<td>UK</td>
<td>Communication, team working, change management</td>
</tr>
<tr>
<td>5</td>
<td>UK</td>
<td>Communication, change management, servant-leadership model, collaboration, and shared decision-making, empowering, professional identity, team working, team building, strategic/governance support, empowering leadership/transformational leadership</td>
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<tr>
<td>Part III</td>
<td></td>
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<tr>
<td>6</td>
<td>Australia</td>
<td>Communication, collaboration, and shared decision-making, competency, motivation, and role models (champions), team working, servant leadership, team building, strategic/governance support, empowering leadership/transformational leadership</td>
</tr>
<tr>
<td>7</td>
<td>USA</td>
<td>Culture, collaboration, competencies, quality enhancement, strategic and governance, transformation</td>
</tr>
<tr>
<td>8</td>
<td>Colombia</td>
<td>Communication, change management, cultural context, the servant-leadership model, collaboration, and shared decision-making, competency, team working, team building, strategic/governance support</td>
</tr>
<tr>
<td>9</td>
<td>India</td>
<td>Cultural context</td>
</tr>
<tr>
<td>10</td>
<td>Philippines</td>
<td>The servant-leadership model, resilience, collaboration, and shared decision-making, team working, team building</td>
</tr>
<tr>
<td>11</td>
<td>New Zealand</td>
<td>Communication, team working, change management, resilience, reflexivity, sustainability</td>
</tr>
<tr>
<td>12</td>
<td>Kenya</td>
<td>Empowering leadership/transformational leadership, cultural context, the servant-leadership model, strategic/governance support</td>
</tr>
<tr>
<td>13</td>
<td>Australia</td>
<td>Collaboration and shared decision-making, change management</td>
</tr>
<tr>
<td>14</td>
<td>Australia and New Zealand</td>
<td>Emotional intelligence, communication, team working, change management, collaboration, and shared decision-making, empowering, mentoring/coaching, motivation, and role models (champions), strategic/governance support</td>
</tr>
<tr>
<td>Term</td>
<td>Definition or Interpretation</td>
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</tr>
<tr>
<td>Change management</td>
<td>Change management is an approach to transitioning individuals, teams, and organizations to a desired future state (<a href="http://en.wikipedia.org/wiki/Change_management">http://en.wikipedia.org/wiki/Change_management</a>)</td>
<td></td>
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<tr>
<td>Coaching</td>
<td>‘Coaching is unlocking people’s potential to maximize their own performance’ (Whitmore, 2009, cited in Forman et al., 2013)</td>
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<tr>
<td>Collaborative leadership</td>
<td>Collaborative leadership is an influence relationship, which engenders safety, trust, and commitment among leaders and their partners who intend substantive or transforming change that reflects their mutual purpose, shared vision and common goals.</td>
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<tr>
<td>Communication</td>
<td>‘Communication is the activity of conveying information through the exchange of thoughts, messages, or information, as by speech, visuals, signals, writing, or behavior. It is the meaningful exchange of information between two or a group of persons’ (<a href="http://en.wikipedia.org/wiki/Communication">http://en.wikipedia.org/wiki/Communication</a>)</td>
<td></td>
</tr>
<tr>
<td>Community engagement</td>
<td>The process of working collaboratively with and through groups of people (Clinical and Translational Science Awards Consortium, 2011, p. 3). For the Community Health and Development Program (CHDP), the term particularly means involving community members in all aspects of a program, from deciding on what program should be initiated, to drafting, implementing, monitoring, and evaluating the program.</td>
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<tr>
<td>Community immersion (or field practicum) programs</td>
<td>These are embedded in the pre-licensure curricula of many of the health professional disciplines. Students, usually in their final year, are required to immerse in rural communities to practice the skills they have acquired under the supervision of discipline-specific university faculty preceptors.</td>
<td></td>
</tr>
<tr>
<td>Crew Resource Management (CRM)</td>
<td>HF is included within CRM which is defined as ‘a management system which makes optimum use of all available resources – equipment, procedures, and people – to promote safety’ (RAE, 1999). Implicitly CRM is a holistic management system involving leadership and team skills that extend across interprofessional boundaries and that include a knowledge and application of human factors.</td>
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| Culture                                                                 | The main definition of culture we use is:  
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<tr>
<td></td>
<td>‘Culture is all aspects of life, the totality of meanings, ideas and beliefs shared by individuals within a group of people. Culture is learned, it includes language, values, norms, customs. Art has played a central, integral role in most cultures’ (<a href="http://www.design.iastate.edu/NAB/about/thinkingskills/cultural_context/cultural.html">www.design.iastate.edu/NAB/about/thinkingskills/cultural_context/cultural.html</a>)</td>
</tr>
<tr>
<td>Emotional intelligence</td>
<td>‘The ability to monitor one’s own and others’ feelings and emotions, to discriminate amongst them and to use this information to guide one’s thinking and actions’ (Salovey &amp; Mayer, 1989)</td>
</tr>
<tr>
<td>Empowerment</td>
<td>‘Empowerment is a process that challenges our assumptions about the way things are and can be. It challenges our basic assumptions about power, helping, achieving, and succeeding’ (<a href="http://www.joe.org/joe/1999october/comm1.php">www.joe.org/joe/1999october/comm1.php</a>)</td>
</tr>
<tr>
<td>Human factors</td>
<td>These are about enhancing clinical performance through an understanding of the effects of teamwork, tasks, equipment, workspace, culture and organization on human behaviour and abilities, and the application of that knowledge in clinical settings (see <a href="http://www.chfg.org">www.chfg.org</a>)</td>
</tr>
<tr>
<td>Interdisciplinary approach (IDA)</td>
<td>Frequently used synonymously with interprofessional education; that is, it occurs when ‘students from two or more professions learn with, from and about each other’ (CAIPE, 2002). It is also used to mean different disciplines within the same profession, for example surgery, pediatrics, gynecology, and so on</td>
</tr>
<tr>
<td>Interprofessional collaboration (IPC) Cited in* IHE</td>
<td>‘The process of developing and maintaining effective interprofessional working relationships with learners, practitioners, patients/clients/families and communities to enable optimal health outcomes’ (Canadian Interprofessional Health Collaborative, 2010, p. 8)</td>
</tr>
<tr>
<td>Interprofessional competency domain Cited in** IECEP</td>
<td>A generally identified cluster of more specific interprofessional competencies that are conceptually linked, and serve as theoretical constructs (Cate &amp; Schееle, 2007)</td>
</tr>
<tr>
<td>Definitions of IPE</td>
<td>‘Interprofessional Education occurs when two or more professions learn with, from and about each other to improve collaboration and the quality of care’ (CAIPE, 2002; see also <a href="http://www.caipe.org.uk/about-us/defining-ipe/">www.caipe.org.uk/about-us/defining-ipe/</a>)</td>
</tr>
<tr>
<td>Interprofessional education Cited in** IECEP</td>
<td>‘When students from two or more professions learn about, from and with each other to enable effective collaboration and improve health outcomes’ (WHO, 2010)</td>
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(continued)
Table 1.2  Continued

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition or Interpretation</th>
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<tbody>
<tr>
<td>Interprofessional education (IPE)</td>
<td>‘Involves learning with, from, and about other professions to build a mutual respect between the health and social care professions with the aim of working together to improve patient care’ (CAIPE, 2007; <a href="http://www.caipe.org.uk">www.caipe.org.uk</a>)</td>
</tr>
<tr>
<td>Interprofessional learning (IPL)</td>
<td>‘Learning arising from interaction between members (or students) of two or more professions. This may be a product of interprofessional education or happen spontaneously in the workplace or in education settings’ (Freeth et al., 2005, p. 15)</td>
</tr>
<tr>
<td>Interprofessional practice (IPP)</td>
<td>‘Occurs when all members of the health service delivery team participate in the team’s activities and rely on one another to accomplish common goals and improve health care delivery, thus improving patients’ quality experience’ (Australasian Interprofessional Practice and Education Network)</td>
</tr>
<tr>
<td>Interprofessional team-based care</td>
<td>Care delivered by intentionally created, usually relatively small work groups in healthcare, who are recognized by others as well as by themselves as having a collective identity and shared responsibility for a patient or group of patients; for example, rapid response teams, palliative care teams, primary care teams, operating room teams</td>
</tr>
<tr>
<td>Interprofessional teams</td>
<td>A group of people from different professional backgrounds who work together to deliver services and coordinate care programs across agencies throughout the patient pathway; goals are set collaboratively through consensual decision-making to improve practice for patient safety, which results in individualized care plans/quality services delivered by one or more team members, which maximizes the value of shared expertise and minimizes the barriers of professional autonomy</td>
</tr>
<tr>
<td>Interprofessional teamwork:</td>
<td>The levels of cooperation, coordination, and collaboration characterizing the relationships between professions in delivering patient-centered care</td>
</tr>
<tr>
<td>Interprofessionality</td>
<td>The development of a cohesive practice between professionals from different disciplines. It is the process by which professionals reflect on and develop ways of practicing that provide an integrated and cohesive answer to the needs of the client/family population (D’Amour &amp; Oandasan, 2005, p. 9)</td>
</tr>
<tr>
<td>Leadership</td>
<td>The act of stimulating, engaging, and satisfying the motives of followers that results in the followers taking a course of action towards a mutually shared vision (Boseman, 2008, p. 36)</td>
</tr>
<tr>
<td>Motivation</td>
<td>‘Motivation is a psychological feature that arouses an organism to act towards a desired goal and elicits, controls and sustains certain goal-directed behaviours. It can be considered a driving force; a psychological one that compels or reinforces an action toward a desired goal.’ (<a href="http://en.wikipedia.org/wiki/Motivation">http://en.wikipedia.org/wiki/Motivation</a>)</td>
</tr>
<tr>
<td>Patient safety</td>
<td>‘Freedom from accidental injury; ensuring patient safety involves the establishment of operational systems and processes that minimize the likelihood of errors and maximize the likelihood of intercepting them when they occur’ (Kohn et al., 1999)</td>
</tr>
<tr>
<td>Professional competencies in health care</td>
<td>Integrated enactment of knowledge, skills, and values/attitudes that define the domains of work of a particular health profession applied in specific care contexts: Interprofessional competencies in healthcare: integrated enactment of knowledge, skills, and values/attitudes that define working together across the professions, with other healthcare workers and with patients, along with families and communities, as appropriate to improve health outcomes in specific care contexts</td>
</tr>
<tr>
<td>Resilience</td>
<td>Tugade and Fredrickson (2004) suggest that individual resilience is the ability to bounce back from negative emotional experiences, and flexible adaptation to the changing demands of stressful experiences</td>
</tr>
<tr>
<td>Servant-leadership</td>
<td>While not defining the concept, Greenleaf (1997, in Spears 2004) leads the reader to understand that servant leaders are individuals chosen as leaders because they are proven and trusted as servants (the group of workers themselves)</td>
</tr>
<tr>
<td>Servant leadership</td>
<td>Neill et al. (2007, pp. 426–7) described servant leadership as: These principles (of servant leadership) include listening, awareness, conceptualization, foresight, stewardship, commitment to the growth of people, and community building. Servant leaders are encouraged to build and strengthen relationships with other team members and appreciate and value the expertise and contribution of other disciplines in planning and provision of care</td>
</tr>
<tr>
<td>Systems theory</td>
<td>‘Systems theory is the interdisciplinary study of systems in general, with the goal of elucidating principles that can be applied to all types of systems at all nesting levels in all fields of research’ (<a href="http://en.wikipedia.org/wiki/System_theory">http://en.wikipedia.org/wiki/System_theory</a>)</td>
</tr>
<tr>
<td>Teamwork</td>
<td>Teamwork is ‘work done by several associates with each doing a part but all subordinating personal prominence to the efficiency of the whole.’ (<a href="http://en.wikipedia.org/wiki/Teamwork">http://en.wikipedia.org/wiki/Teamwork</a>)</td>
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(continued)
Transformational leaders Gumusluoglu and Ilsev (2009, p. 464), in their study of this leadership approach, stated:

‘Transformational leaders, by intellectually stimulating their followers, championing innovation, and articulating a compelling vision throughout their organizations, help establish an organizational climate where employees feel challenged and energized to seek innovative approaches in their jobs’

Transformational leadership ‘Enhances the motivation, morale, and performance of followers through a variety of mechanisms. These include connecting the followers’ sense of identity and self to the project and the collective identity of the organization; being a role model for followers that inspires them and makes them interested; challenging followers to take greater ownership for their work, and understanding the strengths and weaknesses of followers, so the leader can align followers with tasks that enhance their performance’

(Bass & Avolio, 1990, p. 21)

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<th>Term</th>
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<td>Transformational leaders</td>
<td>Gumusluoglu and Ilsev (2009, p. 464), in their study of this leadership approach, stated: ‘Transformational leaders, by intellectually stimulating their followers, championing innovation, and articulating a compelling vision throughout their organizations, help establish an organizational climate where employees feel challenged and energized to seek innovative approaches in their jobs’</td>
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<td>Transformational leadership</td>
<td>Bass &amp; Avolio (1990), building on the work of Burns (1978), are often credited with having advanced the conceptualization of this leadership approach. Transformational leadership is defined as: ‘Occur[ring] when leaders broaden and elevate the interest for their employees, when they generate awareness and acceptance of the purpose and mission of the group, and when they stir their employees to look beyond their own self-interest for the good of the group’ (Bass &amp; Avolio, 1990, p. 21)</td>
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Notes
* IHE: From: Interprofessional Health Education – A Literature Review: Overview of International and Australian Developments in Interprofessional Health Education (IPE), May 2011.
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<th>Key leadership aspect</th>
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<td>Emotional intelligence</td>
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<td>Harrison &amp; Fopma-Lou (2010)</td>
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<td>MacDonald, et al. (2012)</td>
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| Change management                      | 2, 4, 5, 8, 11, 13, 14 | Atter (2008)  
 |                                         |         | Halvorson & Chinnes (2007)  
 |                                         |         | Rubin & Stone (2010) |
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 |                                         |         | Harrison & Fopma-Lou (2010)  
 |                                         |         | Meads et al. (2009)  
 |                                         |         | Sasnett & Clay (2008)  
 |                                         |         | Stapleton (1998)  

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Australasian Interprofessional Practice and Education Network. www.aippen.net


Canadian Interprofessional Health Collaborative. (CIHC). www.cihc.ca


Part I
Historical Perspectives: Leaders and Champions
2
Leading the Way

Hugh Barr

Introduction

This book is about leadership in promoting, developing, and sustaining interprofessional education and collaborative practice to improve health and social care services in the expectation that they will then respond more effectively to the needs of individuals, families, and communities beyond the capacity of any one profession alone. This chapter recalls the endeavors of six of the pioneers – Jack McCreary and George Szasz in Vancouver, DeWitt Baldwin in Nevada, Nils-Holger Areskog in Linköping, and Patrick Pietroni with Marilyn Miller-Pietroni in London.

Why they, amongst countless others who were no less dedicated and determined, and who pioneered interprofessional education (IPE) in its formative years? Many of the qualities for which I was looking were indeed shared with others, but I was searching for subjects each of whom had grounded their IPE initiatives in a well-articulated rationale tested on successive occasions in a spirit of critical self-appraisal, shared their experience openly and honestly in ways which others could replicate, and made lasting contributions to understanding the art of interprofessional learning and working. I was influenced in making my final choice by the accessibility of source material, especially that written by the subjects themselves, and recalling absorbing meetings with four of them.

In Vancouver

Jack McCreary, then Dean of the University of British Columbia (UBC) Medical School, prepared the ground on which George Szasz built. He had won support to bring dentistry, physiotherapy, and occupational therapy training into the medical school alongside nursing, pharmacy, social work, and home economics with a common library, classrooms, and health sciences center. He had lobbied too for a common administrative and budgetary structure, but pulled back from these proposals in the face of strong
opposition, striving instead to realize his dream to combine education for the various health-related groups (Hill, 2005).

His argument was as straightforward as it was enduring:

It has long been accepted that no physician, however able and however highly motivated, possesses all of the skills required to provide complete health services for a population group. Such services can only be provided by a team: the physician, dentist, pharmacist, nurse, physiotherapist, social worker, clinical psychologist and others. Although lip service has been paid to the team approach to health care, little has been done to form the above-mentioned group into a team. They have been educated in isolated parts of the campuses of universities, using different teachers, teaching different vocabularies and building up artificial barriers between the various disciplines. All these diverse members of the health team should be brought together during their undergraduate training years, taught by the same teachers, in the same classrooms and on the same patients. Under these circumstances with students studying together, working together, reading together, eating together, it should be possible for various disciplines to be welded into a true health team such that each can contribute, with full respect for what the other has to offer, his share of the health services. (McCreary, 1964)

George Szasz was a Hungarian émigré educated at the UBC as a physician. He recalls how, working as a general practitioner in Vancouver during the 1960s, he co-opted social workers, physiotherapists, home care nurses, and clergy to work with him in the expectation that together they would be able to respond more effectively to the needs of patients, many of whom were elderly with chronic conditions. That experience was later to underpin his professional and interprofessional teaching (D’Avray, 2008; Szasz, 1969).

McCreary, who had known Szasz as a student, appointed him as an assistant professor in the medical school to develop ‘a program of interprofessional education’ and, from 1967 following an intensive and extensive orientation program, to head the new division of interprofessional education. Szasz’s first step was to convene a group representing each faculty in the school to work towards establishing a shared understanding of ‘interprofessional’ and ‘the healthcare team’.

Interprofessional initiatives followed, trying one way and then another to involve combinations of the professions in seminars, field trips, clinical experiences, and interviews. Medical and nursing students met patients living at home in conditions of abject poverty. Nursing students joined medical students in classes to discuss social issues from the medical perspective, inviting patients to discuss their problems. Student ‘health teams’ met in the evenings for discussions, for example, about human sexuality.
Participation in these and other activities was voluntary and advertised campus-wide. Close on a thousand students took part.

Promising though these activities seemed to be, they ran into serious problems by the early 1970s resulting from changes in location and regulation for a number of professional courses, compounded by constraints on the university’s freedom, albeit short-lived, imposed following a change in the provincial administration within British Columbia which undermined many of McCreary’s innovations (McCreary, 1964).

It was the turn of the century before IPE took root again in Canada in response to recommendations by the Romanow Commission (2002) for far-reaching reforms in health care and health professions’ education including the introduction of IPE. UBC was once again to the fore, led this time by John Gilbert. Like McCreary and Szasz, Gilbert won support to establish a college within the university structure – the College of Health Disciplines – to accommodate diverse IPE initiatives. Where, however, Szasz had confined his activities to UBC, Gilbert conceived the college not only as a test bed to develop IPE across disciplines and faculties within the university but also provincially, nationally, and internationally (Gilbert, 2003).

IPE programs at UBC became more rigorous, more theoretically sophisticated and more evidence-based (Charles et al., 2010), driving support to establish the Canadian Interprofessional Health Collaborative (CIHC) – www.cihc.ca – and the National Health Sciences Students’ Association (NaHSSA) – www.cihc.ca/nahssa – and informing work to frame outcomes from undergraduate IPE as collaborative competencies (Canadian Interprofessional Health Collaborative, 2010). National initiatives led to international, cross-border collaboration with the United States resulting in biennial conferences – www.cabazona2011.org – and a WHO study group on IPE and collaborative practice triggered by Steven Hoffman, then president of NaHSSA, and carried forward by John Gilbert, then president of the CIHC (WHO, 2010).

### In Nevada

Meanwhile, DeWitt Baldwin was the prime mover for IPE ‘south of the line’. His initiatives were not the first in the United States, as he acknowledged (Baldwin, 1996), but, judging from his writing,¹ the most seminal. His perspective accorded with understanding of adult learning taking hold at the time, particularly for him inherited from his parents, two forward looking educationists for whom living and learning alternated in the reflective experiences of small groups. Their son applied their insights to professional practice, generating approaches to learning and working in interprofessional teams (Baldwin et al., 1978; Thornton et al., 2007).

Baldwin had started his undergraduate education at the Yale Divinity School participating, he believed, in 1944 in the first ever IPE seminar (in medical sociology) and exposed to his first encounter with collaborative
practice as pastoral counselor during a summer vacation. Transferring into medicine, he never forgot the importance of faith – faith in the power of respect and of love to bring about change in oneself, in others and in the world (D’Avray, 2007).

He started his medical career as a pediatrician working in interprofessional teams with children and their families at the University of Washington in Seattle and then the Children’s Hospital at Harvard, qualifying subsequently as a psychiatrist and becoming later President of Earlham College.

Baldwin attributes the way in which he designed the interdisciplinary health sciences program at the University of Nevada, where he moved in 1971, to formative experiences at Washington and Harvard. He began at Nevada by comparing critical knowledge areas such as anatomy, physiology, and chemistry to devise a horizontal common core curriculum for audiology, dental, medical, medical technology, nursing, physical therapy, and speech pathology students, extending from a clinical perspective to include subjects such as nutrition, ethics, human growth, and development, the life cycle, communications, and more. Interprofessional teamwork was introduced from the outset in small group learning, including peer-group teaching, problem-based exercises, and community-based projects, for example, work on Native American reservations to heighten awareness of the needs of underserved communities and enhance commitment to work with them (Baldwin et al., 1980).

The teachers worked as an interprofessional team, lunching together once a week to review progress and to weigh implications for their own professional development. For Baldwin they were the students’ ‘companions in learning’ and ‘guides by the side’ rather than ‘sages on the stage’. By the third year more than a thousand students had enrolled for the program (a sixth of the total on campus). After Baldwin left Nevada in 1983, the growing range of interprofessional learning opportunities which had been developed under his leadership, became part of the College of Health and Human Services (D’Avray, 2007; Baldwin & Baldwin, 1979).

Baldwin’s contribution to IPE continued into his ninety-third year (at the time of writing in 2013) through his many papers and presentations, including those at the annual North American Health Teams Conference where he has been a leading light throughout its 25-year history.

**In Linköping**

Comparable developments were gaining momentum in Europe, notably in Sweden and the United Kingdom (UK). The most high profile IPE was pioneered by Nils-Holger Areskog during his tenure as the first Dean of Medicine at the Linköping University of Health Sciences, which he had helped launch in 1970 as an offshoot of the much older medical faculty in Uppsala. Areskog was a champion of champions. He campaigned to
establish the university, to save it from an early threat of closure, to devise and implement its distinctive IPE strategy which became its hallmark, and to win friends for the interprofessional cause locally, nationally, and internationally through the OECD (Organization for Economic and Cultural Development) and the WHO.

As a distinguished pioneer in clinical physiology, Areskog explored the limits of the human body, including serving as medical officer to the Swedish Mount Everest Expedition and joining the test flight for the most advanced Swedish fighter plane as he made a simulated air-bomb attack on a Swedish nuclear power plant. His talents extended beyond medicine to embrace numerous cultural interests; his musical prowess included composing and playing sometimes more than one instrument at the same time!

He played (no pun intended) a key role in the implementation of problem-based learning (PBL) first in the medical program and then the IPE strategy at Linköping (Dahlgren & Hammar, 2011). By chance Areskog had attended the 1975 OECD conference in Paris entitled ‘Towards Regional Health Universities’ (RHUs), standing in for his university’s chancellor. Here he had been impressed by presentations from Kuopio, Paris, Southampton, and Tromso describing early approaches to IPE (Organization for Economic and Cultural Development, 1977). He had made contact beforehand at ministerial level in Stockholm to explore ideas for a Swedish ‘RHU’. The reply was: come back with something new and cheaper than the traditional medical faculties and we’ll listen! Returning home from Paris, he published a paper entitled ‘Why not an RHU in Sweden?’ (Areskog, 1976) with no reaction, but his university rector and the Ostergotland County Council were more encouraging (Areskog, 2009).

Years of negotiation followed with many of his colleagues defending the status quo. For some IPE was at best a necessary evil; not everyone was ready to accord it priority. Small-scale interprofessional projects nevertheless started. Numerous authorities scrutinized the longer-term proposals. Progress was frustrated further by Parliamentary delays, but eventually Areskog got the go-ahead provided that the number of medical students was reduced and the local county council picked up much of the cost. With just one year allowed for implementation, full-scale IPE was finally launched at Linköping in 1986.

Students from the biomedical sciences, nursing, occupational therapy, physiotherapy, and social care programs shared an introductory period of ten weeks entitled ‘Man-Society’ employing PBL as the way of learning within a common frame of reference and focusing on preparation for interprofessional teamwork. One of the ideas behind this was to give the students a booster dose of IPE early in their education.

The following themes were covered for child, adolescent, and adult scenarios:

- Changes in public health services;
- New working models in health and social care;
Leadership Development for Interprofessional Education

- Changes in national health and social care policy;
- Meeting the demands of a new educational policy in health and social care.

Theme days were added later: ethical seminars and team training (Wilhelmsson et al., 2009; Wilhelmsson, 2011) were adapted and extended following Areskog’s retirement to include recurrent IPE inputs throughout the undergraduate programs. The first interprofessional student training ward in the world was launched in Linköping (Wahlstrom et al., 1996).

Areskog (1994) believed that PBL and IPE would create in students the ability and flexibility to adapt to change within society and move between occupational roles. New ways of thinking, roles, responsibilities, competencies, and areas of interest would be cultivated in healthcare. Those beliefs were refined and reinforced by Lars Owe Dahlgren (Dahlgren, 2009), an educationalist who played a seminal role in grounding IPE in cognitive psychology and disseminating Linköping’s experience through his speaking and writing.

Beyond Sweden, Areskog was the prime mover behind task groups convened by the WHO, first in Copenhagen (WHO, 1988a) and then in Geneva (WHO, 1988b) to review IPE in Europe and worldwide. Further evidence of the impact of the Linköping model can be found from Adelaide in Australia to Nairobi in Kenya to Salford in the UK, where PBL was installed as the central plank in the IPE platform, complemented by similar developments promoted in medical education by Maastricht in the Netherlands and McMaster in Canada.

In London

Patrick Pietroni and Marilyn Miller-Pietroni were pioneering a markedly different approach to IPE. Patrick, a general practitioner and Jungian analyst, established the Marylebone Health Centre as a National Health Service (NHS) practice in 1987 where he became the senior partner, alongside a healing and counseling ministry in the crypt of the Marylebone Parish Church in London’s West End. His wife, Marilyn, a social worker and Freudian psychotherapist, was one of the interprofessional team which included complementary therapists, in addition to doctors, nurses, health visitors, and social workers.

The overall objective for the center was ‘to explore and evaluate ways in which primary health care can be delivered to an inner city area in addition to the general practice component’ (Pietroni & Pietroni, 1996, p. xvii).

The philosophy was holistic, embedded in a model that was patient-empowering and included:

- The full range of NHS primary healthcare services;
- An expanded range of clinical resources – counseling, massage, osteopathy, acupuncture, and homeopathy;
• User participation – social events, fundraising, a newsletter, and decision-making;
• Community outreach – befriending and patient-to-patient work;
• Education and prevention – classes, lectures, workshops, and information;
• Audit and research – monitoring, screening, analyses, and cooperative inquiry.

Post-experience interprofessional learning was built in under the auspices of the Marylebone Centre Trust, a charity with its own accommodation in the garden house in Regent’s College near the practice. Conferences, seminars, and workshops were grounded in the center’s philosophy informed by its evolving activities and evaluations (Pietroni & Pietroni, 1996). The trust also launched the Journal of Interprofessional Care with Patrick as the founding editor-in-chief. ‘JIC’, as it was soon known, became the dedicated vehicle nationally and then internationally for promoting and developing scholarship in interprofessional education, practice and research.

The rationale for the trust’s educational activities owed much to the influence of Donald Schön in the United States, with whom Patrick and Marilyn Pietroni enjoyed a close and productive friendship, and his theory of reflective practice (Schön, 1983). His insights were combined at Marylebone with those of Bion (1961) whose work-group mentality theory had shaped experiential learning at the Tavistock Institute of Human Relations with which the Pietronis were also working closely.

Many educational events focused on interprofessional relationships. During one of these, participants were invited to caricature themselves and others. The social work students saw themselves as Guardian readers and into health foods; medical students as beer-drinking rugby players; and nursing students as caring but unimaginative. The medical students saw social work students as left wing, self-opinionated but intellectual, driving Citroën deux chevaux; nursing students as having chips on their shoulders; and themselves as naive and (agreeing with the others) arrogant (Pietroni & Pietroni, 1996).

Adding an archetypal gloss, Patrick Pietroni saw the doctor as ‘the hero-warrior god’, the nurse as ‘the great mother’ and the social worker as ‘the scapegoat’, a role inherited from the medieval witch via the midwife who had successfully escaped such stigma. A fourth archetype was ‘the trickster’, like Hermes and Mercury bearing Caduceus’ staff as they carried messages between God and man. Slippery and cunning, the trickster for Patrick represented not medicine but psychotherapy.

Plans were made by a group chaired by Patrick for an interprofessional MA in Community Care and Primary Health led subsequently by Marilyn Miller-Pietroni and validated by the University of Westminster. One of the innovations was an assignment where students observed reflectively and recorded a wide range of situations in working life (based on the model
familiar in childhood study for psychotherapy trainees). Another was ‘Pride & Prejudice’, a week-long residential module during which experienced practitioners from a range of professions lived and learned together in relative isolation. The model was an amalgam of organizational and psychodynamic theory developed by the Tavistock Institute. The learning was designed to cultivate critical awareness of behavior in groups, as groups and between groups, grounded in a simulating capacity to learn from experience, replicating dynamics commonly found in real organizations, but removing some of the customary defensive and protective boundaries, while focusing on the unconscious experience of both the participant and the group. Participants explored boundaries between person and role, between their inner and outer worlds, and between relationships and systems (Scott, 2008).

Validation of the MA and other courses was the critical step towards integrating the center into the University of Westminster. The trust was eventually wound up, its activities becoming the university’s Centre for Community Care and Primary Health and later the School of Integrated Health.

One-off conferences, seminars, and workshops fell away. However, the interprofessional MA continued, led, after the Pietronis moved on, by Anne Palmer with enthusiasm and energy until her untimely death, although intakes were falling and plans to draw together a number of multiprofessional Masters courses within an interprofessional ethos faltered. The postgraduate courses were overshadowed by an ambitious and, for a time, markedly more successful scheme to interlink undergraduate courses for complementary therapies with multiprofessional but not interprofessional studies.

Discussion

Established and secure in their professional identities, my six subjects enjoyed widespread respect amongst their peers, which conferred credibility on their interprofessional endeavors. Convinced as they were of the dividends of interprofessional teamwork from personal experience, they entered teaching ready to put IPE to the test to promote it.

McCreary and Szasz proceeded by trial and error to establish creative interaction between the student groups. Impressive as the impact of their initiatives was at the time, momentum was lost until Gilbert picked up, a quarter of a century later in 2002, where they had left off in a more favorable political climate, with a similar pragmatic approach and a similar collegiate structure (Gilbert, 2003).

Baldwin brought theoretical perspectives to bear which resonated down the years as the principles of adult learning secured the foundations for interprofessional learning. Ahead of his time when he began, Baldwin was going with the grain, which may explain why his thinking and teaching came to be valued as much as they were as the interprofessional movement gained momentum in the United States and beyond.
Areskog won friends and influenced people focusing, unlike McCreary, Szasz, and Baldwin, on a single approach to IPE within a single program with PBL at its heart, which he pursued and promoted with unwavering conviction. He displayed clarity of vision and purpose that was sometimes elusive where others have presented IPE in more eclectic terms. His focus on PBL resonated worldwide amongst his counterparts in the new generation of medical schools, for whom it was the hallmark of progressive medical education.

The Pietronis introduced new insights, rich in metaphor and relished by an enthusiastic following of interprofessional activists inspired by the originality of their thinking and writing. The lasting impact of their work is more difficult to gauge. Psychodynamic perspectives lost ground in interprofessional as they did in professional education. They were overtaken in IPE by sociopsychological and later sociological perspectives that were seemingly more scientific and subject to more systematic evaluation.

What, then, did these six have in common? Charismatic and single-minded, all were dedicated and determined champions, leading from the front and sometimes with their chins! Might those qualities of leadership work in IPE today? Perhaps not when IPE is promoted and developed within and between universities and service agencies with their differing policies, practice, and priorities and their exposure to multiple external interventions and requirements. Modern interprofessional leadership is consensual between teachers and trainers working across the partner agencies in interprofessional teams, holding the tensions and containing the conflicts within a context of corporate responsibility.

Questions for reflection

1. What were the main drivers of the IPE movement?
2. How have these drivers changed today in your organization and your country?
3. Have these key characteristics changed in today’s environment?
4. What can we learn from the early IPE developments in order to influence today’s decision-makers?

Acknowledgements

I am indebted to DeWitt Baldwin, Patrick Pietroni, and George Szasz for their agreement and encouragement in publishing the above accounts of their contributions. DeWitt Baldwin shared reflections on his contribution which I have taken into account while Tomas Faresjö volunteered additional material about Nils-Holger Areskog.

Note

1. See the supplement to the *Journal of Interprofessional Care, 21* (October 2007) reprinting selected papers by Baldwin and listing others.
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Interprofessional Education in Canada: Initiatives 2003–11

John Gilbert

‘All of these diverse members of the health team should be brought together during their undergraduate years, taught by the same teachers, in the same classrooms and on the same patients’ (McCreary, 1964)

‘Interprofessional education occurs when two or more professions learn about, from and with each other to enable effective collaboration and improve health outcomes.’ (WHO, 2010, p. 5)

Introduction

In 1969, a paper entitled ‘Interprofessional education in the health sciences: A project conducted at the University of British Columbia’ was published in the *Milbank Quarterly* (Szasz, 1969). In the ensuing 40-plus years, much progress has been made in realizing interprofessionalism in health sciences education. Nevertheless, many of the issues discussed by Szasz four decades ago remain true to this day.

It appears that, among other problems, the health professionals employ their talents inappropriately, and, as a consequence, scarce human resources are wasted. Evidence also indicates fragmentation and compartmentalization, both of scientific investigation and the approach to human problems, and of poor communication between those who provide different components of the health services. (Szasz, 1969, pp. 449–50)

In April 2001 the federal government of Canada established the commission to review Medicare, Canada’s universally accessible, publicly funded healthcare system. The commission’s mandate was to recommend policies and measures to improve the healthcare system and its long-term sustainability.

The report made various observations and recommendations supporting the need for a coordinated approach to Human Health Resources (HHR) planning. The commission’s observations on education and training programs for healthcare providers pointed out that: initiatives in primary healthcare highlight the need for providers to work together in integrated teams, across institutional provider networks, that are focused on meeting patients’ needs; education and training of providers falls short of meeting Canadians’ healthcare needs; there is a need to change how healthcare providers are educated today; changes are needed in the relationship between providers and patients as patients take a more proactive role in their health and healthcare; changes in how healthcare services are delivered have a direct impact on the mix of skills expected of healthcare providers; new role models are needed to reflect the different ways of delivering healthcare services, changes must be made in the way healthcare providers are educated and trained. Training of health care professionals takes place in silos.

The report went on to point out the need, firstly, to substantially improve the base of information about Canada’s health workforce through concerted efforts to collect, analyze and provide regular reports on critical issues, including the recruitment, distribution and remuneration of healthcare providers; and, secondly, to establish strategies for addressing the supply, distribution, education, training, and changing skills and patterns of practice for Canada’s health workforce.

Commissioner Romanow further stressed the importance of interprofessional education for patient-centered care, stating: ‘New approaches to education and training are needed in addition to a careful look at how the roles and responsibilities of various providers are changing along with changing patterns of care.’ (2002, p. 104). He noted the need to develop new models of care to reflect the different ways of delivering healthcare services, stating:

In view of . . . changing trends, corresponding changes must be made in the way health care providers are educated and trained. . . . If health care providers are expected to work together and share expertise in a team environment, it makes sense that their education and training should prepare them for this type of working arrangement. (p. 109)

Federal leadership of IPE/IPC

Following the release of the commission’s report, a meeting of Canada’s first ministers led to the announcement of two major initiatives by Health Canada – to invest about $60 million over the five-year period 2003–2008 in order to:

1. Examine and recommend ways for setting in place coherent policies with respect to health human resource planning.
Leadership Development for Interprofessional Education

2. Implement new ways for conducting interprofessional education (IPE) and its correlate, patient-centered collaborative care.

This led to the establishment of the Pan-Canadian Health Human Resources Strategy, which was intended (amongst other goals) to facilitate and support the implementation of a strategy for Interprofessional Education for Collaborative Patient-centered Practice (IECPCP) across all healthcare sectors. The National Expert Committee on Interprofessional Education for Collaborative Patient-centered Practice (NEC) established under that strategy was designed to be a forum for innovative forward thinking and broad strategic advice to Health Canada on IECPCP across all healthcare sectors.

The NEC had no decision-making authority over programs, or a regulatory or budgetary function. The NEC was seen as assisting in the development of a common approach to IECPCP including a strategic plan/direction of the initiative, and suggestions of areas for further analysis. NEC’s assistance to Health Canada was seen as overseeing specific activities, initiatives, and projects, for example: the process of stakeholder consultation; review of the findings from a literature review and environmental scan; education project selection criteria including who should be involved (key disciplines); key elements of educational projects/curricula, and key characteristics of training sites. It should be noted that the NEC was a high-level committee of leaders from both the academic and practice communities.

As the NEC observed, trends towards interprofessional team-based care, which have inched forward over the past 40 years, suggest that the roles and responsibilities of various healthcare providers are indeed changing as part of a leadership process that is contending with how best to address health human resourcing issues, IPE and IPC being two options to address this issue. Changing the way healthcare providers are educated is now viewed as key to achieving system change. The kind of system changes being developed are intended to ensure that healthcare providers: a) have the necessary knowledge and skills to work effectively in interprofessional teams within the evolving healthcare system; and b) develop critical insights about their attitudes to each other and how to change their practice behaviors. The overall objective of the IECPCP initiative of the Pan-Canadian HHR Strategy was therefore to facilitate the adoption of these approaches across all healthcare sectors with the goal of increasing patient and provider satisfaction and, ultimately, to improve the quality of patient care.

The IECPCP initiative began in 2003 and had a clear set of objectives that served as its guide across the life of its funded projects. The specific objectives of the initiative were to:

- Promote and demonstrate the benefits of interprofessional education for collaborative patient-centered practice;
• Increase the number of educators prepared to teach from an interprofessional collaborative patient-centered perspective;
• Increase the number of health professionals trained for collaborative patient-centered practice before, and after, entry-to-practice;
• Stimulate networking and sharing of best educational approaches for collaborative patient-centered practice;
• Facilitate interprofessional collaborative care in both the education and practice settings.

The IECPCP initiative included extensive commissioned background work. This work resulted in a special supplement to the *Journal of Interprofessional Care* (2005) and a synthesis paper (Curran, 2005).

The Request for Proposal (RFP) developed by Health Canada paid close attention to the key elements of IPE that had been identified in previous work. This attention resulted in an RFP focused on a logic model that was strong on process, outputs, and outcomes and closely tied to a financial model of due diligence. It should be noted that the logic model is a requirement of the Ministry of Finance for all projects funded with federal government grants. It is a leadership model that is widely used in Canada, and has a strong measure of accountability.

In order to qualify for funding, the primary focus of projects was on education and training *linked to practice*. A project proposal was expected to describe activities focused on certain objectives that could take place at the pre- and/or post-licensure level; would be directed to physicians, nurses, and members of other health professions (or students of these professions), and would facilitate the integration of learning into both education and practice settings. It was expected that projects would also include opportunities for the development of IPE by faculty, care provider, and service organizations.

Additionally, a project proposal was expected to describe activities that would promote transfer of knowledge and skills across more than one practice setting, when appropriate; could be implemented with a focus on specific populations and/or on patients, families, and communities with specific health problems, and would consider the relationship of IPE to relevant government policy, legislation, and regulation.

The intent of all projects was to develop activities that would increase local networking and support of educators and practitioners interested in collaborative patient-centered practice, with special consideration being given to proposals that included interprofessional education activities related to Aboriginal health care. The leadership for these projects came from university, college, and health service administrations, through the appropriate leaders in those organizations. This leadership was *crucial* to the success of the projects.

In order to reach the objectives set out in the project proposal, Health Canada developed two program models: Cycle One targeted audiences at 17
universities, and Cycle Two targeted audiences within the wider university, college, and practice site sectors.

The IECPCP initiative ultimately funded 20 learning projects across Canada, and one research meeting:

- May 2005 – Cycle 1, 11 projects funded at between $1.3 and $2 million per project over a three-year period;
- May 2006 – Two-day meeting on research for IECPCP;
- May 2006 – Cycle 2, nine projects funded at between $300,000 and $500,000 per project over a period of two years and eight months.

Proposals were assessed on a set of mandatory criteria that measured the consistency of the project with IECPCP objectives; organizational capacity; prudent use of contribution funds; evidence of a partnership to implement the project, co-signed by deans of appropriate faculties and CEOs; development of a project steering committee; demonstrated concurrence between the project; and its province/territory; alignment with the administrative requirements of the initiating organization; letters of support; a clear evaluation plan; and a draft plan for sustainability of the project, post-Health Canada funding. Assessment involved all stakeholders, that is, those developing and delivering programs, and active participants in the programs.

Health Canada recruited a panel of international experts to review applications, who assigned points to proposals on the basis of the following criteria: expertise and leadership within the group making the proposal; support for complex collaborative processes within the proposing organization; theoretical and evidence bases clearly articulated; a demonstrated link between educational activities and practice; capacity of the proposing organization to rigorously evaluate its proposal; willingness to participate in cross-project evaluation; and the overall comprehensiveness of the proposal.

In addition to learning projects, Health Canada funded a set of complementary and congruent projects. These projects included:

- Legislation and regulation issues for collaborative patient-centered practice;
- Understanding liability issues for interprofessional education for collaborative patient-centered practice;
- Interprofessional collaboration for patient-centered healthcare – a strategy for health human resource management;
- A proposal to advance nursing education within the Pan-Canadian health human resource strategy paradigm shift in interprofessional education;
- Accreditation of interprofessional health education;
- The Canadian Interprofessional Health Collaborative (CIHC).
IECPCP accomplishments

In partnership with provinces, territories, academic institutions, and clinical settings, the IECPCP initiatives made great progress. The following key activities illustrate the advancements made in facilitating the adoption of IECPCP across Canada:

- Nine new learning projects located across Canada received funding in spring 2006. These Cycle Two learning projects helped advance the IECPCP agenda in education and practice settings.
- A complementary project received funding to establish the Canadian Interprofessional Health Collaborative (CIHC) in the summer of 2006. The CIHC is the focal point for best practices identification, dissemination, and knowledge translation in the area of IECPCP (see below).
- Health Canada staff visited four Cycle One learning projects in 2006/07. These site visits provided an opportunity to share information and gain a greater understanding of project activities, successes, and lessons learned. Projects were visited in Manitoba, Ontario, British Columbia, and Newfoundland and Labrador. In addition, meetings were held with project leads, and representatives from the provincial ministries of education and of health in Manitoba, Newfoundland and Labrador, and British Columbia to discuss project sustainability. Lessons learned from these visits were shared with other projects through the CIHC, and were used to inform years 6 to 10 of the IECPCP Initiative.
- Several jurisdictions in Cycle One held provincial meetings. British Columbia, Ontario, and Newfoundland and Labrador held consultations, providing an opportunity for key stakeholders and interested parties to share expertise and knowledge, to talk about the future of IECPCP for their respective provinces, and to build strategic networks. These meetings demonstrated how all levels of government are working together to make IECPCP a viable and sustainable option for learners and practitioners across the country and demonstrate the need for a leadership style that is open, inclusive and comprehensive in order to build ‘bottom-up’ support for IPE and IPC.

The provinces – policy development

Wide variations in policy development can be identified when comparing IPE province to province. While the Ontario, British Columbia, and Saskatchewan governments have demonstrated their support of IPE with substantial funding, dedicated staff, and increased policy activity, at the time of writing other provinces are beginning to provide support through small IPE initiatives.

In 2007, Health Canada recognized that with the establishment of the CIHC, the role of the National Expert Committee on Interprofessional Education had ended. A Health Education Task Force (HETF) was established,
reporting to the Advisory Committee on Health Delivery and Human Resources. The HETF builds on previous investments from the Pan-Canadian Health Human Resource Strategy in interprofessional education, and social accountability in medical school education.

The publication of a special supplement to the *Journal of Interprofessional Care* in February 2005 was a milestone in understanding the state of IPE in Canada. This report remains a significant historical compendium of information.

**What has been learned so far?**

A description of IPE’s status in Canada is framed in terms of critical success factors. When examining the kinds of academic programs that have been established through the IECPCP initiative it becomes clear that interprofessional education is successfully established when it adheres to clear principles.

IPE initiatives have been successful to date because champions have recognized the following nine principles; they are not necessarily inclusive, and are not all on the same vector:

- One size does not fit all;
- Resources are required, as is support from top management, along with operational support;
- Curricular changes are essential;
- IPE must be introduced at the right time;
- Collaborative learning environments must be created;
- Structures must be modified to support collaboration;
- IPE should be embedded in the system;
- Evidence makes the best case for IPE;
- Interprofessional players must engage the community.

To address these nine principles successfully, each requires a leadership style of the kind mentioned above that is open, inclusive, and comprehensive, which recognizes the complexity of each principle, and applies unique strategies in addressing them.

**One size does not fit all**

For IPE to be successfully sustained, it must be implemented in a flexible and changeable way that is tailored to the needs of the specific setting, organization, or unit. For example, the characteristics of IPE implementation could vary between a university as compared to a college or institute, the acute care setting as compared to the community setting, rural as compared to urban settings, and from province to province.

**Resources are required**

IPE programs and research require adequate and dedicated resourcing. This has been made clear in academic programs such as those established at UBC,
Memorial University of Newfoundland, Queen’s University, University of Toronto, University of Western Ontario, Dalhousie University, Northern Ontario School of Medicine, and George Brown College, and in practice settings such as Partners In Care at BC Children’s and Women’s Hospital, and community health centers across the country.

Curricular changes are essential
Learning from the work of curricular development across the IECPCP initiatives it is clear that curricular reform is essential in universities, colleges, and the community. An academic unit offering programs in IPE must be viewed as a logical and integral part of disciplinary education, and form an integral part of disciplinary curricula. IPE is about a new way of learning – not an add-on to existing curricula but rather a way of shaping those curricula. Because changes to curricula require considerable agility, for such an academic unit to be successful it must be flexible, creative, persistent, and committed to its vision and mission.

It is now clear that there are fundamental questions to be answered about how best to approach curricular change to effect IPE; for example:

- Can disciplinary approaches to a topic (for example palliative care) be melded so that the curricula reflect interprofessional learning?
- Can interprofessional theory be embedded in curricula so that students are required to learn with, from and about each other rather than separately?
- Can faculty from distinct disciplines be primed to teach interprofessionally, while still recognizing the scope of their own disciplines?
- Can IPE curricula be measured against traditional models?
- Can preceptors (mentors/fieldwork or placement supervisors) in the field teach students from other disciplines and professions?

IPE must be introduced at the right time
In parallel with questions about curricular changes and the organization of IPE are questions about the timing of IPE and whether the goal of IPE is best served by introducing learning early in disciplinary education. Opinions range from total immersion from the beginning of professional education to working only at the post-licensure level. Evidence is still needed to determine the optimum time to introduce students to interprofessional education.

Collaborative practice learning environments must be created
Health Canada-funded IECPCP projects across the country have struggled with questions around collaborative learning and the environments in which it is best stimulated. Questions such as ‘How do we encourage health and human service programs to collectively understand each other’s
academic and professional missions?’ have been driven by the need to build a collaborative, civic, academic-community relationship, which would take social responsibility for health achieving a global status in the broadest sense envisioned by the World Health Organization:

. . . there is a health baseline below which no individuals in any country should find themselves: all people in all countries should have a level of health that will permit them to work productively and to participate actively in the social life of the community in which they live. (WHO, 1984)

Health Canada is currently funding five trial interprofessional collaborative practice learning environments across Canada.

**Structures must be modified to support collaboration**

Institutional structures do not necessarily support collaboration in either the education or the health sectors. Over the years, significant discussion has taken place about barriers to effective IPE programs, and how to address these barriers (Gilbert, 2005). There is a broad consensus on the difficulties of scheduling courses, meeting professional requirements, recognizing faculty involved in IPE for promotion and tenure, and cost implications. Gilbert (2005) has examined these and other barriers that have prevented (and continue to prevent) the emergence of a culture of interprofessionalism within both the post-secondary education sector and the healthcare industry. To overcome these barriers evidence-informed leadership is vital. That evidence is now accumulating in the ever increasing number of studies that are published in journals (see, for example, the *Journal of Interprofessional Care*, March 2013 Volume 27, Supplement 1). Individuals and institutions working to implement IPE, whether in academia or practice, face a number of structural challenges such as:

- A reward structure for faculty who are often not compensated for teaching interprofessional courses (that is, tenure track excludes IPE);
- University/college/institute funding is generally allocated by faculty or department, and excludes interprofessional or co-lead programs;
- Health professionals have limited opportunities and time to focus on interprofessional activities within their organization (that is, hospital, health authority, private practice);
- Many managers and administrators are faced with lack of leadership support when attempting to introduce IPE as a new concept within their organization;
- The healthcare system is driven by the ‘issue of the day’, with education receiving less attention than clinical areas in terms of budget, human resources allocation, and so on;
Interprofessional Education in Canada

• IPE is often seen as an add-on or ‘non-essential’ program; as a result it is frequently a lower priority.

IPE should be embedded in the system

The changing world of health service delivery may push the post-secondary sector to recognize interprofessional education as an essential part of disciplinary education, rather than an add-on. It has become clear from the many innovative IPE projects throughout Canada that there are significant opportunities for greater cooperation, coordination and collaboration among and between health provider education programs and the health and human service delivery sector.

Statistics Canada designates more than 65 health occupations as ‘Health Professions and Related Clinical Sciences’, illustrating the complexity and diversity of the workforce and, by analogy, the complexity of service delivery. Instructional programs prepare individuals to practice as licenced professionals and assistants in these identified healthcare professions, many of which are regulated and controlled by a variety of mechanisms, such as:

• Government legislation;
• Professional associations;
• Facility and educational program accreditation;
• Union influence.

When considering the reality of how patients receive health services, this complexity is further increased by the large number of health and human service occupations that are not regulated (for example, home care aids). To reduce the possibility of disconnects, it is imperative that IPE be embedded in our health and education systems in a manner that helps students and providers to understand each other’s competencies and roles.

Evidence makes the best case for IPE

Research in Canada, along with scholarly contributions from the international community, has established a strong foundation on which future activity can be based. At present, the research on IPE in Canada has been driven by the evaluation metrics established by Health Canada. As systematic reviews show, however, there remains an urgent need to develop a body of peer-reviewed quantitative and qualitative scientific evidence linking interprofessional education with best collaborative practice and ultimately better patient care. The development of competencies for IPE (CIHC, 2010) and their consequent implementation in accreditation (AIPHE, 2012) (discussed below) are setting in place materials that can be tested to provide both qualitative and quantitative evidence for the impact of IPE on collaborative practice.
Interprofessional players must engage the community
From the work of IECPCP to date it is possible to identify at least four groups with vested interests in IPE. For the purposes of this chapter, specific groups that must be organized in order to further IPE include:

- Health and human service providers;
- Faculty members in educational institutions;
- Clients/patients/citizens;
- Various levels of government.

Health and human service programs have a long history of rich clinical/fieldwork relationships with a wide range of community agencies – hospitals, health regions, and private and non-governmental organizations.

Critical questions for IPE/C
Throughout the past 10 years, the literature of IPE/C has slowly revealed six significant questions that organizations need to address if IPE/C is to become a fact of health education and healthcare:

1. Why promote IPE/C? There is a need for clear and coherent arguments about why IPE/C is a desirable end, and an equally urgent need to understand that participants are both informants and champions.
2. Who does IPE/C? IPE/C calls for faculty, students, staff, practice colleagues and senior administrators to play new roles, for example around new leadership approaches that understand and appreciate the power of IPE.
3. When should IPE/C be implemented? Evidence is needed to determine the appropriate times to introduce various kinds of learning for IPE/C. The UBC model (Charles et al., 2010) calls for a progress from exposure (pre-licensure), to immersion (pre-licensure) to mastery (post-licensure). Each of the stages in this progression requires informed consultation between campus and community, and needs champions and leaders to facilitate the progression.
4. Where should IPE/C be implemented? Theories and models are needed to inform campus and community-based learning, for example, primary care, tertiary care, and public and preventative health. A very encouraging sign of theory development for IPE can be seen on the Facebook site IN-2-THEORY led by Sarah Hean in the UK (www.ncbi.nlm.nih.gov/pubmed/23181912).
5. How should the definition of IPE/C be operationalized? ‘Learning about, with, and from’ is immensely important although scarcely recognized in most literature. The application of Kirkpatrick’s principles, cited in Yardley and Dornan (2012), that is, knowledge, skills, attitudes, and values needs
to be conjoined with methods of learning, for example problem-based learning (PBL), critical enquiry, scenario-based learning, and others.

6. What are the human and financial resources needed to sustain IPE/C, and what is the evidence for a better return on investment (ROI) when IPE/C is implemented?

An examination of these six fundamental questions, as they are addressed in the literature, reveals two ‘Wicked Problems’ that continue to bedevil efforts to move IPE/C ahead in domains of both post-secondary education and healthcare. They are usually rehearsed in some form such as:

What is the policy coherence between the education sector and the health sector to facilitate IPE/C?
What is the return on investment (ROI) for IPE/C?

Both questions are currently being addressed by Health Canada through its Health Education Policy Task Force, and the matter of accreditation has been, and continues to be, addressed under a complementary project.

Accreditation

In November of 2007, Health Canada provided funding to bring six health and human service professions (medicine, nursing, occupational therapy, pharmacy, physical therapy, and social work) together to address the integration of IPE standards into each profession’s education accreditation program. The Association of Faculties of Medicine (AFMC) provided the secretariat for the Accreditation for Interprofessional Health Education (AIPHE) group. A steering committee, management sub-committee, and advisory group worked together over 18 months to develop principles, sample standards, and criteria, and an implementation guide, including a list of resources, for the integration of IPE into national health and human service accreditation standards. In addition, Accreditation Canada (formerly the Canadian Council of Health Services Accreditation, CCHSA), was asked by the steering committee to participate to ensure that the service delivery context that influences practice education for the six health and human service professions was considered. An environmental scan was conducted to form a common understanding of interprofessional education as it is reflected currently in the literature, in Canadian policy and in practice. This common understanding helped to lay a strong foundation for the work of AIPHE.

The following principles will guide the development and implementation of IPE standards in national and, where relevant, international accreditation programs for health and human service professional education:

- The patient/client/family is the central focus of effective interprofessional collaboration and, therefore, of effective interprofessional education.
Leadership Development for Interprofessional Education

- In order to educate collaborative practitioners, interprofessional education is an integral component of education for all health and human service professions.
- Interprofessional education is most effective when integrated explicitly into academic and practice or clinical contexts for learning.
- Core competencies for collaborative practice are used to inform health and human service interprofessional curricula in Canada.

The AIPHE project has also set out 11 principles and practices for integrating interprofessional education into the accreditation standards for six health professions in Canada.

- Interprofessional education embraces a relationship-centered approach as one of the key pillars of successful interprofessional collaboration.
- Interprofessional education requires active engagement of students across the professions in meaningful and relevant collaboration.
- Flexibility in the integration of IPE into health and human service curricula facilitates the development of accreditation standards that are consistent with each profession’s accreditation process and the diverse educational models across the country.
- Accreditation as one quality monitoring process for education, and regulation (licensing) as the quality control process for practice, must provide consistent messages about interprofessional education and collaboration.
- Emerging evidence is used to guide interprofessional education in all health and human service program curricula.
- Required support structures for interprofessional education should be considered in all aspects of accreditation, including institutional commitment, curriculum, resources, program evaluation, faculty, and students.
- Collaborative learning is integrated along the continuum of health professional education.
- Specific knowledge, skills, and attitudes are required for effective interprofessional collaboration and these are reflected in IPE curricula.

As can be seen, closely associated with principles of accreditation is a need to develop a set of competencies that appropriately describe the activities that capture the ‘inter’ nature of relationships between health occupations, rather than occupational differences.

Competencies

In 2003 the Institute of Medicine in the United States published its monograph ‘Health professions education: a bridge to quality’ (Institute of Medicine, 2003), which set out a schematic for interprofessional education.

In the fall of 2008, the Canadian Interprofessional Health Collaborative (CIHC) established a working group within its curriculum committee whose
mandate was to: review the literature related to competencies; review existing competency frameworks for IPE and IPC and other competency frameworks for health providers (assuming that existing competency frameworks could provide a starting point for analysis and debate and encourage shared thinking around the key foundations for an interprofessional competency framework); and to develop a Canada-wide competency framework for interprofessional collaboration.

Over the past three years, the working group has addressed a number of complex issues that inform competencies. The definition and description of a set of interprofessional competencies has been challenging and continues as a ‘work in progress’. The work of this group is now out for global consultation, and has been adapted by a similar working group in the USA, funded by the HRSA.

Lessons learned

The overall goal of IECPCP is to provide health system users with improved health outcomes. Interprofessional collaboration (IPC) occurs when learners/practitioners, patients/clients/families, and communities develop and maintain interprofessional working relationships that enable optimal health outcomes. Interprofessional education (IPE), which is the process of preparing people for collaborative practice, and IPC itself, are more and more frequently incorporated into health professional education and models of practice. For this reason, a clear understanding of the characteristics of the ideal collaborative practitioner, as described in competencies, is required to inform curriculum and professional development for interprofessional education, and enlighten professional practice for interprofessional collaboration.

With the development of accreditation and competencies now ongoing, it is apposite to briefly review the macro lessons that have been learned through the Health Canada IECPCP initiative. There is a need to recognize that the format of IPE/C needs to be acknowledged and honored. Clearly one size does not fit all. Curricular change is essential and needs to be built and supported across all post-secondary institutions and their health and human service programs. As with all emerging fields, research and evaluation are key to furthering both scholarship and practice and to disseminating evidence to support leading practices. One of the most difficult tasks for advancing IPE/C is building models of collaboration. There is an urgent need to modify and sustain institutional and management structures to support interprofessional collaborative practice. Finally, there is an urgent need to recognize and promote the role of all agencies – from acute to community – as equal partners.

IECPCP: The future

The future of IECPCP in Canada will depend on concerted action to demonstrate and promote its benefits: to learn from successes and mistakes; to
develop strategic plans for sustainability by promoting resource allocation; to focus on programs and integration by developing and supporting leadership; to implement policy change at government and organizational levels; to facilitate collaboration through strategic and innovative partnerships; to support knowledge exchange practices – translation and dissemination; to fund IECPCP-focused incentives and rewards in the health and education sectors; to articulate, advance and advocate a comprehensive agenda for future research and evaluation; and, finally, to build the environment by continuously embedding itself in the cultures of post-secondary education and health service delivery and sustaining the resources. This future is being addressed through the HETF.

With funding from Health Canada, a complementary project, the Canadian Interprofessional Health Collaborative (CIHC) was established in 2006. The mission of CIHC is to promote collaboration in health and education. Its membership includes educators, policymakers, health providers, students, and citizens who are committed to changing the healthcare system for the better. CIHC’s goals include building the knowledge base for interprofessional education and collaborative, patient-centered care and mobilizing knowledge to change practice. Its core activities have included addressing some very specific activities: curricula, research and evaluation, partnerships, and knowledge exchange. Out of these activities, CIHC has produced significant resources regarding interprofessional education and collaborative practice. These resources provide health providers, teams, and organizations with tools needed to apply an interprofessional, patient-centered and collaborative approach to healthcare. ‘Mainstream’ represents CIHC’s exploration of strategies and initiatives to recruit and engage a wider array of health providers in meaningful and innovative ways. CIHC also networks individuals, teams, and organizations by profiling regional interprofessional activities and other interprofessional projects. Its major outputs include: a comprehensive website and library that are the ‘go-to’ places for interprofessional resources; an active social media platform (Wiki, Facebook, Twitter, blog, and so on); the Canadian Interprofessional Competency Framework; an IPE/IPC Knowledge Exchange and Dissemination Strategy; development of the open access online Journal for Research in Interprofessional Education; and support for the growth and development of the National Health Sciences Students Association (NaHSSA).

The Health Education Task Force (HETF)

‘In theory, there is no difference between theory and practice. In practice there is’ (Berra & Fitzgerald, 1961). It is probable that the most frequently asked question about interprofessional education (IPE) is, ‘Does IPE make any difference to healthcare?’ An implicit assumption nested in this
The question is that IPE can be ‘proved’ to make a difference, an assumption that is itself built on an assumption that there is agreement on what has to be proved about IPE. At face value, this is a ‘So what?’ question. This complex question is open, however, to more profound analyses, some of which have been discussed by Reeves (2010a, 2010b). It is recognized that at this time there are few (if any) correct answers to the question, but Health Canada, through its Health Education Task Force (HETF), is attempting to address the question through two policy initiatives (see below).

The mandate of the HETF is to develop recommendations for the federal/provincial/territorial Conference of Deputy Ministers (CDM) of Health and to report such recommendations through the Advisory Committee on Health Delivery and Human Resources (ACHDHR) to address the future of healthcare education.

The HETF is focusing on: enhancing all jurisdictions’ capacities to work closely with employers and the education system; developing a health workforce that has the skills and competencies to provide safe high-quality care, work in innovative environments, and be able to respond to changing healthcare system and population health needs; and aligning education curricula with health system needs, urban and rural, and health policy. The HETF understands that the ultimate outcomes of IECPCP are improved service delivery across the spectrum of care.

Two policy initiatives are being addressed through the HETF as it works through these issues: What is the policy coherence between the education sector and the health sector? What is the return on investment (ROI) for IECPCP? These are what might be called ‘Wicked Problems’.

**Policy coherence**

The challenges of policy coherence between various ministries, federal, provincial, and territorial, are well known, and broadly addressed in the question: What is the direction from the top regarding how staff should work...
with the ‘partner’ ministry? Examples of the difficulties of achieving policy coherence can be captured in the following:

- There is a need for clear direction from the deputy minister around policy cohesion, and particularly how to integrate IECPCP into the work of the ministry.
- Meetings are more complicated than those established within ‘one’s own’ ministry. Cross-ministerial meetings often involve travel across town to the other ministry’s building.
- Without clear direction that working together must be an ongoing goal of both ministries, committees are often struck on an ‘as-needed’ basis and members may change frequently.
- As ideas and innovation are pushed forward, there can be a natural desire for one ministry to ‘own’ an idea. Competition is natural, but it can also be detrimental to collaboration.
- IECPCP should be a key discussion in files ranging from primary healthcare to chronic disease management to curricular development to accreditation to the health authority division, and so on. How IECPCP is integrated into these other files within a ministry is a vexing question.

**Return on investment**

Calculating the return on investment of IECPCP will clearly be immensely challenging. To date, the HETF has been working with a schema that takes a logic model approach that will look at inputs, processes, and outputs in both the post-secondary and healthcare sectors. The intention is to examine macro-, micro-, and meso-levels of analyses, across primary, secondary, tertiary, and quaternary levels of care.

The *inputs* in such an analysis will include, for example, funding, financing, human resources, interprofessional education, and so on. The *processes* include culture, interprofessional teams, communication, and so on. The *outputs* include access to care, quality of care, and so on. *Secondary outputs* might include policy changes, professional guidance, and so on, and *outcomes* would comprise health improvements, well-being, and so on.

The complexity of examining ROI cannot be minimized. It will take many years to understand some very basic cost questions.

**Conclusion**

The IECPCP initiatives developed across Canada, and largely funded by Health Canada, have shown that IECPCP should be a coherent and integrated component of pre-licensure education that places the patient at the center. It should provide opportunities for students from at least three different health and human service educational programs to work collaboratively in teams on matters of mutual clinical concern. At base, IECPCP is largely
about curricular change in the widest possible domain and, like all curricular change, is both painful and slow to effect. As we tackle the immensely complex task of entrenching IPE as the norm rather than the exception, it is worth bearing in mind words variously ascribed to Calvin Coolidge and Woodrow Wilson: ‘Changing a college curriculum is like moving a graveyard – you never know how many friends the dead have until you try to move them.’

As the IECPCP initiatives have moved slowly forward across Canada, it has become evident that there is a pronounced disconnect between policies developed separately, and frequently without consultation, across ministries of health and post-secondary education. This lack of policy coherence (and congruence) seriously impacts attempts to build joint health human resource strategies that encompass the ideals of IECPCP. It also prevents a good idea from becoming one that is widely recognized, accepted, and implemented in all policy decisions. If it was possible to improve policy coherence and congruence between ministries of health and advanced education across Canada then perhaps it might afford IECPCP the permanent status in the health and educational system that it deserves.

Questions for reflection

1. What were the main drivers for the enhancement of IPE in Canada and what may others learn from these?
2. Why is it important to link education and training to practice and in what ways may this be done?
3. What are collaborative learning environments and how may they be created?
4. How do interprofessional players engage communities?
5. What are the best ways to stimulate networking and sharing of best educational approaches for collaborative patient-centered practice?

Appendix: Historical developments of IPE/C

National IECPCP Workshop March 2004
Best Practice ID Call Sept 2006
CIHC Proposal to NEC Jan 2006
Enhancing IP Collaboration in Primary Health Care Oct 2004
Study Tours 2004–2005
Health Council of Canada on need to educate in teams Jan 2005
Support of First NaHSSA meeting Jan 2005
Site visits to projects 2007
IPCP & LEs 2010

References


Part II
Linking Theory to Practice:
Improving Client Care
Leadership Development for Interprofessional Teams to Drive Improvement and Patient Safety

Bryony Lamb and Nick Clutton

Introduction

‘Effective interprofessional education (IPE) enables effective collaborative practice, and effective collaborative practice strengthens health (and social care) systems and improves health outcomes’ (WHO, 2010, p. 5). However, it is acknowledged that training and developing a collaborative practice-ready health and social care workforce is not sufficient; supportive management practices and champions across agencies are required with the resolve to change the culture and attitudes of health (and social care) workers (WHO, 2010). An open, inclusive, collaborative culture is required which is risk-aware, supports learning for improvement and provides structures that enable interprofessional teams throughout the patient pathway to strive to improve services and increase patient safety (Lamb & Clutton, 2010).

Leaders are critical to safe and effective team performance (Flin et al., 2008). The style of leadership adopted by managers across and within organizations to establish and sustain this way of working is therefore crucial: apart from many GP pathfinder leaders, too often a more directive style of leadership (NHS Confederation Conference, 2011) has been associated with NHS managers in England; they may be good strategists and target-focused but less good on partnership and listening to colleagues. Health leaders who are committed to service improvement and patient safety, as well as achieving targets, are more likely to underpin their practice with a more strength-based style of leadership, valuing contributions from all team members and recognizing the importance of crew resource management/human factors training and interprofessional learning (Eid et al., 2012; Flin & Yule 2004; Flin et al., 2006).

This chapter makes a case for such an approach to leadership which underpins the philosophy of interprofessional education and learning, crew resource management/human factors training, and more effective patient safety practices. Leadership for interprofessional teams to drive improvement and patient safety is therefore discussed within the context of the
development of the model of transformative interprofessional teamwork development, the transformative cycle of improvement (Lamb & Clutton, 2010) and the interprofessional leadership skills toolkit. Exercises and a case study will guide readers through the process of applying the tools to their own practice.

Definitions

Interprofessional education (IPE) Please refer to Chapter 1

Interprofessional teams
A group of people from different professional backgrounds who work together to deliver services and coordinate care programs across agencies throughout the patient pathway; goals are set collaboratively through consensual decision making to improve practice for patient safety, which results in individualized care plans/quality services delivered by one or more team members, which maximizes the value of shared expertise and minimizes the barriers of professional autonomy (adapted from Forman, 2007).

Human factors (clinical) (HF)
These are concerned with enhancing clinical performance through an understanding of the effects of teamwork, tasks, equipment, workspace, culture, and organization on human behavior and abilities, and the application of that knowledge in clinical settings (CHFG, 2011a).

Crew resource management (CRM)
HF is included within CRM, which is defined as a management system which makes optimum use of all available resources – equipment, procedures, and people – to promote safety (RAeS, 1999). Implicitly CRM is a holistic management system involving leadership and team skills that extend across interprofessional boundaries and that include a knowledge and application of human factors. For the purpose of this chapter clinical HF and CRM cover the same subject areas.

Patient safety
Freedom from accidental injury; ensuring patient safety involves the establishment of operational systems; and processes that minimize the likelihood of errors and maximize the likelihood of intercepting them when they occur (Kohn et al., 1999).

Interprofessional education, leadership, and CRM/HF for patient safety
Improving patient safety requires a whole systems approach, enabling an understanding of the nature of risk and the complexity of the interaction between the health and social care environment, health, and social care
professionals and the patient/client, and the impact on safe care (Reason, 2004). Accidents, error, and potential risk can usually be attributed to many factors, not least the quality of senior management and whether it is committed to safety and how this is demonstrated within the workforce. Equally, ‘safety is the product of complex interactions of attitudes, behaviors and resources’ (Health Foundation, 2012, p. 8).

When healthcare standards fail, there has too often been fragmentation instead of staff working together collaboratively to provide effective patient-centered care. An example of this is evident in the Francis Report (2013), which reviewed an NHS hospital following concerns raised by patients’ relatives. This identified ‘a lack of effective communication across the healthcare system in sharing information and concerns’ (Executive Summary, p. 64). Failures, increases in mortality and incidents of harm to patients highlighted in the report were largely attributed to the failure of the hospital board and the executive to acknowledge safety and establish robust safety mechanisms across the organization. An ‘insufficiently shared positive culture’ (p. 66) which did not ‘place clinicians and other healthcare professionals at the heart of decision-making’ (p. 65), failed ‘to put the patient first in everything that is done’ (p. 66).

Equally, limited adherence to safety protocols can lead to errors, such as wrong site surgery ‘never’ events (CHFG, 2011b); whereas development of specialty-specific briefings and checklists at the team and unit level can reduce error and improve collaborative interprofessional working (Pronovost & Vohr, 2010; Henrickson et al., 2009; Lingard et al., 2008).

There is increasing evidence that active support and commitment by healthcare leaders at all levels are crucial for service improvement and patient safety (Øvretveit, 2009). Management commitment to improving safety, governance, and improvement strategies contributes to a safety-focused system and an open, inclusive safety culture, where ownership and commitment to safety across the organization establishes a climate of safety within teams and units (Olsen, 2010; Flin & Yule, 2004). However, Yule et al. (2007) also found in their study of the safety climate in the nuclear power industry that knowledge and training was a key mediator between the perceptions of senior management and supervisor commitment to safety and worker risk-taking. A safety ‘climate’ in this context is defined as a ‘snapshot’ of the culture, of how the workforce perceives their experiences of the working environment.

Knowledge and training also had a significant impact on use of the safety system and the level of teamwork experienced. In comparing the safety climate between healthcare and the petroleum industry in Norway, Olsen (2010) found no significant differences but the study revealed that high levels of learning, feedback, and improvement at the unit level are important across both sectors, inspiring work groups so that teamwork is enhanced and safety behavior improves.
Yule et al. (2007) advocate that senior managers can reduce risk in their organizations by investing in training and argue that not investing may have a negative effect, with workers perceiving senior managers as not committed or interested in safety. It is clear from these studies that allocation of time for regular safety training is equally important, including time for units/interprofessional teams to develop processes to make everything as safe as possible, and that taking time to stop and design systems to resolve unexpected problems or errors is crucial (Olsen, 2010; Pronovost & Vohr, 2010; Harmer, 2005; CHFG, 2011b).

Safety culture and climate highlight the importance and contextual nature of leadership at all levels within an organization. In their literature review on leadership and safety, Flin and Yule (2004) identified several studies that found the most effective supervisors had more supportive and participative styles of leadership. They were more likely to initiate discussion on safety and provide positive feedback on safety issues as well as involving workers in developing safety interventions. They discuss the role of transactional and transformative leadership within healthcare and other industries in relation to safety, which supports the authors’ use of strength-based approaches to leadership which underpin their model of interprofessional teamwork for patient safety.

The authors’ model also draws on authentic leadership and psychological capital from positive organizational behavior (Eid et al., 2012; Gardner & Schermerhorn, 2004) and appreciative leadership from appreciative inquiry (Lewis & Moore, 2010). Using a systems approach, Figure 4.1 identifies some...
of the characteristics of each of these leadership styles and their combined relationship within an inclusive safety culture and climate which, used together, provide a strength-based approach to leadership which can enable health and social care organizations to achieve effective safety systems.

Transactional leadership can be regarded as the basis of all leadership, focusing on the transaction between the leader and follower or team member (Flin & Yule, 2004), and is the means of establishing/creating management structures that will enable the tasks allocated to the organization to be achieved. It is therefore process- and outcome-focused: concerned with monitoring performance; dependent upon compliance; containing inherent authority structures and agreed areas of responsibility; and incorporating anticipated communication routes including feedback loops – all these are important to achieving organizational and team goals, such as improvement and effective safety systems. However, transactional leadership requires the other three leadership styles and skills to be embedded within a safety culture for the organization to work effectively and improve safety.

In addition to transactional behaviors, leaders of high performance teams display transformational leadership skills, where more personally focused goals are replaced by team or organizational aspirations (Flin & Yule, 2004). Transformational leadership is characterized by the ability to communicate with and inspire the team to believe in the end goal and purpose of the task/team. It is the value of achieving the ‘dream’, building shared visions for safer practice, with each member of the team feeling ownership and taking on the responsibility to be part of the change, believing it to be the only positive way forward. The focus is on innovation, encouraging questioning and creating a culture of learning and development, and empowering all members of the team to challenge and make changes to working together to improve practice (Alimo-Metcalfe & Alban-Metcalfe, 2004; Girvin, 1998) and increase patient safety.

Although there is some overlap with transformational leadership, authentic leadership and positive organizational behavior (Gardner & Schermerhorn, 2004) emphasize personal and social identification processes, role-modeling, and value-based leadership, which, as Eid et al. (2012) report in their literature review, can affect safety outcomes, enhance commitment to safety behavior, sustain a positive safety culture and reduce accidents. ‘Authenticity’ is achieved through role-modeling self-awareness, transparent intentions, decisions, and processes; and building authentic relations, reflecting values and actions that lead to heightened levels of trust in leaders. The focus is on valuing people and developing their strengths and avoiding negative mindsets, which helps to unlock their potential to develop internal feelings of competence and self-efficacy (Gardner & Schermerhorn, 2004).

Leaders who role-model positive individual states can enhance positive performance within their staff or team members: self-efficacy, hope,
optimism, and resilience (Gardner & Schermerhorn, 2004). Relating these states specifically to safety, Eid et al. (2012) link self-efficacy to the individual having confidence in their skills and technical knowledge, to understand risk and report concerns and errors; optimism to believing in the possibility of changing a situation and taking action in adhering to safety processes; hope to persevering in finding alternatives to improve the situation, finding new ways of working or using new equipment; and lastly, resilience to seeking ways to overcome problems. Together these states enable the individual and teams to avoid complacency and fatalism, influence decision-making and facilitate safety-focused behavior, all fundamental to establishing and sustaining a safety climate (Eid et al., 2012).

Lastly, as the authors use appreciative inquiry (AI) (Cooperrider et al., 2000) within their transformative cycle of improvement (Lamb & Clutton, 2010), it was considered appropriate to include appreciative leadership within this emerging leadership framework. AI is a strength-based approach for organizational change where employees and teams discover and develop together the best practice for improvement (Gilmour & Radford, 2007; Reed, 2006). Leaders facilitate shared visions for change, aligning individual and collective strengths, ensuring decision-making is distributed throughout the organization. There are three human universals: to have a voice and be heard; be seen as essential to the group; and to be viewed as unique and exceptional, with the emphasis on organizational learning, and appreciating and anticipating success.

Within this leadership framework, the four elements of leadership should be considered as interdependent. To be effective as an authentic leader, one has to have a clear understanding of the transactional, transformational, and appreciative elements relating to the team and the organization as a whole. Too often, only the transactional part of leadership is used, with ensuing difficulties and degrading of the team performance. This is evident in the Francis Report (2013) where incidents of harm were the result of targets being a priority ‘without considering the impact on the quality of care’ (Executive Summary, p. 65), which is a lesson for all healthcare organizations. The main skill is to take people with you, at all levels within the organization, to think about the big jump/change required, to take the team through the challenges, and make the tensions creative. Bringing together all who work to provide healthcare, ‘from porters and cleaners to the Secretary of State’ (p. 66), to work in partnership to develop a common safety culture.

As discussed previously, learning within teams and organizations is crucial to sustaining a safety culture (Donaldson, 2002). Equally, leadership development and training needs to be embedded, both to enable the teams to understand the need for a strength-based leadership approach, as well as to review and improve transactional structures and processes within the safety system. Figure 4.2 identifies the common values between the leadership styles within the framework and how they resonate with IPE/learning for collaborative practice and CRM/HF.
Non-technical skills, often used synonymously with HF/CRM, are fundamental to patient safety; they include teamwork and communication skills (McCulloch et al., 2009; Allard et al. 2007; Bleakley et al., 2006; Flin & Maran, 2004). Therefore, integrating CRM/HF within interprofessional education can only enhance learning, preparing for collaborative practice for improving patient safety (House of Commons, 2009). In addition, combining IPE and CRM/HF can facilitate the development of leaders who are sensitive to interprofessional issues relating to individual team members, and are able to motivate and develop resilience within individuals and interprofessional teams, to manage risk and together drive improvement and patient safety throughout the patient pathway.

### Leadership for changing culture

The model of transformative interprofessional teamwork (Figure 4.3), developed by the authors as an outcome of their teamwork development workshops in both the business and public sector (Lamb & Clutton, 2010), is based on a systems approach, incorporating the complementary elements of interprofessional learning (IPL) (Freeth et al., 2005); and CRM/HF (RAeS, 1999); as well as appreciative inquiry (AI) (Cooperrider et al., 2000; Reed, 2006); and continuous quality improvement (CQI) (Batalden & Stoltz, 1993; Wilcock et al., 2002, Wilcock et al., 2003) as central to teamwork.
development. Teamwork processes and outcomes form the structure of the model, with patient-focused interprofessional teams learning together to develop an improvement culture for patient safety:

In our zeal to train learners in interprofessional care, patient safety, quality improvement, and systems knowledge, we must not lose sight that our patients are at the core of these efforts. (Batalden et al., 2006, p. 549)

The teamwork processes are underpinned by a strength-based approach to leadership with a shallow authority gradient, where leaders role-model the various values identified in Figure 4.3, including feelings of responsibility for patient safety and commitment to improvement. Leaders harness tensions to inspire innovation, creativity, motivation, and ownership of change.

Transforming the system helps create an open learning organizational culture (Donaldson, 2002) with robust safety mechanisms, including the following structures and processes:

- Dedicated time for learning and development – establishing and maintaining an effective safety culture;
- Building a shared vision for safety and ensuring distributive decision-making;
- Risk assessment and reporting processes where non-adherence is not acceptable;
- Robust communication strategies including effective feedback loop(s);
• An interprofessional training program in CRM/HF for leaders and the entire workforce;
• Regular training updates for all, including CRM/HF facilitators.

The model feedback loop is therefore iterative, illustrating the importance of engaging organizational management commitment in supporting and sustaining safety mechanisms and interprofessional teamwork development for patient safety (Yule et al., 2007; Toft & Reynolds, 2005).

The authors apply the model within their workshops using the transformative cycle of improvement (TCI) presented in Table 4.1. This provides inclusive decision-making processes for managing change and guiding practitioners working together in interprofessional teams to improve safety at any stage of the patient pathway. The authors have combined the decision making process used within aviation with the CQI plan-do-study-act cycle (Wilcock et al., 2002, 2003) and the AI cycle (Cooperrider et al., 2000) – Discover, Dream, Design, and Deliver.

Underpinned by a strength-based approach to leadership, the TCI tool provides guidance for leaders in taking their staff through the improvement process, as well as identifying skill gaps: major CRM/HF/teamwork skills required to achieve their aspirations. (This is used in conjunction with the Leadership Skills Toolkit described below.) The flexibility of the TCI tool provides different starting points depending on the team’s requirements. The additional preparatory stages for focus on positive aspects of safety practice, which already exist, enable organizations and team leaders to build on them to co-create a unique vision for the future. Plans for improvement based on staff and patient experience can start at stage three.

Patient stories of their experiences, as well as reported errors and staff concerns, provide the stimulus for improvement using the TCI tool to guide change across organizations, from board to ward and beyond, to establish an effective safety culture. The tool is also useful for developing handover protocols, pre- and post-operative briefings, and coordinating transitions across agencies such as discharge of patients into the community.

To guide and support interprofessional teams through the TCI process, leaders require the appropriate CRM/HF skills, the acquisition of which is dependent upon the commitment of senior managers within their organizations to embed regular interprofessional learning activities related to improvement and patient safety for the entire workforce. Part of recommendation 216 of the Francis Report (Executive Summary, 2013, p. 108, and Volume 3, Present and Future, 2013, p. 1546) advocates improved leadership training for all who work in the health service ‘by increasing the emphasis given to patient safety’. This is crucial, as previously indicated in the literature, to establishing and maintaining a safety culture and climate (Flin & Maran, 2004), supported by experiences in aviation where recurrent CRM/HF training produces desired changes in safety behavior (Helmreich & Foushee, 1993).
<table>
<thead>
<tr>
<th>Stages in Cycle: PROCESS</th>
<th>CRM/HF that can be applied to the processes (Part of the Leadership Skills Toolkit)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Discover</strong></td>
<td><strong>Leadership, membership</strong></td>
</tr>
<tr>
<td>• Involve the wider team including patients and carers</td>
<td>• Understanding assertiveness and cultural variations both tribal and organizational</td>
</tr>
<tr>
<td>o Together view patient pathway as a complex system</td>
<td>• Collaboration across boundaries without feeling of threat – the wider team</td>
</tr>
<tr>
<td>o Identify what works well and why – build on best practice within system</td>
<td>• Use of the Authority Gradient</td>
</tr>
<tr>
<td></td>
<td>• Identification and patient-focused management of human factors</td>
</tr>
<tr>
<td><strong>Dream</strong></td>
<td><strong>Valuing other teams and professions</strong></td>
</tr>
<tr>
<td>• Develop creative conversations for shared images to shape the future</td>
<td>• Valuing contributions from all</td>
</tr>
<tr>
<td>• Identify changes that can be made that will result in improvement</td>
<td>• Understanding limitations and safety implications if team is confined by barriers</td>
</tr>
<tr>
<td><strong>Design/plan</strong></td>
<td><strong>Safety, situation awareness &amp; error management</strong></td>
</tr>
<tr>
<td>• Work together to plan the future</td>
<td>• Information acquisition and processing</td>
</tr>
<tr>
<td>• Prioritise ‘dreams’</td>
<td>• Ability to anticipate problems – active as well as latent</td>
</tr>
<tr>
<td>• Develop improvement plans</td>
<td>• Knowledge of standard procedures and protocols</td>
</tr>
<tr>
<td>• Decide on outcome measures</td>
<td>• Situational awareness of self, team, environment, and equipment</td>
</tr>
<tr>
<td>• Decide how to know when improvement has been achieved</td>
<td>• Stress, fatigue, and workload management</td>
</tr>
<tr>
<td><strong>Deliver/do</strong></td>
<td><strong>Communication and assertiveness</strong></td>
</tr>
<tr>
<td>• Together, carry out plans, with the whole team taking ownership of process</td>
<td>• Communication – between people, teams, and organizations</td>
</tr>
<tr>
<td><strong>Review</strong></td>
<td>• Appropriate means of communication – understanding advantages and limitations</td>
</tr>
<tr>
<td>• Review process</td>
<td>• Reporting systems – the requirement for an open culture and non-defensive two-way feedback</td>
</tr>
<tr>
<td>• Measure/evaluate impact</td>
<td>• Ability for individuals and teams at all levels to challenge</td>
</tr>
<tr>
<td>• Has it worked as expected?</td>
<td><strong>Decision-making, briefing, and debriefing</strong></td>
</tr>
<tr>
<td>• If not, why not?</td>
<td>• Communication protocol</td>
</tr>
<tr>
<td><strong>Improve</strong></td>
<td>• Knowledge of procedures/rules</td>
</tr>
<tr>
<td>• Change practice</td>
<td>• Clear decision-making processes</td>
</tr>
<tr>
<td>• Disseminate across teams and organisations</td>
<td>• Allocation of tasks according to ability and workload</td>
</tr>
<tr>
<td></td>
<td>• Regular review of outcomes</td>
</tr>
<tr>
<td></td>
<td>• Apply feedback loop to all involved.</td>
</tr>
</tbody>
</table>

*Source: Adapted from Lamb & Clutton (2010).*
The World Health Organization patient safety curriculum guide multiprofessional edition (WHO, 2011) states that CRM is increasingly used in healthcare to improve teamwork and communications and initiate other safe processes. This is supported by recent studies incorporating CRM/HF approaches and training within surgical teams (McCulloch et al., 2009, Bleakley et al., 2006; Henrickson et al., 2009; Lingard et al., 2008; Allard et al., 2007; Pronovost & Vohr, 2010), where interprofessional collaboration was found crucial to improving communication, teamwork, and safety.

The most important aspect of CRM/HF training in relation to healthcare is to enable leaders to bring teams with them to make improvements and move the culture of the organization towards an inclusive safety culture (Lamb & Clutton, 2010). This sets aside a blame culture and provides a safety climate, based on strength-based approaches to leadership, where there is a freedom to speak up, a robust reporting system that includes confidential reporting, and a willingness to learn. An appropriate authority gradient is understood by all, enabling a less senior team member to point out perceived errors and concerns, encouraged by the team leader not regarding this as a threat to their position. This is indicative of an inclusive, open culture where the ability to voice concerns is regarded as a helpful check for error involving the wider team. The leader achieves this through role-modeling and working to preserve and enhance the self-esteem of the team members, which has a positive effect on both performance and feedback. Also important is the understanding of the negative effects of high workload and stress on leaders and individual team members. This affects their own and other team members’ performance, which is likely to increase the risk of error and limit their ability to adopt strategies to address this.

CRM/HF training for all involved throughout the patient’s pathway can therefore enhance leadership and the team’s performance, equipping them with the skills to work together to improve the quality of care and safety.

**Leadership skills development**

In conjunction with their TCI tool, the authors have developed a Leadership and Membership Skills Toolkit for interprofessional teamwork development for improvement and patient safety, for use within their teamwork-development workshops. The toolkit provides a synthesis of skills for achieving effective interprofessional teamwork. The structure of the toolkit emphasizes the strength-based elements of teamwork: managing people/colleagues – team climate; service planning; and service delivery – task/intervention. Although the complete toolkit comprises both leadership and membership skills, for the purposes of this chapter the authors focus entirely on the leadership skills (see Table 4.2). Leadership skills should be developed by all team members, and Table 4.2 can also be used for reviewing and developing membership skills and overall teamwork, for it is the...
Table 4.2  Interprofessional Teamwork Development for improvement and patient safety – Leadership Skills Toolkit

### Leadership skills

#### Managing people/colleagues – team climate

Leader responsible for the whole team having an understanding and ownership of:

- A strength-based approach in maintaining an inclusive safety culture
- The value of other professions’ roles, responsibilities, priorities, expertise, and strengths and how these interface with their own
- Methods of communication and their limitations

Leaders inspire and establish shared vision, and provide support and direction through:

- Free and open communication being practiced; different views are sought and team members are encouraged and empowered to speak up
- Acting decisively when required (appropriate use of Authority Gradient)
- Situation awareness (SA), including own and team members workload and stress
- Encouraging innovation and learning within team and organization

Leaders’ model qualities in addition to those of a member:

- Quality relationships within the team, building on individual and combined strengths, empowering members, and developing team spirit
- Confidence, hope, resilience, and optimism
- Turning potential conflicts to advantage
- Building team identity and commitment

### Questions for leaders to ask

#### In assessing the team:

- Is the team committed to the values of the organization (see above), including valuing the strengths, roles, and responsibilities of their colleagues?
- Do members feel valued and supported by their colleagues and team leader?
- Are team members objective, constructive, and positive in their communication, including giving and accepting feedback non-defensively?
- Are there any perceived barriers to open communication within the team?
- Is the team comfortable working with a shallow authority gradient?
- Do the team members work collaboratively, with those involved throughout the patient pathway, including patients and carers, to achieve improvement?
- Do team members monitor their own, the team leader’s and other team members’ behavior, stress, and workload and offer appropriate support?
- Does each member show a desire to develop and learn?

#### Leaders’ self-assessment:

- Have you created a climate in which members:
  - are aware of the importance of personal commitment in managing risk and collaborative patient-centered care?
  - are encouraged and able to speak up and challenge?
- Are you objective, constructive, and positive in your communication, including giving and accepting feedback non-defensively?
- Do you encourage team members to be innovative and achieve their potential?
• Demonstrating sensitivity to other team members: mentoring and developing their strengths
• Setting supportive tone and trust members to take decisions
• Asking for help when appropriate

Service planning
Aim to improve and maintain the quality and safety of the patient pathway

Leaders should:
• Establish goals/objectives
• Look for and understand long-term underlying issues
• Establish decision-making processes for the task with the whole team
• Value and use all resources/expertise/strengths
• Delegate tasks and prioritize to avoid overload of individuals and to avoid key task conflict
• Manage time effectively and plan times for reviews and checks
• Assess risk and adopt strategies to reduce error, including reviewing quality of briefings, checklists, and so on with the team, for development as required
• Prioritize task allocation for team members

• How do you resolve any issues that arise from the above assessment?

In assessing the team:
• Does the team value others’ expertise and strengths as well as their own, in contributing to the planning for the task/improvement throughout the patient pathway?
• Are all members participating fully in the decision-making process, using their strengths, skill, and expertise appropriately to reduce potential error?
• Does the whole team have a clear understanding of:
  o the objectives/goals and protocols of the task/improvement intervention?
  o the decision-making process?
  o the roles, tasks, and expectations of all members?
• Do team members speak up and challenge decisions, even if it involves disagreement?

Leaders’ self-assessment:
• Have you been an active team member?
• Have you used all resources, prioritized, and shared the tasks efficiently?
• Have you reviewed the planning and decision-making process and taken action as required?
• How do you resolve any issues that arise from the above assessment?
Leadership skills

Service delivery – task/intervention

Reflects the extent to which leaders have planned ahead, are maintaining situation awareness (SA), coordinate tasks, and anticipate contingencies during the task:

• Continually integrating information and clarifying complexity – of the 'Big Picture', of team members' workload and stress, of equipment/technology used by the team, and delegating as appropriate
• Ensure communication strategy and decision-making processes are clear
• Participate in briefings, using use checklists, *aides mémoire*, and so on
• Involve all team members in ongoing assessment, decision-making, and review of outcomes
• Test assumptions
• Communicate regularly with higher management and other teams to maintain their SA

Questions for leaders to ask

In assessing the team:

• Is the team following the established protocols within the safety culture?
• Is the team continually assessing:
  ○ the SA of the team?
  ○ potential risk?
• Is open communication sustained within the whole team and are members encouraged to speak up with concerns at any time?
• Is the team continuing to value each other's strengths, roles, and responsibilities?

Leaders' self-assessment:

• Do you help sustain a supportive, challenging, and responsive environment including the testing of assumptions, and the extent to which a team member recognizes the need to challenge and give and receive feedback?
• Are you or someone else monitoring the system status and informing the team?
• How do you resolve any issues that arise from the above assessment?
interaction between leaders and team members that makes the difference (Flin et al., 2008).

The right-hand column provides important questions for leaders to ask of themselves and their team to help monitor and sustain effective interprofessional teamwork and an effective safety climate. In addition, the toolkit can be used for team review, training needs analysis, and measuring the outcomes of CRM/HF training. It is particularly useful for both leaders and senior managers at the review stage of the TCI when looking at outcomes, performance, and areas for development.

Apart from drawing on the CUILU (2004) interprofessional team skills, the development of the complete toolkit has been informed by: personal and organizational development literature (West, 2003; Goleman, 1999, Cooperrider et al., 2000) including authentic and transformational leadership (Gardner & Schermerhorn, 2004; Alimo-Metcalfe & Alban-Metcalfe, 2004); medical education with application to interprofessional teams (Headrick et al., 1998); improvement and leadership programs (NHS, 2002, 2003) and NASA-funded research into successful engineering team design (Nowacyk & Zang, 1998); as well as CRM training literature (Burke et al., 2004; Salas et al., 2001).

The transitory nature of interprofessional teams in healthcare, as noted in the WHO patient safety curriculum guide (2011), raises particular challenges, placing great emphasis on the quality of leadership and teamwork development. By embedding quality CRM/HF training programs that include regular updates within health and social care organizations, awareness of potential risk will be raised and strategies to help reduce error will be learned. In addition, staff at all levels who have undergone similar training will expect appropriate safety protocols and behaviors to be the norm when they join a new team. The priority for regular CRM/HF training within the aviation industry provides crews that seldom fly together with the necessary interprofessional skills and protocols to work together effectively. The Leadership Skills Toolkit and the TCI tool together help support those health and social care organizations willing to rise to this challenge.

The following two case studies present two areas for improvement. These include exercises using the TCI Table and Leadership Toolkit, to help plan working with interprofessional teams to improve patient safety.

### Case study 1

**Coordinating services throughout the patient pathway**

A stroke patient, an 83-year-old widow with an existing heart condition, had been assessed in a rehab unit as reaching a safe level of mobility using a Zimmer frame, able to cope with essential tasks of daily living at home and, therefore, fit for discharge. The rehab unit at the time was
short-staffed, with some senior staff absent due to illness. There was also anxiety about the future of the unit in this location.

What had not been taken into account was this patient’s home situation. She lived in a two-floor maisonette with two flights of stairs. She had many interests and in most rooms the floor and most surfaces were piled up with her boxes, books, magazines and lots of paper. Her family lived far away so couldn’t help on a daily basis, and most of her neighbors were young families with little interest or time to pop in to see if she was able to cope. She was admitted to hospital soon after discharge due to a fall which resulted in a hip fracture.

Information from the wider team on her situation was not available to the rehab staff and was not requested from her GP, the district nurse or care services. Neither was the intermediate care team alerted that this lady was to be discharged; they would have realized during their first home visit that the patient was not ready for discharge without considerable support.

Below are reflections of a district nurse, practicing in a rural area of the UK, on her general experience of patients being discharged from hospital:

When discharging patients from acute units, ward nurses, and doctors:

- Rarely provide a discharge summary;
- Think that they are doing a good job just by providing a discharge letter;
- Do not consult with community services (GPs, district nurses, and social care) who actually have detailed knowledge of the patient. ‘This gives an impression of arrogance and an ego-driven culture.’
- In not communicating with GPs, may well prescribe medication that is not appropriate and to which the patient may have an adverse reaction;
- Regard community services as an ‘add-on’.

General practice and community care receiving discharged patients:

- If a discharge letter is provided, it may well only be sent to the GP who may not refer it on.

**Exercise**

Use the TCI Table and Leadership Toolkit to assess this situation and work out how you would plan a strategy for improving collaboration with the health and social care practitioners involved throughout the patient pathway.
Case study 2

A ‘never’ event – ‘the wrong knee was investigated via arthroscopy’

One of nine wrong-site surgery cases investigated and reported in Never?, prepared by the Clinical Human Factors Group (CHFG, 2011a), with detailed analysis of the events and what practitioners can learn from these cases.

The event:
After being scheduled for a right-knee arthroscopy, the patient was seen by a consultant and the consent form filled in correctly. The right leg was correctly marked but the procedure was carried out on the left knee until the theatre assistant noticed and spoke up. The procedure was stopped and the right knee investigated as required.

Errors:
- The person operating was not the same as the person taking consent and marking the operation site.
- The site marking was not prominent or undertaken in accordance with policy.
- The WHO surgical safety checklist wasn’t used in this theatre, and there was no pre-surgical briefing or other verbal check of the site for surgery; therefore the position of the surgical table was incorrect before the procedure started.
- The scrub nurse rotated the table for the left knee which caused confusion and set everyone up to think it was the left knee to be operated on. The nurse then left the theatre and didn’t return until the procedure was underway.
- Additional theatre staff joined the team during the procedure, but they weren’t briefed.

Positive action:
The theatre assistant felt able to speak up and correct the error.

Exercise
Use the TCI Table and the Leadership Toolkit to plan how you would work with the theatre team and other staff involved to:

1. Identify areas for improvement – what questions could you and the team ask?
2. Assess the quality of non-technical skills (CRM/HF), and identify areas for development both for yourself as leader and for the interprofessional team.
Conclusion

This chapter has presented a patient-centered model of transformative interprofessional teamwork, which underpins a framework for SBL to empower and support interprofessional teams to improve practice and increase patient safety. Central to this is the integration of TCI, SBL, the Leadership Skills Toolkit and CRM/HF training with IPE. These fundamental elements create a culture that enables leaders and team members to learn and work together effectively, ensures that roles are clarified and understood, that services are coordinated effectively throughout the patient pathway, and that communication strategies are effective – all crucially important in reducing error (Toft & Reynolds, 2005). The influence of the role of senior management and organizational culture is shown to be central in influencing the extent to which the whole workforce is committed to improving safety (Yule et al., 2007), and this is dependent upon appropriate training for leaders and interprofessional teams throughout the organization (Olsen, 2010).

To support the need for effective training to improve patient safety, this chapter has included the authors’ TCI tool and Leadership Skills Toolkit to apply SBL to practice. These tools can help support organizations, leaders and teams to work together effectively to:

- Review their current safety practices and work together to develop and improve safety management systems, as well as developing safety cases (Health Foundation, 2012);
- Identify training needs and develop appropriate interprofessional CRM/HF training programs;
- Design and implement improvement initiatives throughout and across patient pathways;
- Establish an open, inclusive safety culture, developing safety-conscious ways of working at all levels, from board to ward and beyond.

An organization that learns from error (Donaldson, 2002) and embeds effective safety systems, including regular CRM/HF training for the entire workforce, might achieve a ‘high reliability organization’ status (HRO) (AHRQ, 2008), the key concepts of which resonate with the SBL leadership framework and tools presented in this chapter, as identified in Table 4.3. The Agency for Healthcare Research and Quality in the US believes that, within HROs, improvement initiatives are more likely to succeed if they can demonstrate these concepts.

The challenge is to provide interprofessional education and training programs incorporating the elements in this chapter for leaders and the ‘wider team’, enabling all staff to contribute to making changes to increase patient safety. This is considered by some as unrealistic, especially in the current global financial climate, but leaner times demand new ways of working. In light of the Francis Report (2013) and similar investigations, reducing risk has
to be a priority; education commissioners should take the lead in improving safety, taking seriously the increasing evidence that working together more effectively and rising to the challenge can increase both the quality of care and patient safety. When SBL and interprofessional teamwork with CRM/HF training is mandatory for all students and staff across all service providers involved throughout and across patient pathways, patients can have confidence that health and social care is providing them with much safer services.

The principles and skills outlined in this chapter will be further explored in Chapter 5 in relation to leadership for sustainability of IPE/L and collaborative working for improvement.

Questions for reflection

1. Many examples used here are from a UK perspective; do the examples apply in other international contexts?
2. What questions does this chapter raise for your organization?
3. Cultural change is difficult for any organization. If you need to change the culture in your organization, how would you start the process using the approach and tools described in this chapter; and what checking mechanisms would you put in place to monitor both the impact and effectiveness of the changes as your plan progresses?

Table 4.3  HRO key concepts applied to the Strength Based Leadership Framework and tools

<table>
<thead>
<tr>
<th>Key concepts of HRO</th>
<th>SBL Leadership Framework and tools</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sensitivity to operations</td>
<td>This relates to situation awareness, with leaders and their staff/team members continually assessing the SA of themselves and the team as well as potential risk, and working together to reduce error.</td>
</tr>
<tr>
<td>Reluctance to simplify</td>
<td>This stresses the need for robust CRM/HF training programs that raise risk-awareness and understanding of why errors occur, as well as providing the knowledge, skills, and behavior required to reduce error.</td>
</tr>
<tr>
<td>Preoccupation with failure</td>
<td>This emphasizes the importance of learning from errors or near misses, and of continually working together to improve processes and reduce harm.</td>
</tr>
<tr>
<td>Deference to expertise</td>
<td>This refers to acknowledging the wider team and the need for a shallow authority gradient, with leaders encouraging all staff to raise concerns, and being able to listen and respond to both staff and patients.</td>
</tr>
<tr>
<td>Resilience</td>
<td>This emphasizes the need for leaders to be good role models, their behavior demonstrating they do not react adversely to challenges and constantly seek ways to overcome problems. However, it is recognized that training on how to deal with errors and accidents is important for all staff.</td>
</tr>
</tbody>
</table>
Acknowledgements

The authors would like to thank Dr Peter Jaye, Director of Simulation and his team from the Simulation and Interactive Learning Centre (SaIL), Guys and St Thomas' NHS Foundation Trust, London; Jayne Frisby, the lead for various IPE programs; and the Medical School, Kings College London, for their review of the further refinement of the Leadership Toolkit, including its application to education and training.

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Leadership Development for Interprofessional Teams


5

Strength-based Leadership for Developing and Sustaining Interprofessional Collaborative Practice

Bryony Lamb, Nick Clutton, Andy Carson-Stevens, Sukhmeet Panesar, and Sarah Salvilla

This chapter explores the challenges that confront leaders in healthcare and education, especially in relation to improvement and achieving collaborative patient-centered care. Two case studies illustrate the impact existing challenges place on patients and staff. The value of leaders and organizations using a Strength-based Leadership (SBL) approach (see Chapter 4) for developing interprofessional teams is discussed, especially in relation to steering the development of safety and improvement protocols, including the World Health Organization’s (WHO) surgical safety checklist. Throughout, questions are provided with guidance for leaders on how to apply this approach to their own work settings. Key messages for sustainability of interprofessional collaborative practice for improvement and increased patient safety conclude the chapter.

Anna’s story – Case Study 1

My name is Anna and I am 41 years old. I have endured a complex medical history for over ten years suffering with chronic pain. The quality of my life is determined by my pain control. In fact, I am used to living with a pain score of between five and six. I survive only through the support of my local community pain team and managing the intensity of the pain with strong drugs that sometimes make me feel nauseous and drowsy.

My medical story began when my gallbladder became inflamed and the doctors discovered I had deranged liver enzymes. I had my gallbladder removed and it eventually materialized that the drainage tube, which permits bile to pass from my gallbladder to my small bowel, was not functioning correctly. I have therefore endured multiple investigations and surgical procedures – some have been more
Leadership Development for Interprofessional Education

successful than others – however, I consistently rely on those delivering my care to be caring professionals who treat me like a human being.

Recently, I had surgery to remove part of my pancreas to reduce the chance of developing diabetes, to help me digest food, and try to alleviate the pain from repeated attacks of pancreatitis (the worst pain imaginable).

There are so many people with lots of different personalities making up my clinical care. I’ve met many doctors, nurses, operating department practitioners and other professionals during my many visits to hospitals for exploratory and interventional procedures. I’ve also witnessed healthcare as an acutely unwell person. I’ve been frightened by uncertainty, having to rely and wait on others to take care of my most basic needs. Until recently I had confidence in the health professionals around me to do me no harm and provide me with the best possible care.

A painful and disappointing experience

My doctors became increasingly concerned with what the long-term effects of recurrent pancreatitis attacks would be to my health. My gastroenterologist referred me to a surgical team for partial removal of my pancreas in order to minimize my risk of developing diabetes. He was aware that putting me under anesthesia and the trauma of surgery could upset the balance of my pain control. We discussed the risks and we decided that the surgery would be the best option for me in the long term. My pain nurse, John, would be the source of advice and guidance for the anesthetic and surgical team responsible for my surgery. John and his team have spent years understanding my pain management through trial and error. We struck gold 18 months prior to my procedure when we found a regime that finally made my life feel like it was worth living. I could pick up my baby daughter and play with her without being in agonizing pain.

To my devastation, the advice John provided the anesthetist and surgical team in advance of my procedure was ignored. Immediately following the operation, I woke in excruciating agony. To my horror, my usual medications were not available to me. I remember John arriving at my bedside and looking at me, and then my drug chart, in disbelief.

What have these experiences finally taught me? If you either feel unsure of or lack trust in the level of care and professionalism of a medic – get up and walk out, or insist on a change of team!

Anna’s perceptions of the staff involved in her story:

The pain team and John, my pain nurse

With me throughout my journey have been the pain team. For the last three years John, my dedicated pain nurse, has been a supportive rock and my consistent source of advice during some difficult times; we have a very good
<table>
<thead>
<tr>
<th>Role</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>The gastroenterologist</td>
<td>Dr X was approachable and took my opinion into consideration when discussing my options and next steps in my management.</td>
</tr>
<tr>
<td>The anesthetist</td>
<td>He seemed an old school sort of doctor. He didn’t tell me about the pain I might experience after the operation. If he had spoken with me and asked about my chronic pain problems, I’m confident my horrific experience would never have happened. He gave me no apology after my surgery. If I met him again I would like to ask him why he ignored the advice and the pain management plan given to him by my pain nurse. He didn’t accept my suffering was the consequence of him not using a multimodal approach.</td>
</tr>
<tr>
<td>The surgeon</td>
<td>Mr Y only works with one anesthetist. He’s a very brusque man; he made me feel like ‘a slab of meat’, which really didn’t help settle my nerves. If I’m honest, his manner did not encourage me to give information about my condition and experiences. But over the years I’ve slowly grown to feel more comfortable and at ease with him.</td>
</tr>
<tr>
<td>Intensive care unit staff and the physiotherapist</td>
<td>They only seemed comfortable working in a routine way and didn’t refer to the advice from my pain nurse. They didn’t seem concerned that I was in agony and desperately needed relief from the pain.</td>
</tr>
</tbody>
</table>
The porter taking Anna to theatre

He asked if I was OK and having a good day so far. He had quite a calming voice and smiled a lot which put me at ease.

A healthcare assistant

She asked if there was anything she could do which would make me more comfortable.

John’s story

I’ve looked after Anna for over three years. Since Anna’s pain was so complex, morphine alone would not be adequate for surgery. The anesthetist ignored my professional advice and didn’t follow Anna’s pain management plan which I had prepared – he had let her down. I felt like I had let her down. I kept thinking, ‘What’s happening in healthcare for probably well-intentioned individuals to behave this way?’ I’ve seen countless patients go to theatre and benefit from the regime I proposed. How many patients must suffer before it is the norm to respect each other’s contributions to the healthcare team?

Anna has since told me how traumatized she’s been left by the experience. She’s had nightmares resulting from this experience. We could have done so much better. Patients like Anna should be able to expect us to work as a team. Her experience clearly demonstrates how one team member can exclude the expertise and opinion of other team members with very clear consequences. Thankfully our pain team – comprising doctors and nurses – was able to intervene and helped Anna to settle – it was a shame she had to experience such needless suffering first.

Anna is clearly judging the quality of the healthcare professionals who provided her care by the quality of their communication skills. Perhaps this is all the average patient has available to judge practitioners and the quality of the services delivered. This serves as a reminder for all healthcare workers to be the guest NOT the intruder in patients’ lives.

Anna’s pain and suffering was avoidable. Her story elicits many questions about opportunities to improve her experience of healthcare. Common responses might include ‘frustration that the team let her down’ or ‘disappointed she had to experience even more suffering’. The reality is, as reported in the Francis Report (2013), that patients like Anna experience harm on a daily basis in even the most advanced hospital systems. Evidence suggests 1 in 10 patients acutely admitted to hospital are harmed as a result of the care they receive and, for 7 per cent of those patients, that harm will contribute to their death (De Vries et al., 2008).
This case therefore presents challenges for leaders within healthcare and education to improve services, including:

- **Education for prevention:** how to train healthcare professionals at both undergraduate and postgraduate levels, to lead and work together effectively in interprofessional teams that are risk-aware, continually striving to improve services and increase patient safety and satisfaction;
- **Development for improvement:** how to improve leadership and prevent interprofessional teams failing to achieve safe practice within surgery and other healthcare settings;
- **Development for sustainability:** how to establish quality improvement structures and processes to sustain good collaborative practice, with interprofessional teams driving improvement to increase patient safety and satisfaction across healthcare organizations.

The authors propose these challenges are met through embedding interprofessional leadership and teamwork, by integrating interprofessional collaborative practice, Crew Resource Management/Human Factors (CRM/HF) and SBL (see Chapter 4) within education and training programs. Using this approach, students and practice teams can be prepared to meet these challenges through the Transformative Cycle of Improvement (TCI) and developing appropriate strength-based interprofessional leadership and membership skills.

**Strength-based leadership (SBL)**

SBL is the synthesis of transformative, authentic, and appreciative leadership styles, aligned with positive transactional leadership. The shared values of these strength-based approaches to leadership (Chapter 4, Figure 4.2, defined in Chapter 1) are: patient-centered service; respecting others’ views and individual team members’ strengths and expertise; collaborative working – involving patients and carers; and reflective practice and learning for improvement. These all resonate with the values underpinning the theory and practice of interprofessional collaborative working as well as CRM/HF (see Chapter 3 for definitions). SBL is people-centered, building on and developing the individual and combined strengths of their team/staff, enabling them through positive role-modeling to co-create collaborative outcomes for the future, and ensuring improvement through shaping and sustaining positive transactional structures and processes to achieve patient-centered care.

Embedding SBL within and across healthcare organizations can help avoid patients receiving poor treatment and care such as Anna experienced. Leadership within her surgical team we assume was limited, with little direction, other than adhering to standard operational procedures/protocols, rather than collaborative patient-centered care.
Making surgery safer

Extraordinary technological advances in surgery have delivered considerable benefits for patients. Whilst outcomes have improved significantly, and increasingly complex surgical procedures are accepted as commonplace, such technological advances have made it a much more complex place to work in for all the professions involved. The increasing complexity has made it more difficult to deliver reliable care, which resonates with Anna’s experience. Surgery has long focused on developing technical skills, paying less attention to human factors such as organizational influences (climate, resource management, and policies) that impact supervisory processes (scheduling, training, and oversight), which in turn establish the preconditions (technological, teamwork, communication, and leadership) that produce errors (El Bardissi et al., 2007). This lack of attention to interprofessional collaborative practice, and CRM/HF is identified in Figure 5.1 (adapted from Reason’s [2004] ‘Swiss Cheese’ model of accident causation) which lists the various gaps we assume contributed to Anna’s poor experience of surgery and the defenses that combined can prevent or reduce error.

The WHO ‘Safe Surgery Saves Lives’ initiative aimed to identify minimum standards of surgical care. A core set of safety checks was identified in the form of a surgical safety checklist that could be used in any operating theatre environment (WHO, 2009). WHO leaders created an evidence-based checklist to be used by surgical teams in operating rooms, akin to the safety checks undertaken by crew in an airplane. The pilot data from sites in both developed and developing countries demonstrated deaths were reduced by 47 per cent (from 1.5 per cent to 0.8 per cent, P=0.003) and in-hospital

![Figure 5.1](image-url)  
*Figure 5.1  Synopsis of elements contributing to Anna’s experience of surgery  
Source: Adapted from Reason’s accident causation model (2004).*
complications by 36 per cent (from 11 per cent to 7 per cent, P <0.001) (Haynes et al., 2009).

The WHO surgical safety checklist is considered an innovation in healthcare (Panesar et al., 2010). The use of briefings and debriefings together with the checklist was welcomed by healthcare professionals such as nurses and theatre staff (Soar et al., 2009). However, the journey surrounding the diffusion of the checklist has encountered many problems including a lukewarm reception to a ‘simple set of checks’ from frontline clinicians, and criticism of a top-down approach to dissemination (Soar et al., 2009). In addition, pilot site evaluation indicated the presence of a hierarchical structure that sometimes prevented all team members being seen as equal partners, thereby hampering the use of the checklist (Haynes et al., 2009).

The 2010 report by Patient Safety First showed that while most trusts reported that the checklist led to improved safety and teamwork, the most common challenges were negative clinician attitudes and lack of clinician buy-in or engagement (77 per cent of trusts) (Patient Safety First, 2010). Leadership is one of the key ingredients for successful health outcomes.

Sustaining leadership and interprofessional teamwork in the operating room and beyond

Checklist use has since evolved, and they are now designed for specific situations. For the checklist and other tools to be effective, and to avoid the above challenges, leaders and members of operating and other interprofessional teams involved throughout the patient pathway are required to be risk-aware and work collaboratively. Anna’s experience underscores the need for staff to be able to adapt their tools and procedures to meet individual patient needs. Individual and team awareness of all practice situations should then alert the team to work together to avoid errors that harm patients and cause needless deaths (Bromiley & Mitchell, 2009). In addition, specialty specific briefings and checklists developed by surgical teams have reduced error and improved collaborative interprofessional working (Pronovost & Vohr, 2010; Henrickson et al., 2009; Lingard et al., 2008). Sustained management support and supervision can ensure compliance in their use. Success in the use of the WHO checklist in Great Ormond Street Hospital, London, has been sustained through creating a video on its value in surgical practice (WHO, 2010b); this video was created for education and training. Finally, the leaders and team members need to be trained so that they are aware of potential errors and ways to avoid them, as well as to understand as a team the pitfalls and potential errors relating to the use of these tools and how to modify them to meet their requirements (WHO, 2011; Francis Report, 2013).

Adopting SBL within organizations can provide all those who take on a leadership role with the means for developing and sustaining interprofessional
### Table 5.1  Learning from Anna’s story – elements required for sustainable improvement in an operating room

**Problems identified:**
- Unnecessary pain and suffering;
- The surgical team not asking for her views or her concerns;
- Ignoring the advice and pain management plan prepared by Anna’s pain nurse.

**Questions for leaders to ask to make improvements sustainable**

**Leaders (questions reflecting on own attitudes/behavior):**
- Are patients listened to with respect throughout their pathway?
- Are these views regarded as important for informing decision-making? Or is there lack of awareness of the consequences of failing to recognize these views?
- Is a strength-based approach being used to elicit the views of the rest of the interprofessional team?
- Have the wider team been consulted and their views taken into account?
- Has SBL been used effectively to encourage team members to speak up?
  N.B. SBL includes reflection in action not just on actions taken previously, which encourages members to speak up.
- Has SBL been adopted so that leaders and members can challenge guidelines, SOPs and re-define timescales as events proceed? This is effectively running a continuous/periodic review of progress to ensure that the outcome is as expected.
- Has time been provided at each stage for an open brief and debrief for reflection for learning for improvement across interprofessional teams and then initiation of reporting as required?

**Interprofessional teams (questions for leaders to ask about team members and team performance):**
- Are the relevant interprofessional teams throughout the patient journey communicating the patient's views effectively across teams?
- Have the skills and expertise of the wider team been taken into account during the initial briefing and throughout the patient journey?
- Are the patient’s comments accounted for in the initial team briefings?
  (There may be other teams and therefore other briefings involved.)
- Is there an open feedback process in place for teams to initiate improvement?
- Has an open discussion taken place with the patient before and after surgery to check on their specific needs and concerns?
- If a checklist exists, would either an aide memoire or mnemonic have been better at capturing potential errors? For example, SBAR may have been appropriate for the start of the briefing with members of the healthcare team, with a follow-on checklist/aide memoire (SBAR – Situation-Background-Assessment-Recommendation – used widely in the NHS).

**Organizational management (questions for leaders at all levels to ask):**
- Are the culture and processes in place for all to learn from errors?
- Has sustained support and supervision been provided for interprofessional teams and individuals to avoid such errors?
- Does this support include interprofessional education and training for all staff to engage in improvement mechanisms to sustain a patient-centered safety culture?
collaborative practice for improvement and increasing patient safety. Table 5.1 lists some improvements to be made for the practitioners in Anna’s case to learn from this experience, and find ways to make them sustainable. This is done by considering aspects which did not work well in Anna’s story: unnecessary pain and suffering; the surgical team not asking for her views or her concerns; and ignoring the advice and pain management plan prepared by Anna’s pain nurse. Questions are provided to help leaders use a strength-based approach to improve such practice and reduce harm on a sustainable basis.

Overall, Anna’s story raises questions not only about the consistency of compassion in healthcare, but also about the professionalism of the staff involved, and the extent to which staff were trained a) to deal with the complexities of this case and b) to work collaboratively to reduce harm. Changing culture is often key to embedding such training, especially SBL, interprofessional collaborative practice, and CRM/HF for sustainable safer practice. This requires leaders at all levels to develop a shared vision across the workforce, work together for improvement and co-construct the future. Without this change, centers of excellence will only be transitory depending upon the champions/individuals in post (CIPW – Department of Health & CAIPE, 2007).

A framework for sustainability

Throughout this chapter areas from Anna’s story that require improvement have been identified. To help make these improvements sustainable, a SBL approach has been used to provide leaders with guidance for improvement. In addition, a systems approach is useful to understand the sustainability of interprofessional collaborative practice for improvement and, in the wider context, the interaction between the various components within and across organizations (Figure 5.2). This helps identify the roles and responsibilities of the various stakeholders within the organization and beyond: leaders at all levels, as well as teams and team members, all having a shared vision to achieve the following:

- Patient-centered practice;
- Increased patient safety;
- Quality services;
- Culture of learning and improvement to increase patient safety and satisfaction.

The various external and internal influences on the organization are presented as a systems model of sustainability in Figure 5.2. These categories are adapted from Abelson’s (2001) model of ‘Contextual influences on healthcare decision-making’ which together contribute to sustainable change.
Leadership Development for Interprofessional Education

The elements of sustainability within this model are drawn from: Anna’s story, Lamb and Clutton’s model of Transformative Interprofessional Leadership and Teamwork Development and the tools discussed in Chapter 3, together with some of the literature on sustainability for collaborative practice.

**Organizational/internal enablers**

- Senior and department/unit management commitment to learning and safety (Olsen, 2010; Flin & Yule, 2004; WHO, 2010a, 2011);
- Resources, for example, designated time for improvement initiatives (Hall et al., 2008), including briefings, and checklists;
- Shared learning and decision-making within and across teams – using the Transformative Cycle of Improvement Tool (Chapter 3);
- Working together with patients to meet their needs;
- Open communication strategy (Willumsen, 2006) including a robust feedback loop;
- Value and respect within the wider team;
- Risk management – working together for improvement (WHO, 2010a);
- Commitment to continual interprofessional learning and human factors training.

Interprofessional teams – departments/units and so on

- Develop local briefings and protocols (Henrickson et al., 2009; Lingard et al., 2008; Pronovost & Vohr, 2010; WHO, 2009);
• Adaptability – (NHS, 2007) for example, adapt checklists and so on to suit local need (WHO, 2009);
• Develop and regularly review local briefings and protocols;
• Maintain situation awareness of self, team, and environment;
• Develop self and staff as appropriate, including developing confidence across the wider team to speak up and challenge.

Education and training (leadership/membership and interprofessional teamwork skills)

• Strength-based leadership
  – Skills toolkit
• Interprofessional collaborative practice
  – Including crew resource management/human factors
• Model of transformative interprofessional leadership and teamwork using the transformative cycle of improvement tool (Chapter 3).

Environment – external enablers

Examples

• National and local healthcare policy;
• Regulators;
• Service and education commissioning boards;
• The Health Foundation;
• Clinical Human Factors Group;
• The Patients Association;
• CAIPE, Centre for the Advancement of Interprofessional Education.

To complement the above, it is worthwhile, as a leader, to try to answer the following questions, in particular before you begin to bring a team together to plan an IPE curriculum or embark on an improvement initiative with interprofessional teams; and when facilitating the training and/or development of interprofessional teams for improvement and to increase patient safety.

So, what sort of leader are you?
As a leader, do you stop to think about this? It is important to note, all educators, supervisors, and trainers, whether they have a formal leadership role or not, can be considered to take on a leadership/facilitator role within the classroom and in practice.

Consider the following questions (using the Leadership Toolkit in Chapter 3 provides guidance for leadership training and further
questions for leaders, adopting a strength-based approach to leading/managing teams, as well as service planning and delivery).

- What personal attributes do you have that may contribute to the success of an improvement initiative or training students to drive improvement when qualified?
- With your team do you invite members to tell you what they think? What have they told you about your leadership style? Do you ask them?
- Do your actions/behavior as a leader reflect your values? Think through the following values and identify which resonate most closely with your own:
  - Open communication;
  - Valuing and respecting the different strengths and expertise of each member of your team as well as those of patients’ and carers’ perspectives;
  - Collaborative working – involving patients and carers;
  - Commitment to learning for improvement.
- In view of the above, what sort of leadership style do you want your team or your students, the leaders of tomorrow, to adopt?

On reflection, do you think you need to change your own behavior, to lead by example?

Some interprofessional teams will find adopting an SBL approach less of a challenge than others. The following case describes a surgical team that requires a relatively small cultural change for a really effective team to be created.

**Case Study 2 – Jane’s experience**

*As a surgical senior house officer (SHO – junior resident doctor) in the NHS I was privileged enough to have assisted in many operations as the first or second assistant. It was clear that working with a varied group of individuals meant that good and effective communication was important in maintaining safe practices. This was demonstrated by using the surgical check-list as part of the operating day.*

**Learning Points**

When working with an interprofessional team, it is important to be able to trust and respect others’ expertise/roles.
However, although communication is generally being encouraged in the theatre environment, not everyone is comfortable or confident enough to speak up, particularly when it is a junior member of the team or someone new.

The environment in theatre can become increasingly tense and these are usually situations where clinical decisions can affect the safety of a patient.

I recall a situation as an SHO, I was the first assistant in an operation where we were performing the removal of the ascending colon using keyhole surgery and my role was to hold the camera. The operation was progressing well and the atmosphere in theatre was calm. As the operation continued, we became increasingly aware that not everything was going as smoothly as before. My consultant was debating if something about the anatomy of the patient might be different or perhaps we ended up in the wrong tissue plane during the course of the operation. He spent time reviewing the situation by looking at it from different angles; during this period I did not speak up as I felt that I would be a distraction. After ten minutes the consultant turned to me and asked for my opinion. It was only then that I felt comfortable enough to be able to say that I also thought this patient had an anomaly with her anatomy. Having agreed this we went on to confirm the anatomy and affirm our suspicion that it was abnormal.

Even as the first assistant I still did not automatically feel I had a right to speak up. It was only when my consultant asked for my opinion on the situation that I felt that I could without upsetting him.

The use of the surgical check-list is perceived as an important framework for communication – just as in aviation. Situation awareness needs to be maintained by both the individual and the team. This requires training and needs to acknowledge both corporate and tribal cultural backgrounds.

The challenge is being able to speak up. ‘When I was asked my opinion was valued. But in future if I knew that my opinion was valued, would I be more likely to speak up?’ Would a briefing have improved the situation?

Use SBL through the TCI Table and Leadership Toolkit to show how leaders can create the right environment for the members to speak up.
Conclusion

This chapter has examined only one aspect of interprofessional collaborative practice, namely surgery. It was considered important by the authors to focus on one patient story to make a more comprehensive case for applying SBL to practice through using the TCI tool and the Leadership Toolkit. The aim was to demonstrate the improvement process: how leaders can adopt SBL and use the tools to identify areas for improvement to guide their interprofessional teams, through collaborative processes, to make the improvements that they wish to achieve sustainable and deliverable with compassion. To increase sustainability and establish an effective organizational safety culture across all areas of health and social care the application of this process is recommended, supported by interprofessional education and training programs informed by the model of Transformative Interprofessional Leadership and Teamwork (Chapter 3) and associated tools. The authors consider that this will provide leaders with the means to meet the challenges arising from Anna’s story: providing appropriate training for prevention, and development for improvement and sustainability.

Questions for reflection

1. Does your organization have a process to identify opportunities to improve (or problems to address) interprofessional working within and between teams?
2. Does your organization provide training in the design and use of informational aids such as checklists, aide-memoires, mnemonics and care bundles?
3. How could you use SBL and the TCI toolkit to improve working with teams in your organization?

Acknowledgements

The authors would like to thank the following for their contributions to the chapter: firstly to the patient for allowing us to use her story and for her help in preparing the case study. Secondly, our thanks to her pain nurse for his valuable contribution to the case study. Their names have been changed to ensure anonymity. And finally, we thank the practitioner who wrote about her experience during surgery.
References


Introduction

Higher education institutions are increasingly asked to be more responsive to the needs of community and to ensure that graduates are truly work ready (Patrick et al., 2008; Samuels, 2012; Universities Australia, 2008). The Universities Australia position paper, *A national internship scheme: enhancing skills and work-readiness of Australian university graduates* (Universities Australia, 2008), called for collaborative action between universities, governments, industry, and community organizations to enhance the employability skills of graduates. Engagement through partnerships with the community has been shown to generate new knowledge and enhance the teaching and learning process (Bernardo et al., 2013). Such partnerships, if of sufficient quality, ensure that students have the opportunity to engage in authentic practice-based learning experiences where they can develop the capabilities to be ‘work ready’ (Barraket et al., 2009; Choy & Delahaye, 2009; Flemming, 2012; Orrell, 2011; Peach et al., 2012; Ure et al., 2009).

In recognition that it is not enough to merely offer practice-based learning experiences, the new quality agency for higher education in Australia, the Tertiary Education Quality Standards Agency, states that providers must have effective arrangements to ensure the quality of student work placements, practicum, and other forms of work-integrated learning (Australian Government, 2012).

This chapter describes the university–community engagement model on which Curtin University’s interprofessional practice program is built. The model takes a transformational leadership and engagement approach. The need for this model emerged from the lessons as the range and number of interprofessional practice placements grew significantly. It has now been successfully implemented with a number of communities and community organizations (henceforth referred to using the umbrella term ‘community’) and there has been an increase from 115 students completing
an interprofessional placement in 2009 to 1262 students in 2012. The program’s success has been recognized with both national and international excellence awards.¹

**Practice-based IPE**

The inclusion of interprofessional education (IPE) is viewed as a key strategy to address not only the work readiness of health science graduates but also the health needs of the community (WHO, 2010). In response to this the inclusion of IPE in curricula has grown significantly in Australia over the past decade (The Interprofessional Curriculum Renewal Consortium Australia, 2013). Given the complexities involved in IPE many of the experiences to date have been delivered in the classroom or online environments. The outcomes of these IPE initiatives are most frequently described using a modification of Kirkpatrick’s typology of educational outcomes such as that by Yardley and Dornan (2012).

The current evidence for IPE is mostly at level 1 (reaction) and level 2 (modification of attitudes, perceptions, knowledge, and/or skills). Whilst demonstrating the positive impact of IPE on these is important, higher education has an imperative to demonstrate that IPE prepares students effectively for interprofessional practice by measuring behavioral changes (level 3) in the form of acquisition of interprofessional practice capabilities. The ideal context in which students can develop and demonstrate their interprofessional capabilities is authentic practice environments. Examples of interprofessional practice (IPP) initiatives include the Leicester IPE model (Anderson & Thorpe, 2010), student training wards (Jacobsen & Lindqvist, 2009; Pelling et al., 2011), and student-led clinics (Moskowitz et al., 2006).

The challenges and barriers to embedding IPE within the practice environment are significantly greater than those within the classroom and online environments. Key challenges identified in the literature (Piterman et al., 2010) include organizational issues such as a lack of alignment in student placement timetables, variation in numbers of students from different professions, finding appropriate placements which model effective collaborative practice, funding, and differences in policy perspectives. They also include personnel issues such as recruitment of students and staff to be involved, and capacity-building of community staff. These challenges often appear overwhelming but must be addressed if graduates are to develop the capabilities to be deemed work ready for interprofessional practice. A shift in higher education to focusing on IPE in practice settings will help address the dearth of evidence at levels 3 and 4 (Yardley & Dornan, 2012). This evidence is central to demonstrating the value and sustainability of IPE (Reeves et al., 2010).
Local context

Curtin’s health science faculty is the largest educator of health professionals in Western Australia, with approximately 10,000 students representing twenty-two diverse health disciplines. These disciplines are organized within seven schools: biomedical science, nursing and midwifery, occupational therapy and social work, pharmacy, physiotherapy, psychology and speech pathology, and public health.

Late in 2008, Curtin University’s Faculty of Health Sciences included IPE as a key initiative in its teaching and learning enabling plan for the first time. This plan was based on the pro vice-chancellor’s vision for IPE: ‘To become international leaders in IPE as we build new health care models for the future.’

The program aimed to a) develop these new models of healthcare utilizing interprofessional teams, and b) provide substantial evidence for the benefits of IPP models for the students, clients and organizations involved, thus facilitating Curtin to become leaders in IPE internationally. The program’s overall goal was

To provide high quality interprofessional education experiences that ensure Curtin’s health science graduates have the collaborative practice capabilities to deliver safe, effective health services.

Five interprofessional pilot placements were conducted in 2009 in the areas of disability services, chronic disease management, and slow stream rehabilitation. Sites were selected because client services were already delivered by multidisciplinary teams (with some elements of IPP) and where existing relationships between Curtin and community staff were well established. These pilots included staff training on facilitating IPE, regular communication and small-scale evaluations. A total of 115 students completed a full-time interprofessional placement (ranging from two to fourteen weeks in length), which involved the delivery of healthcare services as a collaborative team. Stakeholders reported many benefits including increased collaboration between staff involved in the supervision of the students, increased throughput of clients receiving services as a result of the students providing valuable healthcare, and students requesting an increase in IPE experiences both on campus and in their clinical placements. The program continued in 2010 in a fairly stable manner with no increase in the number of community organizations involved but with the addition of another university as a partner in a large-scale IPP initiative. By the end of that year 187 students had completed an interprofessional placement. The decision was then made to significantly increase the number of partners involved. It was apparent that this required a more managed approach to the program.
Emergence of the model

It was clear that the existence of the overarching vision and goal was insufficient to inform a comprehensive program expansion and the evaluation of this. This learning led to the development of Curtin’s Interprofessional Capability Framework (Brewer & Jones, 2013). This framework, based on the competency-based IPE literature, incorporated our overarching goal: the provision of safe, high-quality client-centered services through effective interprofessional collaborative practice. The three elements – client-centered services; safety and quality; collaborative practice – are underpinned by five specific domains of capability: communication, role clarification, team function, conflict resolution, and reflection (Figure 6.1). These capabilities, published in booklet format (Brewer, 2011), are detailed across three levels of development with descriptors for each level. This framework provides the measurable outcomes with regard to students’ IPP capabilities for the program.

Following the establishment of this framework to guide our outcome measures, the expansion of the program required significant change in the

Figure 6.1 Curtin University's Interprofessional Capability Framework
operation of clinical placements within the faculty. All student placements at that time were organized by individual courses based on arrangements (and relationships) with community staff in specific departments or units. Large-scale placements that incorporated multiple disciplines working in teams to deliver health services meant that the scheduling of placements had to be coordinated across disciplines both within the university and within our community partner organizations. Relationships had to be established that were organization-wide rather than department- or unit-specific. These arrangements in turn required a change to faculty-wide legal agreements with community partners. Supervisory staff for these IPP placements required professional development to ensure they had the capabilities for effective IPE supervision (facilitation). Perhaps the biggest change, though, was the need to shift the culture of the faculty to view interprofessional placements as a legitimate learning experience for students. In recognition of the established relationship between effective partnerships, organizational change, and leadership (Boseman, 2008; Fullan, 2008; Kotter, 1995), a strategic approach was needed. This approach had to align with our principles of IPE/IPP and the objectives of the program.

Our principles of IPE and IPP relate to the definitions provided by the World Health Organization (2010) which are to be found in Table 1.2 in Chapter 1. Both definitions focus on the theme of collaboration with key stakeholders to achieve better health outcomes.

This collaboration was expanded in the five core principles that inform our program: inform, consult, involve, collaborate, and empower (International Association for Public Participation, 2006). These principles are built on the belief that those who are affected by a decision should have: adequate information for decision-making; the right to be involved in the decision-making process; involvement which influences the participation process including the final decision; and adequate communication throughout the process.

In line with these principles, our client-centered philosophy and the desire to achieve better health for all, an examination of the literature on partnerships led to the adoption of Weiss et al.’s (2002) concept of partnership synergy:

A partnership creates synergy by combining the perspectives, knowledge, and skills of diverse partners in a way that enables the partnership to (1) think in new and better ways about how it can achieve its goals; (2) plan more comprehensive, integrated programs; and (3) strengthen its relationship to the broader community. The synergy that a partnership can achieve is more than simply an exchange of resources among its partners. When partners effectively merge their perspectives, knowledge, and skills to create synergy, they create something new and valuable – a whole that is greater than the sum of its parts. (p. 684)
To be successful, the partnerships needed a planned community engagement approach, which Driscoll (2009) described as:

The collaboration between higher education institutions and their larger communities (local, regional/state, national, global) for the mutually beneficial exchange of knowledge and resources in a context of partnership and reciprocity. (p. 5)

Finally, a definition of leadership was needed that aligned with this work:

The act of stimulating, engaging, and satisfying the motives of followers that result in the followers taking a course of action towards a mutually shared vision. (Boseman, 2008, p. 36)

Once these concepts had been defined a model that united them was needed for the next stage of operationalization. Further examination of the relevant literature informed this process.

Findings from the literature reviews

In their study of 63 partnerships Weiss and colleagues (2002) examined six factors related to partnership synergy: leadership, administration and management, partnership efficiency (the degree to which a partnership optimizes the use of its partners’ time, financial resources and in-kind resources), non-financial resources (expertise, data and information, connections to influential bodies), partner involvement challenges (recruitment, retention, and motivation of partners), community-related challenges (resistance to goals and activities, issues with trust and cooperation), and the duration of the partnership. They found that only two of these factors had a significant impact on partnership synergy – leadership effectiveness and partnership efficiency. Similarly, in their study of university–community engagement, Bernardo et al. (2013) found that both leadership and management were required, with management being a key dimension of leadership.

This knowledge of the need for effective leadership, management, and partnership efficiency informed a further review of the community-engagement literature. A recent systematic review across several different sectors found a continuum of engagement strategies from transactional to transitional to transformational (Bowen et al., 2010). A study specific to the university context found that most universities approach their relationships with communities as transactions, that is, focus on something they need that the community can provide (Stewart & Alrutz, 2012). In contrast to this, transformational engagement is a collaborative process which features authentic dialogue, community decision-making, empowerment, support, shared leadership, and critical reflection. Transformational engagement is
built on healthy personal relationships, which are maintained by a shared understanding and reciprocity (Stewart & Altruz, 2012). The benefits are shared by both parties, ensuring a level of interdependence in the partnership with the quality of the relationships being far more important than the quantity (Bringle & Hatcher, 2002). A range of transformational engagement strategies proposed by Bowen et al. (2010), Bringle & Hatcher (2002), Butcher et al. (2011), Hudson & Hudson (2011), and Stewart & Alrutz (2012) are combined in the summary in Table 6.1.

The selection of a transformational community engagement approach was followed by a review of the leadership literature. Many approaches to leadership are described but there is evidence that a transformational approach is suited to the change in organizational operations and culture required for the program's success (Kelloway et al., 2003). Gumusluoglu & Ilsev's (2009) definition of transformational leadership is to be found in Table 1.3. Their description is similar to that of Boseman (2008) who described six key tasks of the transformational leader related to visioning, modeling, supporting, stimulating, and communicating. Summarizing, the work of Nikos Mourkogiannis, cited in Boseman (2008), outlined the four key actions of an effective leader: think, inspire, mobilize, and empower. The earlier work of Kotter (1995) in organizational transformation is also worthy of inclusion. He outlined eight steps in the transformation process, beginning with establishing a sense of urgency and ending with institutionalizing the new approach. These recommended actions for effective transformational leaders are summarized in Table 6.2.

<table>
<thead>
<tr>
<th>Table 6.1 Transformational engagement strategies</th>
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<tr>
<td>PURPOSE</td>
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<td>TACTICS</td>
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Leadership Development for Interprofessional Education

The model

Informed by this literature on partnerships, transformational engagement, and transformational leadership, a model applicable to the university–community context was developed. This model identifies four factors essential for the successful development and implementation of sustainable IPP placements: leadership of the initiative; education and training for staff and students; ongoing support; and evaluation of the outcomes (Figure 6.2).

Leadership

The selection of the initial element of the model, leadership, was based on the knowledge that leadership effectiveness is critical in successful partnerships (Bernardo et al., 2013; Weiss et al., 2002). In keeping with the strategies for effective transformational engagement and leadership (Tables 6.2 and 6.3) the vision and purpose (goal) of the program were tied to the Interprofessional Capability Framework (Brewer & Jones, 2013). These were

<table>
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<th>Table 6.2</th>
<th>Actions of an effective transformational leader</th>
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<tr>
<td>Establish a sense of urgency</td>
<td>Think – innovate, develop a shared purpose, create a vision, and determine the strategic position of the organization</td>
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<tr>
<td>Form a guiding coalition</td>
<td>Inspire – sell the vision through telling stories, confront reality, ask the right questions, reassure and provide a sense of hope for a better future</td>
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<tr>
<td>Create the vision</td>
<td>Mobilize – define the campaign, move people to action, set goals, and encourage networks</td>
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<tr>
<td>Communicate the vision</td>
<td>Empower – accomplish the work through others</td>
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<td>Empower others to act on the vision</td>
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<tr>
<td>Plan for and create wins</td>
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<tr>
<td>Consolidate improvements and produce more change</td>
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<tr>
<td>Institutionalize the new approach</td>
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In Table 6.2, it is evident that the actions of an effective transformational leader are closely aligned with the strategies for leadership and transformational engagement. This alignment underscores the importance of leadership in the successful development and implementation of IPP placements.
then identified as mutually beneficial objectives which were only achievable through effective collaboration (Australian Government, 2012; WHO, 2010). A communication strategy was employed which centered on distribution of the program’s key messages through a range of channels including committees, face-to-face meetings, conference presentations, grand rounds, our website, as well as regular newsletters and evaluation reports. This frequent and widespread promotion inspired staff commitment to this innovative approach to clinical placements (Boseman, 2008; Kotter, 1995; Mourkogiannis, 2007, cited in Boseman, 2008).

Once the first transformational strategies – vision and purpose – had been created the next step was to mobilize the stakeholders (Mourkogiannis, 2007, cited in Boseman, 2008). This was achieved by the transformational strategies of outlining the tactics, partner roles and interactions via a detailed partnership agreement, which considered a number of key aspects of partnership efficiency and management (Bernardo et al., 2013; Weiss et al., 2002).

1. Need – the benefits of the interprofessional practice placements and how they linked to both the university and community’s strategic priorities such as workforce recruitment, change in type or quantity of client care;
2. Key parameters – the shared vision and goals for the interprofessional practice placements; leadership of the initiative; commitments (financial, personnel, and resources) from partner organizations; and roles, responsibilities, and practices required from each of the partners;
3. Maintenance – consideration of engagement of stakeholders (within the community partner and the various program areas within the university), recruitment and professional development of students and staff, decision-making processes, risk-mitigation strategies, and design of the program for sustainability;

4. Evaluation – determining requirements for evaluation, expected outcomes, process, and roles/responsibilities for evaluation;

5. Review – of program timelines, reporting requirements, stakeholder considerations, effectiveness of collaborative partnership for managing the program.

The selection of community partners to engage with was based on their ability to provide high-quality placements for students from diverse disciplines. The support of their leaders for both IPP and student placements, and the ability to attract funding for the staff involved in the supervision/facilitation of the students were important considerations in this selection process.

To support the implementation of the program a powerful guiding coalition (Kotter, 1995), the Interprofessional Education Reference Group, was established by the Pro Vice-Chancellor and Dean of Teaching and Learning. This group included representation from senior faculty executive, and academic and community staff which enabled multiple perspectives to be incorporated into the program. Their brief was to promote and plan strategic initiatives for IPE in the faculty. Monthly meetings were held to facilitate the relationships and communication required for this leadership group that modeled interprofessional collaboration.

Two other leadership groups were directly involved in the program. The first was the fieldwork education committee which ensured the provision of quality clinical education and fieldwork opportunities, including fostering and supporting IPP. Steering groups provided another key leadership forum but one that was context-specific. These were established for large-scale initiatives in collaboration with the relevant stakeholders. It is worth noting that in 2012 further steering groups were established by faculty executive for a number of new program initiatives. These were disbanded in 2013 and one overarching steering group, a subset of the Fieldwork Education Committee, was formed.

The final key aspect of leadership was the management of risks associated with IPP placements. Comprehensive risk-mitigation strategies were developed that considered multiple stakeholder perspectives – community partners, students, the university, and the clients. The final plan addressed health and safety requirements; legal and statutory requirements; financial risks; governance of placements; resourcing; placement environment and appropriateness of facilities; client selection; management of critical incidents; travel and transport requirements; accommodation; budget; as well as the quality of the student, staff, and client experience.
Education and training

The goal of the second key element of the model, education and training, was to build the capability for the staff and students so that they were empowered to act on the vision and purpose (Boseman, 2008; Kotter, 1995). A set of program guidelines designed to provide community organizations with an overview of the program was developed. This provided the background for the program, the vision and capability framework, the learning outcomes, the key staff involved, and potential placement models from the literature such as those described by Barr & Brewer (2012). This was supplemented by two handbooks: one for the IPP supervisors/facilitators and one for the students. Each handbook provided a set of best-practice guidelines utilizing the current literature on IPE/IPP.

Two workshops were developed for staff facilitating IPP with both face-to-face and online delivery options. The introductory workshop focused on establishing a foundational understanding of IPE; and the follow-up workshop focused on facilitating IPE in practice settings. Each workshop was tailored for the needs of the community partner. These were supplemented by international specialists in IPE presenting workshops for university and community staff. Student preparatory workshops were also conducted in both face-to-face and online modes to ensure maximum flexibility. Additional information and resources were made available on the faculty’s website and learning management system (Blackboard\textsuperscript{TM}) so that they were readily accessible.

Support

As proposed with the transformational engagement strategies of interaction, communication, and learning (Table 6.2) a range of supports were provided to ensure the successful implementation of each placement initiative (Boseman, 2008; Kotter, 1995). As part of the comprehensive communication plan described earlier, specific strategies were developed to keep all stakeholders informed and to share good practice. A university-based IPP coordinator position was established to maintain regular contact and site visits with community partners whilst ensuring that all university requirements were met. This position was supplemented by an IPP coordinator at each major site to streamline communication, coordinate the students and staff involved, and to ensure that the organization’s requirements were met. Depending on the funding available, in some sites this coordinator role was combined with that of the IPP facilitator but in other sites these were separate positions. Technology was employed where appropriate, including provision of iPads to sites, use of Skype and Dropbox, and the creation of a web-based communication platform. The Director of Interprofessional Practice established and convened an annual conference at Curtin. This provided an opportunity for university and community staff and students to showcase their learning and share with others. Community partners were
also supported by university staff to develop their expertise in writing for publication and conference presentations. These presentations and publications were jointly undertaken when circumstances allowed.

**Evaluation**

In keeping with the core principles, evaluation of the client experience, as well as that of students, staff, and the organizations, was critical to ensure that the program was meeting the needs of all stakeholders. An evaluation plan was developed based on the current practice in IPE evaluation and our vision of adding to the published evidence on the outcomes of university-based IPP. This plan also encompassed a strategy to ensure that evidence was collected to identify areas of success and areas for improvement. A mixed-methods approach was adopted with both quantitative and qualitative data related to the learning experience, quality of service, and the partnership itself undertaken.

As with other interprofessional practice placements, validated attitudinal measures such as the readiness for interprofessional learning scale revised (McFadyen et al., 2006), the interprofessional socialization and valuing scale (King et al., 2010), and more recently the University of West England interprofessional questionnaire (Pollard et al., 2005) were utilized as part of the evaluation process. These were supplemented with other qualitative measures including focus groups, in-depth interviews with participants, and client satisfaction surveys.

A major feature of the evaluation was the assessment of the extent to which students developed key interprofessional practice capabilities as described in the interprofessional capability framework (Brewer & Jones, 2013). Each course at the university had their profession-specific clinical assessment tool but these generally only made reference to teamwork and did not consider IPP capabilities. One of the challenges in assessing these capabilities was that despite the existence of several IPE competency/capability frameworks, few tools to measure students’ capabilities in practice exist. As a consequence, we developed our interprofessional capability assessment tool, which was used in each IPP placement to measure the impact of the placement experience on the students (Brewer et al., 2011). The interprofessional capability assessment tool consists of 25 items organized into four domains: communication, professionalism, collaborative practice, and client-centered care/service. Each domain is rated on a four-point scale from ‘unsatisfactory’ to ‘excellent’. A detailed set of descriptors, based on capabilities expected for entry to practice, are provided for each of these levels of achievement. This assessment was completed by the IPP facilitator based on several weeks (varying from two to 14 weeks) of observation of the students engaged in IPP. A modified version of the tool was subsequently developed for students at earlier stages in their training.

Evaluation data from this tool along with the questionnaires, surveys, focus groups, and interviews was made available to the key leadership
groups. This assisted with determining the elements of each IPP placement that had been successful, improvements that were required, and the next stages of development to ensure sustainability. Broad dissemination of the evaluation findings was an important and powerful mechanism to reinforce the stakeholders’ conscience and commitment to the program as well as to increase the uptake of interprofessional practice initiatives elsewhere. This uptake is briefly described in the following section.

Outcomes of the model implementation

Through implementing this community engagement model there has been significant growth in the IPP program with Curtin University within a four-year period. A suite of IPP placements has been established across a broad range of contexts including: aged and long-term care; primary education; community and chronic disease management; a student-led training ward in an acute tertiary hospital; rural health; international health service learning; and slow stream rehabilitation. These placements run for much of each year with students and staff from nursing, occupational therapy, speech pathology, physiotherapy, dietetics, pharmacy, health promotion, social work, medical imaging, nutrition, counseling psychology, sexology, and medicine involved. The number and type of placements and their growth is shown in Table 6.3.

In addition to this increase in quantity, the quality of the program has also been recognized in terms of the excellence awards referred to earlier (see Note 1).

A specific example of the application of the model to foster IPP in a student training ward is provided in the following section.

University–community community engagement model exemplar

The first student training ward in the southern hemisphere was developed in 2009 by Curtin University in partnership with Royal Perth Hospital. In keeping with step one in the model described earlier, strategic communication was undertaken in the form of executive briefings at both the hospital and the university. This was successful in gaining commitment from leaders

| Table 6.3 Number of interprofessional practice placements developed by Curtin University |
|-------------------------------------------------|----------|----------|----------|----------|
| Community partner organizations                 | 2009     | 2010     | 2011     | 2012     |
| Universities collaborated with                   | 0        | 1        | 3        | 3        |
| Students in interprofessional practice placements| 115      | 187      | 711      | 1262     |
Leadership Development for Interprofessional Education within both organizations to conduct a pilot. A steering group was formed which included leaders from all relevant stakeholders: Royal Perth Hospital, health consumers, students, and other local universities. The program, based on best practice from the successful training wards in Europe, was based on Curtin’s interprofessional capability framework (Brewer & Jones, 2013). A number of key program documents were modified to suit the context including the risk-management plan and evaluation plan. Other documents were developed specific to this initiative, including a memorandum of understanding project plan and operational policy. A six-week trial was undertaken in late 2010 to test and refine the program. Following the success of this pilot the training ward has continued since 2011.

The capability of staff both within the hospital and the universities needed to be enhanced. The generic workshop on facilitating IPE in the practice context was modified specifically for this setting. To address the need to provide this training for staff who joined the program along the way, a simplified version of this was made available on the faculty website as a self-study package. A detailed handbook for staff and students was developed, and was supplemented by a comprehensive orientation for the students. This began with an overview of interprofessional education and the placement program at Curtin plus a brief overview of the placement delivered via a learning management system and our website. Students then attended a half-day orientation delivered by staff on-site at the hospital.

During the placements, support was provided to both staff and students via regular site visits. These were more frequent in the early establishment phase and reduced as the hospital became more confident and competent to manage the training ward. The focus of these visits was on obtaining feedback on the placement from students, ward staff, staff from the relevant hospital departments and the patient (client) advocate. Issues reported were addressed and modifications to the program made as appropriate. These visits were supplemented by communication with key staff via telephone and email. At the conclusion of the initial trial, and each year since, large-scale steering group meetings were held to ensure all stakeholders engaged in the planning and refinement process.

As with the other aspects of the training ward the evaluation process involved all stakeholders. Students and staff completed pre- and post-placement questionnaires to measure their attitude towards interprofessional education and attended interviews and focus groups. Students’ practice capabilities were assessed using Curtin’s interprofessional capability assessment tool (Brewer et al., 2011). A patient advocate, recruited from the Health Consumer Council, visited the ward weekly to obtain feedback from the patients and work with students to ensure that they responded appropriately to this feedback. Patients were also invited to complete a satisfaction survey either at discharge or on their return home. Evaluation findings were shared via a report available on the faculty website, at a grand round within
the hospital and at several local and international conferences. Appropriate internal and external stakeholders were invited to the presentation. This success resulted in:

- Ongoing funding being provided from the State Health Authority which ensured sustainability of the interprofessional practice initiative;
- Additional professions requesting involvement in student-led training wards;
- Expansion of the model to several other hospital sites (metropolitan and rural);
- A handover communication process trialed by students on the interprofessional practice placement being adopted for the whole hospital;
- Multiple requests within Australia and overseas to support the development of similar wards;
- Publication of a joint article by the leaders from Curtin and Royal Perth Hospital (Brewer & Stewart-Wynne, in press).

Lessons learned

As with any organizational transformation process, the challenges faced by Curtin’s IPP program varied depending upon the stage of the change process. Creating the drive for change had two key elements: establishment of a sense of urgency utilizing data from respected authorities, and creation of a vision and purpose (goal) that engaged all stakeholders. In this instance, the vision was the successful implementation of the first student training ward in the southern hemisphere as a strategy to foster IPP in students and hospital staff. The support of a senior management champion, the Director of Medical Services, within the community partner organization who was passionate about the need for change was critical to the success of the initiative. Engaging client advocates who shared their powerful stories of failures within the current health system was another significant strategy, invaluable in assisting with creating a sense of urgency for change. Clearly articulating the alignment of the training ward initiative with the safety and quality agenda at the hospital, such as the need for improved communication during patient handover, not only enhanced staff and student engagement but also capitalized on an existing imperative and funding source.

During the development phase reducing the level of complexity was essential. For example, initially five universities were keen to partner in establishing the training ward; however, it quickly became apparent that in order to create the change, it was necessary to reduce the number of stakeholders to a single university and the eight discipline departments involved within the hospital. Even with a reduced number of lead organizations the engagement of so many hospital and university departments required a significant level of communication and collaboration in the early stages.
Of equal importance were detailed project and risk-mitigation plans. The project plan ensured that the critical activities were identified and managed. The risk-management plan addressed the needs of all stakeholder groups: patients, students, ward staff, hospital staff and university staff. While a memorandum of understanding proved to be a useful tool to clarify and manage expectations and responsibilities of partners, and to ensure that all stakeholder perspectives were considered, it lacked the detail of the partnership agreement that has been used in other placement sites.

Staffing was based on best-practice models developed in Europe with one full-time IPE facilitator and a team of part-time discipline experts who supported both the students and the IPE facilitator. The interprofessional facilitator was the leader within the hospital and also the key contact for all students and university staff. Their role incorporated a number of tasks including: work collaboratively with the ward, hospital and university staff in the design and implementation of the ward; set the schedule for the ward; run the orientation session for students; facilitate the students’ learning experience; ensure the care provided to the patients was safe; and address issues that arose on a daily basis. The recruitment of facilitators who were engaged with the vision and had both leadership and educational capabilities to enact this vision and undertake the tasks described was critical to the success of the initiative.

Provision of ongoing and flexible support from the university for student orientation, staff and student training, trouble-shooting, and managing educational-related issues was also essential. Involvement of students, community partners, and clients in designing the learning experience, resources, professional development, and evaluation ensured that the support provided met all stakeholder needs.

Careful evaluation and communication of outcomes and impact have led to additional resources being provided to support the embedding and sustaining of the student-led training ward. Extensive involvement and collaboration of all stakeholders throughout the development, refinement, and sustaining of the initiative has been vital. The four elements along with the foundational principles of this engagement model resulted in a strong sense of ownership and pride in the student training ward both within the hospital and the university.

Conclusion

Transformation for interprofessional practice (IPP) placements requires an approach that successfully combines leadership and community engagement. Building the mutually beneficial partnerships required for these placements is time-consuming, resource-intensive and challenging (Weiss et al., 2002). As found by others, including Kelloway and colleagues (2003), the key dynamics of the model’s implementation were effective leadership, the shared vision
for the future, a comprehensive partnership agreement, building the capability of others to achieve the vision, and evaluating the outcomes from the perspective of all stakeholders. This model has been used to expand the IPP program to incorporate 22 community partner sites. Each initiative has its own nuances but the model is adaptable for use in a variety of contexts.

Once the program’s initiatives are fully embedded, research and evaluation will move to a greater focus on the impact on client and organizational outcomes beyond their satisfaction with services provided by our students and staff. In addition, the cost efficiency and effectiveness of the models of care need to be evaluated. Long-term evaluation of the impact of interprofessional placements on graduates will be undertaken to determine whether there is a change to where and how they practice as a consequence of their participation in the program.

Strategies to strengthen partnerships and recognize contributions will occur through joint appointments at Curtin University for key leaders including the IPP facilitators from the community. These appointments will recognize the importance of these leadership roles and assist with the stability of critical staff positions. Development of a leadership program for interprofessional change management is currently being designed and delivered to enhance the capacity and to ensure the sustainability of our community partners to lead and contribute to this and other IPP programs.

Questions for reflection

1. What are the key attributes of a transformational leader?
2. How would you rate your knowledge of, and capacity for, transformational leadership?
3. Are there practice-based learning experiences for students within your organization?
4. How could the application of the university–community engagement model provided assist you to build sustainable relationships with other organizations?

The authors would like to thank Dr Helen Flavell for her editorial input into this chapter.

Note

1. The program won several university teaching and learning excellence awards. In 2012 it was awarded Australia’s Office of Learning and Teaching Program Award for Educational partnerships and collaborations with other organisations. In 2012 Curtin’s IPE curriculum, of which the IPP program is a key element, won the International Best Practice Competition at the Business Capability Congress held in New Zealand.

References


Part III
Worldwide Perspectives
7

Interprofessional Leadership
Developments in the United States

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Introduction

Traveling through the United States (US) in 1831, the Frenchman Alexis de Tocqueville observed the unique culture of burgeoning American society. Capturing the pioneering spirit of the diverse land, he wrote in Democracy in America (Tocqueville, 2003), ‘America is a land of wonders, in which everything is in constant motion and every change seems an improvement.’ The principles of self-determination and democracy upon which the US was founded and described by Tocqueville have led to a society that values decentralized governance structures and entrepreneurial success. Within this milieu, America has proven to be a leader in innovation, particularly in adopting and enhancing the best ideas from other countries. Interprofessional education (IPE) appears primed to follow a similar path.

The institutions for health professions education in the US parallel the societal characteristics described by Tocqueville. Flexner, in his famous report on medical schools in 1910 (Flexner, 1910), decried the heterogeneous – and often subpar – training of physicians in America. In particular, he was shocked that many medical schools were run as money-making enterprises with little exposure to the actual care of patients. While the report spurred a series of important changes, including the introduction of common accreditation standards, American medical schools continue to have wide-ranging approaches to education, as noted in a recent publication describing 128 US and Canadian schools (Academic Medicine, 2010). In an accompanying commentary, the editors remark, ‘even as we write this essay, there is change occurring in North America’s medical schools, for they are not static but, instead, are constantly evolving entities’ (Anderson & Kanter, 2010). Nursing education has analogous threads in its history. The Goldmark Report (Goldmark, 1923) noted deficiencies in nursing education similar to those noted by Flexner. While this report led to the creation of the first university-based, independent school of nursing at Yale, nursing did not develop a rigorous educational accreditation process and a strong professional identity
until years later (Cockerham & Keeling, 2014). To date, nursing education remains an uneven process with dual accrediting systems and disparities in quality between institutions (Lyttle, 2011). These two professions exemplify the diverse and shifting United States landscape of health professions education that affects other fields, too. Health professions education has evolved organically in the US with national accreditors facilitating some change but local efforts more often inspiring action that becomes disseminated broadly. Today's IPE leaders, seeking to develop initiatives in IPE, face the challenges and opportunities of working in a dynamic cultural context that fosters independent action and change. To capture the evolution of IPE in the US, this chapter describes the current national landscape for IPE, outlines the approach of five leading institutions to IPE, and draws conclusions of how the US may contribute to the global IPE conversation.

Factors influencing interprofessional education in the United States

A recent review of US accreditation standards depicts the variation in approaches to IPE between different professions (Zorek & Raehl, 2013). In this article, the authors found that one nursing accreditor (The Commission on Collegiate Nursing Education) and the pharmacy accreditor (The American Council for Pharmacy Education) had over ten accountable – measurable, mandatory – requirements for the implementation of IPE. In contrast, the other nursing accrediting organization (The National League for Nursing Accreditation Commission) had only one standard for IPE, a standard which was rated as non-accountable by Zorek & Raehl (2013). Similarly, the medicine accreditor (The Liaison Committee for Medical Education) had only one, accountable IPE standard while osteopathy, psychology, and social work had no accountable IPE standard. While IPE standards are being added or enhanced – the medicine accreditor has a new standard that will be enforced in July of 2014 – IPE leaders face the challenge of bringing educational units driven by these different standards into alignment. Unless a common IPE standard is enacted, certain programs may feel greater external pressure than other programs to provide more intensive IPE experiences.

In comparison to degree-granting health professions programs in the US, post-licensure IPE is less prescribed. Because most of the workforce needed to meet the healthcare challenges of the next twenty years has already graduated from their respective professional schools, developing a national strategy for interprofessional continuing education (CE) is a critical need. Even though the Institute of Medicine (2009) has called for CE focused on improving the outcomes of practice-based teams, the vast majority of physician CE continues to be non-interactive lectures that emphasize knowledge rather than team behaviors (Accreditation Council of Continuing Medical Education, 2012). A handful of successful programs offer some models for
building interprofessional CE education experiences (Owen & Schmitt, 2013), but an essential shift towards interprofessional CE depends on state licensing boards and national certification bodies for both providers and CE creating requirements that increase interprofessional, practice-based training. One facilitator may be health systems, especially as accountable care organizations evolve. These institutions have an opportunity to implement interprofessional training programs that have been shown to improve team performance and enhance care (Neily et al., 2010). At present, interprofessional CE is a mostly unseized opportunity to enrich care greatly.

Influenced by global developments such as the publication of the WHO (2010) and the Lancet Commission reports (Frenk et al., 2010), the US IPE movement has been crystallizing into national structures as evidenced by several efforts. In 2011, the Interprofessional Education Collaborative published IPE competencies (Interprofessional Education Collaborative Expert Panel, 2011) which have been embraced by the health professions in the US. A collaboration between dentistry, medicine, nursing, osteopathy, pharmacy, and public health, the publication was supported by private foundations (Josiah Macy Jr. Foundation, Robert Wood Johnson Foundation, and the American Board of Internal Medicine Foundation) and the federal government (Health Resources and Services Administration). Building on the momentum from this report, the health resources and services administration funded the National Coordinating Center for Interprofessional Education and Collaborative Practice at the University of Minnesota in 2012. The center seeks to act as a nexus to share and grow ideas to make education and practice more interprofessional. In concert with the center’s formation, four foundations – the George and Betty Moore Foundation, the Hartford Foundation, the Josiah Macy Jr. Foundation, and the Robert Wood Johnson Foundation – pledged additional funding to stimulate advances in IPE. These organizations – especially the Macy Foundation – have been integral to promoting the cause of IPE in the US by funding local projects and supporting forums for national dialogue. To describe how individual organizations have worked within these national trends to implement IPE and contribute to the patchwork national discussion, below are five case studies of leading US IPE institutions.

Case Study 1: Medical University of South Carolina

Institution description
The Medical University of South Carolina (MUSC) has been an integral component of the healthcare system for South Carolinians since 1824. The history of MUSC as a leader and innovator in health education began in 1834 when MUSC was one of the first medical schools in the United States to establish an infirmary specifically for teaching purposes. Currently, MUSC houses six colleges within an 82-acre medical complex that includes 95 buildings
and four separate hospitals. Within the university system, the six colleges that train over 2600 health professionals each year are: dental, graduate biomedical sciences, health professions, medicine, nursing, and pharmacy. The College of Health Professions includes academic programs in cardiovascular perfusion, health administration, nurse anesthesia, occupational therapy, physician assistant, health and rehabilitation science, and physical therapy. In keeping with its history of innovation in academic medicine and health professional training, MUSC established an Interprofessional/Interdisciplinary focus as one of four themes of the 2010–2015 University Strategic Initiative. Through this theme, the entire university works to support and implement interprofessional and interdisciplinary collaborative initiatives for students, faculty, and staff. The emphasis on innovation is highlighted in MUSC’s current tagline: ‘MUSC – Changing what’s possible’.

**IPE leadership structure**

In 2007, MUSC established interprofessional education as the focus for its Quality Enhancement Plan (QEP), a required component of institutional reaccreditation from the Southern Association of Colleges and Schools. The QEP and the office established to implement and manage the interprofessional initiatives outlined by it were named Creating Collaborative Care (C3) (Medical University of South Carolina, 2013). In order to avoid potential problems with colleges that usually operated within silos and to reinforce embedding interprofessionalism within the institutional culture, the C3 initiative was housed in the office of the provost and funded by the university. The C3 Director was appointed as the Assistant Provost for Education and reports to the Associate Provost for Education and Student Life. The C3 Director serves as chair of the operations committee for the

![Figure 7.1 Leadership structure for IPE at Medical University of South Carolina](image-url)
QEP portion of reaccreditation. This interprofessional group, composed of researchers, educators, clinicians, and students, engages in the development of initiatives to foster sustainable interprofessional collaborative work in all missions of the university. The C3 Director also liaises with the Dean’s council, which serves in an advisory capacity for the initiative. An overarching implementation committee functions as a central coordinating group and supports the work across four interrelated domains: curricular, extracurricular, faculty development, and healthcare simulation. These four domains and their associated committees serve to create new experiences, enhance existing experiences, and bridge the varied areas within the university to promote and sustain interprofessional learning for students and faculty. Each committee also includes students as members, and a C3 student advisory committee provides additional student input.

Programs
MUSC has developed a range of initiatives geared towards achieving far-reaching, broad exposure to IPE as well as other opportunities designed to capture individual student interests and offer students opportunities for leadership and recognition. Two signature programs are IP day and Transforming Health Care for the Future. Interprofessional (IP) day is held on the first Friday after classes begin in January. Over 800 first-year and nearly 500 second-year students from all six colleges come together for a half-day event. An initial session with a keynote speaker is followed by small-group activities where facilitators lead sessions that promote interprofessional interaction and team-based collaboration through group analysis of cases. Transforming Health Care adds to the IP day experience. First-year students from five colleges – dental, health professions, medicine, nursing, and pharmacy – participate in a semester-long, mixed-mode course that frames content within an interprofessional context. Each student is placed in a small group of about twelve students, composed of smaller teams of about four students. During the semester, the teams acquire teamwork competencies and learn about the roles of other professions by accomplishing two projects drawn from course content on health systems, medical error reduction, cultural competency, ethics, social determinants of health, and evidence-based decision-making. For the final class session, students analyze a fictitious sentinel event and present about the root cause, underscoring the harm stemming from care that is neither interprofessional nor collaborative.

Beyond these two broad interprofessional initiatives, students can explore team-based care more deeply through community outreach activities within the low country of South Carolina. Nineteen different elective courses cover a wide range of topics framed in an interprofessional context. The topics range from the diagnosis and treatment of autism to global health concepts and endeavors, allowing students to expand their education beyond
Leadership Development for Interprofessional Education

the traditional curriculum while working alongside students from other colleges. Initiatives also provide opportunities for leadership training and recognition. The presidential scholars’ program is a highly competitive program that selects six to eight students from each college as well as students from the Charleston School of Law for a two-semester scholarly focus on interprofessional topics, community projects, and leadership development. MUSC also has an interprofessional, student-run clinic offering medical services to Charleston’s uninsured, indigent population. Student volunteers participate in hands-on, clinical experiences alongside students from multiple professions. Students also hone collaborative, team-based clinical skills through multiple simulation activities each year. The simulated interprofessional rounding experience (SIRE) allows students to navigate the complexities of simulated emergent patient care by creating an interprofessional exercise that mimics the stress and chaos that can hinder proficient interprofessional collaboration. The student interprofessional society (SIPS) is a student-founded, student-led organization that promotes interprofessional practice through monthly luncheon speaker sessions, multiple large-scale community outreach activities, and social events. MUSC students involved in multiple different IPE activities can complete the interprofessional fellowship, an honor that is noted on student transcripts and recognized during graduation.

Strengths and challenges

As captured in the tagline ‘MUSC – Changing what’s possible’, MUSC is committed to forward-thinking innovation. Prioritizing interprofessional endeavors through the university’s reaccreditation process and the 2010–15 Strategic Initiative established the necessity to embed interprofessional education and practice within the culture of the institution. For example, the promotion and tenure policies for each college include language regarding the value and need for interprofessional and interdisciplinary work. Establishing the Creating Collaborative Care (C3) office under the central umbrella of the provost’s office has also been an integral element of C3’s success by creating a neutral structure to convene and advance interprofessional efforts.

Challenges include calendars that do not align, clinical rotations that are of varying lengths, and class locations that do not overlap – the logistical complexities inherent in an expansive, and sometimes divided, campus. In addition, some MUSC students are enrolled in programs that do not have classes on campus. Another challenge for growth is the burn-out of established IPE leaders. In order to sustain growth, faculty development must be supported to nurture these individuals. Although a solid foundation of IPE activities has been implemented through institutionally provided funds with limited external funding, in order for further program growth to occur, new sources of support will need to be identified.
Case Study 2: University of California, San Francisco

Institution description
Established in 1864, the University of California, San Francisco (UCSF) is a world-renowned center of science, scholarship, and healthcare, with 4000 students, 1000 postdoctoral fellows, and 15,200 faculty and staff – including internationally acclaimed teams of health professionals and research scientists. Through its groundbreaking work UCSF has earned a reputation of the highest caliber for excellence in education, research and patient care. UCSF is an institution devoted exclusively to the health sciences dedicated to advancing health worldwide. Through its four missions – education, research, patient care, and community service – UCSF enhances the lives of a wide spectrum of people (including many vulnerable patient populations) on regional, national, and international levels. UCSF has an active workforce of over 15,000 faculty and staff who focus on training the next generation of healthcare professionals, generating new knowledge, translating scientific research into therapies and cures for disease, providing compassionate patient care, and improving healthcare in all communities through access and policy initiatives. In addition, UCSF ranks in the top three universities around the world in health professions and health services research – with a growing focus on interprofessional education and collaboration.

IPE leadership structure
UCSF has a long commitment to IPE. Over a decade ago, it established a taskforce to determine how to expand IPE. The taskforce created a roadmap that

![Leadership structure for IPE at the University of California, San Francisco](image-url)

Figure 7.2 Leadership structure for IPE at the University of California, San Francisco
offered a number of ideas aimed at designing, implementing, and evaluating a range of student-led IPE activities. Recommendations included establishing a physical home for an IPE center, developing IPE metrics, coordinating curriculum, and supporting faculty development. Acting on these recommendations, UCSF founded the Center for Innovation in Interprofessional Education (University of California, San Francisco, 2013) in 2012. The center is funded by the chancellor, the UCSF medical center, and the five professional programs – medicine, nursing, pharmacy, dentistry, and physical therapy. The IPE center currently consists of four full-time staff as well as part-time faculty leads from the five professional programs. These individuals collectively advance IPE activities within and between their professional schools. The center is supported by an executive committee made up of educational deans.

**Programs**

The center is currently responsible for leading and coordinating three main areas of activity – curriculum development, faculty development, and scholarship. The IPE curriculum consists of five events that span the first two years of education. These events are compulsory for nearly 500 students from dentistry, medicine, nursing, pharmacy, and physical therapy. UCSF introduces its first-year students to IPE during a series of events with students from other professions. The first-year IPE curriculum focuses on developing knowledge and skills about the contribution of different professions to care and issues of negotiating and resolving conflict. Second-year students participate in a problem-based interprofessional learning exercise with a disaster preparedness theme that allows them to build on IPE concepts learned during the first year. Third-year students participate in an interprofessional standardized patient exercise, which provides a structured learning experience of providing care while working on an interprofessional healthcare team. The center is working to expand these curricular offerings to include a wider range of online, simulation, and clinical IPE experiences. For faculty development, the center offers a series of workshops aimed at introducing core concepts of interprofessional education and practice. In addition, it provides ongoing faculty development for the sixty facilitators who lead student small groups. For scholarship, the center is implementing a comprehensive evaluation of the effectiveness of its IPE curriculum and faculty development opportunities. Recently, the center was awarded a $2.1 million research grant to study interprofessional collaboration in intensive care units for the purpose of developing future IPE activities in this setting. The center also supports IPE scholarship of other members of the UCSF community by offering expert consultation, mentorship, and student supervision.

**Strengths and challenges**

While UCSF has had a long-term commitment to IPE, the center has been in operation for only a short time. Nevertheless, through its expertise and
collaborative approach to work, the center has helped nurture a number of IPE activities across the university and is well positioned to be the main coordinating hub of IPE curricula, faculty development, and scholarship activities for the five professional programs. The center is poised to support UCSF's planned expansion of the faculty – colleagues who will play an essential role in creating and sustaining IPE activities. In addition, the center has the expertise to support enhancement and growth of faculty development opportunities. Center faculty members are also skilled with IPE evaluation and are well-positioned to develop tools and frameworks for more rigorous assessment and evaluation of IPE activities. However, the center faces organizational, professional, and educational challenges, including: developing shared curricula in the face of varied school calendars; negotiating with different professional licensing and regulatory bodies; embedding IPE activities within clinical environments; and preparing facilitators to manage heterogeneous student populations.

Case Study 3: University of Colorado Anschutz Medical Campus

Institutional description
The University of Colorado Anschutz Medical Campus, one of the newest academic health centers in the world, fully opened in 2007 when the health professions schools relocated from their former location near downtown Denver. Built on the grounds of the former Fitzsimmons Army Medical Center, the campus is home to the University of Colorado's School of Medicine, College of Nursing, School of Dental Medicine, School of Pharmacy, School of Public Health, and programs in physical therapy and physician assistants. The campus, with total enrollment of over 3000 students, was designed to foster interprofessional education and collaboration through principles such as shared classrooms and colocation of the leadership from different disciplines. In addition, the campus contains the nationally ranked University of Colorado Hospital and Colorado Children's Hospital. Soon, it will also include the Denver VA Medical Center. While much of the clinical training takes place in the health systems on campus, the institution maintains training affiliations with Denver Health Medical Center and other health systems in the Denver metropolitan area and across the state. Student clinical placement across the state is facilitated by the Colorado Area Health Area Education Centers.

IPE leadership structure
The IPE program (University of Colorado Anschutz Campus, 2013) at the Anschutz Medical Campus is under the aegis of the Vice Chancellor of Health Affairs who oversees all health professions programs and clinical operations on campus. The Vice Chancellor of Health Affairs created the position of Director of Interprofessional Education in 2008.
The director chairs the IPE council which, in addition to the director, consists of an assistant director from each of the seven health professions on campus. The IPE program was launched in 2010 with external grant support and, in 2013, became fully supported by institutional funds. Each school provides funding for the programs, salary of the director, administrative support, and the other resources needed to develop, implement, and evaluate the longitudinal IPE curriculum. The program and the director answer to the Vice Chancellor of Health Affairs but are also charged with developing strategic partnerships with affiliated clinical health systems for the purpose of advancing strategic goals in IPE.

**Programs**

Nearly 1400 students from six professions participate in the longitudinal IPE program each year. In their first week on campus, students participate in a campus-wide interprofessional orientation day. Designed to emphasize the importance of interprofessional collaboration from day one of their professional education, the orientation day includes content about team concepts and the roles of other professions. Following this introduction, all students complete a core IPE curriculum in interprofessional teams of five to six members. They maintain these teams during the entire first and second years. The core curriculum of the longitudinal program consists of two components. The first includes eight two-hour sessions focused on achieving IPE competency and ten two-hour sessions focused on ethics. The second consists of a half-day of interprofessional clinical simulations targeting competencies in communication and teamwork. In the future, all students will complete a
Strengths and challenges
Beginning with the interprofessional ethics course, the University of Colorado has 15 years of experience conducting campus-wide interprofessional education. As a result of this ongoing collaborative effort, the campus has a strong history of deep and enduring partnerships between faculties of the different health professions. These relationships are enhanced by a state of the art facility that maximizes the potential of these partnerships and the educational programs. The campus also contains innovative health systems that are all nationally ranked for quality and patient safety and known for practice innovation and quality improvement. However, integrating students and interprofessional learning into rapidly transforming practice environments is challenging. In addition, while interprofessional competencies have been defined, how to assess those competencies optimally is an ongoing challenge.

Case Study 4: University of New England

Institution description
Established in 1978, the University of New England (UNE) is a private, non-profit educational institution that is the primary educator of healthcare professionals in the state of Maine and among the largest in the northeast region. The University of New England is composed of the College of Osteopathic Medicine, the College of Pharmacy, the Westbrook College of Health Professions, and the College of Dental Medicine. UNE is seeking to integrate interprofessional education across its campus to enhance the educational experience for its students and improve patient outcomes.

![Figure 7.4 Leadership structure for IPE at the University of New England](image)
professionals in Maine. UNE’s ‘Vision 2017’ commits the institution to bridging traditional academic boundaries by creating transformative, interprofessional and integrated experiences for students. Located on two coastal campuses twenty-five miles apart, UNE enrolls approximately 5600 students for twelve health professions. Educational units include the School of Social Work, the School of Community and Population Health, the College of Osteopathic Medicine, undergraduate health professions and arts and sciences programs, the College of Pharmacy, the College of Dental Medicine, and the Westbrook College of Health Professions (WCHP). Because UNE does not have an academic health center, clinical training for students takes place in a broad range of community sites. Nearly 600 students provide over 300,000 clinical hours each year in statewide and regional sites with a strong emphasis on rural healthcare and the care for vulnerable populations.

IPE leadership structure
UNE’s commitment to interprofessional education began in 2000 with an interdisciplinary health and healing initiative led by the College of Health Professions. Visionary faculty foresaw the importance of engaging students from different disciplines in shared learning experiences. In 2010 UNE’s Interprofessional Education Collaborative (UNE–IPEC) was officially launched (University of New England, 2013). UNE–IPEC’s inaugural mission was to educate practitioners, scholars, and researchers to learn and work together for relationship-centered healthcare that is comprehensive, collaborative, caring, safe, and continuous throughout the life cycle. In 2012, UNE’s President designated UNE–IPEC as a center for excellence in interprofessional education. Centers for excellence receive university funding to advance student and faculty opportunities for collaborative educational programming. The center director reports to the provost and works in partnership with the colleges and schools of the university. Although the center director leads UNE–IPEC efforts, the programs are designed and implemented collectively with the faculty. UNE–IPEC is also funded by the College of Health Professions with smaller contributions from the other colleges and programs. The center is staffed by a part-time program coordinator and full-time administrative assistant. The center is funded for a three-year period by the university but is expected to generate grants to sustain programming.

Programs
Academic programs engage students and faculty in shared curricular, extracurricular, and service learning opportunities across all health disciplines. Undergraduate health professions students are required to take four interprofessional courses that align with the national IPE competencies. Introduction to the Health Professions brings first-year students together to learn about the roles and responsibilities of different health disciplines. As they learn about each other they are simultaneously exposed to shared
principles and goals necessary to collaborative patient-centered care. Another first-year course, Issues in Health Care, uses public health issues (for example, texting and driving; smoking cessation) to engage students in shared problem-solving and teamwork. In their sophomore year, students explore evidence-based practice and ethics respectively through multiple, interprofessional perspectives. Graduate students are introduced to principles of IPE at an interprofessional student orientation, and IPE content is threaded throughout their education. For example, students participate in a biweekly UNE–IPEC series that showcases themes of common interest (for example, health disparities, cultural humility) across health professions and features interactive learning opportunities using case-based discussions or poster sessions coordinated by faculty and with students across departments. Some of these events have blossomed into interprofessional scholarship or service learning projects. Others have morphed into for-credit elective courses. In fall of 2013, a series of online modules designed to engage learners with the IPEC competency domains (COMPtime: Competencies for Collaborative Healthcare) will become available. COMPtime is designed as a flexible learning tool that can be integrated into the existing curriculum, used as standalone IPE learning modules, or required as an assignment for individual or cross-departmental coursework. Because of COMPtime's adaptability, it can be integrated into diverse curricular rhythms, faculty needs, and accreditation requirements. UNE also hosts a yearly symposium that brings together the community to engage in case-based, large- and small-group learning about a contemporary health topic. Students have also formed the Interprofessional Advisory Team to provide input to UNE–IPEC events and curriculum. In 2013, they initiated participation in the national CLARION Case Competition. UNE’s service learning office also works with UNE–IPEC and community partners to orchestrate community-based, collaborative practice experiences for an increasing number of our students.

Strengths and challenges

UNE's IPE programming has been crafted to maintain and expand its reach. The formation of UNE–IPEC formalized IPE as an integrated aspect of the health professions curriculum. The support of UNE administration has allowed faculty to take chances, crossing unexplored, cross-disciplinary borders of learning. Campus and community faculty take part in ongoing IPE faculty development, solidifying the relationships between academia and the clinical workplace and enhancing the clinical rotations for health professions students. UNE faculty members also seek out opportunities to develop shared research that demonstrates the benefits of collaborative, interprofessional relationships.

Although UNE IPE programs have been successful, the infrastructure to support these programs is sometimes uncertain. Ongoing programs depend on the commitment of people who may not always be at the university.
The lack of a bricks-and-mortar facility demonstrates this uncertainty. In addition, UNE’s remote location and lack of academic medical center make its IPE efforts less prominent on the national stage.

**Case Study 5: Virginia Commonwealth University**

**Institution description**

Virginia Commonwealth University (VCU) is an urban, research-intensive university comprising two campuses – the Health Science campus and the Monroe Park campus – in downtown Richmond, Virginia. The health science campus, a fertile setting for interprofessional education and collaborative practice, comprises five health science schools and a tertiary medical center, the VCU Health System, on a compact 53-acre site. The health science schools include: the School of Allied Health with nine departments such as nurse anesthesia, health administration, physical therapy, occupational therapy, and gerontology; the School of Dentistry which includes both dental hygiene and doctor of dental surgery students; the School of Nursing which trains students for bachelors, masters, and doctoral degrees; the School of Medicine; and the School of Pharmacy. Altogether these schools enroll over 4400 students, 3200 of whom are pursuing degrees leading to careers related to direct patient care. Much of the clinical training for these students takes place within the VCU Health System, a full-service

![Figure 7.5 Leadership structure for IPE at Virginia Commonwealth University](image-url)
academic center that balances twin goals of providing specialized care to the region and safety net services for the surrounding indigent community. The system also includes a 150,000-member Medicaid HMO. On VCU’s Monroe Park campus, the School of Social Work is an active partner in interprofessional education events. The university as a whole is driven by its strategic plan, the quest for distinction, which emphasizes bridging traditional silos to enhance education, research, and community engagement. Because of all of these components, VCU is primed for interprofessional collaboration.

IPE leadership structure

In 2012, the senior vice president of health sciences, who oversees all segments on the health science campus, appointed an assistant vice president of health sciences for interprofessional education and collaborative care. This individual was charged with launching and leading the Center for Interprofessional Education and Collaborative Care (Virginia Commonwealth University, 2013), an organizational unit created to design, implement, and study programs in interprofessional educational and practice. While the director reports to the vice president of health sciences, the center faculty members work within the existing hierarchies of the schools and health system to forge new partnerships in education and clinical care. These efforts are facilitated by an interprofessional advisory group of senior leaders, mostly educational deans, from each school. In addition, taskforces with representation from participating schools help design and implement individual projects under the center’s umbrella. University funding for the Center fosters research, education, and clinical programs by providing faculty and staff positions for evaluation and administrative support. Much of this structure was spurred by initial support for one faculty member from the Josiah Macy Jr. Foundation.

Programs

During its inaugural year, the center focused on developing large-scale programs with a broad impact. Over 600 early-level students from the five health science schools participated in a longitudinal, four-hour case series focusing on the roles and responsibilities of different health professions. During these sessions, senior students made presentations about their professions in the context of a clinical case and then, with their faculty members, engaged in a large-group discussion about interprofessional collaboration with the more junior students. As part of a second program, more than 300 senior-level BSN and MD students participated in two two-hour simulation-based training sessions relating to the care of patients with an acute change in clinical status. The sessions focused on interprofessional communication and teamwork skills in the context of critically ill patients. In the third large student program, over 500 final-year students from social
work, pharmacy, nursing, and medicine collaborated over six weeks in a virtual case system to care for a geriatric patient over four episodes of care. Using the case system’s electronic health record and message board, the students had to communicate to assess and manage the patient as she moved between outpatient and inpatient settings. The center also sponsored the Emswiller Symposium, a regional continuing education conference for all health professions. The symposium was attended by 176 practitioners representing over ten health professions from 17 different institutions and sought to start a regional conversation about IPE and interprofessional practice. The center also supported smaller programs that bridged education and practice through initiatives related to service learning, quality improvement, care coordination, and faculty development. For each program, the center sought to provide logistical and assessment support to demonstrate value, enhance scholarship, and improve patient and learner outcomes.

**Strengths and challenges**

Strengths of IPE at VCU are the inherent capacity for interprofessionalism on a comprehensive health science campus, the financial and leadership support of the university, and the enthusiasm of many faculty and students for increasing interprofessional activities. Because of its emphasis on evaluation, scholarship, and economic outcomes, the institution is poised to take on some of the larger challenges facing interprofessional education and practice. Chief among these challenges is the gap between the ideals of practice taught in the educational setting and the realities of practice experienced by students, practitioners, and patients in the clinical setting. Creating coherent curricula that build and reinforce desired approaches to practice and lead to actual change in care delivery will require innovation and ongoing attention to curriculum design and assessment. In addition, such a large institution invariably has naysayers. To overcome this hesitancy, the Center seeks to connect and support willing partners – whether individuals, programs, or schools – with the belief that success will inspire less enthusiastic entities to adopt a more interprofessional approach in the future. Finally, despite the international excitement for interprofessionalism, much of the field is uncharted territory, and many successful approaches do not transfer well to other institutions. Although all of the programs have had successes, each requires significant ongoing commitment to rewrite, enhance, and expand. Investing in program assessment is essential to continue to improve quality, demonstrate value to funding sources, and advance the scholarship of interprofessional education and practice.

**Discussion**

From the case study descriptions of these five institutions that have collectively developed a range of successful IPE programs and activities, several
consistent themes can be identified. All of the programs have been prioritized by their institutions, specifically by senior leaders with the capacity to bring the educational programs together at their institutions. This prioritization has been accompanied by internal funding commitments, often, though not always, initially kindled by external grant funding. Each institution has also created a similar governance structure with an individual director supported by a broad coalition of leaders from each of the schools participating in IPE activities. This approach appears to balance the needs of each institution’s community to shape and adopt programs with the center’s responsibility to execute the community’s ideas.

In addition, the descriptions reveal some other commonalities. While logistical issues such as scheduling and space are concerns for these and other institutions (Jones et al., 2012), other concerns such as preventing faculty burn-out through supportive measures and the pressure of sustaining programs as grant funding ends are noted. Another theme is a yen for rigorous evaluation. The programs reflect a desire to reduce uncertainty about the long-term benefits of curricular interventions. Finally, each institution has implemented different curricular structures to solve the need for interprofessional education. Varying from one-day events to longitudinal courses of regular, brief sessions and from service-based interactions in the community to virtual cases, this variation stems from local, contextual factors. Importantly, these disparate learning experiences offer a chance to study which approaches have the most impact on patient and learner outcomes.

One area underemphasized in the case studies is CE. The case studies primarily describe educational programs for students. Faculty development is touched on less often, and practitioner-focused programs are only rarely mentioned. Closing the gap between current and desired practice will require better integration of successful IPE programs with existing practice environments (Josiah H. Macy Jr. Foundation, 2013).

In summary, built on a culture of individualism and entrepreneurship, the US has historically relied on competition to create innovative solutions to societal challenges. Recent emphasis on IPE in the US has spurred local efforts to adopt interprofessional programs that exemplify American heterogeneity. Occurring within a unique institutional cultural context, IPE program development must always balance local factors with nationally known best practices. The US IPE landscape, marked by institutional successes and nascent efforts to develop a coordinated national approach, has thrived when local institutions have created an organizing structure with the authority and funding to develop programs across schools. However, tremendous opportunities remain for scholarship and programmatic growth, especially efforts that bridge divides between institutions, such as higher education and healthcare delivery. Across the diverse US terrain, leaders and scholars have an opportunity to discover commonalities of established, thriving IPE programs, including resources required and approaches to
address logistical challenges. The most important US contribution to IPE may be defining the winning strategies for IPE and using those innovative approaches to coalesce the dispersed leadership of the institutions that educate and provide care.

Questions for reflection

1. How is the situation in the US different from that which you are experiencing in your country?
2. What are the lessons to be learnt from the US?
3. What adaptations to transformational change would you need to adopt?
4. What do you feel would be the next logical step for developments in the US?

References


Building Workforce Capacities in Bogotá, Colombia

Francisco Lamus, Rosa Margarita Durán, Luz Adriana Soto, Esperanza Avellaneda, and Sonia Restrepo

Introduction

This chapter describes and analyses a strategy to improve the capacity and quality of care of the maternal and child healthcare workforce throughout the city of Bogotá between 2004 and 2011, referencing significant landmarks acknowledged by participant health professionals. We report how a network of health professionals developed a community-based approach to ensure an equitable head start for children in the city of Bogotá. The health professionals worked together to improve their competencies in maternal and child healthcare, while building a knowledge network based on existing evidence of how an equitable start in life provides the structure to build citizenship and human and social capital (Sen, 1999). Overall we believe that this process was an excellent example of leadership in action.

The complexity involved in assembling a sound community-based approach to the challenge of ensuring an equitable head start for children in Bogotá, the capital city of Colombia, an upper-middle-income country (World Bank, 2012), goes well beyond individual altruistic values or isolated institutional capacities. As has been shown in other nations (National Research Council of The National Academies, 2004) this effort required the development of new skills by individuals, institutions, and community actors as well as innovative approaches to organization capable of raising partnerships to new levels of collaboration, leadership, and educated citizenship.

The objective of improving the quality of life of the population subgroup of mothers, infants, and children involved the efforts of a wide group of citizens. The process of understanding the importance of, and gaining commitment to, the collective purpose of establishing the conditions for an equitable start in life for every child started to shape a collective endeavor that may contribute to a change for good in the prospects of future generations of Colombians in the city of Bogotá (Heckman, 2011).
Throughout the description of this case study we will highlight those aspects of the process related to leadership, interprofessional education (IPE), and collaboration, the foci of this book and a field that is just starting to express its power to transform the public’s health at the dawn of the third millennium.

The context

Bogotá in transition

The city of Bogotá in Colombia, like other capitals of upper-middle-income countries as classified by the World Bank, is going through a demographic and epidemiologic transition (Amuna & Zotor, 2008). What lies behind the concept of population transitions, such as the demographic or epidemiologic transitions, are those changes reflected in population characteristics or structure that can be explained through a dynamic approach to processes that may explain underlying causes and predictable consequences (Omran, 1971 [2005]). Such explanations may provide clues about where to focus attention, direct public policy, anticipate actions, and suggest or mobilize paradigm change. Whatever may be the case the complexity of subsequent actions requires the power that only interdisciplinary synergies can achieve.

The case of Bogotá is a good example. The demographic transition in Bogotá is characterized by a group of children under five years of age that progressively improves its survival rates, while there is an ongoing move of younger population groups and adults flowing into elder stages with an overall higher life expectancy. Some characteristics of this population dynamic can be observed in the demographic pyramid of Bogotá, shown in Figure 8.1, from the Administrative Department of National Statistics of Colombia (DANE) – District Health Secretariat of Bogotá (SDS) Demographic Projections 2005–2015.

The progression of these characteristics is reflected in a demographic pyramid with a tendency to have a stationary population from age under five to age under ten between 2005 and 2010. Then there is an expansion of population in economically active population groups, explained predominantly by immigration to Bogotá, the country’s capital city. Finally there is an increase in the elderly population as there is an increase in life expectancy between 2005 and 2010.

Epidemiologic transition refers to the shift from the predominance of infectious diseases to chronic diseases in the population of a given territory. Analysis of the epidemiologic transition, after Omran first described it in 1971, has confirmed changes in cause of death patterns related to changing levels of all-cause mortality (Salomon & Murray, 2002). To do this, age-sex-specific mortality rates from three broad cause groups have been analyzed according to the ICD-10 classification (WHO, 1992). Groups used for this analysis are: Group 1 – communicable disease, maternal and perinatal
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*Figure 8.1* Demographic projections 2005–15

*Source:* National Administrative Department of Statistics (DANE); www.dane.gov.co; District Health Secretariat of Bogotá (SDS); Direction of Public Health and Direction of Planning and Systems.
causes, and nutritional deficiencies; Group 2 – non-communicable diseases; Group 3 – intentional or unintentional injuries.

The epidemiologic transition partly explains the demographic transition due to the fact that maternal, perinatal, and nutritional diseases (Group 1), which predominantly affect younger age groups, decrease while non-communicable diseases, affecting elder population groups, increase (Group 2). This occurs together with an increase in diseases caused by injuries in younger adults and adolescents (Group 3) (Di Cesare, 2011).

Achieving the goal of continued reductions in child mortality towards confining it to those that are born with life-threatening pathologies is a major public health conquest. The sustained decrease to achieve this desirable goal is the result of a complex orchestration of a social response constructed by raising individual, institutional, and community awareness and capacities to take better care of children at an early age. The case of the city of Bogotá during the past decade shows an interesting experience of inter-institutional, interprofessional, and interdisciplinary approaches to better care for children under five years of age.

The IMCI strategy

In 1999 an infant and child health program known as the ‘Integrated Management of Childhood Illnesses’ strategy (IMCI) began its implementation in Colombia and has been a sustained initiative in the city of Bogotá since then. In Bogotá the IMCI initiative has been reported as an example that upholds the principles of a comprehensive primary healthcare policy targeting vulnerable population groups within the group of children under five (Valbuena, 2007). IMCI was launched in 1992 as a WHO–UNICEF initiative designed to achieve the integrated delivery of health services to children. By ‘integrated’ it is understood that with IMCI a child’s health improvement and well-being is achievable through a systemic approach that cares for children through the improvement of three basic components: first – strengthening the organization of health service delivery; second – strengthening family and community health practices in child and maternal care; and third – improving case management practices of health workers (especially in outpatient health facilities).

IMCI was started by WHO and UNICEF in 1992 and developed as a comprehensive approach to childcare thanks to earlier experiences in various vertical child health programs, together with other primary healthcare programs tailored to satisfy individual needs through public health initiatives. Such programs taught lessons such as that of ‘missed opportunities’, learned from the immunization programs that emphasized the fact that the contact of a child with a healthcare provider was a chance to maximize the opportunity to update and expand immunization coverage, given the possibility that that child might not come again or be easily found (Bryce et al., 2004).
As an integrated social endeavor IMCI holds that each contact of a child with the health system or any other social agency is an opportunity to ensure that the child’s health is systematically channeled to a set of health delivery procedures (WHO, 1999).

Among the three basic components lies the challenge of achieving high-quality performance in health service delivery through first-level facilities according to international guidelines adapted by national experts in child healthcare, convened by the Ministry of Health and the Pan-American Health Organization (PAHO) to reach consensus about procedures, applying the highest clinical practice standards achievable at the national level.

Guidelines provide a set of protocols that recognize the predominant symptoms of the most prevalent diseases (respiratory diseases, diarrhea, fever, malnutrition, anemia) affecting children under the age of five years, providing a method to evaluate signs and symptoms at arrival at a health clinic, and to classify severity, decide treatment, explain and educate mothers regarding health conditions and health actions to follow, and make subsequent healthcare decisions according to the severity of presentation of illness in children coming for consultation and deliver messages as to when to come back for follow-up (Ministerio de la Protección Social, Organización Panamericana de la Salud, 2010a). Health promotion is another dimension covered by the IMCI guidelines, in areas such as growth and development follow-up, immunization delivery, deworming, vitamin and micronutrient administration, advice on diet and nutrition, plus childcare and abuse prevention recommendations (this last for the Colombian IMCI version) (Ministerio de la Protección Social, Organización Panamericana de la Salud, 2010a).

The infant mortality rate in Bogotá

The infant mortality rate (IMR) in the city of Bogotá has progressively declined since 2005 after a plateau that lasted four years between 2002 and 2005. A previous period saw IMR increase between 1999 and 2000, when the country went through an economic depression. Later, and even though the economic situation improved, the infant mortality rate decreased but only to a plateau that persisted from 2002 to 2005. It started to continuously decrease again from 2006 to the rate registered in 2011 of 11.4 per thousand live births.

In Bogotá, early neonatal deaths represented a progressively higher proportion of deaths until 2008; after this they constantly decreased until 2011 (Figure 8.3).

Perinatal mortality is in most cases attributable to pregnancy and delivery problems. This statistical finding means that the approach that the city should take to improve the conditions of mothers and infants requires a transformation that would consider them an integral maternal-fetal-neonatal, infant-child living polynomial, with a dynamic requiring special attention and

The evidence shows that infant mortality rates in Bogotá between 1999 and 2005 were higher in population groups having either of two...
characteristics identified in poor population groups: families living in the southeast areas of the city, or having access to healthcare through a basic healthcare package provided by means of what is known as the subsidized regime. This meant that these population subgroups required special actions to improve children's care in order to improve health outcomes.

In Colombia the subsidized and contributory regimes are two basic sets of conditions instituted since Colombia’s 1993 health reform, through which citizens can have access to healthcare. The reform aimed at universal healthcare coverage by means of compulsory insurance of citizens through health management organizations providing a basic package of services, according to the regime system they belonged to and independent of their capacity to pay. Being a regulated mixed (private and public) health system related to the market, the contributory system covers workers and their families with incomes above a monthly amount that is considered to be enough to charge a mandatory payroll tax contribution. The subsidized system covers those identified as being poor through a survey designed to direct subsidies. Payment to the health management organizations providing the package of services for those belonging to the subsidized system comes from national and local tax revenues as well as from a solidarity contribution from those who pay into the contributory system (Giedion & Villar-UrIBE, 2009).

Epidemiological data showed that the first and fourth most frequent causes of death were related to perinatal care. The second and third-ranked causes of death were congenital problems. The fifth cause of death was by infectious respiratory diseases. This meant that there was still much to do regarding the organization of actions that could control preventable causes of disease and death persistently located as first, fourth, and fifth causes of death (Figure 8.4).

Building the scenario of context while opening spaces for participation of different shades of citizenship, with varied cultural backgrounds, experience, professions, and levels of education, provides the setting to start gathering necessary data to take informed decisions in the process of designing some ground rules for interaction among diverse participants, in the process of visualizing a plan with a strategic approach where a common language and a common ground start to come together.

**The strategy**

In 2004 the National Ministry of Health decided to align the different health programs that were being undertaken with children under five, with the IMCI international guideline unifying them into an integrated and comprehensive strategy. The variety of approaches proliferating through the years reached ‘municipalities’ (basic political units within local self-government) in disjointed and variable ways, with little evidence of their contribution to reducing child mortality or their capacity to support families
Figure 8.4 Causes of deaths of children under five years of age, 2005–10

2010: SDS-RUAJ Databases – Preliminary causes.
National Administrative Department of Statistics (DANE); www.dane.gov.co.
Leadership Development for Interprofessional Education

and communities to care for and enable children to achieve their potentialities. Programs undertaken by the health sector and directed towards infant, child, and adolescent populations had different and even contradictory approaches to the one that IMCI suggested, in contrast to the vertical programs (that is, the diarrheal program, the acute respiratory disease program, the tuberculosis program, the growth and development program, the immunization program, and so on) that were also being promoted by health authorities and health management organizations. The health system in Colombia divides responsibility over populations’ health issues by dividing competencies into individual and collective health competencies. As mentioned previously, individual health services are provided through health management organizations that citizens select to insure them and their families, with a health package of services defined according to the regime (subsided or contributory) they belong to. Collective health issues are a responsibility of regional and local health authorities that address policies, programs, and action plans according to public health priorities. Health authorities are those groups of health workers belonging to diverse professional backgrounds, appointed by democratically elected officials (governors or mayors) belonging to the executive branches at the regional or local levels.

For this reason a request for proposals was made by the Ministry of Health, with the purpose of providing local authorities with alternatives to organized programs and services directed to children under five. Using an action research approach our group constructed a ‘Model for the organization of health and wellbeing in childhood’. The model was delivered by the Ministry of Health as a guide for local health authorities around the country. The model is summarized in a book which is the product of the research process and provides local health authorities with a methodology to adapt to their own territories, with recommendations and guidelines for organizing a community-based response aimed at improving maternal and child health in their communities (Durán et al., 2004).

As a result of the participatory action research process, our group published an article describing how the model was constructed, and how the rationale emerged from qualitative information raised from focus groups with childcare providers in three different regions of Colombia. These focus groups responded to the question about what problems the IMCI strategy experienced in the process of implementation after 1998. Since then, implementation of the IMCI strategy required training efforts delivered by PAHO, the Ministry of Health, and regional and local health authorities to health professionals, health administrators, and community health agents throughout the country.

In the participatory action research process it was found that the third component (the one dealing with the strengthening of skills of personnel involved in the care of mothers and children) had been the one where most efforts had been delivered by national, regional, and local health authorities,
Building Workforce Capacities in Bogotá, Colombia

being specifically directed towards improving competencies in health professionals working in health services. However, the other two key components of IMCI had been insufficient; these were strengthening the organization of health service delivery, and strengthening family and community health practices in maternal and child healthcare. Also, other healthcare providers needed to build capacity at the community level, apart from medical practitioners and nurses who had not been trained or supported in the process of implementing the IMCI strategy (Lamus et al., 2004). The challenge to reduce child mortality through comprehensive approaches to childcare, as suggested by IMCI, lies in the capacity to strengthen the three components according to reported experience in child survival programs, in such a way that healthcare knowledge reaches community members and they are introduced to regular day-to-day practices (Sarriot et al., 2004).

Interprofessional action among health workers needs to be motivated by an awareness of the power of collaboration in the process of achieving competencies beyond professional frontiers, and needs to achieve the major goal of negotiating change in health practices at the community level in issues dealing with healthcare of children under five years of age.

The participatory action research process we conducted as a way of understanding the means to better implement the IMCI strategy in Colombia also showed that child healthcare was not perceived as a community purpose in which all local actors shared responsibility beyond understanding healthcare as merely the delivery of services to treat diseases. This perception of health as healthcare services responding to children’s needs only when they are sick did not acknowledge other determinants of health necessary to improve children’s health outcomes beyond survival. Discovering this bias in the perception of the social construction of health and well-being of childhood was the basis for the model design; it was a means to reorient and change social responses at the local levels, starting with a wider conception of the vision and responsibilities that different social agents share in assuming the challenge of guaranteeing an equitable start in life for all children.

The final result of our participatory action research process undertaken for the Ministry of Health was the ‘Model for the organization of health and wellbeing in childhood’, a guide for local health authorities to follow in different territories of Colombia in order for the IMCI strategy to be developed. This also meant that individuals and institutions assuming this challenge should build and develop new skills, such as the ability to work collaboratively and in partnerships, to plan and direct their actions, develop citizen competencies, improve child care service delivery and monitor and evaluate local actions.

In the model proposal a series of basic questions aims to guide health authorities in the process of understanding the path to follow in designing a plan to improve maternal and child health conditions. The questions are synthesized in Figure 8.5.
In answer to the question of who should be involved, a maternal and child health plan should consider means for the participation of families, communities, and state institutions as key participants in the process.

How should it be done? A maternal and child health plan should consider strategies to develop citizen competencies, which would lead to a community-based response where agreements about investments in the health of the population could be made in such a way that shared responsibility would rely upon a committed community.

When should it be done? Designing a plan should consider actions in everyday life that allow comprehensive action on children’s health to be taken beyond those moments when they are in direct contact with health services.

Where should it take place? Designing a plan should consider all those environments where infants and children live.

What should be done? In response to this question, five different competencies emerged as key elements to be promoted at different levels in social actions directed towards improvements in maternal and child health:

1. Improve the capacity to establish alliances and collaboration initiatives;
2. Improve the capacity to plan and direct at different levels;
3. Improve general citizen competencies and address concerns about participation in democratic processes;
4. Improve the quality and delivery of services;
5. Promote a culture of informed decisions using monitoring and evaluation results.

If you follow the ladder in Figures 8.5 and 8.7, these competencies are those that allow the process to move toward the achievement of the ultimately desired social goals.

Finally, why should it be done? Understanding the importance of an equitable start in life may make possible organized responses to tackle inequalities and social injustice from an early age in such a way that individuals can achieve their biological potentialities, thus increasing the human, social, and financial capital of society as a whole.

The model (MCHWB) suggests action guidelines for the achievement of sustainable and equitable development through a strategic approach focused on children from the beginning of life, something similar to what Manfred Max Neef called development on a human scale (Max Neef, 1991) or what Amartya Sen would define as building capacities that citizens can actually use to transform their rights into real expressions of liberty (Sen, 1999).

Presentation of the background and origin of what constitutes the strategy behind this case summarizes a process that focuses on a major asset required in leadership for interprofessional education. It is the need for empathic competencies that go beyond the recognition of others, to the celebration of diversity that opens the gate of possibility to interprofessional action and the power of collaboration. By this we mean that in order to achieve the majesty of collaboration in all its power in health endeavors such as the one we are presenting in this chapter, having the capacity to deconstruct personal knowledge and expertise with the purpose of rebuilding new meanings for other audiences requires the capacity for empathy and cultural competencies to allow the recognition of the value of knowledge already existing in others. Embedding this approach in any strategic approach is a key for success if we want to assume the challenge of working towards transforming health practices in communities.

The planning process

Health authorities of the city of Bogotá in charge of maternal and child healthcare adapted the model and integrated some elements according to their interpretation, given the fact that they had to integrate it into the government development plan and to existing health sector policies. Taking all these factors into account they introduced the concept of settings (family, community, health services, and local public health services) into the conceptual framework, together with the concept that competencies have to be developed not only at the individual level, but also at the local (institutional) and community levels, with specific factors to be achieved in each.
The conceptual framework of the adaptation to the city of Bogotá can be seen in Figure 8.6.

The adaptations that the Health Authority made to the model in the process of appropriating it meant that specific actions had to be developed not just with families, communities, and the state, but also with caregivers, institutions, and local authorities of communities. Another major aspect that has to lead the process is the investment made by the public sector in training and the development of networks that contribute to achieving improvements in the health and well-being of present and future mothers and children. Figure 8.7 shows how health authorities in Bogotá adapted the original conceptual framework of MCHWB according to strategic needs of the health communities within the city that had to be strengthened to improve maternal and children's outcomes. Having an interprofessional approach to building these capacities through training constituted a key element in undertaking the challenge.

Regarding ‘what should be done’, the MCHWB adaptation for the city of Bogotá considered that the following elements should be taken into account:

1. Achieving quality improvement of institutional management through the application of major factors of the original proposal, integrating monitoring and evaluation in health service delivery processes;
2. Achieving the improvement of community capacities in maternal and child care by developing social skills and competencies among child healthcare providers, together with strengthening social networks and the identification of key citizenship practices that should be improved;
3. Achieving the improvement of local capacities related to maternal and child health by developing competencies among citizens and institutions, and advocating maternal and child care within political agendas, together with the continuous construction of knowledge and the promotion of organization and coordination among institutions and social agencies at the local level.

In the adaptation made by the local health authorities of Bogotá to the model suggested by the Ministry of Health project, two different requests for grant proposals were tendered by the City Health Authority to design ways of strengthening capacities in the city, starting with the health workforce in public hospitals and the health authorities in the city.

In response to the conceptual framework that took into account previous contextual, strategic, and planning processes, the Health Authority of the city of Bogotá offered a grant to design, construct, and implement training methodologies, assessment procedures, and quality improvement strategies aimed at meeting the local authority objectives in maternal and child health. Our group was successful in obtaining the grant based on the conceptual framework shown in Figure 8.8.
The strategy supported actions that were already being implemented and added others strategically to increase the capacities in the territory to improve care of children under five at all levels in the health system of the city, from their homes and primary healthcare centers, to second- and third-level hospitals, where complicated cases were dealt with.

The leadership capacity to conceive synergy as a product that is more than the sum of its parts is the key message arising from the planning process; this can be achieved through the leveraging of interprofessional potential, together with a shared creativity that blends existing competencies with new possibilities among different stakeholders, both old and new players.

**The actions**

Following the adapted conceptual model framework and considering the resources that the Health Authority had to invest in maternal and child healthcare, actions were undertaken through the implementation of the grant proposal, emphasizing the major elements to be tackled following the planning process, and bringing together diverse teams of health professionals from different fields, hospitals, health management organizations, and universities in the city of Bogotá.

1. *In institutional quality improvement the following actions were taken*:

   • A situation analysis and an assessment of institutional capacity were performed in selected critical areas of the city.
• The process to achieve institutional quality improvement started with our team designing a self-assessment procedure for maternal and child health services in hospitals where the IMCI strategy was delivered through primary health clinics. According to the self-assessment results a training strategy to improve managerial capacities in personnel related to maternal and child clinics was developed as a B-Learning Environment, and two cohorts of staff personnel were trained.

• A B-Learning Environment for training in maternal and child health clinical management competencies was designed and two cohorts of professionals belonging to the fields of medicine, nursing, nutrition, and respiratory therapy were trained between 2004 and 2005.

• Monitoring and evaluation software was developed for the Health Authority of Bogotá to improve its governance capacity over the maternal and child health workforce and health delivery system for children under five in the city. A baseline diagnosis of the quality of institutional processes in maternal and child health programs was made initially in ten different primary-level public hospitals, with a subsequent increase to all 14 primary-level public hospitals of the city.

2. Regarding improvement of community capacities in maternal and child health-care, two waves of training initiatives were developed over the eight-year period 2004–11

The construction of a B-learning course was carried out via a process similar to producing a movie. This meant connecting a significant number of people from different areas: health professionals, pedagogical designers, programming engineers, and graphic designers, among others. All were involved in the task of improving maternal and child healthcare skills.

Participating individuals also represented different institutions from a wide range of public and private hospitals, insurance companies, universities, and various offices of the city Health Authority. The task of improving children’s health and reducing infant mortality rates in the city in a sustained manner was an ambition shared by the network of professionals and institutions in Bogotá.

Using Moodle as the virtual learning environment, a strategy was designed to organize a learning community to improve maternal and child health competencies in health professionals providing healthcare to this population group. The IMCI materials were adapted in order to be used in a B-Learning course lasting ten weeks. A teaching-learning cascade operates according to a ‘train-the-trainers’ scheme: people who have formerly been trained in the IMCI strategy participate as students who are trained to be trainers (Figure 8.9). Trained trainers in the B-Learning IMCI strategy take the lead in the program by learning the tutorials to be delivered, assisted by the university facilitators. Once tutors advance two weeks into the ten-week
training process, they start to be involved in the students’ learning process in such a way that they can put their training competencies into practice, while students actually learn maternal and child health skills; all are under the supervision of the university facilitators. Trainers and trainees comprised physicians, nurses, nutritionists, and respiratory therapists.

Materials developed by the World Health Organization and the Pan-American Health Organization (WHO–PAHO) for the IMCI clinical courses were adapted for the clinical course (Organización Mundial de la Salud [OMS] – Organización Panamericana de la Salud [OPS], 2008). Complementary modules and resources were developed integrating other existing city initiatives directed towards maternal and child healthcare, corresponding to what is internationally known as the ‘Baby friendly hospital initiative’ (IAFI – an acronym in Spanish meaning institutions friendly to families and infants, and IAMi – an acronym in Spanish meaning institutions friendly to mothers and infants) (WHO, UNICEF & Wellstart International, 2009).

An academic and knowledge network has been developed over the past eight years, based on tutors, health professionals, training sites, and technical and methodological resources. The city of Bogotá is progressing towards consolidating the capacity to guarantee that health professionals have the clinical competencies that the health authority requires for taking care of mothers and children. In this process the IMCI B-learning course was updated in 2011 when, besides validating the updated version, eight other training centers participated in achieving the competencies to conduct training courses themselves. Escalating the capacity to other centers in the city provides a further guarantee of the quality of the health professionals entering the system, especially in regard to their maternal and child health competencies in treating the most prevalent diseases and advocating health promotion practices.

3. Regarding improvement of local capacities to guarantee maternal and child health

A monitoring and evaluation system was developed to follow up progress in the hospital network. Through focus groups and interviews with child
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*Figure 8.10  Example of an evaluation matrix comparing hospitals (H) in maternal and child healthcare management processes*
healthcare providers, hospital teams conducted institutional evaluations in service delivery, analyzing their results to implement action plans for improvements in their maternal and child healthcare services. The auto-evaluation results provided the information to systematize a monitoring and evaluation system for implementation in the public network of health institutions and maternal and child health units at the city level.

Final results of the evaluation of each institution are plotted according to planning, implementation, and evaluation components of the maternal and child healthcare management program within each institution. Results are illustrated with a cross light convention; different processes are illustrated in colors that represent different levels of accomplishments and also set different priorities for action plans (Figure 8.10).

Further developments of the monitoring and evaluation management component for maternal and child healthcare units included the training of external evaluators and the development of the processes and software that allow comparison of auto-evaluation results with those of external evaluators who also belong to the maternal and child health network. The methodology tracks institutional advances in the processes that guarantee an integrated delivery in maternal and child healthcare, and also follow criteria of quality in service delivery established by the adaptation and integration of the IMCI, IAMI, and IAFI strategies. The process of auto-evaluation that precedes the external evaluation must include different areas of the hospital involved in maternal and child healthcare delivery, and they are required to support their judgments with document analysis, analytical meetings, interviews, and verification of activities (Althabe et al., 2008).

Interesting features that this monitoring and evaluation network revealed included benchmarking and collaboration among institutions, thanks to the identification of key processes that could be improved either through autonomous institutional capacity or through collaboration with institutions identified as successful within the network and which are able to give support to those needing improvements, thereby strengthening interprofessional networking.

A 13 week B-learning course was designed and validated in 2011 to give training continuity to internal and external evaluators, in order to provide sustainability to the processes behind the guarantee of quality care for the maternal and child healthcare workforce of the city.

Outcomes

Improvement of institutional management of maternal and child healthcare:

- Baseline diagnosis of institutional processes in maternal and child health programs: 14 hospitals (100 per cent) at the primary level finished the
evaluation process and action plan development towards improving health service delivery in maternal and child care services;

- Training in institutional management of maternal and child health programs: 53 professionals were trained in management and evaluation of integrated maternal and child health processes through the virtual learning environment developed in Moodle;
- Two B-Learning platforms: one for training professionals in management of maternal and child health services and one for training professionals in evaluation of maternal and child health services;
- Software development for evaluation and quality improvement in maternal and child health institutional programs.

Improvement of community capacities in maternal and child healthcare:

- 65 maternal and child healthcare professionals achieved the competencies and were certified as clinical trainers for health professionals within the city of Bogotá using the virtual learning environment developed for this purpose in Moodle and adapting IMCI – World Health Organization–Pan-American Health Organization (WHO–PAHO, in Spanish OMS–OPS) materials;
- 180 health professionals have been trained and achieved clinical competencies in IMCI strategy;
- One B-Learning platform to train health professionals in maternal and child healthcare clinical competencies was developed, with IMCI materials updated to 2011;
- Training of 17 community agents from vulnerable territories to improve community capacities in maternal and child care.

Local capacity development:

- Local participatory situation assessment in maternal and child health: 20 health professionals have been trained in the development of local participatory assessments;
- Geographical capacity-building has been concentrated in different local areas, placing particular emphasis on the southern and southeastern parts of the city (Figure 8.11). However, it is through persuasion by health institutions and their professionals that these courses work, since public hospitals in the Bogotá system have gone into the marketplace, and unless they see benefits in these continued education strategies they will not affiliate their professionals with these processes, which are offered for free.

Lessons learned

The importance of the vision of an equitable or even healthy start in life can never be overestimated if a population group desires to achieve
Figure 8.11  Map that exemplifies distribution of actions to improve comprehensive capacity in maternal and child care in the territory according to participating institutions
sustainable development in any meaningful sense. Achieving and sustaining the resources and the articulated social response that is required to maintain this vision through accelerated changes in society requires the development of ‘living’ knowledge networks that can transmit capacities across individuals, institutions and territories. The case of Bogotá illustrates an example of how, through the analysis of the situation in maternal and child health in the city during a period where no progress was being made, different resources were brought together, harmonized, adapted or otherwise developed to articulate a coherent socially organized response that can better guarantee an equitable start in life for all children.

The opportunity exists to have all children (with all their potentialities, ultimately deriving from the achievable neuronal divisions and connections acquired in early childhood) becoming able to express their competence to interact among themselves and with others as social beings, thanks to appropriate care that keeps them healthy and cognitively stimulated. These basic inputs are necessary for any education system willing to continue the task of promoting the development of individual and social capacities. In the process they can become part of a sustainable workforce that has developed the skills and overall articulated competence that can contribute to guaranteeing the same equitable start for future generations; among other things, this is because they have reused, adapted, recreated, renewed or innovated the means required to keep this social endeavor alive.

Social competence is an achievable capacity that can be acquired from appropriate care in early childhood. It is also a hallmark of the readiness of children to take on further and more complex challenges in life. It is in building on that social competence that the response to increasingly challenging social dilemmas also lies – especially the question of how to get to or continue to guarantee an equitable start for everyone. The case of ‘Building capacities in maternal and child health professional workforce in the city of Bogotá, Colombia’ seeks to provide an example of how to ‘get the act together’ with regards to this challenge, in a city that was approaching 7.5 million people by the end of 2012, representing 15 per cent of the Colombian population.

The eight-year experience of building upon those social competencies that participants from different disciplines, sectors, and origins within the country have provided, while sharing the challenge of developing an equitable start for children in Bogotá, also taught us some basic lessons:

• Interdisciplinary knowledge, competencies and skills facilitate the generation of innovative transformations, among other things because they help people with disciplinary patterns to think ‘out of the box’.
• Professionals sharing common tasks can experience the transformative power of synergy, participating in shared social initiatives that may evolve into ‘sustainable living networks’.
• A ‘living knowledge network’ improves its viability if opportunities for significant learning are provided, together with spaces for communication and interaction for persons to expand their capacities and implement their possibilities of action.

• Collective and collaborative approaches oriented towards bringing better health to vulnerable populations can find useful shortcuts towards the development of better processes through new technologies that are appropriately adapted to local conditions.

• Training strategies have no traction if they do not articulate with territorial public policies and institutional processes designed to better serve the population’s needs.

• Empowering care providers at the local and institutional levels to guide their own development and process improvements through a constructive training approach can make a difference in health service delivery, especially if participants have the chance to exchange experiences.

• Performance measures have to improve in accuracy, detail, frequency, and availability for decision-making processes.

• The development of benchmarking software that allows auto-evaluation and comparisons enables persons, institutions, and territories to implement improvement plans.

Acknowledgements

Such a complex initiative as the one described in this chapter requires a special note of recognition addressed to those that have participated in different ways to make it happen. First, the Secretaría Distrital de Salud de Bogotá (SDS) the institution that, thanks to the organization of the initiatives that have been reported, helped the integrated approach to the maternal and child health to become a reality in successive administrations between 2004 and 2011. The SDS also provided much of the information needed to describe the context and situation where the processes take place.

At SDS we express special recognition to Gustavo Aristizábal, Luis Jorge Hernández, Bibiana Robayo, and María del Pilar Sáenz. As well, special recognition should go to the network of universities, hospitals, and health management organizations that have consistently supported the initiative, together with every one of the health professionals and hospital staff members from the maternal and child health services who have contributed to improve the capacity of the city to respond effectively to the challenges of providing better healthcare to the maternal and child population.

Thanks also to the program ‘Inicio Parejo de la Vida’ (www.inicioparejodelavida.org), a research initiative that integrated the experience gained with the city of Bogotá and that gave time to some of its members to document the case. Finally we recognize the special contributions that the whole team at Centro de Estudios en Salud Comunitaria de la Universidad de La Sabana (CECUS) provided in the process of moving forward in the experience presented in this chapter, together with the Centro de Tecnologías para la Academia de la Universidad de La Sabana (CTA). Special thanks to Camilo Correal, Erwin Hernández, Diana Díaz, Juan Gabriel García, Mauricio Ulloa, Antonio Baena, and Camilo Nieto together with professors at the Pediatrics Department of the School of Medicine at Universidad de La Sabana: Olga Torrado, María Consuelo
Questions for reflection

1. How does context assessment or situation analysis contribute to your planning process within an interprofessional health team?
2. How does context assessment or situation analysis contribute to define a strategy?
3. Do decisions regarding action plans in your interprofessional team consider adapting policies, strategies or procedures according to your context?
4. How can an interprofessional health team influence the health of others by practicing collaborative values?
5. Can you describe examples in your interprofessional health team where synergy has been achieved?

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Faculty Development in Health Professions Education – The Health Sciences University Model – Interprofessional Education Leadership in Action

Payal K. Bansal and Arun Jamkar

Objectives

As we describe the birth of Maharashtra University of Health Sciences and its Department of Medical Education we explain the context, purpose, development, and evolution of this initiative and its unique inherently interprofessional nature. We will discuss the variety of change strategies and leadership influences that have played a role at the multiple stages of evolution of this work.

Introduction

Health professions education anywhere in the world intends to create a system and cadre of professionals who will synergistically work towards maintaining a state of physical and mental well-being and elimination of disease for a healthy, economically productive, and happy society. Most countries set their healthcare policy based on the World Health Organization (WHO) definition of health (1948) and many health professionals work continuously towards this, sometimes dedicating their entire lives as practitioners, educators, organizational leaders, or policymakers. Yet the intended goal remains elusive.

Healthcare is teamwork. It brings together various health professions each having its own domain of practice, yet each is interdependent and requires interprofessional communication and collaboration to achieve the ultimate goal of health and patient care. The issue has been alive in literature for about 40 years and has been actively advocated by the WHO for the last 20 years (Oandasan & Reeves, 2005).

In 2010, the centenary year of the Flexner Report (1910), a landmark article from the Lancet Commission (Frenk et al., 2010) reflected on the
current status of health affairs, echoing the common sentiment that all is not well with healthcare in terms of equity, affordability, access, and quality and called for a radical transformation in education design to improve the status quo.

It is therefore the right moment to emphasize the role of interprofessional education towards the overarching goals of safe, effective, and compassionate healthcare by sharing successes, reflecting on reasons for failure, evaluating its benefits, and researching its various aspects. In India, where health professions education itself is at a relatively nascent stage as a discipline, interprofessional education, though it may be unknowingly practiced, is not a well-recognized nomenclature. At Maharashtra University of Health Sciences, Maharashtra, India, the faculty development initiative provides an opportunity for interprofessional collaboration around the theme of health professions education. Educators learn the concept of interprofessional education by walking the walk and talking the talk.

**History of the development**

**Context**

India has the highest number of medical colleges in the world and consequently the highest number of graduating doctors, as well as medical teachers (Bansal & Supe, 2007). Over the years, medical advances have been understood and adopted by many institutions in India, thus creating some of the best doctors in the world. However, marked disparity in the rural–urban distribution of doctors and the healthcare workforce, and inequitable distribution of health resources, significantly impacts health indices and remains a major challenge (NCMH, 2010). There is a need for better alignment of education with health needs of the country using a systematic and informed approach for faculty development in health sciences institutions.

**The concept of a health science university**

In 1987, the Health and Manpower Report (Bajaj Committee Report, 1987) of the Ministry of Health and Family Welfare, Government of India, acknowledged the dichotomy in the growth of healthcare infrastructure and manpower development and stated that ‘the planning, production and management of allied health professionals was particularly affected’ (Bajaj Committee Report, 1987). The report advocated concurrent initiatives in health services and the education sector and proposed implementation strategies that emphasized primary health care, allied health professions development, ancillary healthcare manpower, and active involvement of Indian systems of medicine. It called for the establishment of an Education Commission for Health Sciences encompassing the allied health sciences and Indian systems of medicine and, concurrently, proposed the establishment
of health sciences universities. It was felt that such a unitary organization would not only create bridges for interaction between the health science faculties, but also allow new faculties such as health management, health economics, and social and behavioral sciences. It was envisioned as an implementation arm for the ‘Health for All’ vision.

Twenty-five years later, thirteen health science universities have been established in India. The Maharashtra University of Health Sciences was established under the Maharashtra University of Health Sciences Act 1998 of the State Legislature of Maharashtra State (MUHS Act, 1998). It is both a teaching and affiliating university and it presently affiliates a total of 311 institutions which includes 39 medical schools, 31 dental schools, 68 schools of Indian systems of medicine, 45 homeopathy schools, 77 schools of nursing, and 51 allied health sciences schools (physiotherapy, occupational therapy, and audiology), and has seven academic departments. The university is headed by the vice chancellor and performs its functions through a teacher-elected senate, academic council, management council, and board of examinations. All these are interprofessional in structure which means that all the disciplines are represented. There are faculties of Medicine, Dentistry, Ayurveda, Homeopathy, and Allied Sciences (nursing, physiotherapy, occupational therapy, and audiology). Each faculty has a dean who is elected from among the teachers of their profession and they further have various boards of studies.

The university’s objectives include the creation, preservation, and dissemination of knowledge and the spirit of intellectual inquiry and a sustained pursuit of excellence. It encourages individuality and diversity within a climate of tolerance and mutual understanding, promotes freedom, secularism, equality, and social justice as enshrined in the Constitution of India and is a catalyst in socioeconomic transformation. Other key objectives include the promotion of equitable distribution of facilities of health sciences education with the use of modern communication media and technologies appropriate for a learning society, and the creation of better understanding between different systems of medicine through interdisciplinary study and research. The development of academic departments at its various campuses has been a key milestone towards fulfilling this mission in the past five years.

The Department of Medical Education and Technology
Training new generations of health professionals is a critical need for all countries. New methods and strategies need to be adopted in the education of these professionals to meet healthcare needs (Jones et al., 2001). India has the highest number of medical colleges in the world (FAIMER, 2013a) and its medical education system is faced with significant systems and standards challenges (Bansal & Supe, 2007; Sood, 2008; Supe & Burdick, 2006). Improving the educational skills levels of the health professions
faculty is one important way to foster better healthcare for the public (Jones et al., 2001).

The Department of Medical Education and Technology at Pune was established in 2007. What could a university-based department of medical education do for the enhancement of the quality of education in its health professions schools? We developed a vision and mission statement for creating this change through capacity-building in education. This was endorsed by a multi-stakeholder needs-assessment study conducted in 2008 (Figure 9.1) (Bansal et al., 2010). Since then, the department has been doing pioneering work in the field of health professions education through a range of faculty development programs.

The vision, mission, and objectives that were defined in its very first year are as follows:

**Vision**
To create high quality education systems and train health sciences professionals for the better health of the people of India.

**Mission**
1. To spearhead educational improvement and reform efforts to enhance educational quality of health professions education;
2. To create programs and systems for faculty development and quality improvement in medical education for improved health systems and outcomes.

**Objectives**
1. To establish faculty development programs for training medical and other health professionals in education principles and practices;
2. To establish a high-quality, cost-effective, and sustainable system of continuing medical education;
3. To develop a distance learning system of education that will serve to overcome the challenges of faculty shortage and remote location;
4. To develop educational resource material for use by educators in health science institutions;
5. To establish a research and evaluation unit that will initiate and promote educational innovation projects and provide evaluation services for the assessment system of MUHS as well as educational programs of affiliated colleges;
6. To develop quality assurance systems to measure standards and practices of various institutions affiliated to the university;
7. To network and collaborate with partners in the mission, including regulatory and policymaking bodies, both public and private.
Figure 9.1  Needs assessment for programme development
Based on the above, a five-year plan for implementation was prepared. Broadly, these can be represented as follows:

1. A staff training (faculty development) institute that will conduct training programs for all teachers in education methods, leadership, and management, from basic to advanced level, including a Masters degree program;
2. A centre for continuing professional development that will offer continuing professional development courses in all specialties through a formal specialty-wise curriculum, including skills training;
3. A Learning Resource Centre with skills development laboratory, library, digital library, and teleconferencing facility and a distance learning program for training faculty, practitioners, residents, and interns;
4. An assessment, research, and quality assurance center with facilities to conduct objective structured clinical examinations and other types of assessment, simulator-based, and standardized patient-based training, research, and quality assurance for enhancement of medical and other health sciences institutions.

Key milestones

Program development

The department has developed and implemented courses in education methods in alignment with its five-year plan. Most of these are interprofessional in nature. These include the basic and advanced course in Health Sciences Education, Communication Skills Curriculum and Training, Curriculum Development of Diploma/Masters in Health Professions Education, and skills training courses. The basic programs have been expanded to the regional centers of the university in the fifth year of its establishment. The faculty are involved as national and international experts in medical and allied health professions education. Over 2000 teachers have been trained. A Masters program in Health Professions Education is being developed through the first ever Obama-Singh 21st-century knowledge initiative award collaboratively with the University of Michigan, USA.

Recognition and other salient developments

National recognition has also come from the Medical Council of India, the national regulatory body, as a regional center for faculty development. The faculty comprises national experts on committees that make policy decisions. The success of this department is a key milestone for MUHS and in the development of health professions education as a recognized field.

In 2012 the Department became home to Education for Health, an indexed journal of the Network: Towards Unity for Health, a non-profit organization. Other landmarks include a National Conference in Health Professions Education (NCHPE, 2009), a National Consultation on Faculty
Development for Medical Education – Vision 2020 conducted in collaboration with the Medical Council of India in 2010. The department is a recognized center for Nehru–Fulbright visiting lecturers and faculty. Department faculty are continuously developing their skills and expertise in education and faculty development through international Masters and fellowship programs, publications, and participation in national meetings. They provide mentorship to all the faculty in the Pune Regional Centre and affiliated institutions of MUHS for educational development and advancement. The university-based model of faculty development has been a strategic success and has provided the benchmark for other universities in the country who have expressed interest in replicating this model within their own universities.

Reflection on what has gone well, enabling factors, and challenges

We reflect on the enabling factors for success, leadership strategies used, and challenges faced in the context of IPE design, delivery, and influence at organizational and system level, with reference to relevant literature. The program has all the ingredients that literature identifies as important to the success of complex IPE.

Department and program strengths

A key strength was that the department was led by a vision from the time it was born. A clearly identified need for faculty development was then refined to make it more specific; through the needs assessment, a concrete plan was put in place quite quickly. The needs assessment also helped to build in stakeholder support. The rapid growth phase, grant application writing, and inflow of funds is typical of the entrepreneurial phase of the organizational life cycle theory (Sallis, 2002a, p.57). The commitment, enthusiasm, and tenacity of the core team helped cope with the increased demand from the stakeholders and beneficiaries of our programs. This behavior is also typical of a team that is led by a clear vision.

Quality in conduct and content of programs was highly emphasized, and deliberately planned for, as a strategy (Sallis, 2002b, pp. 121–3). Attributes of educational leadership described by Peters and Austin (Sallis, 2002a, p. 65) were either naturally present or consciously imbibed. These include communication of vision, management by walking about, a sense of wholeness, passion, enthusiasm, and, most importantly, acceptance of failure and learning from it. This leadership style was naturally used most of the time but without explicit knowledge of its components, which the first author came across while studying leadership as part of her Masters program. Programs are participant-focused, and autonomously created and conducted. Support from senior stakeholders was a big constant.
Faculty development in education was a unique setting for IPE. The settings and disciplines most commonly described in the literature that use IPE are geriatrics, primary healthcare, rural medicine, and rehabilitation medicine. All have demonstrated improved patient outcomes (Oandasan & Reeves, 2005). However, to introduce faculty to IPE and enable them to be able to collaborate effectively, and have the right attitude towards other health professions in practice, requires the behavior to be learnt and internalized before teaching it to others.

Our program design uses adult learning principles and problem-based learning theory as the foundation. The format is small-group, with specific objectives, contextual learning through inter-, multi-, and interprofessional exercises that actively engage the participants, and a constructive, collaborative, contextual, and self-directed approach. These attributes, we feel, have a positive influence on the program. Educators who train through the programs describe it as a transformational experience.

**Approach to change**

The approach to change and innovation has to have a well-planned yet flexible strategy. Motivation and commitment of the leader are thought to be key ingredients, as is also the ability to negotiate and persevere for change (Peters & Austin, cited in Sallis, 2002a, p. 65). The first author works full time in education in spite of being a clinician, choosing to devote time and effort due to an inner calling to improve educational quality (Bansal, 2011, cited in FAIMER®, 2013b). She used the servant-leadership principle (Greenleaf, 1977) as a strategy for change, especially at the initial stages. The capacity-building and program-development effort was slow and incremental, in line with the ‘awareness-to-adherence’ model (Ginsburg & Tregunno, 2005).

Another key factor for success was that the organization has had enabling leaders. The strategic direction for establishment was decided on and startup resources were provided. Upscaling the vision, advocating and providing technology, giving feedback, and active participation as an educator were the key leadership characteristics of the second author, who has been trained in educational leadership. Implementing a quality assurance system compulsorily and making training in education mandatory for all teachers at the university are examples of external conformity measures designed to accelerate the pace of change (Ginsburg & Tregunno, 2005). We have now progressed into a ‘mixed methods’ approach to deal with individual as well as organizational issues.

As of now, growth and progress are occurring in steady increments. Roles are well defined and good communication, willingness to work together, and building trust and mutual respect has set the pace. There might be upsets from time to time, but as long as best change practices and principles are followed, the risk of failure is minimized and organizational stability is enhanced.
Challenges faced

In the initial stages, the academic departments were new to university administration and their functions were not well understood by many. Human and fiscal resources allocation needed elaborate justification and negotiation. These were overcome by enhancing communication and writing grant proposals, which achieved the necessary funding and manpower. The campaign approach to change (Hirschhorn & May, 2000) was very helpful in garnering the support of key stakeholders both within and outside the university. Many senior faculty and deans of various schools participated in consultations and training programs and later made their faculty available to help build the capacity of their own institutions.

The interprofessional dimensions of faculty development

Faculty reports enhanced awareness and improved understanding of the work contexts of their professional colleagues. Through group exercises and sessions on integrated learning, they were able to recognize the scope of interdisciplinary and interprofessional collaboration, particularly with regard to patient management and referral practices. In the session on objectives, faculty who teach a variety of learners were able to establish different learning goals and objectives for medical, nursing, dentistry, and other students in addition to higher-order goals consistent with learning progression. Education literature from the various fields was shared during the sessions. The different emphases of each discipline, for example the cognitive-heavy medical curricula and skill-heavy nursing, physiotherapy, and dentistry curricula, necessitate different teaching-learning approaches. Dentists do particularly well on communication, while people in nursing and physiotherapy are already applying pedagogical principles much more widely than others due to regulatory requirements. These are practices to be shared between and adopted from all disciplines.

Conclusion

We have elaborated the evolution of the Maharashtra University of Health Sciences’ Department of Medical Education and the context, purpose, and development of this initiative. Its unique and inherent multiprofessional structure is of great advantage in the context of IPE and faculty development in education, including IPE. No other platform could provide a better opportunity to learn together to teach together.

Questions for reflection

1. What do you see as the key leadership challenges for this institution in maintaining interprofessional education?
2. What advice would you give colleagues about the next steps they should take?
3. What lessons have you learnt from this example which may be useful for your organization?

References


10
Developing Community-engaged Interprofessional Education in the Philippines
Elizabeth R. Paterno and Louricha A. Opina-Tan

Introduction
This chapter is about a change process and the leadership required, recognizing that once change occurs nothing can be the same again. Collaborative practice in healthcare has been shown to contribute to better health outcomes in many parts of the world (WHO, 2010). Interprofessional education (IPE) that produces collaborative-practice-ready professionals has thus been practiced in many health professions’ educational institutions worldwide for decades (Oandasan & Reeves, 2005; WHO, 2010). In the Philippines, however, IPE is a new practice and no health professional educational institution in the country has thus far reported experiences in IPE. Though one or two health professional service organizations claim to practice interprofessional collaborative patient care, no accounts of these experiences have been published. Likewise, community engagement is a practice not widely utilized by health professional educational institutions in the country. In some parts of the world, particularly the United States, national organizations and state health departments have been recommending the community engagement of health professional schools (Commission on Community-engaged Scholarship in the Health Professions, 2005; Coffman & Henderson, 2001) as an essential strategy for improving health professional education to achieve ‘a diverse health workforce, increase access to health care, and eliminate health disparities’ (CCE, 2005, p. 5).

This chapter aims to provide the leadership and practical tools that may guide interested health professional school authorities and faculty in engaging communities and initiating IPE in the community setting. We describe the process by which IPE was developed in the University of the Philippines Manila (UPM) and how communities are engaged.

Definition of terms
Community engagement is defined in Table 1.2 in Chapter 1 but for the Community Health and Development Program (CHDP) the term particularly
means involving community members in all aspects of a program, from deciding on what program should be initiated, to drafting, implementing, monitoring, and evaluating the program. The community referred to in this chapter is a group of people living together in a given geographic location.

Interdisciplinary approach (IDA) is used in this chapter synonymously with interprofessional education or IPE. (See Table 1.2 in Chapter 1 for a definition.)

A municipality is a local government unit equivalent to a town in other countries. In the Philippines, municipalities earn an average annual income of approximately US$1.3 million or less, and are predominantly rural (Philippine National Statistical Coordination Board, 2013).

Community immersion (or field practicum) programs are defined in Table 1.2 in Chapter 1.

Rural health midwives are the frontline healthcare providers in the municipal healthcare delivery system. They are usually supervised by the public health nurse. A midwife undergoes two years of formal education after which he/she is required to take a licensure exam. Though the present midwifery curriculum mostly concentrates on providing knowledge and skills in birthing and delivery, rural health midwives are charged with providing comprehensive primary care in the villages, or barangays as they are called in the Philippines.

Context

In 2007, the CHDP, a flagship program of the university chancellor at that time, was inaugurated as the unit of the University of the Philippines Manila, mandated to forge partnerships with rural government units and communities. These partnerships are set up to maintain community-based health programs that would benefit all stakeholders. For the university, these programs become the sites for the student community-immersion programs of all UPM academic units, namely the colleges of medicine, nursing, public health, dentistry, pharmacy, allied medical professions (occupational therapy, physical therapy, and speech pathology), and the arts and sciences. Two colleges of UP Diliman (another UP campus in Quezon City), namely the College of Social Work and Community Development and the College of Home Economics, specifically the Department of Nutrition, also joined the program. This initiative provides the opportunity for interprofessional developments and leadership, recognizing that all teamwork has some form of leadership within it (Miller et al., 2001).
The objectives of the CHDP, agreed upon by all participating academic units, are:

1. To provide learning opportunities for the faculty and students of UP Manila in the principles and practice of community healthcare, and
2. To assist communities to attain increasing capacities in their own healthcare and development through the primary healthcare approach.

A conceptual framework common to all participating colleges was agreed upon where genuine improvement in community health and development should be one of the most important outcomes of the partnership. This agreement was achieved through a two-day workshop participated in by representatives (faculty involved in community health courses) of all involved units of the university. Though conceptually accepted by the faculty members from the beginning of the program, in practice it took more than a year before this framework was actualized and reflected in the curriculum and activities of all students immersed in the program site. Figure 10.1 graphically explains this conceptual framework.

The University of the Philippines, with the articulated vision to ‘lead as a public service university’ (UP Charter 2008, Section 3d [Republic Act No. 9500, 2008]) enters into a partnership with the community, bringing with it its various resources to work towards development that will include health. The underlying principle that guides this development work is the primary healthcare approach, where health is recognized as a basic human right (WHO, 1978). Primary healthcare aims to enable populations to have access to the essential promotive, preventative, curative, and rehabilitative healthcare they need. Socioeconomic development is seen as a requirement
for the attainment of health for all, and people’s participation is of key importance for success. For development to be comprehensive, different health disciplines and sectors outside health are involved in the program in an integrated manner, and identified social determinants of health, such as the lack of income opportunities and environmental issues, are analyzed and addressed. As a partner, the community is not treated as a classroom, which implies that academic curricula for students brought in by the university are not inflexible and adhere to the goals agreed upon with the community. Likewise the community is not looked upon as a laboratory tool and/or guinea pig, nor are community members treated as charity cases for dole-out services; such an outlook would rob the community of its dignity (Blumenthal, 2004). The partnership should result in a healthier, more developed, and empowered community, while the university gains more experience and insights into becoming a better instrument of national development.

The leadership style utilized in collaborating with local government units is participative, as described by Bland et al. (1999) in their study of behaviors for successful university–community collaboration. Articulated needs of the partner municipality are given importance, a common vision is clearly stated and mechanisms for participation are set up. Capacities of the partner for stronger participation are also enhanced through training.

In 2007, UPM signed a memorandum of agreement with a rural municipality 120 kilometers south of Metro Manila. A common goal of decreasing the morbidities in children was agreed upon, and an analysis of the root causes of the problem was carried out. Root causes identified included: health sector problems such as the lack of human resources, and lack of funds for health supplies and medicines; cultural factors such as the low level of knowledge regarding health and illnesses, and prevailing superstitious beliefs; and environmental and economic factors such as the lack of income and livelihood opportunities for the population. All stakeholders from UPM and the partner municipality were represented in a one-day workshop where this was discussed and agreed upon. Preparation for, as well as facilitation during, the workshop were provided by the UPM faculty. Out of this analysis, a five-year program was developed and three committees (health, environment, and livelihood) were created to address the determinants or causes of poor health in children that were identified in the problem tree as enumerated above. The program focused on increasing the health skills of existing health human resources in the municipality, especially volunteer village health workers working in the care of children and the recognition and management of illnesses. Public health education was made a priority. Existing health services were augmented and wherever possible became a venue for the additional training and monitoring of trainees’ skills. Projects for environment and livelihood issues were also planned. A program management structure consisting of a mix of both UPM
faculty and stakeholders from the local government was set up to monitor the program. The plan and management structure were drafted by the UPM faculty and finalized in a series of meetings with the municipal and village councils as well as the town health officers and staff. Implementation of the plan was carried out in the following years by UPM students (supervised by the faculty) in close partnership with village health workers, midwives, and village councils. It was in this context that interprofessional education in community-based patient care was developed.

This chapter will describe only one aspect of the community work of the CHDP – that of patient care in which interprofessional education was developed.

**Development of collaborative patient care and interprofessional education**

Prior to 2007, each UPM College had its own community immersion site and each discipline had therefore developed guidelines and a distinct ‘culture’ in community work. Though the interdisciplinary approach had been articulated as one of the principles that would guide the work in the common community, in practice there were no guidelines on how this would be done. In the initial year of program implementation at the common site, and while trying to achieve the common goal, each discipline managed community patients independently but referrals to other disciplines were made when deemed necessary according to the patient’s needs. In effect, the model that was implemented was a multidisciplinary approach of working in parallel (Oandasan & Reeves, 2005). As such, patients were often managed by different disciplines at the same time but with no coordination or communication. Patient management was not streamlined and often repetitive and therefore expensive in terms of resources. Patients and their families often became fatigued because different sets of students would visit them several times a day or week to gather data about the same or similar issues. It was not uncommon, therefore, for patients to refuse to work with students and their faculty preceptors after a few weeks. An evaluation at the end of the first year of implementation showed there was also a feeling among patients and their families that they were merely being used as ‘clinical material’ for the fulfillment of the academic requirements of the various sets of students, especially when follow-up and monitoring were discontinued after the students primarily in charge of the particular patient had left the area. In addition, the evaluation highlighted instances of misunderstanding and tension between students from different disciplines because of ‘cultural differences’ that were discipline-related, as well as differences in the interpretation of clinical practice guidelines. This was particularly true of interactions between nursing and medical students.

The evaluation was done in November 2008 at the end of the first year of program implementation. The evaluation meeting was followed by a review
of literature from countries where interdisciplinary/interprofessional learning had been in place for some time. Important lessons on the fundamental requirements for team working, communication and leadership were gathered from published literature and were affirmed by our experiences. These included:

1. Equality and collegiality among the different disciplines are necessary characteristics of successful collaborative practice (Oandasan & Reeves, 2005; Hammick et al., 2007; San Martin-Rodriguez et al., 2005). The existing hierarchical relations among the disciplines in the university hospital setting therefore had to be overcome.

2. Professionals working together should share common goals, objectives, and activities relevant to their practice (Hammick et al., 2007; San Martin-Rodriguez et al., 2005; Oandasan & Reeves, 2005).

3. Understanding and valuing the roles played by other professionals facilitates the development of interprofessional collaboration (Hammick et al., 2007; San Martin-Rodriguez et al., 2005).

4. Having time to interact as well as sharing common working space reduces professional territoriality (San Martin-Rodriguez et al., 2005; Reeves et al., 2007).

5. Good communication among the different disciplines should be worked at, and the value of group discussions among students of different disciplines should be emphasized. Having common documents facilitates communication (San Martin-Rodriguez et al., 2005; Barr et al., 2005; Jackson et al., 2006).

Taking note of the above lessons, faculty from the different disciplines met and planned for the development of an interdisciplinary collaborative program for patient care. Common areas or common activities that the students undertook in the community were identified: these were a) attending regular village clinics; and b) drafting/implementing care plans for prioritized families in the villages. Guidelines for the conduct of regular village health clinics were developed in several meetings involving the UPM faculty, students, the rural health midwives, and village health workers. These guidelines were eventually included in the orientation of students before they rotated into the community. However, because of short student–patient interactions as well as student–student interactions during village clinics, IPE was better developed during the care of home-based chronically ill patients and their families. In this setting, discussions with the patients and their families, as well as among the professions, were more in-depth and deliberate.

Disciplines that required students to draft and implement family care plans during their community rotation included medicine, nursing, and nutrition. Though the students of the allied professions were not required to take care of selected families during their community rotation, patients, and
families prioritized by the other disciplines, usually required their services and so they agreed to participate in the project. Initial meetings among the faculty of the different disciplines took place and it was agreed that groups of students from the different disciplines working in a cluster of villages would identify a common patient/family for what was called the interdisciplinary approach or IDA in patient care. Since each discipline had been using distinct protocols and forms for home-based patients, a unified family assessment tool and a common patient form had to be developed and agreed upon. The following guidelines were proposed and approved in a general meeting that followed three months later. This meeting was attended by representatives of all participating colleges as well as the rural health nurses and midwives of the municipality.

Guidelines for Interdisciplinary Approach (IDA) in patient care:

1. Each discipline or college can recommend a patient as a possible candidate for the IDA program subject to patient agreement. The IDA patient may be chosen from any of the following:
   - Patients seen at the IDA clinic/local health center;
   - Families being taken care of by students (for example, from among the five priority families that each student of the College of Nursing was required to attend to while in the community);
   - Families of patients referred by midwives or village health workers for home visit;
   - Families of patients included in the Kaibigang May Kapansanan (KMK) (literally translated as Friends with Disability) program of the College of Allied Medical Professions.

2. The student who first saw the patient or family will discuss the case with students of other disciplines, the rural health midwife and village health workers during an IDA meeting. This will be done under the supervision of faculty preceptors from the involved disciplines. This discussion group becomes the IDA team for that patient/family.

3. As a team, they will assess the candidate families with regards to:
   - Patients’ and families’ present problems, both biomedical and psychosocial;
   - Formulation of possible goals and targets for the family;
   - Possible interventions;
   - Role of each discipline – differentiation of roles and degree of involvement.

4. Based on the above discussion, the IDA team will agree upon which family will be recruited as their IDA family case. The choice can be based on, though not limited to, the following criteria:
   - Families whose index patient has several co-morbidities (for example, stroke patients with hypertension and/or diabetes mellitus);
   - More than one family member having an active disease;
○ Families with many existing risk factors for illness (for example, families with adverse health practices).
The team may have more than one family case if they so choose.
5. The team will then recruit the patient and his/her family into the IDA program and get their informed consent in writing. When doing this, the following information should be explained to the patient and his/her family regarding the IDA program.
○ The IDA team will consist of a mix of student disciplines, faculty preceptors, and local health workers. Most of the visits and consultations will be done by students but they will be supervised by their preceptors. Information gathered by the team will be kept confidential within the IDA team.
○ There will be instances when several members (five to six people) of the IDA team will be visiting the family at the same time.
○ The patient and his/her family will be considered as partners and members of the IDA team. Their active participation in decision-making and in the care of the patient is expected.
6. The IDA team may choose to assign a case manager and the choice of the manager will be determined by the following:
○ Expertise in addressing the nature of the problem/s to be addressed;
○ Established level of rapport with the patient and family;
○ Ability to carry out frequent patient and family visits/consultations.
7. Goals of management will be based not only on the health team’s perceived goals but more importantly on the patient’s and family’s goals. A mechanism for monitoring patient outcomes must be discussed and agreed upon by all members of the IDA team. For this, a problem-based approach was seen to be most appropriate. The team should identify an individualized time frame for management.
8. In scheduling home visits or clinic consultations, the IDA team should consider the preference of the patient and family. The family will be asked to designate a contact person. The IDA team should also designate a member who will serve as the team’s contact person for the family and the other members of the team.
9. The IDA team will meet regularly to discuss the status of targeted problems, new problems arising, and the achievement or non-achievement of goals. A common time for IDA team meetings at least once a week should be agreed upon and adhered to. Should a common schedule pose difficulties for the faculty preceptors of the different disciplines, IDA meetings of students and local health workers should be supervised by at least one faculty preceptor from any discipline, or a community organizer of the UP CHDP.
10. The unified family chart will be completed by the IDA team upon successful recruitment of the IDA patient. Subsequent follow-up charts shall be completed after every visit. Forms for these charts will be made
available in the community office/house of the faculty. Patients’ charts shall be filed in the community faculty office but duplicates will be kept by the patient and/or his/her family.

Issues and challenges

While implementing IPE following the above guidelines, the UPM faculty encountered several challenges. Issues and how they were addressed are described below according to the groups of factors determining successful implementation of IPE, as listed by Reeves et al. (2007).

Faculty-focused issues

Faculty factors were the most important challenges that needed to be addressed before IPE could be initiated. The first and most important challenge was how to overcome the biases among the professions. Equality and collegiality among the different disciplines described by Oandasan & Reeves (2005) and Hammick et al. (2007) had to be forged for the IPE to be successful. Issues regarding interprofessional biases surfaced during formal and informal discussions among the faculty at the beginning of the project. At the university teaching hospital, doctors were often autocratic and expected to be the leader in any interprofessional group. Doctors in the IPE group therefore had to be conscious of not imposing their leadership and had to make sure that they demonstrated respect for the authority and equality of the other professions. Having a common house where the faculty preceptors from the different disciplines stayed while supervising their students facilitated communication and understanding among disciplines, helping to reduce these biases. Scheduling meetings at night when everyone had finished their student supervision was convenient and gave the faculty precious time to discuss issues and think together. Frequent meetings, both formal and informal, created bonds among the faculty and facilitated the implementation of the IPE.

Since IPE was quite new in the university and in the country, no training in IPE preceptorship was available for the faculty. The faculty had to study literature available on the Internet. Faculty members more experienced in small-group facilitation led the first few sessions and frequent post-session assessments were carried out among the faculty. Training of new faculty was informal and was achieved through observation of the more experienced faculty.

The trend among health professionals in the Phillipines to seek better opportunities in developed countries is well recognized by the university. Many colleges lack faculty members and among them only very few, and usually the most junior, are willing to work in the community. Even among these community health faculties, a significant number are required to teach other courses, diminishing their time for community activities. Faculty
seminars on global health that emphasize the importance of community-oriented health professional education have been conducted by the faculty of the College of Medicine to encourage more university faculty members to devote time to the community. Those who have attended these courses have shown more commitment to community work and IPE.

Learner-focused issues

As described earlier, community immersion had been embedded in the curriculum of all health disciplines at the UPM. The IPE objective of providing quality patient care through good communication and teamwork was easy to align with existing curricular objectives, which included acquiring skills in referring to and coordinating with other disciplines if the patient so needed it. IPE activities were therefore made quite relevant to all students and they were graded for their IPE work by their respective discipline-specific faculty. However, to date, IPE competencies suggested by the WHO (2010) and other IPE advocates (Rodger & Hoffman, 2010) under the domains of teamwork, roles and responsibilities, communication, learning and critical reflection, relationship with patients, and ethical practice have not been well defined in the curricula of the different disciplines in the UPM. Discussions among the faculty are ongoing to clearly include these competencies among the learning outcomes of students while in the community.

Finding common time for IPE among the students was facilitated after the commitment of the faculty to the project was ensured. However, the length of stay in the community and the scheduled shifting of batches of students differed for each discipline. A set of students of one discipline often had to get to know and be comfortable with two sets of students from another discipline: one set who came to the community ahead of them and a new set of students that replaced the first set. A patient who had not yet graduated from the IDA program was passed from one set of students to the next. On the other hand, this difference in the schedule of student attachments facilitated continuity of care since the batch of students from the discipline that had been with the patient longest was assigned to lead and orient the newer batches. However, intra-discipline handovers were not always done well since face-to-face encounters between succeeding batches of students were often difficult to arrange. The role of the faculty to ensure continuity of care therefore became quite important.

Organization-focused issues

Maintenance of patient records posed a big challenge for the IDA team. Current records are still on paper and are often misplaced by students. Computerization of records needs to be carried out in the near future.

Not the least of the IDA team’s concerns was the lack of medical supplies and laboratory facilities in the community. The team often had to be innovative and resourceful to ensure that patients received the medicines they
Leadership Development for Interprofessional Education

needed. Appropriate care was sometimes delayed when the proper diagnosis was difficult to establish in the absence of diagnostic facilities, or if families and the community were unable to finance such action.

Evaluation of practice

The students’ experience in IPE was evaluated in the school year 2011–12 using a tool adapted from one used on the student training ward of Curtin University of Technology in Perth, Australia. The tool was a self-administered questionnaire that used open-ended questions on the usefulness and disadvantages of the IDA experience, and solicited recommendations for improvement of the IDA work. Perceptions of various aspects of IDA before and after the experience were evaluated using a Likert scale.

Of the 50 students, 39 (78 per cent) completed the evaluation tool. Six of these students, or 15 per cent, were student nurses, five (13 per cent) were physical therapy students, one was in occupational therapy, 16 (41 per cent) were graduating medical students, and 11 (28 per cent) were nutrition students. The students rated the overall experience as very positive (mean score of 4.17 ± 0.79, maximum score of 5). The students’ appreciation of their own and other professions’ roles and competence increased significantly, as did their appreciation of the patient’s role in his/her own care. The importance of communication became clearer and students claimed that they had become more comfortable in collaborating with other professionals. Table 10.1 shows the mean scores of selected items from the Likert scale portion of the questionnaire.

Responses to the question of what were the most useful aspects of the IDA experience included learning how other disciplines approached problem-solving and how different disciplines complemented each other in working for a common goal, with the proviso that each discipline had its limitations. One student concluded that a team of health workers from different

<table>
<thead>
<tr>
<th>Table 10.1</th>
<th>Evaluation results of the IDA experience for the academic year 2011–12</th>
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<tr>
<td><strong>Mean Score before IDA</strong></td>
<td><strong>Mean Score after IDA</strong></td>
</tr>
<tr>
<td>Knowledge of own profession's roles and competence</td>
<td>3.9 (0.66)</td>
</tr>
<tr>
<td>Appreciation of other professions' roles and competence</td>
<td>3.5 (0.75)</td>
</tr>
<tr>
<td>Appreciation of the patient’s role in healthcare</td>
<td>3.84 (0.7)</td>
</tr>
<tr>
<td>Importance of communication</td>
<td>3.9 (0.72)</td>
</tr>
<tr>
<td>Comfort in collaborating</td>
<td>3.5 (0.9)</td>
</tr>
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disciplines working together could provide the most comprehensive treatment a patient could possibly benefit from.

Negative aspects of the experience reported by the students included the difficulty in scheduling the IDA visits and meetings because of the demands of other tasks expected of them while in the community. The added expenses for transportation and communication also burdened some of the students.

Our community partners were likewise asked to evaluate the IDA experience through informal interviews conducted by the faculty. Patients and their families gained increased awareness of the various resources available to them. They also claimed improvement in the quality of their lives, noting that the patients’ improvement gave family caregivers more time for rest, leisure or other activities. Better communication and understanding between the patient and his/her family achieved through training from the IDA team also lessened the psychological and emotional strains that existed before the family’s engagement in the program.

The midwives and village health workers involved in the IDA program claimed that the experience made them aware of the wide range of health resources available for what they previously accepted as hopeless patients. They became aware of the importance of occupational, physical, and speech therapists. For the village health workers, the realization that they can play an important role as members of such a team that included professionals was very empowering. They are now actively searching for patients in the community who they believe can benefit from such a program.

Conclusion

The CHDP interprofessional faculty realizes the need to improve the IPE curriculum. Students’ learning objectives in IPE need to be clarified and methodologies fine-tuned. Available literature from other IPE learning centers globally needs to be studied and the best practices adapted to our particular situation. More faculty members need to commit to IPE so that time available for it will be protected. Community involvement in the program also needs to be better defined; commitment to support the village health workers and the IDA patients’ needs to be secured from the village council as well as from the local government. Monitoring tools adapted for the use of village health workers also need to be developed for all IDA patients, in order to maximize their involvement and learning. The participatory type of leadership needs to be enhanced among members of an IPE team as well as leaders of a partner community to maximize gains in IPE and community development.

Case study

BD is a six-year-old male who presented with global developmental delay. The students from the College of Allied Medical Professions (CAMP), made
up of physical therapists, occupational therapists, and speech therapists, discovered him while going around the community.

On initial assessment, BD was dependent on caregivers in all activities of daily living (ADL): he was unable to walk and assume developmental positions such as crawling, quadruped, and kneeling. He had limited ability to maintain independent sitting and standing. He had limited play skills, and performed poorly in areas of receptive and expressive language. He was observed to have sensory integration issues.

BD is the youngest of four children. He was born full term to a 31-year-old mother who had measles during the third month of her pregnancy. At birth, BD demonstrated poor activity and had no eye opening. He was diagnosed to have a bilateral congenital cataract and congenital heart disease. His family was advised that he needed surgery for the cataract but this was not carried out due to recurrent seizures which occurred until his fourth month of life. No further interventions were sought for BD due to financial difficulties.

The CAMP students offered their services to BD’s family and referred his case to the medical interns who were assigned to the same area. Together, they discussed BD’s case, the associated problems, and possible interventions and decided that, given the complexity of BD’s condition, an interdisciplinary approach (IDA) to management was warranted. This team of students, together with their faculty preceptors, initially made up the IDA team. The next step was to convince BD’s caregivers to agree to a long-term collaboration for BD’s care.

BD’s main caregiver was his grandmother. His mother was abroad as an overseas worker. His father, a tricycle driver, would attend to BD once he was home from work. Their hope for BD was for him to walk independently and communicate his needs. After the family agreed to the collaboration, a more comprehensive assessment of BD and his family was performed. This included physical, occupational, speech, and language evaluation by CAMP students, oral evaluation by student dentists, and pediatric assessment by pediatric resident trainees, family assessment by family medicine resident trainees, and nutritional assessment and general nursing requirements by nursing students. A consolidated list of problems was generated which reflected both the team’s evaluation and the concerns of BD’s family. The team then discussed possible strategies for intervention. A home program pamphlet for the family was designed by the IDA team which contained a brief explanation of the patient’s condition and recommended techniques that the family and caregivers could perform to address BD’s various problems. The pamphlet was written in the local language, with the use of pictures to describe the techniques. Table 10.2 summarizes the problems and concerns identified, as well as strategies agreed upon to address these concerns.

The rural health midwife (RHM) and the barangay health workers (BHWs) are important components of the local healthcare system. The RHM is a
Table 10.2  A summary of BD’s problems, concerns, and strategies for care

<table>
<thead>
<tr>
<th>Identified problems/concerns</th>
<th>Recommended strategies/interventions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inability to sit independently and walk due to weak upper extremities and trunk</td>
<td>• Strengthening of upper extremities by following the developmental positions</td>
</tr>
<tr>
<td></td>
<td>• Tone management</td>
</tr>
<tr>
<td></td>
<td>• Maintenance of full range of motion of joints</td>
</tr>
<tr>
<td></td>
<td>• Practice transitions</td>
</tr>
<tr>
<td>Inability to communicate</td>
<td>• Assessment of hearing</td>
</tr>
<tr>
<td></td>
<td>• Provide toys that he can manipulate and explore</td>
</tr>
<tr>
<td></td>
<td>• Language-stimulation activities</td>
</tr>
<tr>
<td>Sensory integration issues</td>
<td>• Play with the patient to avoid sensory-seeking behaviors</td>
</tr>
<tr>
<td></td>
<td>• Encourage use of different senses to explore his environment</td>
</tr>
<tr>
<td></td>
<td>• Provide sound-producing, bright and colorful, and safe toys</td>
</tr>
<tr>
<td></td>
<td>• Encourage cooperative play</td>
</tr>
<tr>
<td>Dependence on caregiver</td>
<td>• Explore the understanding and feelings of the caregivers and family about the patient’s condition</td>
</tr>
<tr>
<td></td>
<td>• Counseling and support for the caregivers and family</td>
</tr>
<tr>
<td></td>
<td>• Caregivers to let the patient participate in doing ADLs (example: dressing, eating)</td>
</tr>
<tr>
<td></td>
<td>• Teach the patient to ask for or demand his needs through signs or sounds</td>
</tr>
<tr>
<td>Congenital heart disease</td>
<td>• Consultation with specialists for further evaluation and possible interventions</td>
</tr>
<tr>
<td>Congenital cataract</td>
<td>• Nutrition counseling</td>
</tr>
<tr>
<td>Malnutrition</td>
<td>• Teach the caregiver proper oral hygiene</td>
</tr>
<tr>
<td>Multiple dental caries and poor oral hygiene</td>
<td>• Techniques on how to brush the patient’s teeth</td>
</tr>
<tr>
<td></td>
<td>• Diet counseling</td>
</tr>
<tr>
<td>Environmental safety</td>
<td>• Environmental modification to provide a safe playing area where the patient can explore and develop his skills</td>
</tr>
</tbody>
</table>

licensed midwife hired by the local government, assigned to manage a health center in a given village or barangay, provide health services to its residents and supervise a team of BHWs. The BHWs, in turn, are volunteer community residents, not necessarily with professional experience but trained to be primary care providers, health educators and community organizers. This local health team can provide closer monitoring and supervision to the patient given their proximity and familiarity to the patient.
and their role in the health system. To involve them in the care of BD, the IDA team discussed his case and problems with the RHM and BHWs. In turn, the BHWs gave their commitment to be part of the IDA team, and to work as partners in implementing the home exercises and monitoring BD’s weekly progress. Thus the IDA team became a group of health professionals and local health volunteers committed to providing BD with comprehensive and continuing care.

A training session on the rationale and components of the home program was conducted for the local health team to prepare them for their tasks. A representative from the Municipal (Town) Office of Persons with Disability also joined the activity to explain the services available for BD from the local government. At the end of the training session, a monitoring tool for BD’s progress was developed by the team; this consisted of a checklist of skills to be observed during visits to BD, endorsements for the next visiting team and a growth-monitoring chart.

The team then discussed with BD’s family the purpose of, and interventions included in, the home program. A weekly home visit schedule for BD was agreed with the family. On a typical home visit, the medical interns would perform a brief medical examination, including weight monitoring, to screen any acute condition warranting immediate medical intervention. The CAMP interns and BHWs would play with BD to perform exercises while taking note of his skills. These visits also provided an opportunity for feedback about the home program and provision of emotional support and health education to the caregiver. At the end of the visit, the BHWs filled in the monitoring tool based on the skills observed and this was kept as part of the patient’s record.

The students rotating in the community periodically changed and this made continuity of care a challenge. To ensure continuity of care several measures were put in place. First, the faculty preceptors who were permanently assigned in the area oriented students who would be part of BD’s IDA team. Orientation included the IDA Guidelines developed by the CHDP as well as case discussion about BD. The local health workers also helped by introducing the new students to BD’s family. Secondly, a health record containing the assessment, goals, home program, and monitoring of BD was maintained by the team. Thirdly, the team conducted regular meetings to discuss management problems and issues as well as provide updates on BD and his family.

Another challenge for the IDA team was ensuring the adherence of the family to BD’s home program. A barrier to adherence was caregiver fatigue which BD’s grandmother probably suffered from due to her numerous tasks in the household. To lessen this, the team’s weekly visit to BD was declared to be her ‘time off’. The team also helped her identify other possible caregivers for BD; this proved to be difficult since the household had only three adult members. The other two adults were BD’s grandfather, who was
bedridden, and BD's father, who worked during the day. Consequently, the team helped BD's grandmother identify and prioritize two of the tasks in the home program which she could commit to carry out regularly. The team also taught BD's older siblings some of the tasks included in the home program such as play and ADL instructions, and language-stimulation techniques.

After five months of care, BD was noted to have an improved ability to maintain developmental positions of supported sitting and prone. He was able to assist the caregiver in dressing him, and he could feed himself using his hands. He was able to engage in play and exploration, and follow verbal commands. It was at that time that the caregiver expressed her appreciation of BD's improvements to the team. She understood BD's condition better and had realized her role in maximizing his potential. She felt that she could continue BD's care independently from then on. The team agreed, deciding that a small monitoring team would subsequently visit BD on a monthly basis.

Questions for reflection

1. What are the opportunities available in your institution for you to implement community-engaged IPE?
2. What steps can you take to engage your community partner/s in an IPE project?
3. What are the possible barriers for an IPE project in your institution and how can you overcome them?

References


Reflections from New Zealand: Facilitating Cultural Change

Marion Jones, Antoinette McCallin, and Susan Shaw

Introduction

This chapter discusses how interprofessional learning and collaborative practice were embedded into the curricula of a large, diverse health faculty in New Zealand, and the leadership processes required to facilitate a cultural change.

National and international changes in the health sector stimulated the need for academics to think differently about the education of health professionals. Health reforms acted as a catalyst for educational change, which took place over a 15-year period. Change began in the mid-1990s when a model of postgraduate education based on a strong commitment to interprofessional collaboration and learning was set up within the health faculty. A cross-curricula model (Barr et al., 2005) for changing the postgraduate curriculum was introduced gradually from 1996. The normal multiprofessional education program at the time continued in combination with a progressive introduction of interprofessional learning into the core papers/courses/units/subjects (papers that all students were required to undertake covering research and professional practice) of the postgraduate certificate, diploma, and Masters programs. The professions included were nursing, physiotherapy, midwifery, occupational therapy, psychology, psychotherapy, public health, sport, and podiatry. Initial changes were small but successful and formed the basis for a wider interprofessional culture change that influenced faculty over time.

By the year 2000 the model of interprofessional education was extended to include the undergraduate program. That change was extensive, as a common semester of learning was developed by the senior leadership team within the faculty and affected all schools. This change was supported in principle by the Faculty Executive Leadership Group, which shared a vision about the importance of interprofessional learning and collaboration. A number of issues were addressed including achieving economies of scale in delivering shared content to students from multiple professions. The prime driver,
however, was to operationalize interprofessional education by preparing students to take their place as members of a highly flexible workforce (Meads & Ashcroft, 2005). Expansion was in part supported by faculty connections with the World Health Organization (WHO) working group that proposed a new direction for interprofessional education (IPE) and interprofessional practice (IPP) (WHO, 2010). International networking had increased awareness of worldwide trends in health professional education, raising questions about what was happening in New Zealand, and prompting discussion about interprofessional practice development and where and when it should take place both within the faculty and within New Zealand.

At that point in time, some developments in new approaches to learning and practice across disciplines were underway within New Zealand. These were initiated through shared learning for medical students, nurses, and pharmacists from two universities’ health and medical faculties (Horsburgh et al., 2001). That development was significant, although it occurred in a context in which universities were highly competitive, with each organization seeking an edge of difference that would attract more students. The Auckland University of Technology (AUT University) Faculty of Health and Environmental Sciences responded by defining its advantage in terms of its schools and students. It had a unique position in that it was the only university in New Zealand that had introduced interprofessional education into its postgraduate programs. It was well positioned to do the same for the undergraduate program that included departments of and programs in nursing, physiotherapy, occupational therapy, midwifery, oral health, paramedicine, podiatry, psychology, psychotherapy, medical laboratory practice, health promotion, and sport and recreation. The Faculty Executive Leadership Group recognized the developmental opportunity and the associate deans with responsibility for undergraduate and postgraduate programs were charged with making the change. It quickly became evident that postgraduate and undergraduate programs required different processes at different times. This chapter begins by explaining the broad context influencing the changes and presents examples of undergraduate and postgraduate interprofessional developments. The chapter concludes with a summary of the learning that has taken place, and identifies goals for continuing to facilitate an interprofessional cultural change in health professional education.

The context

New Zealand health professional education was previously based on a traditional disciplinary model whereby students were strongly socialized into the values, beliefs, and knowledge base of their own professional culture (Horsburgh et al., 2006). As in many other countries around the world the New Zealand health workforce was prepared in a uniprofessional model of education that was strongly influenced by requirements of the
professions, particularly when these were enshrined in regulatory mandated registration boards or councils. Since 2003 the Health Professional Competency Assurance Act has incorporated more health disciplines with registration, which has made regulatory bodies more transparent and ubiquitous. Regulatory/responsible authorities acted, and indeed continue to act, as the overseers and the invigilators of professional education in the health professions. They are influential in that many of them take an active role in the approval and validation of programs of study, in addition to the educational accreditation and approval processes that must be followed by all universities. The previous focus on a uniprofessional model of education prepared a health workforce according to separate disciplinary requirements.

In New Zealand this uniprofessional model for the preparation of health professionals became problematic in the 1990s when health sector reform affected workforce development and the governance structures driving the healthcare system. The reasons for the health reforms were complex. Underpinning them was the need for effectiveness, efficiency, and improved access to healthcare. This was situated alongside a major philosophical change in New Zealand society. New Zealand, which had been a welfare state since 1938, underwent major restructuring that incorporated competition, corporate beliefs, and some privatization (Ashton, 1995, 1999; Jones, 2000). Under the corporate model of health service delivery, health was seen as a commercial commodity with the accompanying expectation that it operate in a business-like way, taking into account cost, competition, and outcomes (Kiro, 1998).

As the reforms progressed, concepts such as managed care, integrated care, and team-based care became ‘buzz’ words. Integrated care, for example, was seen as one way of developing service coordination and was presented as a means to improve healthcare (Jones, 2000; McCormick & Rainger, 1997). Multiprofessional (in our experience where practitioners from more than one profession work in parallel) practice was equally popular (Miller et al., 2001) until interdisciplinary teamwork (where the emphasis is on engagement) took over and provided a clearer direction for an interprofessional model of practice (McCallin, 1999, 2001, 2005, 2006). Although there was some skepticism about the effectiveness of the different models of professional practice, the underlying assumption was that ‘collaborative delivery models can be more effective and efficient than traditional ones’ (Schmidt, 2005, p. 11).

Overall, interprofessional initiatives were driven by legislation, policy development, and a call for health service modernization. The changes demanded in New Zealand were similar to health restructuring that took place in the United Kingdom and Canada (Hean et al., 2006; Philippon et al., 2005). Those international developments shaped the development of interprofessional practice and education at our university. Even though
there was no evidence at the time to suggest that interprofessional education would improve collaboration and health outcomes, faculty leaders took a position in that they believed that learning together had the potential to promote role understanding, communication, and teamwork, all pre-requisites for interprofessional collaboration (Miller et al., 2001).

Clearly, health reform provided an opportunity for postgraduate expansion and development. A stocktake followed to assess the need for structural imperatives that would promote interprofessional education. Leaders within the healthcare sector and the professions also recognized that there was a parallel need for cultural change – professional as well as organizational. The professional silos that surrounded the various professional groups would have to be challenged as the education programs were reviewed. Be that as it may, the change proceeded, in many instances much more easily than might have been expected. Certainly, there were periods of heated discussion, and in some situations disagreements lingered for long periods of time, sometimes years, while individuals reconsidered or refused to consider their position in what was a milestone educational-professional-cultural change.

The change was complex but there was a certain inevitability about what was proposed, possibly because the health reforms and restructuring had had a major impact in New Zealand. Professionals had learned to understand that if they refused to make changes others would do so on their behalf. Another explanation for the efficiency of the change could be that New Zealand is a bicultural society, which recognizes two cultures (while also acknowledging many ethnicities): Maori (the indigenous people) and Tau iwi (visitors/guests/settlers). As such, New Zealand has a legal obligation to operate according to the Treaty of Waitangi, the founding document of modern New Zealand, which was signed by the Governor General of the time and Maori leaders in 1840. This Treaty embraces the principles of partnership, protection, and participation. It is influential in health service delivery and education, meaning that all health professionals in this country, whether practitioners or educators, are familiar with respecting different cultural value systems (Main et al., 2006). There is a common value system embedded in the treaty principles that people in the health and education sector understand and respond to appropriately. As a result, health professionals are accustomed to consulting with others, respecting different points of view and recognizing that diverse values and expectations all have a place in everyday practice. This did not mean that differences in professional values automatically turned into positives that facilitated consensus. As is well known, the health professions have a history of difference and disagreement and have been well socialized into a particular way of looking at the world (Freidson, 1994; Larson, 1977). Nevertheless, even though cultural change is not always straightforward and there is no doubt that differences exist between peoples and cultures, professionals have become more used to working with, through, and alongside difference. Perhaps as a result of this,
the boundary issues that arose between disciplines were challenging but differences were discussed in a more collegial way. Even if agreement was not the goal, respectfulness for difference possibly facilitated a certain degree of openness to the demand for professional cultural change. It is also likely that cultural change, which is undoubtedly demanding, was easier because the scale of the postgraduate curriculum was smaller, took place over time, and involved established professionals in practice. In retrospect, the slow pace of development was significant, as there is substantial evidence internationally of significant challenges when this type of change is introduced (Barrett et al., 2003; Freeth, 2001; Horsburgh et al., 2001; McCallin, 2006).

Developing the postgraduate model

As has been seen, the context for interprofessional education development provided an opportunity to change the existing professional programs. In 1994 new courses were requested by practice leaders, so interprofessional program development began at AUT. The interest in interprofessional education was driven by two of the postgraduate teachers, joint authors of this chapter, who were doing their doctorates in interprofessional practice and interdisciplinary teamwork respectively. This research had a definite impact on developments that followed, as they were aware of the international trends and requirements for preparing practitioners differently. Development was further facilitated by the organization of a small group of faculty leaders and teachers of the key postgraduate courses who met weekly for a year to write an interprofessional philosophy for the faculty. These meetings drew attention to the size and diversity within the faculty. They also demonstrated that leaders had a commitment to develop innovative, responsive education that was underpinned by a progressive philosophy. Meetings were lively and full of debate, as professional differences were spelled out, welcomed, and rejected. Dialogue was invaluable in enabling colleagues from different schools to get to know each other better, in challenging assumptions and for understanding the key roles and responsibilities that were meaningful for different professions and disciplines. Although these colleagues had to learn to suspend their judgments of others and be respectful of difference, with time, effort, and commitment, progress was made, albeit slowly. One year later a one-page philosophy that was to underpin interprofessional development was formally agreed by the faculty.

The postgraduate program leader at the time believed that ‘the aim of interprofessional practice is for empowerment and collegiality of health professionals to become a reality that is built from mutual trust and respect’ (Jones, 2000, p. 28) and influenced further development. Developing interprofessional practice is a process that breaks through the boundaries or role specialization of a specific discipline and requires health professionals to move beyond the high ground of practice to work together in the messy
swamps (Schön, 1992). These beliefs had a strong impact on program development. It meant that postgraduate study was designed to preserve the professional identity of the different disciplines, all the while encouraging the development of knowledge and practice that incorporated team, patient, and professional needs. The challenges were substantial. It was difficult for health professionals to cooperate and collaborate when the accepted work practices, organizational structures, and occupational positions were being restructured and professional integrity was threatened (Jones, 2000). However, the complexity and the breadth of the contextual changes provided an opportunity for health professionals to study their workplaces and consider developing strategies that supported teamwork and interprofessional working.

Thus the postgraduate programs were developed, implemented, monitored, and maintained under the watchful eye of a committed program leadership supported by a small group of dedicated teachers. They developed common core modules, including research methodology and method, and professional practice, which incorporated the study of leadership, interprofessional working, and collaboration. Students, who were registered health professionals from a variety of practice settings, enrolled in either a postgraduate diploma or a Masters degree. All students were required to complete the core modules. At the beginning of the development, courses followed a shared learning format and were not driven by the philosophical underpinnings of interprofessional pedagogy but rather by resource and funding imperatives. Basically, students from different disciplines sat alongside each other in the common core modules: professional practice or practice reality; quantitative research or qualitative research. Some practitioners – teachers and clinicians alike – were reserved about the value of the different professions working together in shared learning situations. Some classes were particularly challenging. For example, psychotherapists and physiotherapists took the professional practice module. These groups had very different worldviews that created all sorts of angst, to the degree that some psychotherapists refused to attend class. It was not until the Head of the School of Psychotherapy was appointed as a co-teacher in the class that all students turned up for the sessions, and participated in the group exercises with other health professionals. Thereafter, interprofessional groups gradually became more comfortable with discussing interprofessional issues that students would likely encounter in practices. Sometimes leadership had to be directive to move the interprofessional cultural change forward.

Despite such problems, many students were interested in learning more about other professionals and what they did in practice. By the end of professional practice at least students had had the opportunity to have developed an understanding of the roles of others and their responsibilities. Students were more comfortable communicating and debating issues with other health professionals. Success in that class in particular provided
the incentive to develop interprofessional learning further. Students spoke warmly about the benefits of shared learning and seemed to enjoy learning with, from, and about each other. Students responded to the richness of learning that occurred through this means. Similarly, teachers found that emphasizing the interprofessional focus helped them to facilitate discussions about the practice management of the health reforms that dominated clinical practice at the time (Jones, 2000).

Class and small-group discussions were key drivers in the interprofessional culture change. As stated earlier, managed care dominated health service delivery in New Zealand in the mid-1990s and health professionals felt threatened by the changes and increasing expectations that affected professional practice (Youngson, 1999). In this environment, health professionals demonstrated a readiness to learn and to be involved with postgraduate education, which was seen as a means to update knowledge about practice. Engaging in postgraduate education was seen as a strategy to help health professionals practice differently.

Students have diverse needs, depending on their areas of practice. Some services in practice emphasized the multidisciplinary model, but the complexity of the specialist services meant that clinicians were interested in learning about interprofessional practice (McCallin, 1999). Curiosity about interprofessional practice grew as practitioners learned that it had much to offer in terms of collaboration, communication, team development, and leadership. Even so, it soon became evident that the theory of interprofessional practice was readily understood but putting it into practice was another matter altogether. Part of the problem was that it was difficult for health professionals to collaborate when the accepted working practices, organizational structures, decision-making processes, and their occupational positions were being restructured and when this was threatening the very integrity of the health professional (Biggs, 1997; Jones, 2000; Øvretveit, 1995). There was no doubt that contextual complexity and change had a significant impact on interprofessional education development.

At the same time, changes in education impacted the move to an interprofessional culture. For instance, program monitoring took place through a faculty board of studies and an examination board. The membership of these two powerful committees was representative of all disciplines in the faculty and included an external representative from another university. While each discipline prided itself on its unique knowledge base and beliefs, there were many lively discussions about the learning health professionals needed to meet registration requirements. Looking back, those first years were intense and challenging. On many occasions committee members exited a meeting longing to return to the more comfortable status quo. On the one hand, it would have been so easy to return to the familiar ways of doing things. On the other hand, when change occurred, the gains were exceptional and teaching the multidisciplinary mix was so rewarding for everyone. Student
comments included: ‘I really did not want to do this course – what did it have to do with nursing, physiotherapy, or midwifery?’ and ‘This is the best paper I have done! I did not know what occupational therapists did before – I do now.’ There was no doubt that learning with other health professionals gave students a better understanding of each other’s work practice.

Over the next ten years the interprofessional culture change proceeded, as 15 majors (fields of expertise and study) were developed and opened up enrollment for a wide range of health professionals. The majors included acupuncture, child health, mental health, Maori health, occupational practice, and rehabilitation, to name a few. The advances were consistent with World Health Organization (2010) developments, which recognized that interprofessional collaboration was essential to prepare a ‘collaborative practice ready’ health workforce who had learned how to work in a team.

**Reflections on postgraduate developments**

Although there were many positive developments, in hindsight less attention was given to reflection on interprofessional cultural change. The staff were so engrossed with developing the curriculum and responding to issues that little opportunity or time was given to publication about the staged development and how that impacted on the ongoing success of the change. Also, changing the postgraduate programs was easier to manage initially, as the program was relatively small. It did not mean that the same changes could be introduced into the undergraduate program, which had very different needs. For example, many more staff would need to be involved and student needs were different in that the focus was on preparing health professionals for collaborative practice in a changing, increasingly technological environment. While there was some discussion in the faculty about introducing shared learning at the undergraduate level, much more work needed to take place before this could happen.

Looking back, the postgraduate culture change was facilitated by communication and leadership. While communicating expectations with everyone was challenging, the postgraduate program leader focused on ensuring that all staff were always in the loop and understood what was required, and why and how they were expected to respond. Not surprisingly, this raised all sorts of issues for staff, as processes and systems changed and moved individuals outside of their comfort zone. Although staff worked in discipline teams in their normal habitual way, the effectiveness of the change relied on them being prepared to work together, and to become more reflexive and motivated to work with an interprofessional goal and vision. Encouraging staff to reflect on change became important. Although that occurred informally, Schippers et al. (2010) report that reflexivity enhances team performance and recommend that organizations improve team performance by supporting reflexivity. This illustrates that reflexivity likely has much to offer,
as individuals cope with difference and uncertainty, and question the established ways of learning during a cultural change. At the same time it was perhaps fortunate that some teachers involved with the postgraduate developments also had strong connections with the undergraduate programs. They had had some experience of the interprofessional cultural change and possibly acted as informal change agents in the faculty for the undergraduate interprofessional developments that followed.

**An example of interprofessional development in the undergraduate curriculum**

The faculty had undergraduate degrees preparing beginner practitioners for nursing, midwifery, physiotherapy, and occupational therapy, all of which were distinct programs of study with little interdisciplinary engagement. Their separate identities arose from the journey they took to arrive at the place of awarding qualifications, which variously involved moving education for the professions from vocational/apprenticeship-based models into the academic context. These journeys were often complex for the professions and the organization. They also created an environment where professional territories (knowledge, research, and practice) were clearly defined and carefully patrolled to maintain the character of each group.

Nonetheless, at the end of the 1990s it was apparent that, while the professions each saw their program as distinct, there was plenty of scope for engagement. Academically, this was obvious in situations where the same basic content such as research methods and anatomy and physiology were duplicated across the faculty. From a resource perspective replication did not make sense. Other key drivers underpinning the cultural change were the Faculty Executive Leadership Group’s commitment to interprofessional education and practice, coupled with the need to find better ways to develop new courses of study. At the time existing courses were problematic. Part of the difficulty with the arrangements was that the uniprofessional model of curriculum development required large amounts of time and resources dedicated to designing courses of study from scratch. Perhaps as a result of these factors, interest in the new curriculum model was timely, as it occurred when the faculty was keen to identify ‘core’ learning and capabilities for students. This was based on a belief that it was possible to define the essence of a graduate from the faculty. It recognized too that students from one discipline shared knowledge, experience, and skills with students from other disciplines, even though each of the professions had clearly defined expertise. Following much debate and consultation, curricular elements that all students needed were identified. This required paying careful attention to graduate profiles and the capability statements in the curriculum.

Tracking the life of these shared graduate capabilities in the curriculum has proved to be a valuable way of reflecting on the development itself and
the subsequent maturing of the shared elements of the curriculum across a wide range of programs. It was widely accepted amongst the senior management team within the faculty that competencies identify the knowledge and skills that are essential for practice, while capabilities (or graduate attributes) address critical thinking, problem-solving, and reflection, all of which support interprofessional learning and development (McNair, 2005). The value of interprofessional learning was acknowledged by the faculty, as graduate profiles and capabilities were developed and learning outcomes reflecting them (interprofessional capability learning outcomes) were embedded in curricula.

Originally, three capability outcomes were identified as representing the graduate profile and emphasizing the value placed on interprofessional learning within the faculty. They could be classified as generic interprofessional outcomes (Thistlethwaite & Moran, 2010), as they related to all the disciplines involved and added value to interactions between them. The outcomes were embedded in four compulsory core modules (comprising a common first semester) and also in the discipline-specific modules. Several years down the track we revisited these specific outcomes to explore their visibility within core modules and across a range of health disciplines. The intent was to track the presence and profile of interprofessional elements within the curriculum.

For the purpose of this investigation curriculum documentation from the core modules and a sample from across the discipline-specific modules (or courses) offered in 2009 were explored to track the presence of capability outcomes. An analysis of these capability outcomes in curriculum documentation at the end of the 2009 academic year found that none of them continued to be present in their entirety within the core modules seven years after the initial course development, even though the graduate profiles and capabilities had not changed during this time. However, half of the new degree courses implemented in 2002 retained some evidence of these outcomes in their discipline-specific modules (Table 11.1).

A new outcome emerged in one core module, which specifically referred to interprofessional practice: practice teamwork as a basis for interprofessional learning. This led us to reflect on the fact that, while interprofessional learning and collaborative practice underpinned the development of the new curriculum model and capability outcomes, the language was never explicit.

One of the ways used to articulate interprofessional learning when developing the new undergraduate degree structure and incorporating new disciplines into the faculty was to develop capability outcomes. Interprofessional learning was the basis for the outcomes and the leadership model for moving the curriculum developments forward within the faculty. This emphasized constructive alignment with an expectation that all learning outcomes are assessed. The inclusion of interprofessional capability outcomes in modules was a structural attempt to value interprofessional learning (Stone, 2010).
One of the key challenges in interprofessional education is to be able to identify the added value of shared and common learning. In our situation it was evident that the capability outcomes do still appear in some discipline-specific modules, even though they are no longer evident to any substantial or traceable degree within the core modules that students complete in semester one.

The essence of the capabilities has not necessarily been lost but they can no longer be identified and overtly tracked, suggesting that if they exist it is within the hidden curriculum. It is understandable that they would need to be developed and refined over time. However, the deletion of them from curriculum documents suggests that they were considered optional and dispensable.

<table>
<thead>
<tr>
<th>Original capabilities – 2002</th>
<th>Place of capability outcomes in 2009 curricula</th>
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<tbody>
<tr>
<td>Embedded in all modules</td>
<td></td>
</tr>
<tr>
<td>Capability learning outcome</td>
<td>Four common modules</td>
</tr>
<tr>
<td>Practice contextually</td>
<td>None of the outcomes continued to exist in their entirety. 3 modules include outcomes with reference to some concepts from original capability outcomes for example reflection, applying knowledge, professional communication</td>
</tr>
<tr>
<td></td>
<td>Discipline-specific modules</td>
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<tr>
<td></td>
<td>Outcomes evident in</td>
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<tr>
<td></td>
<td>– applied mental health</td>
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<td></td>
<td>– oral health</td>
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<tr>
<td></td>
<td>– paramedic</td>
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<tr>
<td></td>
<td>not obviously evident in</td>
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<tr>
<td></td>
<td>– health promotion</td>
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One of the key challenges in interprofessional education is to be able to identify the added value of shared and common learning. In our situation it was evident that the capability outcomes do still appear in some discipline-specific modules, even though they are no longer evident to any substantial or traceable degree within the core modules that students complete in semester one.

The essence of the capabilities has not necessarily been lost but they can no longer be identified and overtly tracked, suggesting that if they exist it is within the hidden curriculum. It is understandable that they would need to be developed and refined over time. However, the deletion of them from curriculum documents suggests that they were considered optional and dispensable.
This suggests that tensions between ‘generic’ and ‘discipline-specific’ learning existed during the development, highlighting concerns about students needing to identify with their chosen discipline (Adams et al., 2006). While various strategies were put in place to address these issues within the common modules, a sense has emerged within some courses that the common modules detract from the ‘real’ learning of the disciplines. The capability outcomes have come to be seen as an extension of that ‘generic’ agenda and therefore marginalized within some courses and also within the core modules, which are delivered with an emphasis on meeting the needs of the disciplines. Another key consideration should be the turnover of staff. It is reasonable to assume that colleagues who participate in the process of curriculum development and consultation may value interprofessional learning outcomes. However, new colleagues will need to appreciate these elements within the curriculum and may require coaching or mentoring to get them up to speed.

**Reflections on undergraduate developments**

In hindsight, it appears that the lifespan of these capability outcomes was less than seven years. While the need for interprofessional learning (Hoffman & Hamish, 2007) is well understood within the faculty, the sense that disciplines need to retain their identity and, that in doing so, may need to sacrifice shared elements of the curriculum is also evident. It is encouraging to see the notion of interprofessional learning explicit in a new outcome that has emerged, but it is only a single outcome in one of the common modules. The effort involved in initially developing these capability outcomes needed to be complemented by ongoing attention to refining and developing them.

This analysis of the life-span of capability outcomes provides an example of a deliberate attempt to raise the profile of interprofessional practice and learning within an undergraduate curriculum model encompassing several health disciplines. Several years after the initial development, an analysis of curriculum documents demonstrates a relative loss of visibility of the interprofessional capability outcomes. One of the key challenges for interprofessional learning is the need to provide evidence that it is relevant (Forman & Fyfe, 2013). This journey represents a loss of curriculum elements designed to raise the profile of interprofessional learning and suggests that ongoing attention to such elements is required. An ongoing process of reflection, evaluation, and curriculum development (with an emphasis on interprofessional education and collaborative practice) continues across the faculty.

**Benefits and what was learned**

Working interprofessionally means crossing the boundaries of disciplines, working collaboratively, developing team practice, and focusing on the
client/patient. Working within a team, the disciplines needed to represent their own needs continually, simultaneously considering the needs and scopes of practice of the different health professionals, and including the client focus (Jones, 2000). Achieving this, while maintaining each discipline’s identity, posed real challenges that required a balancing of the different types of power that exist within a team and are associated with leadership development.

In this interprofessional culture change the learning focused on the discipline culture. Power issues, leadership development, team understandings of practice, and the power struggles that exist and shape interprofessional practice, became evident. At the same time, cultural change was influenced by the complexities of the restructuring in healthcare practice, and the need to consider the impact of the changing sociopolitical context (Jones, 2000). The key message for leaders to convey to staff was that a change of thinking was required. This was passed on in a way that assisted staff to believe that they could work differently, that they were capable of investing the time to create new directions for interprofessional development, and, above all, instigating a belief that anything was possible. The leaders were well aware that staff needed to learn how to work together interprofessionally, and likely would benefit from coaching, mentoring, and positive role-modeling (Forman et al., 2013; McCallin, 2005). Leaders understood too that staff needed time to assimilate what was a significant interprofessional cultural change.

**What we have learned**

Could there have been changes to the way that the interprofessional cultural change was facilitated? Looking back, change should have been supported with a faculty staff development program. As it stood the development occurred by trial and error learning, which was time-intensive. The knowledge gained on the journey provided the impetus for new motivations, but in reality change requires leaders to help obtain buy-in and then introduce new ways in manageable chunks that are gradually integrated into day-to-day working. In this change, though, the focus was on curriculum change and associated quality systems that were set up to maintain the credibility and integrity of the program.

However, the change to the traditional curriculum certainly created a huge debate in the faculty and provoked all sorts of questions as to how each discipline might meet their regulatory requirements if they had to learn together. Interestingly, learning about collaborative practice and teamwork took place in everyday working situations where questions about the cultural change and its impact on professional culture, boundary working, and effects on professional identity were raised. It soon became apparent that understandings of teamwork varied, as staff believed that they already
worked in teams. Whether they worked interprofessionally or not was another matter altogether.

Facilitating the change and addressing these issues was compounded by a lack of support for the cultural change in the organization. The main leadership tension was that while the organization tended to follow a model of distributed leadership that appeared to maintain the professional silo model of practice, patch protection, and habitual ways of working, interprofessional learning required transformational leadership to facilitate faculty development. Facilitating change in this context required courage, support, and commitment to the vision and the project itself. Therefore, the reflexivity of transformational leadership was critical to reducing reactivity to the changes as they happened. Turning reality into practice required support to manage the change and make sure all players in the new development were clear about their roles. While this was a goal, in the early days of the change it was difficult to attain. However, a decade later, people and contexts change, the organization develops and changes, and teamwork and collaboration are more popular.

In order to follow the World Health Organization terminology (2010) for development, the faculty has since set up a national consultative group and established a National Centre for Interprofessional Education and Collaborative Practice (NCIPECP). This center was established in the Faculty of Health and Environmental Sciences in 2009 and provides a vehicle for developing education, clinical practice, research, and the Maori Pathway. It brings collaborative practice to the forefront of health professional education for new students, practicing health professionals, and the community. It aims to lead, facilitate, and promote client-centered collaborative practice, education, and research to improve health and social outcomes for all New Zealanders. Its vision is to support educators and practitioners from a wide range of disciplines and provide opportunity for the development of new and emerging models of practice. Colleagues within the NCIPECP have been involved in the development of the World Health Organization publication outlining international health workforce challenges and developments. This international report acknowledges that there is sufficient evidence to indicate that interprofessional education promotes collaborative practice. The NCIPECP has formed a collaborative structure for educating students and faculty to be future leaders and facilitators in interprofessional education within the university. The center has established a development group in the Faculty of Health and Environmental Sciences that has a mandate for interprofessional development. What is now critical is that this development be extended to become an explicit university and faculty-wide directive for change. In the long term it aims to provide the leadership for education, practice, and research opportunities that advance interprofessional education and collaborative practice; promote collaborative practice innovations in interprofessional learning across the faculty and the wider
health professional community; provide the infrastructure for interprofessional initiatives and faculty development that support practice, education, and research; provide an Akoranga Integrated Health Service (the on-campus clinic) in which interprofessional student learning and research can foster collaborative practice development; and provide evidence regarding the impact of interprofessional learning and practice for students, practice settings, and faculty.

Conclusion

There are always difficulties in introducing new roles, systems, and processes. However, initial success was possible due to the leadership, commitment, and support within the faculty. It was fortunate that the postgraduate curriculum was established with core modules that had an explicit interprofessional focus. This went a long way towards making the interprofessional way of working more transparent. Nonetheless, professional territories and boundaries remain a challenge both in educational contexts and in the practice arena. The undergraduate programs have maintained the common core courses, but over time there needs to be a critical mass of students graduating to make interprofessional working and collaborative practice a reality. Interprofessional learning needs to be seen as embedded in all learning and not seen as an optional extra. Assessments are being developed throughout the three years of a program that can emphasize collaborative practice.

The exciting challenge is well underway in that there are interprofessional courses within the postgraduate programs; and the on-campus health clinic is working well and provides opportunities to students and patients for interprofessional healthcare. Alongside this there is an ‘Interprofessional development in practice’ booklet for students in off-campus primary healthcare practice settings and the appointment of an interprofessional practice development leader to oversee the interprofessional practice placements – leadership in action. Further support has also been developed to expand the shared and common core learning in the undergraduate curricula with assessments and learning developing interprofessional learning opportunities. Research development has been moving forward with all the above with both Masters and doctoral students undertaking research with an interprofessional focus. Tomorrow’s challenges provide new opportunities for leadership and change within the programs of study and practice.

Questions for reflection

1. What are the key considerations when encouraging professional groups to engage with interprofessional education and collaborative practice?
2. What are the differences that need to be considered when developing undergraduate and postgraduate programs for interprofessional learning?
3. How do institutional constraints influence interprofessional education development?
References


Introduction

This chapter outlines the significance of the development of interprofessional education and practice in a community environment for Moi University in Kenya. This training of health professionals is for community work, while placing emphasis on health promotion and preventative care as described by Westberg (1999) and Godfrey et al. (2000). A community leadership approach was used along with evidence of leadership coming from the students. In both instances we are reminded of the servant-leadership model as described in practice by Neill et al. (2007). The concept of the servant-leader was developed by Robert K. Greenleaf, an American essayist, in 1970 in his book, *The servant as leader*.

Greenleaf (1970) suggests that the servant-leader is servant first as people start with the natural feeling that they want to serve: serving is the first action. Subsequently it is a conscious choice that inspires a person to lead. The people who want to lead first are different and are perhaps driven by an unusual need for power or a desire for material possessions. They lead first and then choose to serve later. ‘The leader-first and the servant-first are two extreme types. The difference manifests itself in the care taken by the servant-first to make sure that other people’s highest priority needs are being served’ (Greenleaf, 1970, p. 6). Greenleaf states that the best test, though difficult to administer, is to ask whether those served grow as persons. ‘Do they, while being served, become healthier, wiser, freer, more autonomous, more likely themselves to become servants? And, what is the effect on the least privileged in society; will they benefit, or, at least, not be further deprived?’ (Greenleaf, 1970, p. 6).

The key elements of servant-first leadership are exhibited by those delivering health services and assisting students but, most importantly, a fundamental leadership model is demonstrated to students by role-modeling and asking the following questions:

- Are other people’s highest priority needs being served?
• Do those served grow as persons?
• Do they become healthier, wiser, freer, more autonomous?
• Are they more likely to be servant-led leaders themselves?
• What is the effect on the least privileged in society?
• Will they benefit or at least not be deprived further?

Thus, the link between the philosophy of servant-first leadership and modern leadership theory, strengthened in the 21st century as a long-term strategy, is embodied in the Kenyan example. Here the community-based education and support approach can be facilitated in a win-win-win scenario:

- Communities benefit;
- Educators employ dynamic techniques;
- Students embed IPE & leadership philosophy.

**The community focus**

A community focus was chosen by Moi University, Kenya, in 1989 through the leadership of the founding dean of the Faculty of Health Sciences and the senate, and after taking note of the views of stakeholders from the health sector and of community opinion leaders (Westberg, 1999). This strategy was chosen because of the burden of disease and healthcare priorities apparent within the country and the mismatch in training of healthcare professionals. The biomedical western model of healthcare is skewed towards curative care as opposed to prevention and health promotion, and yet the majority of the Kenyan population (85 per cent) lives in rural areas where doctors and other healthcare professionals are scarce. Moi University saw this shift in emphasis as important because the Ministry of Health and Facilities and the district health management teams, comprising key health professionals, believed it was essential to train health professionals together on common courses that were community-based. Such courses included behavioral sciences, ethics, health management, and leadership, and initiated teamwork and a leadership spirit at the embryonic stage of career formation.

As Mining and Kaufman (2006) stated:

In Kenya we have fewer than 5000 medical doctors for a country of 32 million people. We need to educate more doctors, doctors who will not leave Kenya to work abroad. The first students arrived at Moi medical school in 1990. Since then we have graduated over 350 doctors, 80% of whom stayed in Kenya. Out of 71 districts in Kenya, more than 50% have health officers who are students who have graduated from Moi University. Why did so many make the decision to stay? There are several reasons.
First, we use community-based education in the training of our students (something that we have shared with like-minded institutions such as Makerere University in Uganda and the Catholic University of Mozambique). This approach has made our students socially more accountable to the Kenyan communities. What also influenced many of our students were the electives abroad. After experiencing healthcare systems – and life in general – elsewhere, they were able to compare and choose; many of them chose Kenya. Of course we also encounter problems, as any medical school does. Our university hospital is one example: with 500 beds it is too small for us to teach our students. We are tackling this problem together with the Kenyan Government and our international partners (for example from Indiana, USA, and Maastricht, the Netherlands). We have now two new teaching laboratories, a new intensive care unit, facilities for 15 health centers in western Kenya, and plans for a new maternity and new-born unit. Staff recruitment was another hurdle we encountered when starting Moi medical school; it was difficult because we are far away from the capital city. We solved this problem not only by hiring professors from outside Kenya, but also by recruiting and training our former graduates. Linköping University (Sweden) and Maastricht University are amongst members of ‘The Friends of Moi’ together with Indiana University, USA, and have greatly assisted in faculty development through collaboration in research, training, and infrastructure. We have been able to sustain and improve our program in the past 15 years, thanks to our international collaborations.

Moi University teaches us many things; one is the importance of ‘community-based medical education’ as a strategy for reducing the out-migration of health professionals from developing countries. Moi’s rate of 80 per cent retention of graduates in Kenya is remarkable! Another is the important role of ‘sister’ institutions in industrialized countries which can mobilize resources and technical assistance to schools in developing countries. However, a reciprocal transfer of innovations is in order. Few academic health centers in the West can emulate the intensity and duration of the COBES (community-based education) attachments by students in African countries with these programs. These models should be imported ‘south to north’. Arthur Kaufmann brought to Ghent – to attend the network: TUFH (Towards Unity for Health) conference – Augustine Chavez, a young doctor from New Mexico. Though we pride ourselves on community-based education in New Mexico, he observed that students from Uganda described returning to the same village in different phases of their education, building on their previous surveys and projects. He felt our advanced technology is not as important to community health as the COBES model and so he is developing ideas for how we can transfer aspects of this rich African experience.
When Arthur Kaufman visited Moi University at the network conference in 2002, he was introduced to a young doctor working with volunteer village health workers. They were conducting a prevention program against malaria. School children were enlisted to compete for prizes by seeing who could pick up more plastic refuse in the community, since plastic collects stagnant water, a breeding ground for malaria-bearing mosquitoes. Soon, the children cleared the village of this non-biodegradable waste. Impressed with these models, in New Mexico we are employing an ever-growing number of community health workers. (Mining & Kaufman, 2006, p. 3)

Interprofessional education

Interprofessional education (IPE) began in the College of Health Sciences at Moi University in 1996 when the first class of environmental health students joined the medical students for ‘Community-based Education and Services’ (COBES). This first class had benefited from the discussions that had taken place because of the partnership with Linköping University, Sweden, which had started in 1989. (Linköping University is well known for its commitment to community-orientated education and IPE.) This partnership was the initiative of the Ministry of Health in Kenya and a formal agreement was signed in 1990. The partnership is still continuing and evolving. It continues to include both staff and student exchange. Following the initial beginning with the environmental health and medical students, nursing students quickly joined the program and professions now also include dentistry, physical therapy, and medical psychology.

The academic members of staff who supervise COBES are required to improve their knowledge and awareness through professional growth. This is a mandate given by the university to ensure that each member of staff undertakes research as well as providing community service. All academic departments are part of the college’s teams in the implementation of COBES, which is coordinated by a committee comprising discipline professionals in areas including biomedical, clinical, nursing, public health, behavioral sciences, health management, and economics. In addition, professionals in these areas of expertise are expected to contribute to service delivery at the health centers and in community settings, as they supervise the students during their week’s stay in the health center. They assist physician assistants, nursing staff, and laboratory technicians.

The communities benefit from free health assessments and awareness of the health problems prevalent in their areas. The program is very much a community-focused and -led initiative. Students provide health talks and intervention from their respective health centers. Students also participate in outreach services such as vaccinations, family planning awareness, health education, health promotion, awareness sensitization, school health talks,
Leadership Development for Interprofessional Education and other outreach activities. In addition, students initiated intervention projects such as protected water springs through their collaborative partnerships with the College of Health Sciences: these are still being used in the respective communities.

Communities involved

Health centers in Western, North Rift Valley, and parts of Nyanza province offer accommodation to students. The regions chosen are confined to the western part of the country in areas with close proximity to Moi University and the College of Health Sciences because of convenient transport arrangements. Links to more distant health centers would be expensive to maintain. Measurable outputs from the community provision include diagnostic work at each health center to ascertain the most prevalent health conditions. Malaria is among the top health problems in most communities (Kenya National Demographic Health Survey, 2009). Nutrition assessment of communities, using both dietary and anthropometric measurements, is also performed. Growth monitoring as well as determination of various forms of malnutrition can also be assessed in these communities.

Students

The community diagnosis assessment involves all four schools of the community health sciences, namely: medicine, dentistry, nursing, and physical therapy. There are approximately 200 students participating. The average number of health centers ranges from 13 to 18 meaning that approximately 12 students are placed at each center. Some health centers with higher accommodation capacity can take as many as 14 to 16 students. Examples of such centers include Mbale, Sirisia, Matayos, and Chulaimbo. Other centers double up as ‘Academic Models in Providing Access to Health Care’ (AMPATH) centers and can take a maximum of 10 students owing to the limited capacity of the vehicles available to transport them. Depending on the activities in these health centers, and the accommodation facilities, the number of students attached varies from 8 to 12. Such centers include Burnt Forest, Mosoriot, Turbo, and Chulaimbo. Students are graded and assessed based on their participation in the various health center activities, through their log books as well as through written reports, which contribute towards their end-of-term or end-of-year examination results; failing a placement would mean a student repeating the whole year of the core course. Students are introduced to basic evidence-based health research and they develop competency in public presentation and collaboration amongst various health professions in their roles in real-life situations. The COBES digest, which is a compilation of all the students’ presentations in the form of abstracts, is published by their College of Health Sciences and disseminated with references.
Description of the COBES program

1. Introduction
The philosophy of the College of Health Science (Schools of Medicine, Nursing, Dentistry, and Public Health) is to equip students with skills that encourage active learning with emphasis on a community-based approach and research. The graduates are expected to be able to integrate theory efficiently and to practice assessment and provision of healthcare in the context of available resource capacity.

The college aims to train caring, competent, and practical professionals who will give quality cost-effective and equitable healthcare to the underserved, mainly rural population. A multifaceted approach, relying on methods that encourage active learning, was adopted from the beginning. These include: problem-based learning, lectures/large group discussions/seminars, practical/clinical demonstrations/clerkships and ‘Community-Based Education and Services’ (COBES) as stated in the MBChB (medical degree) revised curriculum of 2010.

2. COBES I & II Introduction to Community Health and Community Diagnosis. The core learning areas for COBES I are:

- Community organization and its resources;
- Research methods;
- Principles of epidemiology;
- Demography and biostatistics;
- Healthcare delivery systems in Kenya;
- Primary healthcare;
- Factors affecting assessment of nutritional status in a community.

COBES II course outcomes are:

- To conduct community entry techniques;
- To conduct a community diagnosis;
- To participate in health center and outreach activities;
- To conduct a nutritional assessment in a specified community.

3. COBES II Implementation
The community entry and diagnosis course carried out during the second year of the medical (MBChB), dentistry (BDS), nursing, physical therapy (BSc), and medical psychology programs has been designed to enable the students to acquire an understanding of the health problems of the community using the health center as an entry point. The students gain experience in the various methods used in data collection in addition to being able to do the analysis and presentation of the data. The emphasis is on
the appropriate methods of collecting community-based data and analysis. Students also learn how to retrieve and describe the use of data available at the health center where they are attached. The students are expected to rotate through the various departments of the health center and participate in the ongoing primary healthcare activities in the rural community.

Evaluation

Evaluation of the provision has been carried out in traditional ways by the university with feedback from students, staff, and the community, all expressing the value and need for such a project (Pemba and Kang’ethe, 2007). In a document which reviewed changes in medical curriculum delivery, Majoor (2004) stated:

Because communities are not educational settings per se, the creation of educational opportunities for the students requires developing a partnership between the educational institution and some target communities. In industrialized countries such partnerships are usually effected through primary caregivers like family physicians and primary care centers. In developing countries such facilities may not be present so partnerships must primarily be established via the community leaders. In both settings, however, it must be clear how the community will benefit from its partnership with the educational institution. If that is neglected, the community may come to resent annual waves of students asking the same questions and performing the same activities, a phenomenon coined ‘community exhaustion’. Furthermore, partnerships cannot be restricted to just involve an educational institution and a community. They may optimally prosper when embedded in a larger partnership also including the health services operating in that area and responsible politicians. A well-implemented community-based program, however, may greatly benefit the members of a community.

Later in the same document, previous work by Majoor (2001) relating to COBES is highlighted:

‘COBES at Moi University, Faculty of Health Sciences, Eldoret, Kenya Community-Based Education and Service (COBES) gives students a chance to practice what they have learned at various levels in the community. They do not use the community purely as a laboratory but they also provide service that communities and health units have often praised. Most importantly it enables learners, teachers, health workers and the community to form partnerships early in the students’ career.’ This quote from the dean’s introduction to the COBES Digest 2001 sketches the scene of the community-based training programs of Medicine, Nursing
and Environmental Health Sciences at Moi University in Eldoret, Kenya. Students from these programs co-operate on site in the COBES program and thus practice community-based, multiprofessional education.

Most fascinating are the reports on the research projects designed and implemented in phases 3 and 4. Design of the projects in phase 3 takes place in the faculty's premises; for phase 4 again students go out into the community to collect data. Abstracts address topics as diverse as ‘Women’s self-help groups as change agents in alleviating malnutrition among under-fives’ to ‘Knowledge, attitude and practice of hygienic food handling among kiosk food vendors in Eldoret’ (Majoor, 2001. p. 20)

**Key outcomes for students**

Personal and professional development:

- COBES promotes responsible citizenship and health for the family and community, fosters integrity, service to others, and intellectual growth. All participants emerge as changed persons, imbued with core values.
- Teamwork and a leadership spirit are initiated at the embryonic stage of career formation to improve the lives of vulnerable populations through the tripartite academic mission of care, education, and research, which promotes the values of the health profession, integrity, service, intellectual inquiry, academic freedom, and responsible citizenship.
- Students are empowered to both take a leadership role themselves and encourage members of the community to also take the lead.
- Graduates from Moi are more likely to remain and work in Kenya (Stone et al., 2013).

**Key outcomes for staff**

- Trained as health professionals together in common courses that are community-based, including behavioral sciences, ethics, health management, and leadership.
- Leadership is inclusive and flexible and embodies many elements of Greenleaf's (1970) servant-leader model where functional and accompanying attributes such as honesty, vision, integrity, trust, service, modeling, pioneering, appreciation, empowerment, communication, delegation, and competence are embodied.
- A multifaceted educational approach, relying on methods that encourage active learning, participation, role modeling, and empowerment of communities.

**Key outcomes for the university and the communities**

- The communities benefit from free assessment and awareness of the health problems prevalent in their areas.
The focus of the COBES provision takes into account the needs of the community and works in partnership with the community to address those needs identified by the local community, using available local resources and partnerships with other stakeholders.

The creation of educational opportunities for the students requires developing a partnership between the educational institution and some target communities.

Staff have a mandate from the university to ensure they each undertake research as well as performing community service as part of their continuous professional development, in order to promote service delivery to the community.

All academic departments participate in COBES, which is coordinated by a committee.

Professionals are expected to contribute to service delivery at the health center as they supervise the students during their week's stay in the health center.

The COBES digest, which is a compilation of all the abstracts, is published by their College of Health Sciences and disseminated with references.

The college focuses on training caring, competent, and practical professionals, who will give quality cost-effective and equitable healthcare to the underserved, mainly rural population.

There are changes in health outcomes/health indices, which have been documented by the Ministry of Health and in feedback reports from health centers.

Conclusion

The community focus and servant-leadership model have been highlighted as key strengths of the interprofessional provision at Moi University. The partnership arrangement with Linköping University ensured that the infrastructure needed for the provision was carefully established, and the current collaboration with Linköping and other universities enabled the COBES program to learn from best practice internationally.

The COBES provision has now been running since 1990 and the feedback from staff, students, and the community is very positive. The focus of the provision takes into account the needs of the community and works in partnership with the community to address the needs identified by the local community. Students are empowered to both take a leadership role themselves and encourage members of the community to also take the lead in health promotion, such as protection of spring water, food security and balanced diet, and awareness and screening of breast, cervical, and prostate cancers.

The work of the implementation of COBES in interprofessional training at Moi has been recognized internationally and is now itself being used as a model from which others can learn.
Questions for reflection

1. How does interprofessional training in COBES spur and create community involvement in health prevention and promotion strategies?
2. Does the theory of servant-leadership provide an ideal necessary alternative to the traditional, hierarchical paradigms in health professional training?
3. Does interprofessional community training acknowledge health professional teams as holistic individuals and encourage professional recognition, competence and respect for professional discipline?

References


The Evolution of Faculty-wide Interprofessional Education Workshops

Margo Brewer, Beatrice Tucker, Leah Irving, and Diane Franklin

Introduction

The need for leadership at all levels of the academic setting has been espoused by many, including Schmitt and colleagues (2013). Academic leaders need to be informed, recognize the value of interprofessional education (IPE), and provide the resources and mechanisms required for successful sustainable IPE.

IPE can take many forms and has been categorized by Barr and colleagues into five areas: exchange, observation, action, simulation, and practice (Barr, 1996, cited in Pumar Mendez et al., 2008). Research has been published in all of these areas yet a recent global scan of 41 countries, conducted by the World Health Organization’s (WHO) IPE study group, found that despite some evidence for best practice in IPE having been established it was often used to inform IPE (Rodger & Hoffman, 2010). This gap between best practice and real-world practice is likely, at least partially, to be attributable to the many challenges to implementing IPE in curricula. According to Oandasan & Reeves (2005) the challenges to IPE fall within three domains: micro, meso and macro. Micro factors relate to professional socialization and its resulting attitudes, beliefs, and understanding. Meso factors can be both internal (geographical location and timetable differences), or external (financial and workload arrangements). Macro factors, the most difficult to influence within the university settings, include political support, accreditation, certification, and licensing body support.

In view of these factors, implementing large-scale IPE requires a significant change in the culture and practice of the organization (Piterman et al., 2010). The selection of a leadership approach relevant to this level of organizational change is critical.

This chapter outlines the development of a suite of IPE workshops – currently delivered annually to over 1000 students – which are a core element of the IPE curriculum at Curtin University’s Faculty of Health Sciences. Whilst incorporating much of the best practice in this field, the success of these
workshops and the IPE curriculum has been the result of a transformational leadership approach. This approach was effective in building the collaborative teams which supported embedding these workshops across eight schools and an additional faculty. The chapter begins by discussing the transformational leadership model which was employed, the context and development of the IPE workshops, and finishes with an exemplar which outlines one of the key IPE workshops. The exemplar outlines another leadership approach – servant-leadership – to illustrate how the IPE workshops assist students to develop leadership capability for interprofessional collaborative practice.

The overall leadership model

Following a detailed study of political leaders, Burns (1978) outlined two styles of leadership – transactional and transformational – which are not mutually exclusive as an effective leader can demonstrate both (Sun & Anderson, 2012). Although many definitions of transformational leadership have been posed, Bass & Avolio (1990), building on the work of Burns (1978), are often credited with having advanced the conceptualization of this leadership approach. Transformational leadership is defined as (Bass, 1985, p. 21)

 Occur[ring] when leaders broaden and elevate the interest for their employees, when they generate awareness and acceptance of the purpose and mission of the group, and when they stir their employees to look beyond their own self-interest for the good of the group.

More recently Gumusluoglu & Ilsev (2009, p. 464), in their study of this leadership approach, stated:

 Transformational leaders, by intellectually stimulating their followers, championing innovation, and articulating a compelling vision throughout their organizations, help establish an organizational climate where employees feel challenged and energized to seek innovative approaches in their jobs.

Transformational leadership is visionary, creative and can lead to more radical change. Transactional leadership, on the other hand, is a more pragmatic approach that creates incremental change, and transactional leaders engage in brokering in a give-and-take manner (Sun & Anderson, 2012).

Transformational leadership has been shown to be effective in achieving significant change (Bass et al., 2003; Kelloway, 2003; Schippers et al., 2008). This leadership approach has a number of essential behaviors: a) idealized influence; b) inspirational motivation; c) intellectual stimulation; and d) individualized consideration (Stone et al., 2003). These are described in more detail in Table 13.1.
Leadership Development for Interprofessional Education

Similarly, the seminal work of Kotter (1995) identifies eight steps for transformational change and Gratton & Erickson (2007) delineated eight factors that lead to successful collaborative teams. The similarities and differences between Kotter’s eight steps and Gratton & Erickson’s (2007) eight factors are presented in Table 13.2. The behaviors and stages inherent in Tables 13.1 and 13.2 informed the transformational leadership approach adopted at Curtin University by the key health faculty leaders identified earlier, and enabled the successful establishment of the IPE workshops.

The context

Curtin University is Western Australia’s most multicultural university with a high enrollment of indigenous Australians and international students; it also has multiple regional and offshore campuses. This public university has more than 47,000 students within its faculties of business, humanities, science and engineering, and health. The faculty of health sciences, with approximately 10,000 students, comprises seven schools: biomedical sciences, nursing and

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<th>Primary Behavior</th>
<th>Characteristics</th>
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| Idealized influence | Develops a shared vision  
Shows a willingness to take and share risks  
Demonstrates ethical and moral integrity |
| Inspirational motivation | Provides meaning and challenge to team  
Displays enthusiasm and optimism  
Builds relationships through interactive communication  
Communicates expectations  
Demonstrates a commitment to goals and the shared vision |
| Intellectual stimulation | Stimulates the team to be innovative and creative by questioning assumptions, reframing problems and approaching and trying new solutions  
Solicits the team’s ideas and creative solutions to problems  
Emphasizes rationality |
| Individualized consideration | Provides personal attention as per team members’ needs for achievement and growth  
Establishes a supportive climate  
Mentors or coaches team members to achieve their potential  
Accepts individual differences  
Demonstrates effective listening  
Delegates tasks and then unobtrusively monitors these |

Source: Adapted from Stone et al. (2003).
midwifery, occupational therapy and social work, pharmacy, physiotherapy, psychology and speech pathology, and public health.

In 2007 Curtin University commenced a three-year initiative, Curriculum 2010 (Oliver, 2013). The focus for this whole of institution change was the adoption of nine graduate attributes as the basis for all course-learning outcomes. The achievement of these attributes, contextualized to each discipline, would be developed and assessed throughout all courses. Graduate attributes are defined as:

The skills, knowledge and abilities of university graduates, beyond disciplinary content knowledge, which are applicable to a range of contexts. (Barrie, 2004, p. 262)

Curtin’s graduate attributes are required to: a) apply discipline knowledge, principles and concepts; b) think critically, creatively and reflectively; c) access, evaluate, and synthesize information; d) communicate effectively; e) use technologies appropriately; f) utilize lifelong learning skills; g) recognize and apply international perspectives; h) demonstrate cultural awareness and understanding; and i) apply professional skills. These are closely aligned to those set out by the Department of Education, Employment and Workplace Relations in its report Employability skills framework Stage 1 Final Report (2012), which include: contribute and collaborate; understand, respect, and utilize diverse perspectives; negotiate outcomes and identify and resolve conflict; adapt and apply prior knowledge; make decisions; identify, solve, and anticipate problems; design, develop, and implement new ideas; use tools and technologies.

Many, if not all, of these graduate attributes (employability skills) are critical to students’ development of leadership capabilities. This link is explicit

<table>
<thead>
<tr>
<th>Kotter’s eight steps</th>
<th>Gratton &amp; Erickson’s eight factors</th>
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<tr>
<td>Establish a sense of urgency</td>
<td>Invest in signature relationship practices</td>
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<tr>
<td>Form a powerful guiding coalition</td>
<td>Model collaborative behavior</td>
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<tr>
<td>Create a vision</td>
<td>Create a ‘gift’ culture</td>
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<tr>
<td>Communicate the vision</td>
<td>Ensure the requisite skills</td>
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<tr>
<td>Empower others to act on the vision</td>
<td>Support a strong sense of community</td>
</tr>
<tr>
<td>Plan for and create short-term wins</td>
<td>Assign team leaders who are both task- and relationship-oriented</td>
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<tr>
<td>Consolidate improvements and produce still more change</td>
<td>Build on heritage relationships</td>
</tr>
<tr>
<td>Institutionalize new approaches</td>
<td>Understand role clarity and task ambiguity</td>
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in Curtin’s ninth attribute, ‘apply professional skills’, which requires that students ‘work independently and in teams; demonstrate leadership, professional behavior and ethical practices’ (Teaching and learning at Curtin, 2010, p. 7). The link to leadership is also implicit through the Department of Education, Employment and Workplace Relations’ employability skills which identify the need for students to ‘negotiate outcomes and identify and resolve conflict and make decisions’.

The emphasis on leading and developing leadership capability in graduates increased in prominence at Curtin University with the current strategic plan which sets out ‘to change minds, lives and the world through leadership, innovation and excellence in teaching and research’. A key outcome measure for this plan is the number of students engaged in leadership activities. Both leadership and IPE are embedded within the faculty of health science’s own strategic plan, with many IPE activities providing students with opportunities to develop their leadership capabilities. One example of IPE and the faculty leadership related to this will now be described.

IPE workshops: A history

The development of the IPE workshops at Curtin University began as an organic process in 2007 and then moved to a managed, faculty-based process in 2008 as outlined in Figure 13.1.

Formation

This evolutionary process began when academics within the School of Pharmacy recognized the need to ensure that their graduates were provided with opportunities to develop their teamwork competencies as they collaborated with students from other disciplines to solve complex problems.

Figure 13.1  Evolutionary stages of Curtin’s IPE workshops
This led to the development of the first workshop in early 2008 entitled *Making a difference in patient care! Medication safety and root cause analysis*. Led by the School of Pharmacy, the workshop was planned, implemented, and evaluated by a small group of IPE champions comprising academics from pharmacy, the School of Nursing and Midwifery, Curtin’s Central Office of Teaching and Learning, and the University of Notre Dame’s School of Medicine. Forty-two students from pharmacy, nursing, and medicine participated in this voluntary workshop.

The second workshop, also in 2008, *Multidisciplinary care and communication*, was once again led by the same group of champions with academics from the School of Physiotherapy joining them. Forty-six students from pharmacy, nursing, medicine, and physiotherapy participated. This workshop provided an interprofessional experience for students: however, the organic way in which the early workshops evolved resulted in a lack of clarity around the use of terms. In this case ‘multidisciplinary’ rather than ‘interprofessional’ was used in the title.

The third workshop, pilot tested in early 2009, *Client-centered care: living with stroke and depression*, saw a significant expansion on the two previous workshops with academics from six of the faculty’s seven schools plus the Office of Teaching and Learning making up the team. Seventy students from pharmacy, nursing, medicine, physiotherapy, occupational therapy, social work, psychology, speech pathology, and dietetics volunteered to participate.

**Growth**

Each workshop in the formation phase had its own implementation and evaluation process, aims, learning outcomes, and learning methods. The uniting features were: a) the focus on IPE’s key features – two or more professions learning from, with, and about each other (WHO, 2010) whilst engaged in interactive tasks; b) case-based learning to ensure relevance to clinical practice; c) voluntary student participation; and d) leadership by a small group of IPE academic champions. This organic evolution was successful in the short term, but when the decision was made by faculty executive to embed case-based IPE workshops within curricula the lack of overarching leadership and inconsistent processes within each workshop made this task difficult. Agreement was reached by senior executive staff that centralized leadership was needed to ensure a consistent, coordinated approach to the workshops and a sustainable embedded interprofessional experience for all students (Freeth, 2001).

A transformational leadership approach – as articulated earlier in this chapter – was taken as it was deemed to be most suited to the change, innovation and collaboration required to embed these IPE workshops into curricula (Eisenbeiss et al., 2008). Kotter’s (1995) step-by-step process for transformational change provided the overarching framework for this
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initiative. An overview of how transformational leadership was applied in this context and combined with Kotter’s eight-step process is provided in the section below.

As described previously, and recommended in the literature (Gilbert, 2005), senior executive staff made the decision to embed IPE into the faculty’s teaching and enabling plan to ensure sustainability. A unifying framework was therefore developed that outlined the objectives for IPE in the faculty, along with the capabilities required by Curtin’s graduates to meet these objectives. This was the next critical step in the growth phase. This framework comprises three domains: client-centered service, client safety and quality, and collaborative practice. Five interprofessional capabilities were required to ensure the delivery of these three domains: communication, role clarification, team function, conflict resolution, and reflection (Figure 13.2).

To establish a sense of importance and urgency for IPE, as recommended by Kotter (1995), the framework was linked to the work of several key organizations within health including the World Health Organization (2010), the

![Figure 13.2 Curtin University's Interprofessional Capability Framework](source: Brewer & Jones (2013))
Australian Safety and Quality Framework for Health Care (2010), and Health Workforce Australia (2011). The framework also provided a clear purpose for embedding the IPE workshops within curricula, as, without this, students would not be provided with sufficient opportunities to develop the desired interprofessional capabilities.

To obtain support from the highest levels, faculty-wide input and to target diverse stakeholders (Lewis & Stone, 2007; Steinart, 2005) a powerful ‘coalition’ or group to lead the change was established: the interprofessional education reference group (Kotter, 1995). The terms of reference for this group were based on the five core principles of the International Association for Public Participation (2006): inform, consult, involve, collaborate, and empower. Monthly meetings of this leadership group engaged representation from a large part of the organization and its community and industry stakeholders. It provided a collaborative decision-making forum where two essential transformational leadership behaviors described earlier (Table 13.1) were enacted: inspirational motivation and intellectual stimulation. Regular communication and interactions led to productive relationships being established and maintained which in turn led to joint ownership of a range of IPE initiatives. This leadership group also provided a model of collaborative behavior for staff – a key factor in successful collaborative teams (Gratton & Erickson, 2007).

The next step as outlined by Kotter (1995) was the creation of a vision for IPE. Senior executives agreed on the vision for the faculty as being:

*International leaders in interprofessional education, building new health workforce models for the future.*

The aspirational elements of this – international leaders and new workforce models – were both appealing and challenging – key elements of transformational leadership (Eisenbeiss et al., 2008; Stone et al., 2003).

Communication of this vision to all stakeholders was the next step. A comprehensive communication plan which embodied the five core principles underlying this leadership approach – inform, consult, involve, collaborate, and empower – was developed. This plan ensured consistency in voicing the vision and engendered engagement with this as the ‘team vision’ (Boseman, 2008).

The communication plan featured a number of strategies which were designed to inspire motivation from faculty staff and students: a) the Director of Interprofessional Practice joined key committees in the faculty to ensure wide consultation with university staff in key leadership roles; b) IPE featured prominently on the faculty website and key marketing publications; c) academics were provided with easy access to information and resources via the learning management system Blackboard™; d) a regular newsletter was provided to all staff; and e) an annual IPE conference was
introduced to enable staff, students, and industry partners to learn about the many interprofessional initiatives taking place. This conference also enabled the stakeholders to publicly celebrate the success of their IPE initiative.

During this growth phase further workshops were developed and piloted in keeping with Kotter’s (1995) phases: empower others to act; plan for, and create wins; consolidate improvements; and produce more change. Throughout 2009 and 2010 the number of participants involved continued to grow, so that by the end of 2010 more than 700 students from 12 disciplines within both the Faculty of Health Sciences and the Faculty of Science and Engineering had participated in at least one workshop. The instructional designer was able to systematically develop online learning experiences, utilizing technology and multimedia which complemented or replaced face-to-face learning in the workshops. This blended delivery method addressed a number of meso factors outlined by Oandasan & Reeves (2005), including: a) the geographical location of students (some were away from campus on clinical placement or live in rural and international locations); b) timetabling differences between the various courses which made it difficult to schedule face-to-face workshops; and c) the workload associated with face-to-face delivery.

The outcomes of the workshops from the students’ perspective were evaluated using surveys. An adaptation of the validated tools, the Readiness for Interprofessional Learning Scale Revised (McFadyen et al., 2006), the Interprofessional Socialization and Valuing Scale (ISVS) (King et al., 2010), and the University of West England Interprofessional Questionnaire (Pollard et al., 2005) were used in the surveys. These were combined with knowledge self-ratings and general questions related to the learning experience, the most positive aspects as well as the challenges and potential solutions for these. Staff feedback was also gathered through surveys and focus groups. Overall the results of these evaluations indicated that the workshops made positive improvements in students’ attitudes towards IPE. The key benefits of the workshops included: learning the role of other professions; the opportunity to collaborate and engage in discussion with others; gaining insights into other professional perspectives and approaches; the opportunity to network and build interprofessional relationships; developing a care plan; listening to clients’ stories, learning about client-centered care; and developing more effective interprofessional communication skills. The main concerns were: the limited diversity of professions in some workshops; the lack of equality in participation or expectations for the different courses; challenges with role clarification; the lack of face-to-face contact and/or difficulties with the online learning environment; and, finally, the explicit relevance to some professions. A range of improvements were implemented including: the development of an online student registration process that automatically populated a database used to allocate students to interprofessional groups; more comprehensive preparation of the facilitators including
a face-to-face meeting and a more detailed information package; improved online instruction and structure for both students and facilitators; provision of criteria for discussions so that all students were aware of what was expected of them and facilitators were able to provide objective feedback on the quantity and quality of students’ contributions; and increased engagement with unit coordinators to aid communication with students. More detailed information on these workshops and the results of these evaluations is available (Donaldson et al., 2011; Donaldson et al., 2012).

**Embedding**

As described earlier the adoption of a transformational leadership approach was designed to create a shared commitment to change and innovation. This commitment was achieved in 2011 when the IPE workshops were embedded into the curriculum of several courses within the faculty of health sciences plus medical imaging sciences from the faculty of science and engineering. A number of strategies were essential to this achievement.

Adequate resourcing and support was required to increase the suite of workshops and to make these available each year. A project brief was provided to the faculty executive to secure additional staff: an IPE workshop coordinator and facilitators as needed. This successful brief was followed by the development of a comprehensive project plan which outlined all key aspects of the workshop quality management process. This plan enabled each member of the core IPE team to have clarity of their leadership role which in turn further facilitated distribution of the leadership, an aspect of transformational leadership (Hudson & Hudson, 2011).

Consultation with the key decision-makers, the unit coordinators, on the design and implementation of these IPE learning experiences was also critical. They formed a second guiding coalition (Kotter, 1995) which not only established a sense of community (Gratton & Erickson, 2007) but also shared the distribution of the leadership roles (Gelmon et al., 2000). It was discovered early on that to provide the intellectual stimulation and encourage the generation of new ideas and solutions (Stone et al., 2003) face-to-face meetings were by far the most effective communication medium (Gratton & Erickson, 2007). These meetings were supplemented by regular emails and telephone consultations.

This collaborative team then established common processes and structures for the workshops that during the formation and growth stage had continued to develop with different aims, learning outcomes, and learning methods. Firstly, Curtin’s interprofessional capability framework (Brewer & Jones, 2013) was applied to each of the workshops to ensure that the three domains – client-centered service, client safety and quality, and collaborative practice – were being addressed. In previous workshops students had been provided with opportunities to learn from, with and about each other. However, the framework, with three levels of development accompanied by
descriptors for each domain and level, made explicit the interprofessional capabilities that the students were expected to develop. The framework also guided the learning experience that was provided. For example, each workshop was re-examined to ensure that the client was at the center. The use of case studies plus the inclusion of clients sharing their experiences provided the ideal vehicle for delivering on this goal.

A set of shared overarching learning outcomes linked to the framework was identified which stated that at the conclusion of the workshop students would be able to:

- Critically analyze the key health and social issues in the case study;
- Describe the role and responsibilities of their own discipline in the case study to a range of other professionals;
- Demonstrate respect for the roles, responsibilities, and competence of the other professionals in their team;
- Collaborate effectively with the team to complete the required activities;
- Evaluate the outcomes of the interprofessional team collaboration and their own contribution to this;
- Critically reflect on how the learning in this workshop is likely to impact on future practice.

The workshops were informed by two key teaching and learning approaches: learner-centered and socioconstructivist learning (Casimiro et al., 2009). Importance was placed on the interactions between the learners and between learners and the learning environment. In keeping with Vygotsky’s (1978) belief that scaffolding and peer interactions are essential elements of the learning process, the students were considered to be the ‘expert’ in their discipline. They assisted the learning of their colleagues through a scaffolded process that enabled students to advance their ‘zone of proximal development’. This sharing of clinical knowledge ensured that the students learnt from, with, and about each other to develop new insights into client care and interprofessional collaborative practice.

The workshops were targeted at students in the final two years of their degree program, as academics felt that they had sufficient discipline-specific knowledge and experience to allow them to contribute to the case-based learning in a way that added value for all participants (Gilbert, 2005). The complexity of each case study was also considered as, in order to demonstrate the need for interprofessional collaborative practice, a high level of complexity was required. For example, the client for the workshop focusing on stroke management had care of three young children following the death of his wife and a child with learning difficulties, and had developed depression whilst in hospital. To ensure equity in the experience and workload for students, all workshops were designed to be eight hours in length.
A site for each workshop was created on the university’s learning management system, Blackboard™, where students participated in either pre-workshop activities or completed the entire workshop. This learning environment was organized into three modules, as shown in Figure 13.3.

Students were allocated into interprofessional teams of up to ten members with representation from as diverse a range of disciplines as possible. They were required to complete the online orientation module which commenced with a welcome and overview of the learning experience, and an invitation for students to complete an online pre-workshop survey comprising quantitative and qualitative questions as described earlier. The next task set the scene for the students by establishing a shared understanding of the definitions of interprofessional education and collaborative practice. The World Health Organization’s framework for action was provided to situate this learning experience in an international context as well as to provide a summary of key evidence for both interprofessional education and collaborative practice (WHO, 2010). Students were directed to view a short video on the importance of interprofessional education and then required to complete an activity on the benefits of collaborative practice to themselves, the client and the health system. The final step in module 1 was for students to begin forming relationships within their teams by introducing themselves to their group members online and clarifying the scope of practice of their profession. Web 2.0 technologies including Wikis, discussion boards, group file sharing, and Google+™ were integrated in online workshops to facilitate communication and collaboration.

The second module focused on providing the core learning materials; it began with an authentic case scenario containing progressively increased levels of complexity as recommended by D’Eon (2004). Once students were introduced to the client, a range of related learning resources were made available to them, including appropriate clinical guidelines, videos of health professionals in practice, animations, and experts sharing their knowledge and experience. Students were prompted to consider the role of their own
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discipline with the client. A series of group activities followed providing students with the opportunity to work in their interprofessional team to address complex health and social care issues related to the client. Questions were used to trigger student discussion that focused on them sharing and applying their discipline knowledge, thinking critically together, communicating with each other, and working professionally as a member of a healthcare team.

In the final module of the workshop, students were encouraged to identify potential barriers to implementing their interprofessional care plan. These included barriers commonly cited in the literature such as differences in priorities, aims, and objectives; confusion over accountability; lack of understanding of team processes; differences in history and culture; historical rivalries; difference in jargon; fears of diluted professional identity; and potential differences in accountability (Headrick et al., 1998; Suddick & De Souza, 2007). Once these barriers were identified, students were asked to generate solutions to at least two of these. Most workshops then included a facilitated interview with clients and their caregivers which enabled them to share their experience of healthcare. Students then participated in a question and answer session with the client(s) either in a face-to-face session or in the online workshops where they discussed what they had learned from this experience. Finally, for many workshops, students shared their learning in a Wiki where they identified their discipline (but not their name) using the Gibbs model for reflection (Gibbs, 1998). Students were then invited to complete an online post-workshop survey comprising quantitative and qualitative questions as described earlier.

Academics were recruited to facilitate student interaction and engagement in both face-to-face and online sessions. Preparatory training was delivered in two forms: a) a face-to-face session with written guidelines provided; and b) an online self-study package using Blackboard™. These were supplemented by a detailed handbook for the academic. The focus of this preparation was effective IPE facilitation strategies, including appropriate questioning to challenge students to engage in deep learning and reflection (Howkins & Bray, 2008). Academics focused on facilitating the group process and not the content of the workshop (Barr, 2002; Gordon et al., 2010). This model of facilitation enabled the students to work effectively in their teams with minimal teacher input, resulting in student-centered learning as illustrated by the following staff comment:

All disciplines were interactive and knowledgeable. The students were able to guide their discussions with minimal facilitation.

Assessments of student learning generally comprised two components. A grading of their level of contribution/participation using a simple rubric was undertaken by the IPE facilitator. Students were provided with prompts
by the facilitators related to this and then a final grade was provided to the relevant unit coordinator. Students were also required to complete a specific assessment task developed by their unit coordinator with advice from the IPE team. These assessments included a combination of reflective essays, marking of the students' contributions to the integrated care plan, reflective blogs or reports. Direct feedback was provided to the students by their assessor. This assessment process is one of the ongoing issues with the workshops due to the level of discrepancy between the requirements of each course/unit and the potential for a lack of alignment between the assessment task and the interprofessional capability framework. Greater collaboration between the IPE team and the unit coordinators is required to address this.

A staff–student leadership exemplar

Student leadership was not a focus in the early workshops but was addressed in the most recent workshop Working in partnership with indigenous Australians for better health outcomes. This workshop had three aims for students: a) to increase their knowledge of strategies to partner effectively with Indigenous Australians utilizing a servant-leadership approach; b) to build their knowledge of each profession’s scope of practice and role in managing the client case study provided; and c) to develop an integrated interprofessional management plan utilizing the World Health Organization’s international classification and function framework (2001).

Students completed the orientation module (Figure 13.3) and began the workshop module; they were provided with the case study and a number of resources in the online environment via Blackboard™. The central resource was Dawn Bessarab's (1999) article Working with Aboriginal families. This article outlines three issues when working with Aboriginal people: a) colonization; b) legislative history; and c) Aboriginal terms of reference (cultural meanings). The principles of respect, equity, and justice are highlighted, including respect and acknowledgement for Aboriginal people's cultural systems and practices – their cultural frame of reference. This article informed the remainder of the workshop, including presentations on the impact of past policies and practices on Western Australia's Indigenous people and the role of the Aboriginal liaison officer in health services, who is a useful cultural consultant. Videos of panel discussions on working effectively with Aboriginal people in health, produced by the Rural Health Education Foundation, were viewed. These artifacts were used to stimulate small-group discussion. Finally, students utilized the WHO International classification and function framework (2001) (which emphasizes holistic management of health conditions) to identify: the critical issues for the case study; the role of their profession in the management of these issues; other professions that they see as essential to their team; their goals for the client; and the strategies for how they will achieve these. Facilitators sat with each student group,
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encouraging effective collaboration, sharing their own experiences, and suggesting strategies for success. Whenever possible these facilitators were Indigenous Australians or people deemed to be culturally competent.

A servant-leadership approach was chosen for this workshop as it was felt this was not only well suited to interprofessional collaborative teams (Hammick et al., 2009) but also to the principles and strategies outlined by Bessarab (1999). Neill et al. (2007) described servant-leadership as:

These principles (of servant leadership) include listening, awareness, conceptualization, foresight, stewardship, commitment to the growth of people, and community building. Servant leaders are encouraged to build and strengthen relationships with other team members and appreciate and value the expertise and contribution of other disciplines in planning and provision of care. (pp. 426–7)

This leadership style focuses on the leader’s aim to serve the community (Stone et al., 2003). Leaders encourage the others in their team to follow by building reciprocal relationships with them. Along with the principles outlined in the definition above, values are critical to servant leadership. According to Russell (2001) these values include vision, credibility, trust, service, modeling, pioneering, appreciation of others, and empowerment. The goal of this leadership style in practice is to develop an effective healthcare team that shares the responsibilities whilst achieving the identified goal (Neill et al., 2007). As well as linking with Bassarab’s principles and strategies, servant-leadership also links well with the key elements of Curtin’s interprofessional capability framework (Brewer & Jones, 2013): client-centered, collaborative practice, client safety, and quality.

Servant-leadership was embedded implicitly within the workshop. For example, this approach required the IPE team to work in partnership with Indigenous people to develop and facilitate the workshop. Existing relationships with elders, based on credibility and trust, were utilized to build relationships with other Indigenous people connected to them. The vision for the IPE program at Curtin was shared and then a vision for this particular learning experience was developed collaboratively. This vision focused on better serving the Indigenous community in the future. The capabilities of the Indigenous facilitators were acknowledged and the requirements asked of them shaped to fit these.

The employment of these servant-leadership strategies meant that the IPE team and the Indigenous facilitators were able to model effective partnership working for the students who participated. Students were strongly encouraged to take a collaborative approach in working interprofessionally that empowered people and built strong relationships. The shift from a problem-based to a solution-based approach was emphasized and linked to the WHO international classification and function framework. The
circular-questioning approach outlined by Bessarab was highlighted. This approach focuses on behaviors, feelings, beliefs, and meanings and draws on the connections between people. This aligned closely with the servant-leadership approach, which is also relationship-based. Facilitating students to gain an appreciation of each other and their potential contribution to the client case study, along with an emphasis on empowerment of both themselves as change agents and Indigenous people as the experts in their own life, were the targeted servant-leadership principles within this workshop. The students’ understanding of key servant-leadership values such as service, empowerment, and appreciation of others (Neill et al., 2007; Russell, 2001) was evident in the care plans they presented at the end of this workshop. For example, one group, having identified the key issues for the case, outlined a set of management goals that highlighted not only the contribution of each profession in their team but also acknowledged the need for other team members to be recruited, including a traditional medicine man. Their plan included the value of relationships within the team and empowering the client and the broader Aboriginal community in contributing to the management of health and related social, environmental, and spiritual issues.

Lessons learned

A number of leadership factors were important to the successful embedding of these IPE workshops. Three of the strategies for collaborative teams outlined in Gratton & Erickson (2007) were employed to ensure this success: a) interprofessional committees comprising senior university staff modeled effective collaboration for the workshop teams; b) a sense of community was established within the faculty which assisted academics to feel comfortable to work with academics from other disciplines and schools; and c) academic teams were built on the basis of existing relationships so that not all members were strangers. Multiple planning meetings were held, case scenarios devised and model answers developed. A number of academics attended the workshops as invited speakers, facilitators of the group activities, observers, and participants. This level of engagement opened up new lines of communication between schools within the faculty and also resulted in increasing the number of academics interested and experienced in IPE. The flow-on effect of this has been the creation of other teaching and learning materials, such as the development by nursing and physiotherapy academics of an interprofessional manual-handling training program for their students.

However, the relationships that were to be built with several key leaders were less effective than envisioned. A number of factors may have contributed to this. The centralization of the IPE workshops resulted in some staff disengaging from the process. The IPE leader needed to invest more time
and energy in maintaining the relationships, particularly with the unit coordinators. The excessive workload of staff involved was also a factor, making it difficult for them to commit the time needed to build the larger collaborative team. An academic workload system that allows extra time for the development and implementation of intra- and inter-faculty IPE would assist with this, as would the addition of IPE involvement as a criterion for staff promotion and selection. A third factor was that the timing of this centralization coincided with the implementation of a very large-scale change in the faculty, the interprofessional first-year curriculum. Addressing this factor was difficult, but the timing of change within an organization needs to be carefully planned.

The application of a continuous quality management process was effective as it meant that the early workshops informed the evolution and large-scale implementation of subsequent workshops. Areas of good practice and areas for improvement were successfully identified and addressed.

As mentioned earlier, the learning management system Blackboard™ enabled the provision of much of the learning experiences in an online environment. Blended delivery has been shown to enhance team process skills in students when compared to face-to-face learning (Carbonaro et al., 2008). The other benefits of an online delivery approach included: overcoming issues of coordinating students across several schools for on-campus activities; the provision of venues; allowing for equitable participation of rural and international students; and providing a transparent and permanent record of each student’s contributions for assessment purposes.

Combining students who had elected to complete a workshop (with no sanctions for non-participation) with those for whom the workshop was compulsory resulted in a less positive experience for some student teams when a small number of students failed to engage in either the face-to-face session or online. To ensure student attendance and engagement in the learning activities, the workshops were embedded within a unit for each discipline, making the activities mandatory. This strategy was considered essential for success and is consistent with best practice (Rodger & Hoffman, 2010). Schools were offered flexibility in how they managed this process, with some electing to embed a particular workshop in a unit of study whilst others elected to make it compulsory to complete one workshop from the suite that was available.

A number of important lessons about teaching and learning matters were identified. The need for student teams to work collaboratively to complete a group task – the development of an integrated care plan that was publicly displayed (either uploaded onto the Blackboard™ site or presented at the face-to-face session) helped to ensure that the learning experience was highly interactive and provided structured opportunities for students to learn from, with, and about each other.
Based on the experiences outlined in this chapter, the following recommendations can be made:

1. The case study chosen must be: a) authentic – so that the knowledge and skills gained are highly transferable to practice; b) sufficiently complex to require interprofessional teamwork to address the issues involved, and challenging enough to extend the more competent student. This case-based approach can be used to challenge students’ assumptions, which has the potential to stimulate a change in approach to healthcare (Casimiro et al., 2009).

2. The learning outcomes need to be reached by consensus among academics across the faculty(s) to ensure not only the relevance to their students but also buy-in from the unit coordinators. Once established, these need to be clearly articulated to the students.

3. Criteria should be provided for the students’ online discussions, with supporting exemplars, so students have a clear understanding of the expectations, and so that facilitators can provide relevant feedback.

4. Training specific to IPE for the workshop facilitators is important to ensure a learner-centered approach. Skilled facilitators can take a minor role in teaching and focus on the learning process during the workshops. Skilled facilitators enable students to be proactive and independent, which in turn enables them to develop their interprofessional leadership skills.

**Conclusion**

In summary, the IPE workshops provided by the Faculty of Health Sciences at Curtin University have been a positive experience for all participants: the university academics, students, industry experts, and clients and their families. Beginning as a very organic process with a small group of IPE champions delivering the first workshop to 42 students from just three professions, this faculty-wide initiative has grown to the current suite of eight established workshops that have been delivered to more than 3000 students from 12 disciplines.

IPE workshops of the future will need to continually change to meet the expectations of 21st-century students who insist on learning that is relevant, flexible, creative, complex, and challenging. Existing case studies will be further developed and clustered to create communities that replicate real-world health and social scenarios in 2D and 3D integrated environments. This kind of learning resource will help to further develop the capacity for deep learning that is experiential, social, and reflexive. Integrating web 2.0 and 3.0 technologies will provide even greater flexibility, scope, and interactivity for interprofessional learning through the provision of international collaborations with other institutions and industries. Additional workshops, featuring case studies that are relevant to other professions within the faculty
that are not yet involved, need to be developed. For example, a workshop utilizing a case with a school-aged child with disabilities to include education students, and a workshop focused on planning healthy communities for the future which would engage students from architecture and planning. The faculty would also like to ensure that at least one workshop is embedded in each academic program and that students’ interprofessional capabilities are assessed. These embedding and assessment processes are being included in the assessment review currently being undertaken for all programs of study in the faculty. To continue to be successful the leaders in the faculty need to invest more fully in building collaborative teams at the unit coordinator level. Gratton & Erickson’s (2007) eight strategies would be a useful guide for this.

IPE workshops such as these, when based on best practice in IPE and key recommendations from the transformational leadership literature, are effective in facilitating students and staff to learn from, with, and about each other as they work in teams to complete the required tasks. The development of leadership skills during this process should not be assumed but instead planned for and made explicit throughout the learning experience.

Questions for reflection

1. In your area of practice how might case-based IPE workshops be implemented and/or embedded?
2. What are the key challenges you would need to overcome?
3. What leadership capabilities (knowledge, skills, attitudes, and values) might you need to strengthen to be successful?
4. How does servant-leadership differ from transformational leadership?

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Leadership in Interprofessional Collaboration for Lifelong Learning

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Introduction

Interprofessional collaboration has an increasing profile in tertiary education organizations. Most Australian and New Zealand medical, nursing, and allied health standards documents and curricula now outline the need for interprofessional learning and practical experience of team-based activities. Likewise there would be few Australasian universities that did not include the need for lifelong learning amongst their list of desired graduate attributes.

Australasian Health Services (primary, secondary, and tertiary) are now gradually coming to recognize that education, learning, and training are part of their core business. Many are now theoretically and often practically committed to supporting the lifelong learning of their professional staff. However, this commitment to lifelong learning is mainly to unidisciplinary or uniprofessional education and training. This is mostly driven by individual disciplinary colleges or associations, although some training is mandated by government, such as by Health Workforce Australia (HWA, 2011) who have funded programs that include interprofessional collaboration, for example the Simulated Learning Environment funding. While Health Workforce New Zealand (HWNZ) have verbally committed to interprofessional collaboration (personal communication with JC) at the time of writing, HWNZ have no written policy to support funding of similar programs.

Some disciplines, such as medicine, receive generous continuing education allowances for relevant education and training while others, for example, allied health disciplines, receive very little support. Most health services are committed to what they call the provision of team-based healthcare and the majority of these teams have members from a range of professions and disciplines. However, in our experience in Australia and New Zealand, there is only patchy commitment to the concept of interprofessional team education and training. For example, in Australia and New Zealand anesthetists and emergency department doctors will arrange simulation training for
their own discipline but full interprofessional team working is not yet common in Australia (Hall, 2005; Dunston, 2009; HWA, 2012).

Tertiary students exposed to interprofessional education and training in universities who are sent on placement in health services often ask ‘Do the staff do this?’ (interprofessional teamwork and team training). In most Australasian (includes Australia and New Zealand) health services the answer is no. Health services are lagging behind universities in committing to interprofessional practice. This is surprising as the people who work in health services and tertiary education are probably as equally interested in sport. Therefore they are completely comfortable with the concept of regular individual, small-group, and full-team training for sporting teams. Those who are not interested in sport are likely to understand the need for musicians to practice as individuals and together as groups or orchestras. The concept is the same – education, training, and qualifying once doesn’t enable continued excellent practice. Individual learning and practice is important but to be part of a team or group also requires a commitment to training together over a working life. Team working can be found in many areas, the most obvious being sport and music. However, in all fields to be an effective team the group needs to have common goals; respect and trust between members along with open and honest communication as well as being committed to training together, all of which are fundamental principles of Interprofessional education and practice (Molyneaux, 2001; Xychris & Lowton, 2008).

To effectively develop and implement interprofessional collaborative practice a model/s is needed that ensures lifelong learning for interprofessional collaborative practice. The focus should be on linking the tertiary education and training sector with the health services sector. Within each sector there is a need to focus on student learning and practice and on professional service provider/instructor learning and practice. It is not productive to educate and train students interprofessionally to have them commence work in health services that don’t work that way or, more dangerously, tell students that ‘We don’t do things like that around here’. Similarly, training professionals without including students will not ensure that future workforces are interprofessionally practice-ready as is espoused by the World Health Organization (WHO, 2010).

The model described demonstrates how the gap between education and practice can be linked by collaborative practice. The focus of collaborative practice, for both students and practitioners, is aimed at improving patient outcomes. This model incorporates features outlined in the WHO Framework for action on interprofessional education and collaborative practice (2010). The challenge is not to choose one side of the education work gap or divide and work there in isolation but opt for a better middle (third) way that operates in and between both sectors at once. There is a need to help develop both sectors at the same time, preferably in the most cost-effective and
outcomes-based way utilizing interprofessional collaboration. This will need to be supported by effective leadership. We call this the middle (third) way or working in the Goldilocks zone – as only the middle way is ‘just right’. That is, there is not a gap or divide but a continuum of practice.

A middle way (third way) or working in the Goldilocks zone

The concept of a middle way is best known recently in the field of politics, for example British Prime Minister, Tony Blair (Romano, 2006), supported by the theories of the sociologist Anthony Giddens (1998, 2000) claimed to be taking a better third or middle way between left and right. The idea is that polarized orthodoxies like left and right are avoided and that the best way is a middle way that makes progress by taking the best from both sides. In other words, try to occupy the Goldilocks zone – ‘not too hot, not too cold but just right’.

Australasian healthcare and universities have moved towards a middle way in regard to where healthcare education, training, and learning happen. This move challenges those preparing learners to work in this system to seek more innovative and flexible student placements in situations beyond the acute sector and to include simulation if possible (HWA, 2011). Healthcare organizations with the capacity to provide authentic interprofessional team working as part of student experience are not common and usually develop where there is strong leadership and commitment to provide high quality student placements and to build capacity in practitioners. Both institutions have moved away from the orthodoxies that healthcare education was best done in healthcare services or conversely best done in universities or tertiary institutions. However, the middle way still looks fairly uncomfortable, as in many places two years at university and then placements in acute hospital settings, rather than an integrated program, is the norm. However, some universities and health services are now adopting a truer middle way and taking the best from both organizational traditions and situating learning in the best and most appropriate environment at all times. However the majority of this collaboration is still related to single disciplines – that is, interdisciplinary not interprofessional.

Health services are also exploring a middle way in regard to continuing education and training. Continuing education for health professionals was traditionally seen as a matter for the individual clinician. Some disciplines have had generous contractual support for this continuing education while others received no or very little support. Now most health services have schemes for helping all clinical staff gain higher qualifications or access to at least some centrally provided staff development. Health services are also developing better relationships with universities and this offers the potential for introducing evidence-based education and training to the health service and more practically orientated education for the universities’ staff
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The current challenge is to help health and education work effectively around interprofessional collaboration in education and practice. In this chapter some examples are presented of what is being undertaken to improve interprofessional collaborative practice across the spectrum of education and health services in Australasia. This collaboration is not just about student learning but is also about health service staff learning and better patient/client outcomes. In one example a university took the lead and committed funds and leadership to work inside a community health service. In the second example the health service (district health board) invested time and some limited resources to work with universities to find a middle way that benefited the current and future health workforce and their patients and clients.

A. A medium sized community health service and a university in a rural Australian setting collaborate:

Leadership provided by a senior lecturer and a student placement officer with experience in interprofessional education and practice from a large university has successfully straddled the education-health service/practice gap. They formed the Placement, Education and Research Unit (PERU) within a medium-sized community health service. Using Kotter's eight steps (1996) as the foundation for developing and implementing the interprofessional collaboration change model ensured that trust and respect gradually developed between the service and the university. Kotter's eight stage process (1996) comprises:

1. Establishing a sense of urgency;
2. Creating the guiding coalition;
3. Developing a vision and strategy;
4. Communicating the change vision;
5. Empowering broad-based action;
6. Generating short-term wins;
7. Consolidating gains and producing more change;
8. Anchoring new approaches in the culture.

This change-management model focused on introducing interprofessional collaboration to the service. PERU also worked to increase and enhance health student placements. The university is one of the largest in Australia and the stand-alone community health service provides a very broad range of services ranging from district nursing, palliative care, allied health, a general practice clinic, dental services, social care, respite care, aged care, youth and women's services, and after-hours medical care. The service employs
approximately 500 staff including health professionals, health assistants, and administrators along with large numbers of volunteers.

The Interprofessional Collaboration (IPC) model used (WHO, 2010) raised interprofessional practice awareness at all levels in the health service workplace and has increased student placement numbers and enhanced the placements by offering integrated interprofessional placement activities. Formal evaluation of this approach indicated that the model has been very successful and is now fully embedded into the health service.

**Change leadership and developing organizational champions**

The IPC model used is a context-specific, multifocal, and multilayered culture and change-management process that involves staff in all levels of the service organization from the CEO to the reception staff and includes significant commitment from the University (Dunston, 2009; Morey & Salisbury, 2002; Orchard et al., 2005; Kotter, 1996). The externally funded university IPC team worked collaboratively in the community health service acting as ‘change agents’ using a blend of authentic leadership (George, 2004), emotional intelligence (Goleman, 2007), and transformational leadership (David, 2012) styles to model IPC in practice daily.

The IPC team identified key issues, challenges, and barriers for the organization and gained approval and commitment from the board of management and the executive team to implement each of the approved student,
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An IPC policy and procedure were developed and implemented to guide staff; an IPC development group (who became the organization's IPC champions) was formed. IPC was included in all position descriptions when staff contracts were developed or positions descriptions renewed. This clearly indicated to all staff that IPC working from a multilayered perspective was the way of the future expected when working for this organization.

Interprofessional forums and facilitation training

The IPC communication strategy means that the health service executive group fund and support a six-monthly IPC Forum where staff hear about the 100-plus service programs being run within the service, including public health, health promotion, general practice, community services, and support that are delivered by this community health service. They receive an introduction to IPC and finally participate in an interprofessional case study or discuss a specific interprofessional issue, for example Action on Falls, that forms the key session for the forum. Case studies are based on de-identified client cases where the IPC team and IPC development group enhance basic information and form it into an interprofessional case study. An interprofessional panel (internal and external members) is formed to present and discuss the case with the forum participants. Six forums have been held so far with more than 250 of the 500 staff attending at least one forum, with very positive staff evaluations. All forum participants completed the 'Readiness for Interprofessional Learning Scale' (RIPLS) (Reid et al., 2006) before the forum commenced. This has demonstrated that the staff in this service are 'ready for IPC' in their practice.

Following the IPC forums, Latrobe Community Health Service (LCHS) staff have the opportunity to undertake training as IPC Facilitators, which qualifies them to be co-facilitators in the IPC student workshops, with the university interprofessional collaboration educator. These IPC student half-day workshops are scheduled when students from two or more professions are undertaking placements in the organization on any given day. The workshop focus is on assisting students to learn about, from, and with each other and use specific case studies to highlight and explore IPC and then to develop an interprofessional treatment plan for the specific client. To satisfy service demands the case study discussed in the student IPC workshop is developed by the workshops co-facilitator and is directly related to their area of practice. Student workshop evaluations are extremely positive and our facilitators love being part of these sessions.

Interprofessional student placements

The university found that one of the first challenges to emerge from working with the health service was that the coordination and management
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of student placements was ineffective and required a new approach. The process for placements was not clear, and it was not supported by policy, so placements were viewed as a burden to both the staff member ‘managing’ the placements and those who were the student supervisors. Through a process of working directly with managers to address these key concerns the university IPC team developed a new student placement communication and planning strategy. An online student placement application form was also implemented and a new communication process developed to keep all parties informed about progress and specific arrangements relating to the placement.

At the start of each calendar year, using data from education providers who have requested student placements, the student placement officer maps these placements to identify when there are placement and discipline overlaps that can provide opportunities for IPC activities. However, it is no surprise that the community health service is rarely involved in decisions about which student disciplines are on placement at any given time as education providers are focused on their own student numbers and their placement requirements. Therefore universities need to be regularly reminded that not all requests (for example, changes or late requests for student placements) can be accommodated due to recognition of and considering the demands of service/practitioner workloads. This is an area where there is still a significant amount of work to be done by the education providers. It is suggested that universities need more proactive communication practices when working directly with community health and other health service organizations to address student placement barriers evident in the service provider arena, as the current consultation process and practice is insufficient.

For every student placement request there is a significant amount of negotiation and planning that has to occur before the organization can accommodate student applications. The university IPC team works with managers and supervisors to directly engage them in developing a yearly calendar which indicates when their program/s can or cannot accommodate placements and the terms and conditions associated with their specific programs, such as minimum certificate levels or the maximum number of students that can be accommodated. For example, there may be five placements available in different areas of the program but once three students are placed in the program then no more students can be accepted. Provision of appropriate learning, seating, desk space, and access to ICT/Wi-Fi is sometimes a significant challenge and adds yet another dimension to the complexity of providing student placements in service organizations, where space is at a premium.

The university IPC team, which has developed and provides student orientation programs, are actively involved in student placements through monitoring, supervising, and enhancing the students' experience,
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particularly in the areas of cooperation, communication, collaboration, and teamwork across the whole organization. During student placements, if there are occasions when staff are unable to supervise a student for a period of time, the IPC educator has developed ‘interprofessional reflective practice’ units that students can work through together with the IPC educator.

One key area of development has been the Student Supervised Clinic (SSC) which has been operating at the community health service since July 2010.

Practice example

The Student Supervised Clinic (SSC)
The SSC provides students with complex, dynamic, and IPC learning opportunities where they interact with a simulated (or real) client and receive 360-degree feedback – from the simulated client, IPC educator, their student colleague, and any other ‘observer’ students or health practitioners. The community health service sought assistance from their volunteer pool to undertake a training program that prepares them to become a ‘Simulated Client’ (SC) and provide constructive feedback to students. Following the initial SC training, the SC and IPC educator then work on the selected basic client scenario together to build this into a ‘character’ that this SC will adopt and use during the student interview.

The IPC educator selects students from two different disciplines and invites them to participate in the scheduled SSC. Students meet a half-hour before the clinic session to learn about each other; to discuss the client case and to decide who will lead which area of the ‘Interprofessional Referral Tool’ discussion and treatment planning. Together they greet the client in the waiting room and take them to the interview room, where the session is video-recorded. On completion of the SC interview the IPC educator de-roles the SC and the feedback session is then undertaken by all participants and observers, the SC, and the IPC educator. Students have the opportunity for self-reflection by reviewing the video of the interview and the IPC educator guides this reflection, especially if a student has encountered some challenges.

The student evaluations are 100 per cent positive. Students really appreciate the opportunity to learn, practice, and work with other disciplines in a safe and supportive environment and are often surprised at the scope and level of knowledge that other disciplines have compared to their own. The community health service is now being selected by education providers because of their IPC student placement and practice opportunities. The service has subsequently employed students who have undertaken their previous placements with them.
This type of SSC is unique in the community health setting and is a wonderful IPC opportunity for students to learn about collaborative interviewing of clients and development of an integrated client treatment plan in a safe and supportive environment. The SSC clinic also provides an opportunity for staff to observe these activities in practice and suggest ways in which this activity might be used to their advantage in their work area; for example, counseling or allied health. The next phase of the SSC is development into an integrated SSC where students will work with real clients to develop and implement their treatment plans. This integrated SSC will enable students to tap into the knowledge and skills of their discipline supervisors (existing practitioners) and will also provide opportunities for developing leaders, improved team working and IPC facilitators, in the community health service into the future.

The community health service, with support and assistance from the university, have been funded to provide ‘Integrated Student Supervised Clinics’ (ISSC) involving seven disciplines in 2012, nine disciplines in 2013 and ten disciplines in 2014. These ISSCs are an extension of the SSC we have been running mainly with simulated clients, and will be more focused on interprofessional student pairs undertaking assessment and treatment of real clients with chronic diseases/complex issues.

In partnership with the community health service the university IPC team leaders have taken steady, small steps to build the capacity of the service and staff; to provide an increased number and enhanced quality of student placements; and expanded the service focus model to include an IPC approach. The gradual building up of both education and research activities for staff focused on areas identified through initial stakeholder discussions, for example research into wound care and into carers of the frail aged. The Monash University Department of Rural & Indigenous Health (MUDRIH)/LCHS collaboration has currently attracted a total of AU$3 million in additional government and rural funding to both the community health service and to the university for the implementation of innovative interprofessional collaboration programs. The direct benefits flowing to the community health service have included additional capital funding for a student-specific area and for equipment to enhance placements. Funding has also supported equipping, training SCs and conducting the SSCs; the redevelopment of a clinical area to facilitate student placements and interprofessional collaboration; funding for student placements; and discipline support to conduct integrated student clinics for real clients. This university–service collaboration has also had a direct benefit to the university with a positive impact on meeting key performance indicators; increased understanding of the service provider issues; and it continues to build the IPC strength in the university, and in the region. The MUDRIH programs include: the Gippsland Regional Partnership in Simulation (GRIPS) and the extension of the GRIPS program until the end of 2014; development and delivery of student supervision; and
the interprofessional collaboration programs conducted for the Gippsland Clinical Placement Network.

This community health service prides itself on integrating best practice into all aspects of their work. However, until the university collaboration was established, they relied on a small number of individuals in the organization to ensure this occurred. The development of a capacity-building program for staff has provided opportunities for more staff to extend their knowledge and skills in IPC, student supervision and in research, all of which will have a positive impact on best-practice and high-quality client care.

So what has been achieved to date in the service?

- A student placement policy, and procedure, process, and staff supervision training programs have been implemented;
- Respect and trust between the university and community health leadership and staff has been built;
- A Research Council was formed, with policy and procedures developed, to assist, guide, and monitor research in the organization and to support ongoing staff training in research skills;
- An IPC policy and procedure has been adopted and a team of champions from the service assist in the ongoing development and implementation of IPC activities;
- IPC is included in every staff member's position description and is discussed at the yearly review during the organizational 'performance review and develop plan' process undertaken by managers with their staff;
- Student supervision training at basic and advanced levels is regularly provided for the staff from the service and across the local region;
- All the university activities have been underpinned by a capacity-building, interprofessional collaboration approach.

![Figure 14.2](image)  
**Summary – growth in student numbers, disciplines, and institutions**
Challenges that have been or are being overcome include:

- The university has gained a ‘realistic understanding’ of the impact of student placements on a service provider organization, where any time spent away from clients potentially impacts on the organization’s funding;
- The IPC team understood the need to progress in small incremental steps and that things will not happen very quickly;
- Planning of activities needs to occur well ahead as room booking and staff time are precious commodities and in high demand;
- The service remembering to include the university team in the various projects/activities occurring in the ever growing organization;
- The service supporting, endorsing, and promoting the university initiatives that have been approved and are being implemented;
- Both parties recognizing that they are coming from very different perspectives (education versus service) and the need to find common ground for future developments.

The university IPC team have commenced the ‘stepping back’ process so crucial in capacity-building, and are now taking on more of a mentoring, coaching, or supportive role as the process embeds into the organization. More and more community health staff are accepting the leadership challenge to:

- Integrate IPC into their everyday practice;
- Become accredited student supervisors;
- Become interprofessional collaboration facilitators;
- Become organizational IPC champions.

This small but growing number of staff that endeavor to integrate IPC into their everyday practice are ‘IPC champions’ and will be the future IPC leaders in the organization. They currently provide advice and support to the university IPC team regarding the IPC activities that are developed and implemented in LCHS but, in the future, they will be leading the LCHS innovations, developments, and activities and so will become the organizational IPC role models themselves.

There will always be difficulties in matching the service delivery targets/expectations of service organizations with those of the learning and teaching needs of the university; therefore this issue has to be handled with significant diplomacy. Unfortunately, so far the universities still have some way to go to meet with the service organizations in this ‘middle ground’ of conflicting needs and expectations. Until meaningful dialogue is achieved in this area effective collaborative practice cannot exist. The challenge of continually training service staff to ensure that sufficient numbers are available in the areas required for IPC, student supervision, and research will be an ongoing one and is consistent with the staff turnover that
exists in the community health field. The community health service and university have discussed capping the appropriate ‘student and staff numbers’ to ensure that the service delivery is not compromised, that staff are not overloaded and that sufficient trained staff are available for student supervision.

Ultimately the goal is that the majority of community health service clients will have IPC teams working with them to discuss and plan their care. There will be improved organizational efficiency and effectiveness through delivery of high quality and effective care; staff will be more satisfied in their role and recruitment will be less of an issue as people will want to work in this particular service organization because of their IPC environment.

The university IPC team is preparing to introduce the next phase of IPC development in the service that will focus on enhancing communication, collaborative practice, and teamwork (Cashman et al., 2004; Molyneaux, 2001; Xychris & Lowton, 2008) and aims at translating theory into practice in the workplace, continuing the theme of lifelong learning for practitioners. This next phase will involve:

1. Advanced training for teams of practitioners and students (on longer-term placements) to facilitate the integration of IPC to improve team-building, practice in the workplace, and better client outcomes;
2. Implementing a monitoring and evaluation program to determine if and how IPC is improving the quality of client care, increasing client satisfaction, and improving service effectiveness;
3. Developing a professional development evaluation process (through extending this section of the organization’s existing performance review and development plan) that will assist staff in demonstrating the impact of training and learning undertaken; how they will apply this knowledge, skill and learning to their practice; and how they intend to communicate this to their colleagues.

B. District Health Board ‘A’ – New Zealand – a very large hospital and community-based service

The board and some senior leadership of District Health Board ‘A’ have started to recognize that teaching and learning, and research and innovation were core businesses for a fast growing heath service with many thousands of staff. They decided to set up a separate business unit that brought together a range of small groups undertaking teaching and learning roles, nurse education, medical education, library, research management, and innovation. This unit was to support and help the entire service develop better research, education, innovation, and workforce development. The unit was expected to develop better and closer relationships with a number of education providers and to link academics and students into the life of the health service. This offered universities and polytechnics the opportunity to enhance student placements and gain access to a vast range of health
service research opportunities. One of the key commitments of the unit was to enhance uniprofessional and interprofessional collaborative practice across all sectors of the service. The unit has a small team of 50 people so there is an imperative to develop the rest of the service to work with the unit to achieve goals and objectives. Help was offered in writing new placement contracts, gaining access to educational design skills, and to funding for research projects, summer studentships, and postdoctoral placements.

Large health services often appear to be more hierarchical than universities. However, in regard to staff education and training, District Health Board ‘A’ had no central control over most of the education, training, and simulation going on across the organization. There is no service knowledge about the totality of student placements, no central approval for student or staff training, and no committees overseeing the quality and content of the education and training. There are often no learning objectives and no assessment linked to what was being delivered. While university committees do not exercise perfect control over education content and assessment and evaluation there is generally more oversight of content and the quality of product delivered. However, it seems to us that we do not know the extent to which this oversight extends to student placements in healthcare settings. Clearly the quality of the learning associated with student placements depends in part on the health service staff’s capacity and ability. In a large health service the learning provided will be variable. It might be better than provided in the education environment, different but of equal value, or in some cases may even be of low quality and detrimental to the motivation and morale of students.

What is true for student learning is also true for health service graduate entry programs, staff continuing education activities, and unidisciplinary and interprofessional education and training. Some programs and activities are excellent and some are not. But it was simply not possible to start again from scratch, so business continued as usual and we gradually introduced a few better models of education and training practice and either upskilled staff or brought in staff with stronger education design experience. We clearly recognized the need for both a student placement database and automated recording of staff education and training. We are working on introducing a university-style education committee to help raise the quality of all teaching and training across the organization. The intention is to cut back on expensive and unproductive didactic teaching and to ramp up situated learning, simulation, testing, e-learning, and the teamwork content of all teaching programs, and a small number of interprofessional learning events were trialed.

Barriers to action emerged everywhere. As a fast-growing health service District Health Board ‘A’ had very little education space. In its three hospitals there was only one adequate simulation lab run in collaboration with an education organization’s nursing program. Staff are undertaking
resuscitation training in corridors and education staff must run multiple short courses because rooms are not large enough to hold economic-sized groups. While the education unit’s programs could be rapidly changed to include more team training content and more assessment, other people’s programs could not be changed. Due to economic conditions and regionalization we found implementing a student placement database was not rated a priority by partner District Health Boards. The sheer quantity of other quality-based programs and systems that various groups were trying to implement made more change difficult to market. Anything labeled clinical or service change was deemed more important than ‘just’ education or training programs. However, pockets of excellence were identified along with some quick wins. These were the result of collaboration with practice champions in the health service and universities who used the opportunity and small amount of funding provided to introduce their long-cherished ideas. However, changes to funding within health services and top hospital leadership can directly challenge even short-term gains made. For example, health targets can in a very short time refocus senior management on numbers of elective surgeries occurring and can result in cuts to education and other clinical programs, restrict access to space and capital, and stifle innovation in areas such as interprofessional collaboration. Leadership in the interprofessional area does simply not have the power to trump immediate health service priorities emerging from national political policies. Because there has been no dedicated funding by HWNZ for IPC, progress in District Health Board ‘A’ has been significantly less than what has been able to be achieved in the Australian example above.

**Practice examples from direct observation in District Health Board ‘A’**

**Resuscitation training**

This training is mandated for all clinical staff. The quality of the face-to-face practice time was enhanced by providing theory updates via an e-learning package. Staff needed to tick off the theory before enrolling in the practical session. The practical sessions were already interprofessional. The percentage of time spent on resuscitation as a team-based activity was increased to 60 per cent of the program. Testing is being introduced as time and space permits.

**In situ emergency department simulation training**

The emergency departments at the two main hospitals within the health service had extensive uniprofessional training. However, although the service was based on notional teamwork, the teams had never trained in an interprofessional way. As one of the departments was moving into a
new building the education unit and the emergency department collaborated on a full day’s leadership and simulation training in the new facility. A facilitator worked with the group to enhance their understanding of internal and situational leadership and then a three-case simulation round was undertaken by mixed teams. The education leaders were surprised by the lack of team capability. Those of us experienced in interprofessional team work were not surprised to see that ward clerks were not assisted to do their work even though the whole group recognized that tests and treatment could not proceed until their registration processes had been completed. In the heat of situational leadership a leader in a hierarchical sense refused a request to assist with a patient’s family member saying, ‘It’s not my job.’ Two doctors argued about the need to inform patients and gain their consent regarding procedures while acknowledging that hospital and national policy required that they do so.

Going on from that day the emergency department has changed leadership and is now firmly committed to both individual discipline and team-based training on a regular basis – some of it in situ.

Health service standard resuscitation and moving and handling people courses to all student groups

To enable more rapid assimilation of healthcare students into health services the education unit is offering realistically priced access to the same courses delivered to health service staff. Educational organizations’ staff are often not up to date on current techniques or are unable to demonstrate knowledge in practice settings. Having health and education combine in these key training areas assists both groups to provide the best learning possible at a reasonable cost. Due to space- and room-booking issues this education is currently unidisciplinary and teaches students from one educational organization at a time. In future we will be able to undertake interdisciplinary training for a range of organizations at each session.

Interdisciplinary healthcare team challenges for qualified and student groups

The benefits of team challenge case-response-type competitions for student cohorts have been well demonstrated (Moran et al., 2007). We have extended this challenging exercise to qualified staff. In our first pilot it was clear that clinicians were not used to coming together as part of an interprofessional team. Their resistance to rethinking their practice meant that the student teams, who had experienced at least some interprofessional learning, were able to hold their own in competition and win against the qualified clinicians. If we can overcome the reluctance of clinicians to pit themselves against student groups we are confident that many more clinicians will come to see the value of interprofessional collaborative practice and value the abilities of final-year students to both teach and learn from and with practicing clinicians.
Conclusion

Using the middle way to help deliver better interprofessional and collaborative healthcare will take time, energy, resources, and strong leadership at multiple levels. However, it is not just a single element that is important; it is the combination of resources, ongoing leadership, and commitment at the highest level (government and senior management of the organization) that will drive, enable, and support change.

Both universities and health services are large bureaucracies and find it difficult to implement and sustain change. While in the end both universities and health services do need to work together, in the early stages of collaboration one or other institution can take the lead. This means that one key person, with some resources, can start the process moving. The small gains made by a change agent can be important as they lead to bigger ones and build trust and respect over time. Taking small steps, sharing successes, praising excellence, finding and supporting champions, and promoting concepts tirelessly helps to build confidence and expand gains. From our experience in two very different services we are confident that working in the Goldilocks zone is a valid and productive way forward. However, where high-level leadership changes, new policies are implemented, or when leadership is provided by just a small number of people, any gains made are vulnerable to political, funding, and personnel changes.

Questions for reflection

1. Many examples used in this chapter are from an Australian and New Zealand perspective. How do the examples apply in your context?
2. What are the three critical leadership issues that this chapter raises for you/your organization?
3. Assuming you have started leading the change process:
   a. How would you know you were making progress?
   b. How would you know that you were successful?
   c. What strategies would you develop to deal with unexpected challenges such as restructure, funding changes, or loss of key staff?

References

Being involved in editing this book has been a journey for me in many ways. I have been involved in interprofessional education (IPE) for over two decades and prior to that had been working in a collaborative sense in a primary healthcare team as a general practitioner (family physician) without knowing or having heard about ‘interprofessional practice’ (IPP). This book has reminded me again of why both IPE and IPP are important not only to me but for the communities we serve as health professionals. I have journeyed backwards into the early days of IPE and forwards into its potential for transforming healthcare and education in many countries around the world. The focus on leadership has also helped me reflect on the similarities and differences between being a ‘leader’ and being an interprofessional ‘champion’ and the journey to become either or both of these. Obviously we cannot define ourselves as leaders and champions without external validation but the stories presented here help us realize what such validation may be based upon.

In this chapter I will reflect on what I have learned from my involvement in editing this book and suggest some take-home messages and recommendations for anyone involved in the interprofessional journey towards improved healthcare delivery and community interaction.

Learning from the past

As did many physicians of my generation I went through an undergraduate medical program with very little interaction with other health professional students though, particularly in my general practice/family medicine attachment, I spent time with nurses, midwives, and receptionists seeing another side of healthcare. So limited was my education about the practical aspects of the health service that I remember in my first hospital post as an intern (house officer) I was surprised to find that a hospital pharmacist checked my prescriptions. What else this pharmacist did, her other roles and responsibilities were unknown to me. It was only really during my general practice
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training and subsequent years as a GP that I truly began to understand the concept of teamwork and the value that each health professional brought to the diagnosis, management, and care of patients (or clients).

When I became a health professional educator my own experience of ignorance and then job satisfaction from sharing ideas and concerns with other health professionals, as well as members of my own medical profession, influenced my values in relation to collaborative learning and practice. Observing and interacting with practice and district (community) nurses, midwives, health visitors, physiotherapists, social workers, and psychologists enriched my practice and provided team-based care to patients. This was in the time of GP fundholding in the UK during which GPs were able to spend healthcare funds on employing a range of health professionals co-located within the same building. Moreover, clinical meetings had a rotating chairperson with no dependence on the doctors to provide leadership. With the demise of fundholding the team was scattered, co-location lost and the facility to ask for advice easily and face-to-face withdrawn. In the last 15 years I have never worked so collaboratively and so seamlessly again.

As healthcare providers we are at the mercy to a great extent of policy-makers and resource allocators. As healthcare educators we have influence to shape the new generations of providers and generate the evidence to shape change. I have seen the importance and prevalence of IPE wax and wane over the years: two steps forward and one step back. Hugh Barr’s history of IPE and ‘leading the way’ in the UK and elsewhere (Chapter 2) highlights this coming in and going out of fashion depending on policy, motivation, leadership, and resources. I have had the privilege of Professor Barr’s mentorship since the 1990s – he introduced me to the more formal premise of interprofessional philosophy as something that could be learnt and taught. Moreover this was a philosophy that resonated with my own growing interest and expertise in patient-centered practice and shared decision-making. The leaders and champions that Hugh so eloquently describes also came to interprofessionalism through their own experience of healthcare delivery and their desire to improve the patient experience. And to improve that delivery, these leaders realized that professionals need to enhance their capabilities, hence their move into education.

Several high-profile incidents and reports added to the impetus for IPE in the early years of the new century. In the USA the Institute of Medicine produced a spate of publications highlighting the need for change in the health system and the education of those working within it. These are referenced in Chapters 3 and 7, which focus on developments in Canada and the United States. In particular Crossing the quality chasm (IOM, 2001) includes the following:

It is clear that how [health] care is delivered is as important as what care is delivered. Developing effective teams and redesigned systems is critical to
achieving care that is patient-centered, safer, timelier, and more effective, efficient, and equitable. (IOM, 2001, p. 19)

In my own country (the UK) we read the Bristol Royal Infirmary report in the same year, which described the precipitants of events that had happened between 1984 and 1995, and the unnecessary deaths of many babies undergoing cardiac surgery at that hospital. I make no excuses for using the following quotation frequently in my writing as it encapsulates my thinking and the motivation for pressing on with IPE for IPP:

The story of the pediatric cardiac surgical service in Bristol is not an account of bad people. Nor is it an account of people who did not care, nor of people who willfully harmed patients. It is an account of people who cared greatly about human suffering, and were dedicated and well-motivated. Sadly, some lacked insight and their behavior was flawed. Many failed to communicate with each other, and to work together effectively for the interests of their patients. There was a lack of leadership, and of teamwork. (Bristol Royal Infirmary Inquiry, 2001, p. 1)

I moved to Australia in 2003 and encountered similar problems with professional hierarchies and boundary protectionism, with a lack of ‘learning together to work together’ (WHO, 1988). In New South Wales, similar problems with patient care and safety as a result of ineffective teamwork and communication between the professions were highlighted in a 2008 report into acute hospital services. One of the recommendations of the Garling report was that ‘clinical education and training should be undertaken in a multidisciplinary environment which emphasizes interdisciplinary team based patient-centered care’ (Garling, 2008, p. 43) to help prevent further problems.

(The above quotation is also a reminder of the importance of language, a theme throughout the book. We need to be clear to others what we mean by multiprofessional, multidisciplinary, interdisciplinary, and so on.)

Of course not only the UK, but other parts of Europe, Canada, the USA, and Australia were grappling with these problems as narrated herein. However, there was very little literature from outside the developed world available to us at that time. Those of us with good English written communication skills had an advantage in terms of publishing our work and accessing the means to do so. The lack of voices from other countries, however, did not indicate a concomitant lack of innovation.

Learning in the present

It is hard to answer the question: are things better now? It depends on what evidence you decide to use to back up your opinion and where in the world you are opinionating from.
The chapters in this book from countries that are not as commonly represented in the health professional education literature are evidence that we have much to learn from each other around the globe. How many of you readers had previously seen examples of what is happening in Colombia, Kenya, India, and the Philippines? The struggles are different but the overall aims are basically the same – to improve quality of care. The strategy involves the mobilization of health professionals and the realization that all have common goals. The leadership models vary depending on local need, values, and culture. The interprofessional champion is still a force but comes in many guises. The involvement of communities is paramount: a true community-centered movement where care is provided in partnership with the cared-for rather than being provided to them as passive recipients without exploring community needs.

The introduction and continuing success of IPE models in Kenya and the Philippines also highlights the importance of the education being integrated with care delivery. Learners become part of the team and the solution rather than being simply observers as is so often the case in many countries. Of course there are legal and ethical issues associated with student-led clinics; a high degree of expert supervision is required, as is building trust in the competence of the students through their longer-term presence in a single community. Similar principles are used to guide the interprofessional placements in Western Australia (Chapter 6) though the resulting placements are very different, reflecting the nature of healthcare where there are more resources and more legislation affecting what pre-qualification students are able to provide. Each jurisdiction needs to decide the optimum way in which learners can meet the defined interprofessional learning outcomes. Short rotations, which involve students moving from location to location after a few weeks, are unlikely to enable them to build trust with supervisors, other health professionals, or the communities in which they are placed. Longer (longitudinal and integrated) placements enable students to become members of a community of practice, developing legitimate peripheral participation (Lave & Wenger, 1991) and increasing responsibility as their capabilities, including in relation to teamwork, are enhanced (Thistlethwaite et al., 2013).

Heartening as the developments described are, there is still a major journey ahead of us. I remember attending a meeting in London following the Bristol inquiry where the report was discussed and recommendations made for a change in the culture and education of the health service in the UK. Since then the major health professional accreditation bodies in many countries have included teamwork and competencies relating to collaboration in their standard frameworks. Qualifying health professionals are expected to be able to work together, to understand each other's roles and responsibilities and to assume leadership and followership roles as appropriate. What is not clear is how these standards are monitored and how learners are best assessed in relation to teamwork and collaborative practice.
In the USA the Interprofessional Education Collaborative, in its core competencies for interprofessional collaborative practice, states (referencing the Institute of Medicine):

Equipping a workforce with new skills and ‘new ways of relating to patients and each other’ (IOM, 2001, p. 19) demands both retraining of the current health professions workforce and interprofessional learning approaches for preparing future health care practitioners. (Interprofessional Education Collaborative Expert Panel, 2011, p. 4)

Chapters 4 and 5 remind us of the continuing problems that many patients/clients face during their journeys through the health system as well as the patient safety agenda and its relationship to communication. In 2013 the British National Health Service (NHS) was again under fire for the persistent culture in some locations of ignoring patient welfare and safety in order to meet targets, with a concomitant lack of trust in leadership and no collaborative practices. The Francis Report of the Mid Staffordshire NHS Foundation Trust inquiry (published in 2013 though dated 2010) highlights the importance of teamwork and understanding of colleagues’ roles and responsibilities as important for quality and safe patient care. At the Mid Staffordshire hospital basic care and compassion were found to be lacking and many patients died or suffered unnecessarily:

Dedication, compassion and effective teamwork contribute to the welfare of patients and should be valued. Pride in achievement needs to be fostered . . . A small unit such as a ward, which is well led and staffed by people familiar with each other’s working practices, will function more effectively than a ward whose staff have no collective sense of identity. (Francis, 2010a, p. 400)

One family member commented that, while on one ward the nursing sister was very ‘hands-on’ leading to a positive experience, on another ward the sister was ‘less visible and less of a team player’ (Francis, 2010b, p. 337). An editorial in response to the Francis Report emphasized the need for coordinated integrated teams and the ‘web of services’ (Editorial, 2013, p. 181) that patients/clients, families, and professionals need to understand and work within.

**Learning into the future**

So where to now? Many of us working in this space do feel that there is a change in the understanding of the need for teamwork and education to support this in health services. The reports and publications referenced in this book emphasize again and again the necessity for teamwork, leadership,
looser collaborations, communication across and within jurisdictions, understanding of each other, our identities, and how these affect our interactions. As I read through the book chapters I also realized that communication is important across countries to learn ‘with, from, and about’ each other. In the words of realist evaluation, our global dialogue should help us explore: what works for whom and in what circumstances? (Pawson & Tilley, 1997).

I am often asked: what is the evidence for IPE? I have a number of answers depending on the questioner:

- There is no evidence that it doesn’t work.
- Where was the evidence before the widespread change to problem-based learning a few decades ago?
- Surely it is self-evident that if we want students to learn teamwork, we have to give them the opportunity to work in teams
- If we don’t implement IPE, we can’t collect any evidence.

I may also answer: there are many different types of evidence apart from that from our positivist biomedical tradition of the randomized controlled trial. Case studies and trends accumulate and provide stories of change and impact. Leaders and champions across the globe must provide more of these stories. They need to reach a wider readership. Interprofessional professionals must also be role models for the new generations of health professionals; such role models are required to speak up for collaboration and advocate for patient, client, and community involvement in such collaboration.

The leadership models presented here demonstrate that leadership is not about being at the top of the hierarchy and being the person with the most power. Power is useful for attracting the resources to facilitate change but, as we have so often learnt through history, is not always a force for improvement. Leadership is about influence, about role-modeling, about unlocking potential in colleagues and learners. It may be subtle through motivating for change. Students may lead the way through a bottom-up approach and through demanding change within curricula and practice. Students are consumers of education and we need to listen to their voices.

For reflection

Before I outline my concluding thoughts, perhaps you have time to reflect on what you have learnt from reading this book:

- What are you going to do as a result?
- What are you going to change?
- Who are you able to influence?
- Has anything surprised you?
• In what ways are you a leader?
• What leadership approach resonates with your style?
• How could you become an interprofessional champion?
• Are you an interprofessional role model?

Take-home messages and recommendations

• IPE is not new – it has a vibrant history and rich narrative;
• IPE is a dynamic entity with diverse models developed for local needs;
• Interprofessional practice focuses on patient/client care and fosters a community of practice for healthcare professionals;
• Further evaluation is always required to explore what works for whom and how: transplanting a model from Colombia to inner-city London is unlikely to be successful;
• Leadership takes many guises; again one model does not suit all contexts. We need to research how and why these different models affect IPE and IPP.

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