



Robert Wood Johnson Foundation

# **Team-Based Competencies** Building a Shared Foundation For Education and Clinical Practice



**Conference Proceedings** 

February 16–17, 2011 Washington, D.C.

Cover Photo: Libby Frost/University of Minnesota Family Medicine and Community Health

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# Conference Agenda

# Team-Based Competencies: Building a Shared Foundation for Education and Clinical Practice

In partnership with the Interprofessional Education Collaborative

# Wednesday, February 16, 2011

Washington Plaza Hotel, Thomas Circle NW, Washington, D.C.

7:30–8:30 a.m.	Continental Breakfast & Sign In	
8:30 a.m.	Welcome & Introductions	Janet Heinrich, Dr.P.H., R.N., F.A.A.N. Associate Administrator Bureau of Health Professions, Health Resources and Services Administration
		<b>Mary Wakefield, Ph.D., R.N.</b> Administrator Health Resources and Services Administration
9:00 a.m.	Keynote Address	<b>Don Berwick, M.D., M.P.P.</b> Administrator Centers for Medicare and Medicaid Services
9:30 a.m.	Questions & Answers	
9:45 a.m.	Agenda & Logistics	<b>Deborah Gardner, Ph.D., R.N.</b> Senior Advisor Bureau of Health Professions, Health Resources and Services Administration
10:00 a.m.	Why commit now? George Thibault, M.D. President The Josiah Macy Jr. Foundation	
	<b>Maryjoan Ladden, Ph.D., R.N., F.A.A.N.</b> Senior Program Officer Robert Wood Johnson Foundation	
	<b>Daniel Wolfson, M.H.S.A.</b> Executive Vice President & COO ABIM Foundation	
	Richard W. Valachovic, D.M.D., M.P.H. IPEC Expert Panel Member	
10:15 a.m.	<b>Competency Report from the IPEC Panel</b> Madeline Schmitt, Ph.D., R.N., <i>Chair</i> Amy Blue, Ph.D. Jane Kirschling, D.N.Sc., R.N. Thomas R. Viggiano, M.D.	<b>Deborah Gardner, Ph.D., R.N.</b> Facilitator

11:00 a.m.	Question and Answer Session		
11:15 a.m.	Table ConversationsInterprofessional Work Groups	<b>Deborah Gardner, Ph.D., R.N.</b> Lead Facilitator	
	<b>Process</b> : Individuals have been assigned to ensure cross-discipline efforts. Each group will have an identified facilitator and recorder. Each working group will be asked to answer the following questions: reflect on the competencies, Where are the gaps? Where is there agreement? Consensus question: Can you live with these and support them? If not, what needs to be changed so you can?		
12:00 p.m.	Lunch and Gallery Walk Buffet Lunch		
1:00 p.m.	<b>Reflections on IP Competencies</b> Areas of Agreement and Significant Issues	<b>Deborah Gardner, Ph.D., R.N.</b> Lead Facilitator	
1:40 p.m.	<b>Challenges and Rewards of Collaboration</b> Barbara Brandt, Ph.D. Frank Cerra, M.D. Mac Baird, M.D., M.S.	<b>Carol Aschenbrener, M.D.</b> Executive Vice President AAMC Moderator/Facilitator	
2:00 p.m.	Question and Answer Session		
2:15 p.m.	Force Field Analysis Interprofessional Work Groups	Carol Aschenbrener, M.D. Lead Facilitator	
	Process: The force field analysis tool is used to explore the forces and factors in the environment that support or work against a specific change. Used early in the process of a change campaign, the force field analysis can help determine environmental factors that should be reinforced and those that should be reduced or mitigated. In general, it is more helpful to reduce or remove barriers to change than to increase the forces that support change. Work will be posted for the Gallery Walk.		
3:15 p.m.	Envisioning the Preferred Future Interprofessional Work Groups	<b>Maryjoan Ladden, Ph.D., R.N., F.A.A.N.</b> Senior Program Officer Robert Wood Johnson Foundation Lead Facilitator	
	Process: Individuals will be given an assignment and then be asked to discuss with table gro		
4:30 p.m.	Wrap Up Brief synthesis of the day Charge for the next day	Madeline Schmitt, Ph.D., R.N., F.A.A.N. Moderator	
6:00–7:30 p.m.	<b>Reception &amp; Dinner at The Plume Restaura</b> Hosted by AAMC and AACN Supported by the Josiah Macy Jr. Foundation	ant	

# Thursday, February 17, 2011

Washington Plaza Hotel, Thomas Circle NW, Washington, D.C.

8:00–8:45 a.m.	<b>Continental Breakfast and Gallery Walk</b>	
8:45-9:30 a.m.	<b>Synthesis from Day 1</b> Observations about the leverage points and strategies identified yesterday	George Thibault, M.D. Moderator/Facilitator
	Table exercise:10-15 minutes to reflect on Day 1 workand identify significant issues to beaddressed; brief report out	Maryjoan Ladden, Ph.D., R.N., F.A.A.N. Facilitator
9:30–11:45 p.m.	Moving to Action Table planning discussions by member organizations, educators, foundation leaders, clinical leaders with one facilitator and one panel or IPEC member per table.	Carol Aschenbrener, M.D. Lead Facilitator
11:45–12:30 p.m.	Buffet Lunch and Gallery Walk	
11:45–12:30 p.m. 12:30–2:00 p.m.	Buffet Lunch and Gallery Walk Develop List of Key Next Steps Large Group Response	
·	Develop List of Key Next Steps	<b>Carol Aschenbrener, M.D.</b> Lead Facilitator
12:30–2:00 p.m.	Develop List of Key Next Steps Large Group Response Commitment to Action Table work by entity groups: How can your foundations, member organizations, educators and/or clinical leaders advance the competencies	

# CONFERENCE PROCEEDINGS

# Team-Based Competencies: Building a Shared Foundation For Education and Clinical Practice

An attending physician on rounds strides into a hospital room with an entourage of medical students and asks his patient this question: "How can we do a better job of caring for you?"

The patient, a 15-year-old boy named Kevin, has been in and out of the hospital 30 or 40 times for treatment of short bowel syndrome, a condition in which nutrients are not absorbed properly and is commonly caused by the need for surgical removal of the small intestine. This veteran of the health care system says he's been very happy with the care he has received over the years, but, when pressed, says this: "I have great doctors and nurses here—but can you please talk to each other?"

> Donald Berwick, M.D., M.P.P. *Administrator* Centers for Medicare & Medicaid Services

This is one of many stories told during a February 2011 meeting in Washington, D.C., convened by the Health Resources and Services Administration (HRSA), the Josiah Macy Jr. Foundation, the Robert Wood Johnson Foundation (RWJF), and the ABIM Foundation in collaboration with the Interprofessional Education Collaborative (IPEC). IPEC is a group of six national associations of health professions schools formed to promote interprofessional learning experiences. The February meeting was held to advance interprofessional education, which provides both academic and clinical experiences for students from two or more health professions to work in a collaborative partnership to provide patient-centered care.

#### Why Is Teamwork Important Now?

Beginning in the mid-to-late 1990's with the emergence of the quality and safety movement, there has been increasing recognition of the key role that effective teamwork plays in improving the quality and safety of health care. In its 2001 report, *Crossing the Quality Chasm: A New Health System for the 21<sup>st</sup> Century*, the Institute of Medicine (IOM) called on academic institutions to begin educating health professionals to work collaboratively. A decade later, this has yet to happen on a significant scale.

However, with the recent implementation of the Patient Protection and Affordable Care Act, providers and policy-makers have realized that health care workforce shortages, particularly in primary care, will necessitate increased collaboration and teamwork across the health professions in order to care for an aging population with multiple chronic illnesses. These factors, combined with excitement about innovative models such as the transitional care model, the accountable care organization and the medical/health care home have renewed interest in exploring how team-based care models might be used to improve quality, safety and access, and also how to prepare health professionals to actually work together in teams.

Recognizing this opportunity, in 2011, HRSA and the foundations in partnership with the Interprofessional Education Collaborative (IPEC) sponsored a meeting entitled *Team-Based Competencies: Building a Shared Foundation for Education and Clinical Practice.* The two-day conference brought together more than 80 invited participants, including chief executive officers, deans, policy-makers and other opinion leaders from the diverse fields of nursing, medicine, pharmacy, public health, dentistry and osteopathic medicine. (see Appendix on page 17 for a list of participants) Building on the work of the IPEC expert panel, this leadership conference reviewed the IPEC draft of core competencies and created the ground work for an action plan for using the competencies to transform health professional education and health care delivery in the United States.

"As highlighted in the RWJF/IOM report, *The Future of Nursing: Leading Change, Advancing Health*, collaboration between health professionals is critical to improving quality and safety and increasing access to health care services. We are delighted to join with our federal and foundation colleagues to support the work of the IPEC expert panel and move the interprofessional collaboration agenda forward", said Maryjoan Ladden, Ph.D., R.N., F.A.A.N., senior program officer at the Robert Wood Johnson Foundation.

The core competencies were developed by an interprofessional panel formed by IPEC in 2010. The panel's goal was to identify a common set of competencies that would advance substantive interprofessional learning experiences and help prepare future clinicians for team-based care.

#### **IPEC MEMBERS**

The Interprofessional Education Collaborative (IPEC) consists of the:		
American Association of Colleges of Nursing		
American Association of Colleges of Osteopathic Medicine		
American Association of Colleges of Pharmacy		
American Dental Education Association		
Association of American Medical Colleges		
Association of Schools of Public Health		

Most experts, including the conference sponsors and the IPEC panel, believe that in order to deliver high-quality, safe and efficient care, and meet the public's increasingly complex health care needs, the educational experience must shift from one in which health profession students are educated in silos to one that fosters collaboration, communication and a team approach to providing care. The goal of the conference was to energize leaders to pave the way for a future in which interprofessional health teams will provide care that leads to better health outcomes, improved patient experiences of care, improved efficiency and increased job satisfaction for health professionals.

The conference was designed to both inform participants and to engage them in a shared vision of the competencies necessary for interprofessional education and practice. Plenary talks were interspersed with work sessions in which small groups, led by facilitators, debated the issues and, in the end, crafted a set of action strategies aimed at moving the United States toward the goal of interprofessional collaboration in education and practice.

This report provides a summary of the conference discussions, a list of conference participants, and the conference agenda, as well as references and resources for additional information.

#### A Critical Need for Collaborative Care

"The time is right." noted Mary Wakefield, Ph.D., R.N., HRSA Administrator, "Our resources are limited, and it's our obligation to determine and apply our health resources as effectively and robustly as possible in ways that produce better care outcomes for patients. As the health care community is looking for new strategies, and new ways of organizing to optimize our efforts-teamwork is fundamental to the conversation."

In her plenary talk, Dr. Wakefield, noted that HRSA has worked over the years to advance teamwork among health professions, including the Advisory Committee on Interdisciplinary, Community-Based Linkages which was created by Congress and has focused on these issues for more than a dozen years. She emphasized that the passage of national health care reform creates both an opportunity and an imperative for interprofessional education. In 2014, the Affordable Care Act will bring health care coverage to an estimated 32 million previously uninsured Americans, many of whom are expected to bear a high disease burden.

Other changes will include new financial incentives that reward care coordination and chronic disease management. In addition, greater emphasis will be placed on preventive and primary care. Dr. Wakefield affirmed that patient-centered medical homes, Accountable Care Organizations, initiatives to improve care transitions and reduce hospital readmissions are all approaches that can best be realized through effective use of health care teams. As an example of inter-agency collaboration she reported that HRSA and the Centers for Medicare and Medicaid (CMS) are working together on a Community Health Center medical home model.

Yet the current health care system will be severely challenged to meet these additional needs. Shortages of primary and specialty care providers across the country are increasingly pressured "to do more with less"—that is, become both more effective and more efficient.

Changes within health care have made the need for collaborative practice increasingly urgent, Berwick observed. An aging and diverse population is living longer with chronic conditions like diabetes, heart disease or cancer that require coordinated care from a team of providers.

Patients, he added, are demanding this kind of care. They expect physicians, nurses and other health professionals to communicate and work together effectively.

At the same time, science and technology are advancing at such a rapid pace that it's virtually impossible for an individual clinician to keep up, Berwick said. In contrast, teams of providers bring their collective knowledge and experience to the table, thus providing a more robust foundation for decision-making than any single clinician can offer. "The health care system will not be able to keep pace with these explosive changes unless it moves to a team-based care model," said George Thibault, M.D., president of the Josiah Macy Jr. Foundation. "But the delivery system cannot make that shift effectively until the education system begins to train new health professionals in collaborative practice."

For the most part, that's not happening in Thibault's view. Thibault said that nursing, medical and other health professions schools typically still educate students separately in courses and classrooms, often on campuses that aren't even close to each other. Few students have an opportunity to work together in either the classroom or clinical settings. After graduation, however, most are thrown into complex clinical situations and expected to function as part of the team.

Nor are most students being taught how to manage patients with multiple complex chronic conditions, ensure patient safety or engage patients in shared decision-making. Educational curricula have not been updated to reflect these and other changes in everyday practice.

The status quo of educating health professionals in silos without preparing them for the current realities of everyday practice is no longer tenable, according to Daniel Wolfson, M.H.S.A., executive vice president and chief operating officer of the ABIM Foundation. "The future is upon us," he said. "We must start making these changes now."

## The Work of the Interprofessional Education Collaborative Expert Panel

As envisioned, the core competencies developed by the IPEC expert panel define the skills and interprofessional behaviors that health professionals need in order to participate effectively in collaborative practice and team-based care. Panel chair Madeline Schmitt, Ph.D., R.N., professor emerita at the University of Rochester School of Nursing, explained that the panel began its work by reviewing the relevant literature, including a 2010 report by the World Health Organization and a competency framework issued the same year by the Canadian Interprofessional Health Collaborative.

The IPEC panel identified four core competency domains: 1) values and ethics; 2) roles and responsibilities for collaborative practice; 3) interprofessional communication; and 4) teamwork and team-based care. The panel further identified 38 competencies that describe essential behaviors across the four core domains. For example, under the interprofessional teamwork and team-based care domain, students should be prepared to "share accountability appropriately with other professions, patients and communities for outcomes relevant to prevention and health care." Another example, under the roles and responsibilities domain, they should be able to "explain the roles and responsibilities of other care providers and use the unique and complementary abilities of all team members to optimize patient care."

#### CORE COMPETENCIES RECOMMENDED BY THE IPEC PANEL

In 2009, the six national health professions education associations formed the Interprofessional Education Collaborative (IPEC) with the goal of advancing interprofessional educational learning experiences to better prepare students for collaborative and team-based care. A panel of experts appointed by IPEC in 2010 developed a set of core competencies in four domains to make sure students had the foundation of knowledge, skills and values they need in order to perform interprofessional teamwork and function as part of a team to provide effective patient-centered collaborative care. Some examples of competencies in each domain include:

#### Values/Ethics for Interprofessional Practice

Act with honesty and integrity in relationships with patients, families and other team members.

Respect the dignity and privacy of patients while maintaining confidentiality in the delivery of team-based care.

#### **Roles/Responsibilities for Collaborative Practice**

Communicate one's role and responsibilities clearly to patients, families and other professions.

Explain the roles and responsibilities of other care providers and how the team works together to provide care.

#### Interprofessional Communication

Choose effective communication tools and techniques, including information systems and communication technologies, for facilitating discussions and interactions that enhance team function.

Give timely, sensitive, instructive feedback to others about their performance on the team and respond respectfully as a team member to feedback from others.

#### Interprofessional Teamwork and Team-Based Care

Engage other health professionals—appropriate to the specific care situation—in shared patient-centered problem solving.

Reflect on both individual and team performance improvement.

Summarizing the panel's conclusions, Schmitt said that new health professionals educated in these competencies should have solid grounding in the specific knowledge of their profession, communication skills and the ability to solve problems as part of a team.

"Despite the IOM's 2001 call for collaborative care, and the development in other countries of core competencies for interprofessional education similar to what the IPEC panel has recommended,

the United States has been slow to move ahead in this area," said Amy Blue, Ph.D., a member of the IPEC panel and assistant provost for education at the Medical University of South Carolina.

The IPEC panel's draft competency statements were shared with conference participants for review and comment. Feedback was overwhelmingly positive. Participants affirmed that the patient should be at the center of the interprofessional teamwork process. They also emphasized the importance of the organizational practice environments in facilitating the use of these core competencies in interprofessional collaborative practice and team-based care. In the end, participants unanimously agreed that the identified set of competencies, with some minor refinements, reflect best practices to date. The IPEC panel's final report, including the competencies discussed at the meeting, will be released in May 2011.

#### What Forces Could Influence Change?

Following this discussion, conference participants broke into small groups to identify specific factors that could act either as supports or barriers to widespread adoption of the IPEC competencies.

#### **REINFORCING FACTORS**

The factors identified by conference participants that would advance interprofessional education and collaborative care include:

- **Emphasis on quality of care.** IOM and other experts believe that health care provided by interprofessional teams can improve quality of care. Teams may problem-solve more effectively than solo providers and provide more oversight to reduce medical errors that can harm patients.
- Focus on the patient. The typical patient today often knows a good deal about his or her health and expects their health care providers to work together to help coordinate and navigate the complex world of clinical care.
- Promise of health care reform. The Affordable Care Act provides financial incentives for care coordination to provide seamless transition from the hospital to home. The health reform law also puts greater emphasis on prevention, and teams can often manage care in a way that prevents minor health problems from becoming more serious.
- Aging society. Baby-boomers have taken advantage of all that modern medicine has to offer. As a result, many people are living longer than previous generations, with multiple chronic conditions. These patients benefit from a team who can coordinate care with each other, and with the patient and family.
- **Rapidly evolving scientific knowledge.** The pace of health care makes it difficult for any single clinician to keep up with new scientific findings or advances in technology. Effective teams use the unique expertise of each health professional to stay current with the latest medical advances, treatments or research findings.

#### **RESTRAINING FACTORS**

The restraining factors identified by the small groups include:

- Absence of role models. Many senior teachers, especially those not currently in clinical practice, have never been educated to work as part of a team and are not familiar with the relevant skills they need to impart to students.
- **Reimbursement.** Clinical settings need adequate reimbursement for team-based care, as well as for educating students. On the academic side, universities may be challenged to find funds to pay for a new education model that requires new curricula, additional classroom space and faculty development.
- **Resistance to change.** Change is often difficult. Health professionals who have little experience working in teams might be reluctant to adopt this model, fearing they will lose status or power.
- **Logistical barriers.** Universities may be hard-pressed to find classroom space or time in the curriculum to educate students from multiple professions together, especially in situations where health professional schools are housed on separate campuses and have different academic calendars.

# Steps to Advance Interprofessional Collaboration in Education and Practice

On the second day of the conference participants worked in small groups to identify action steps for advancing interprofessional education and collaborative care. Each group considered the reinforcing and restraining factors and used them to develop a set of recommendations to bring about this critical paradigm shift.

#### ACTION STRATEGY 1: COMMUNICATE AND DISSEMINATE

- Disseminate the IPEC core competencies report to key stakeholders, including academic deans, policy-makers, health care leaders and others. Despite consensus that the United States should move to a system of educating new health professionals to work collaboratively, there is no generally accepted set of core competencies that lays the foundation for that crucial shift. The IPEC report can provide the blueprint needed to move the interprofessional education agenda forward into a new era in which teamwork is the norm.
- **Launch an education campaign that establishes the critical need for interprofessional collaboration in education and practice.** An effective campaign would educate the public, policy-makers and other stakeholders about the changes in health care today that require a shift away from solo care to team-based care. That campaign would make the link between collaborative care and providing care that is higher quality, safer and *cost sensitive*.

- **Establish the business case for interprofessional education and teamwork.** Policy-makers and other leaders will be more likely to support interprofessional education and teamwork if they have robust evidence showing that such practices lead to improvements in quality, safety, cost, and patient and provider satisfaction.
- Create a national clearinghouse of resources on interprofessional education and models of team-based or collaborative care. Academic institutions and health care systems that have developed effective interprofessional models should share the lessons learned so that others can set up similar programs. A repository of evidence-based research on effective ways to educate students to work collaboratively could help overcome barriers to interprofessional education.

## ACTION STRATEGY 2: DEVELOP INTERPROFESSIONAL FACULTY AND RESOURCES

- Prepare faculty for teaching students how to work effectively as part of a team and how to use the competencies to advance that goal. Faculty will need practical guidance, especially if they are teaching methods of teamwork and collaboration for the first time. They should have access to expert consultants and other resources should be available to help bring faculty up-to-speed on the best ways to teach the competencies.
- Encourage members of professional organizations to advocate for the use of the competencies within their own health profession. Professional organizations must provide leadership to overcome resistance to interprofessional education and to collaborative care itself. This includes countering uncertainty about a new way of teaching and strengthening connections between existing programs and natural allies.

#### ACTION STRATEGY 3: STRENGTHEN METRICS AND RESEARCH

- Bolster funding for research on interprofessional education and collaborative care to identify the techniques that work effectively. Although much has been learned about collaborative care and interprofessional education, questions remain about how best to educate both new and experienced professionals and establish effective teams.
- Develop metrics that examine the effectiveness of interprofessional education in changing behavior in practice as well as interprofessional team effectiveness. Metrics or standards will be needed in order to evaluate new models and techniques for teaching team-based care.

## ACTION STRATEGY 4: DEVELOP NEW COLLABORATIVE ACADEMIC PRACTICES AND NEW COLLABORATIONS WITH COMMUNITY LEARNING SITES

- Forge partnerships and new collaboratives among academic institutions, health care providers, government agencies and consumer groups to advance effective models of interprofessional education and collaborative care. Implementation of an interprofessional education and collaborative care agenda will require educators, clinicians, administrators and accreditors to work together toward that goal.
- Act upon the commitment made at the meeting to collaborate on interprofessional education. Organizations that made this pledge include the U.S. Department of Veterans Affairs; Geisinger Health System; Kaiser Permanente; Vanguard Health Systems; Denver Health; University of Colorado; New York Presbyterian-Columbia; and HRSA.

#### **ACTION STRATEGY 5: ADVANCE POLICY CHANGES**

- **Explore funding sources to support education and research initiatives.** Without funding, many institutions say that the expense of starting a new interprofessional education program would be a significant barrier.
- Make collaborative education and evaluation a component of new care models tested by the Centers for Medicare and Medicaid Innovations Center.

#### **Vision for the Future**

Imagine a future in which patients can routinely expect collaborative, coordinated care from an interprofessional team. Berwick painted a picture of such a future, using the example of a hypothetical older patient, Mrs. Jones:

"Before the Affordable Care Act, if Mrs. Jones has congestive heart failure, diabetes and a touch of depression, she's going to see five doctors, take six medications and visit seven health care facilities," he said. Under that system, the cardiologist might not talk to the diabetes specialist or the nurse and no one realizes that Mrs. Jones has forgotten to take her medication to control high blood pressure.

As a result, Mrs. Jones has a rise in blood pressure, suffers a stroke and must be admitted to a nursing home.

Now imagine the same scenario taking place in 2017. In this future, Mrs. Jones receives care from a team that communicates effectively and coordinates the care she needs at the right time with the right provider and the right intervention. Mrs. Jones forgets to take her pills, but in this case the team immediately takes note and addresses the problem. As a result, her blood pressure never rises to a dangerous level and she doesn't suffer a stroke.

"Everyone is better off because Mrs. Jones is at home," Berwick said. The health care system saves money because a nursing home admission is averted. But beyond the cost savings, this type of coordinated care results in better patient outcomes, and, as Berwick notes, Mrs. Jones is happy because she can maintain her independence by living at home.

## Conclusion

By the conference's end, participants had a strong sense of shared purpose and commitment to advancing interprofessional education not only in their home institutions but also by working collectively to create changes in education, research and practice to support a longer and more profound impact on the health care system at large. Leaders in education and clinical practice, and policy-makers attending the conference agreed that they must act now to advance efforts to promote collaboration among health professionals. The meeting participants pledged to continue the dialogue started at the conference with their colleagues at home. They also discussed the need to form stronger connections and deeper understanding between academic and health system leaders.

They acknowledged the challenges ahead—many of which are still unknown—but expressed the critical nature of their task, especially now that policy-makers are starting to put the pieces of health reform in place.

"We have been down this road before," said Deborah Gardner, Ph.D., R.N., senior advisor at HRSA. "We have a new window of opportunity and if the excitement, ideas and commitment experienced in this meeting hold steady, we will have the essential ingredients to leverage a paradigm shift in health professional education and practice."

Across the country the interest in interprofessional education and practice has never been greater, with numerous collaboratives evolving to create a national conversation concerning this critical need. This meeting to discuss core competencies for teamwork in health care builds on multiple efforts to define teamwork-based patient safety competencies and the work of the IPEC expert panel.

In the end, everyone agreed that it will take more than putting action steps to paper to make this transformation.

"Every person in this room is a leader," Thibault told the participants. "Every one of us is capable of pushing for change."

## **Endnotes and Selected Resources**

- 1. *A National Interprofessional Competency Framework*. Vancouver: Canadian Interprofessional Health Collaborative, 2010. (No authors given.)
- 2. *Interprofessional Education Collaborative Expert Panel, 2011.* Core Competencies for Interprofessional Collaborative Practice: Pre-publication recommendations. Washington, D.C.
- 3. Crossing the Quality Chasm: A New Health System for the 21<sup>st</sup> Century. Washington: National Academy of Sciences, 2000. (No authors given.)
- 4. Framework for Action on Interprofessional Education & Collaborative Practice. Geneva: World Health Organization, 2010. (No authors given.)
- 5. *Health Professions Education: A Bridge to Quality.* Washington: The National Academies Press, 2003. (No authors given.)

## **Appendix**

Participant Listing

Rumay Alexander, Ed.D., R.N. University of North Carolina at Chapel Hill School of Nursing

**Carol Aschenbrener, M.D.** Association of American Medical Colleges

Mac Baird, M.D., M.S. University of Minnesota Medical School, Department of Family Medicine and Community Health

Ruth Ballweg, M.P.A., P.A.-C. University of Washington, MEDEX Northwest Division of Physician Assistant Studies

**Geraldine "Polly" Bednash, Ph.D., R.N., F.A.A.N.** American Association of Colleges of Nursing

**Donald Berwick, M.D., M.P.P.** Centers for Medicare and Medicaid Services

**Amy Blue, Ph.D.** Medical University of South Carolina Office of the Provost

George Bo-Linn, M.D. Gordon and Betty Moore Foundation

**Barbara Brandt, Ph.D.** Minnesota Area Health Education Centers Program University of Minnesota Academic Health Center

Tina Brashers, M.D. University of Virginia, School of Nursing

Thomas Cavalieri, D.O., F.A.C.O.I., F.A.C.P. UMDNJ-School of Osteopathic Medicine

Frank Cerra, M.D. University of Minnesota, Academic Health Center

**Frederick Chen, M.D., M.P.H.** Health Resources and Services Administration, Bureau of Health Professions

Benjamin Chesluk, Ph.D. American Board of Internal Medicine

Marilyn Chow, D.N.Sc., R.N., F.A.A.N. Kaiser Permanente, Patient Care Services Pamela Cipriano, Ph.D., R.N., F.A.A.N. University of Virginia, School of Nursing

Sarah Cook, D.N.P., R.N., C.S. Columbia University, School of Nursing

Malcolm Cox, M.D. Veterans Health Administration Office of Academic Affiliations

Linda Cronenwett, Ph.D., R.N., F.A.A.N. University of North Carolina at Chapel Hill School of Nursing

Robert D'Alessandri, M.D. The Commonwealth Medical College

Bruce Donoff, D.M.D., M.D. Harvard School of Dental Medicine

Mary Dougherty, D.N.Sc., M.B.A., R.N. Veterans Affairs Nursing Academy

Karen Drenkard, Ph.D., R.N., F.A.A.N. American Nurses Credentialing Center

Daniel Duffy, M.D. The University of Oklahoma Tulsa School of Community Medicine

Nicole Fauteux Spann Communications

Terry Fulmer, Ph.D., R.N., F.A.A.N. New York University College of Nursing

Robert Galbraith, M.D. National Board of Medical Examiners

**Deborah Gardner, Ph.D., R.N.** Health Resources and Services Administration, Bureau of Health Professions

**Rosemary Gibson, M.Sc.** Writer, Speaker, Consultant

John Gilbert, Ph.D. University of British Columbia College of Health Disciplines

Kelly Goudreau, D.S.N, R.N., A.C.N.S.-B.C. Portland VA Medical Center **Bruce Gould, M.D., F.A.C.P.** Connecticut Area Health Education Centers Program

Catherine Grus American Psychological Association

**Gwen Halaas, M.D., M.B.A.** University of North Dakota School of Medicine & Health Sciences

**Les Hall, M.D.** University of Missouri School of Medicine

Janet Heinrich, Dr.P.H., R.N., F.A.A.N. Health Resources and Services Administration, Bureau of Health Professions

Daniel Hunt, M.D., M.B.A. Association of American Medical Colleges

**David Kaufman, M.D.** Vanguard Health System

Laura Kavanagh, M.M.P. Health Resources and Services Administration, Maternal and Child Health Bureau

**Roderick King, M.D., M.P.H.** Health Resources and Services Administration, Bureau of Primary Health Care

Richard Kiovsky, M.D. Indiana Area Health Education Centers Program

**Darrell Kirch, M.D.** Association of American Medical Colleges

Jane Kirschling, D.N.S., R.N., F.A.A.N. University of Kentucky, College of Nursing

Kathleen Klink, M.D. Health Resources and Services Administration, Bureau of Health Professions

Anthony Knettel, J.D. The Association of Academic Health Centers

**Richard Krugman, M.D.** University of Colorado Denver Office of Health Affairs

Maryjoan Ladden, Ph.D., R.N., F.A.A.N. Robert Wood Johnson Foundation **Gerri Lamb, Ph.D., R.N., F.A.A.N.** Arizona State University College of Nursing and Health Innovation

Lucinda Maine, Ph.D., R.Ph. American Association of Colleges of Pharmacy

Ann McMillan, M.S.W. Grantmakers In Health

Paul Melinkovich, M.D. Denver Health, Community Health Services

Susan Meyer, Ph.D. University of Pittsburgh, School of Pharmacy

**Lloyd Michener, M.D.** Duke Center for Community Research Department of Community and Family Medicine

**Perri Morgan, Ph.D., P.A.-C.** Duke University Physician Assistant Program, Department of Community and Family Medicine

**Tom Nasca, M.D., M.A.C.P.** Accreditation Council for Graduate Medical Education

Rubens Pamies, M.D., F.A.C.P. University of Nebraska Medical Center Office of Academic Affairs

Jay Perman, M.D. University of Maryland-Baltimore

**Michael Resnick, Ph.D.** University of Minnesota Department of Pediatrics

**Richard Ricciardi, Ph.D., N.P., F.A.A.N.P.** Agency for Healthcare Research and Quality Center for Primary Care Prevention and Clinical Partnerships

Veronika Riley The American Organization of Nurse Executives

Madeline Schmitt, Ph.D., R.N., F.A.A.N. University of Rochester School of Nursing

**Stephen Shannon, D.O., M.P.H.** American Association of Colleges of Osteopathic Medicine Julie Sochalski, Ph.D., R.N., F.A.A.N. Health Resources and Services Administration, Bureau of Health Professions

Karen Stallings, M.Ed., R.N. North Carolina Area Health Education Centers Program

Virginia Sutton, M.P.H. Health Resources and Services Administration, Bureau of Health Professions

**George Thibault, M.D.** The Josiah Macy Jr. Foundation

**Michelle Thompson, M.D.** Geisinger Health System

Virginia Tilden, D.N.Sc., R.N., F.A.A.N. University of Nebraska Medical Center College of Nursing

Leslie Tucker ABIM Foundation

William Tulloch, M.Econ. National Committee for Quality Assurance

**Rick Valachovic, D.M.D., M.P.H.** American Dental Education Association

Tom Viggiano, M.D., M.Ed. Mayo Medical School

Antonia Villarruel, Ph.D., R.N., F.A.A.N. University of Michigan, School of Nursing

Mary Wakefield, Ph.D., R.N., F.A.A.N. Health Resources and Services Administration

Deanna Wathington, M.D., M.P.H. University of South Florida, College of Public Health

Joan Weiss, Ph.D., R.N., C.R.N.P. Health Resources and Services Administration, Bureau of Health Professions

**Ellen Marie Whelan, Ph.D., R.N.** Center for American Progress

Kathleen White, Ph.D., A.P.R.N., F.A.A.N. Health Resources and Services Administration, Bureau of Health Professions **Robert Wise, M.D.** The Joint Commission, Division of Healthcare Quality Evaluation

Daniel Wolfson, M.H.S.A. ABIM Foundation

**Richard Younge, M.D., M.P.H.** Center for Family and Community Medicine, New York Presbyterian-Columbia

Brenda Zierler, Ph.D., R.N., R.V.T. University of Washington, School of Nursing



