

**Medical School – Clinical Sciences
AHC Strategic Planning Initiative 2000**

1. What is our role in the health of Minnesotans?

Strengths

- The Medical School's mission is to be a leader in enhancing the health of people through education, biomedical research, and clinical programs. This role, in the past, has contributed to the present standing of Minnesota near the top nationally of most indices of health and health care. Over half of the physicians in the state have been trained at the University of Minnesota and the Medical School has contributed to the development of the biomedical research and technology industry in the state through our education and research programs.
- Presently we graduate more primary care physicians than any other school in the country, we have the largest number of Native American graduates, we conduct basic and clinical research for dozens of Minnesota companies and have contributed directly to the expansion of the biotechnology industry, we care for over 150,000 patients each year, and serve the entire state through programs such as physician outreach, continuing Medical Education programs, the Mini-Medical School, the Science Museum, Young Scientist Roundtable, etc.

Weaknesses/Opportunities

- The Medical School is uniquely positioned to rapidly translate the tremendous recent advances in the biomedical science to clinical practice throughout the state in areas such as cancer, genetics, stem cell biology.
- We need to sustain effective partnerships with faculty at the affiliated hospitals and further develop those with the community to collaborate on meeting our mutual goals of education and research. However, those groups are also increasingly challenged by resource limitations and divergent priorities.
- We should be advocates for universal health care access for all Minnesotans and educate future physicians to become effective advocates for their patients.
- We need to educate our students to practice health care in a manner that is sensitive to the cultural diversity present in the State.

Threats

- We no longer have the resources to continue to maintain all of the strengths (listed above) expected in the past. Our roles must be prioritized, in part by taking into account what we are uniquely positioned to provide, and faculty effort should be directed to those priorities.

2. How will we be a real player in the health care delivery process?

Strengths

- The UMPhysicians practice is predominantly highly specialized and presently focused in three main areas: Oncology, Transplantation, and Cardiovascular Disease. Both Childrens and Adult services are represented in the three predominant specialty areas. However, clinical activity not included in those three areas is important for any multispecialty practice and a broad palate of clinical activity is integral to our research and education missions.
- Recent UMPhysicians performance in the State Health Plan confirms the high complexity of our patients and our ability to deliver efficient, cost effective care to such patients even in a teaching environment.

Weaknesses/opportunities

- Ideally, we would become a model academic multispecialty practice providing cutting edge bench to bedside research that is highly cost effective and will demonstrably improve outcomes. However, we will not be able to accomplish these all of these objectives across all "service lines" and need to set priorities for the use of resources. We also need to establish standards for clinical excellence, both for service delivery and quality of care.
- We need to be leaders in understanding causality and prevention, developing new therapies, providing leadership in both providing efficient care and documenting clinical effectiveness and outcomes research that complement and collaborate with the excellent clinical care that is provided in the community.
- Appropriate partnerships with the affiliated hospitals and community may allow us to apply the results of our research without necessitating development of a new or increased patient base. In addition, the specialty practice requires a large patient base that extends beyond the metro area. Thus, we need to establish effective partnerships with the community and payers.
- We need to develop new models both for physician training and better integration with non-physician health care delivery that are more efficient to make better use of our resources.

Threats

- Clinical activity is central to the mission of the Clinical Science departments and is the basis for much of the research and education in those departments. However, the retention of clinicians has become increasingly difficult and 88 top faculty in the Clinical Sciences have recently left the Medical School to enter private practice. The clinical work of faculty needs to be valued within the medical school structure, appropriately supported by the clinical infrastructure, and equitably compensated in order to improve faculty retention and meet our mission.
- UMPhysicians requires significant re-investment from the clinical revenue stream to develop improved business practices and to provide for strategic program development. However, the present cross-subsidization of the academic mission by clinical revenue limits the ability of the practice to accomplish these objectives. Thus, adequate mission-based support of the academic mission, especially in education, will enable the clinical practice to provide appropriate support for the clinical mission.

- Much of the cutting edge clinical activity developed within the University rapidly becomes integrated into medical practices across the community, as has occurred in Solid Organ Transplant with the proliferation of local and regional programs and is occurring in Bone Marrow Transplant. Significant ongoing development of new clinical and research programs, for example in Stem Cell Biology, will be essential to remain at the forefront of biomedical science. Such investment is increasingly difficult to sustain in the present environment and will limit our ability to continue to provide cutting edge clinical advancement.
- The present inefficiencies and limitations of our clinical practice environment, despite ongoing efforts by FUMC and UMPHysicians, hinders our ability to meet our mission and provide care that meets the expectations of patients and referring physicians.

3. What is our vision for the health care professionals that we train?

- Ideally, the Medical School should train outstanding physicians and health care professionals to meet all of the future health needs of Minnesotans, including primary care practitioners, specialists, and researchers in all areas of health care. Our trainees need to carry forth a culture of life long learning and a sense of adaptability to the inevitable changes that will occur in health care. This goal should be accomplished with collaboration and support from affiliated hospitals and the community.

Strengths

- The Medical School is in the process extensive review of the curriculum. The curriculum has been regularly updated to include not only cutting edge scientific advancements but also multicultural issues, professionalism, ethics, health systems, end of life issues, integrative medicine, evidence-based medicine and informatics.
- The admissions process has also undergone extensive review to improve the overall process and attract the most highly qualified and diverse applicants.
- Residency and fellowship programs have trained many nationally prominent academic leaders as well as a large percentage of the superb clinicians in the community.

Opportunities

- Curriculum revision needs to keep pace with the expansion of scientific medical knowledge but must also take into account the societal, cultural, and humanistic needs of our changing world.
- Our educational processes should continue to be subjected to ongoing evaluation and improvement, standards for excellence should be maintained, and faculty at the University and affiliated sites should continue to receive feedback and faculty development to assure provision of the highest quality education to our many types of students.

- We need to pursue new models of physician training that are cost efficient and effective in preparing students for new models of health care delivery that make the best use of societal resources.

Threats

- Our ability to achieve the above vision is increasingly limited by the inability to subsidize the educational mission through clinical revenue, the stagnant levels of State support through O and M funds, and the recent increase in institutional taxes.
- The tension between pressure for clinical care and productivity and providing clinical educational opportunities for our students is increasing.
- Any decrease in the national prominence of Clinical Departments and our research programs will decrease our ability to attract top students into our residency and fellowship programs
- Medical School tuition is the 4th highest among the 72 medical schools. Some of the best and brightest Minnesotans are attracted to Medical Schools elsewhere and never return.

4. How will we achieve top-ranking in research performance?

Ideally, the Medical School should pursue research excellence across a broad spectrum of health care, from the most basic to transitional to outcomes and care delivery research. However, the recent medical school retreat highlighted the need for prioritization of research areas to achieve top 20 national ranking status.

Strengths

- The Medical School is midway through a strategic planning process focused on research and has identified Aging, Cancer, Cardiovascular/Pulmonary, Developmental Biology/Children's/Adolescent Health, Genetics and Genomics, Immunology and Infectious Disease, Neurosciences, Stem Cell as the highest priority programs. The priorities will be further developed and during the completion of the strategic planning process over the next several months. Such prioritization will facilitate alignment of resources (financial, space, faculty effort) with recruitment and program development.
- Research programs in the Clinical Sciences account for 75% of Medical School research funding.
- Bench to bedside research development, such as that in Bone Marrow Transplant, has accounted for significant clinical advances and up to 30% of the clinical revenue in those programs.

Weaknesses

- The national ranking of the Medical School research programs has fallen significantly over the last 15 years, while programs in other Big 10 institutions have risen significantly. We are falling behind

our regional peers, such as Michigan, Iowa, and Wisconsin, in the overall national recognition of our research programs.

- The infrastructure for clinical research, although greatly enhanced by the RSO, is still insufficient to adequately support clinical and translational research.

Opportunities

- Enhanced relationships with both local and national biotechnology companies should be sought and then facilitated. The University's newly developed External Sales capability and policies should be used by many faculty who seek service relationships with industry while providing a mechanism for developing a laboratory reserve for future investment.
- The present increase in available NIH funding provides opportunities for enhanced programmatic development of outstanding programs.

Threats

- The development of strong and forward looking interdisciplinary and intercollegiate research programs is currently hindered by a lack of standardized policies in the Medical School and AHC relative to the use of indirect costs and salary recovery from sponsored research grants. In addition, the availability of state support for base salaries (which support the academic mission, is highly variable across both the Medical School and the AHC. A more even and equitable distribution of funds according to would significantly enhance our ability to perform our research mission.
- Funding for translational research, often difficult to obtain from the NIH, should be viewed as an institutional investment that will reward such efforts with new technology, new therapies, and enhanced accomplishment of our missions and such research should be prioritized to meet the goals and mission of the medical school.
- Facilities for clinical research (particularly outpatient-related) on the General Clinical Research Center as well as in the ambulatory clinics are presently inadequate and relations with Fairview, for provision of services and space, are not optimal. This facility issue needs to be resolved to facilitate clinical research.
- While some faculty will be highly focused on research (>80% effort), many physician-faculty both value and require the combination of clinical activity and education with research as such experience provides the basis for many productive research ideas.