Transforming the University

Final Report of the Clinical Sciences Enterprise Task Force

Submitted on behalf of the task force by:

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I. Executive Summary

The Clinical Sciences Enterprise task force was charged to define the clinical sciences and articulate its elements; to assess its current state; to identify goals for strengthening the key components of the enterprise and strategies for making the entire enterprise system effective and supportive of outstanding research, education and patient care; and to delineate the role of the clinical sciences in the strategic positioning of the University and Academic Health Center (AHC). A summary of our deliverables appears below.

Task force members:
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Definition of clinical sciences:
The clinical sciences comprise the contributions of scientific disciplines to health promotion and the prevention, diagnosis, and treatment of disease through the development (research), communication (teaching), and application (clinical care delivery) of new knowledge.

Current status of the clinical sciences in the Academic Health Center:
There are pockets of real strength in the clinical sciences across the AHC, but each major area of the clinical sciences (clinical care delivery, education and research) needs to be strengthened further and the connections among the components of the clinical sciences need to be improved. The diversity of schools and professional disciplines with the AHC and the possibilities for collaboration are a significant asset. The prevailing lack of consensus at the University about the importance of clinical care delivery to the academic mission currently impedes the potential of the clinical sciences enterprise to deliver the most outstanding research, education and patient care.

Goals for development of the clinical sciences:
The task force proposes the following goals organized into three categories – clinical care delivery, education and research:
Clinical Care Delivery

- Embrace clinical care as central to the mission of the AHC.
- Become a leader in clinical care delivery by demonstrating excellence in the following areas: preventive and chronic care delivery, models for team-based care, and clinical outcomes that are measured, reported and integral to evaluation of performance.
- Demonstrate strategic, consistent interdisciplinary care and education models in the AHC.
- Increase efficiency of research and education in the AHC.

Education

- Change the faculty reward structure to recognize the role and importance of teams and teamwork.
- Establish interprofessional, team-based education throughout the curricula of the AHC schools.
- Create environments for outstanding clinical education.
- Foster outstanding clinical teaching, including teaching of interprofessional teams.
- Further develop the infrastructure that supports community-based training and education for our students.

Research

- Invest in resources for clinical research.
- Strategically organize dispersed support infrastructure, including information systems, to support high quality clinical research.
- Integrate basic sciences, clinical sciences and translational research.
- Reward, support and encourage clinical and translational researchers.
- Create new partnerships.
- Develop measurement tools.

To move the AHC towards these goals, the task force makes the following recommendations (in no specific order):

Recommendation #1: Identify education and clinical practice sites that have implemented information technology systems that connect all areas of the clinical sciences, allowing us to understand clinical and educational outcomes, to monitor and improve quality of care, and to maximize research opportunities.

Recommendation #2: Incent our clinical partners to invest in facilities that support a patient-driven care model and team-based care, and that facilitate the introduction of learners into functioning care teams.

Recommendation #3: Implement faculty development (not just recruitment) programs that address care delivery and collaborative skills.

Recommendation #4: Create exemplary learning sites where outstanding team care is provided, outcomes are measured, and data and information is immediately available.
Recommendation #5: Early clinical experiences, whether within a discipline or interprofessional, should have well-defined goals and outcomes for experience at various clinical sites, including sites such as the Phillips Neighborhood Clinic.

Recommendation #6: Consider early clinical experiences by school that will fit with the overall goal of increasing interdisciplinary and team-based approaches to education of health professional students.

Recommendation #7: Explore, identify and develop new sites throughout the community for interprofessional team-based education.

Recommendation #8: Develop new academic programming to build interprofessional, team-based education.

Recommendation #9: Develop a unifying system for faculty tracks across the AHC colleges that recognizes and supports the elements of the clinical sciences—clinical research, clinical education and clinical practice.

Recommendation #10: Develop and implement strategies throughout the health professional schools of the AHC for introducing students to research (basic, translational and clinical); for promoting student research opportunities; and particularly, for supporting clinical and translational research opportunities for students, including providing resources to faculty to engage more students in their clinical research.

Recommendation #11: Recruit and provide additional space for 20 experienced, productive Clinical Research faculty per year for ten years.

Recommendation #12: Significant investment and reorganization is needed of the University’s research infrastructure to grow and align with the required growth in research capacity.

Recommendation #13: The task force fully endorses the AHC Precinct Plan task force assessment of the AHC’s “Facility Challenge,” and their call for the AHC to make significant investments in its aging facilities.

Summary:
The clinical sciences are the cornerstone of the educational and research missions of the AHC. The ability of the AHC to educate the next generation of health professionals will require an environment that attracts the most outstanding, imaginative and progressive students, a faculty that collectively can demonstrate innovation and leadership of aspects of the clinical sciences, and facilities that are designed to support the mission of the AHC and an evolving health care delivery system. Critical elements for success will be:

- Support for a culture of demonstrated excellence in innovative clinical care delivery, including patient-centered care with an emphasis on interprofessional teams, application of evidence based decision-making, and outcomes measurement and reporting.
• Educational programs that prepare students for a career of innovative health care delivery, and are grounded in an environment that embraces the development and application of knowledge, interprofessional teamwork, and patient centered care.

• Vibrant clinical research that advances knowledge and its application in all parts of the clinical science continuum from bench to the bedside.

• Access to integrated information systems that connect all areas of the clinical sciences to facilitate clinical research, education and care delivery where outcomes are always measured.

• Facilities that support state of the art care delivery, research, and education, including interprofessional teams and access to cutting-edge technology.

• The development of a unifying model of faculty tracks across the AHC that equally values the three components of clinical sciences.

II. Introduction

The AHC is a proud contributor to the tri-partite mission of the University – research, teaching and public outreach. The clinical sciences provide the knowledge and expertise on which all parts of the AHC’s mission is based.

The AHC aspires to:

1. Educate and prepare the new health professionals for Minnesota
2. Enhance the vitality and excellence of Minnesota’s health research
3. Expedite the dissemination and application of new knowledge into the promotion of health and delivery of health care in Minnesota
4. Develop and provide new models of health promotion and care for Minnesota.

Health care is viewed by many as being at a turning point and the AHC can be instrumental in developing the models, knowledge, and professionals that can assure the state of Minnesota and its citizens outstanding health care in what will be a changing health care environment. Currently, new discoveries are broadly integrated into clinical care only after about 16 years, leaving many opportunities for improvement in limbo for too long. In the Twin Cities, fewer than 15% of patients who seek care with diabetes receive the care that has been known to be effective at reducing complications. Many patients, for a variety of reasons, do not even seek care. An aging population will further stretch the abilities of the current system with an increase in many other chronic diseases like hypertension, heart failure, chronic kidney disease, and will create an impossible task for the current model to be able to meet societal needs. The epidemic of obesity further highlights the importance of public policy, a better understanding of basic pathophysiology, development of new treatments, and the ability to better develop strategies for prevention. Underlying these needs are significant opportunities for the University and the AHC to provide leadership to the state and the nation for a new model of education, enhanced clinical
research, and a re-emphasis of the centrality of clinical care delivery as core to the clinical sciences.

The work of this task force builds upon significant prior work across the AHC, including the AHC 2000 Strategic Plan; the Clinical Research task force (2002-03); the CTSA (Clinical and Translational Science Awards) application submitted to the NIH on March 27, 2006; the 2005 Clinical Campus Planning effort, which developed plans for a new ambulatory care clinic; and the AHC Assistant Vice President of Research’s analysis of the progress necessary to become among the top three AHCs in the country, as measured by NIH awards.

In this report, we will define clinical science; delineate the role of clinical science in the strategic positioning of the University; inventory and assess the current status of clinical science in the AHC; propose goals for the development of the clinical sciences; identify areas and principles for investment; and sketch a plan for implementing these recommendations.

To address this work, the task force first met as a whole to define the clinical sciences. The group then split into three subcommittees-- Care Delivery, Education, and Research-- to assess the current state of clinical science, to generate goals for the development of clinical sciences, and to identify areas and principles for investment. Additionally, the Education subcommittee established and met with a student advisory committee comprised of students from all of the health professions schools. The subcommittee structure is retained in portions of this report.