



Response to Board of Governors'
Medical Education Questions

March 6, 2006

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1. A more detailed description of their expansion plans including what resources both public and private that they anticipate needing. I would like to know what private funds are currently committed or they anticipate being committed to achieve these goals.
 - Consistent with requests of the Board of Governors (and previously, the Board of Regents) USF has responded to the request for COMs to expand MD program enrollment.
 - We have stated, planned for and sent to the Board of Governors our plans to expand from 480 to 800 students with an enrolling class of 200 in 2009. This will result in an additional 80 students per year from USF graduating and being eligible for graduate medical education.
 - The current COM facility was designed for an entering class of 98 and has been renovated to accommodate (with no space to spare) an entering class of 120 (Commenced fall 2003 with classes entering 2003, 2004, 2005, and 2006 all of 120 matriculants).
 - To admit an entering class of 200 (or any class greater than 120) requires construction of additional academic and academic support space (with a minimum of 2 years required to plan, construct, and equip the facility). USF currently is planning/constructing three facilities (Centers for Advanced Health Care, North Clinic on the Tampa Campus and South Clinic at Tampa General Hospital, and the Center for Advanced Medical Learning and Simulation) which greatly benefit the missions of the COM, but do not create academic space for expanded COM enrollment. The Centers for Advanced Health Care (North and South) represent in total approximately \$80 million in project costs with approximately two-thirds from non-state sources; the Center for Advanced Medical Learning and Simulation is to be constructed with no state funds. Capital cost requirements for additional academic space are dependent on a decision as to the maximum size of the entering class the Legislature will fund and contingent upon the commitment and timing of appropriations for planning and construction. funds. USF has demonstrated its willingness and ability to devote non-state funds to COM facilities and will continue to do so.
 - The current amount requested per additional medical student is an appropriation of \$30,000 per medical student which was approximately the amount received by University of Miami Medical School for each Florida resident medical student when the request was developed; and the retention of tuition dollars (i.e. we need both the appropriation and the tuition to build the program). The direct cost per medical student (2003-04 data) was \$63,500, with less than 20% derived from

state appropriations and tuition and fees. In essence USF (like UF) currently commits public (non-state) and private resources to medical education and anticipates continuing to do so for the current enrollment as well as for expanded enrollment. The \$30,000 per student requested is greater than the current appropriation per medical student, recognizing the need to expand the faculty and acknowledging that there is a limit (not defined) to the resources that can be derived from sources other than state appropriations and tuition and fees.

- Private funding plays prominently into our expansion plans. USF will be breaking ground on two innovative ambulatory educational and health care delivery centers this year. The Center for Advanced Healthcare North and South will teach students and residents not only the clinical aspects of their care but how to combine service, quality and technology utilizing outcomes based techniques to reduce medical errors and to promote health. These buildings include private money obtained by gifts (approx \$15 million). (See attachment 1)
- Similarly, USF is building a Center for Advanced Medical Learning and Simulation which will serve as a national model for medical device economic development as well as technologic competence training. This project is being totally privately funded at approx \$60 million. (See attachment 2)

Finally, USF has found innovative ways to leverage state funds on behalf of all the colleges involved in USF Health—the College of Medicine, Public Health, Nursing and school of Physical Therapy and to use those resources more efficiently and effectively with shared learning facilities. As part of our new nursing college co-funded by the state and private funding, we have established a clinical skills center where medical students and nursing students together learn clinical skills as well as important lifelong lessons about patient communications and interactions through videotaped encounters with standardized patients in a simulation environment.

QUESTION 1

ATTACHMENT 1

UNIVERSITY OF SOUTH FLORIDA

Future Patient Experience



March 6, 2006



A culture of...

- **Service**

- Warm welcomes and fond farewells
- Welcoming behavior and signs
- Memorable patient & Student experiences
- Partnership of talent and innovation focused on YOU

- **Quality & Efficiency**

- Best Talents
- Best Processes enabled with Technology
- Best Education
- Best Research

- **Outcomes**

- Clear measures of success
- Focus on the spectrum of health
- Where success means better education, better health and better life



Leading To National Prominence in Health

Making Life Better™



..A Unique ApproachChanging DNA of Health™

People DNA

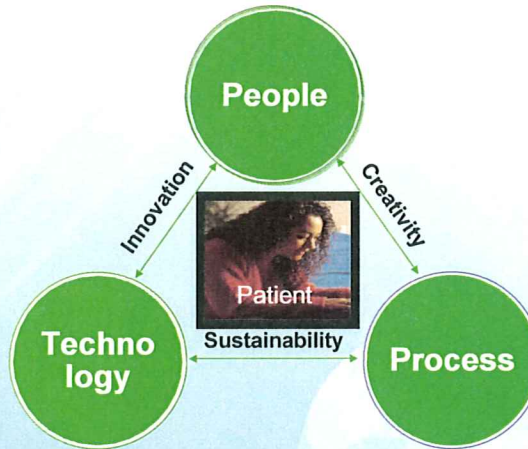
- Medical
- Nursing
- Public health
- Leadership

Process Transformation

- Simplification
- Six Sigma & Lean
- Efficiency & Safety

Technology Innovation

- Technology
- Bioinformatics
- Personalized healthcare

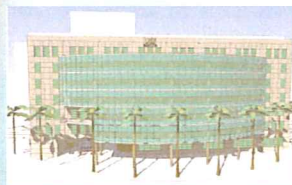


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We Start with.....a new Model of Care

Centers for Advanced Healthcare



Patient care



Memorable
Healing
Experience



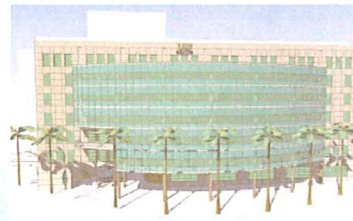
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Where form follows function....

Centers for Advanced healthcare - South

- 126,000 sq. ft.
- 7 Stories
 - Clinical Space
 - Diagnostic Imaging
 - Office Based Procedures
 - Office Visits
 - Faculty Offices
 - Patient Education
- Concierge level services
- One Stop Shopping” service line approach (physicians, diagnostics, procedures)
- Patient Centric
- Streamlined Work flow
- \$26 Million



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Where patient interests are put first....

Centers for Advanced Healthcare-North

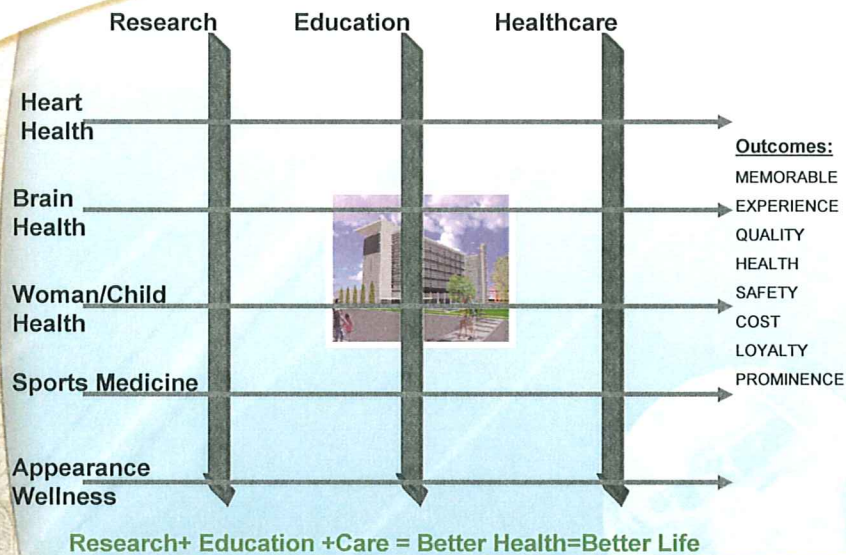
- 196,000 Square feet
- 6 Stories
 - 8 Operating Rooms
 - 5 Endoscopy Suites
 - Diagnostic Imaging
 - Clinical space
- Concierge level services
- “One Stop Shopping” service line approach
- Patient Education Center
- Pharmacy
- Integrated teams (primary care, specialists, holistic)
 - Women’s health
 - Sports Medicine
 - Brain health
 - Digestive Disorders
- \$64 Million



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.....With patient centric, one-stop-shop service line focus...



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An ALS program at our new centers would be comprised...

- Service
 - One Stop Shopping – All Service professionals together in one-place at the same time
 - Neurologist
 - Physical therapist
 - Nursing
 - Dietitian
 - Speech & Language Pathologists
 - Social Worker
 - ALS Chapter Liaison
 - Respiratory Therapist
 - Psychiatrist/Psychologist
 - Patient education coordinator
 - Medical students and residents
 - Services available for patients families as well as patients themselves
 - Education for patients and family members at the patient education center
 - Support groups for family members
 - Pre-clinic & post clinic meetings attended by all professionals
- Research
 - Integration of basic science and clinical research through CRISP
 - Use of I/T to create regional and national research databases
- Education
 - Students and residents part of the interdisciplinary team
 - Total disease management is part of the curriculum

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Where Technology Innovation is Customized for the Continuum of Health



- Personal health records for patients
- Preventative medicine alerts
- Secure on-line consultations
- Flexible template-driven documentation
- Fully integrated document imaging technology
- Physician order entry and results
- Point-of-care charge capture
- Customizable patient care plans complete with patient education material

THE TAMPA TRIBUNE

Breaking News

1/31/2006 9:30:00 AM EST

USF Health Selects Allscripts for 400 Physician EHR Initiative; University of South Florida Physicians Group at USF Health To Lead Ambulatory Healthcare Delivery Revolution in Florida

Allscripts (Nasdaq:MDRX), the leading provider of clinical software, connectivity and information solutions that physicians use to improve healthcare, announced today that the University of South Florida Physicians Group (USFPG) at USF Health, **has selected and will invest in excess of \$2 million in the TouchWorks(TM) Electronic Health Record as the cornerstone of an ambitious, \$15-million program to create a national center of healthcare excellence.**

"The electronic health record is the basis for the building of knowledge that's at the core of our commitment to provide patients the highest quality, best technology and most personal service," said Stephen Klasko, MD, Vice President for USF Health and Dean of the College of Medicine.

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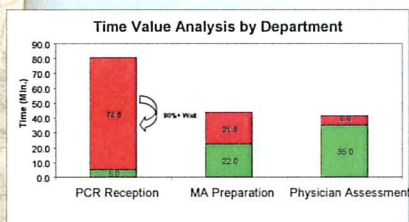
Where wait time is considered waste and eliminated.....

WSJ THE WALL STREET JOURNAL
April 9, 2004

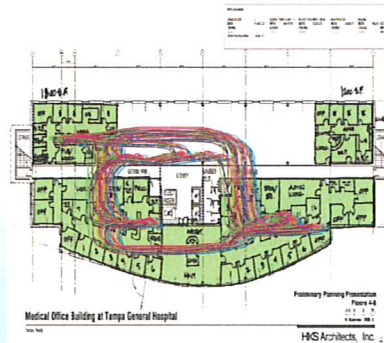
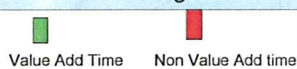
PAGE ONE

To Fix Health Care, Hospitals Take Tips From Factory Floor

Adopting Toyota Techniques
Can Cut Costs, Wait Times;
Fighting Out an Infection



Lean Six Sigma



**Workflow
Rapid Cycle Improvement**

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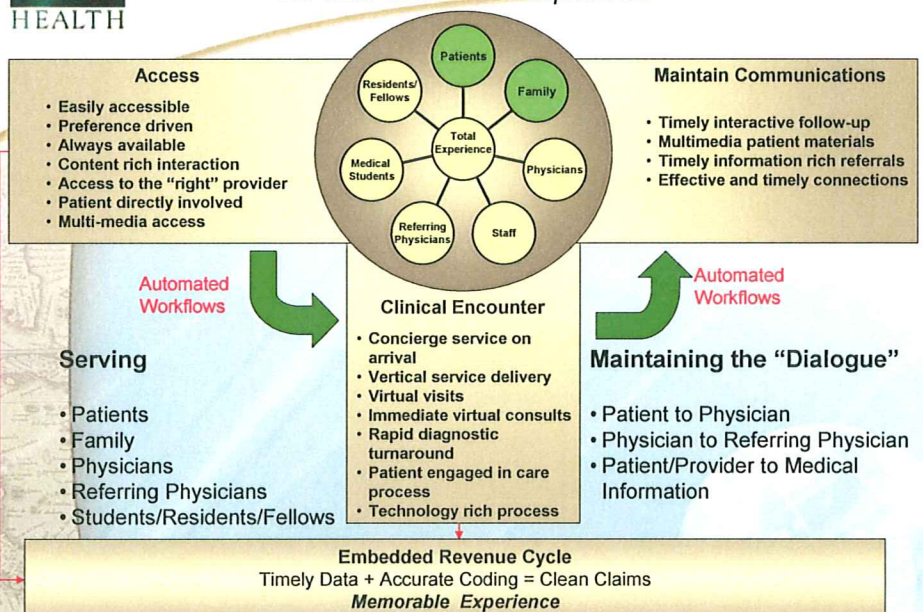
....An approach where
Service/Quality/Safety/Outcome
are hardwired....

	From	To
People DNA	<ol style="list-style-type: none"> 1. Hire on technical competence 2. Job description 3. Salaries -length of service and technical experience 	<ol style="list-style-type: none"> 1. Hire on courtesy 2. Clear role in the Patient care Experience 3. Rewards for quality, patient satisfaction and productivity
Process Transformation	<ol style="list-style-type: none"> 1. Silo mentality 2. Fragmented Patient Care 3. Episodic care 4. Redundancy & delays 5. Varied practices 	<ol style="list-style-type: none"> 1. Interdisciplinary service teams 2. Bring the care to the patient 3. Total patient health (outcome) 4. Rapid Cycle Process Simplification 5. Evidence based Care
Technology Innovation	<ol style="list-style-type: none"> 1. Multiple Paper Charts 2. Telephone and in-person 3. Industry standard technology 	<ol style="list-style-type: none"> 1. Electronic medical records 2. Multi-media & telemedicine 3. Customized for the Continuum of health & latest cutting edge technology

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The Vision A Focus on the Total Experience



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Before arriving at our Centers...

- Scheduling
 - Online, patient requests or schedules an appointment
 - Patient preference
 - Questionnaires guide them to the right place
 - Care coordinator calls patient to confirm appointment
- Information Collection & Dissemination
 - Patient completes registration, medical information, HIPAA, and medical records release online at their convenience
 - Preventative maintenance checks
 - Reminders via e-mail and phone
 - Education & Consents
 - Directions
- Consolidation of Appointments "One Stop Shopping"
- System tracking the patient
- Patient electronically checks-in 24 hours prior to visit and prints appointment barcode
- Status updates the day of the appointment via e-mail and cell phone

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What awaits our patients upon arrival at our Centers...

- Valet welcomes patient
- Concierge greets patient and directs patient to appropriate office
- Aesthetically pleasing environment
 - TVs, computer stations, Wireless capability
 - Larger exam rooms to accommodate family members
- Kiosk available in waiting room
 - Patient scans barcode, confirms credit card payment and electronically signs all documents
- For larger facility and multiple appointments tracking devices utilized
- Multiple appointments per visit
- Services brought to patient
 - In-person and video consults with specialists
 - Phlebotomy
 - Discharged from the room
- Same day results and follow-up care
- Personalized patient education
- Personalized discharge summary
- On-site pharmacy available
- Valet has the car waiting for the patient

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Maintaining communication with our patients...

- Visit Follow-up
 - Timely results reported and available for review on-line
 - Follow-up calls and surveys to check patients progress
 - Patient satisfaction survey via e-mail
- Maintaining Communication & Partnership
 - E-visits and e-mail correspondence
 - Based on the patient's profile, current health information is e-mailed to the patient
 - Appointment reminders that it is time to schedule her next annual exam
 - Access to patient and family members medical records
 - Ability to correspond and follow family members health
 - Home monitoring
 - Availability of support groups

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Putting the pieces together

- Integrated applications
- Efficient and effective workflows
- Appropriate and easy tasking
- Ease of access for clinical & support personnel
- Evidence based medicine
- Compliance and adherence
- Quality based processes
- Easy access for referring physicians
- Accurate and timely and comprehensive reporting
- Real-time monitoring and management
- Information is being compiled:
 - Outcome analysis
 - Social impacts
 - Treatment plans
 - Cost effective
 - Patient satisfaction
- Translational research
- Community outreach

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Making Life Better. A Reality through..

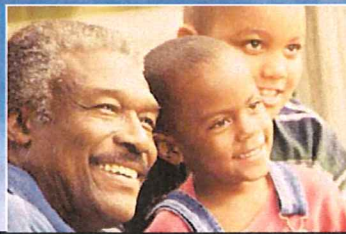
- Integrated team approach to disease management & prevention
- Measurable outcomes and improved healthcare across the community
- Lifelong partnerships with our patients
- Increased quality & safety
- Better service
- A model center for learning & research
- Better graduates
- Healthier environment for our constituents

.....With Your Involvement & Help

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Join us on our Journey.....



Making Life Better
through Research, Education & Healthcare



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QUESTION 1

ATTACHMENT 2



University Hotel & Center for Advanced Medical Learning and Simulation



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Project Overview

- One-of-a-Kind, World-Class Education and Research Center
 - ❖ 70,000 SF Research and Training Center
- \$65 Million Project – Private Funding
- HSC CPE to Manage Research and Training Center
- Projected Occupancy – August 2007



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Components

- Surgical Skills Lab – 12,000 SF
 - ❖ 40 Workstations
- Simulation Center/Virtual Hospital – 4,000 SF
 - ❖ Emergency Room (ER)
 - ❖ Operating Room (OR)
 - ❖ Intensive Care Unit (ICU)
 - ❖ Standard Patient Room



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Components (continued)

Concept Development Laboratory – 2,500 SF

- ❖ Prototype development for:
 - Robotics
 - Minimally Invasive Surgery
 - Image-Guided Surgery
 - Computer-Assisted Surgery



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Components (continued)

- Center for Research in Healthcare Education
 - ❖ 2,500 SF
 - ❖ Interdisciplinary Research
 - Proposal Preparation
 - Designing Studies
 - Data Collection
 - Manuscript Preparation



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Project Benefits

- Create National and International Prominence for USF
- Create New Revenue Sources to Support the HSC Research and Education Missions
- Expand Scope of Continuing Education Programs



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Project Benefits (continued)

- Increase Clinical Research Opportunities
 - ❖ Robotics
 - ❖ Biomedical Technology
 - ❖ Imaging-Guided Surgery
- Contribute to Economic Development Initiative of the City of Tampa and the State of Florida



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2. What additional residencies can we hope to achieve, both with and without their expansions, and how will they be funded?
- The Federal Government through CMS (Centers for Medicare and Medicaid Services), traditionally the principal source of GME (Graduate Medical Education) funding, virtually eliminated the funding of additional residency slots, except under narrow and specifically defined circumstances including rural programs and programs at hospitals without pre-existing programs.
 - CMS continues to fund new residency programs. However, an institution must meet three narrow requirements:
 - A new residency program (not an expansion to an existing program), and
 - New hospital cannot have had any GME activity since 1996 when the clock “started”, and
 - Program accredited by the ACGME (Accreditation Council for Graduate Medical Education) or the AOA (American Osteopathic Association)
 - The ACGME is now reluctant to approve residency programs that are not part of an academic institutional sponsor committed to scholarly activity. It is very difficult to get a free standing program (Family Medicine perhaps being an exception) accredited.
 - The paradox in the whole process is that while CMS will ONLY fund new hospital expansion, the ACGME is reluctant to accredit hospitals that have not had GME experience.
 - USF has applied for accreditation for new orthopaedic and transitional residencies at University Community Hospital, a community hospital next to the Tampa campus.
 - This has been delayed for two years due to ACGME concerns about “academic infrastructure” at this predominately private practice hospital.
 - There is some evidence that the circumstances may change. The VA has announced that it plans to increase funding. CMS continues to say that they will readdress their current funding CAPS. The political factions continue to talk about a “single payer system” for funding GME.
 - The USF 2005-06 Resident and Fellow count is 427 Residents (109 of which are PGY 1) and 150 Fellows in 63 COM sponsored post graduate training programs. All programs fill regularly through the appropriate matches, with occasional single unfilled positions which are immediately filled in the scramble in March of each year.
 - Of our 427 residents, approximately sixty are privately funded by hospitals willing to pay for residency slots accredited through the University by the ACGME. USF is in a unique situation whereby expanding hospital affiliates will result in a progressively greater amount of residency opportunities. Besides our major

affiliates of Moffitt Cancer Center, Tampa General Hospital and All Children's Hospital, we have discussed new residency positions with hospitals throughout the state including University Community Hospital in Tampa, Sarasota Memorial Hospital, Lakeland Regional Hospital and Orlando Regional Health System.

- The data show that Florida is a net importer of physicians. However, soft data indicate that physicians are retiring faster than they are graduating and that there are major shortages of specific types of physicians especially impending in primary care disciplines such as general internal medicine, family medicine and residency trained geriatric medicine. Currently, legislation is pending in both houses to define the work force database implementation to assist in defining Florida's future needs. {HB 1093 and SB 1410}
- USF plans to have a transitional residency (24-36 residents) to provide the PGY-1 year for five of our existing programs, an orthopedic program (initially 10 growing to 20), and development of advanced subspecialties in a number of areas including cardiology, GI, and specialties of surgical disciplines (perhaps another 10-20)
- If the medical school grows as planned, there will be a need in the near future to expand our primary residencies. This will probably require including additional hospitals, and this will require starting to create the infrastructure to make them acceptable to the ACGME. Right now, the ACGME rules for where residents can be may be the most solid area of difficulty. Discussion is under way with the leaders of the ACGME about this, particularly as it relates to the expansion plans for the state of Florida.
- There is rapidly developing momentum by the American College of Physicians to revitalize general internal medicine training through new medicare (CMS) initiatives. USF is uniquely positioned because of the extensive nature of our affiliate network, our diverse clinical practice group, and the unique nature of the demographics of the region's elderly population.
- According to the CEPRI Needs Assessment, the average direct costs of GME at Florida's six statutory teaching hospitals and six selected community teaching hospitals places the average direct cost for GME at \$88,695 and the average indirect cost at \$97,176. Additionally, the CEPRI Needs Assessment addresses state policies and model state programs to find residency positions.
- In summary, USF has requests for approximately fifty new Florida residency positions which will be hospital or self funded. With external state funding, e.g. matching funds for hospitals and residencies able to add new residencies, we could add another one hundred over the next five years. USF is uniquely poised to promote the addition of new residencies, as we have fully accredited programs that can be expanded, several new hospital affiliations, and a large full time clinical practice group.

3. How do they see the integration of more technology and/or other innovations or new ideas being incorporated into their approaches for medical education, delivery of health/medical services and research?

- Medical Education

The USF College of Medicine students have seen a number of instructional technologies implemented or expanded throughout the curriculum. The use of technology in courses and clerkships is expected to grow and is embraced by students throughout higher education.

Currently in the years 1 and 2 program, an expanded array of on-line materials have become available including web-based course work through Blackboard and videostream archives of lectures and presentations. What started as a way to provide class notes has vastly expanded to include videoarchiving of lectures for student to review “on demand.”

A new technology initiative (known as PACES) in the year 3 and 4 program is the electronic logbook for recording patient encounters that can be accessed through a PC or personal digital assistant (PDAs) interface. In addition, clerkship students also have access to a robust digital library of “point of care” reference materials.

Central to the technological advances in medical education at USF is the Center for Advanced Clinical Learning (CACL), a state-of-the-art facility with clinical exam rooms simulating actual patient care in a safe, controlled environment. Students and instructors can use recorded sessions of the student’s examination of standardized patients to enhance the learning and evaluation process. Also housed within the CACL are the patient simulators including Harvey (for cardiac auscultation) and Stan (a full body critical care simulator).

Planned technology initiatives include computer-based testing, podcasting and videocasting for ipods (vodcasting) as well as a greater use of computerized simulations. USF is committed to expanding the innovative use of technology in both basic and clinical science education and has sets its sites on becoming a national leader in medical education technology.

- Education/Delivery of Services

The College of Medicine provides a password restricted “virtual library” through any and all web enabled computers at all of our clinical sites as well as at home. This virtual library provides full database search engines (Ovid, PubMed, MD Consult, EBM, Cochrane’s, CancerLit, CINAHL, etc) as well as over one hundred full text electronic journals, over one hundred full electronic textbooks, and access to InterLibrary Loan and a State of Florida wide catalog of available books. Each library has appropriate study space, computer terminals, printers, and librarian support.

- **Patient Outreach/Education within the Centers for Advanced Health Care**
 Individual counseling and behavioral change support services will employ an innovative, tailored messaging technology that incorporates information collected from each patient into tailored messaging technology that incorporates information collected from each patient into the design and delivery of print and electronic media tailored to fit their personal lifestyle, educational preferences and health needs. The system begins with collection of data from patients when they register for their initial clinic visit. This information is updated periodically and stored as part of their electronic patient record. When clinic providers identify patients who need education and behavior change services, they prepare an electronic prescription and refer the patient to an educational facility located nearby in the Center. The patient educator uses the electronic database to design personally tailored counseling strategies and educational print, video and electronic messages that are responsive to each patient's health needs (e.g., smoking status), learning preferences (e.g., spokesperson trusted the most), and values (e.g., religiosity). The information also is used to generate email messages to reinforce, remind, and support the patients who have access to the Internet when they return home. Family and group education activities also will be offered in the Center, using state of the art behavior change strategies and multimedia technology. Education materials will be developed and pretested with Center patients and then marketed to health care facilities around the country. Counseling strategies will be evaluated and results disseminated in peer reviewed outlets.
- **Delivery of Health/Medical Services**
 From a systems perspective, the USF Physicians Group (the clinical faculty of USF Health) has been aggressive in implementing and operationalizing software packages to optimize its scheduling, registration, and billing accounts receivable activities; this includes the full implementation of IDX's Transaction Editing System and the Ingenix ClaimsManager product. The USF Physicians Group has recently contracted with GE-IDX/Allscripts for the deployment of a full electronic health record (EHR) at the Centers for Advanced Health Care, North Clinic on the Tampa Campus and South Clinic at Tampa General Hospital, which is integrated with the medical information system.

Many practice plan software vendors, including IDX, Spheris and Allscripts Healthcare Solutions, have partnered with USF Physicians Group as a development site because of the forward-thinking nature of the organization. Such ventures have the potentially enhancing the attractiveness of the Tampa Bay Region for medical information and biomedical informatics technical and software development for intellectual capital partners.

- **Research**
 The Carnegie Foundation for the Advancement of Teaching (an independent policy and research center chartered by the Congress) has recently released its

classification of U.S. institutions of higher education. USF, FSU and UF are the only three public universities in the State of Florida who have been included in the top tier of research universities in the U.S.¹ It is noteworthy that only 63 public and 95 private/public universities have earned this distinction in the U.S.

State-of-the-art technology drives outstanding discovery and innovation. The availability of cutting-edge technology to scientists increases their competitiveness and the ability to secure and retain funding from Federal, State, and other public and private sources. In the past few decades California, Texas, Pennsylvania, Massachusetts, and New York have invested heavily in technology. The outcome of this investment is evident in the fact that scientists in these states are most successful in securing and retaining Federal funding from agencies such as National Institutes of Health, National Science Foundation, etc. It is not a coincidence that California has nine public and private institutions of higher education that are included in the top tier of research universities in the U.S.

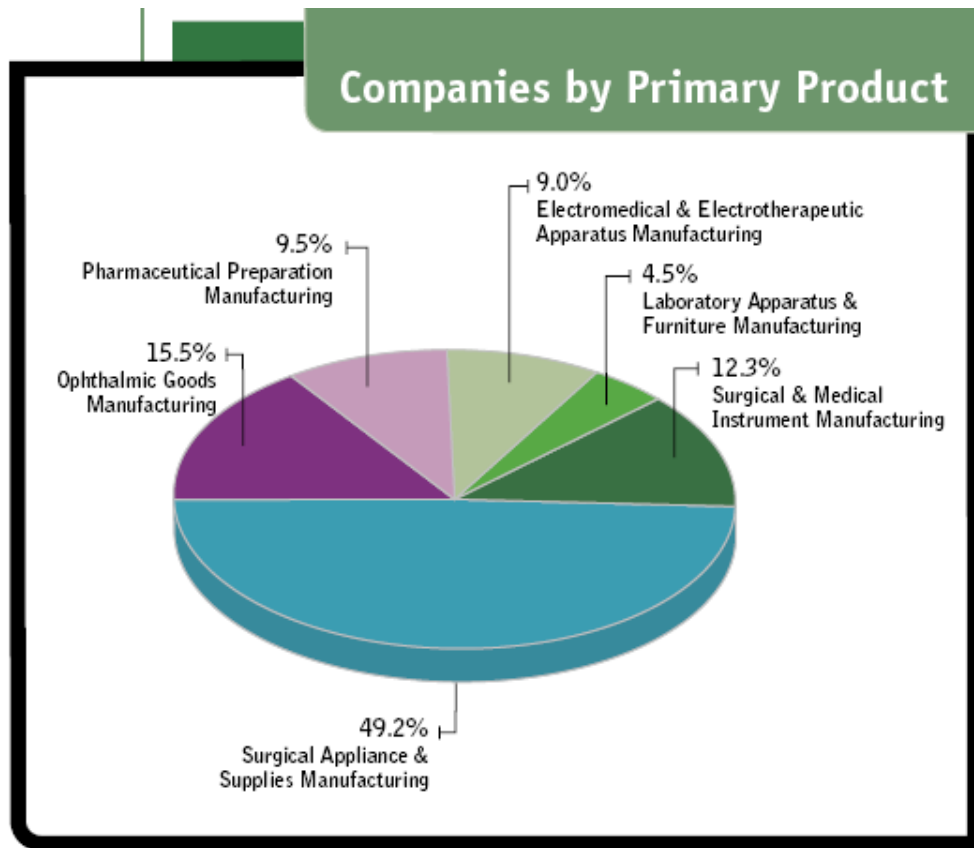
Recognizing this need, USF College of Medicine is in the process of establishing technologically advanced core facilities in the areas of Microscopy, Proteomics, Genomics, Pharmacogenomics, Bioinformatics and Computational Biology, and others. This is important to sustain and enhance the competitiveness of our faculty and students in securing extramural funding. It is also required for recruitment and retention of outstanding faculty and students and for the education and training of a technically-skilled workforce.

It is important to underscore the necessity of sustained high level of investment in the acquisition of new technology in the three top tier public research universities in the State of Florida. With Federal funding for research at a decline, the climate for obtaining new or retaining existing funding will become highly competitive. It is in the best interest of the State and its citizens that we continue to invest heavily in the three top tier public research universities of which USF is the youngest and last year was identified with Vanderbilt as one of the fastest growing research universities in the U.S.

¹ University of Miami is the only private institution in the State of Florida which is included in this category

4. What economic development via research and its applications/spin offs and expanded health and medical services do they anticipate? (I am not looking for them to commission a study, but I would like some discussion on this issue since economic development is a key consideration of the other proposals.)
- The University of South Florida's annual economic impact on the regional economy of Tampa Bay is \$3.2 billion, according to a new study released by the university.
 - USF, which is the third largest university in the Southeast, contributes fuel to the local economic engine through direct and indirect spending of payroll, student tuition, student expenses, construction and research.
 - The Tampa Bay Regional economy is also stimulated by activities in the recently expanded Research Park, where researchers from the university work collaboratively with local businesses to develop new technologies in the biosciences and life sciences as well as in engineering and information. Construction was completed in 2005 at a cost of \$42.9 million and provides 230,000 square feet of space for local businesses and entrepreneurs to work with world-class researchers and expensive, high-tech equipment in shared laboratories.
 - The Florida High Tech Corridor Council (FHTCC) is an economic development initiative of the University of Central Florida, the University of South Florida and the University of Florida. The Council's mission is to attract, retain and grow high tech industry and to help develop the workforce to support those industries in the 23-county Corridor.
 - The Florida High Tech Corridor hosts 200 medical and biomedical technology companies, supporting more than 9,411 employees for an annual payroll of nearly \$402 million. The average payroll for medical technology employees in the Corridor is \$42,705. The average company employs 47 jobs.
 - Some of the largest sector companies include Bausch & Lomb Pharmaceuticals and Florida Oncology Pharmacy in Tampa/St. Petersburg. Pinellas County leads this sector with 51 companies and more than 26 percent of all life sciences and medical technologies companies in the Corridor. Pinellas also support more than 4,600 life sciences and medical technologies jobs, which is nearly 50 percent of all Corridor jobs in the sector.¹

¹ Florida High Tech Corridor Report 2006: <http://www.floridahightech.com>



- To facilitate economic development USF Connect was established to provide a wide range of small business development services. It provides a single point of contact for resources like technology, financing, marketing, management, partners and support services that can accelerate and support the growth and development of small businesses. Our Life Sciences Entrepreneurship program was named the number one specialty entrepreneurship in the country for 2004 by the United States Association for Small Business and Entrepreneurship.
- The Technology Incubator at USF is an invaluable resource for start-up technology companies in the Tampa Bay region. Patent applications reflect the growing research and development with a doubling of patent applications in biosciences, a rate of growth that is anticipated to continue. USF Incubator is now 85% Bioscience. Six bioscience technical support cores are planned.
- Individual investigators of USF Health also collaborate nationally and internationally in the translation of research findings to applications in clinical care in areas such as cancer, neurosciences, cardiovascular disease, immunology, and genetics as attested by the communities of science in which they are engaged in Federally funded research.

- Translational research related to clinical care currently in development with regional business partners include provision of telemedicine, new devices related to trauma care and miniaturized blood pressure monitoring, advances in care coordination, and new drug discovery as examples.

USF and USF Health are uniquely positioned to leverage technologic investments in the life sciences to develop new life science related businesses, advance investment opportunities, accelerate patent and license development and enhance collaborative investigation which benefits small, medium and large businesses as it achieves national prominence in research and education. Outcomes which can be measured would include new products and technology development, enhancement of employment opportunities through creation of new jobs, patents, investment from the private sector, and enhanced national prestige for Florida as a high tech investment state as a long term strategy to enhance employment and opportunity.

5. How can they leverage existing resources through partnerships with other universities and/or other agencies to avoid duplication and maximize efficiencies? In this response, I would like to have some discussion of the other CEPRI recommendations.

Leveraging Resources through Academic Partnerships

- Accelerated Medical School Program

Honors students at USF, UCF and FIU who are interested in attending medical school have an opportunity to receive guaranteed admission to USF's College of Medicine and complete a medical degree in seven years. Similar programs are under development with FGCU, FAMU, Stetson and additional institutions. The first three years of study are done at the "admitting" institution and the fourth year is in residence at USF as part of the first year of medical school. The "admitting" institution confers a Bachelor's Degree following successful completion of the fourth year of study. USF confers the Doctor of Medicine Degree at the successful completion of the program.

The program affords the student the opportunity to avoid the stress of the medical school application/admissions process by meeting standards articulated at the beginning of the program. Additionally the program creates on the campus of the "admitting" institution a group of students who support one another in their studies and career objectives who then move to the demands of medical school together.

At the present time there are estimated to be in excess of 200 entering freshmen qualified for the program in the "admitting" institutions. The program is in its fourth year at USF and third year at UCF and FIU. As the program demonstrates its advantages to students and as institutions market the availability of the program to incoming students, it is anticipated that the number of qualified students across the "admitting" institutions will increase significantly.

Through these programs we are able to assure medical education seats for students from Orlando, Naples, Miami and throughout the state of Florida.

CEPRI Policy Recommendations

- Assessing the Adequacy of the Physician Workforce
 - Policies #1 and #2 address the priority of establishing a Florida Health Care Practitioner Workforce Database and the development of a model to quantify the adequacy of the state's physician workforce.
 - An official statewide source of valid, objective and reliable data will significantly increase the understanding of policy makers such that issues related to

assessing the adequacy of the physician workforce can be discussed as contrasted to debating the reliability of the data underlying the issues.

- A model to quantify the physician workforce which takes into account demographics, physician practice status, specialty, place of education and training, quality of care and safety of practice, service delivery conditions, generational changes, public perception, population growth, economic indicators, and issues of the “pipeline” into medical education provides the framework for policy makers to consider alternatives and assess the potential impact of a course of action/policy decision as contrasted to alternatives.
- Both the database and the model would allow policy makers to focus on the “appropriate” questions in a more timely and systematic manner.
- Alternatives to Address a Physician Workforce Shortage
 - USF embraces policy recommendations #3 and #4 relative to residency positions.
 - Increases in Medical School capacity, must be coupled with coordinated increases in Residency training programs or our physician supply and economic development goals will be frustrated.
 - In a November, 2005 paper published by the Dean of the FSU Medical School in the Journal Academic Medicine, he says “The ultimate challenge in meeting the mission of the new college involves residency choices and practice sites for the college’s graduates. Until the number and types of residency programs increase, many of Florida’s medical graduates will continue to go out of state for graduate medical education.”
 - Established Medical Schools are in a much stronger position to satisfy the ACGME’s accreditation requirements to increase the number of residency training positions through increases to existing programs rather than de novo development of new programs.
 - USF is prepared to increase its sponsorship of Residency training by approximately 100 positions, assuming a durable funding model can be developed. Please refer to question number 2.

6. How will their plans address the need to further elevate the status and prestige of the public medical schools in the State?

- USF has been nationally recognized as having one of the country's most innovative curriculums.
 - Invited by Harvard to join the elite Commonwealth conference on innovation in medical education
 - Hosted a site visit by the Carnegie Institute team rewriting the nation's goals for medical education (USF was selected as an innovative school among the 12 schools being studied.)
 - College's Dean of Education was invited to give the keynote address to AAMC on USF's success in bringing medical education to outpatient sites.
 - In 2005, implemented an innovative curriculum for third-year students, creating issue-based learning instead of departmental rotations
 - USF's Colleges of Medicine, Nursing and Public Health joined together as USF Health to demonstrating USF's commitment to the continuum of health.
- USF is planning/constructing facilities to meet the missions of the COM and USF Health that combine quality, technology and service to create a national model of excellence.
 - The state has supported USF in creating the Centers for Advanced Health Care (North and South Clinic) – to revolutionize outpatient care based on quality, service and superior education.
 - The North Clinic Facility will be located on the USF Tampa Campus and the South Clinic Facility will be constructed adjacent to Tampa General Hospital which is located in downtown Tampa on Davis Island.
 - The planning for the South Clinic Facility will be integrated with the North Campus Facility to create a consistent approach to the clinical delivery of healthcare. The innovations in technology, enhancements in customer service and quality, and advanced processes envisioned as part of the strategy will be included in both facilities, creating a consistent patient experience in which to brand our services.
 - USF Health is developing the Center for Advanced Medical Learning and Simulation, a high tech, state-of-the-art training and research complex located in the USF Research Park on the corner of Bruce B. Downs and Fowler Avenue. The project is an academic/private partnership which includes 120,000 square feet dedicated to advanced medical training, simulation and research. The research components include: a prototype/concept development laboratory for interdisciplinary R & D in robotics, computer-

assisted surgery, and image-guided surgery; and the Center for Clinical Research for multidisciplinary health sciences research.

- Acquisition of new knowledge (research) is perhaps one of the most important missions of institutions of higher education. The quality of research conducted by its faculty, staff, and students not only distinguishes the university as “prestigious” but enhances the value of education that it imparts thus ensuring that its graduates have successful professional careers. Universities with very high research activity have also undergone a paradigm shift from focusing on “teaching” to “learning”. This shift has culminated in instilling in our students the need to be “life long learners” so that they actively seek new knowledge and continue to grow and be successful in their social and professional lives.

USF has been recently classified as having very high research activity by the Carnegie Foundation for the Advancement of Teaching (an independent policy and research center chartered by Congress). Along with USF, FSU and UF are the only three public universities in the State of Florida who have been included in the top tier of research universities in the U.S.¹ USF has also been recognized for its focus on bringing federally funded research to the state of Florida by being cited in the Chronicle of Higher Education as one of the two fastest growing research Universities in the country. In most universities in the U.S. research in the area of health sciences is responsible for acquiring the majority of the extramural funding and therefore the highest level of scholarship. Such a heightened activity not only enhances the intellectual capacity of an institution but it has an unprecedented effect on the education and training of a highly skilled workforce and growth of local, regional, and national economies.

Another very important benchmark which is used as a gold standard to measure research productivity (and therefore the prestige) of a medical school is the extent of funding by the National Institutes of Health (NIH). As a steward of health and behavioral research in the Nation, NIH spends approximately \$29 billion/year in this endeavor. In 2004, with a total of approximately \$345 million in awards, the State of Florida was ranked at 19 out of 54 in the NIH funding table.² On the contrary, in addition to having the greatest number ($n=9$) of public and private universities in the top tier of research in the Carnegie Classification, medical schools and health sciences research institutions in the State of California continue to be most successful in obtaining NIH funding receiving over \$3.6 billion in awards.

In 2004, of the 125 medical schools, the three public medical schools in the State of Florida received funding from the NIH. USF College of Medicine received approximately \$34 million and UF College of Medicine received \$64.5 million in NIH awards. NIH went through a rather substantial growth in its funding in years 1997-2002. This phase referred to as “doubling” of NIH funding resulted in an

¹ University of Miami is the only private institution in the State of Florida which is included in this category

² It includes Guam, Puerto Rico, District of Columbia, and the Virgin Islands

unprecedented growth in health sciences research in U.S. universities which dwarfed worldwide efforts in this discipline. However since 2002, Federal appropriations to NIH have either remained unchanged or have declined. Fiscal Year 2006 the appropriation to the NIH was 0.2% less than its budget in FY 05. More importantly, President's Budget Request for NIH for FY 07 has a projected 0% increase in its appropriations. Many faculty, staff and students in the medical schools (including USF) are heavily reliant on NIH funding to sustain their research activity. With an essentially "zero" growth budget projected for the NIH, the outcome will be catastrophic. This challenging situation gets further compounded by the fact that the decline in NIH funding has also decreased the amount of money available to upgrade facilities, purchase state-of-the-art equipment, and to recruit and retain outstanding faculty and students.

As stated previously, the "prestige" of a medical school is irreversibly linked to its level of NIH funding and its ranking on the NIH table. This is also true for the Carnegie Classification in which, only three public institutions of higher education (USF, FSU, and UF) in the State of the Florida are at the present time included in the top tier of research universities. States such as California, Massachusetts, Pennsylvania, and others have already started to make strategic investments in their top tier public research universities to retain and continue to enhance their leadership role in research, education, and public service. Such an investment is also critical for the development of a technically skilled workforce and for local and regional economy. The State of Florida must also take a lead role in investing in its top three public research universities in an attempt to recruit and retain outstanding faculty and students and to improve existing and build new infrastructure allowing these institutions of higher education to continue to impart quality education impregnated with discovery and innovation.

In summary:

- USF feels that the most direct way to invest in the state's future is to work with the Carnegie 1 Research universities (all of which currently have colleges of medicine) to promote federally funded health research and investing in their ascendancy in the NIH ranks.
- USF College of Medicine is currently #71 in the country in NIH funding with a strategic plan to move the COM to #60. An investment in USF Health will result in significantly increased recruiting and economic development to Florida.
- USF is working with our hospital partners and Moffitt Cancer Center to appreciably increase clinical research in the state of Florida, with the potential to increase the state's share of the billions of dollars currently invested in clinical research.

- The Dean of the College of Medicine also serves as the chairman of the Tampa Bay Chamber of Commerce bioscience subcommittee which is working with the city, county and private industry to leverage the strengths of the University and private industry to entice new bioscience companies.
- USF is working to create partnerships in research and development including working with FAMU to create a center of excellence in pharmacogenomics, working with Moffitt Cancer Center to create a center for excellence in drug design, discovery and development, and working with the Patel Research Center at University Community Hospital to attract world class cardiovascular researchers to USF and Florida.

7. Provide a brief overview/the strategic vision of USF-COM of the medical schools in general. What areas are they focusing on, and what impact are they having in their communities?

The education of medical students in a changing environment requires a strategic plan which maintains the ideals and traditions of the medical profession while recognizing the changing technologies of education and the changing realities of health care. The University of South Florida College of Medicine has accepted that challenge and has embarked on an aggressive strategic plan which will position it well across the missions of research, education and health care while building on the strengths and traditions of its founding. The University of South Florida College of Medicine was established in 1971 by leaders of the region to educate physicians and to enhance health in the Tampa Bay region and State of Florida. Over 2,600 students and an equal number of residents have completed their education in USF affiliated programs. Most of the physicians who received their education at USF provide the core of clinical care to Florida's increasingly diverse population.

Our mandate, namely providing innovative educational opportunities for medical students, advancing scientific knowledge with important research discoveries and providing primary to quaternary care for this growing region, is one which requires creativity, passion, innovation and partnership with the rest of the University and with other entities. In fact, this need and desire for partnerships which will improve the life and health of the community inspires our name---USF Health.

This strategic plan, developed and embraced by the faculty has a blueprint encompassing five overarching goals:

- Creative Educational Models based on a competency driven approach integrating basic education with the need to concentrate on and develop clinical skills. We are passionate about being leaders in educational technology, simulation and the importance of graduating physicians who understand the system of health care as well as its science.
- Entrepreneurial Academic Practice Models incorporating the diverse and innovative models for patient care encompassed by our full time clinical physicians as well as our volunteer faculty in cooperation with our affiliated hospitals. We plan on being a leader in the delivery of ambulatory health care through our USF Health Centers for Advanced Health Care, based on quality, service and technology.
- Research Really Matters is demonstrated by the commitment to focused recruitment, resources and direction in order to achieve national prominence. A keystone of this strategic plan is providing the infrastructure for a twenty-first century research model.
- True Integration focusing on the opportunities gained by collaborating with all other areas of the University and ensuring that USF Health truly reflects the advantages

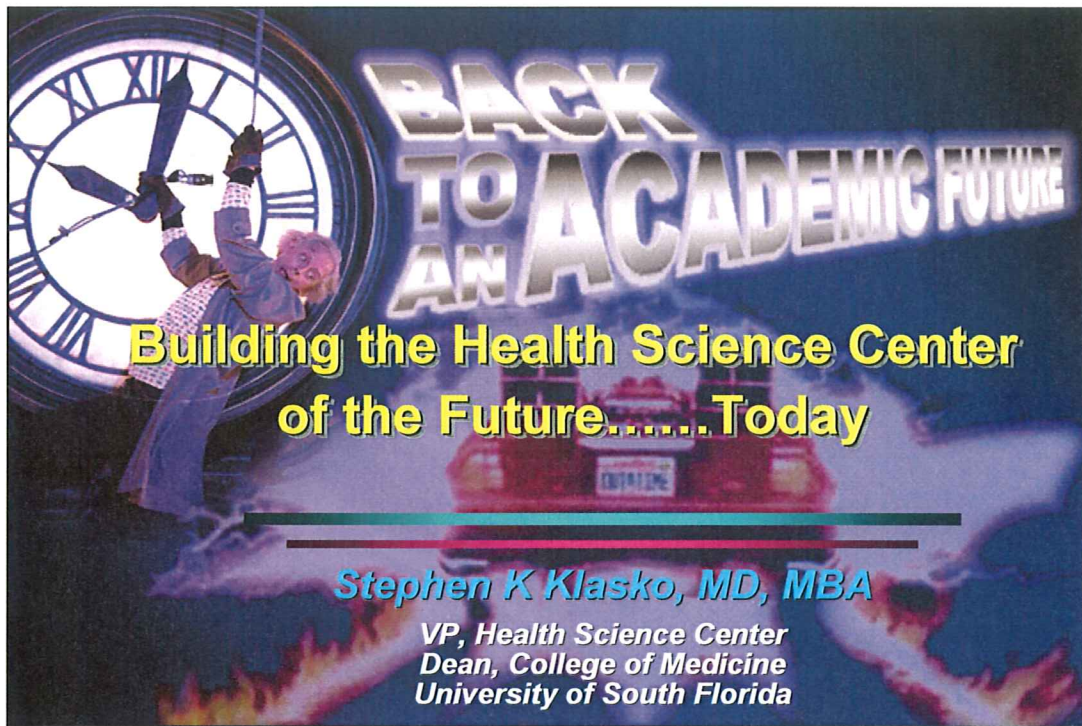
inherent in a collaborative model across all three missions for medicine, nursing, public health.

- National Prominence as demonstrated by recognition of innovative educational practices and quality patient care, achievement of competitive, peer reviewed research funding and publications, and identification of the College as a role-model in multi-disciplinary and inter-disciplinary endeavors.

(See attachment 3)

QUESTION 7

ATTACHMENT 3



Then.....and Now

Issue	Then	Now
Management	3 mission medical school	2 totally separate businesses
Leadership	Chairs with wide ranges Of backgrounds	Academic Chairs CEOs
Focus	Silo of the department	CRISPS

Strategy #1: Creative Educational Models

- Increasing enrollment
- Full time educators
- Teaching “real world” medicine
- Dual degrees for 20% of the class
- Every USF medical student will graduate with a “minor”
- Cross-learning initiatives with nursing and public health

Attendings, Residents and Medical Students Identified the Following Skill Sets as Most Important

- Management of change
- Understanding and getting along with administrators
- Negotiations
- Healthcare financing
- Effective communication
- Academic vs. private careers
- Individuals in an organization
- Leadership development
- Running an effective meeting
- Marketing yourself and your department/practice
- Making patients happy

78% of MBAs Viewed Creativity As an Important Part of Their Success

- 53% had significant creative outlet
 - Painting
 - cooking
- 93% were able to elicit examples where creativity had solved a problem
- 85% routinely read books outside their field

Only 12% of Physicians Viewed Creativity As a Determinant of Success

- Significantly less hobbies outside of medicine
- Hobbies were often precision/noncreative
 - Flying
 - Puzzles
- Only 16% could think of any example where creativity helped them in their profession

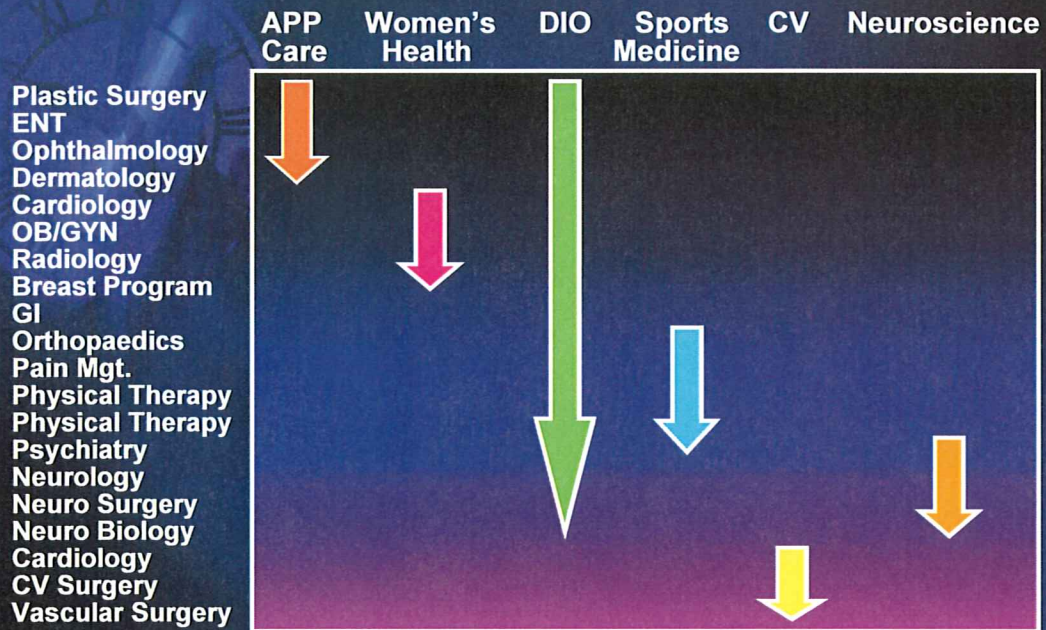
Strategy #2: Service Line Organizational Structures

- CRISPs (Clinical and Research Integrated Strategic Programs)
- Multidisciplinary program designed to enhance access, create more efficient care and improve outcomes
- Allows for inclusion of other health providers
- Coordinated administration and reporting lines
 - High powered teams
 - Incentives to manage patients efficiently and effectively

From SOFTIs to CRISPs

- Move from department based to procedure based credentialing
 - Neurointerventions
 - Appearance Care
 - GYN Imaging
- Wide swings in utilization
 - Cardiac surgery to cardiology
 - Neurosurgery to radiology to neurology
- Need for faculty from different departments for effective clinical management
 - Bariatric surgery
 - Global payments vs fee for service

The CRISP Model in the Ambulatory Setting



Center for Advanced Health Care- USF Health



Strategy #3: Asset Inventory Management System

- Reallocation of educational resources to departments “getting it done”
- Increase in funding and reallocation of AS&T from hospital
- Reallocation of time between missions to more accurately reflect an individual’s effort
- Necessary for any meaningful incentive program

Financing Medical Education

- Tuition and fees from medical school undergraduates
- Excess revenues from the clinical activities of the faculty
- Philanthropy
- State subsidies
- Hospitals
 - 100% of undergraduate and 40% of graduate medical education occurs in medical school hospitals
 - GME funding

The Old Way of Doing Business

Revenues:

Tuition

State:

Gen'l Revenue

Research
Grants

Clinical
Service Fees

Gifts &
Endowment



Expenses:

Teaching

Basic/Clinical
Research

Innovation in
Clinical Care

Hi-Tech Services;
Clinical
Innovation

Care of Indigent &
Underserved

Disadvantages of Current System

- Medical schools do not know the true costs of their missions
- Salary averaging for education
- Unfunded research
- Accuracy of mission allocation
- Sweeping "dirt under the rug" in problem departments

My Financial Commitment To Faculty

- Our books are open to every faculty member.
- Our resources, including and especially faculty effort, are managed with clear accountability by mission.
- Chairs are expected to manage their departments like their personal business, recognizing that their departments are part of a larger organization and have delegated roles and responsibilities within that organization.

My Financial Commitment to Faculty

- The education of medical students is the core mission of the school and is the responsibility of every faculty member. No one is exempt.
- Our success depends on innovation and entrepreneurialism, both of which demand sound execution.
- We must be a learning organization at every level, investing in professional and staff development as a strategic activity.

Then.....and Now

The Economist

London, Jan 30, 2004

The “Dilbert generation academic physician” changed from the moderately paid reasonably secure medical school academic to a highly paid insecure academic involved in almost solely patient care and wondering why he/she is not in private practice

Strategy #4: Faculty Compensation and Incentive Plan

- Links compensation to mission
- Development of a mission based budget grid
- Performance based
- Individual faculty performance targets given each Fiscal Year
- Components
 - X – Base Compensation guaranteed through contract period
 - Y – Adjustable based on Individual, departmental and college performance up to 20% of total compensation at risk at any one time
 - Z – Bonus dependent on availability of departmental funds based on exceptional performance in any mission
- Compensation may be adjusted quarterly based on departmental performance

Strategy #5: Entrepreneurial-Academic Model

- Private-public partnerships
 - Clinical research supersite
 - Practice management education
- Resisting the “practice group or else” mentality
 - Town-gown issues
 - Meaningful voluntary faculty
 - Separating the dean from the “competitive” mode of the group
- Faculty leadership development
- Masters in entrepreneurialism for docs