

**The Chicago Medical School**

**Self-Study Report Prepared for the**

**Liaison Committee on Medical Education**

**Survey and Site Visit**

**September 21 – 24, 2003**

## Table of Contents

Introduction .....	3
Summary of Previous Visits .....	3
I. Institutional Setting	
A. Governance and Administration.....	6
B. Academic Environment .....	9
II. Educational Program for the MD Degree	
A. Educational Objectives .....	11
B. Structure .....	11
C. Teaching and Evaluation .....	12
D. Curriculum Management.....	14
E. Evaluation of Program Effectiveness.....	15
III. Medical Students	
A. Admissions.....	15
B. Student Services.....	17
C. The Learning Environment .....	20
IV. Faculty	
A. Number, Qualifications, and Functions .....	21
B. Personnel Policies .....	25
C. Governance .....	26
V. Educational Resources	
A. Finances .....	26
B. General Facilities.....	27
C. Clinical Teaching Facilities.....	29
D. Information Resources and Library Services.....	30
Summary .....	32
Appendix: Self-Study Task Force Membership.....	33

## **LCME Self-Study Report: The Chicago Medical School 2003**

### **Introduction:**

The Chicago Medical School Self-Study began in the fall of 2002 with assemblage of the Survey Visit Database. In January 2003, the Database was turned over to five self-study committees. Each committee provided editorial comment on their chapters and provided a list of perceived institutional strengths and challenges in their topic areas by May 2003. The Self-Study Task Force reviewed the committee reports and assembled the Self-Study Report. The Self-Study Task Force included the Dean of the Medical School, associate deans, senior faculty members, and the Dean's executive secretary. Dr. Timothy Hansen, CMS Senior Associate Dean for Educational Affairs, served as Self-Study Coordinator. Upon completion, the Database and Self-Study Report were placed upon the Faculty Portal of the Finch University Web site for review. Print copies of the Database have also been available in the Offices of the Dean and the Senior Associate Dean for Educational Affairs since January 2003.

The Chicago Medical School has experienced many changes since the last full survey visit five years ago. Shortly following the 1998 visit, Mr. Herman M. Finch, long-time Chairman of the Board of Trustees, passed away. Following his long tenure, change was inevitable. In the subsequent five years, Finch University has experienced a nearly complete changeover of the Board of Trustees, a new University President and senior administrative structure, a merger with the Dr. William M. Scholl College of Podiatric Medicine, the addition of on-campus housing, expansion of academic facilities, consolidation of University facilities onto a single campus, and a search for a new Medical School Dean.

### **Summary of the Last Full Survey Visit, the 1999 Focus Visit, and the 2002 Secretariat Visit:**

The LCME Survey Report following the 1998 Survey Visit cited both strengths and concerns about the Medical School. The Medical School is pleased about the many strengths cited and has endeavored to reinforce those areas. This report will focus mainly upon the cited areas of concern and the Medical School's responses to them. This Introduction also makes note of concerns that stemmed from the Focus Survey Visit of 1999 and the Secretariat Visit of November 2002. Continuing issues are summarized at the conclusion of the Introduction.

*Issues noted at the 1998 Survey Visit and forming the focus of the 1999 Focus Survey Visit:*

### **Transition in Institutional Leadership:**

A new leadership team was in place and functioning with the support of the faculty at the time of the 1999 Focus Visit. That trend has accelerated with the administration of President Michael Welch and his new leadership team, who have joined the University during the periods of late 2002 and early 2003. A search for Dean of the Medical School is well underway. Relationships between the School and its clinical partners are very active at all levels.

### **Curriculum Reform and Leadership:**

As noted in the 1999 Summary of Findings, "there is an effective team to guide curriculum oversight and management....The Educational Affairs Committee has been restructured to ensure broad representation and its chair has taken a leadership role in curriculum review. A number of changes have emerged from this systematic review process." Since that time, the Medical Education Enhancement Committee has become a continuing subcommittee of the EAC and has begun a review of electronic management of the curriculum to identify areas where web-based modules can be helpful to the curriculum, software to use as the repository of an electronic curriculum, and hardware to support wireless or PDA technology. The EAC will soon undertake a major competency-based curriculum review.

**Performance of Students on USMLE Step 1, 2, and 3:**

Performance of CMS students on all three of these exams has steadily improved. Step 1 scores for the class of 2004 were above the national mean. Early results from the class of 2005 indicate a continuation of that trend. Step 2 scores have also improved both in absolute scores and relative to the national mean.

**Clinical Assessment of Performance of Students:**

The Clinical Clerkship Coordinator, now Assistant Dean for Clinical Education, Dr. Lori Siegel, has been effective in promoting consistent evaluation of students across sites. Common evaluation instruments are used at all sites, with faculty development provided in the form of definitions to be used for common criteria for evaluation. Student performance and clinical evaluations are rigorously monitored by the Office for Educational Affairs. A state-of-the-art Objective Structured Clinical Examination (OSCE) facility is nearing completion on campus and will allow expanded evaluation of clinical skills.

**Masters of Applied Physiology (AP) Program:**

A comprehensive study of AP students demonstrated that they have credentials comparable to medical students admitted by the regular route and comparable performance during medical school. At the time of the 1998 visit, the AP curriculum had been revised, reducing the number of medical courses taken by AP students and increasing the number of graduate courses in the curriculum. Faculty expressed concern about the increased workload. With the 2002-2003 academic year, that curriculum revision was largely reversed. The faculty is generally happy with the reduced workload.

**Medical School Admission Process:**

This process is completely in the hands of the faculty without interference from other influences.

**Student Debt:**

Student debt had continued to grow and was voiced as a major concern during the 2002 Secretariat Visit to the school. Major interventions recently have been implemented, including a five-year tuition freeze, a Graduated Assistance Plan, and several smaller interventions that promise to significantly reduce debt. These interventions are described at length in the summary below.

**Adequacy of Clinical Sites and Comparability of Experiences:**

The number and location of clinical experiences have remained the same for the past four years. There is a close working relationship between the school and its leaders with the Advocate Health System (Lutheran General, Christ, and Illinois Masonic Hospitals), the VA system (Hines and North Chicago VAMC), and other major affiliates, such as Cook County Hospital, Mount Sinai Hospital, and Swedish Covenant Hospital. These are stable, effective relationships. Comparability of experiences is monitored rigorously and enhanced by common lecture experiences, common syllabi, and common evaluations across clerkship sites.

**Procedures for Renewal of Appointment and Tenure:**

Written policies are in place and carefully followed. A monetary judgment against the Medical School on behalf of two faculty members who claimed that proper procedures had not been followed was overturned in favor of the Medical School upon appeal.

**Department of Neurology:**

The Department remains without a permanent Chair in spite of two separate searches. The status of this department is actively under discussion by the ad hoc Committee on Chair Appointments

(ACCA). The educational program of the Department (M3 clerkship) continues to be a steady performer.

*Following the 1999 Focus Visit, several progress reports were made and accepted by the LCME. In 2002, the LCME requested a Secretariat Visit to cover the following issues:*

**Leadership at President and Dean Levels:**

Dr. Welch began his tenure as University President several weeks after the Secretariat Visit. He has brought a new management team and style to the University and Medical School. Dramatic change has occurred in structure, procedures and attitude. These changes have been most welcome to the faculty. The leadership team has made strong efforts at collaboration with clinical partners, with the goal of gaining a strategic alliance (however defined) with a major clinical partner that will strengthen clinical, research, and educational objectives of the Medical School.

A full search for Dean of the Medical School is underway, being managed by the search firm of Quick, Leonard and Kiefer. A strong list of applicants has been reviewed. Candidate interviews will begin in late July or August of this year.

**Student Debt:**

Student debt continued to climb during the past five years. This debt remains largely tuition driven. Major efforts are underway to reduce student debt, in both short- and long-term timeframes. Immediate changes include freezing tuition at 2002-2003 levels for the next five years and providing a Graduated Assistance Program of need-based tuition reduction by expending University resources. These are major changes designed to have a significant impact. For the long term, development of alternative revenue streams through clinical income and clinical research remain high priorities and drive the effort toward a strategic alliance with a major clinical partner. Another potential revenue stream is philanthropic giving. In the fall of 2003 the Development Office will open a 6 million dollar campaign for medical student scholarship support. To this end, the Development Office has been strengthened with the addition of two new members.

**Teaching Facilities:**

In the past year, the Medical School campus has been strongly enhanced through building and remodeling on campus. The 140,000-square-foot Health Sciences Building added much-needed classroom space, from large lecture halls to small conference rooms. Teaching spaces are well designed, well equipped, and comfortable for faculty and students. The Health Sciences Building also brought many elements of the Medical School, notably clinical departments, and related health science programs under the same roof for the first time.

Since the time of the Secretariat Visit, additional upgrades have been made on the campus. These include the implementation of wireless technology into major classrooms. The \$2 million OSCE is a state-of-the-art resource for teaching, learning, and assessing clinical skills. This will enlarge the role of clinical skill assessment throughout the medical curriculum. Finally, the Anatomy laboratory is being rebuilt in time for the incoming 2003-2004 class with 50% more space, reconfigured design, air flow, acoustics, and a server-based network of computer resources at each work area.

The Medical Education Enhancement Committee is exploring greater implementation of computer technology in the curriculum. Among their first recommendations was the establishment of an Office of Technology in Teaching to oversee the implementation of a Web-based curriculum, Web-based clinical cases, and other computer assets for the curriculum. This recommendation was recently approved and funded by President Welch.

These significant changes follow the large expansion of the Learning Resource Center and its Computer Center which was completed in 1999 and provide excellent support for the Medical School curriculum.

**Christ Hospital as a Teaching Site:**

CMS students have been educated at Advocate Christ Hospital for many years. The range of clerkships and number of students were increased in 2000. Christ Hospital, like its siblings in the Advocate system (Lutheran General and Illinois Masonic Hospitals), is a first-rate teaching hospital, with a long history of educating medical students from CMS, University of Illinois, Rush Medical College and the University of Chicago. CMS departments and the Office for Educational Affairs have worked hard to bring the CMS curriculum to this teaching site. Judging from the student evaluations and the consistency of performance of students who trained at Christ, these efforts have been successful.

**Class Size and Resources for Clinical Teaching:**

After growth in class size during the 1990s, entering class size varied between the years 2000 and 2003, first with a reduction to 165, then an expansion to 193. Class size has stabilized at 185 students per entering class and will remain at that level. It is now understood at all levels that the “rate-limiting” determinant of class size is the availability of high-quality clinical clerkship venues. With the stable set of clinical affiliates currently in place, we are able to provide high-quality, well-supervised clinical education for 200 or more students per year. A class size of 185, even when accounting for variability in scheduling over the academic year, provides a comfortable margin of quality spaces.

In conclusion, the preparation for this Survey Visit has provided impetus, rationale, and support for change at The Chicago Medical School. The Database and Self-Study will form part of the groundwork for the concurrent strategic planning process of the University. The process has already helped all levels of the organizational structure toward a common understanding of challenges we face and the many assets we bring to the challenge.

**I. INSTITUTIONAL SETTING**

**A. Governance and Administration**

1. & 2. During the past five years, and especially during the 2002-2003 academic year, the governance structure of the University and The Chicago Medical School has changed dramatically. There has been a nearly complete restructuring of the Board of Trustees. A new President has taken charge and newly appointed and promoted Vice Presidents have been put into place. A new Dean for The School of Graduate and Postdoctoral Studies has been named and a search for a new Dean of the Medical School is underway.

These changes have resulted in a strong, open governance structure. President and CEO Dr. K. Michael Welch has developed strong working relationships with the Executive Committee of the Board of Trustees and with the faculty. These relationships support a collaborative and fruitful set of goal-setting and planning activities.

Dr. Welch has established the President’s Cabinet as the principal planning and policy-making body of the University. The group meets weekly and includes Vice Presidents and Deans of the four professional schools, as well as periodic attendance by the Director of Student Affairs, the Student Council President, and the Principal Senator of the Faculty Senate. This structure is appropriate for

the nature and size of the University and the Medical School. The Chicago Medical School is a large school within a small University. In terms of student enrollment, faculty headcount, research, budget and space, the Medical School is the largest of the University's four schools and maintains the most resources. The needs of the Medical School are inseparable from the needs of the University as a whole. Current goals include establishing a strategic alliance with one or more clinical partners, centers of excellence in areas that transcend departmental barriers and bridge basic and clinical research, and a new and substantially larger outpatient clinical facility.

The new governance structure of the University facilitates the attainment of several goals. One such goal is the ongoing development of training and education programs for members of an integrated health care team. The effort to develop such teams starts at the top, with the participation of the Offices of Clinical and External Affairs, Faculty and Educational Affairs, Student Affairs, and Deans. A second goal involves increased faculty input into the budget and planning process for the University and Schools through the inclusion of the Principal Faculty Senator in key strategic processes. Finally, a third and significant goal is a system of enhanced communication across schools and from top to bottom of the governance structure.

Given this new structure, institutional priorities are being set in an open, stable planning process through the President's Cabinet. Faculty input is readily included and consultation with the Board of Trustees is continuous and informative. In late July of 2003, a planning retreat will be held to solidify the new mission, vision, and goals of the University. Those goals will then guide the development of objectives for the Medical School.

The designation of several new Vice Presidents, and the restructuring of the responsibilities of others, illustrates some of the new priorities for the institution.

The new Vice President for Clinical and External Affairs, Nabih M. Ramadan, M.D., will address one of the major needs of the University and Medical School. Specifically, he is responsible for the development of stable strategic alliances with clinical partners that will solidify clinical education venues; for the provision of an expanded and dedicated clinical faculty with the opportunity to earn clinical practice income; and for the development of opportunities to engage in substantial clinical research that will mutually benefit the Medical School and the hospital/clinical partner. While the educational venues for clinical education of medical students have been relatively stable and of high quality, the opportunities for clinical research and clinical income have been very limited.

The new Vice President for Faculty and Educational Affairs, Timothy Hansen, Ph.D., has two significant missions critical to the Medical School and the University. The first is to accentuate the importance of faculty in the school. The priority placed on faculty development, faculty evaluation, guidance of faculty toward promotion and success, introduction of faculty to new educational methods, and other issues relating to faculty will be centralized and addressed with greater emphasis. The second mission for this office is to promote the integration of education across the health care programs of the University, thus reinforcing the fundamental concept of the integrated health care team. In support of these missions, two new offices have been established under Dr. Hansen's supervision: the Office for Faculty Development and the Office for Technology in Teaching.

Nancy W. Garn, M.S., formerly the Executive Vice President, has been appointed Executive Vice President and Chief Operating Officer, bringing together for the first time, under one office, the support functions of the University, including library and audiovisual, development, alumni relations, public relations, information technology, security, operations and maintenance, and food service.

Margot A. Surridge, M.A., has been named Vice President for Finance and Administration. Her experience brings knowledge in both finance and medical school administration, which will assist us in bringing policies and procedures up to date.

Michael P. Sarras, Jr., Ph.D., has been named Vice President for Research and Dean of the School of Graduate and Postdoctoral Studies, effective August 1, 2003, succeeding Dr. Velayudhan Nair upon his retirement. One of Dr. Sarras's priorities in the new mission of the school is to increase the external funding for research among faculty, especially among basic science faculty.

Finally, a series of infrastructure improvements have been made or are in progress to strengthen the administrative structure of the school. Prominent among these enhancements are the addition of in-house legal counsel and a compliance officer. At the time of the writing of this report, candidates for these positions were being interviewed.

3. As described previously, this small University is focused entirely upon health care education, with the Medical School being the largest school in the University structure. Most faculty in the Graduate School have their principal appointment in the Medical School. Through the governance structure described above, it is evident that the Medical School and University are inseparable. The interactions of the Medical School administration and the University are seamless. Through long-standing working relationships and through the new President's Cabinet, a strong cohesive management team has been formed.

The working relationships between the Medical School/University and its major clinical affiliates are strong, with formal and informal interaction between the Medical School and its partners. At differing levels, the Dean, the Vice President for Clinical and External Affairs, and the Senior Associate Deans have constant contact with the affiliate educational sites. Clinical department Chairs and Associate Deans from affiliate hospitals participate in the bi-weekly meetings of the Faculty Executive Council, which is chaired by the Dean of the Medical School and includes all department Chairs and Senior Associate Deans. The clinical Chairs also meet, on a monthly basis, as a group with the Dean of the Medical School.

4. The Medical School Dean's office itself has been a paradox of change and stability. In 1998, Theodore Booden, Ph.D., retired from the deanship and Charles Barsano, M.D., Ph.D., subsequently served as Acting Dean for a year. Following the 18-month term of Robert Suskind, M.D., as Dean, Dr. Barsano again became Interim Dean in January 2001. His service as Interim Dean has twice been received with gratitude and respect by the faculty. Dr. Barsano has indicated his desire to return to the faculty. A search committee and search firm have begun a national search for a new Dean. While the individual filling the position of the Dean has changed, the remainder of the Dean's office has been intact throughout these changes. The Senior Associate Deans for Student Affairs, Educational Affairs, and Clinical Affairs, the Associate Deans of the hospital affiliates, the Assistant Dean for Learning Resources, and the Dean's Executive Secretary have remained constant throughout this period. This cohesive and experienced team has worked together successfully for many years. It was inevitable that some momentum would be lost during the decanal transitions, but the core functions of the Medical School have continued uninterrupted. The one difficulty in the School of Medicine that coincides with the decanal turnover in the past five years is the number of open department chairmanships. While most openings had little to do with the role of Dean, the absence of a permanent Dean has possibly contributed to the difficulty of filling these positions. This issue and the proposed solution are explored in greater detail in Chapter IV – Faculty.

## **B. Academic Environment**

5. Graduate programs in the basic sciences fall into two distinct categories: traditional research-oriented graduate programs leading to the doctor of philosophy degree, and non-research, pre-medical graduate programs.

The traditional research programs in the School of Graduate and Postdoctoral Studies include all of the basic science departments, the Department of Psychology, and two interdisciplinary programs in Molecular and Cell Sciences and Neuroscience. These are rigorous programs with high-quality curricula. The school has supported stipends and tuition waivers for Ph.D. students, asking funded faculty to pay the stipends from grants during the active research phase of the students' training. Graduate student stipends had been relatively low during the past few years, but were increased in the past year to levels that are competitive within the Chicago area. Attracting high-quality graduate school applicants continues to be a challenge, both here and across the country. The number of students entering the graduate programs is adequate, but not plentiful.

The University also supports a combined M.D./Ph.D. program for exceptional students. Qualified students receive stipends and tuition waivers throughout both their medical and graduate education. This program represents a major financial commitment to research within the Medical and Graduate Schools. The M.D./Ph.D. program has attracted a small number of outstanding students each year.

Both the Ph.D. and M.D./Ph.D. programs of the Graduate School support the mission of the Medical School by providing support for research faculty through the addition of active researchers, and by enabling the expansion of the University's overall research portfolio. Program evaluation is a function of the Graduate School and focuses upon the number of students who graduate with Ph.D. degrees, the quality of residencies obtained by M.D./Ph.D. students, and the subsequent academic positions and success attained by graduates. At the annual meeting of the Graduate Faculty, the Dean of the Graduate School reports on measurements of program success, including the number of new and continuing students; the number of grants held by the faculty; the current sum of research income; and the distribution of positions held by Graduate School alumni in academia, research, industry and other venues.

The non-research Graduate School programs are exemplified by the M.S. program in Applied Physiology (AP) and the Chicago Area Health and Medical Careers Program (CAHMCP) Pre-Matriculation Program. The AP program enrolls pre-medical students eager to demonstrate their potential for medical school. They are enrolled in a number of M1 courses and select graduate courses for a one-year period. Passage of all courses and maintenance of a "B" grade average is required for the M.S. degree. Many of the successful graduates are accepted into The Chicago Medical School, in addition to other schools. Although technically a program of the Department of Physiology, the program is administered centrally by the Office for Educational Affairs. This program supports the mission of the Medical School in several ways. It provides a large pool of qualified matriculants to the Medical School. As shown in the documentation of the LCME Focus Visit in 1999, medical students who came from the AP program performed well in medical school, matching the standard AMCAS applicants in quality, average grades, USMLE Step 1 Scores, and acceptance into Alpha Omega Alpha. The program also provides needed income to support the mission of the Medical School. The AP program does not come without a cost, however. AP students expand the class size in several M1 lecture courses and are generally highly motivated students who are, therefore, particularly demanding of time from faculty.

The CAHMCP (pronounced "Champs") Pre-Matriculation Program includes minority pre-medical students (10 to 12 at a time in selected M1 courses) who are seeking to demonstrate the ability to

succeed in medical school. This program is critical to the school's mission to increase the diversity of students in the educational program and in health care in general. The success of this program is demonstrated by the exceptionally high number of underrepresented minority students who do not simply matriculate into CMS, but who also successfully complete the curriculum and graduate.

6. Residency programs have a significant impact on the education of medical students because residents serve as front-line educators for medical student clerks. CMS has three residency programs: Surgery, Medicine, and Psychiatry. They are strong programs with very high rates of passage on specialty board exams. In addition, the Medical School sponsors four fellowship programs: Critical Care Medicine, Endocrinology, Infectious Disease, and Pulmonary Disease. CMS students taking rotations in these areas are frequently supervised and taught by CMS residents. However, many of the clerkship sites attended by CMS students are staffed by residency programs from the hospital or other medical schools. CMS residency and fellowship programs are high-quality programs with good educational support for residents. In the near future, the CMS residency programs are not expected to change substantially in size or sites utilized. However, in the long term, graduate medical education programs would be part of any strategic alliance with a large clinical partner, as described in Part A of this chapter. Such a change could expand the range of offerings of CMS Graduate Medical Education and concentrate CMS students at sites with CMS residents.

7. The research activity of the basic science departments is strong in select areas, including proteomics and structural biochemistry, neuroscience, drug addiction, immunology and membrane biophysics. Grant activity per capita of faculty is below average, but very good within these areas. During the past decade, funding needed to support hiring of new faculty and required infrastructure was severely limited. The renewed research mission of the University and new financial support pledged by the administration and Board of Trustees, accompanied by a new productivity/merit-based faculty evaluation paradigm, should improve the level of research in the basic sciences. This commitment to basic research includes the budgeting for eight new scientists at the assistant professor level to be hired during the 2003-2004 academic year.

In the clinical arena, research is severely limited. As in other community-based medical schools, clinical faculty are expected to provide clinical service first and foremost. CMS has few research-oriented clinical faculty. There are pockets of activity that support medical student involvement, but no large areas with significant trials or grant income. Overall, the level of research at CMS is consistent with its mission as a community-based medical school. However, the new administration desires to do more. This will require a major clinical partner and the recruitment of increased numbers of clinician scientists

8. Resources for basic science research are good, but not excellent. In comparison to many other institutions, space is plentiful but laboratories require modernization. The number of graduate students is adequate for current need. The quality and quantity of major centralized equipment to support research is adequate, though some equipment is aging and other areas could benefit from state-of-the-art centralized equipment. The research effort will benefit from new support structures being brought on board this year, such as an enhanced compliance structure, and expanded grant writing and advisement support from the Vice President for Research and the Faculty Development Office.

9. Within this environment, opportunities for medical student research are quite good throughout the curriculum. Stipends are available for summer projects after the M1 year. Academic credit may be earned in both the M2 and M4 years for participation in research in both clinical and basic science venues. During the past three years, approximately 50% of graduates reported participating in

research during their tenure at CMS, with 30% reporting authorship on a research paper submitted for publication (Graduation Questionnaire 2002).

## **II. EDUCATIONAL PROGRAM FOR THE MD DEGREE**

### **A. Educational Objectives**

1. The current curricular objectives of the Medical School are carefully considered and clearly stated. The objectives are examined periodically by the Educational Affairs Committee (EAC) and were recently amended. They are distributed among administration, faculty, and students each year and are visible on the Medical School Web site. Every effort is made by clerkship directors to distribute the general curricular objectives to both faculty and residents. To this end, each clerkship department is creating a Preceptor Guide, containing rules, grading, syllabi, and both the general curriculum objectives and clerkship-specific objectives.

The EAC refers to the Educational Objectives when reviewing individual course offerings and the overall curriculum. The standard Clerkship Evaluation Form, used to evaluate student performance on M3 and M4 clerkships, utilizes the same general objectives as criteria for evaluation. In Psychiatry, a pilot study is underway to evaluate the use of a Clerkship Evaluation Form in which each specific item on the Educational Objectives is assessed. One year after graduation, the Office for Educational Affairs surveys Residency Program Directors on the performance of CMS graduates. Program Directors are asked to rate each resident/graduate on every item of the Educational Objectives. The EAC reviews the survey results each year as part of its assessment of the curriculum.

After many years of using this set of Educational Objectives, the EAC has begun a major reassessment of the objectives themselves. The current objectives are general in nature and describe a good but limited “core” curriculum for medical education. Beginning in the 2003-2004 academic year, the EAC will develop a set of objective-structured curricular goals. The intent is to improve the objectives and the curriculum by making the objectives more specific (i.e., describing more specific behaviors that can be measured as outcomes). In addition, the objectives will be expanded to include a broader range of topics, such as medical practice management, greater emphasis on genomics, preventive and predictive medicine, evidence-based medicine, and broader representation of the cultural aspects of medicine.

2. Patient resources and clinical settings are excellent for achieving the Educational Objectives. Our clinical affiliates offer a diverse patient population in terms of demographics, cultural groups, disease predominance, and management and treatment styles because they include community hospitals (Lutheran General Christ, and Illinois Masonic Hospitals), veterans hospitals (North Chicago VAMC and Hines VAMC), and major urban hospitals with broad indigent care (Cook County and Mount Sinai Hospitals). CMS students receive a broad clinical education in a variety of settings. Although CMS does not own any of the clinical sites where our students rotate and does not “control” clinical venues, the cooperation between the Medical School and its clinical affiliates is excellent.

### **B. Structure**

3. A variety of factors lead the EAC to believe that CMS provides a very good general professional education that prepares students for all career options in medicine. Clerkship and course objectives and topic outlines are comparable to national norms. CMS students perform in the mid-range on USMLE examinations. Performance of CMS students on USMLE Step 1 and 2 has improved steadily during the past 10 years, both in absolute scores and relative to national student mean scores.

CMS student performance on standardized patient examinations at a third-party facility is comparable to the performance of other schools in the area. The Residency Match list for CMS graduates each year shows CMS students matching in all specialty areas, in all geographic areas, and in prestigious programs. The results of the Residency Program Directors Survey each year demonstrate a high degree of satisfaction with CMS graduates.

4. Self-directed learning is an inherent part of clinical education. CMS students receive significant “hands on” exposure to medicine in their clinical venues. Although lectures are part of the clinical education, the educational program also includes opportunities for individually motivated learning, such as through clinical rounds, conferences, case discussions, student presentations, and journal clubs. The skills of life-long, self-directed learning are also part of the first two years of the curriculum. Many M1 and M2 courses require students to conduct literature searches, deliver presentations in small groups and work in teams. Throughout the first two years, students choose their own study styles, with varying degrees of pedagogical input, leading some students to have additional independent learning experiences.

5. Given the variety of clinical sites visited by CMS students on M3 clerkships, the EAC is aware of the necessity of evaluating and documenting the educational quality and student evaluation across sites. The process works very well. Student evaluations of each rotation of a clerkship, and clinical evaluation and exam scores for each student are gathered for each rotation, each site, and each clerkship. Scores on each of these measures are compared across sites through comprehensive monthly reviews by the EAC. The departments receive this data after each clerkship. Differences across sites in any of these measures trigger concern and action by the Senior Associate Dean for Educational Affairs, the EAC and the departments. These concerns are discussed at clerkship director meetings and remedies are initiated where needed. The EAC will explore the possibility of generating required core case-study modules (perhaps computerized) that will ensure consistency. This data has been compiled and recorded since 1994.

6. All content areas required for accreditation are covered in the CMS curriculum. In the “in-depth reviews” performed by the EAC, directors of each course and clerkship are asked to compare course objectives with national norms, wherever applicable, as well as to compare the subject areas covered with USMLE topic outlines. Finally, we have compared topics covered with the lists described in the LCME Database and the Functions and Structures of a Medical School. Again, the EAC plans a complete review of curricular objectives in the next academic year with special emphasis on topics outside the core curriculum.

7. The balance between workload and education is appropriate in the clinical years, and students do not experience excessive call schedules. There is a good blend of formal lectures with students from multiple sites. Formal rounds, patient discussions and conferences are site-specific, and informal teaching occurs at the various sites. There is a strong presence of ambulatory teaching in Ambulatory Care, Pediatrics, Obstetrics/Gynecology, Psychiatry, and Family Medicine clerkships.

CMS is fortunate to have a variety of distinct teaching sites that offer varying patient demographics. These health systems have teaching programs at both the resident and student level. All are accredited by their respective agencies. In many cases, teaching hospitals are shared with student programs from other medical schools in the Chicago area.

### **C. Teaching and Evaluation**

8. Supervision of medical students during clinical clerkships is good, but variable among sites. At some sites, the residents are the primary teachers and supervisors, while, at other sites, the attending

physicians do the majority of teaching and evaluation. Supervision is a challenge to monitor and maintain, especially at sites shared with other schools. At those sites, the faculty teaching for all groups of students may, in fact, belong to another medical school. Likewise, the residents at many sites are not CMS residents. However, efforts are made to overcome these challenges. Clinical departments meet regularly to set comparable standards for education across sites. The Educational Affairs Office of the Medical School, including the Assistant Dean for Clinical Education, works with each department's Clerkship Director and their respective hospital site directors to provide objectives, grading policies, evaluation forms, and student feedback that are consistent, if not identical, across sites. The new Preceptor Guide for each clinical department will assist with this effort. We recognize this challenge and concentrate our efforts to maintain high quality and consistency. This need also drives our efforts at seeking new clinical partners in which more students may be trained at fewer sites.

9. Evaluation of student attainment of educational goals includes both formative and summative methods. In the first year, all courses have one or more mid-term exams prior to the finals. In the third week of the first year, students sit for an "integrated quiz" containing 10 questions from each of the ongoing courses to provide an early assessment of progress. These quiz results also provide early identification of students who may be facing academic difficulty. Optional and required problem sets provide feedback to students throughout the first two years. Most M2 courses make extensive use of periodic quizzes — simple questions with small grade impact that provide a guide to student learning. The Introduction to Clinical Medicine (ICM) course spans the first two years, with preceptors observing and guiding student learning of history, physical exam, and patient interaction. Clerkship evaluation of student behavior includes both clinical and examination assessment. Clerkships provide mid-term feedback to students, although this is difficult in short clerkships (e.g., Neurology and Emergency Medicine). Student/mentor interaction in clerkships is not, however, limited to examinations but also occurs on rounds, in journal clubs, and during clinical case presentations.

Students are also evaluated in two standardized patient scenarios. At the end of M2 ICM, students must pass a standardized patient "head-to-toe" exam to complete the course. In past years, M3 students engaged in a formative Objective Structured Clinical Examination (OSCE) at the University of Illinois Chicago. This effort will be significantly expanded in the coming year with the completion of the University's own OSCE facility. The OSCE (also referred to as the Education and Evaluation Center) will house 14 patient rooms, digital video and audio observation and recording from all rooms, group observation rooms, a new cadre of trained standardized patients, and related amenities. The center will be completed in August 2003. The intent of the center is to provide greatly expanded OSCE-style examinations for both formative and summative evaluation of clinical skills, including "end of clerkship" examinations.

Finally, as noted above, it is the intent of the EAC to develop more specific outcome objectives, which can be clearly assessed.

10. Core clinical skills are assessed by faculty observation in ICM, by the standardized patient exam in ICM, by faculty and residents in each clerkship, and in the currently formative OSCE. These traditional methods have been adequate to evaluate the clinical skills of students. The ability to evaluate specific clinical skills will be greatly expanded with the completion of the OSCE and will allow both formative and summative examinations in clinical skills. In addition, the EAC recognizes that the curriculum objectives need to be made more specific in order to be more accurately assessed.

## D. Curriculum Management

11. The Office for Educational Affairs is responsible for the management of the curriculum. This is a well-staffed and well-funded group headed by a Senior Associate Dean (Dr. Hansen) and Assistant Dean for Educational Affairs (Dr. Pullen), an Assistant Dean for Clinical Education (Dr. Siegel), a new academic support specialist (Ms. DiMario), three administrative assistants and a secretary. The curriculum is managed by this office through interaction with course and clerkship directors. Dr. Hansen has been recently appointed Vice President for Faculty and Educational Affairs and Chief Academic Officer of the University. This change will further strengthen access to resources and integration of education in the Medical School and throughout the University. The Office for Educational Affairs staffs the faculty Educational Affairs Committee (EAC). This is a strong working relationship.

In 1999, the overall curriculum was reviewed by the EAC. Since then, several topics that overlay the curriculum (e.g., nutrition and radiology) have been reviewed and modified. In June of 2003, the EAC completed a four-year, piece-by-piece, in-depth review of each course and clerkship. The EAC will begin a review of the curriculum objectives and the educational program as a whole in the fall of 2003. Currently, the Medical Education Enhancement Committee, EAC and Office for Educational Affairs are exploring mechanisms for generating a Web-based curriculum in which all resources for teaching (syllabi, quizzes, audio and video resources, etc.) can be organized. The combination of an overall curriculum review and the implementation of a Web-based curriculum will provide a powerful combination for developing a coordinated curriculum.

The Medical Education Enhancement Committee (MEEC), a subcommittee of the EAC, is currently exploring electronic technologies and their potential roles in the curriculum. Participation in the planning process is quite broad and includes faculty who are nationally recognized in medical education, including Frederick S. Sierles, M.D., who recently received a national award for his contribution to clinical education in psychiatry; Timothy Hansen, Ph.D., a national and regional participant in the AAMC Group on Student Affairs and its Minority Affairs Section; David McCandless, Ph.D., who co-authored the national teaching objectives for Anatomy; and Arthur Schneider, M.D., co-author of a best-selling medical text in pathology. In 2000, the EAC was expanded to include a representative of all major teaching departments. In June 2003, the general faculty, through a participatory educational forum, were apprised about the findings of MEEC and EAC regarding the role of new electronic technology in the curriculum. The President's Office has given preliminary approval for one of the first recommendations of MEEC — the establishment of an Office of Technology in Teaching to plan for implementation of a Web-based syllabus and curriculum and other electronic teaching tools.

12. Problems in the curriculum may be identified in many ways: USMLE subtest scores, student surveys (e.g., Graduation Questionnaire), and course evaluations. The EAC and the Senior Associate Dean's Office have responded to these problems in various ways.

- Student concerns about radiology representation in the curriculum have led to an ad hoc EAC committee that will identify where the topic is currently included and which topics are taught and missed, and will subsequently develop a plan to include consistent exposure to radiology throughout courses and clerkships.
- Consistently low scores on the gross anatomy subsection of USMLE Step 1 led to an external course review co-directed by the Senior Associate Dean and the department of Cell Biology and Anatomy. This resulted in a revision of the course curriculum, a new course director, improved relevance of examinations, and a dramatic enlargement and improvement of the

gross anatomy lab, including computer workstations at each dissection table and a new server-based dissection guide.

The interactions of faculty, the Senior Associate Dean's Office and the EAC have been very effective in responding to curricular needs.

13. The Medical School does not operate geographically separate campuses.

#### **E. Evaluation of Program Effectiveness**

14. CMS graduates have demonstrated through test scores and residency evaluations to be of very high quality. Assessment of attainment of curricular objectives has already been described above. The institutional goal is to graduate well-trained, knowledgeable physicians. Based upon the measures described in ED-46 and ED-47, those objectives are being met. The Medical School does not have objectives relating to practice location, specialty type or career goals.

15. As described in ED-46 and ED-47, the Medical School uses a variety of measures to assess students and graduates in order to evaluate program quality. This data informs the EAC and other groups about student success and student interest. Early measures include performance in courses and USMLE scores. Late measures include the Residency Director Survey, which evaluates CMS graduates after their first year of residency. The faculty note, with pride, that while numeric measures (undergraduate GPA and MCAT scores) of incoming students are below national averages of incoming medical students, the average scores of CMS students are near or above national average on USMLE Step 1 and Step 2.

The Medical School does not have institutional objectives relating to geographic distribution, specialty choice, or practice type. Indeed, CMS is pleased to note that its graduates practice across the country, in all specialty areas, and in all types of communities. They are practitioners, primary care providers, academics, researchers, and educators.

### **III. MEDICAL STUDENTS**

#### **A. Admissions**

1. The admissions process for The Chicago Medical School is thoughtful and thorough, is managed completely by the faculty, and is successful at identifying quality students. CMS has one of the largest applicant pools in the nation, with particularly strong representation from California and Illinois. This applicant pool is supplemented by two significant "in house" feeder programs: the M.S. program in Applied Physiology (AP) and the CAHMCP Pre-Matriculation Program. Graduates from the AP program have a proven record of success in the Medical School, as described in the 1999 LCME Survey Visit. CAHMCP students who are accepted to the Medical School comprise nearly all of the underrepresented minority students in the school. During the past 10 years, The Chicago Medical School has ranked above the national average for the number of graduating underrepresented minority students, in general, and African-American students, in particular. According to "Black Issues in Higher Education" (analysis of U.S. Dept. of Education reports based on 2001-2002 preliminary data), The Chicago Medical School ranked 16th in producing African-American medical graduates, and second (a ranking shared with New York Medical College and University of Illinois at Chicago) for producing Asian-American medical graduates. The AP and CAHMCP programs flow out of a School philosophy of providing opportunity to those who are underrepresented in medicine and those who may have been denied opportunity elsewhere. The admissions committee is

particularly proud of the fact that every application is individually read (not computer screened) and reviewed by an admissions screener as part of the primary screening process.

During the past four years, the admissions committee has made a concerted effort to attract students with outstanding academic credentials through a limited number of merit-based scholarships; numeric indicators (GPA and MCAT scores) demonstrate moderate success. These numeric indicators were chosen for emphasis because of published correlations between undergraduate GPA and MCAT scores and success in the basic sciences and USMLE. Reviews of internal data show that, while that correlation is fair for large groups, the predictive value of GPA and MCAT scores on an individual basis can be weak and inconsistent.

2. The Medical School class size is approximately 185 students per year. This is a comfortable number in terms of the facilities available to first- and second-year students. In fact, the number of available, high-quality M3 clerkship sites is what limits the capacity for medical students. During the past three years, clerkship sites have accommodated approximately 200 students per year. This provides the needed number of positions and some surplus for special scheduling needs. CMS has a limited number of residency programs, which support the medical program through resident supervision of students.

The number of visiting medical students completing clinical experiences through CMS is extremely small. CMS does not accept visiting students into the M3 clerkships and only accepts foreign students from foreign schools into CMS M4 electives. Therefore, visiting students have no impact upon CMS student clerkships in terms of numbers or quality.

Graduate students do not have any impact on the clinical education of medical students, but do share basic science courses. The number of research-oriented Ph.D. students is small, but the number of students in the AP and CAHMCP programs is significant. The courses shared by these students with medical students are limited to the non-laboratory courses of the M1 year. Both AP and CAHMCP groups are highly motivated and somewhat demanding of faculty time. In response to faculty concern about teaching work load, the number of graduate courses offered in the AP program was reduced during the 2002-2003 academic year.

Students from other programs in the University share a limited number of courses and clinical sites with the medical students. As part of the health care team, physician assistant and podiatry clerkships exist at sites used by the Medical School, but these students do not compete for space with the Medical School program. In the 2002-03 academic year, students of podiatric medicine joined the Gross Anatomy course of the Medical School. Scholl students shared lectures with the M1 class, but had separate laboratory times and separate exams. In the 2003-2004 year, Scholl students will be completely integrated into the M1 Anatomy course. This has prompted a 50% expansion of the laboratory and installation of a computer network with terminals at each dissection station. Overall, this will significantly enhance the learning experience for both groups.

The merger of The Dr. William M. Scholl College of Podiatric Medicine into the University caused initial concern about faculty workload. These concerns have been abated because Scholl brought its own faculty and CMS faculty have not been affected. The Scholl merger also hastened the completion of the new Health Sciences Building, which added needed space for the Medical School faculty and educational programs. University services (financial aid, registrar, student services, admissions, and others) have been expanded to accommodate the Scholl program. Thus far, the Scholl merger has had a positive effect on the Medical School.

3. CMS attracts a diverse student body reflective of the Chicago area and, to some extent, the entire nation. Given the large size of the CMS applicant pool, no special efforts have been necessary to achieve a rich gender, cultural and economic mix of students. The school has exerted a major effort through the CAHMCP program to allow capable, productive underrepresented minority students the opportunity to prove their potential for medicine and has achieved notable success in this effort. Student support programs are successful in enhancing their opportunity to succeed in medical school through supplemental instruction, tutoring and academic counseling. At present, the clinical faculty is more ethnically and racially diverse than the basic science faculty. CMS has had the active support of personnel from the CAHMCP program in attending to the needs of minority students in the Medical School. To further these efforts, Dr. Monica Miles, a psychiatrist, CMS alumna, and graduate of the CAHMCP program, was hired in June 2003 to become Director of Multicultural Affairs in the newly created Office of Multicultural Affairs.

4. The impact of transfer students and visiting students on the education of CMS students is negligible. As previously noted, very few visiting students are allowed into the CMS system. During the past 20 years, CMS has accepted very few transfer students. The decision to consider M3 transfer students is dependent upon clinical clerkship availability. Each spring, we assess the number of students moving into the M3 year, remaining in the M3 year (i.e., not progressing), or transferring out. CMS experiences two to four students per year who transfer out to other medical schools. The School considers transfer applications only if there appears to be excess clerkship capacity. With a smaller entering class in the late 1990s, CMS did accept a limited number of transfer students (three to seven per year) in 2000, 2001, and 2002. With an entering class size of 185 students, no transfers were accepted in 2003 and none are expected in the foreseeable future.

#### **B. Student Services**

5. As at most medical schools, student attrition is very small at CMS. The admissions committee has successfully worked to reduce the number of “at risk” students accepted during the past five years. The School maintains and prides itself in its supportive environment for students. Rules for dismissal, while specific, are not rigid and take into consideration the special circumstances of each student. Students are given every chance to succeed. Support services, such as academic counseling, personal and psychiatric counseling, and remediation programs, are strong. The Medical School maintains an exceptionally strong review program for students who have failed USMLE Step 1. The number of CMS students needing this program has fallen recently, while the enrollment of students from other medical schools across the country is increasing. Student support programs continually are being integrated, particularly with the recent establishment of a Wellness Center directed by LaVerne Urich, Psy.D. The Wellness Center will provide “one-stop shopping” and triage students needing support of any type, ranging from academic skills to psychiatric intervention. The Center will coordinate the current offerings from the departments of Psychiatry, Psychology, Educational Affairs, and Student Affairs.

6. The mission of the Medical School does not include geographic or specialty goals for its graduates. However, the specialty choices of CMS class of 2002 parallel national means for most specialties with several exceptions. As compared with the national averages, a higher proportion of CMS graduates enter emergency medicine, surgery, and physical medicine and rehabilitation, while a lower percentage of CMS graduates enter into family medicine, psychiatry, and pediatrics. The geographic distribution of CMS graduates largely reflects the states or regions from which they originally came with a predominance of recent graduates practicing in California and Illinois. The Medical School is more concerned with producing well-trained “undifferentiated physicians” who will further refine their career goals in residency.

The Office for Student Affairs, in collaboration with the faculty, maintains a longitudinally sequenced career-counseling program that utilizes many aspects of the AAMC Careers-in-Medicine program. Overall, students appreciate the career-counseling program but do express concern about the relative lack of contact with faculty in some specialties. Subspecialty clinical departments at our clinical affiliates (orthopedics, ENT) are generally quite small. While specialists exist in those disciplines, their numbers are too small to be effective in providing career counseling in these areas.

Residency program directors report that CMS students are well prepared for residency, a belief shared by the graduating seniors in the AAMC Graduation Questionnaire. Students have considerable flexibility in their choice of senior electives and use the process to explore residency programs, geographic locations, and specialty choices, as well as utilizing the process to round out their clinical education in specific areas. There is some belief that the time spent on non-clinical senior electives, such as eight weeks of neuroanatomy or anatomy dissection, may be excessive and detract from the rigor of the senior year. Having completed its "in-depth reviews" of the first three years, the EAC will turn to this issue in the next academic year.

7. Total student debt upon graduation is a major issue of concern to the Medical School and was one of the significant issues discussed at the LCME Secretariat Visit to CMS in November 2002. Average medical school debt for four-year graduates of CMS in 2003 was \$167,705 with more than 40% of students having debt in excess of \$200,000. While interest rates are historically low and loan default rates of CMS graduates are only about 1%, such high debt levels are still difficult for graduates to manage. The source of this debt is instructive to its solution. Student tuition accounts for about two-thirds of student expenses. Living expenses and related costs make up the remainder of the debt. This proportion of tuition and living expenses has remained constant during the past 10 years. Student budgets for living expenses are quite conservative, but not so onerous as to require large alternative debts, such as credit cards.

While high tuition is the general rule among private medical schools, the CMS tuition forms the major source of institutional income (more than 55% of revenue) because the Medical School currently does not benefit significantly from faculty practice plans, clinical income, or significant indirect costs from externally funded research. Clinical research income is very small. Development and fundraising have not been historic strengths of the University. With this high tuition, student debt is further exacerbated by the lack of University resources to provide grants or scholarships. Historically little attention has been given to fundraising for student scholarship support.

The new administration has committed to reducing student debt in two ways: through an immediate tuition reduction plan and also through a long-term commitment to increasing non-tuition income.

The immediate tuition reduction plan begins with the 2003-2004 academic year. As part of the plan, the administration and Board of Trustees have frozen tuition at current levels (\$36,740 per year) for a five-year period. This has an impact of about \$1 million per year in reduced tuition. Secondly, the administration has supported a proposal by the Office of Financial Aid to reduce and restructure medical student debt. The Graduated Assistance Plan is a need-based program of tuition reduction that will be available to approximately 30% of the M1 and M2 classes and 60% of the M3 and M4 students. Under this plan, medical students with qualifying need will receive a \$500 tuition reduction in their M1 year, \$1,000 reduction in the M2 year, \$10,000 reduction in the M3 year and \$10,000 reduction in tuition in their final year of medical school. The plan will reduce average student debt, among those who have debt, by \$15,000 and will focus its benefit on those with the greatest need. The number of CMS students graduating with exceptionally high debt will be greatly reduced. The program will begin with the entering M1 class. By the time the program is fully implemented, it will cost the Medical School more than \$2 million per year. A significant ancillary effect of the

Graduated Assistance Plan is that, by reducing borrowing among needy students, student borrowing can be focused on low-cost loan plans, reducing the need for all students to use expensive loan programs. In this way, the Graduated Assistance Plan will benefit all student borrowers.

CMS student fees have historically been low. Last year, they were further reduced when the Medical School received a number of microscopes from Scholl College and purchased other microscopes for use by students, thereby eliminating the need for rental.

A number of other initiatives have been implemented to reduce student debt, including the following:

- Implementation of a federally subsidized Work/Study program to allow students to work to reduce borrowing.
- Addition of University housing with 180 student residences (serving 240 students). Located on campus and equipped with high-speed access to the University's academic servers, these facilities are purposely rented at below market rates for comparable housing facilities.
- Increasing the stipend for M.D./Ph.D. students.
- Initiation of campaign to raise scholarship funds

These are major and costly interventions that will have a significant effect on lowering student debt and reducing the maximum debt incurred. A true solution for this problem can only come from a long-term strategy that increases University income from non-tuition sources. To that end, a University Development Office was established four years ago. While fundraising for student aid has been small, the Office has been successful in establishing relationships with alumni groups that promise assistance in the coming years.

Ultimately, any effort at reducing student tuition for the long term will require the development of alternative sources of revenue. President Welch has articulated the need for a strong strategic alliance between the Medical School and a major clinical partner. Such a partner could provide a venue for clinical research and clinical income to the Medical School. Dr. Welch has initiated conversations with major clinical entities in the Chicago area. Such discussions are highly preliminary at this time, but hold some promise. The timeframe for development of such an alliance is estimated at three to five years until completion.

In the face of high tuition and high student debt, the Office of Financial Aid offers an excellent program of debt management and financial counseling to students. Students report finding the office to be responsive, friendly and helpful. The Office of Financial Aid has implemented an organized and comprehensive debt management program, from the pre-orientation package to exit interviews, that includes loan debt calculators on the University Web page and newsletter suggestions through electronic mail. The Director of Financial Aid has been invited to present the CMS Financial Aid program as a model at the 2004 AAMC Professional Development Conference for Financial Aid Officers.

8. Personal counseling and mental health services are offered by several departments within the University. The Psychology Department manages the Student Counseling Center, which is staffed by senior graduate students in clinical psychology who work under the supervision of departmental faculty. This center provides general support services, such as stress management, time management and short-term counseling. The Psychiatry Department provides short-term intervention, pharmacotherapy, and short-term psychiatric services, as well as neuropsychiatric evaluation of potential learning disabilities, through the University Clinics. When necessary, students are referred to community psychologists and psychiatrists. Students report satisfaction with the availability and

quality of these services, although some have felt that the services could be more widely marketed to students. For the 2003-2004 academic year, these services will be expanded and integrated by the establishment of a Student Wellness Center. A clinical psychologist, who has 30 years experience working with medical students, has been hired to include counseling and mental health services as part of a continuum with academic counseling and other support services. Mental health services will remain confidential and professional.

Students requiring medical attention are seen at the University Clinics. Student health insurance has been challenged by dramatically rising costs. Two years ago, the University moved its insurance plan from one vendor to another in order to control costs to students. The replacement plan suffered from more limited coverage and poor customer service. A student-led committee, in collaboration with the Office for Student Affairs and the business office, has recently selected and negotiated a new student health insurance package for the 2003-2004 year. Disability insurance is required for all medical students. The insurance plan is one negotiated and chosen by a consortium of Illinois medical schools. This appears to be a good plan by comparison with other medical schools.

Student immunizations are closely monitored for completion and documentation by a physician assistant who works with the Office for Student Affairs. This is a major undertaking necessitated by the immunization requirements of our various hospital partners before students are granted access.

Education of students about body fluid exposure and other environmental hazards is comprehensive and a required part of the Introduction to Clinical Medicine course. For the 2002-2003 academic year five students reported needle stick or similar exposure to body fluids. The Senior Associate Dean for Student Affairs maintains a log of all reports and follows up to assure proper testing and treatment are done at the respective hospital.

### **C. The Learning Environment**

9. The University has developed and maintained strong policies on student mistreatment. Beginning nearly five years ago as a statement and policy on sexual harassment, the policy has been expanded to cover more general issues of student mistreatment by utilizing the same network and procedures of First Response Intermediaries from the sexual harassment protocol to deal with more general student mistreatment. The policy is well written, utilizes the expertise of a national expert, is widely distributed in student handbooks and on the University Web site, and is perceived as being very effective in dealing with issues as they arise. A mandatory refresher course on sexual harassment issues for faculty and administrators was held in the spring of 2003.

10. The SEPAC Guidelines, which make up the Medical School policies on student evaluation, promotion and advancement, are well established, stable, and widely distributed to each student and course director via print and University Web site. Student records are maintained on the University campus with ready access for students during business hours. Federal (FERPA) guidelines are carefully followed. Students, especially those in clinical venues off campus, desire easier access to their grades via electronic media and the University is exploring methods to provide "online" transcripts in a secure manner. Such a system will be put in place during the 2003-2004 academic year.

11. While student study space has been a source of contention for many years, indicators suggest that most complaints are based upon a desire for more lavish surroundings, rather than actual need. A focus group of student leaders has found that the current amount of study space is adequate for student needs. Truly "quiet" space, however, was deemed to be inadequate within the Boxer Library. Therefore, a separate quiet study space was established in the Parquet Room, a 2,500-square-foot room on the lower level of the Basic Science/Administration Building (former Rathskellar) during the

spring of 2003 and appears to have met this need. For a small University, current lounge and recreation areas are adequate for student needs. The Student Union replaced the much smaller Rathskellar. Exercise and game facilities have been expanded in the new Health Sciences Building. Personal storage facilities are adequate on campus and in most clinical venues. Lockers are available on campus for every medical student desiring one. While facilities are variable among hospitals, all educational sites have adequate facilities for students. Study space, lounge space and other amenities have been enlarged with completion of the student residences in the summer of 2003.

#### **IV. FACULTY**

##### **A. Number, Qualifications, and Functions**

1. The basic science faculty may be viewed in its entirety and also by department. This section will begin with an overall assessment of the basic science faculty and will finish with a description of each department.

Viewed overall, the basic science departments do a very good job of meeting the goals of the Medical School in education and service, but modestly so in research. One of the true strengths of the Medical School is its cadre of dedicated faculty. The membership of the faculty has been quite stable over time.

The educational goals are particularly well met. The basic science courses are well designed and delivered, and student ratings of individual courses are quite high. Medical students are consistently successful on USMLE examinations.

Members of the basic science faculty provide the disproportionate amount of the service needs of the school. Due largely to their disproportionate presence on campus as compared with clinical faculty, basic science faculty members do the major work on faculty committees and Medical School and University faculty governance; likewise, they serve as the primary members of governance and committees within the Graduate School. Basic science faculty also provide most of the funded research for the University. On the other hand, the amount of research income from basic science faculty as a whole is well below national norms. New support for research faculty in their grant writing and grant management will be provided by the Office of the Vice President for Research/Dean of the Graduate School and the new Faculty Development Office. The President's Office has made significant commitments of equipment and faculty positions to basic science departments to bolster this area.

Departmental operating budgets are small, but adequate to provide for the teaching and service goals.

Issues facing the basic science faculty, from their point of view, include the following:

- **Stability of Leadership:** In spite of the fact that there are two open Chairs and several openings are expected, most Chair positions are very stable, with many Chairs having served for a decade or longer. Two current Chairs have served for 20 years or more.
- **Consistency of Leadership:** Chairs have been responsible for the majority of faculty development and mentoring issues for their faculty. There has been some variability among the Chairs as to their success in this area. Some are very diligent and successful, while others have exhibited the need for improved development and mentoring skills. This has been the impetus for establishment of a Faculty Development Office and the Office of the Vice President for Faculty and Educational Affairs. It is also clear that the Chairs will need to be

held accountable for consistency in faculty development as part of their obligation to the Dean.

- Faculty numbers are small overall, but adequate for current educational needs with moderate faculty teaching loads.
- Faculty members have expressed concern over inadequate numbers of junior faculty members in the basic sciences. While this is, in part, a testament to the stability of employment at the University, it also creates a deficit in terms of creative, fresh junior faculty. The Medical School formerly maintained a “revenue neutral” hiring policy, under which the hiring of new faculty was allowed to take place only if new faculty could bring adequate grant money to offset the cost of their hire. This policy, which was in place for 10 years, garnered fiscal responsibility, but favored more senior investigators at the expense of junior faculty. For this reason, the policy has been abandoned by the new administration.
- Finances of the departments also consist of small operating budgets although sufficient for educational needs. The University has implemented a revenue sharing plan with the basic science departments that recognizes faculty success in obtaining external funding by feeding money back to the department for recruitment and equipment.
- Basic science faculty salaries are almost completely budgeted with “hard money” from the University, although faculty are encouraged to recapture salary from grants. This is a major asset to faculty and departments and a significant asset for recruitment. On the other hand, faculty compensation has not been closely linked to productivity. Future faculty raises will be merit based. A faculty committee has been charged with recommending a process whereby faculty merit raises will be determined in order to provide guidance to department Chairs who will carry out the policy.
- Space for departmental needs is quite generous and well maintained. Facilities for educational and administrative needs are good. Research space in the 20-year-old Basic Science/Administration building is aging. It is still adequate and well maintained but does not represent state-of-the-art design or resource.

*Comments about individual departments:*

- Biochemistry and Molecular Biology: This department has a strong research program and is well funded. Its teaching program is strong and includes major responsibility for medical courses in Molecular and Cell Biology and Biochemistry. Faculty numbers are small and substantial recruitment is underway. Both space and bioinformatics support have been added to create a strong research department. The department has been provided with several major pieces of equipment, such as a mass spectrometer and X-ray diffraction equipment, to support its research effort. As a strong research department, it provides good support to graduate student education. The department is chaired by Dr. Kenneth Neet.
- Cell Biology and Anatomy: This department has successfully carried out its substantial teaching load, including Gross Anatomy, Embryology, and Histology courses. It has some faculty members who are funded and others who are not. Dr. David McCandless has been Chair since 1988 and will step down as Chair in the summer of 2003.
- Cellular and Molecular Pharmacology: This department and its Chair, Dr. Francis White, have a nationally recognized research program with strong external funding. Teaching quality is excellent. The department offers the Pharmacology course in the medical curriculum and the Molecular and Genetic Basis of Disease course for Applied Physiology students.
- Microbiology and Immunology: This department has a strong history of research in immunology. Recent retirements have affected both research productivity and perceived teaching quality in the Medical Microbiology and Immunology course. However, students continue to score well on USMLE Step 1 in this area. The department also participates with

Pharmacology in the Applied Physiology course, “Molecular and Genetic Basis of Disease.” Dr. Yoon Berm Kim has been Chair for almost two decades. He will retire from the chair position in the summer of 2003.

- Neuroscience: This is the newest basic science department, having been founded a decade ago. The faculty numbers are modest, but their research productivity and funding are very strong. Dr. Marina Wolf is currently Acting Chair and will share leadership responsibilities as permanent Chair with a strong Vice Chair, Dr. Marjorie Ariano.
- Pathology: Funded research from this department is small. The members of the department are almost totally dedicated to teaching. Their teaching quality is excellent. According to the Graduation Questionnaire, Pathology receives, by far, the highest student ratings of any course in the Medical School curriculum. Members of the department faculty have long tenure, with several retirements happening or expected. Dr. Arthur Schneider has been Chair for 28 years, but will relinquish the chair position this summer.
- Physiology and Biophysics: The department has a heavy teaching load and receives high student ratings. While the department is larger than most others, it contains an unacceptable number of faculty members who are not active in research, but focused on teaching or administration. The core research faculty of the department is small and needs reinforcement and leadership to meet its research needs. Dr. Charles McCormack is serving as Acting Chair.

One can discern from the above that several changes are underway among the basic science departments. Similar changes are underway in the clinical departments. A description of the process by which such changes are being managed follows the description of the clinical departments, prior to the answers for item #3 of this section.

2. In the clinical departments, two unique issues affect department structure and effectiveness. First, the clinical departments are largely based in clinical affiliates. The CMS Chair is frequently the Chair of the corresponding department in a clinical affiliate. Departmental staff support comes primarily from the hospital in which the Chair is located. However, the Medical School has provided supplemental staff support for medical education in several hospital departments.

Overall, the clinical departments are very good at providing for the educational needs of the Medical School. The affiliates are first-rate clinical and educational medical centers and have filled that role for many years. Each department takes responsibility for maintaining a quality, consistent educational program across each of its sites. From the Introduction to Clinical Medicine course, which starts in the first week of the medical curriculum, through clinical correlations in basic science courses, M2 electives, M3 clerkships, and M4 electives and Sub-internships, the clinical departments are heavily involved throughout the curriculum.

Clinical departments also provide extensive service to the Medical School and University. Clinical faculty are often unable to participate in faculty governance and Medical School committees due to their distant locations and the demands of clinical practice, but a number of dedicated CMS faculty do fill this need.

Clinical research and clinical income to the Medical School are very small. While both research and practice income are present in clinical departments, the great majority of faculty are paid by and report to their respective hospital systems. Research and clinical income are the purview of the clinical affiliate. The small magnitude of income and service coming from clinical research and practice are both a source of concern and an opportunity for the Medical School. This is a challenge for the Vice President for Clinical and External Affairs.

Positive and negative issues facing the clinical faculty include the following:

- **Stability of Leadership:** Most departments have had the same departmental Chair for many years. Even two departments with acting chairs, pediatrics and neurology, have had the same acting chairs for several years. This has provided continuity and strong working relationships with the Dean's office and with other Chairs.
- **Faculty Numbers:** Faculty numbers have been adequate for educational needs. There are more faculty who teach CMS students than are apparent from faculty lists because many of the clinical staff of CMS affiliates have appointments at other medical schools in Chicago. Illinois Council of Deans policy prevents faculty from holding rank other than lecturer at more than one school, even if they participate in the education of more than one school. Nonetheless, CMS Chairs and Deans have campaigned to include all clinical faculty at CMS affiliates with academic rank where appropriate.
- **Finances:** The finances of each clinical department are strongly dependent on the clinical affiliate in which the department is based and its clerkship sites. Only Family and Preventive Medicine, Medicine, Psychiatry and Radiology departments have their department offices at the Medical School. The school provides appropriate support to each clinical department for the educational program.
- Except for Medicine, Family Medicine, Psychiatry and Radiology, clinical departments are housed in clinical affiliate facilities. Space and facilities are provided by the hospital affiliate. Medicine has its administrative offices at the Medical School. Psychiatry has its administrative and most faculty offices at the Medical School. Family Medicine and Radiology have a Chair's office at the Medical School.
- **Productivity:** As noted above, teaching is very good in the clinical departments, patient care in our affiliated hospitals is excellent, clinical research is undeveloped and practice income to the Medical School are very small.
- CMS clinical departments offer only three CMS controlled residency programs — Internal Medicine, Psychiatry and Surgery — in addition to five fellowship programs in Medicine. A broader range of CMS residency programs is sought by clinical faculty. On the other hand, the existing residency programs are fully accredited. Residents in these programs have a high pass rate on specialty board exams.

*Comment on Chair Vacancies:*

Recognizing that a significant number of Chair positions are vacant, some having been so for a significant duration, Dr. Welch and the President's Cabinet established a blue-ribbon committee of faculty, the Ad Hoc Committee on Chair Appointments (ACCA). The committee, chaired by Dr. Kenneth Neet, includes Dr. Charles Barsano, Interim Dean of The Chicago Medical School, and respected faculty from across disciplines. This committee's charge is to examine the various open Chair positions and departments and to make recommendations to Dean Barsano and President Welch as to potential avenues of resolution of these issues. The committee was appointed in May 2003 and has been exceptionally active and diligent in its deliberations. No committee outcomes or recommendations have been made public at the writing of this report but will be available by the time of the Survey Visit.

3. Overall, the Medical School is competitive with other institutions in recruiting and retaining faculty.

Factors that facilitate faculty recruitment and retention:

- Groups of recognized excellence in certain basic science research areas

- Very good faculty benefits packages
- Strong faculty involvement in governance and control of the academic program
- Collaboration possibilities in the Chicago area
- Modern and attractive facilities on the North Chicago campus
- Clear and generous policies on promotion and tenure
- Collegial faculty atmosphere
- Attractive location
- A spirit of optimism and change that has come with the new administration.

Factors that hinder faculty recruitment and retention:

- Lack of name recognition of the school
- Historically, start-up packages for incoming research faculty were limited; currently start up packages are very responsive.
- Suburban (isolated) location of the school
- Lack of School-owned and controlled clinical facilities.

The current mix of faculty works well in providing a quality medical education. It is a diverse group of individuals from many backgrounds. The Medical School would prefer to have a stronger representation of female faculty and a broader representation of minority faculty, especially from underrepresented minority groups, to better reflect the mix of students and provide better mentoring and guidance. Overall, however, the faculty does an excellent job.

4. There are several opportunities for faculty development in the areas of teaching and evaluation. Until this year, such training was provided, in large part, by the individual departments. More recently, the Educational Affairs Office and the Office of the Vice President for Faculty and Educational Affairs have increased programming in this area. The Faculty Development Office, once fully operational, will expand these opportunities.

## **B. Personnel Policies**

5. The guidelines for appointment, promotion, tenure and dismissal are clearly written and described in the University Faculty Bylaws. Medical School Bylaws are consistent with the University policies. In turn, each department has internal guidelines for promotion and tenure that have been approved by the Appointments Committee, Academic Assembly, and the Dean. The process and policies are clear and broadly distributed to faculty. By rule, the Bylaws must be reviewed every three years.

Currently, the paperwork and time duration involved in an initial faculty appointment is being discussed. Both appear excessive. An ad hoc committee of faculty, Personnel Department staff, and the Vice Presidents for Faculty and Educational Affairs and Finance and Administration are discussing paperwork reduction and methods to shorten the time interval between a Letter of Intent to a new faculty member and final approval of appointment by the Board of Trustees. These changes seem quite possible and should be in place by the next Board meeting in September 2003. Already this year, an amendment to the Bylaws has changed the process for newly hired faculty in the clinical educator track that will reduce the time required for processing.

6. Conflict of interest policies are institutional documents and form part of the University Bylaws. These have worked well to create an atmosphere of ethical conduct, responsibility and compliance.

7. As described at length earlier in this chapter, we perceive that there may be some unevenness among departments in providing consistent guidance to faculty about their individual approach to promotion and tenure. In most departments, the department Chair takes responsibility for this function annually and the process works well. The new Faculty Development Office and Vice President for Faculty and Educational Affairs will try to centralize this information and provide assistance to faculty and Chairs in disseminating such information. Similarly, faculty responsibilities are clearly stated in the annual faculty review and documented in the current Faculty Activity Report. A Committee on Faculty Assessment is developing a new process for annual faculty evaluation and merit pay. This process will require statements of faculty responsibilities and accomplishments in order to document their productivity. This committee will give its recommendations to the faculty and the President's Cabinet by the fall of 2003 and will be prepared to educate Chairs and faculty on the process by the winter of 2003-2004.

8. A high value is placed on educational contributions in consideration of promotion and retention of faculty. The Appointments and Promotion Committee requires documentation of educational participation and quality from the Chair for each recommendation for promotion. The Medical School requires some combination of each of the following three areas of effort: scholarly activity, research, education, clinical activity, and service. Faculty may be promoted with one area (e.g., education) being much stronger than the other two. Chairs have some flexibility to use the strengths of the department faculty in differing ways to support the mission of the department. The University recognizes both research and teaching excellence with awards each year prior to Commencement.

### **C. Governance**

9. Organizational decision-making under the current administration is characterized by openness, inclusion, and information. Faculty committees, both standing and ad hoc, are heavily involved with planning and decision-making. Faculty, chairs, and administrators share information at Education Forums, Presidential convocations, University Senate, Academic Assembly meetings, departmental review and e-mail. This renewed approach to organizational decision-making has been well received and widely characterized as quite refreshing.

10. Communication with faculty is improving. The President and Dean are both open and forthcoming at meetings of the Academic Assembly and Senate. The Chief Academic Officer has started a periodic electronic newsletter to faculty with items of interest. The University Web site also is frequently used as a faculty information resource.

## **V. EDUCATIONAL RESOURCES**

### **A. Finances**

1. Financial support for the Medical School comes predominantly from student tuition. As a private school, CMS receives only small state and local appropriations. University reserves are greater than at the 1998 Survey visit but are not well endowed. The only significant research income stems from the basic sciences and it is of low order. Development income is small, but growing with the new Office of Development. Because the University does not own a hospital, clinical revenues and clinical research income are also extremely limited. The University Clinic is the sole source of potential faculty practice income. Until 2003, the Clinic lost money each year. Under the leadership of Dr. Ramadan, Vice President for Clinical and External Affairs, these losses have been reversed, but the Clinic does not earn significant revenue as yet.

Unfortunately, without a significant intervention, these revenue streams appear to be unlikely to change. Therefore, it is a goal of the Medical School and the University to effect a strategic alliance between the University and a major clinical partner. The goals of this alliance for the Medical School would be to provide a venue for clinical research and clinical practice for Medical School faculty, to open the possibility of income to the Medical School from patient care and clinical research, and to further solidify the clinical education of medical students. President Welch and Vice President Ramadan have begun a search and due diligence process to identify and collaborate with a clinical partner. This process is estimated to take three to five years to bring to fruition.

2. New emphasis is being placed upon reducing our dependence on tuition. Venues and programs that lose money (e.g., the University Clinics) are being addressed, as are expenditures across the board. Basic science faculty members are being encouraged to increase grant income. The expectation of grant funding is being clearly expressed by the President and Dean. Strategies are being put in place to help faculty meet these expectations; including, new departmental Chairs, a commitment to hiring in departments that are active in research, support from a new Faculty Development Office and a renewed Office of the Vice President for Research, and a new system of merit-based salary increases. Completion of a clinical alliance to provide greater clinical income will complement the medical education. In fact, the entire emphasis of these efforts is to reduce student tuition and increase the quality of clinical education.

3. As noted above, the “clinical enterprise” (practice income and a healthcare system) is currently rudimentary, at best. Planning is occurring to implement a clinical alliance with a major clinical partner. Such planning is occurring at all levels of administration, including the Board of Trustees, President, Vice President for Clinical and External Affairs, and the Dean. The planning program includes both strategic planning and image building for the Medical School and University. Programmatic planning for centers of excellence in research, for a new clinic, and for a bio-terrorism preparedness research and clinical unit are underway.

4. The financial condition of the school is good. In the mid 1990s, the bond issue for the Basic Science/Administration Building was paid off and the University was essentially debt-free. A bond issue was placed in 2002 to build the Health Sciences Building and three new student residence buildings. This bond issue also funded the building of the Education and Evaluation Center (OSCE facility), expansion and upgrade of the Anatomy lab, and other improvements. Additionally, the annual budget for the University was increased by nearly 25% for the 2003-2004 academic year, with no expected dependence on reserve funds. This includes the major initiative to reduce student debt described in Chapter 3. With the strong support of the Board of Trustees, these initiatives are being funded within current revenue streams. Additionally, in 2003, the University contracted to sell the former home of Scholl College of Podiatric Medicine, located at the corner of Oak and Dearborn in Chicago. The former location of the University, 2020 W. Ogden Avenue in Chicago, is scheduled to be demolished in September of this year. Planning is underway to redevelop or sell this property. The University is operating within its means and seeking to diversify and increase its non-tuition revenue streams.

## **B. General Facilities**

5. The facilities on the 3333 Green Bay Road campus are modern, well designed and well maintained for teaching and learning. Library facilities are excellent and have been recently expanded to provide greater study space and computer laboratory access for students and course designers. Classroom space of all types is abundant with the addition of the Health Sciences Building and expansion of the Learning Resource Center’s Computer Center. The opportunity for educational (curricular) change is not constrained by space concerns.

The new Health Science Building was completed in August of 2002. It added 140,000 square feet of academic and administrative space to the campus. A new and larger bookstore, mailboxes, student union and lounge, exercise facility and game room were added to the University with this building. The concentration of offices of the School of Related Health Sciences and Scholl College of Podiatric Medicine in this building also brought amenities that broaden the experience of medical students. Among them include a Gait Laboratory, Orthotics Laboratory, and the Feet First Museum. In addition, the Psychiatry and Psychology Departments also moved onto the 3333 Green Bay Road campus into this building, which brings more clinical faculty into close contact with the medical student body.

Two new elements to the physical plant will be completed this summer — the Education and Evaluation Center and the expanded and upgraded Anatomy Laboratory.

The Education and Evaluation Center (OSCE facility) is a state-of-the-art 5,705-square-foot facility with 14 independent examination rooms, a reception area, standardized patient administration offices, observation and control rooms, and conference rooms. Each room will have cameras, digital recording devices, computers, and other electronic facilities. Staff members for the facility have been hired, including both professional educators and support staff. A panel of “standardized patients” will be hired and trained. This facility should be physically operational by August 2003.

The Gross Anatomy Laboratory is being expanded by 50% of its floor space. Each dissection area will be equipped with a 17-inch flat-screen monitor, keyboard and mouse suspended by a flexible arm from the ceiling. The mounting arm will also hold two directional lights to highlight the dissection area. Each computer will be linked to server-based software providing a Web-based dissection guide with ancillary resources for students (e.g., dissection videos, electronic atlases, course syllabi). Images on the monitors can also include pro-sections being shown live via a wireless digital video camera in the laboratory. Substantial improvements are also being made to the air handling system and lighting of the laboratory.

Technology for teaching meets current needs, but is being upgraded by the addition of computers, video projectors and wireless technology. The President has committed to support an Office of Technology in Teaching (OTT), as recommended by the Medical Education Enhancement Committee. The OTT will include faculty and Information Technology staff and will plan for and facilitate the implementation of a Web-based curriculum, wireless distribution, and other computer-based curricular elements in collaboration with the faculty curriculum committees. Information technology resources have been recently combined into one unit reporting to the Chief Operating Officer. This unit is also being strengthened with the addition of new personnel and expertise.

The physical resources at the University are continually being upgraded and enhanced to meet the needs of a changing institution. Free parking is plentiful, making the University easily accessible to students and faculty. Three new student residential buildings were opened in the summer of 2003, providing competitively priced University housing on campus for the first time and enhancing the atmosphere of the campus and student life. Odor from autoclaving food for the specific pathogen-free pig facility in the Animal Care Facility remains a concern, but this facility is expected to be closed in the near future.

Research space for faculty is good in the Basic Science/Administration building for bench research. Facilities are about 20 years old and have been relatively well maintained, with minor exceptions regarding aging equipment that is due to be replaced.

Facilities for clinical research and clinical service are not generally available outside of the clinical affiliate hospitals. The University Clinic is the only clinical venue owned by the Medical School. The Clinic was expanded and moved from the Basic Science/Administration Building to a separate building on campus two years ago. The Clinic building has been renovated and retrofitted. Studies are currently underway as to whether to expand the Clinic in its current space or move it to a new building.

Affiliate hospitals of the Medical School are full-service medical centers with a track record of use in clerkship education. The opportunity for clinical research and clinical practice is provided for clinical faculty by the affiliate hospitals of the Medical School. However, faculty efforts there benefit the hospital system, not the Medical School.

Overall, space concerns do not prohibit the Medical School from carrying out its mission or implementing new educational initiatives. Faculty members have access to a flexible room-scheduling system by which they can adjust the room or venue where classes are held to accommodate changes in structure or pedagogical objectives.

6. Security on the Medical School campus is excellent. Security has been increased since the terrorist activities two years ago with ID card access to the campus buildings, video security monitoring throughout the campus and on-site security personnel. This University sits on federal property immediately adjacent to the North Chicago Veterans Administration Medical Center and Great Lakes Naval Training Station, further enhancing its security. Security at affiliate hospitals is maintained by the hospitals and monitored by the Medical School. The security arrangements are quite sufficient.

### **C. Clinical Teaching Facilities**

7. The Medical School utilizes a number of clinical affiliate medical centers and hospitals for the clerkship training of its students. Each is a front-line teaching hospital, many sharing affiliations with more than one medical school. The oldest of the clinical affiliates, the legendary Cook County Hospital, has been replaced with the new, cutting-edge John H. Stroger, Jr., Hospital of Cook County.

The patient mix varies by hospital and overall provides a variety of diverse clinical experiences for the M2, M3, and M4 students that is unmatched by any single clinical facility. This is a strength of the CMS educational program. Patient mix is monitored by the student Patient Logs for each clerkship and site. The number and quality of clerkship slots in each specialty and location are closely monitored by the Medical School departments, the Office for Educational Affairs, and the Dean's Office. Criteria for quality clerkship location include an adequate number and mix of patients and appropriate supervision. In each department offering a clerkship, a clerkship director supervises the clerkship. Each site at which the clerkship is offered has a "site director" for that clerkship who reports to the clerkship director. The site director is responsible for the successful implementation of the clerkship curriculum at that site. Each clerkship director reports to his or her departmental Chair and collaborates with the Assistant Dean for Clinical Education (formerly Clinical Clerkship Coordinator) or other members of the Office for Educational Affairs to ensure the consistent delivery of clinical education across sites. The departments themselves meet regularly (monthly to quarterly, as noted in the Database), gathering site directors from all sites to coordinate and evaluate the educational program of the department.

Affiliate hospitals are required to comply with the Medical School's established guidelines for students and teaching, and are regularly monitored. Affiliate hospitals are all either full-service hospitals or hospitals suited for the clinical education of students in a specific discipline. The great

majority of students are taught in facilities that have full-time residency programs. Many of these facilities share affiliations with other medical schools, including Loyola University Stritch School of Medicine, Rush Medical School, University of Illinois at Chicago, and Yale University.

There are currently adequate facilities to provide high-quality clerkships for the CMS class size with some flexibility in each clerkship to move limited numbers of students from one site to another. Ambulatory facilities are heavily used in some clerkships. In those areas, availability of sites, patients and preceptors is excellent.

8. The interaction between the administration of the Medical School and affiliate management is very good. From the Medical School side, this involves the President, the Vice President for Clinical and External Affairs, the Interim Dean (Senior Associate Dean for Clinical Affairs), and the Senior Associate Deans for Educational and Student Affairs. From the affiliate side, the conversations include hospital CEOs, Directors of Medical Education, and department Chairs. Each major affiliate has a CMS Associate Dean on site. The interactions between CMS and its affiliates include liaison planning committees, Medical Education Executive Committees, and personal visits. These interactions provide clear understanding of responsibilities of all partners in the education of medical students, provide early notification of change and its implications, and lead to complete understanding of shared goals.

9. There is very good cooperation between hospital staff at clinical education sites, moderated by the site directors, clerkship directors and departmental chairs. As noted above, the site director for the clerkship at a given hospital is responsible for coordination of faculty and resident involvement in education at that site. A preceptor's guide for each clerkship is available to aid hospital faculty to be consistent with the CMS goals for education on each clerkship.

#### **D. Information Resources and Library Services**

10. The Boxer University Library is a well-designed, well-supplied facility. Print holdings are very good and appropriate for medical students, graduate students, and faculty. The Library is working to keep up with faculty demand for electronic journals and has recently increased the numbers of electronic journals received.

11. Information technology services and the University Web site have been only adequate in the past with two separate units — one serving the hardware and network needs and another focusing on academic programming. Both were inadequately funded. In 2003, these units were merged under the Chief Operating Officer. With this new organization, new and additional personnel, and better funding, there has been a major emphasis on bringing technology to the faculty and students. The University Web site has been upgraded and is being used for curricular purposes by a number of departments. The Medical Education Enhancement Committee (MEEC, a subcommittee of the Educational Affairs Committee) and the Senior Associate Dean for Educational Affairs have been working with the Information Technology unit to explore and perhaps implement new technology in education. Planning is in the early stages, but MEEC is exploring the following:

- Web-based curriculum with course resources linked to the academic calendar and searchable by topic
- Wireless access to the Web on campus
- Online registration and payment for courses
- Online, secure access to grades.

The Information Technology unit already supports the use of WebCT®, virtual office hours, Web-based quizzes and Web-based syllabi for various courses. Each student has access to a free e-mail account from the University.

There are a number of resources that are available on the University Intranet that are not available outside the University because of copyright and other limitations. These limitations should soon be alleviated through the addition of a new server to provide access to University faculty and students accessing the system from outside.

The information systems of the Medical School and the clinical affiliates are completely independent of one another. This has, however, not been an impediment to the educational program.

12. The Boxer University Library is a large and attractive facility. It is open from 8:00 a.m. to midnight, with extended hours during exam periods. Students make heavy use of the library for study space. A limited number of rooms and computer facilities are open 24 hours per day. In response to student request, the former Rathskellar, outside the library, was converted to 24-hour, quiet study space in 2003. It is always available. Study space has also been added with the Student Union in the Health Sciences Building.

The Learning Resource Center includes the Boxer Library as well as several computer laboratories. Students use these facilities to study pathology and histology images, access the University Web site and catch up on their e-mail. Facilities appear adequate for current demand and are heavily used by students. Assistance with computers and general library functions is readily available.

An audiovisual department provides equipment and support for a full range of resources for faculty and student use.

13. The library staff is well informed and helpful to both students and faculty. Library personnel provide training to both faculty and students regarding computer use and bibliographic searching. Library personnel have provided free tutorial courses to faculty and staff in the use of presentation and office software, such as Microsoft PowerPoint, Excel and Word. The library senior staff has an excellent working relationship with the Senior Associate Dean for Educational Affairs toward coordinating and meeting curricular needs. The library staff has enabled an "Ask the Librarian" feature on the Web site, and has also made inter-library loan requests available online, further enhancing the utility and scope of services to students and faculty.

The staff of Information Technology is now providing good support for curricular needs (e.g., the Anatomy Laboratory and OSCE). They are working closely with the faculty, curriculum committee, MEEC and Senior Associate Dean's Office to explore and implement new technology for curriculum support. Support of the computing needs of individual faculty members has been variable. However, efforts are being made to improve this through better education and agreement on a limited number of University-supported computing platforms that can be more easily serviced.

## Summary:

The faculty and administration approach the September Survey Visit in an atmosphere of great and welcome change. The Database describes the state of the school in 2002-2003, but we have moved so far even since the initial compilation of the Database. Updates to the Database and the Self-Study documents have continued almost daily.

Strengths identified during the self-study:

1. Engaged and supportive Board of Trustees
2. Strong leadership team that has generated an attitude of excitement and change.
3. Fiscal stability with minimal debt
4. Open and participatory governance and budgetary processes
5. Proven core curriculum with solid and improving student performance on USMLE Step 1 and Step 2
6. Modern and spacious physical plant and educational resources
7. Diverse, talented student body
8. Enhanced student and faculty support structures; including:
  - A. Office of Multicultural Affairs
  - B. Office of Technology in Teaching
  - C. Office of Faculty Development
  - D. Student Wellness and Mental Health Centers
9. Faculty from many segments of the health care team

Weaknesses identified during the self-study:

1. Inadequate basic science research income
2. Inadequate clinical research productivity and income
3. Inadequate clinical practice opportunities and income
4. High student debt with over-dependence on tuition as a revenue source
5. Curriculum needs review with regard to integration and competency-based assessment
6. Stagnation in departmental leadership and accountability

Goals for the next five years:

1. Develop and execute a strong strategic plan for the medical school
2. Develop and execute a marketing/branding program to focus the image of the school
3. Execute a strategic alliance with a strong clinical partner to benefit clinical practice, clinical research and clinical education
4. Diversify the University revenue stream to reduce dependence on tuition
5. Expand faculty development in areas of personal advancement, educational techniques, and research
6. Develop the Education and Evaluation Center to serve undergraduate and graduate medical education, as well as the local medical community
7. Review and revise the curriculum to provide competency-based curriculum plan, emphasizing:
  - i. Integration across years and courses
  - ii. Electronic support for the curriculum
  - iii. Expanded range of topics included in the formal curriculum



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