

**SB 345 QUALITY PERFORMANCE GRANT PROGRAM
INSTITUTIONAL IMPROVEMENT PLAN**
Progress Report for the Period July 1, 2001 through June 30, 2002

**University of Kansas
Medical Center Campuses**

The mission statement of the University of Kansas Medical Center describes the Medical Center in the following terms:

The KU Medical Center is a major research institution primarily serving the state of Kansas as well as the nation and the world, and assumes leadership in the discovery of new knowledge and the development of programs in research, education, and patient care. Our mission is to create an environment for:

Instruction. *The KU Medical Center educates health-care professionals to primarily serve the needs of Kansas as well as the region and the nation.*

Research. *The KU Medical Center maintains nationally and internationally recognized research programs to advance the health sciences.*

Service. *The KU Medical Center provides high-quality patient-centered health care and health-related services.*

The University of Kansas Medical Center is composed of the School of Medicine, located in Kansas City and Wichita, the School of Nursing, the School of Allied Health, and a Graduate School.

The mission of the KU Medical Center thus meshes closely with the core indicators for improvement identified by the Kansas Board of Regents in response to SB 345:

- Teaching and Learning
- Research, Scholarship and Creative Activities
- Public Service
- Institutional Management

All performance measures included in this institutional improvement plan arise out of these four initiatives. In this, the first year of SB 345's performance funding model, many of the measures in the University of Kansas Institutional Improvement Plan will not only indicate progress but will establish the baseline from which to gauge improvement.

I. TEACHING AND LEARNING

*(This indicator will be used for **funding** purposes. Success will be measured by substantial progress in at least three of the five sub-indicators. All measures combine both **quantitative** and **qualitative** elements.)*

The University of Kansas Medical Center educates health-care professionals to serve the needs of Kansas, the region and the nation. High-quality educational experiences are offered to a diverse student population through a full range of undergraduate, graduate, professional, postdoctoral, and continuing education programs. As part of an ongoing effort to strengthen its instructional mission, the University of Kansas Medical Center proposes the following initiatives in the area of teaching and learning:

1. Use of Technology in Instruction and Evaluation

Goal: Develop policies that encourage faculty to engage in innovative learning activities through the use of technology, such as online and other technology-enhanced educational products; acquire tools to facilitate faculty training and participation in online and other technology-enhanced education; and evaluate outcomes.

Measure: Inventory online and other technology-enhanced learning opportunities; and develop capacity and process for computer-based exams and course/teaching evaluations.

Progress: An inventory of on-line and distance courses is regularly provided to the Board of Regents for the on-line catalog. The Educational Technology staff and the Educational Resource Center staff at KUMC continually monitor educational development tools and trends, including course management systems, and is currently developing sophisticated educational research and learning solutions. In December of 2001, eZ.exam was selected and installed for computer-based testing and evaluations. In the spring of 2002, this software was utilized in a course in order to evaluate its capabilities. In addition faculty are exploring its use for student evaluations. A variety of courses in the Schools of Nursing and Allied Health are currently being offered as web-based or on-line courses and others are under development.

2. Teaching Improvement and Recognition of Teaching Excellence

Goal: Ensure the quality of instruction through faculty development and the recognition of teaching excellence.

Measure: Using faculty, course and curriculum evaluation data, assess the areas with the most pressing need for the improvement of the teaching skills of faculty; maintain (and enhance where appropriate) programs and opportunities for faculty skill building and development; fully develop the process of annual review of faculty by their academic unit; and coordinate the annual review process with promotion and tenure procedures.

Progress: Need for improvement of teaching skills is assessed for individual faculty at the time of the annual review. During each faculty member's annual review, progress is reviewed and evaluated, and if further development is required, a plan for development is initiated. Faculty members are encouraged to participate in instructional development programs offered at the department and school. Recent programs in this area have included sessions with National Board of Medical Examiners staff to discuss construction and use of exam questions and sessions on the use of classroom technology (computers, smart podiums, etc). In addition, faculty attend and participate in seminars and the annual Teaching Summit sponsored by the Center for Teaching Excellence on the Lawrence Campus. Excellence in teaching at KUMC is recognized through nomination and evaluation of candidates in two Medical Center-wide distinguished teaching programs, the Chancellors Award for Outstanding Classroom Teaching and the W.T. Kemper Teaching Fellowship. In addition, each of the professional schools has recognition awards for outstanding teaching. Faculty review criteria are based upon standards for Appointment, Promotion, and Tenure (APT).

3. Rural and Underserved Health Experiences in the Health Professions

Goal: Assure that students in the health sciences at KUMC are aware of opportunities to practice in rural and underserved areas of Kansas; and accumulate data in order to propose and implement improvements in programs that include rural health experience.

Measure: Inventory each experience available or required of students in the Schools of Allied Health, Nursing and Medicine, including the required fourth-year rural preceptorship, the rural health weekend experience, and basic clerkship opportunities in rural settings for medical students; inventory the number and location of clinical sites in rural areas that are used by departments in the School of Allied Health; and complete and validate a rural preceptor database.

Progress: Opportunities for rural health experiences are identified and maintained within each school. Students in Nursing and Allied Health have opportunities to participate in rural and underserved areas of Kansas, and are encouraged to participate when supervisory requirements do not prohibit. Nurses in rural areas are recruited to on-line nursing degree programs, including RN to BSN and nurse practitioners master's programs. First and second year medical students participate in Rural Health Weekend and the Rural Family Medicine: Practice and Research elective. Fourth year medical students spend the four weeks of their required Rural Preceptorship with a rural practitioner. Medical residents in family practice, internal medicine and pediatrics also are eligible to participate in the Bridging Plan, a program which encourages physicians to practice in rural Kansas. The School of Allied Health contracts with 70 rural and underserved clinical sites. A rural preceptor database is operational and development of a scheduling component is in progress.

4. Post-graduate and Limited Undergraduate Programs that Lead to University Certificates for Health Professionals

Goal: Develop appropriate post-graduate and undergraduate certificate program proposals that meet current student needs and workforce requirements; and evaluate programs annually to ensure they are meeting these needs.

Measure: Establish criteria and processes for determining needs in selected areas that could be met by undergraduate and post-graduate certificate programs; and define a process that will lead to the implementation of appropriate programs.

Progress: The Schools of Allied Health and Nursing identified areas in which there is a need for new certificate programs, and a procedure for approving new certificate programs has been implemented. Proposals are reviewed and approved by a series of committees, followed by the Graduate Council, and finally by the Provost. Criteria for new certificate programs must include a statement of objectives, a demonstrated need, a recruitment plan, and a source of funding. Four post-graduate certificate programs were approved this year, the Nurse Midwifery Certificate, the Nurse Educators Certificate, a post-graduate certificate in Dietetics and Nutrition, and a post-graduate certificate in Outcome Management. Two new undergraduate certificate program proposals have been developed and are currently being evaluated.

5. International and Multicultural Experiences for Students

Goal: Ensure programs are in place that facilitate international and multicultural educational experiences for KUMC students and the hosting of international students and scholars; increase cooperation and coordination with the international programs on our Lawrence campus; continue to develop experiences that reinforce multiculturalism and cross-cultural competence in our healthcare professionals; and include documentation of international learning experiences on the students' transcripts.

Measure: Inventory all programs that offer international or multicultural experiences for KUMC students or that host international students and scholars; and develop assessment methods to evaluate program quality and outcome.

Progress: KUMC's Office of International Programs maintains a library of information about international clinical electives for KUMC students. In addition, International Programs keeps a database which tracks information on all outbound and inbound students. Senior medical students traveling abroad are required to keep a journal, write a scholarly paper, and present a seminar to faculty, staff, and students. The programs are evaluated based on student input. In addition, International Programs is developing additional assessment methods which will be used to track the impact of international health electives on students as they become residents and practicing physicians.

II. RESEARCH, SCHOLARSHIP, and CREATIVE ACTIVITIES

*(This indicator will be used for **funding** purposes. Success will be measured by substantial progress in at least three of the five sub-indicators. All measures combine both **quantitative** and **qualitative** elements.)*

The advancement of knowledge in the biomedical health sciences is an essential component in the formation of the kind of premier learning community described in the University's strategic planning document, *Initiative 2001*. With the goal of strengthening its research mission, the University of Kansas Medical Center proposes the following initiatives:

1. Research Mentoring of Clinical Faculty

Goal: Ensure opportunities, and provide faculty incentives, for research, scholarship and creative activities by clinical faculty, and conduct regular formal evaluation of the policies and opportunities.

Measure: Inventory faculty development opportunities that support research efforts; and create policies that enhance opportunities in the development of research skills, including research grant preparation.

Progress: Each school has a research committee which supports faculty in their roles as researchers. The research committees provide modest grants and assist faculty by reviewing and critiquing grant applications, providing some funds for grant-related travel, and purchasing equipment for research laboratories. Junior faculty members are assigned mentors from among senior faculty, and junior research faculty can negotiate dedicated time to develop grant proposals and publications and for other related activities. A course in grant writing skills and process has been developed and is available to graduate and post-doctoral students. Research-related programs, such as the Interdisciplinary Research Seminar and the Distinguished Scholars Research Series, create research ideas and opportunities and allow faculty to network with potential grant collaborators. KUMC holds the NIH K-30 clinical research curriculum program which was funded by NIH for \$1 million over five years (2000-2005) to develop clinician scholars.

2. Research Collaborations Within and Outside the Institution

Goal: Because of the depth of expertise at the various research campuses and research institutions across the state and in the region, identify and facilitate opportunities to work collaboratively with researchers at other facilities; develop a database listing collaborative research opportunities, collaborative grant proposals, publications, new initiatives, and evaluation; and assess the maintenance of successful programs and the development of new collaborative research efforts.

Measure: Inventory collaborative opportunities between KUMC and local and statewide research institutions; e.g., University of Missouri-Kansas City, Midwest Research Institute, Stowers Institute, Children's Mercy Hospital, KU-Lawrence and K-State.

Progress: KUMC has identified contact people and established reciprocity and cooperation with university institutional review boards at other institutions. Policies pertaining to graduate students and trainees across campuses have been clarified to facilitate research relationships. KUMC has established and signed a collaborative research agreement with Midwest Research Institute, Stowers Institute for Medical Research, and Children's Mercy Hospital. As part of those agreements, KUMC has established a lecture research seminar series with those institutions, created an On-Line Sharing Resource/Resume system, and developed a database of collaborative grant proposals and opportunities. In addition, affiliate faculty appointments have been granted to selected scientists at those institutions.

3. Research Experiences for Students

Goal: Inventory, maintain and enhance internal and external programs that provide research experiences for students at KUMC; and ensure opportunities for medical students and residents.

Measure: Inventory the types of research experiences across the defined student and resident populations.

Progress: An inventory of residency programs showed that residents and fellows are required to complete research projects in their area of specialization. The project includes completion of a publishable research paper, and beginning in academic year 2003, the Accreditation Council for Graduate Medical Education (ACGME) will require all residency programs to ensure each resident produce at least one publishable research paper while in their residency program. Research opportunities exist for students in the schools of Allied Health, Medicine, and Nursing, including research funded by the state of Kansas, such as the Medical Student Summer Research Training Program, and research funded by grants, e.g., Center of Excellence Minority Medical Student Summer Research Training Program. In addition, qualified graduate students are granted research assistantships, and virtually all graduate programs have a required research component.

4. Research Compliance

Goal: Implement a research compliance program to manage institutional assurance of compliance with federal regulations and educate investigators in bioethics.

Measure: Develop the basic design of a comprehensive program that facilitates compliance with governmental and university policies governing research. Included in the program will be assessments, education, training, auditing and policy development.

Progress: The University of Kansas Medical Center has initiated a comprehensive research compliance program to educate research personnel about federal and university policies governing research. This program also coordinates ongoing compliance activities, supports enforcement of regulatory standards, and manages the institutional response to new federal initiatives. A representative Research Compliance Committee and the Research Compliance Office provide guidance for the program. In January 2002 the first annual report of the comprehensive research compliance program was delivered to the Vice Chancellor for Research. The report assessed the status of each individual compliance area (e.g. animal welfare, biosafety, human subjects, conflict of interest, fiscal management, environmental safety, radiation safety, technology transfer) and highlighted activities to date. Recent accomplishments include constitution of new oversight committees for Conflict of Interest and for Data and Safety Monitoring, educational activities for faculty and staff, and the establishment of an anonymous compliance hotline.

5. Research Funding Opportunities

Goal: Maintain healthy growth in research funding opportunities and research support; and facilitate the development and submission of research grant applications.

Measure: Identify and assess management and support functions that will facilitate grant development, application preparation and submission.

Progress: The KUMC Research Administration staff and KUMC Research Institute staff provide a number of services to the faculty to facilitate continued growth in proposal submissions for grants. Research staff members assist with details of proposals such as budgeting for all appropriate expenses, proper formatting, and completion of all necessary forms and procedures. Other services include providing faculty with databases and information about potential sources of funding, assurance of the protection of human subjects, contract negotiation, and federal compliance regulatory monitoring.

III. PUBLIC SERVICE

*(This indicator will be used for **funding** purposes. Success will be measured by substantial progress in three of the five sub-indicators. All measure combine both **quantitative** and **qualitative** elements.)*

The University of Kansas Medical Center's unique mission among the Kansas Board of Regents institutions includes providing high quality patient-centered health care and health-related services to the public. In this regard, the University of Kansas Medical Center aims to be the standard bearer in the development and implementation of model programs that provide the greatest possible diversity of proven healthcare services and outreach opportunities primarily for Kansans, but also for people in the region and the nation.

1. **Serving the Continuing Education of Health Care Providers**

Goal: Provide continuing education that meets the needs of Kansas healthcare practitioners.

Measure: Inventory and assess the number of continuing education contact hours provided to the Kansas community of healthcare providers by faculty and staff from the Schools of Allied Health, Medicine and Nursing.

Progress: The KUMC Continuing Education office collects and reports numbers of courses, sessions, attendees, and instructional hours for each course. In addition, the Area Health Education Centers (AHECs) collect and report numbers of live courses, internet or independent study courses, and hours of instruction. Programs are taught by KUMC faculty from the Schools of Medicine, Nursing, and Allied Health, and by outside experts who complement KUMC faculty expertise.

2. **Clinical and Community Service and Support**

Goal: Provide consultation and expertise in areas of health care *where it is not readily available from other sources.*

Measure: Inventory and assess the number of consultations provided to the Kansas community by faculty and/or staff in the Schools of Allied Health, Medicine, and Nursing.

Progress: The Office of Clinical and Community Affairs within the School of Nursing tracks consultations provided by KU Health Partners, an academic clinical enterprise with faculty from the Schools of Nursing and Allied Health. KU HealthPartners provides a number of consultations in Kansas communities, the nature of which include wellness programs, children's health in day care settings, diabetes education, and immunizations and health screenings. The Center for TeleMedicine & Telehealth facilitates the delivery of health care to over 300 clinical specialties at KU Medical Center to communities throughout Kansas. Programs and consultations are tracked by the Center of Telemedicine and Telehealth in the School of Medicine. The goal of these practices is to work with local health care teams to develop services that address the health care needs of the community while providing state-of-the-art care. Technologies utilized include interactive video, "store and forward" technologies, web-enabled innovations, and Electronic Medical Records. These practices may consist of both telemedicine and outreach clinics enabling electronic and "in person" evaluations in groups homes, schools, correctional facilities, etc.

3. Essential Coverage for Practicing Physicians in Rural Areas through a *locum tenens* Program

Goal: Provide essential or relief coverage for practicing rural physicians; and evaluate annually to determine if the program is meeting the needs of the practicing community in rural areas.

Measure: Inventory *locum tenens* services provided by the faculty and staff of KUMC and establish assessment process.

Progress: A database of *locum tenens* services was designed and implemented to track rural physicians who use the service. The database also tracks service providers and potential providers. Satisfaction of the service is assessed through surveys to both rural physicians and providers. To publicize the program, postcards are distributed to potential users of the *locum tenens* service and to faculty and residents who might be interested in providing service. Additionally, presentations are made to every new class of residents in Family Medicine, Internal Medicine, and Pediatrics to inform them of the service and to determine their interest in providing services.

4. Repository of Information for Students, Faculty and the Healthcare Community

Goal: Maintain and improve library and information resources to serve the research and education needs of healthcare students and professionals.

Measure: Inventory the use of Dykes Library by KUMC faculty, staff and students as well as others; and determine the affiliation of non-KUMC users and their total consumption of services at the Dykes Library.

Progress: Dykes Library has implemented regular surveys of individuals who use library services to determine their affiliation. Patrons are surveyed at the library entrance and when they request reference assistance. In addition, interlibrary loan requests are categorized according to affiliation.

5. Healthcare Services and Information Provided for Kansans

Goal: Provide high-level or technologically sophisticated diagnostics and tertiary treatment for the residents of Kansas.

Measure: Inventory those services and centers of expertise at KUMC that provide highly technical or state-of-the-art medical services not otherwise available in the area; and devise a mechanism for assuring that these services are known to both the public and the practicing community. Some examples of these activities include telemedicine (e.g., Tele-Kid, Tele-Health), and rural onsite specialty clinics.

Progress: The Center for Telemedicine & Telehealth is dedicated to providing clinical services, wellness and continuing education, and research into the delivery of cutting-edge communication technologies. Services involve connecting patients and providers via interactive video in real-time, augmented by electronic stethoscope capabilities. Over 40 sites in Kansas currently have telemedicine and telehealth suites. In addition, KU Medical Center provides state of the art technology and treatments for patients with critical organ failure. Clinical faculty at KU Med have developed world-class cardiology and cardiovascular surgery programs and have obtained approval to initiate heart transplants. Active transplant programs continue for kidney, liver, pancreas, and bone marrow, and a lung transplant program is being planned.

IV. INSTITUTIONAL MANAGEMENT

*(This indicator will be used for **funding** purposes. Success will be measured by substantial progress in three of the five sub-indicators. All measures combine both **quantitative** and **qualitative** elements.)*

The University of Kansas Medical Center is committed to increasing the efficiency, effectiveness, and responsiveness with which it carries out its teaching, research and service missions. As part of an ongoing effort to strengthen its effectiveness, the University of Kansas Medical Center proposes the following initiatives:

1. Institutional and Planning Data for Improvement of Management and Decision-Making

Goal: Improve and increase access to institutional and planning data to facilitate more informed decision-making and to reinforce management objectives; acquire and install data warehouse software and populate the warehouse with historical and current data; and facilitate user access.
Measure: Define the architecture of the KU Medical Center data warehouse; develop an initial data model; and implement the Data Management Committee to guide development of the data warehouse and MIS initiatives.

Progress: The architecture for the KU Medical Center data warehouse was proposed and approved by the Data Warehouse Design Team during Fall 2001 and is now in use as the Data Warehouse Pilot Project. An initial data model designed for reporting requirements of the PeopleSoft Student Administration System has been created. The Data Management Committee has been in operation since August 2001. Current initiatives include formulating a data access policy, defining authoritative data sources, and identifying priorities for the data warehouse.

2. Staff Development, Education and Training Opportunities and Procedures

Goal: Improve employee job skills and facilitate faculty and staff development through education and training opportunities; and improve processes and procedures relating to human resource issues for all employees.

Measure: Complete staff development, education, and training opportunity improvement plans and the examination of policies and procedures.

Progress: KUMC Human Resources department investigated and determined that opportunities for staff development met employee expectations, but training opportunities could be improved with the introduction of web-based technologies. Two web-based training modules were created and several more are in development. In the area of policy, Human Resources examined the existing policy for Recruitment and Selection and rewrote it. After receiving feedback, the new policy was further improved, and we believe this will result in a more efficient method of recruiting faculty and staff.

3. Improvement of Purchasing

Goal: Simplify and facilitate the purchasing process for required supplies and small equipment.

Measure: Implement a business procurement credit card system available to all departments and research units.

Progress: KUMC successfully implemented the business procurement card (BPC) process at the Medical Center during 2001. The card is available throughout the Medical Center and usage has increased steadily since implementation. A training program has been developed, procedure manuals published, and the system has been electronically linked to KUMC's general ledger system. Over 200 cards have been issued, and monthly expenditures using the card now exceed \$100,000 per month. Faculty and staff have been pleased with the availability of this method of purchasing.

4. Program Review and Accreditation Process

Goal: Complete program reviews in a timely manner using the revised program review process; and construct a central database to track accreditation processes and follow up in all KUMC programs.

Measure: Evaluate the current program review and accreditation tracking processes and make recommendations for improvement.

Progress: Following a review of the responsibilities for individual program and professional school accreditations, it was determined that these processes were distributed and somewhat difficult to track centrally. In response, the Office of Academic Affairs in collaboration with Information Resources designed and developed an accreditation database, which was populated and now serves as a central repository and tracking mechanism for accreditation and follow-up. This database is capable of providing each academic dean with reports of the accreditation status within their school and time lines for both follow-up and re-accreditation.

5. Conservation of Infrastructure Resources

Goal: Efficient utilization of resources and maintenance of manageable costs for our infrastructure.

Measure: Collect, analyze, and report data on the performance of two critical infrastructure indicators: the use of energy, represented by BTU's used per square foot, and the appropriate upkeep of our offices, classrooms, laboratories and clinics, as reflected in the cost of housekeeping services per square foot. A statistical process control mechanism will be used to establish a range of appropriate operation (normalized for climatic extremes), which will be benchmarked against peer institutions to create indicators of successful performance.

Progress: KUMC has begun collecting data for BTU consumption per square foot for all appropriate utilities and for total housekeeping costs per square foot. KUMC data have been compared with data from peer institutions. From that comparison we determined an appropriate statistical range for assessing consumption and costs. Procedures have been initiated to maintain our costs within those parameters.