UUHSC Mission Strategies for IT	Primary Contact	Status
Clinical Strategic Goal: **"To use information technology to improve the health of the community"**		
Objective: Develop an information technology infrastructure that will enhance clinical access and streamline clinical process		
A. Provide improved access to clinical and lab results	Jim Livingston/Enterprise Data Management Nancy Brazleton/EMR Team	Ongoing. We are using the Data Warehouse extensively to provide clinical data for quality improvement projects throughout the Hospitals and Clinics.(**DRC**) Olympus now is results review and simple text documentation. Care Transormation with CPOE and complete structured clinical documentation are next projects in line.(**Clinical Team**)
B. Implement e-signatures for patient care and medical records	Nancy Brazleton/EMR Team	In place for all ambulatory documents and some Inpt. Documents (H & Ps, Op Reports, & Discharge Summaries). Will increase roll-out for Inpatient care as EMR development occurs.
C. Support the advance technology of medical and document imaging	Jim Livingston/Enterprise Data Management Nancy Brazleton/EMR Team	Ongoing. The Data Resource Center provides the backend support for the hardware and OS. This is an ongoing effort.(**DRC**) Document imaging (scanning) in place for Chartless UUOC and at HCH for outside records. Will need additional funds for concurrent licenses and software. We are currently interfacing the text results of all images. Future is to have link to image available within Olympus. Will require additional funds for software and interfaces. Technology will be available thru Philips PACS 2Q05. (**Clinical Team**)
D. Create standard vocabulary and data fields throughout the Health Sciences Center Timeline: 2Q 2002 Responsible Party: ITS	Nancy Brazelton/EMR Team Jim Livingston/Enterprise Data Management	There has been a lot of work done on the vocabulary side of things within the Data Warehouse. We have standardized on UMLS, which encompasses the primary vocabularies we use at UUHSC.(**DRC**) Have made efforts to standardize fields in new documentation forms. Opportunities exist with PowerNotes, PowerForms, etc. (**Clinical Team**)
Objective: Improve clinical documentation tools		
A. Implement an integrated Electronic Medical Record (EMR) across ambulatory and inpatient areas to create a longitudinal, patient-centered health record 1. The EMR will be consistent with the priniciples and functions of a computer-based patient record as defined by the Institute of Medicine	Nancy Brazelton/EMR Team	The following functionality implemented: EMPI, Results Review, Clinical data entry - Problems, Meds, Allergies, Procedures, EasyScript, Simple documentation, PowerForms for UUOC, Document Imaging/Scanning, Inpatient PharmNet, Retail Pharmacy, UUOC Chartless, Upgraded base code to set stage for future. This is used on a **Voluntary** basis in the Inpatient and Ambulatory areas.
B. Install an in-patient integrated Electronic Medical Record (EMR) including results review, physician order entry, clinical documentation and electronic signature	Nancy Brazelton/EMR Team	Await prioritization for kick-off of Care Transformation project. Estimate May 05 kickoff, requires base code upgrade.
C. Promote clinical ancillary systems from specialty areas to enhance decision support through the EMR Timeline: 4Q 2004 Responsible Party: ITS and the Clinical Community	Christy Livingston/Ancillary Database Team	This is on-going as systems have been upgraded we are interfacing results into the EMR

Objective: Implement the Orders Entry and Decision Support functions of the EMR to improve clinical outcomes		Await prioritization for kick-off of Care Transformation project. Estimate May 05 kickoff, requires base code upgrade.
A. Implement an informatics solution that provides a total closed loop medication-use process ie, ordering, dispensing, administering and monitoring	Nancy Brazelton/EMR Team	Multum alerts now fire within PharmNet. Using TheraDoc for Rule Based decision support- pharmacy, epidemiology, MD rounds report. Cerner ADE rules is licensed but implementation is future based on prioritization.
B. Implement an interactive electronic medical record that includes payer verification prompts, online orders that double-check dosing and drug interactions	Jim Livingston/Enterprise Data Management Nancy Brazelton/EMR Team	Future with CPOE for ordering provider. PharmNet does duplicate order, drug interaction checking. Dose range checking is near future.(**Clinical Team**) Ongoing. This is primarily Nancy's area, but the DRC provides backend hardware and OS support for these efforts. (**DRC**)
C. Create a computer record that allows for optimum data acquisition Timeline: 4Q 2004 Responsible Party: ITS and the Clinical Community	Nancy Brazelton/EMR Team	We get data from multiple source systems including Lab, Rad, Blood Gas, multiple transcription companies, Endoscopy, OB, scheduling, ECG, MediServe Therapy and scanned documents. Will continue to add data as it becomes available in other systems and interfaces are written.
Objective: Fully implement the Data Warehouse and associated query tools		
A. Complete the population of the Data Warehouse with clinical data	Jim Livingston/Enterprise Data Management	Ongoing. We have added many new data sources to the Data Warehouse and will be creating tighter links with the Cerner EMR so that we are receiving all of the EMR clinical data into the Data Warehouse.
B. Define data structures to optimize search capabilities	Jim Livingston/Enterprise Data Management	Ongoing. We have made a lot of progress with adding data marts to the Data Warehouse, which optimize the structures to better support access from our users.
C. Fully utilize query tools and educate users on their use Timeline: Ongoing Responsible Party: ITS	Jim Livingston/Enterprise Data Management	Ongoing. We have deployed Cognos query and analysis tools to the users that have requested them. We continue to educate users on the power of the Cognos tools and anticipate many more request for using the tools over the coming year for QI, research and financial analysis and reporting.
Education Strategic Goal: **"Build strong and diversified resources for meeting the needs of our multiple missions"**		
Objective: Enhance educational offerings through use of information technology		
A. Create on-line education programs for staff and faculty who are in use of the EMR/Clinical Information system and other activities (i.e., updates on new drugs, standards of care, procedures, etc.)	Dean's Office	On hold. There may be future opportunities but at this time there is no plans for this type of activity.
B. Convert core courses to on-line courses with practical components as needed	Colleges	pending update to determine which colleges if any, use on-line course work.
C. Create on-line continuing education courses for various professional disciplines will be developed	CME Office	pending update
D. Provide education updates for providers in the community (i.e., Grand Rounds on-line) Timeline: 3Q 2004 Responsible Party: ITS, Eccles Library, Dean's Office	CME, Telemedicine	pending update

Objective: Provide the technical assistance and infrastructure required to offer high quality education programs		
A. Implement an Electronic Medical Record/Clinical Information System that can be utilized in the education of students and health professionals	Nancy Brazelton/EMR Team-Dean's Office	A train domain will be available for students and new employees that is managed by the ITS training dept. Interdisciplinary students may use all of the ITS systems during the course of clinical training at UUHSC. Preliminary discussions have occurred with Cerner to install their Education Software. Cerner also sponsors an Internship for an Informatics student.
B. Develop support services for academic programs through web development and innovative applications.		The Web Resource Center has several on-going projects to assist the colleges in building on-line resources and helping with on-line application processes.
C. Provide resources and opportunities to educate faculty and staff to support the transition to on-line course work.		pending update to determine what colleges will use on-line course work.
D. Establish hospital training program with on-site facility	Teri Olsen/Training	Complete. New Clinical Education Facility in the Health Sciences Education Building opens June 2005. Clinical training classes and staff have been expanded; clinical trainer and training manager meet monthly with Clinical Education Council.
E. Provide access to on-line reference publications, journals and textbooks	Wayne Peay (Mary McFadden)/Eccles Library	Ongoing. Eccles Library has many references to medical journals and publications and continues to work enhancing its academic offerings. Online resources can be viewed at: http://www-medlib.med.utah.edu/
F. Provide secure, remote access to desktop and clinical information resources	Mark Beekhuizen/NetOps	All remote access to Citrix hosted applications flow through the front door of the HSC and thus through the firewall. The secure port for Citrix is the only allowed port providing access to the Citrix environment using 128 bit encryption.
G. Enhance classroom infrastructure, training and support	IMS/Dean's Office	
H. Support desktop video services, digital video production and distribution; and videoconferencing	Marta Petersen/Telemedicine	Ongoing, Community Clinics (8) and Dialysis Centers (9) have videoconferencing
I. Implement wireless Internet and Intranet services for education purposes	Mark Beekhuizen/NetOps	Process is continuing to expand and encompass more and more areas. The campus wireless standards are nearing completion and with a 3 - 6 month project, all of HSC wireless networks can and should be upgraded to support this standard authentication and access. More timely input of planned business processes desiring the use of wireless connectivity services would greatly enhance our ability to more efficiently meet the need.
J. Provide support for electronic signatures for education including e-testing and e-grading Timeline: 3Q 2004 Responsible Party: ITS, IMS, Eccles Library, Dean's Office	Main Campus	e-grading implementation is complete across campus.
Objective: Coordinate investments in support of education		
A. Identify opportunities for shared investments across the educational departments	VP's Office/Core Steering Committee	MBM is developing the electronic Curriculum Vitae which will aid faculty in identifying colleagues who share research interests and provides HSC with on-line lists of individual publications. MBM has also developed Find-a Researcher designed to allow collegues better access to the researching resources & opportunities around them.
B. Evaluate workload requirement for faculty and staff involved in the conversion and support to on-line courses Timeline: Ongoing Responsible Party: MBM, OSVPHS	Cynthia Best/MBM	pending update-researching which (if any) colleges have switched to on-line courses
Objective: Establish benchmarks and evaluate the impact of technology		

A. Track outcomes of graduate achievements, need for continuing education, alumni activities	VP's Office/CME	pending update from CME
B. Determine expected outcomes for each educational program	VP's Office/Dean's Office	Dean's office uses electronic resources to benchmark their medicine program against national standards
Timeline: Ongoing Responsible Party: ITS, Eccles Library, Dean's Office		
Objective: Coordinate database applications and development with Main Campus		
A. Create an integrated database of educational activities	Main Campus	pending udpate from main campus
B. Create a master database of students and residents	Dean's Office	School of Medicine has established a college-specific student databases that can be accessed on-line
C. Implement an on-line application process for prospective students of all Health Sciences' colleges	Dean's Office	Complete for School of Medicine and a College of Pharmacy department; ITS created online admissions applications and review processes. College of Nursing live with vendor product.
D. Provide on-line student, resident and faculty evaluations	Dean's Office	complete. E-survey tool is available across campus.
Timeline: 4Q 2002 Responsible Party: ITS, Dean's Office		
Research Strategic Goal: "To achieve excellence and distinction in academic research"		
Objective: Provide Electronic Research Administration services that increase research revenue by improving the administrative processes of identifying, applying for and managing grants		
A. Alert faculty to funding opportunities.	VP Research/OSP	OSP subscribes to Community of Science (COS) and other funding opportunity resources. The OSP information coordinator meets with faculty to help them get registered in COS so that they can get direct alerts from COS. Other funding opportunities are forwarded to faculty as identified based on their profile and key words.
B. Provide electronic systems that aid in proposal preparation and development.	VP Research/OSP	For B,C, and D - OSP and ITS are moving forward to implement PeopleSoft Grants. External consultants have been hired and an implementation plan is to be completed by March 15. Implementation is expected to begin shortly thereafter.
C. Provide tools for managing and tracking funded grants and contracts.	VP Research/OSP	see above
D. Support and encourage existing efforts to develop a University-wide Electronic Research Administration system.	VP Research/OSP	see above
E. Integrate HSC-specific issues into the University's Electronic Research Administration system	VP Research/OSP	These are to be investigated as we move forward with the PeopleSoft Grants Project.
Timeline: 3Q 2002 Responsible Party: OSP, ITS, Netcom, VP of Research		
Objective: Provide a "Research-Enabling" Network Infrastructure		
A. Provide an accessible network infrastructure that supports sophisticated research substructures.	Mark Beekhuizen/NetOps VP Research	The HSC network is capable of supporting gigabit connections to the desktop and the core is positioned to be upgraded to support transports of 10 gig if required. VLAN support can and does provide data segmentation and could be utilized at anytime to supprot sophisticated research network needs.

B. Support network substructures that meet the specific needs of research groups and provide mechanisms to accommodate network substructures and activities that are inconsistent with general HSC policies and procedures C. Allow network substructures to exist outside of the general HSC infrastructure Timeline: Ongoing Responsible Party: ITS, Basic Sciences Network, NetCom, VP of Research	Mark Beekhuizen/NetOps VP Research Mark Beekhuizen/NetOps VP Research	The HSC network has been designed to be extremely flexible and accessible for speed and security needs. If a research network needed to exist on a provate network this could be accomodated quite easily. If the research need defined that the network exist behind a seperate firewall, VPN connection, or other type of graduated security effort, this too is a fairly simple task for the HSC network to accomodate. The core HSC network can route traffic at any standards based level in order to support delivery of network service to any network considered not the be part of the general HSC infrastructure. VPN services also allow for non-HSC infrastructure networks to maintain secure connectivity over commodity communication resources (i.e. Internet).
Objective: Strategically Manage Information Use		
A. Establish a committee to create and enforce policies regarding the strategic use of warehoused information B. Establish an external advisory board to assure compliance with national policies and norms C. Create mechanisms for ensuring the security of data D. Integrate the data with national resources Timeline: Ongoing Responsible Party: ITS	Jim Livingston/Enterprise Data Management VP Research/IRB Chris Kidd/Security VP Research/Jim Metherall Jim Livingston/Enterprise Data Management	Ongoing. A financial data governance group has been established by Laura Gilchrist that will address this for financial data. The Clinical Outcomes Committee and the UUHSC/CPG Committee are being used to accomplish this on the clinical side. The RGE and IRB have been used to accomplish this goal for research. IRB has a web-enabled databased that tracks research studies and is HIPAA compliant In conjunction with the HIPAA security implementation, we continue to develop policies, procedures, and standards to implement a layered security approach at the HSC. Coupled with these processes is a training component for both IT Administrators and end-users. Ongoing. We submit surgical outcomes data to NSQIP from the Data Warehouse. We submit discharge data to the University Hospital Consortium and receive benchmark data back from them that is stored in the Data Warehouse.
Objective: Integrate Research into the Data Warehouse		
A. Integrate existing research databases into the Data Warehouse B. Provide mechanisms that encourage healthcare providers to enter research-relevant information in the medical record. e.g. Providing mechanisms for entering pedigree information and handling clinical information as quantitative or categorical data whenever possible Timeline: 2Q 2003 Responsible Party: ITS, HSC Research Community	Jim Livingston/Enterprise Data Management VP Research/Jim Metherall	Ongoing. Over the past year we have received a large number of requests for data from the Data Warehouse that are being used for research. We are able to effectively and efficiently deliver data to the researchers along with the Cognos suite of analysis tools to meet their needs. We have built several applications that allow researchers to enter data directly into the Data Warehouse. pending update from Research

Administrative Strategic Goal: **"Through the administrative process: support all missions, provide accessible information, improve efficiencies, and increase convenience"**		The hospital is reviewing a Full Revenue Cycle system to replace current billing system
Objective: Enhance enterprise-wide information technology systems		
A. Create comprehensive datasets	Jim Livingston/Enterprise Data Management	Ongoing. The Data Warehouse continues to grow with additional functionality and data.
B. Develop analytical tools through the data warehouse	Jim Livingston/Enterprise Data Management	Ongoing. We use the Cognos suite of tools to provide users with analysis, ad-hoc query and reporting capabilities.
C. Implement wireless inter- and intranet access	Mark Beekhuizen/Net Ops	Process is continuing to expand and encompass more and more areas. The campus wireless standards are nearing completion and with a 3 - 6 month project, all of HSC wireless networks can and should be upgraded to support this standard authentication and access. More timely input of planned business processes desiring the use of wireless connectivity services would greatly enhance our ability to more efficiently meet the need.
D. Create a comprehensive Help Desk/Contact Management system	Teri Olsen/ITS Customer Relations	Complete. Serviceware Knowledgebase upgraded and expanded. Access implemented throughout ITS and partner teams in HSC (Huntsman, CON, SOM).
E. Standardize and improve physician billing support	Christy Livingston/IDX Team UUMG	We believe this support from an ITS perspective is standardized.
F. Utilize an asset management database	Chris Kidd/Business Administration	The institution currently utilizes Remedy for tracking of all IT hardware assets that are procured through ITS. We will transition this in the short-term to Lawson, to integrate A/P and Lease Management with inventory management. Lawson will meet our needs for the next several years, so we will need to look for a long-term 'best-of-breed' solution. Ultimately this should tie into a Health System equipment tracking system.
G. Implement a disaster recovery plan	Chris Kidd/Security Office	The Business Continuity/Disaster Recovery committee has been meeting for the last several months and are preparing to seek approval to formalize the IT Business Continuity plan as a component of the Emergency Management Plan.
H. Standardize budget system interfaces between HSC & Main Campus	Christy Livingston/Financial Systems Cynthia Best/MBM	There is no plan to interface the two budget systems directly however, there are plans to put both sets of budget data in the data warehouse for analytical use.
G. Implement a data storage infrastructure to provide secure, reliable, high performance and cost effective storage for our data assets. Timeline: 3Q 2003 Responsible Party: ITS, UUMG, and MBM	Jim Livingston/Data Resource Center	Ongoing. Over the past year we have rearchitected a new storage infrastructure and have purchased new SAN, Fabric and Tape Library hardware that is state-of-the-art. This new hardware provides a secure and reliable infrastructure that is scalable for years to come.
Objective: Promote web-enabled systems		
A. Provide access, authentication and electronic signatures through the web	Main Campus/Steve Hess	On hold.
B. Create a fully linked intranet design	Teri Olsen/Web Resource Center	Complete. Dynamic HSC intranet updated daily - see intranet.uuhsc.utah.edu.
C. Offer a web-enabled community portal Timeline: 4Q 2002 Responsible Party: ITS	Teri Olsen/Web Resource Center	In Progress. Patient Portal underway; prototype scheduled go-live March 2005.

Objective: Streamline services through electronic transactions		
A. Provide on-line financial payments	Christy Livingston/Financial Systems Teri Olsen/Web Resource Center	In Progress. Ability to pay hospital bills in final stages. Will be rolled out to Patient Financial Services Spring 2005.
B. Online patient appointment scheduling	ITS/UUMG	Our Web team is in the discovery process and then will begin the process
C. Online patient registration	Christy Livingston/Financial Systems Teri Olsen Web Resource Center	In Progress. Ability to complete registration information online in final stages. Will be rolled out to pilot patient group Spring 2005.
D. Online prescription refills	Jim Livingston/Enterprise Data Management Jim Jorgensen Pharmacy	Complete. Twelve UUHC pharmacies set to accept online refill requests. Project has been very successful.
E. Create a web-enabled billing process	Christy Livingston/Financial Systems Teri Olsen/Web Resource Center	On hold. Will investigate vendor options.
F. Promote real-time requisition and ordering systems	Christy Livingston/Financial Systems	We are implementing Lawson's Materials system
Timeline: 4Q 2004 Responsible Party: ITS, Hospital & Medical Billing Offices		
Objective: Improve adminstrative management through increased information accessibility		
A. Provide health information as educational resource	Liz Workman/Clincial Content Committee Teri Olsen/Web Resouce Center	Complete. Eccles Health Sciences Library received Blue Ribbon award from National commission on Libraries and Information Science for online consumer health education resources.
B. Improve customer service through on-line billing information for patients	Christy Livingston/Financial	Complete. Information with illustrations available on the Home Page tier of public website.
C. Create on-line phone directory for faculty and staff	Cynthia Best/MBM Teri Olsen/Web Resouce Center	MBM has created the "Faculty Finder" designed for faculty to more easily communicate with their peers and assistants
D. Promote management accountability through electronic posting of hospital productivity with link to workflow	Hosp Admin/VPs Office	On hold-pending update if the MBM project will extend to the Hospital.
E. Promote physician accountability through electronic posting of physician productivity with link to workflow	Cynthia Best/MBM	MBM has designed a productivity program for the Health Sciences Center and can be accessed via the MBM Gateway
F. Improve cross-campus communication regarding computing systems	Pierre Pincetl/ITS ITEC, e-Commerce Committee	Ongoing-Creation of the ITS Core Steering Committee
Timeline: Ongoing Responsible Party: ITS, UUMG and MBM		
Objective: Advance administrative workflow efficiencies through information systems		
A. Implement electronic claims submission with coding support	Pierre Pincetl/Christy Livingston ITS	We are processing more claims with HIPAA 4010a version
B. Promote the use of teleconferencing	Pierre Pincetl/ITS Marta Peterson/Telemed	There have been several teleconference sites gone live (8 community clinics; 9 Dialysis Centers) as well as many forums in which UUHSC's teleconferencing projects have been highlighted (news articles, brown bag lunches, health fairs)
Timeline: Ongoing Responsible Party: ITS, Finance Office		

Objective: Establish state-of-the-art IT healthcare application benchmarks to assist HSC leadership with enterprise-wide resouce planning		
A. Work with other academic healthcare centers to determine appropriate work load metrics in healthcare	Pierre Pincetl/ITS	On hold. At this time, there are no generally accepted metrics used across the board in healthcare information technology. However, ITS does participate in on-going projects to develop metrics for future use.
B. Employ tools to track performance and productivity of IT systems and staff	Teri Olsen/ITS	Complete. ITS publishes monthly performance metrics for systems and services. Internally, staff effort tracked by standard categories.
C. Measure the functionality provided to the end user based on generally accepted standards Timeline: 2Q 2002 Responsible Party: ITS	Teri Olsen/ITS	Cancelled: more specific customer service efforts underway to assess ITS systems.
Objective: Provide a secure, yet open and network architecture to create an environment that will facilitate the missions of the Health Sciences Center		
A. Implement a firewall surrounding the internal network and applications of the Health Sciences Center	Chris Kidd/Security	A firewall has been in place at the entrance to the HSC network since 2002. We are currently looking at implementing additional firewalls and network segementation within the HSC to protect more sensitive/critical data.
B. Implement and intrusion detection system	Chris Kidd/Security	An intrusion detection and prevention (IDP) system has been in place since 2002 and continues to mature. The previous system only alerted on potential attacks, the current system shuts down attacks before they reach the internal HSC network. The use and dependence upon wireless technologies continues to grow. Therefore, we will also focus on securing and protecting the wireless networks with, among other things, a wireless intrusion detection and prevention system. This is an on-going process that will continue through the HIPAA security implementation and beyond. An additional component will be to ensure that we
C. Create policies and procedures that promote wise and compliant use of HSC information systems	Chris Kidd/Security	appropriately train on the policies, procedures, and standards that are developed.
D. Train and educate HSC users on the importance of maintaining high standards in regards to security and privacy Timeline: 3Q 2002 Responsible Party: ITS	Chris Kidd/Security Teri Olsen/Training	Over 10,000 staff, faculty, and students at the HSC, as well as hundreds from Main Campus and vendors, have received the HIPAA Privacy and Security training. In addition to the yearly training, routine updates are sent via e-mail and various other UUHSC publications.