NEW DIRECTIONS TASK FORCE

Final Report and Recommendations

Upstate Medical University College of Medicine

December 2, 2013

NEW DIRECTIONS TASK FORCE

Final Report and Recommendations

PURPOSE OF THIS DOCUMENT:

This report provides a final summary of New Directions Task Force work and curriculum renewal recommendations to be submitted to the Dean of the College of Medicine and Curriculum Committee. The Task Force envisions use of these recommendations as a foundation for further development of future innovative and revolutionary changes.

CHARGE:

Due in large part to the changing landscape of healthcare, the New Directions Task Force (NDTF) was charged by Dean Steven Scheinman in July 2011 to propose a renewed medical school curriculum at SUNY Upstate Medical University that:

- Is learner and patient centered
- Integrates clinical and basic science from matriculation to graduation
- Reinforces curiosity, provides skills for life-long learning, and equips students to manage the information explosion in medicine
- Prepares graduates to address, analyze, and improve the systems within which they work
- Creates unique learning experiences to align with Upstate's mission
- Is recognized as innovative, rigorous, and a source of pride for our students and faculty, and respected by other medical schools and residency directors
- Will adapt its content and format to best prepare graduates for the science and practice of medicine in the next decade and beyond.

TEAM MEMBERS:

NDTF members include selected department chairs, basic science and clinical faculty, clerkship and residency program directors, students, and a member of the public. Members were appointed for their ability to think creatively and across disciplines, for their creativity and ability to work collaboratively. See attached for membership and leadership.

GOALS FOR CURRICULUM RENEWAL

Integrate the curriculum horizontally and vertically

Rejuvenate pedagogy

Emphasize systems skills and improvement sciences

Promote flexible, efficient and individualized learning

Enhance the learning environment

PROCESS:

The NDTF met monthly to bimonthly and participated in four retreats regarding curriculum change. We provided periodic updates to the Curriculum Committee and its subcommittees, the Dean, and the Medical College Assembly and students. Meeting minutes and work products were posted on the NDTF website. Our work can be summarized by three overlapping phases: information gathering, design/development, and change management/planning.

Information-Gathering :

NDTF members reviewed Upstate's current curriculum, admissions snapshots, surveys, grade distributions, USMLE data, residency match statistics, contact hours, course and clerkship year-end evaluations, and results of the 2011 and 2012 AAMC Graduation Questionnaire. Faculty/student focus groups (5) were conducted for student point of view (Fall 2012). The TF reviewed external resources, including the Carnegie-funded report, Educating Physicians: A Call for Reform of Medical School and Residency (2010)*. We discussed the instructional design process, competency based learning, and adult learning. We tackled pedagogy, active learning, and the role of technology in advancing teaching and learning. We wrestled with definitions of patient-centeredness and learner-centeredness, and the rapid evolution of personalized medicine and its impact on medical education. We discussed Upstate's mission and the recognized strengths of our graduates in patient care skills. Subgroups reviewed and analyzed aspects of other schools, such as competencies, the organizational structure of basic science curricula including review of nine 18 month programs, and the curriculum reform process of seven institutions. Based on this work, the NDTF found the case for change to be compelling and urgent.

Design/Development:

NDTF members developed translational guides, blueprints, and tools for communication and curriculum change. Resulting products are outlined below and included as appendices.

- Curriculum Guiding Principles (January 2012)
- New Educational Program Objectives, developed with school-wide survey input (January 2012), implemented in July 2012 and reviewed by the Curriculum Committee (August 2012)
- An organizational framework for new curriculum (April 2012, updated June 2013) outlining three curriculum Phases and models of a reorganized course structure
- Curriculum details document (June 2012)
- Proposal for EMT Boot camp (October 2012)
- Compelling Reasons for Change document (November 2012) and Frequently Asked Questions (January 2013)
- Fearless Learner™ concept (February 2012)
- "Likely to succeed" clinical/basic science integration models (June Retreat Summary 2013)
- Recommendations for new curriculum competencies and content (PBLI, Family and Health Systems Longitudinal clinical, Phase II, Phase III, Intersessions, March into Residency; July 2013)

Many of the evolving design elements were included in a proposal submitted by Upstate to the AMA Accelerating Change in Medical Education initiative in spring 2013; Upstate was one of 30 schools invited to submit a full proposal out of 115 applicants.

Curriculum Change Management/Planning:

In February 2013, the NDTF Website was established to enhance communication. Updates and "green light" discussions were regular agenda items of the Curriculum Committee. A "Phase masters" group was appointed (October 2012) to further develop details in each of the phases. In May 2013, Dean David Duggan directed the NDTF and Curriculum Committee chairs to translate ideas into a plan, and to charge faculty groups to submit plans for Phase 2 and 3 by October 2013 to be implemented in 2013/14, and for Phase 1 by January 2014 to be implemented in 2014/15. He requested that the curriculum be constructed such that it is a maximum of 150 and a minimum of 130 weeks in duration.

The NDTF is aware of modest evolutionary changes approved by the Curriculum Committee and implemented by courses and clerkships during 2013/14 academic year yet wishes to be clear that these changes are small in comparison to the broad changes required to meet the deans' charges. Recommendations that have been accepted so far by the Curriculum Committee include the institutional Educational Program Objectives, the Guiding Principles, a concept for integration and the planned fourth year course--March into Residency.

RECOMMENDATIONS:

It is with great enthusiasm that we submit our recommendations for curriculum changes. We suggest a new committee (New Directions Operations Committee, or "New DOC") to work collaboratively with Phases I and II toplan and monitor recommended changes to advance five goals and a series of specific, measurable changes. We support and emphasize student involvement, including a high level of communication regarding all changes. We outline outcome measures that will guide the implementation process and provide an ongoing basis for Plan-Do-Study-Act quality improvement efforts. These recommendations follow from our Guiding Principles and institutional Educational Program Objectives, particularly with regard to systems-based practice and practice based learning and improvement.Ourlist of urgent priorities will further guide the process.

1. **Integrate the curriculum horizontally and vertically**
    a. Reorganize the foundational sciences into fully integrated systems courses.
    b. Appoint co-directors for every foundational science course, one scientist and one clinician.
    c. Increase clinical relevance in Phase 1 foundational science courses. Refine and advance case-based learning into all foundational science courses and determine whether the material should be integrated or provided as a separate course. Charge the New DOC to develop a specific proposal.

d. Increase relevant patient contact in Phase 1 and develop a mechanism for longitudinal clinical experiences, either through modification of the existing Practice of Medicine course or through development of a new course.
e. Identify, reinforce and coordinate explicit foundational science curricula within the clerkships or during intersessions. Charge Phase II masters to develop this proposal.
f. Review the current requirements for the basic science elective and make recommendations for a new curriculum to emphasize elements of foundational science for Phase III. Charge Phase III masters to develop this proposal.
g. Develop an integrated longitudinal curriculum in Phase 2, to be designed by the Phase 2 Committee and New DOC, and delivered within clerkships or during intersessions. This should include systems-based practice, professionalism, and communication skills.
h. Charge the New DOC to recommend an approach to curriculum threads
i. Require specific clinical experiences beyond clerkships, such as March into Residency and inpatient acting internships (choice of Medicine, Pediatrics, or Surgery).

2. Rejuvenate pedagogy

a. Increase innovative active learning teaching strategies in all courses and clerkships.
    i. Total in class contact time with the exception of clinical settings will be limited to 20 hours per week.
    ii. Focus on delivery of high quality didactic lectures that emphasize important and challenging concepts, and limit traditional didactic lectures to no more than 10 hours per week.
b. Implement substantial faculty development to new and existing faculty, especially on active learning/teaching strategies, formative and summative evaluation and feedback, a breadth of assessment techniques, and the learning environment.
c. Charge a working group to develop a process for implementation of mobile, tablet based technology for the entire curriculum.
d. Implement additional technology for efficient, relevant and cutting-edge teaching techniques.
e. Utilize patient advocates in future curriculum development when appropriate to further develop patients as partners in education.

3. Emphasize systems skills and improvement science

a. Develop a curriculum in systems-based practice, including patient safety, teamwork, care of populations, and quality improvement. This should include experiences in interprofessional education. This goal addresses the need for further development of the competencies and methods to teach and assess systems-based practice. A working group of the Curriculum Committee may be charged with this task.

4. **Promote flexible, efficient, and individualized learning**
    a. Review the curriculum for redundancy and streamline the content and delivery.
    b. Design a calendar schedule that will allow students to progress based on competency rather than time. This will include the opportunity to graduate in 3 or as many as 6 years.
    c. Develop options for leadership tracks such as research, rural medicine, medical education, quality improvement, advocacy, public health, health policy, business, bioethics, underserved populations, etc.

5. **Enhance the learning environment**
    a. Improve the educational experience perceived by students through the above.
    b. Share curriculum changes through transparent communication to student body and faculty.
    c. Provide faculty and resident development regarding the learning environment.
    d. Develop and establish curriculum threads in practice-based learning by expanding methods to address the educational program objectives in this domain.
    e. Maximize student engagement.
    f. Reduce student stress and burnout.
    g. Improve faculty/student mentoring and relationships

Urgent Priorities:

The following tasks must be efficiently completed:

1. Establishment of a process for implementation of major changes in the curriculum and assistance for new administrative needs.
2. Increased support for faculty for ongoing course changes, technology and instructional design.
3. Increased support for students during the change process, particularly with respect to communication needs.
4. Review of systems based practice objectives, methods and assessments across the curriculum and creation of a framework for new learning opportunities in priority areas, such as interprofessionalism, patient safety, quality improvement, and service learning.
5. Development of a technology proposal to address improvement of pedagogy for self-directed and active learning.
6. Creation of a viable longitudinal clinical experience during Phase I.
7. Analysis and planning for an EMT/Bootcamp experience to begin 2015.

Acknowledgements:

The New Directions Task Force is grateful to Lisa Phelan and Linda Markell for providing administrative support, to invited speakers who informed our work, including Dr. Pamela Sass, Senior Associate Dean for Education at Downstate, Dr. Andrew Gurman, Speaker of the AMA House of Delegates, Trisha Torrey, patient advocate, medical students Charles Hannum and Julia Lustick, Dr. David Landsberg, Dr. Paul Shanley and Ms. Karen Kelly, and Dr. Susan Stearns and Ms. Siobhan Arey. Special thanks to the New Directions Task Force Student Focus Group (2013) members for their insights and suggestions.

[*] Cooke M, Irby DM, O'Brien BC. Educating Physicians: A Call for Reform of Medical School and Residency. Carnegie Foundation for the Advancement of Teaching, Stanford, CA. 2010.

Respectfully submitted by the current New Directions Task Force Members:

Sandra M. Banas, MST RPA-C
Assistant Professor
College of Health Professions Liaison

Michael Bogdasarian, MD
Interim Associate Dean Academic Affairs
Binghamton Campus

Trish Booth, MA
Member of the Public

Ann S. Botash, MD
NDTF Chair (2012-2013)
Associate Dean for Education
Vice Chair for Education &Professor Pediatrics

Deborah Y. Bradshaw, MD
Associate Professor of Neurology
Associate Chair for Medical Education
Dept of Neurology & Residency Prog Director

Jennifer Christner, MD
Associate Dean for UGME
Associate Professor of Pediatrics

Robert Cooney, MD
Professor and Chair
Department of Surgery

Robert Corona, MD
Professor and Chair
Department of Pathology

John W. Epling, Jr, MD, MSEd
Associate Professor and Chair
Department of Family Medicine
Associate Professor of Public Health &Prev Med

Michael Iannuzzi, MD
Past NDTF Chair (2011-2012)
Professor and Chair, Department of Medicine

Patricia M. Kane, PhD**
Professor and Chair
Department of Biochemistry & Molecular Biology

Stephen Knohl, MD
Vice Chair &ResidProgDirector,Dept Medicine
Associate Professor of Medicine

Margaret M. Maimone, PhD*
Associate Professor of Cell and Dev Biology
Assistant Dean Student Affairs, COM Advising

Linda Markell**
Office of Educational Research & Development

Lisa Oliver*
Clerkship Coordinator in Medicine

Lisa Phelan***
Director Accreditation, Compliance & Monitoring

Gabe Plourde
Medical Student (Third Year, 2013)
MPH Student

Christopher W. Ryan, MD
Family Medicine Clerkship Director
Clinical Associate Professor, Binghamton Campus

Thomas L. Schwartz, MD*
Director, Psych & Behavior Sci Course/Clerkship
Professor of Psychiatry & Behavioral Sciences

Robert W. West, PhD***
Assoc Professor of Biochem & Molecular Bio
Co-Director, Molec & Cellular Principles of Med

*ND Phase I Masters and staff
** ND Phase II Masters and staff
*** ND Phase III Masters and staff