Report of a Conference: *Envisioning Leadership in Health Professions Education for the 21st Century*

October 17th & 18th, 2010
Columbia University Faculty House

*Sponsored by*
The Josiah Macy, Jr. Foundation and
The ADEAGies Foundation
Acknowledgements

The Conference was made possible through grants from the Josiah Macy, Jr. Foundation and the ADEAGies Foundation. Both foundations have taken leadership roles in fostering linkages among educators from all health professions. Such linkages will be particularly important as the education and delivery of healthcare becomes increasingly interprofessional.

AMSNY and NYSADC would like to thank George E. Thibault, MD, President of the Josiah Macy, Jr. Foundation, and Richard Valachovic, DMD, MPH, President of the American Dental Education Association and President of the ADEAGies Foundation for their support of and participation in this project.

We would also like to thank the members of the External Advisory Committee for their generous contributions and assistance, which were vital to the development and structure of the program.

Jo Wiederhorn
President and CEO
Associated Medical Schools of New York (AMSNY)
New York State Academic Dental Centers (NYSADC)
About AMSNY and NYSADC

The Associated Medical Schools of New York (AMSNY) is a consortium of the 16 public and private medical schools in New York State. Incorporated in 1967, AMSNY works to support quality healthcare in New York State through the continual strengthening of medical education, medical care, and medical research - connecting the people, knowledge and resources of the NYS medical schools. AMSNY works in partnership with its members to improve healthcare through education, advocacy, and collaboration. AMSNY’s focus areas include, but are not limited to: advocacy on issues of importance to academic medical centers, faculty development, diversity/inclusion of medical students and medical school faculty, and the development of core competencies in educational areas such as clinical skills, educational informatics, and global health. In addition, AMSNY works with its members to promote research initiatives that aim to improve healthcare outcomes.

The New York State Academic Dental Centers (NYSADC) is a consortium of New York State’s 5 public and private academic dental centers. Established in 1996, NYSADC’s mission is to improve the oral health of all New Yorkers through the development of improved dental health policy, faculty development programs, oral health research and clinical care. NYSADC’s focus areas include, but are not limited to: diversity/inclusion of dental students and dental school faculty, the development of shared educational resources and global health, and the development of best practices around dental education, research and patient care.
**AMSNY Members:**

Albany Medical College  
Albert Einstein College of Medicine of Yeshiva University  
Columbia University College of Physicians & Surgeons  
Hofstra North Shore-LIJ School of Medicine  
Mount Sinai School of Medicine  
New York College of Osteopathic Medicine  
New York Medical College  
New York University School of Medicine  
Sophie Davis School of Biomedical Education at The City College of New York  
SUNY Downstate Medical Center  
SUNY Upstate Medical University  
Stony Brook University Medical Center  
Touro College of Osteopathic Medicine  
University at Buffalo, State University of New York, School of Medicine and Biomedical Sciences  
University of Rochester School of Medicine and Dentistry  
Weill Cornell Medical College

---

**NYSADC Members:**

Columbia University College of Dental Medicine  
New York University College of Dentistry  
Stony Brook University School of Dental Medicine  
University at Buffalo School of Dental Medicine  
Eastman Institute for Oral Health, University of Rochester School of Medicine & Dentistry
# Envisioning Leadership for Health Professions Education in the 21st Century

## Table of Contents

I. Executive Summary ................................................................. 6

II. Summary of Conference Discussions ...................................... 9

III. Vision for the Mid-21st Century Health Delivery System .......... 12

IV. Change Management Recommendations ............................. 17

V. Leadership Competencies ..................................................... 22

VI. Conclusion ........................................................................... 27

VII. Immediate Outcomes and Next Steps ................................. 29

VIII. Appendix ........................................................................... 33

- Conference Agenda ............................................................. 34
- Participants .......................................................................... 38
- Presentations ........................................................................ 41
- Summary of External Advisory Board Interviews .................. 93
- Bibliography ......................................................................... 100
- Conference Evaluation ....................................................... 118
- Budget ................................................................................. 124
I. Executive Summary
Executive Summary

On October 17-18, 2010, the Associated Medical Schools of New York (AMSNY) and the New York State Academic Dental Centers (NYSADC), with support from the Josiah Macy, Jr. Foundation and the ADEAGies Foundation, convened an interprofessional conference of more than 60 state and national leaders from academic health centers to envision the future healthcare delivery environment and leadership competencies that will be critical in the continually evolving health system of the mid-21st Century.

Representatives from medicine, dentistry, nursing, public health, social work, psychology, hospital systems, health policy and management, including recent inductees into the Institute of Medicine, discussed the future direction of health professions education and delivery and how to work collectively across the professions to bridge the widening gap between the current training and practice of healthcare professionals and society’s needs.

The conference was based on the following premises:

1. Health professions’ education must evolve beyond 20th century models; as such educational content and learning experiences must be pertinent to practice in the 21st century;

2. The development of interprofessional teams offers the potential to significantly improve the quality, efficiency and effectiveness of healthcare delivery; structural changes to the educational system need to be implemented in order to foster collaborative models of interprofessional training.

During opening remarks at the conference, George E. Thibault, MD, President of the Josiah Macy Jr. Foundation, and Richard W. Valachovic, DMD, MPH, President of ADEAGies Foundation, stressed the importance of interprofessional collaboration across the continuum of education and practice, and the leadership that will be necessary for facilitating the changes that will bring current health systems into better alignment with society’s needs.

Dr. Thibault also noted the importance of a multi-institutional approach for implementing widespread innovation and change: “New York is an incredible reservoir of education and teaching. This is a moment in time for New York to take leadership...so as to become a hotbed of innovation and leadership directed towards meeting the needs of the society we serve”.


Conference Outcomes

An overarching theme from the open forum and small group discussions was that, in order to meet society’s needs, now and into the mid-21st Century, the education and delivery of healthcare should meet outward looking standards across traditional professional divisions in educational and practice settings. In order to achieve far-reaching change, participants noted that there would need to be better systemic and educational integration:

1. Across the health professions;
2. Across the continuum of education and practice;
3. Across healthcare providers throughout a patient’s lifetime;

The conference yielded a set of recommendations for health professionals leading health education and delivery systems an era of uncertainty and continuous change. Conference participants identified educational challenges and areas for curricular reform, and determined organizational change strategies for transitioning outdated models of education into models that are better aligned with contemporary healthcare delivery.

Participants also developed a leadership curriculum for health professions educators to facilitate the implementation of change and adequately prepare them to train future healthcare teams practicing in the mid-21st century.
II. Summary of Conference Discussions
Introduction

The early 20th Century brought widespread changes in the education and delivery of healthcare as a result of four landmark reports, published first in medicine with the Flexner Report (1910)\(^1\), followed by the Welch-Rose Report (1915)\(^2\) in public health, the Goldmark Report (1923)\(^3\) in nursing, and the Gies Report (1926)\(^4\) in dentistry. A century later, there is a convergence among the health professions that reform is again needed to bring the education of health professionals into better alignment with the continually evolving needs of society.

As the 21st Century progresses, the U.S. health system is becoming increasingly complex, with an expanding scientific and clinical evidence base, advances in information technology, and the healthcare needs of the population evolving at an unprecedented rate. One consequence of this rapid development and increase in complexity is fragmentation in the education and delivery of healthcare. The lack of integration and the outdated organizational structures of the current health system have resulted in inefficient and less effective quality of care at a higher cost, the consequences of which are preventable errors, translating into approximately 44,000-98,000 patient deaths annually in the U.S. alone.\(^5\)

The strength of any complex adaptive system is in the connections between its diverse, interdependent agents. Over 70% of preventable errors reported to the Joint Commission between 1995 and 2005 were attributed to communication failure, which prompted the Joint Commission in 2008 to adopt Patient Safety Standards to improve the structure and communication between healthcare professionals.\(^6\)

In order for academic health centers to respond to and evolve with changes in the delivery environment:

1. Health professions’ education must evolve beyond 20th century models so that educational content and learning experiences are pertinent to contemporary practice;
2. Increased systemic and educational integration needs to occur, including structural changes to the educational system to foster collaborative models of interprofessional training.

Most importantly, visionary, dedicated and effective leadership will be required to collectively “create this new future” by developing an “action agenda of coordinated change.”\(^7\)

These were the premises of the conference Envisioning Health Professions Leadership for the 21st Century.

---

Conference Objectives and Discussion

On October 17-18, 2010, the Associated Medical Schools of New York (AMSNY) and the New York State Academic Dental Centers (NYSADC), with support from the Josiah Macy, Jr. Foundation and the ADEAGies Foundation, convened an interprofessional conference of more than 60 state and national leaders from academic health centers to envision the future healthcare delivery environment and leadership competencies that will be critical in the continually evolving healthcare system of the mid-21st Century.

The objectives of the conference were to:

1. Identify future drivers of health professions education and delivery, and develop a shared vision for the healthcare delivery environment of the mid-21st Century;
2. Determine changes that are needed to bring health education into better alignment with practice settings now and in the immediate future, and develop strategies for facilitating these changes in academic health centers, including barriers/challenges, and necessary resources, and;
3. Develop the draft of a competency-based, leadership curriculum for health professions educators, to prepare them with the skills and abilities needed to train future healthcare teams practicing in the mid-21st century.

Participants agreed that one of the most formidable challenges is the fragmentation of the health system across education and practice settings, which results in inefficient and less effective quality of care at a higher cost. They agreed that, as the pace of change in the education and delivery of healthcare continues to accelerate and become increasingly complex, better integrated, more high-functioning health systems would be critical, as would the leadership of these complex systems.

The conference yielded a set of recommendations for health professionals leading these complex systems of health education and delivery in an era of uncertainty and continuous change. A common overarching theme from the discussions was that, in order to meet society’s needs, now and in the environment of the mid-21st century, the education and delivery of healthcare should focus on outward looking standards across traditional professional divisions in educational and practice settings.
III. Vision for the Mid-21st Century
Health Delivery System
Vision for the Mid-21st Century Health Delivery System: Systems Integration of Health Education and Practice

In order to affect the far-reaching changes needed to achieve high-performing health systems, now and in the mid-21st Century, conference participants noted that there would need to be better systemic and educational integration:

1. Across the health professions;
2. Across the continuum of education and practice;
3. Across healthcare providers throughout a patient’s lifetime;

The leadership skills that were identified as essential for facilitating these changes and leading in an era of uncertainty and continuous change were: visioning, risk management, systems-based quality improvement, change management, curriculum reform, evidence-based leadership, outcomes assessment, interpersonal relations, consensus building, the training and leadership of interprofessional teams across the continuum of education and practice, and health information technology.

Integration would also need to be informed by a shared set of standards aligned with the social mission of medicine and informed by public health.

Better Integration Across the Health Professions

One of the most promising solutions to the fragmentation and distribution of the health workforce can be found in interprofessional collaboration and team-based practice.8

In an address to students in 1905, William Osler spoke about the fragmentary nature of scientific truth, “No human being is constituted to know the truth, the whole truth, and nothing but the truth; and even the best of [people] must be content with fragments, with partial glimpses, never the full fruition.” 11 A corollary of this suggests that with increased specialization within and across the health professions, effective healthcare delivery is becoming increasingly dependent on successful collaboration, and the extent to which healthcare teams are able to build on the strengths, knowledge and skill-sets that each member of the team brings to the patient’s bedside.

---

An integrated, systems-based perspective on the provision of healthcare and effective interprofessional collaboration optimizes health-services, strengthens health systems and improves:

- Health outcomes;
- Access to and coordination of healthcare;
- Patient care and safety;
- Appropriate use of specialist clinical resources;
- Workplace practices and productivity.9

Perspectives from Public Health also assist practitioners to address broader determinants of health. However, educational and practice structures do not currently foster interprofessional collaboration. To achieve better integration across the professions, the following were identified:

**Policy**

- Promote shared outward looking standards and better alignment of professional accreditation, certification and licensure agencies, including a shared set of core competencies (e.g. competencies related to interprofessional, patient-centered, and team-based care);
- Cultivate a common vision and language to better align the cultures of the health professions;
- Support legislative actions that are aligned with interprofessional support;
- Shift the focus from hierarchical to patient-centered organizational structures so practitioners with the most appropriate skill-sets deliver care to the full extent of their education;
- Encourage increased interprofessional focus on preparatory and clinics;
- Advance new healthcare delivery models that are informed by innovative "best practices", in the U.S. and internationally (integrated, community-based primary care);
- Promote the accountability of healthcare teams (balance between individual and team accountability).

**Education**

- Foster increased alignment of the missions, cultures and organizational structures across health professional schools;
- Work to create a shared language, curricula and core competencies; (e.g. interprofessional/interdisciplinary teams, systems-based quality improvement, patient-centered care, evidence-based practice and informatics);8
- Provide opportunities for students to learn about, from and with students of other professions, such as orientations, seminars, grand rounds, and clinical rotations; interprofessional training needs to be longitudinal and experiential across the continuum of educational development;
- Implement interprofessional, patient-centered and team-based horizontal models of education (e.g. case-based simulations) that are informed by social psychology and organizational theory to be mindful of issues that may impact successful team functioning;
- Develop interprofessional faculty committees to coordinate interprofessional curricula across schools, and interprofessional networking and faculty development opportunities to encourage collegiality across the professions;
- Create incentives to encourage interprofessional education.

**Leadership Competencies**

- Understanding and respect for the educational models and cultures of all health professions;
- Consensus building, facilitation, and the ability to develop and lead interprofessional teams based on best-evidence organizational theory; the ability to “lead from the middle”;
- Communication and interpersonal skills;
- Systems-based quality improvement;
- Conflict resolution, mediation and negotiation;
- Interprofessional faculty development and mentoring;
- Change management;
- Curriculum reform to incorporate additional interprofessional curricula and training.
Better Integration Across the Continuum of Education and Practice

To facilitate the integration of health education and delivery, including increasing the rate at which scientific advances are introduced into practice, the following changes were identified:

Policy
- Foster better integration of oversight agencies across the continuum of education and practice, including agencies of accreditation, certification and licensure;
- Develop policies in support of translational medicine to ensure that practice is informed by the rapidly expanding evidence base in the biomedical and clinical sciences.

Education
- Develop educational models that better integrate pre-clinical and clinical education, and link the biomedical sciences to clinical practice;
- Implement competency-based curriculum and assessment of standardized outcomes;
- Educate students in translational medicine and evidence-based practice;
- Promote the alignment of education and practice settings (e.g. longitudinal clinical training in school-based, ambulatory care centers and community health centers);
- Incorporate innovative and transformative pedagogies into the curriculum to foster critical enquiry, quality improvement and self-directed, lifelong learning;
- Promote the effective use of health information technology and educational informatics at point of care (e.g. personal digital assistants (PDAs)).

Leadership Competencies
- Visioning, scenario planning, leading in an era of continuous change and uncertainty;
- Risk management;
- Systems-based quality improvement;
- Change management;
- Industry knowledge;
- Informatics;
- Curriculum reform to incorporate innovate pedagogies and curricular content.

Better Integration of Patient Care

Participants agreed that a shift would need to occur from provider, to patient-centered models of care, which would require the following:

Policy
- Develop systems for better coordination of care across providers, longitudinally, across a patient’s lifetime (e.g. healthcare innovation zones);
- Promote health information technology, including a national Electronic Health Record;
- Develop public health campaigns to promote healthy behaviors and prevention.

Education
- Implement community, patient-centered models of education and care; the education of practitioners needs to move out of the hospitals and to the side of the patient;
- Shift the focus of education from acute to chronic disease and prevention;
- Require education in health information technology (e.g. EHR competencies).

Leadership Competencies
- Change management and curriculum reform;
- Industry knowledge;
- Informatics and health information technology.
Better Integration Across Healthcare Settings

In order to provide more equitable access to care to meet the needs of underserved populations (urban and rural, in the United States and internationally), the following needs to occur to facilitate better integration across healthcare settings:

Policy
- Develop policies to address disparities by ensuring affordable and equitable healthcare;
- Address workforce distribution and physician shortages;
  - Workforce functioning to the extent of their training to meet primary care needs;
  - Policies to address disparities in reimbursement for primary and specialty care;
  - Incentives to encourage practitioners to go into primary care in underserved areas.
- Develop programs to increase the diversity of the healthcare workforce;
- Address challenges of state by state variability;
- Ensure effective use of health information technology, including a national Electronic Health Record;
- Develop organized and interconnected regional and national micro and macro systems of care (e.g. healthcare innovation zones).

Education
- Promote global health curricula and training;
- Require curricula in diversity training/cultural sensitivity and language skills;
- Broaden admission policies to increase the diversity of the healthcare workforce;
- Provide incentives to encourage practitioners to go into primary care in underserved areas;
- Require education in health information technology (e.g. EHR competencies).

Leadership Competencies
- Change management and curriculum reform;
- Industry knowledge;
- Informatics and health information technology;
- Cultural sensitivity and language skills.

Standards for Integration

Effective systems integration requires a common set of outward looking standards informed by public health and inspired by the social mission of healthcare:

Social Mission
- Professionalism and the reinstatement of the social mission of healthcare;
- Patient-centered models of training and delivery;
- Social accountability so that healthcare is better aligned with needs of the community;
- Better alignment of financial incentives (e.g. accountable care systems where insurance reimbursement is based on quality and efficiency, rather than fee for service).

Public Health
- Health education and delivery should be committed to the health of patients as well as the health of patient populations;
- Healthcare professionals should understand the social determinants of health and the unique needs of the communities they serve;
- The curriculum should include preventive medicine and the education of patient populations (e.g. to address disparities in how information is transmitted to the public).
IV. Change Management Recommendations:

*Leading Innovation and Change*
Leading Innovation and Change

Based on the preferred vision for the mid-21st Century health delivery system identified in session one, participants in break-out groups were then asked to: 1) identify and discuss systems or institutional factors that may play a significant role in the implementation of educational program change, and 2) select one aspect of educational reform and develop a strategy for implementing this change within their institutions, keeping in mind internal/external forces, potential barriers, structural issues, and the resources that will be required to effectively implement change at each phase of the process.

The following is a list of the recommendations and strategies for successful change management within academic health centers.12, 13

General Recommendations
- Change needs to be planned in advance;
- Change needs to start at the beginning and be systemic and comprehensive;
- Change needs to be real and meaningful;
- Change requires good outcomes assessment and measures for evaluating change based on continuous quality improvement, and;
- Perhaps, most importantly, change requires a commitment from visionary, effective and action-oriented leadership in the organization.

Selected topics
The following aspects of reform were selected by the groups:

Policy Change:
- Increased interprofessional integration across accrediting agencies

Organizational Change in Academic Institutions:
- Increased collegiality across the professions
- Alignment of educational and healthcare models to promote the shift from provider to patient-centered models of care

Guidelines for Change Management

1. Assess the Need Based on Current and Future Trends in Healthcare

The needs assessment should be based on a rigorous review of the literature and an analysis of the institution. A comprehensive literature review creates the rational to move.

The needs assessment also helps to diagnose the situation and assess the strengths and shortcomings of existing models, which creates an awareness of opportunities and the risk of the status quo.

2. Develop a Team to Lead the Change

After determining the need, the next step in the process is to create a Steering Committee and develop alliances, coalitions, and structures needed to implement the change.

The Steering Committee Team
- The team should consist of organizational leaders who are open to new ideas and who are willing to challenge the “status quo”, in addition to those who are proponents of the “status quo” but are comfortable with change;
- The team should possess discipline, persistence, and a commitment to the vision;
- The team should have expertise in the change to be implemented, including an awareness of the literature and educational scholarship;
- The team should be neutral and represent the perspectives of the various professions; other professions outside of the health professions should also be at the table (including individuals with an understanding of educational, business, and organizational models);
- The team should be developed using a common language and vision;
- Team leaders should facilitate collaboration and active problem solving; open dialogue should be encouraged, but communication should remain respectful and “safe”.

The team should include key stakeholders:
- Internal Stakeholders
  - Top-down administrative support (e.g. deans, associate deans for education, chairs, curriculum committees, and course, clerkship, and residency program directors);
  - Junior education, research, clinical and administrative faculty;
  - Grassroots (e.g. students and residents);
- External stakeholders:
  - Patients/community;
  - Leaders from other community health centers and organizations.

Leadership

Visionary leadership is necessary in order to keep a view on the future while addressing the present. Leaders should be facilitators of the process and change agents who are chosen for their leadership and consensus building skills, but not necessarily content expertise.

Leaders should be adaptable, committed to the change process, and well versed in:
- Scenario planning, environmental analysis, risk management, and the ability to lead effectively through periods of uncertainty;
- Change management and curriculum reform;
- Consensus and team-building to inspire a shared vision and a positive respectful culture;
- Ability to motivate, develop, and enable others to achieve common goals;
- Conflict resolution, negotiation and mediation;
- Systems-based quality improvement, outcomes assessment and feedback;
- Strategic planning and the development/communication of clear goals and expectations.
3. Create a Vision and Develop a Strategy for Implementation

Vision
To create a vision, change agents must:
- First start by examining the current mission of the institution;
- Understand and if necessary, reconcile the values and culture of the institution with the proposed change;
- Communicate clear goals and expectations regarding the change;
- Inspire a shared vision among stakeholders.

Resources
The resources needed for implementation include:
- Clear leadership support from the top;
- Communication about goals and expected outcomes;
- Functioning micro and macro systems;
- Alignment of incentives with positive outcomes;

4. Communicate Vision

The team must then develop a strategy to communicate the vision, including:
- When and how to communicate the vision;
- Clarity of goals and expectations.

Communication should occur along multiple avenues:
- Websites;
- Newsletters;
- Reports;
- Orientations;
- Meetings;
- Press releases.

5. Empower Others to Act on the Vision and Build Consensus

In order to implement change, buy-in needs to occur across the institution; to encourage buy-in, there should be an alignment of incentives with positive outcomes for change.

Leaders should recognize that change is often emotional, so that they may need to assist in transitioning people into new ways of thinking and empower them to act on the vision.

In order to address resistance to change, the team must seek a common ground across stakeholders by developing a common language and a shared vision. Leadership may need to employ conflict resolution and negotiation.

Change should be reinforced with repetition.
6. Plan for and Create Short-term Wins

Leaders should keep the momentum going through the creation and communication of short-term benchmarks and visible performance evaluations:

- Annual goals/indicators;
- Demonstration of examples where the change has worked;
- Identification of “champions for the change”;
- Discussion of groundwork;
- Development of position papers;

The strategy should anticipate and plan for an initial performance dip so as to be wary of the efficiency trap. Change needs to aim for successful longer-term outcomes, at the expense of satisfactory short-term outcomes.

Change should start small and grow increasingly larger (“diffusion of innovation”).

7. Consolidate Improvements and Produce More Change

In order to assess the effectiveness of the change, there should be a clear commitment to rigorous outcomes assessment, using continuous quality improvement and various qualitative and quantitative assessment methods. Implementation of the change should be adjusted accordingly.

The strategy should incorporate plans for sustainability.

The change should be reinforced through repetition.

8. Institutionalize Change

Change needs to be systemic and start at the beginning so that it is incorporated into the culture of the institution.

Change should be reflected in the language, policies and leadership of the institution. It is important that leaders model the way.

Change should be based on continuous quality improvement.
V. Leadership Competencies for 21st Century Health Professions Education and Practice
Leadership Competencies and Curriculum Grids

A set of leadership competencies were identified as essential for facilitating change, systems integration and leading in an era of uncertainty and continuous change. These include:

- Visioning
  - Identifying challenges and opportunities
  - Inspiring a common vision
  - Scenario planning and environmental analysis
- Leading in an era of uncertainty
  - Risk management
  - Change management
  - Systems analysis
  - Organizational theory
- Systems-based quality improvement
  - Development of clear goals and objectives
  - Evaluation and assessment
- Change management and curriculum reform
  - Consensus-building among diverse groups
  - Conflict resolution and negotiation
- Emotional Intelligence
  - Self-knowledge
  - Professionalism
  - Modeling the way
- Communication and interpersonal skills
  - Cultural awareness/competence
  - Interprofessional team facilitation and consensus building
- Evidence-based Management
  - Economics
  - Assessment/evaluation
  - Statistics
  - Budgeting
- Faculty Development
  - Mentoring and Feedback
  - Skills to facilitate change and curriculum reform
  - Tools for program construction
  - Management of human capital and identification of faculty skill-sets
  - Incentives aligned to curriculum
- Educational informatics and health information technology

The elements comprising an individual competency or sub-competency can be described using an educational rubric\(^\text{14}\) structure. The expansion of the full set of competencies into such rubric formats will serve as a preliminary blueprint for a full educational leadership curriculum. Examples are as follows:

\(^{14}\) A rubric is a tool that educators can use to define learning experiences. It should include a description of the content, context and process for the learning experience, and a plan for evaluation including performance criteria.
### Leadership Competencies for 21st Century Health Professions Education and Practice: VISIONING

<table>
<thead>
<tr>
<th>Knowledge elements</th>
<th>Content (what should be taught)</th>
<th>Context (where and with whom)</th>
<th>Process (what educational modalities)</th>
<th>Assessment (how should this be evaluated)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Environmental Analysis</td>
<td>Small group</td>
<td>Case-based</td>
<td>Self and peer evaluation</td>
</tr>
<tr>
<td></td>
<td>Scenario Planning</td>
<td>Multidisciplinary/Multilevel</td>
<td>Grand rounds</td>
<td>360 feedback</td>
</tr>
<tr>
<td></td>
<td>Evidence-based leadership</td>
<td>Safe to try and learn from failure</td>
<td>Video feedback</td>
<td>Self and peer evaluation</td>
</tr>
<tr>
<td></td>
<td>Literature Review</td>
<td></td>
<td>Simulations</td>
<td>360 feedback</td>
</tr>
<tr>
<td></td>
<td>Statistics</td>
<td></td>
<td>Reflective writing</td>
<td>Self and peer evaluation</td>
</tr>
<tr>
<td></td>
<td>Outcomes assessment</td>
<td></td>
<td>Mentoring and coaching</td>
<td>Self and peer evaluation</td>
</tr>
<tr>
<td></td>
<td>Risk management (SWOT)</td>
<td></td>
<td></td>
<td>Self and peer evaluation</td>
</tr>
<tr>
<td></td>
<td>Self-knowledge</td>
<td></td>
<td></td>
<td>Self and peer evaluation</td>
</tr>
<tr>
<td></td>
<td>Goal setting</td>
<td></td>
<td></td>
<td>Self and peer evaluation</td>
</tr>
<tr>
<td></td>
<td>Economics</td>
<td></td>
<td></td>
<td>Self and peer evaluation</td>
</tr>
<tr>
<td></td>
<td>Informatics</td>
<td></td>
<td></td>
<td>Self and peer evaluation</td>
</tr>
<tr>
<td>Skills</td>
<td>Articulation of vision</td>
<td></td>
<td></td>
<td>Self and peer evaluation</td>
</tr>
<tr>
<td></td>
<td>Strategic planning</td>
<td></td>
<td></td>
<td>Self and peer evaluation</td>
</tr>
<tr>
<td></td>
<td>Outcomes assessment</td>
<td></td>
<td></td>
<td>Self and peer evaluation</td>
</tr>
<tr>
<td></td>
<td>Communication</td>
<td></td>
<td></td>
<td>Self and peer evaluation</td>
</tr>
<tr>
<td></td>
<td>Listening</td>
<td></td>
<td></td>
<td>Self and peer evaluation</td>
</tr>
<tr>
<td></td>
<td>Direction</td>
<td></td>
<td></td>
<td>Self and peer evaluation</td>
</tr>
<tr>
<td></td>
<td>Self-assessment</td>
<td></td>
<td></td>
<td>Self and peer evaluation</td>
</tr>
<tr>
<td></td>
<td>Mentoring</td>
<td></td>
<td></td>
<td>Self and peer evaluation</td>
</tr>
<tr>
<td></td>
<td>Meeting management</td>
<td></td>
<td></td>
<td>Self and peer evaluation</td>
</tr>
<tr>
<td></td>
<td>Conflict resolution</td>
<td></td>
<td></td>
<td>Self and peer evaluation</td>
</tr>
<tr>
<td></td>
<td>Negotiation</td>
<td></td>
<td></td>
<td>Self and peer evaluation</td>
</tr>
<tr>
<td></td>
<td>Budgeting</td>
<td></td>
<td></td>
<td>Self and peer evaluation</td>
</tr>
<tr>
<td>Attitude</td>
<td>Adaptive expertise</td>
<td></td>
<td></td>
<td>Self and peer evaluation</td>
</tr>
<tr>
<td></td>
<td>Observant</td>
<td></td>
<td></td>
<td>Self and peer evaluation</td>
</tr>
<tr>
<td></td>
<td>Courage</td>
<td></td>
<td></td>
<td>Self and peer evaluation</td>
</tr>
<tr>
<td></td>
<td>Confidence</td>
<td></td>
<td></td>
<td>Self and peer evaluation</td>
</tr>
<tr>
<td></td>
<td>Integrity</td>
<td></td>
<td></td>
<td>Self and peer evaluation</td>
</tr>
<tr>
<td></td>
<td>Accessibility</td>
<td></td>
<td></td>
<td>Self and peer evaluation</td>
</tr>
<tr>
<td></td>
<td>Altruism</td>
<td></td>
<td></td>
<td>Self and peer evaluation</td>
</tr>
<tr>
<td></td>
<td>Collegiality</td>
<td></td>
<td></td>
<td>Self and peer evaluation</td>
</tr>
<tr>
<td></td>
<td>Transparency</td>
<td></td>
<td></td>
<td>Self and peer evaluation</td>
</tr>
<tr>
<td><strong>Leadership Competencies for 21st Century Health Professions Education and Practice: INTERPROFESSIONAL TEAM FACILITATION</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Knowledge elements</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Content</strong> (what should be taught)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Leadership models</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Organizational psychology</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group processes</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diversity and inclusion</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Organizational design</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Health systems</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Conflict resolution</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Negotiation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mediation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Knowledge of other professions</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Educational systems</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Roles</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-perceptions</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Skills</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Communication skills</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feedback</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Observation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Listening</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Defining common vision</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Motivate others</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diplomacy</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Collaboration</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Consensus building</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Leading from the middle</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Advocacy</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Interprofessional groups</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Simulation exercises</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Longitudinal process</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Community-based settings</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Process</strong> (what educational modalities)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interactive case studies</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Team-building across professions</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Debriefing</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feedback</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interprofessional quality improvement exercises</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trigger tapes</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mentoring and role modeling</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reflection</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Narrative Description</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Team project</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Readings in humanities</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Assessment</strong> (how should this be evaluated)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Performance scales</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Initial pre-testing to identify leadership knowledge, skills and attitudes and areas for improvement</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Formative self-reflection</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Portfolios</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Peer learner evaluations</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>360 evaluation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group productivity</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Satisfaction and Retention</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recruitment</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Videotape review</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Competency-based (formal scales)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recruitment</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Videotape review</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Competency-based (formal scales)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recruitment</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Videotape review</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Competency-based (formal scales)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Leadership Competencies for 21st Century Health Professions Education and Practice: LEADING INNOVATION AND CHANGE

<table>
<thead>
<tr>
<th>Competency</th>
<th>Content (what should be taught)</th>
<th>Context (where and with whom)</th>
<th>Process (what educational modalities)</th>
<th>Assessment (how should this be evaluated)</th>
</tr>
</thead>
</table>
| Knowledge elements | Environmental analysis  
Scenario Planning  
Evidence-based leadership and management  
Analysis of the literature  
Understanding health systems and academic environments  
Health systems analysis and quality improvement  
Statistics  
Economics  
Performance evaluations/indices and program evaluation  
Risk management (SWOT)  
Articulation of clear goals/expectations  
Organizational psychology  
Knowledge of organizational goals | Interprofessional groups  
Simulation exercises | Interactive case studies  
Change management and quality improvement exercises  
Trigger tapes  
Mentoring and role modeling  
Reflection  
Team project | Performance scales  
Initial pre-testing to identify leadership knowledge, skills and attitudes and areas for improvement  
Program evaluations  
360 Evaluation  
Organizational productivity and effectiveness of change |
| Skills | Communication  
Conflict resolution  
Negotiation  
Consensus building to inspire a common vision  
Motivation  
Diplomacy  
Ability to engage key stakeholders  
And develop alliances, coalitions, and structures needed for change | | | |
| Attitude | Vision  
Openness and adaptive expertise  
Positive attitude/enthusiasm  
Collegiality  
Awareness of self/others  
Commitment to group processes  
Transparency | | | |
VI. Conclusion
Conclusion

On October 17-18, 2010, the Associated Medical Schools of New York (AMSNY) and the New York State Academic Dental Centers (NYSADC), with support from the Josiah Macy, Jr. Foundation and the ADEAGies Foundation, convened an interprofessional conference of more than 60 state and national leaders from academic health centers to envision the future healthcare delivery environment and the leadership competencies that will be critical in the continually evolving healthcare system of the mid-21st Century.

An overarching theme from the discussions was that, in order to meet society’s needs, now and into the mid-21st century, the education and delivery of healthcare should focus on outward looking standards across traditional professional divisions. Participants agreed that one of the most formidable challenges is the fragmentation of the health system across education and practice settings, which results in inefficient and less effective quality of care at a higher cost. They noted that, as the pace of change in the education and delivery of healthcare continues to accelerate and become increasingly complex, better integrated, more high functioning health systems would be critical, as would the leadership of these complex systems.

Conference participants identified future drivers of health professions education and delivery, and developed a shared vision for the healthcare system of the mid-21st Century. Participants also identified educational challenges and areas for curricular reform, and determined organizational change strategies for transitioning outdated models of education into models that are better aligned with contemporary healthcare delivery.

The conference yielded a draft competency-based, leadership curriculum for health professions educators to prepare them to train future health care teams practicing in the mid-21st century. The competencies centered around leading in an era of uncertainty and continuous change, specifically related to visioning, risk management, systems-based quality improvement, change management, curriculum reform, evidence-based leadership, outcomes assessment, interpersonal relations, consensus building, the training and leadership of interprofessional teams across the continuum of education and practice, and health information technology.
VII. Immediate Outcomes and Next Steps
Immediate Outcomes and Next Steps

The following have been immediate outcomes from the conference in addition to next steps and areas for further exploration:

1. Leaders of nursing education in academic medical centers have begun to meet and discuss the formation of a caucus of New York State academic nursing schools;
2. AMSNY/NYSADC will convene an Interprofessional Workgroup for program planning in Spring 2011;
3. A Symposium to implement training in Leadership Competencies will be developed for academic year 2011-12.
Meetings of the New York State Academic Nursing Schools

An immediate outcome of the Leadership Conference has been the beginnings of a caucus of New York State academic nursing schools. In light of the fact that medicine and dentistry were more heavily represented at the Leadership Conference, Kristine Gebbie, DrPh, RN, then Dean at the Hunter-Bellevue School of Nursing and Terry Fulmer, PhD, RN, FAAN, Dean of the NYU College of Nursing began to realize the need to enhance the presence of academic nursing schools – starting within New York State. Drs. Gebbie and Fulmer began to initiate calls to other nursing school deans to determine if there was interest in the idea. The initial purpose for the caucus is to begin sharing information, perhaps around curricula or other projects, and to address the challenges that are facing all healthcare leaders, such as: interprofessional collaboration to develop and implement education and leadership curricula; and the development across New York State’s academic health centers of “best-practice models” of interprofessional education (IPE) and team-based care.

On November 30, 2010, the Associated Medical Schools of New York and the Hunter-Bellevue School of Nursing co-hosted the NYS regional meeting of the Robert Wood Johnson Foundation and the Institute of Medicine National Summit on Advancing Health through Nursing. The NYS meeting was one of many regional meetings that were organized across the country, in coordination with the national summit in Washington D.C., to create awareness and discuss implementation of key recommendations from the Institute of Medicine report “The Future of Nursing: Leading Change, Advancing Health”.

Following the National Summit on Advancing Health through Nursing meeting in November, the nascent Caucus had its first phone call on December 1, 2010, during which the 9 Deans of academic nursing schools agreed to its initially stated purpose.

On January 25, 2011, the Deans/Deans’ Proxies of the academic nursing schools then met at Pace University and unanimously agreed that there was a need for a caucus of nursing schools in NYS as all of the schools seem to be struggling with similar issues related to the implementation of interprofessional education. They agreed that the caucus was an important opportunity to learn from one another and promote dialogue and collaboration with the other health professional schools in New York State.

They discussed the following mission and goals of the caucus:

Mission

To facilitate and coordinate the interprofessional educational mission of academic nursing schools through relationships with New York State’s medical and dental schools and implement the Institute of Medicine recommendation to double the number of nurses with a doctorate by 2020.
Goals

- Define and promote the value of interprofessional education and training for improving patient care based on evidence-based practice;
- Develop and enhance collaborative relationships and partnerships between the schools of nursing, medicine and dentistry in New York State;
- Develop specific educational projects with New York State’s medical and dental schools;
- Develop and implement “best practice” models of interprofessional education, utilizing patient-centered, clinical and team-based pedagogies, innovations in information technology, quality improvement, and systems-based thinking;
- Implement the Institute of Medicine recommendation to double the number of nurses with a doctorate by 2020 to add to the cadre of nurse faculty and researchers, with attention to increasing diversity.

As an initial step toward these goals, the caucus discussed collaborating with AMSNY and NYSADC member schools to hold a small symposium on case-based IPE in 2011.

New York State Caucus of Academic Nursing Schools Members:

Columbia University, School of Nursing
City University of New York (CUNY), Hunter-Bellevue School of Nursing
New York University College of Nursing
Pace University, Lienhard School of Nursing
Stony Brook University School of Nursing
State University of New York (SUNY) Downstate School of Nursing
State University of New York (SUNY) Upstate School of Nursing
University at Buffalo, School of Nursing
University of Rochester School of Nursing
VIII. Appendix
Conference Agenda
Envisioning Leadership for Health Professions Education in the 21st Century

October 17-18, 2010
Columbia University Faculty House

Agenda

Conference Goals:
1. **Identify future drivers of health professions education and the healthcare delivery** environment of the mid-21st century, including essential leadership competencies;
2. **Determine strategies for implementing change in institutions**, including barriers/challenges, and necessary resources, and;
3. **Develop the draft of a competency-based, leadership curriculum** for health professions educators, to prepare them with the skills and abilities needed to educate future healthcare teams practicing in the mid-21st century.

Basic Premises:
1. **There is an imperative for change**: Health professions’ education must evolve beyond 20th century models. Educational content and learning experiences must be pertinent to practice in the mid-21st century.
2. **An integrative curriculum is required**: The development of interprofessional teams offers the potential to significantly improve the quality and efficiency of healthcare. Structural changes to the educational system need to be implemented in order to foster collaborative models of interprofessional training.

Conference Sponsorship:
This conference has been organized as a joint project of the Associated Medical Schools of New York (AMSNY) and of the New York State Academic Dental Centers (NYSADC). We acknowledge the generous support of the Josiah Macy Jr. Foundation and of the ADEAGies Foundation for the organization and presentation of this conference.
Conference Agenda – Day 1

Sunday, October 17, 2010

11:00 AM - 12:00 PM  Registration and Lunch

12:00 PM - 2:00 PM  **Introduction and Welcome**  
- Jo Wiederhorn, President and CEO, AMSNY/NYSADC

**Opening Remarks**  
- George E. Thibault, MD, President, Josiah Macy, Jr. Foundation  
- Richard W. Valachovic, DMD, MPH, President, ADEAGies Foundation

**Plenary Presentations on the Vision for the 21st Century**  
- *Beyond Flexner and Gies: Education leadership for the 21st Century*  
  Michael Reichgott, MD, PhD, Professor of Internal Medicine, Albert Einstein  
  College of Medicine; Chair, AMSNY Medical Education Committee
- *Leadership Issues in Dental Education and Dental Practice*  
  Ira Lamster, DDS, MMSc, Dean, Columbia University College of Dental Medicine
- *Effective Leadership for the 21st Century*  
  Tom D’Aunno, PhD, Director, Executive MPH Program, Health Policy and  
  Management, Columbia University, Mailman School of Public Health

2:00 PM - 2:15 PM  Break

2:15 PM - 2:45 PM  **Open forum: Drivers of Health Professions Education**

What are the key issues that health professions education must address to prepare students for the practice environment of the mid-21st century?

*Participants are invited to add to or revise the following questions:*

1. What must we do to prepare faculty to be health education leaders?
2. How do we prepare current and future leaders to adapt education to the changing environment?
3. How do we prepare education leaders to incorporate knowledge and technology for the mid-21st century?
4. How do we prepare education leaders to respond to the sociopolitical environment of the mid-21st century?
5. How do we prepare education leaders for workforce distribution and scope of practice issues of the mid-21st century?

2:30 PM - 3:00 PM  Break

3:00 PM - 4:00 PM  **Break-Out Session 1:**  
*Envisioning the Healthcare Delivery Environment of the Mid-21st Century*

In groups, consider the questions emerging from the open forum (or others identified during the open forum) and project:  
- Anticipated healthcare trends
- What educational program changes must be accomplished to align healthcare education and delivery with projected environment of the mid-21st century?

4:00 PM - 5:00 PM  **Report backs and discussion in larger group**

5:00 PM  End of day one
Conference Agenda – Day 2

Monday, October 18, 2010

8:00 AM - 9:00 AM  Breakfast and charge for the day

9:00 AM - 10:15 AM  Leading for Change: Presentation of Cases
  •  Case 1: Leadership in Healthcare Systems
    Kristine Gebbie, DrPH, RN, Interim Dean, Hunter-Bellevue School of Nursing
  •  Case 2: Institutional Leadership and Healthcare Delivery
    Gary Kalkut, MD, MPH, Senior Vice President and Chief Medical Officer, Montefiore Medical Center

10:15 AM - 11:30 AM  Break-Out Session 2: Strategies for Implementing Organizational Change

11:30 AM - 12:30 PM  Lunch and report back and discussion in larger group

12:30 PM - 1:30 PM  Leading for Change: Presentation of Cases
  •  Case 3: Interprofessional Team-Based Training and Educational Informatics:
    NYU 3T: Teaching, Technology, Teamwork
    Marc Triola, MD, PhD, Chief, Section of Medical Informatics, Department of Medicine; Director, Division of Educational Informatics, NYU School of Medicine; and Chair, AMSNY Educational Informatics Committee, and;
    Terry Fulmer, PhD, RN, FAAN, Erline Perkins McGriff Professor and Dean, NYU School of Nursing
  •  Case 4: Leadership Considerations from Other Professions
    Jody Gandy, PT, PhD, Director, Academic/Clinical Education Affairs at American Physical Therapy Association

1:30 PM - 3:30 PM  Break-Out Session 3: Leadership Competencies for 21st Century Health Professions Education
  Each group will complete a curriculum outline grid for one or more proposed education leadership competencies

3:30 PM - 4:30 PM  Report back and discussion in larger group

4:30 PM  Closing Remarks and Conclusion to Conference
Conference Participants

David Albert, DDS, MPH  
Columbia University School of Dental and Oral Surgery

Kukuwa Adofo-Mensah  
Associated Medical Schools of New York / New York State Academic Dental Centers

Donald Antonson, DDS, Med  
University of Buffalo School of Dental Medicine

Mike Azark  
Associated Medical Schools of New York / New York State Academic Dental Centers

Melissa Begg, ScD  
Columbia University - Mailman School of Public Health

Jo Ivey Boufford, MD  
New York Academy of Medicine

Lisa Coplit, MD  
Mount Sinai School of Medicine

Arlene Curry, MD  
New York University, College of Dentistry

Robert D’Alessandri, MD  
The Commonwealth Medical College

Tom D’Aunno, PhD  
Columbia University, Mailman School of Public Health

Sherry Downie, PhD  
Albert Einstein School of Medicine

Ronald Drusin, MD  
Columbia University College of Physicians and Surgeons

Alice Fornari, EdD, RD  
Hofstra North Shore-LIJ School of Medicine

Walter Franck, MD  
Bassett Healthcare

Terry Fulmer, PhD, RN, FAAN  
New York University, College of Nursing

Jody Gandy, PT, DPT, PhD  
American Physical Therapy Association

Patrick Gannon, PhD  
Hofstra North Shore-LIJ School of Medicine

Kristine Gebbie, DrPH, RN  
Hunter – Bellevue School of Nursing

Marti Grayson, MD  
Albert Einstein College of Medicine
Joyce Griffin-Sobel, PhD, RN, AOCN, CNE, ANEF
Hunter – Bellevue School of Nursing

Karl Haden, PhD
Academy for Academic Leadership

Anna Horton
Mount Sinai School of Medicine

Diane Indyk, DO
Albert Einstein College of Medicine

Leila Jahangiri, DMD, MMSc
New York University, College of Dentistry

Gary Kalkut, MD, MPH
Montefiore Medical Center

Kenneth Kalkwarf, DDS, MS
The University of Texas Health Science Center at San Antonio

Victoria Kaprielian, MD, FAAFP
Duke University Medical Center

Mark Kelley, MD
Henry Ford Health Systems

Nancy Kheck, PhD
Mount Sinai School of Medicine

Jennifer Koestler, MD, FAAP
New York Medical College

Don Kollisch, MD
Sophie Davis School of Biomedical Education

Anthony Kovner, PhD
Robert F. Wagner Graduate School of Public Service

Ira Lamster, DDS, MMSc
Columbia University School of Dental and Oral Surgery

Mary Lee, MD, MS
Tufts University

Maureen McAndrew, DDS, MSEd
New York University, College of Dentistry

Dani McBeth, PhD
Sophie Davis School of Biomedical Education

Laura McCreedy, MS
Associated Medical Schools of New York / New York State Academic Dental Centers

Felise Milan, MD
Albert Einstein College of Medicine

Letty Moss-Salentijn, DDS, PhD
Columbia University School of Dental and Oral Surgery

Cathryn Nation, MD
University of California
Donna Nickitus, PhD, CNA, BC, RN
   Hunter - Bellevue School of Nursing

Natalya Niewdach, MS
   Associated Medical Schools of New York / New York State Academic Dental Centers

Kathleen Nokes, PhD, RN, FAAN
   Hunter - Bellevue School of Nursing

Lois Nora, MD
   Northeastern Ohio Universities Colleges of Medicine and Pharmacy

David Paquette, DMD, MPH, DMSc
   Stony Brook University Medical Center

Michael Reichgott, MD, PhD
   Albert Einstein College of Medicine

Boyd Richards, PhD
   Columbia University College of Physicians and Surgeons

Piera Robson
   Hunter – Bellevue School of Nursing

Lisa Rucker, MD
   Albert Einstein College of Medicine

Larry Smith, MD
   Hofstra North Shore-LIJ School of Medicine

Nilda Soto, MS Ed
   Albert Einstein College of Medicine

Carol Story-Johnson, MD
   Weill Cornell Medical College

George Thibault, MD
   Josiah Macy, Jr. Foundation

Paula Trief, PhD
   Upstate Medical University

Marc Triola, MD
   New York University School of Medicine

Richard Valachovic, DMD, MPH
   ADEAGies Foundation

Lynn Videka, BSN, AM, PhD
   New York University, Silver School of Social Work

Steven Wartman, MD, PhD
   The Association of Academic Health Centers

Jo Wiederhorn
   Associated Medical Schools of New York / New York State Academic Dental Centers

Ray Williams, DMD
   Stony Brook University School of Dental Medicine
Presentation Slides
Beyond Flexner and Gies: 

*Education leadership for the 21st Century*

Michael Reichgott, MD, PhD
WHEN THE SHIPS WERE MADE OF WOOD:

And...THE MEN WERE MADE OF IRON...

THERE WERE GIANTS IN THE EARTH!

Abraham Flexner (1866-1959)  William J. Gies (1872-1956)
Flexner:

[In the ideal medical school] “…the training of physicians and the healing of the sick harmoniously combine to the infinite advantage of both.”

Medical Education in the United States and Canada: A Report to the Carnegie Foundation. Bulletin #4 1910

The Ideal Medical School (Flexner)
- Bachelor’s degree for admission
- Laboratory-based science
- Rigorous clinical clerkships
- School/Teaching-hospital partners
- Faculty engaged in research and education
- Adequate endowment

Johns Hopkins Medical School (1893)

Gies:

Dentistry…[is] a very important division of health service…. Its practitioners should be trained to give the service not only of dental surgeons …but of oral physicians as well.

Dental Education in the United States and Canada: A Report to the Carnegie Foundation. Bulletin #19 1926
The Ideal Dental School (Gies)
- Preprofessional academic work
- Intensive training in:
  - Medical science
  - Dental technology
  - Clinical dentistry
  - Oral medicine
- Dental internships
- Training for advanced specialties
- Active promotion of research

Standardization of UME
- By the 1930’s, proprietary medical colleges were eradicated and there was standardization of the laboratory- and hospital-based research medical university model.*

THE “UNDIFFERENTIATED GRADUATE”
- The goal of Medical Education is to give the student a comprehensive concept of patients and disease, and to enable him (or her) to enter without handicap any one of the fields of medical practice.


The “Altruism Triangle”

Transitions in the ’80s
- Managed Care
- “Sicker and Quicker”
- Educational Theory
  - PBL/case-based
  - Integration...horizontal/vertical
  - SP/simulation
- “Three Function” model

The Predominence of Science
Family Medicine Match Statistics

<table>
<thead>
<tr>
<th>Year</th>
<th>Positions Offered</th>
<th>Positions Filled</th>
<th>Filled US Seniors</th>
<th>% Filled US Seniors</th>
</tr>
</thead>
<tbody>
<tr>
<td>1999</td>
<td>3,265</td>
<td>2,697</td>
<td>2,024</td>
<td>-21.3%</td>
</tr>
<tr>
<td>2000</td>
<td>3,206</td>
<td>2,603</td>
<td>1,833</td>
<td>-57.2%</td>
</tr>
<tr>
<td>2001</td>
<td>3,096</td>
<td>2,363</td>
<td>1,516</td>
<td>-49.0%</td>
</tr>
<tr>
<td>2002</td>
<td>2,983</td>
<td>2,357</td>
<td>1,413</td>
<td>-47.4%</td>
</tr>
<tr>
<td>2003</td>
<td>2,940</td>
<td>2,239</td>
<td>1,234</td>
<td>-42.0%</td>
</tr>
<tr>
<td>2004</td>
<td>2,884</td>
<td>2,273</td>
<td>1,198</td>
<td>-41.5%</td>
</tr>
<tr>
<td>2005</td>
<td>2,782</td>
<td>2,292</td>
<td>1,132</td>
<td>-40.7%</td>
</tr>
</tbody>
</table>

Dawn of the New Millennium

AAMC

- Medical Schools Objectives Project
  - Physicians must be **ALTRUISTIC**
  - Physicians must be **KNOWLEDGABLE**
  - Physicians must be **SKILLFUL**
  - Physicians must be **DUTIFUL**

AAMC, Learning Objective for Medical Education, 1998
ACGME

- **COMPETENCIES**
  - Patient Care
  - Medical Knowledge
  - Practice-based Learning and Improvement
  - Interpersonal and Communications Skills
  - Professionalism
  - Systems-based practice

ACGME Outcomes Project, 2000

The New Paradigm

- Education... not just Resources and Curriculum...
  - You must define and evaluate Competence!

Institute of Medicine

- **QUALITY**
  - Medical Care Errors...
    - Inadequate information systems
  - Lapses in recommended care
    - Prevention
    - Acute episodes
    - Chronic conditions
  - Medication-related errors
    - Abbreviations
    - Legibility

Institute of Medicine: 1999 "To Err is Human"; 2001 "Crossing the Quality Chasm"
USMLE

- "GATEWAY" decision points:
  1) Entry into supervised postgraduate training
  2) Initial licensure for unsupervised practice

- Minimum competency relevant to the level:
  1) Scientific foundation of medical practice
  2) Application of medical knowledge to patient care
  3) Clinical skills relevant to practice level


What the modern doctor must know:

- Genomics
- Proteomics
- Molecular Pharmacology
- Catheters
- Images
- Lasers
- Robotics

WHAT ABOUT THE PHYSICAL EXAM???

New Words in the lexicon:

- Altruism
- Duty
- Professionalism
- Quality
- Rapport
- Safety
- Systems
So...where do we go from here?

Expanded expectations
- Integrated/longitudinal experiences
- Explicit experiential requirements
- Simulation before participation
- Observed competence evaluation
  - Students
  - Faculty
- Sociology in Medicine
- EBM...Safety and Quality
- Multi-disciplinary/team skills

Difficult challenges
- Teaching patient shortages
- Teacher shortages
- Clinical site shortages
- Conflicting priorities
- Conflicting systems
- Financial stresses

The resistance myth...

Wooden ships

Iron Men (and Women)

And Speaking of Giants...

Sir William Osler (1849-1919)

What would Osler have said?

“TO COVER THE VAST FIELD OF [HEALTH CARE] IN FOUR YEARS IS AN IMPOSSIBLE TASK. WE CAN ONLY INSTILL PRINCIPLES, PUT STUDENTS ON THE RIGHT PATH, GIVE THEM METHODS, TEACH THEM HOW TO STUDY, AND EARLY TO DISCERN BETWEEN ESSENTIALS AND NON ESSENTIALS.”

After Twenty-Five Years, in AEQUANIMITAS, 3rd Ed. 1932 pp. 201-2
Health Professions Leaders
...(mid 21st century)

<table>
<thead>
<tr>
<th></th>
<th>Content</th>
<th>Context</th>
<th>Process</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Skills</td>
<td>?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attitude</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Leaders serve to facilitate change....

Your job Mr. Phelps....

If you choose to accept it!!!
Leadership Issues in Dental Education and Dental Practice

Ira Lamster, DDS, MMSc
Envisioning Leadership in Health Professions Education for the 21st Century

IRA B. LAMSTER, DDS, MASC
DEAN
COLUMBIA UNIVERSITY
COLLEGE OF DENTAL MEDICINE

**Examples of Major Planning Reports:**
- Institute of Medicine: Dental Education at the Crossroads (1995)
- ADEA: Beyond the Crossroads (2009) (Commission on Change and Innovation)

**Challenges for the Dental Profession:**

**Education: Goal**

“Leadership is a systemic, collaborative and continuous process of innovative change in the education of general dentists so that they enter the profession competent to meet the oral health needs of the public... and to function as important members of an efficient and effective health care team.”

"Beyond the Crossroads"

ADEA, 2009
Envisioning Leadership in Health Professions Education for the 21st Century

**CHALLENGES:**

1. Financial environment of higher education (high tuition, dental schools are very expensive to operate)

   ![Diagram of DDS Pathways]

2. Profession demonstrates loss of vision in regard to caring for all components of society, leading to marginalization of the profession, caring only for the affluent

4. The nature of dental education itself
   - Convoluted
   - Dissatisfying

**OTHER ISSUES:**

1. Critical thinking and life-long-learning
2. Humanistic thinking
3. Evidence-based dentistry
4. Producing new educators, retaining existing educators, improving faculty life
5. Standardized evaluation - national boards
6. Recruitment of UID students
Dental practice:

Challenges:

1. Access to care for the underserved:
   Poor/uninsured, disabled, elderly

2. Discussion of mid-level providers and other solutions. This is not being driven by the profession

3. Role in general health care/health care reform

4. Electronic oral health record - how connected to the EPR?

5. Technology/affordability

6. “Geriatric dentistry”/dentistry for older adults: no dental coverage in Medicare

Dichotomy:

New materials, procedures, and technologies

Pre-diagnostic procedures, aging, medicales

Technological/technical
WHAT IS THE FUTURE OF THE DENTAL PROFESSION IN THE CONTEXT OF HEALTH CARE?

- Patients’ general health can determine their ability to tolerate dental care
- Systemic disease can modify the management of oral disease
- Oral infection is a risk factor for diseases and disorders at distant sites
- The population is aging, with increased prevalence of chronic disease; general issue of access to care
- Dentists are considered primary health care providers

- Blurring of the defined borders separating the health professions
  Ex: Pediatricians are able to provide and receive compensation for preventive oral health care services

Ex: Shortage of dentists in certain rural areas is leading to emergency room physicians providing emergency dental services
In this view of an enlarged dentistry, its practitioners would be trained to give the service not only of dental surgeons... as at present, but of oral physicians as well. Instead of examining only the teeth and mouth of a patient... they would also suitably enquire into and keep careful records of the state of the patient’s health, particularly as it affects or is modified by conditions of the teeth and mouth. Dentists would...

**POTENTIAL PRIMARY HEALTH CARE ACTIVITIES IN THE DENTAL OFFICE:**
- Assessing hypertension
- Smoking cessation
- Diabetes screening
- Obesity management
- Identification of osteoporosis from dental radiographs
- Identification of suspicious dermatological lesions

“In this view of an enlarged dentistry, its practitioners would be trained to give the service not only of dental surgeons... as at present, but of oral physicians as well. Instead of examining only the teeth and mouth of a patient... they would also suitably enquire into and keep careful records of the state of the patient’s health, particularly as it affects or is modified by conditions of the teeth and mouth. Dentists would...
recognize and note the significance of outstanding symptoms of systemic disease, and warn or advise the patient accordingly... The frequency with which dentists are consulted for oral health-service gives them special opportunity and occasion to note not only the occurrence of oral and systemic diseases, but also the existence of correlations between them, and to help or guide patients accordingly.”

W.J. Gies, 1928
Dental Education in the United States and Canada
Effective Leadership for the 21st Century

Tom D’Aunno, PhD
"We must become the change we want to see."
Mahatma Ghandi

The Knowing-Doing Gap in Leading People: Rhetoric vs. Reality

- **Best practice:** take time to customize approaches for individuals and their tasks; develop subordinates
- **Reality:** Identity and time management problems
  - What is my comfort level with being a professional (technical expert) vs. manager (using authority to build systems) vs. Leader (getting results through others without authority)?
  - How much time do I invest in developing others?
Knowing-Doing Gap

- **Best practice**: vary approach with task and individuals
- **Reality**: we rely on stereotypes; we are rigid under pressure and use top-down (authoritarian) approaches
- **Best practice**: be objective and fair in assessing others’ work and in rewarding others
- **Reality**: we engage in selective perception, snap judgements, and make attribution errors that we are unaware of

Conclusions: Closing the Knowing-Doing Gap

- Commit to developing self-knowledge (strengths, weaknesses, preferences)
- Coaches; feedback; assessment tools
- Develop oneself in response to self-knowledge
- Know and accept one’s limits
Closing the Gap…

• Know when not to accept an assignment or job and know when to exit…
  • the key is fit!

Conclusions: Questions

• Am I managing up effectively (your boss)?
• Do I have a plan to build self-knowledge?…even self-development?
• Is there a good fit between me and my job?
• Is my identity tied more to being a technical expert or a leader?
  • How much do I spend on coaching and developing others?
• What factors are in my control vs. organizational systems and culture?

Questions (2)

• Do my subordinates know and understand my leadership style?
• Do they feel comfortable managing me?
• Am I maximizing subordinates’ autonomy?
• Am I recruiting as effectively as possible?
• What is my level of “emotional intelligence” in reaction to change and innovation?
Why is Leadership So Critical Now?

- Complexity and change (from globalization, technology, demography) put a high priority on leadership

What Makes An Effective Leader?

- Leadership: the process by which an individual attempts to influence another individual or group to reach a goal
- Two critical features:
  - reaching for vision-inspired goals
  - influencing followers without authority

Effective Leaders: From Traits to Behaviors

- From traits to behaviors: individual characteristics matter (e.g., charisma), but not as much as behaviors...but which ones?
- Behaviors that focus on tasks and people
Effective Leaders: Summary

- Effective leadership is goal-oriented; goals stem from a vision of where the organization needs to go.
- Effective leadership is people-oriented; realizes that a vision without followers is not much good; takes into account key features of followers and how to influence them.

Effective Leaders: Summary (2)

“Leadership is not magnetic personality—that can just as well be a glib tongue. It is not “making friends and influencing people”—that is flattery. Leadership is lifting a person’s vision to higher sights, the raising of a person’s performance to a higher standard….”

Peter F. Drucker

What is the Source of Vision?

“Where there is no vision, the people perish.”

- Proverbs 29:18
What is the source of vision?

- Extra-industry leaders
- Industry benchmarks
- History
- Managing close to operations

Barriers to Vision

- Organizational barriers: culture, politics, reward and incentive systems
- Self-psychology: comfort taking risks and initiative?
- Ability to learn from failures and adversity
- Management situation: attention drawn to urgent matters that leave little time or energy for thinking (tyranny of the urgent)
Leadership in Healthcare Systems

Kristine Gebbie, DrPH, RN
Case 1: Leadership in Health Care Systems

Kristine M. Gebbie, DrPH, RN
Hunter-Bellevue School of Nursing, Hunter College-CUNY

Envisioning Leadership for Health Professions Education in the 21st Century

18 October 2010

• What do I mean by ‘health care systems’
  o Classic understanding: those places where individuals who become ill are treated & healthy individuals are provided the supports they need to stay well
  o A broader definition of health-related systems will include the population-focused public health system

• The practice of any of the health professions is a collaborative event
  o All professionals are interdependent with at least one other profession
  o Focus on tasks is confusing, because so many of them are done by multiple professions
  o No profession has taught collaboration really well

• Leadership at the system level requires
  o Ability to speak multiple languages
  o Ability to describe preferred futures in shared language
  o Ability to keep one eye on the future while coping with the present

• Examples from my experience
  o Building a state-wide approach to HIV/AIDS in Oregon
  o Building a new state department of health in Washington
  o Building a new outpatient structure at St. Louis University
Interprofessional Training and Educational Informatics: NYU 3T: Teaching, Technology, Teamwork

Terry Fulmer, PhD, RN, FAAN, and

Marc Triola, MD, PhD
Background: NYU3T

- Students have few opportunities to learn and practice the fundamental skills of patient-provider interactions and team-based care.
- Despite the recognized need, systematic inter-professional education (IPE) is not the standard.
- New York University School of Medicine and New York University College of Nursing received a four-year grant from the Josiah Macy, Jr. Foundation to develop NYU 3T: Teaching, Technology, Teamwork, which will provide NYU medical and nursing students with longitudinal exposure to a diverse patient population and inter-professional education in the competencies of team-based care.

Background: Our Strengths

- Strong program of innovation in technology-enhanced educational initiatives
- Faculty expertise and experience in Inter-professional Education
- Curricular reform at NYU has created new opportunities and new educational settings
- Strong commitment of the Dean’s of both schools that this is important and needs faculty time
NYU3T: Overview
- Developing a well-tested curriculum for IPE of health professionals.
- Enhancing nursing and medical students’ cultural competencies and skills for managing health disparities in order to prepare them to care for diverse and underserved populations.
- Creating a large cadre of well-trained professionals competent in inter-professional team skills.

NYU3T: Clinical Education
- All students will be exposed to a longitudinal curriculum in parallel with caring for virtual, simulated, and real patients.
- Simulation sessions allow students to practice skills together in a safe environment.
- “Clinical Cross-over” gives students exposure to the roles of all team members.

NYU3T: Novel Instruction
- New technologies being developed for NYU3T to optimize educational effectiveness through collaborative online learning.
- New evidence-based Virtual Patient application: students can asynchronously care for simulated patients together.
- All components will be made freely available on the web:
  - Simulation Cases
  - Learning Modules
  - Virtual patient application will be made available as open-source and will be compliant with the emerging VP technical standard.
**NYU3T: Anticipated Benefits**

- Continuity of learning across years of education, including simulated disease progression
- Unique opportunities for inter-professional team building including working collaboratively on virtual interdisciplinary notes and formulating problem and care plan lists
- Mastery in taking care of diverse patients with varied and continually changing needs
- By the completion of the grant period, over 1,000 students will participate in some aspect of the program.

**NYU3T: Curricular Components**

- Two Semester Curriculum
- Rigorous assessment and evaluation with each intervention and overall for NYU3T

**Semester 1**

- Team Members
- Physical Exam
- Communication and Conflict
- Interdisciplinary Care Planning
- Information

**Global Cross-over**

**Semester 2**

- Virtual Patients
- Simulation Exercise

**NYU3T: Video**
NYU3T: Progress to date

- 11 nursing and 10 medical students participated in pilot mannequin-based simulation sessions in November.

“I enjoyed spending time explaining nursing school to the medical students and vice-versa. I hope that with experiences like this, the communication and collaboration of future doctors and nurses will become one of teamwork and respect.”
-Nursing Student

“In terms of medical education, I actually learned a lot from sitting on the side and asking questions of the nursing students, and the nurse practitioner educating and answering questions. To me, it makes a lot more sense to have first-hand experience of what you’re learning, rather simply learning about something in the textbook, and then trying to apply it to real-life settings a year or two later.”
-Medical Student

NYU3T: Progress to date

- Three of the five core online modules have been developed
- We piloted the Health Care Team Members online module with 9 medical students and 8 nursing students:

“I had no idea what sort of education and training nurses, PA’s and others have. This was very helpful in allowing me to understand their responsibilities and how to best work as a team to provide care for patients.”
-Medical Student

“I liked the use of a game to learn the material. The varied methods of presenting the information was very helpful for understanding the content of the module.”
-Nursing Student

NYU3T: Challenges

- Differing academic schedules and structures are barriers to live synchronous learning
- Preceptor overload: Faculty preceptors are under increasing pressure to be more clinically productive and devote less time to teaching
- Health clearance and other regulatory requirements for students to have patient access in clinical areas
- Inter-professional and team competencies are only now being routinely included in curricula or national consensus reviews of important topics
NYU3T: What’s Next?

- Spring 2011:
  - Kick-off “social” to introduce NYU3T curriculum to ~300 medical and nursing students
  - Implementation of 5 online modules for ~300 students as part of “regular” course work in Professional Nursing and PLACE courses
  - Implementation of “clinical cross-over” as part of Adult & Elder I nursing and PLACE courses
  - Continued development and pilot testing of VP21 and joint simulation

- Summer 2011
  - Continued development and pilot testing of VP21 and joint simulation

NYU3T: What’s Next?

- Fall 2011:
  - Second “social” to summarize success of semester 1 and introduce semester 2
  - “Joint simulation day” on two weekends in the fall. All students invited to participate in 1 hour joint simulation sessions
  - Continued implementation of VP21 as part of Adult & Elder III and PLACE

Thank You

terry.fulmer@nyu.edu
marc.triola@nyumc.org
http://dei.med.nyu.edu/research/nyu3t
NYU3T: Curricular Research

Semester 1
- Kick-off Mixer
- Demographic Q
- ATHCTS / TSS
- MSLQ Survey
- Pre Knowledge + Pre Attitude
- Module 1 Collab
- Post Knowledge + Post Skills
- Pre Knowledge + Pre Attitude
- Module 2
- Post Knowledge + Post Skills
- Pre Knowledge + Pre Attitude
- Module 3 Collab
- Post Knowledge + Post Skills
- Pre Knowledge + Pre Attitude
- Module 4 Collab
- Post Knowledge + Post Skills
- Pre Knowledge + Pre Attitude
- Module 5 Collab
- Post Knowledge + Post Skills
- Pre Knowledge + Pre Attitude
- Module 6 Collab
- Clinical Cross-over

ImMS Survey for LAMS component:
- Measures ARCS: Attention, Relevance, Confidence, Satisfaction
- We can also correlate this and MSLQ scores with participation in collab components of modules
- Patient log data: did session happen, were patients seen with other role provider, were skills observed
- ATHCTS / TSS

Semester 2
- Kick-off Mixer
- MSLQ Survey
- ATHCTS / TSS

Virtual Patients
- Year 1:
  - 3 rich collaborative cases are given to each learner
  - Learners randomized to 2 different VP instructional design variations
  - Outcomes include:
    - When combined with the MSLQ, this will provide data to perform....

- Year 2:
  - 3 collaborative cases are given to randomly paired learners
  - Maximally effective ID variation from year 1 used
  - Outcomes include:
    - When combined with the MSLQ, this will provide data to evaluate pairing differing motivation learners in a collab CAI application

- Year 3:
  - 3 collaborative cases are given to non-randomly paired learners to maximize MSLQ interactions.
  - Maximally effective ID variation from year 1 used
  - Outcomes include:
    - When combined with the MSLQ, this will provide data to validate benefit of pairing motivated learners in a collab CAI application with the following characteristics...

Simulation Exercise
- 10 item, 3 point instrument. Faculty rate: students self-rate during video tape review, dataset focuses on discordance
- Final Knowledge Exam
- ImMS Survey for VP component:
  - Measures ARCS: Attention, Relevance, Confidence, Satisfaction
- ATHCTS / TSS

Didactics
Skills Practice/Application
Assessment/Evaluation
American Physical Therapy Association's Education Leadership Institute

Jody Gandy, PT, PhD
ENVISIONING LEADERSHIP FOR HEALTH PROFESSIONS EDUCATION FOR THE 21ST CENTURY

Jody Gandy, PT, DPT, PhD
American Physical Therapy Association

APTA’S EDUCATION LEADERSHIP INSTITUTE: A WORK IN PROGRESS

Building a health profession’s education leadership institute requires a dedicated and committed team.

Beth Domholdt, PT, EdD, FAPTA
Michael Emery, PT, EdD
Martha Perrett, PT, MPH, FAPTA
Susan Nelson, PT, MS
Lori Nora, MD, JD, MBA
Michael Pagliarulo, PT, PhD
Margaret Plack, PT, EdD


Question 1
- Is there a need for an education leadership program for physical therapist (PT) and physical therapist assistant (PTA) faculty?

Question 2
- Is the development of an education leadership program feasible (i.e., costs, level of interest)?

Question 3
- If a program were developed, how should it be designed and configured (i.e., learning outcomes, content, delivery)?
### Phase 1: Investigation of Education Leadership Programs

- **2007**
  - Researched existing education leadership programs such as AACP, AAMC, ELAM, ACE, etc.
  - APTA staff visited several health profession associations and interviewed leadership development coordinators
  - AAMC, ADEA, AACP, ASHA
  - Created a matrix that described similarities as well as unique features of these programs

### Phase 2: Needs Assessment

- **2008 – Consultant Group on Education Leadership Development**
  - Conducted comprehensive literature review
    - Trend analysis in higher education and healthcare
    - Leadership issues in higher education and health care
    - Interprofessional education and practice
    - Workforce data and demands for physical therapy
    - Aging population and needs for healthcare services
    - Increasing physical therapy vacancy and turnover rates related to practice settings and geographic location
    - Current and anticipated faculty shortages
    - Length of time required to fill program director and faculty vacancy

- **Assessed demographic trends**
  - Current program directors
    - 2008: PT = mean 53.8 years; PTA = mean 48.8 years
    - 2008: 45% PT and 41% PTA program directors in their current position ≤ 5 yrs
    - 2010: 31% PT program directors ≥ 60 years
  - Developing physical therapy programs
    - 2008: 33 PTA and 2 DPT
    - 2010: 55 PTA and 14 DPT
  - Planned program class size for PT programs increasing since 2004
  - Identified need for leadership succession planning
Phase 2: Needs Assessment Survey

2008 National Survey
- Surveyed PT and PTA academic faculty, program directors, clinical and fellowship directors, and non-physical therapy members of Commission on Accreditation of Physical Therapy Education (CAPTE).
- Posed questions about perceived need, curricular content, preferred delivery approaches, program costs, likelihood of participating, and respondent demographics.

Phase 2: Needs Assessment Survey Summary
574 survey responses representing 85% states, all regions of the United States, and all stakeholder groups surveyed.

Phase 2: Summary Outcomes
- Identified a compelling need and urgency to develop an Education Leadership Institute initially targeted toward PT and PTA program directors.
- Recommended creation of a shared collaborative (Steering Committee) comprised of representatives from the Education Section, Academic Council, PTA Educator SIG, Consultant Group, External member, and APTA.
- Recommended to the APTA Board of Directors to develop, implement, and evaluate an Education Leadership Institute.
Phase 3: Development of an Education Leadership Institute (ELI)

- Reconfigured a new 7-person Steering Committee to develop, implement, and evaluate an Education Leadership Institute as a shared collaborative.
- Steering Committee Members
  - Reflected a shared collaborative of key stakeholders
  - Experienced PT and PTA program directors at various types of academic institutions
  - Non-physical therapy member with experience in building health profession education leadership program
  - Higher educator administrators

Phase 3: Setting the Framework

- **Mission**
- **Goal**
- **Program Description**

Setting the Framework: Mission

- Oriented toward leadership in the broadest context,
- Designed to meet contemporary education leadership needs with an eye toward the future,
- Targeted toward higher education culture.  

---

The Education Leadership Institute’s goal is to develop PT and PTA education program directors with leadership skills to facilitate change, think strategically, and engage in public discourse to advance the physical therapy profession.

Provides a yearlong blended learning curriculum.
Content addresses current and future needs of the profession and the education community.
Connects theory with practice through action learning and reflection as applied to everyday performance.
Mentoring provides participants with high quality, experienced academic administrators as positive role models.
Peer networking facilitates the development of future mentors and leaders.

Phase 3: Participant Learning Outcomes

- Learning project based on issue/need within the participant’s academic institution
- Professional leadership development plan
- Integration of educational leadership concepts
- Completion of formative and summative program assessments
- Participation in longitudinal studies
Phase 3: Program Configuration

- **Length**
  - One year (July to July; begins 2011)
- **Program size**
  - Targeted cohort 25–30 participants annually
- **Participant Networking and Mentoring**
  - Periodic audio and video conferencing
  - 6 program mentors
  - 2 mentors paired with 10 participants

Phase 3: Program Configuration

- **Infrastructure**
  - Blended learning format
  - Online orientation
  - 9 online modules taught by experts outside physical therapy
  - 3 required on-site sessions (1.5–2 days each)
  - One optional alumni session
  - CEUs provided for each online and onsite course

Phase 3: Program Application

- **Program Application Requirements**
  - Formal participant application with the support of the academic institution and Dean/Supervisor
  - Applicant Nomination Form
  - Dean/Administrative Supervisor Nominee Form
  - Targeted toward novice (0–7 years) and emerging program directors
  - Current APTA membership
  - US licensure/registered/certified or licensure eligible
Phase 3: Program Mentors

- **Mentor Requirements**
  - Meet defined characteristics and attributes as experienced program directors
  - Positive role models
  - Agree to roles, responsibilities and time commitment as described in the Mentor Manual
  - Function as pairs assigned to cohort of 10 participants
  - Access to all online coursework
  - Required to attend on-site sessions

Program Overview

- **Orientation Session: Videoconference**
  - Introductions
  - Orientation to Education Leadership Institute, yearlong program schedule, and deadlines
  - Review of participant expectations and learning outcomes
  - Role of Education Leadership Institute Committee, faculty, mentors, moderator, and APTA staff
  - Practice accessing and using various program technologies and resources
  - Key contacts
  - Q & A
Phase 3: Curriculum Configuration

- **Online Curricular Content**
  1. Personal Leadership and Management
  3. Institutional Leadership and Management
  4. Resources/Financial Management
  5. Legal Issues
  6. Student Affairs
  8. **External/Internal Relationships, Influence, and Partnerships**
  9. Program Development and Outcomes Assessment

**Module Outcome Objectives**
- Apply the principles that guide being a change agent to establishing new relationships and partnerships for academic programs.
- Analyze risk factors that may cause new relationships with stakeholders from being established.
- Analyze which principles associated with establishing new partnerships with your program would be challenging to employ in your environment.
- Apply the principles for creating a departmental positive public image that would be acceptable in your environment.
- Compare and contrast the concept of “leading from the middle” with two other leadership paradigms/models for creating new partnerships.
Phase 3: Onsite Curriculum
- Onsite Sessions: October, March, July
  - Highlight key concepts from online learning and provide for faculty question and answers
  - Case studies used to translate knowledge into practice
  - Application to real-life situations in educational environments
  - Ongoing refinement and enhancement of Leadership Development Plan
  - Participant networking, action learning, reflection, and mentored discussions

Phase 3: Optional Alumni Session
- Alumni Session: October
  - Reception for Education Leadership Institute alumni
  - Networking alumni with current ELI cohort and future program applicants
  - Promotion of alumni institutional leadership projects
  - Introduction of alumni to other leaders in the profession and education
  - Alumni attend the Education Section’s Education Leadership Conference

Phase 3: Program Marketing
- Education Leadership Institute Website
  www.apta.org/eli
- Education Leadership Institute logo and branding of materials
- Distributed bookmarks at the Education Leadership Conference
- APTA communication vehicles
- Education List serve
- Education Section Website
Phase 3: Program Costs

<table>
<thead>
<tr>
<th>Academic Institution</th>
<th>Participant</th>
<th>APTA</th>
</tr>
</thead>
<tbody>
<tr>
<td>$5,000 Program Tuition</td>
<td>Hotel and travel to on-site meetings</td>
<td>Online course content in APTA Learning Center</td>
</tr>
<tr>
<td>Support for the participant through institutional resources and mentoring</td>
<td>Access to required technology</td>
<td>Program faculty, mentors, moderator and APTA staff</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Technology, resources</td>
</tr>
<tr>
<td></td>
<td></td>
<td>On-site meetings and technology ~$200,000</td>
</tr>
</tbody>
</table>

Phase 3: Pending

- **Education Leadership Institute Program**
  - Confirm faculty to teach online modules and provide standard template for course materials
  - Select and confirm 6 program mentors and several alternates
  - Develop case vignettes for the on-site courses
    - Use experienced program directors not selected as mentors to craft case vignettes
    - Identify program moderator
  - Determine locations for the on-site courses in 2011 and 2012

- **Creation of an “Official” Education Leadership Institute Committee (Policy and Oversight)**
  - 7-membe...
Phase 3: Pending

- **Assessments**
  - Participant assessments
  - Individual online and on-site course assessments
  - Program assessment (includes mentors and faculty)
  - Profession assessment
  - Creation of a database for future program research

- **Marketing and Communications (Future)**
  - Develop a brochure to include the benefits of the program with testimonials
  - Promote of ELI graduate projects

**QUESTIONS?**
Summary of External Advisory Board Interviews
As part of our research into best practices for health professions education leading up to the conference, AMSNY/NYSADC convened an external advisory board of representatives from innovative leadership programs and institutions across the country, to learn how they have responded to the changing landscape of health education and delivery.

Members of the External Advisory Board provided their insights on the development of health professions leadership during a series of interviews. External Advisory Members were asked to: 1) describe their programs/institutions, including their innovative approach to health professions education and leadership, and 2) to discuss their leadership philosophy, specifically what they thought would be requisite skills for leading in the healthcare environment of the mid-21st Century, including how to lead interprofessional teams across the continuum of education and practice, systems-based quality improvement and organizational change. Members were then asked to provide recommendations for the development and implementation of faculty development leadership programs using innovative pedagogical approaches and educational informatics related to program content, context (learning setting) and process methods.

External Advisory Board members also shared their experiences and expertise on the subject of leadership and innovation, as facilitators of roundtable discussions at the conference "Envisioning Leadership in Health Professions Education for the 21st Century".
**Interview Summary**

**Definition of Leadership**

We need to make a distinction between management and leadership. Management is related to *operations* while leadership is about *vision*. Leaders should be open-minded, strategic thinkers.

It is also important to differentiate between de facto leadership roles, and leaders who are appointed to leadership positions: “The chain of command is not the same as leadership.”

There were differing opinions on how leadership is defined and whether it is innate, or can be developed.

Some EAB representatives felt that leadership requires innate ability, but that certain aspects of leadership can be learned/developed. They noted that it is not possible to provide leadership training to all health sciences faculty so that institutional leadership must be selective in who is chosen for training and that it is important to identify potential leaders early on for succession planning.

Other EAB representatives felt that it was important to think broadly about leadership and expand the definition, as many leadership styles and roles exist. Different types of leaders can be effective within different roles because of the complex nature of the healthcare system. Different institutions and even different departments within the same institution can require different leadership skill-sets.

**Program Content**

The content of a leadership program will very according to participants, however it should be structured so that there is asynchronous presentation of content and that the design of the curriculum should be competency-based.

---

**LEADERSHIP SKILLS and CURRICULUM CONTENT:**

1. *How can we foster leadership in faculty to prepare them to work in a changing health care environment?*

2. *How should we develop educational content that is relevant to the changing health care system in the 21st century and beyond skills?*
Leadership Competencies (knowledge, skills, and attitudes)

**Emotional intelligence**
- Self-awareness and reflection (identifying one’s leadership and communication styles);
- Professionalism, integrity, and modeling the way.

**Visioning, scenario planning and strategic thinking**
- Leaders should be proactive so as to be cognizant of what is on the horizon and anticipate change at a minimum of ten years out to identify challenges and opportunities early on;
- Ability to clearly articulate one’s vision and well defined goals;
- Project management skills/action plan management.

**Interpersonal skills/communications**
- Facilitation and consensus building, including how to motivate people to move from thinking into doing (which is the key to sustainable change);
- Communication:
  - The art of effective listening and communication;
  - Ability to find a common ground and an understanding of diverse perspectives;
  - Formative and summative performance evaluations and constructive feedback;

**Leadership of high performance, interprofessional teams**
- Systems-based education and practice with reference to complex adaptive systems;
- Development and management of human capital:
  - Ability to manage up and down;
  - Faculty development, mentoring, and succession planning.

**Conflict resolution**
- Negotiation and mediation;
- Consensus building and the ability to inspire a common vision.

**Continuous quality improvement**
- Adaptive expertise and cognitive flexibility (ability to change in response to new models);
- Innovation cycles in learning organizations;
- Curriculum reform and program evaluation.

**Change management and curriculum reform**
- Managing behavioral transitions and consensus building;
- Adaptive expertise;
- Continuous quality improvement and curriculum renewal.

**Health information technology and educational informatics**

**Evidence-based management**
- Assessment and statistics;
- Economics and budgeting.

**Social mission of the health professions**
- Public health;
- Longitudinal, patient-centered care models of care;
- Accountability and the social mission of healthcare: “The servant leader accepts responsibility because they want to serve and resolve issues for the common good.”
Program Development

**CONTEXT and PROCESS/EDUCATIONAL METHODS:**

*How can we prepare learners to become expert clinicians, who continually grow and refine their expertise? How can we engage learners to effectively improve their cognitive abilities, skills and attitudes?*

1. **Where should learning occur, for example, in the classroom, at the bedside, in outpatient and community settings, at the computer?**

2. **How can we foster teamwork and interprofessional collaboration?**

3. **How can we effectively assess the full range of learner competence?**

4. **How can we determine if the program goals have been accomplished?**

While educators should utilize the teaching methods that are most appropriate to specific learning objectives, methods should be varied to accommodate different learning styles (e.g. early electives, longitudinal research, community programs). Educators should also incorporate planned redundancy and repetition into the program design for the presentation and evaluation of key concepts.

**Learning should be experiential and focus on:**

- Case-based learning with clinical applications, e.g. interprofessional simulations;
- Problem-based learning (PBL);
- Quality improvement exercises;
- Self-directed life-long learning and reflection;
- Competence and outcomes assessment;
- Adaptability/responsiveness to change;
- Integration across the continuum;
- Educational informatics at point of care (e.g. personal digital assistants (PDAs)).

**Interprofessional team building/team work**

- Interprofessional training should be longitudinal across the continuum of education and practice, and occur in settings of critical incidents where teamwork is essential for patient care;
- Team-based training should identify issues in healthcare delivery and utilize problem-based learning;
- Leadership training for interprofessional teams is an important concept, but leaders must first be cognizant of differences between the health professions;
- Interprofessional quality improvement exercises;
- Peer assessments and 360 feedback;
- Given the cross-cutting and interprofessional nature of public health, it should be included in any health curriculum.
**Recommendations for the Development and Implementation of a Leadership Program**

Determine goals/objectives first through conducting a needs assessment, then structure the program around established needs.

Define the level of faculty or staff to participate in the program.

Emphasize principles and generic skills, e.g. managing change, innovation, adaptability; interprofessional teamwork, and systems-based continuous quality improvement.

Be mindful of constraints (e.g. any constraints that stakeholders are under).

**Resources**

Programs should be developed by faculty with expertise in program design and evaluation.

A focus group of leaders should be brought into the program development to discuss what they wish they knew before they took their current positions (this method also creates interest in the program).

The program should be at least 2 weeks in order to affect meaningful and long lasting change.

Projects were often cited as the most important component of the program.

The program should include professional coaching and mentorship, including first-person assessment. Mentors should receive formal training.

**Program Evaluation**

In order to determine whether the program’s goals have been met:
- Programs should use a sampling of assessment methods and skills (formative and summative).
- Qualitative and longitudinal evaluations are necessary to determine long-term outcomes.

**Potential Obstacles for the Implementation of Institutional Change**

Breaking down barriers: 1) between the professions, and 2) across the continuum of education.

Structural issues related to interprofessional training (incentives are needed to encourage collaboration across the professions).

Momentum is needed behind change and the motivation of key stakeholders.
Bibliography
Bibliography

Healthcare Reform – Context

7. American Dental Education Association’s Commission on Change and Innovation in Dental Education (ADEA CCI).
44. Institute of Medicine, Committee on Planning a Continuing Health Care Professions Institute. Redesigning Continuing Education in Health Professions. Washington, DC: Institute of Medicine, National Academies Press; 2009.
Envisioning Leadership in Health Professions Education for the 21st Century


53. The Joint Commission: http://www.jointcommission.org/


Environmental Analysis, Visioning, and Scenario Planning


Training of Interprofessional Teams/Systems-based Education and Practice


18. Curran VR, Sharpe D, Forristall J. Attitudes of Health Sciences Faculty Members Toward Interprofessional Teamwork and Education. Medical Education. 2007; 41: 892-896.


64. Reeves S. A Systematic Review of the Effects of Interprofessional Education on Staff Involved in the Care of Adults with Mental Health Problems. Journal of Psychiatric Mental Health Nursing, 2001, 8:533–542.


**Problem-Based Learning (PBL)**

Quality Improvement/Innovation Cycles


Change Management/Curricular Reform

1. American Dental Education Association’s Commission on Change and Innovation in Dental Education (ADEA CCI).
42. Kirch D. Culture and Courage to Change. Presidential Address to AAMC; 2007; Washington, DC.
43. Kirch D and Boysen P. Changing The Culture In Medical Education To Teach Patient Safety. Health Affairs, September 2010; 29: 1600-1604.
59. Rollins LK, Lynch DC, Owen JA, Shippengrover JA. Moving from policy to practice in curriculum change at the University of Virginia School of Medicine, East Carolina University School of Medicine, and SUNY – Buffalo School of Medicine. Acad Med. 1999;74(1 suppl): S104 – S111.

Leadership and Organizational Theory-General
Envisioning Leadership in Health Professions Education for the 21st Century


Complexity Science/Systems Theory/Complex Adaptive Systems


Leadership/Faculty Development

16. Licari FW. Faculty Development to Support Curriculum Change and Ensure the Future Vitality of Dental Education. Journal of Dental Education. 2007; 71 (12): 1509–12.
Health Care Competencies and Accreditation, Certification and Licensure Agencies

3. American Board of Medical Specialties: http://www.abms.org/
5. American Nurses Association Credentialing Center: http://www.nursecredentialing.org/
15. Council on Osteopathic Postdoctoral Training (COPT)
17. Liaison Committee on Medical Education (LCME) Accreditation Standards; Functions and Structure of a Medical School, http://www.lcme.org/
18. National Board of Medical Examiners http://www.nbme.org/
20. United States Medical Licensure Examination http://www.usmle.org
Conference Evaluation
Conference Evaluation

n = 28; The results were based on 50% of the conference participants who completed the survey.

Which health care profession(s) do you represent? (please check all that apply)

Other

Health sciences education and training
Internist in health screening and as dental faculty
Physical Therapy
Faculty Affairs

Comments:
“The mix of people from the various professional schools was an excellent way to gain cross-professional perspectives about leadership.”
Comments:
“Leadership in a shared collaborative is a great idea and very worthwhile. The concepts raised are certainly applicable to other health professions that were present.”
Presentations

Comments:
"The speakers represented a wide range of perspectives and expertise and that provided fertile ground for discussion and some debate".

"The presentations did a great job of setting the stage for small group discussions".

Break-Out Sessions

Breakout Components: Ratings of the Breakout sessions
Break-Out Sessions, Cont.

Comments

“The most amazing thing was how closely everyone concurred - many of the groups came up with similar if not identical criteria and best practices for leading successful innovations and institutional change. This demonstrates that the different professions are all facing similar challenges with shared goals”.

“The small group discussions fueled some interesting approaches to leadership and communication. The sessions stressed the need for honest, open communication and the need to develop negotiation skills, especially when there is conflict”.

“Brainstorming opportunities were great and conversations were good, despite the fact that at times we wandered a bit off of the topic; the free-flowing format did allow us to explore a variety of aspects”.

Additional Comments

Strengths

“The interprofessional breadth and integration; excellent resources and mix of people. The interprofessional nature of the conference was great and could be expanded to other professions. Opportunities to engage in small group discussions about topics of relevance and importance was very beneficial”.

“The conference planners did a wonderful job of conceptualizing the conference and its structure. The opportunity for medicine, dentistry, nursing and other health professions to come to the table to discuss future leadership issues and needs in health professions education was important. This is a great start, recognizing there is more work to come. Opportunities to share resources with other professions is also possible once the curriculum has been determined, so as to maximize resources”.

“I had not been a part of the leadership aspect of the Institute before so it was interesting. I think introducing an interprofessional aspect was valuable. Good to see where other professions are heading and the impact of health care reform. There appears to be leadership vacuums all over the map so these kinds of conferences are needed”.

Weaknesses

“Too complex; there were too many topics and areas to cover in the small groups, which made it hard to focus the discussions at times. Good ideas were presented, but a simpler, more focused set of questions might have been better”.

“To maximize time further, the large group plenary could have come to agreement about the most important topics to be addressed and then assign those to small groups to help them focus, while also setting a reasonable agenda to accomplish in the time provided”.

Break-Out Sessions, Cont.
**Next Steps**

“Thinking through the process of developing programs for our institution, we intend to look more closely at the possibilities for interprofessional coursework. The conference provided inspiration in leading change as well as a great environment for exchanging ideas and networking.”

“This was a great opportunity for gathering and creating a "think thank". The conference described the need and I applaud you all for organizing it.”

“Perfect as brainstorming. Need additional time, maybe with groups from similar institutions to discuss mechanics and gaining support within and across institutions”.

“Excellent forum for brainstorming and collaboration to get a NYS dialogue underway across the professions – interinstitutional collaboration will ensure a much greater chance of success.”
Conference Budget
## Budget

<table>
<thead>
<tr>
<th>Vendor</th>
<th>Quantity</th>
<th>Cost</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Columbia Faculty House</td>
<td>1</td>
<td>14,508.00</td>
<td>14,508.00</td>
</tr>
<tr>
<td>Videographer</td>
<td>1</td>
<td>1000</td>
<td>1,000.00</td>
</tr>
<tr>
<td>Journal Articles 1-2</td>
<td>2</td>
<td>82.5</td>
<td>165.00</td>
</tr>
<tr>
<td>Journal Articles 3-4</td>
<td>2</td>
<td>3.5</td>
<td>7.00</td>
</tr>
<tr>
<td>Printing - Program Materials</td>
<td>75</td>
<td>15</td>
<td>1,520.00</td>
</tr>
<tr>
<td>Printing – Final Report</td>
<td>35</td>
<td></td>
<td>2,610.00</td>
</tr>
<tr>
<td>EAB Travel</td>
<td>11</td>
<td>1000</td>
<td>9,689.39</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td></td>
<td></td>
<td>2,500.00</td>
</tr>
<tr>
<td>Personnel</td>
<td></td>
<td></td>
<td>20,000.00</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td><strong>51,999.39</strong></td>
</tr>
</tbody>
</table>