Annual Reports - Education   University of Connecticut Health Center Education

1-1-2008

Annual Report Information Technology 2007-2008

Information Technology
Annual Report Fiscal Year 2007 – 2008

Sandra Armstrong, Chief Information Officer

While maintaining virtually 100% availability of UCHC systems in FY'08, IT successfully implemented a broad spectrum of innovative new technologies designed to advance key Health Center initiatives. In close collaboration with our customers, we installed systems which improved patient safety, increased operational efficiencies, supported enhanced revenue and provided sophisticated new automated tools for faculty, students and researchers. In addition to receiving the recognition of two Connecticut Quality Improvement Awards, PwC noted in a report to senior management that with just one more clinical system implementation, UCHC will be in the top 20% of academic health centers relative to the number of innovative clinical systems installed. Another banner year made possible by the energy and enthusiasm of the dedicated and hard-working employees of the IT team.

Information Technology Mission
To lead the organizations we serve by maximizing the role of technology to support and advance the Health Center's mission.

1. 2007 – 08 Goals

	FY 2007 – 2008 Goals	Progress
1.	Manage RFP selection, contracting and planning processes for a Finance and HR replacement system.	Completed. Selection of Banner Finance/HR systems and SciQuest Purchasing system were followed by months of contract review and negotiation, approval by the BOD and successful contract signing by the 6/30/08 deadline. Implementation will begin in October.
2.	Manage the selection of an AVP, Research Informatics and develop a collaborative model for successfully moving forward with implementation of the Research IT Strategy.	In progress. Assembled a search committee, selected a search firm, interviewed several candidates and made an offer in February. Unfortunately, the candidate turned us down in March and our interviews continue.
3.	Manage planning for the NextGen ambulatory EMR and commence work on the implementation.	Completed. Kickoff for NextGen took place in May, the project team has been trained, equipment has been ordered and installed, and implementation is underway.

4. Successfully implement the following strategic IT projects:		
• POE Roll-outs to JDH 4,5,6 and Psychiatry	Completed. The POE system was successfully rolled out to JDH 4,5, and 6, with 85% of hospital beds now on the POE system. NICU and Psychiatry will be completed in FY'09.	
• Medication Administration Checking	Completed. Successfully implemented Medication Administration Checking on CSDU in December, 2007 and the nurses immediately reported patient safety benefits. Full roll-out planned for FY'09.	
• eHIM	In progress. After considerable progress in '07, deferred UMG implementation until after NextGen to ensure integration of new workflows. Hiring currently underway for staff to implement JDH eHIM by March, 2009.	
• Radiology Voice Recognition	Completed. Implemented smoothly in November, 2007, with quick adoption and a positive impact on expenses due to elimination of transcription.	
• Bed Management	Completed. Implemented hospital-wide on 3/25/08 to track real-time status of all patient beds, speeding efforts to ensure timely bed assignments as patients are admitted.	
• Clinical Skills Assessment	Completed. Implemented sophisticated new technology including state-of-the-art AV equipment for Sim Man. A Health Center showpiece!	
• Virtual Microscope	Completed. Leading edge educational technology enables access to microscopy slides via the web, anytime, anywhere, with adjustments to 4 power levels.	
• Research Store – Phase II	Priority changed. Per customer request, re-deployed resource assigned to the Research Store to development of a Committed Effort Log and re-write of Grants Time and Effort. Committed Effort Log is almost complete and requirements are being documented for Time and Effort. Five new service centers were added to the Research Store for a total of 17 in FY'08.	
• Research Repository – Phase III	Completed FY08 tasks. Phase III functionality, scheduled for release in 10/09, incorporates the ability to log samples collected for studies and correlate data between collected samples and patient data.	
• Exchange 2003 Upgrade	Completed. Upgraded the Exchange infrastructure and migrated 8,000 mailboxes to Exchange 2003.	
• Vcell Grid Computing Network	Completed. Designed, built and deployed a separate network infrastructure for Research grid computing.	
• FRS/HRS Hardware Upgrade	Completed FY'08 tasks, including selection and installation of servers. On schedule to move current applications to robust new servers by 9/08.	

2. Significant Highlights 2007 – 08

In addition to the projects listed in the 2007-2008 Goals section, a list of additional significant IT initiatives completed in FY'08 follows:

Education
1. Held Innovations in Education Symposium in April, 2008, the first annual campus-wide forum for faculty, staff and students to share educational e-learning tools and teaching resources and to disseminate information about campus successes.
2. Implemented large group e-testing in April, 2008, with a successful group e-test (125 students) of the 4-hour OS2 basic science exam.
3. Initiated online Technology and Education Newsletter to keep faculty and students updated on the latest innovations in educational technology at the Health Center.
4. Successfully negotiated the contract to move the Hartford Medical Society's historical book and archives collection to the Health Center library.
5. Established a very well-received program to designate a "personal librarian" for new students as a direct line for support in locating and using library resources.
6. Produced numerous sophisticated videos including the Peter Deckers Tribute, the Cancer Center Fundraiser and the Health Center Mission.

Application Development and Support
1. Implemented Siemens Decision Support System, a data warehouse storing POE data which will become the foundation for a comprehensive clinical data warehouse.
2. Purchased and implemented WebFocus as the new reporting platform for Health Center-wide enterprise reporting.
3. Implemented an Operational Data Store for Research Finance which consolidates data from Finance, HR and Space Inventory Systems for reporting and monitoring the efficiency of resource usage on Research projects, and for use in maximizing government reimbursement rates.
4. Implemented Service Oriented Architecture (SOA) for internally developed applications, providing a robust, flexible, state-of-the art framework to improve the efficiency of future development.
5. Completed development of a study volunteer registry to allow marketing and solicitation of patients for research studies. Following inclusion of newly requested features, this application will be released shortly.
6. Received a Connecticut Quality Improvement Silver CQIA Innovation Prize for the sophisticated internally developed Research Core Store.

Clinical:
1. Completed significant upgrade to Flowcast, the latest version of IDX software, enabling us to move forward with new web-based IDX functionality.
2. Completed substantial upgrade to First Databank Drug Allergy Module, used by key clinical systems, to provide more detailed, safer ingredient level allergy checking and to facilitate physician ease of use.
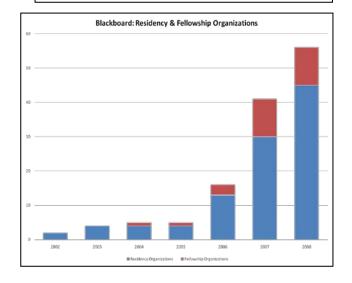
3. Implemented all technology needs for opening of new Dental Implant Center, issued RFP and supported section of the Windent Dental System. System implementation is on plan for September, 2008.
4. Implemented our newly designed inpatient wristbands on the CSDU unit, enabling the bar code features required for both our lab instruments and our Medication Administration Checking implementation.
5. Held a well-attended equipment fair for nursing, which drove a successful evaluation and selection process for our nursing carts, bar code scanners and MAK tablets for respiratory therapy.
6. Completed the RFP and contract for a Tissue Bank system, with the project kickoff slated for August 2008.
7. Completed the Virtual Radiology interface to the RIS system, enabling off-site radiologist support during difficult to staff night and weekend shifts.
8. Received a Connecticut Quality Improvement Silver CQIA Innovation Prize for implementation of Medication Administration Checking technology.
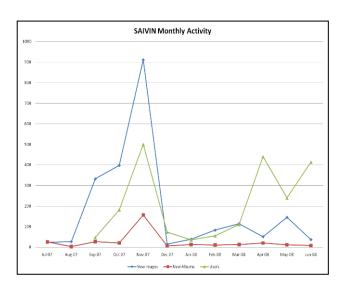
IT Infrastructure
1. Implemented a laptop security initiative including development of a Mobile Computing Device policy and installation of Computrace Complete (Lojack for laptops) on almost 900 UCHC laptops, enabling remote tracking and remote data deletion if stolen.
2. Completed a significant upgrade to the main campus phone system in addition to WAN and switch upgrades for East Hartford, West Hartford, Exchange and Talcott Notch sites.
3. Provided substantial support to Clinical operations including deployment of 600 pieces of equipment for eHIM/Next Gen, configuration/set-up of the Bristol Draw Station and the Southington office, migration of 120 printers to a clustered clinical print server, installation of the SIS upgrade on 125 PCs and rollout of Bed Management to 150 desktops.
4. Upgraded equipment in the UCHC Command Center and implemented the Computer Aided Dispatch System for Public Safety.
5. Established a Security Breach Protocol and a Security Breach Team for deployment in the event of unintended loss/theft of sensitive electronic UCHC data.
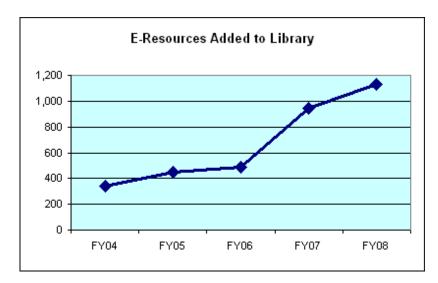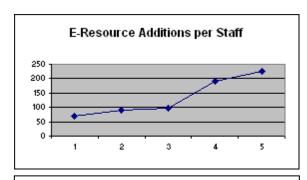
3. Key Performance Indicators 2007 – 08

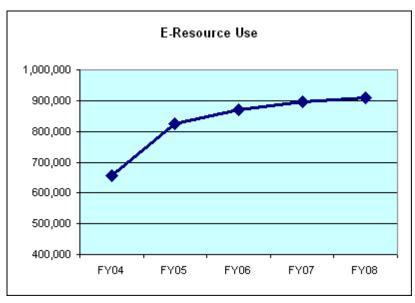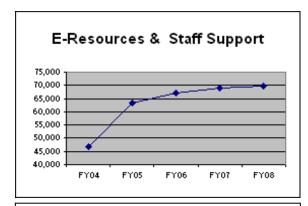Faculty Instructional Technology Services

Blackboard: Residency & Fellowship Organizations

SAIVIN Monthly Activity

Health Informatics

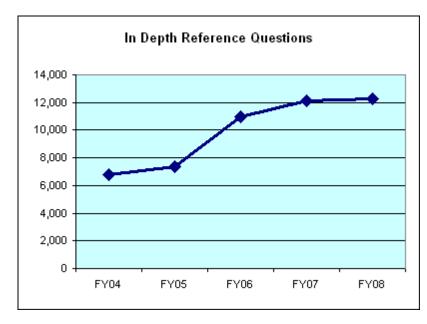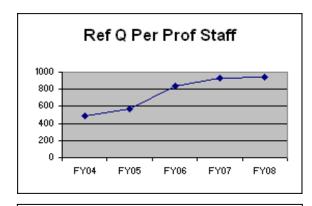### E-Resources Added to Library

E-Resource Additions per Staff

Each new e-resource requires detailed and complex technical staff expertise per entry so that they are easily found and used from our library's web page. Five people work on them (in addition to other projects).
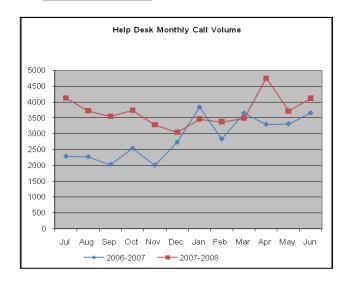
E-Resource Use

E-Resources & Staff Support

Charts show numbers of uses of library's e-resources as counted by library's software. Professional staff was 14 in FY05 and 13 in FY06. Staff support e-resource use by teaching best methods and helping resolve problems.
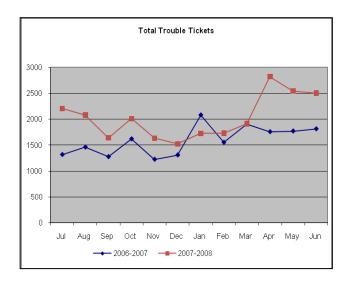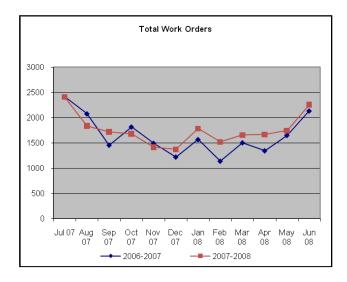
In Depth Reference Questions

Ref Q Per Prof Staff
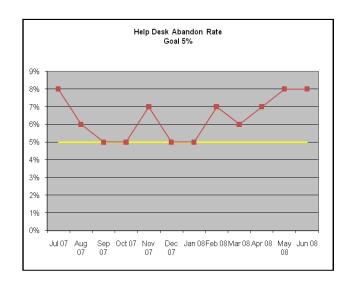
These charts show increased numbers of overall reference questions, and also numbers of questions per staff.

Infrastructure
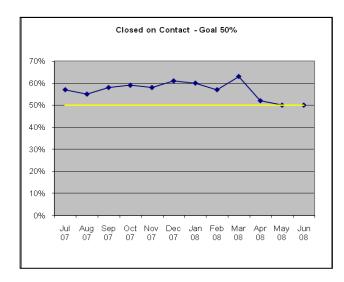
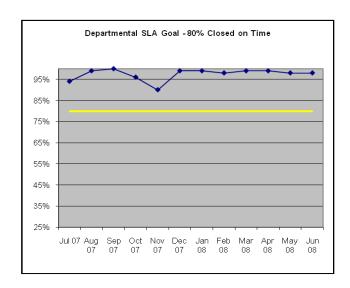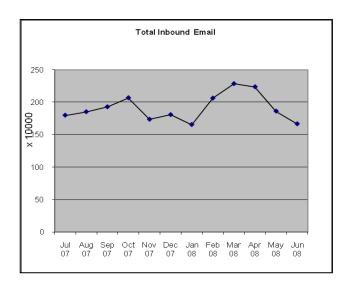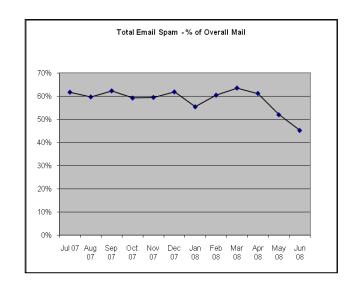**Help Desk Monthly Call Volume**

Legend: 2006-2007, 2007-2008

**Help Desk Abandon Rate
Goal 5%**

Total Trouble Tickets

Legend: 2006-2007, 2007-2008

Total Work Orders

Legend: 2006-2007, 2007-2008

Closed on Contact - Goal 50%

Departmental SLA Goal - 80% Closed on Time

Total Inbound Email

Total Email Spam - % of Overall Mail

Total Computers Supported perTechnician

Total Servers Supported perTechnician

Application Development and Support

Production Support Hours

Support Hours Per Resource

Growth in Interfaces

Portal Usage

IT Employees of the Quarter

Kevin McDonnell – 1st Q	Tara Rousseau – 2nd Q	Missy Parmlee – 3rd Q	TBD - 4th Q

4. 2008-09 Goals

1. Complete UConn 21 projects and spend 70% of available funding.

2. Hire Finance/HR/Purchasing systems implementation staff and complete FY 09 project tasks in accordance with the project plan.

3. Successfully complete FY 09 project plan tasks for the following strategic projects:

   - NextGen
   - eHIM
   - Dental Implant System
   - Research Repository – version 3.0
   - CARS upgrade
   - Time and Effort System
   - Data Center Design/Construction
   - Educational Assessment Tool
   - Library Phase 2 Renovation
   - Virtual Patient Authoring

4. Implement satisfaction surveys for FITS, Help Desk, and Application Development.

5. Achieve the following measurable performance goals:

   - Help Desk
     - Abandon rate: 5% or less
     - Closed on contact: 50%
     - SLA Goals met: 85%
   - Calls answered in 30 seconds or less: 90%
   - Network availability: 99.9%
   - Telecommunications availability: 99.9%
   - E-mail availability: 99.9%