

UNIVERSITY OF IOWA HOSPITALS AND CLINICS TRUSTEES

Action Requested: The Board of Regents, as Trustees of the University of Iowa Hospitals and Clinics (UIHC), is requested to:

Receive an informational UIHC report.

Executive Summary:

The Board of Regents, as Trustees of the University of Iowa Hospitals and Clinics will be provided presentations on the following topics (a separate booklet has been provided with the Board meeting materials):

- Recruitment Update and General Announcements
- Preliminary Year End Activity FY 2007 Volume Review
- Financial Performance Year to Date June 2007
- EPIC Update
- Ambulatory Care Initiatives
- Clinical and Translational Science Award.

AGENDA

BOARD OF REGENTS, STATE OF IOWA **University of Iowa Health Care**

August 1 & 2, 2007
University of Northern Iowa
Cedar Falls, Iowa

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|---|--|
| I. Opening Remarks | Jean Robillard, Vice President for Medical Affairs, Dean Carver College of Medicine |
| II. Recruitment Update
And General Announcements | Donna Katen-Bahensky, Senior Associate Vice President for Medical Affairs and CEO – University of Iowa Hospitals and Clinics |
| III. Preliminary Year End Activity
FY 2007 Volume Review | Donna Katen-Bahensky, SAVP, CEO |
| IV. Financial Performance Year-To-
Date June 2007 | Ken Fisher, Associate Vice President for Finance and Chief Financial Officer - UIHC |
| V. EPIC Update | Lee Carmen, Associate Vice President for Information Systems
Chief Information Officer - UIHC |
| VI. Ambulatory Care Initiatives | Craig Syrop, MD, Associate Vice President for University of Iowa Physicians |
| VII. Clinical and Translational Science
Award | Jean Robillard, MD, VPMA, Dean CCOM |

Recruitment Update and General Announcements

Donna Katen-Bahensky

Senior Associate Vice President for Medical Affairs and Chief
Executive Officer - UIHC

Recruitment Update

- Shane Cerone – Associate Director of Professional Services for UI Hospitals and Clinics
- Wayne Abbott - Director of Engineering Services
- Sheila Frascht, RN, BSN - Director Pediatric Bereavement Program
- New Physician Recruits
 - Alan Reed, MD, Director of the Division of Transplant Surgery
 - Ann Broderick, MD, MS, Medical Director of the Palliative Care Program at UI Hospitals and Clinics
 - William Lynch, MD, Director of the UIHC ECMO Program for adult and pediatric patients
 - Theresa Brennan, MD, Clinical Director of Cardiovascular Medicine

Recruitment Update (cont'd)

- Chief Nursing Officer
 - Heidrick and Struggles
 - Heather Kopecky
 - Search committee formed and meeting
 - Committee chaired by Heidi Nobiling and Dr. Eric Dickson
 - Candidates to be identified in coming months

- Inpatient Chief Medical Officer
 - Received four responses to RFQs (Request for Qualifications)
 - Three finalist for search firm selection
 - Interviewed firms in early July
 - Search committee members have been selected
 - Committee chaired by Bill Hesson and Dr. Mark Iannettoni

General Announcements

- Paul Abramowitz, Pharm. D., Director of the Department of Pharmaceutical Care at UI Hospitals and Clinics and Assistant Dean and Professor in the UI College of Pharmacy has been selected as the treasurer of the American Society of Health-System Pharmacists (ASHP)
 - ASHP is a 30,000 member national professional association that represents pharmacists who practice in hospital, clinics, health maintenance organization, long-term care facilities, home care and other components of health care systems
- College of American Pathologists (CAP) unannounced visit occurred the week of June 25th
 - 17 examiners were on-site
 - Had a positive site visit and are awaiting the final paperwork
- A national study found that Iowa is the quickest place in the country to get emergency medical attention
 - Average 2 hours and 18 min.
 - National average is 3 hours and 42 min.
 - UIHC has focused on efficiency in the emergency room, making changes to cut out waste and improve care
 - Recent improvements include the use of an electronic patient tracking system

General Announcements (cont'd)

**For the Eighteenth Consecutive Year,
University of Iowa Health Care Specialties Earned High
Rankings In U.S. News & World Report**

2nd Otolaryngology

6th Ophthalmology & Visual Sciences

16th Orthopaedic Surgery

18th Neurology/Neurosurgery

22nd Urology

26th Kidney Disease

32nd Gynecology

40th Digestive Disease

Preliminary Year End Activity FY 2007 Volume Review

Donna Katen-Bahensky

Senior Associate Vice President for Medical Affairs and Chief
Executive Officer - UIHC

Volume Indicators

July 2006 through June 2007

	Actual	Budget	Prior Year	Variance to Budget	% Variance to Budget	Variance to Prior Year	% Variance to Prior Year
Operating Review (YTD)							
Admissions	27,829	26,011	26,030	1,818	7.0% ●	1,799	6.9% ●
Patient Days	182,411	166,470	172,966	15,941	9.6% ●	9,445	5.5% ●
Length of Stay	6.55	6.40	6.64	0.15	2.4% ○	(0.09)	-1.4% ○
Average Daily Census	499.76	456.08	473.88	43.68	9.6% ●	25.88	5.5% ●
Surgeries – Inpatient	10,856	10,280	10,078	576	5.6% ●	778	7.7% ●
Surgeries – Outpatient	11,096	11,148	10,930	(52)	-0.5% ○	166	1.5% ○
Emergency Treatment Center Visits	38,766	36,026	35,069	2,740	7.6% ●	3,697	10.5% ●
Outpatient Clinic Visits	689,369	671,477	673,947	17,892	2.7% ●	15,422	2.3% ○
Case Mix	1.7397	1.7360	1.7360	0.0037	0.2%	0.0037	0.2%
Medicare Case Mix	1.9286	1.8797	1.8797	0.0489	2.6%	0.0489	2.6%

● Greater than 2.5% Favorable

○ Neutral

● Greater than 2.5% Unfavorable

Admissions by Type

July 2006 through June 2007

	Actual	Budget	Prior Year	Variance to Budget	% Variance to Budget	Variance to Prior Year	% Variance to Prior Year
Operating Review (YTD)							
Med/Surg	21,262	19,581	19,595	1,681	8.6% 	1,667	8.5% 
Psych	2,198	2,352	2,354	(154)	-6.6% 	(156)	-6.6% 
Pediatrics w/o Newborn	2,443	2,257	2,259	186	8.2% 	184	8.1% 
<i>Newborn</i>	<i>1,387</i>	<i>1,251</i>	<i>1,252</i>	<i>136</i>	<i>10.9%</i> 	<i>135</i>	<i>10.8%</i> 
OB	1,926	1,821	1,822	105	5.8% 	104	5.7% 
TOTAL w/o Newborn	27,829	26,011	26,030	1,818	7.0% 	1,799	6.9% 

		
Greater than 2.5% Favorable	Neutral	Greater than 2.5% Unfavorable

Average Length of Stay by Type

July 2006 through June 2007

	Actual	Budget	Prior Year	Variance to Budget	% Variance to Budget	Variance to Prior Year	% Variance to Prior Year
Operating Review (YTD)							
Med/Surg	5.65	5.57	5.78	0.08	1.4% ○	(0.13)	-2.2% ○
Psych	10.37	9.06	9.41	1.31	14.4% ●	0.96	10.2% ●
Pediatrics w/o Newborn	13.30	13.18	13.69	0.12	0.9% ○	(0.39)	-2.8% ●
<i>Newborn</i>	2.19	2.23	2.22	(0.04)	-1.8% ○	(0.03)	-1.4% ○
OB	3.68	3.49	3.63	0.19	5.5% ●	0.05	1.4% ○
TOTAL w/o Newborn	6.55	6.40	6.64	0.15	2.4% ○	(0.09)	-1.4% ○

 Greater than 2.5% Favorable	 Neutral	 Greater than 2.5% Unfavorable
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Emergency Treatment Center

July 2006 through June 2007

	Actual	Budget	Prior Year	Variance to Budget	% Variance to Budget	Variance to Prior Year	% Variance to Prior Year
Operating Review (YTD)							
ETC Visits	38,766	36,026	35,069	2,740	7.6% ●	3,697	10.5% ●
ETC Admits	10,954	9,907	9,618	1,047	10.6% ●	1,336	13.9% ●
Conversion Factor	28.3%	27.5%	27.4%		2.8% ●		3.0% ●
ETC Admits / Total Admits	39.4%	38.1%	36.9%		3.3% ●		6.5% ●

 Greater than 2.5% Favorable	 Neutral	 Greater than 2.5% Unfavorable
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Financial Performance Year-To-Date June 2007

Ken Fisher

Associate Vice President for Finance and Chief Financial
Officer - UIHC

Comparative Financial Results

Fiscal Year to Date June 2007 (Preliminary as of 7/16/07)



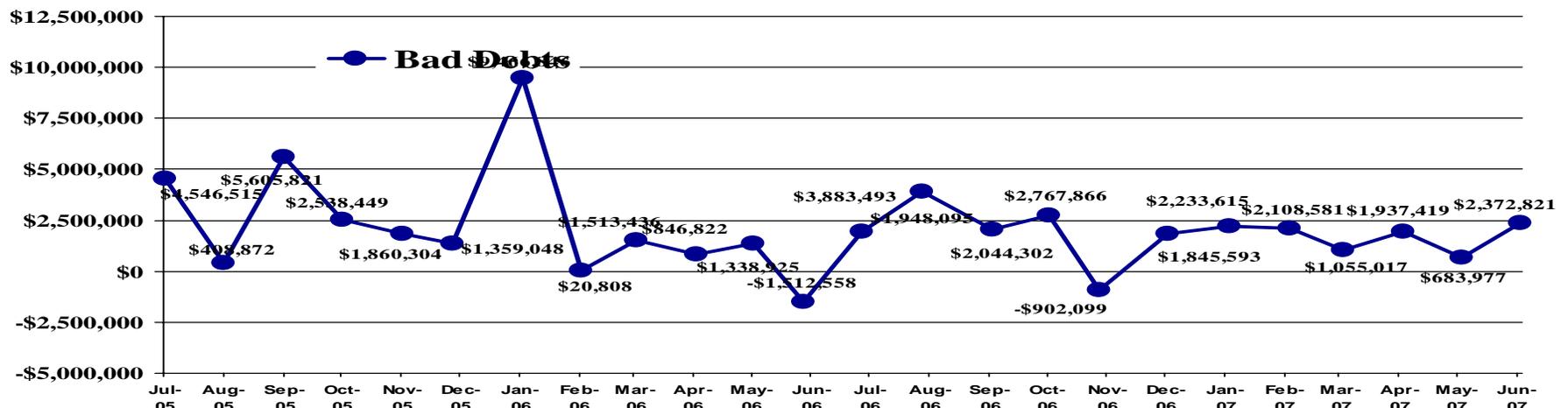
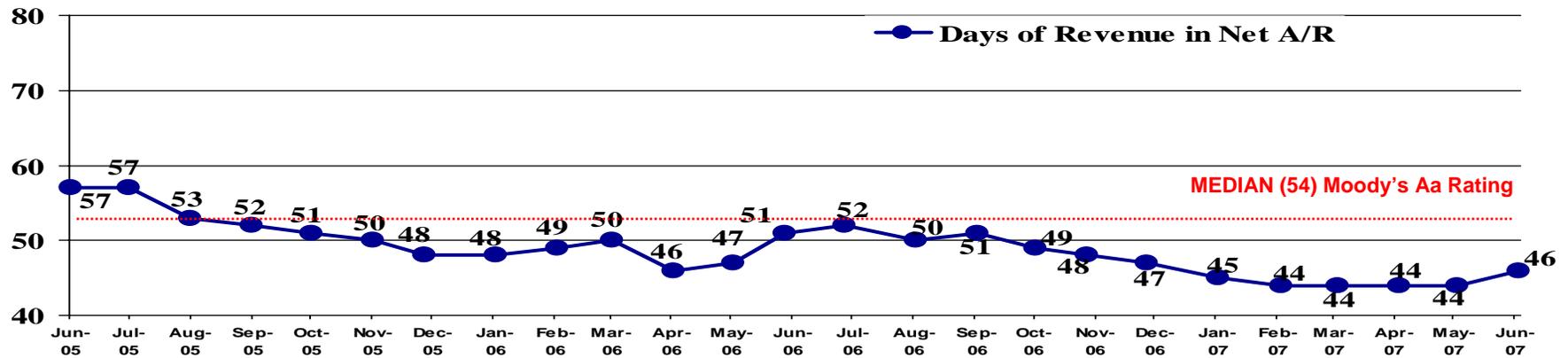
NET REVENUES:	Actual	Budget	Prior Year	Variance to Budget	% Variance to Budget	Variance to Prior Year	% Variance to Prior Year
Patient Revenue	\$756,986	\$713,782	\$688,004	\$43,204	6.1%	\$68,982	10.0%
Appropriations	13,406	13,406	13,406	0	0.0%	0	0.0%
Other Operating Revenue	40,778	39,385	38,590	1,393	3.5%	2,188	5.7%
Total Revenue	\$811,170	\$766,573	\$740,000	\$44,597	5.8%	\$71,170	9.6%
EXPENSES:							
Salaries and Wages	402,666	\$394,840	\$370,913	\$7,826	2.0%	\$31,753	8.6%
General Expenses	297,322	290,633	287,131	6,689	2.3%	10,191	3.6%
Operating Expense before Capital	699,988	685,473	658,044	14,515	2.1%	41,944	6.4%
Earnings Before Depreciation, Interest, and Amortization (EBDITA)	111,182	81,100	81,956	30,082	37.1%	29,226	35.7%
Capital- Depreciation and Amortization	57,382	55,313	54,979	2,069	3.7%	2,403	4.4%
Total Operating Expense	\$757,370	740,786	\$713,023	\$16,584	2.2%	\$44,347	6.2%
Operating Income	\$53,800	25,787	\$26,977	\$28,013	108.6%	\$26,823	99.4%
Operating Margin %	6.6%	3.4%	3.6%	3.2%	94.1%	3.0%	83.3%
Gain (Loss) on Investments	26,414	9,805	10,328	16,609	169.4%	16,086	155.8%
Non-Recurring Items	-	-	10,709	0	0.0%	(10,709)	-100.0%
Net Income	80,214	35,592	48,014	44,622	125.4%	32,200	67.1%
Net Margin %	9.6%	4.6%	6.4%	5.0%	108.7%	3.2%	50.0%

NOTE: all dollar amounts are in thousands

Comparative Accounts Receivable at June 30, 2007 (Preliminary as of 7/16/07)



	June 30, 2005	June 30, 2006	June 30, 2007
Net Accounts Receivable	\$93,964,049	\$95,976,921	\$96,036,727
Net Days in AR	57	51	46



Rating Agencies

- Moody's
 - After review of information, assigned UIHC a “Aa2” rating with stable outlook
 - Outlook changed from negative to stable, reflecting favorable assessment of UIHC’s recent operating performance
 - Strengths of the review noted:
 - Strong clinical reputation and unique market position
 - Strong interrelationship with the University of Iowa, Carver College of Medicine and Faculty Practice
 - Strong liquidity position
 - Strong debt measures
 - 3rd consecutive year of improved operational performance
- Standard and Poor
 - After review of information, assigned UIHC a rating of “AA”
 - Views outlook as stable

EPIC Update

Lee Carmen

Associate Vice President for Information Systems

Chief Information Officer - UIHC

The Electronic Medical Record at UIHC

- UIHC has been using computer technology for recording clinical information since 1970's
- Began development of comprehensive Electronic Medical Record in mid-1990's (INFORMM PATIENT RECORD - IPR)
- IPR currently utilized throughout inpatient / outpatient environments
 - Multidisciplinary clinical documentation
 - Limited Order Entry
 - Results Reporting

The Electronic Medical Record at UIHC

- Information Technology Strategic Planning in 2002 identified substantial needs for enhanced functionality to support
- Concerns about immaturity of commercial solutions
- Developed business objectives associated with improvements to clinical information systems environment
- Calculate potential Return on Investment (ROI) associated with deployment of new clinical systems

Clinical Information Systems Strategy Business Objectives

- Workplace of Choice
 - Decrease demand for manual data acquisition / data entry
 - Reduce time needed for duplicate documentation
 - Reduce time needed to manage paperwork
 - Improve ability to retrieve / analyze data
- Pursuing Excellence
 - Reduce adverse drug events
 - Reduce inefficient therapies
 - Reduce order / documentation interpretation errors
 - Improve patient identification process
 - Reduce patient order-to-administration wait times
 - Reduce verbal orders
 - Improve ability to record / review advanced directives

Clinical Information Systems Strategy Business Objectives (Cont'd)

- Improving Efficiencies
 - Improve ability to track orders
 - Eliminate manual / duplicate documentation of medication administration
 - Eliminate manual charge processing of medication administration
 - Eliminate manual entry of orders in ancillary systems
 - Provide automatic renewal of physician orders
 - Enhance ability for remote consultations
 - Enable rules-based electronic alerts
 - Reduce patient turn-around times
 - Improve speed of data assembly and decision making

Clinical Information Systems Strategy Business Objectives (Cont'd)

- Financial Strength
 - Improve use of standard clinical protocols
 - Reduce practice variation
 - Reduce duplicate / unnecessary orders
 - Reduce expenses associated with managing errors
 - Control the use of expensive medications / ancillary tests
 - Improve documentation to support orders
 - Reduce late charges

Clinical Information Systems Strategy (2002 / 2003)

- Allow commercial enterprise-class Electronic Medical Record market to mature
- Identify, implement mature specific solutions
 - Patient Identification Bar Coding
 - Bar Code Scanning Blood Products
 - Bar Code Scanning Medication Administration
 - Critical Care Documentation

Clinical Information Systems Strategy (cont'd)

- Peer institutions begin reporting success with enterprise Computerized Provider Order Entry (CPOE)
- Increased utilization of IPR drives increased demand for functionality
- Key foundational elements go-live
 - Bar code scanning – Blood Products, Medications
 - Wireless data network
 - Mobile clinical computing
 - Critical Care documentation

Clinical Information Systems Strategy (cont'd)

- Select Replacement Clinical Information Systems Vendor
 - Single Integrated Vendor vs. Best in Class
 - 12 month process to identify requirements, issue Request for Proposal (RFP), evaluate vendor responses, conduct reference site reviews, analyze Total Cost of Ownership
 - Epic Systems Corporation selected as vendor of choice
 - Contract signed Fall 2006
 - Implementation Kick-off January 2007

Clinical Information Systems Strategy

- Laboratory Information Systems
 - Current System End Of Life 2010
 - General Lab, Medical Microbiology, Anatomic Path, Molecular Path, Blood Bank, Donor Management
 - Separate RFP to identify single integrated solution

Clinical Information Systems Project Scope



- Clinical Documentation, Order Entry, Results Reporting (inpatient/outpatient)
- Inpatient Pharmacy
- Electronic Medication Administration Record
- Operating Room Management System
- Anesthesia Information System
- Radiology Information System
- Health Information Management
- Critical Care
- Cardiology
- Oncology
- Ophthalmology
- Transplant
- Emergency Room
- Labor & Delivery
- Patient Web Portal
- Referring Physician Web Portal
- Clinical Data Warehouse

Clinical Information Systems Total Cost of Ownership

Software		
Primary Vendor	License Fees	\$ 12.3 M
	Maintenance	\$ 2.85 M / Yr
Third Party	License Fees	\$ 3 M
	Maintenance	\$ 400 K / Yr
Hardware	Acquisition	\$ 13 M
	Maintenance	\$ 3.0 M / Yr
Implementation & Training	Primary Vendor Staff	\$ 10 M
	Third Party Staff	\$ 1.8 M
	UIHC Staff	\$ 12 M

Contract Term: Perpetual License

Calculations Assume Minimum 7 Year Use

Epic Implementation Strategy

- **Phase 0** – Education & Training : **COMPLETE**
- **Phase 1** – Analysis & Design : **COMPLETE**
- **Phase 2** – Workflow Validation : **COMPLETE**
- **Phase 3** – Advanced Design & Usability Labs
- **Phase 4** – Testing & Training
- **Phase 5** – Go-Live & Optimization
- **Phase 6** – Rollout

Epic Implementation Timeline

- Clinical Data Repository – November 2007
- Operating Room / Radiology Information Systems – March 2008
- Inpatient Pharmacy / Electronic Medication Administration / Critical Care Flowsheets – November 2008
- Clinical Documentation / Order Entry / Results Reporting / Emergency Room / Health Information Management – February 2009

Epic Implementation Challenges

- Maintaining Focus
- Facilities
- Decision Making
- Customizations
- Workflow Redesigns
- Data Conversions
- Clinician Acceptance
- Integration with Existing Systems
- Staff Training
- House-wide Go-Lives

Ambulatory Care: Innovation, Quality, and Services Update

Craig Syrop, MD

Associate Vice President for University of Iowa Physicians

Background Overview

- Navigant Consulting Inc. (NCI) was hired to recommend optimal structuring of the Ambulatory Care Clinics in the following areas:
 - Organizational Structure
 - Management Structure
 - Operational Structure
 - Financial Structure
- Timeframe: July, 2006 through December, 2006 onsite for initial evaluations and findings

Innovation, Quality and Service (IQS)

- Charge for Work Group:
 1. Lead change effort to transform Navigant recommendations into focused UI Health Care priorities
 2. Align priorities with strategic plans of CCOM and UIHC to focus efforts on innovation, quality of care, exceptional outcomes and clinical service

Goals for the IQS Initiative

Building a Culture in UI Health Care

- Be an organization of continual process improvement
- Enhance emphasis on collaborative patient and family-centered care
- Maintain high expectations for excellence and teamwork
- Anticipate change and be proactive

Navigant Recommendation Areas

- **Ambulatory Care Access**
- **Cash Collections**
- Clinic Operating Expenses
- **Clinic Operations**
- Faculty Compensation
- Faculty Survey
- Financial Reporting
- Funds Flow
- Human Resources and Labor Force
- **Physician Productivity**
- **Support Staff**
- Organizational Structure

The Academy

- Purpose - Set standard expectations for customer service
- Initial Timeframe - 6 months for creation and implementation
- Current Activity
 - Development of Round One of the curriculum for current staff: Tools to Provide High-Quality Customer Service
 - Round 1 Timeframe:
 - June 1st: Draft Curriculum Completed
 - June: Train the Trainers
 - July: Train the Supervisors
 - August: Train the Front-Line Staff
 - Set standard expectations for customer service of front-line staff and supervisors
- Provide essential tools to support staff
 - Empower staff via development of a greater skill set
 - Prepare for flexibility of job functions within the clinics
 - Encourage cross-training

Ambulatory Standards of Excellence

- Strategic Plan: Innovative Care
 - *Goal #1: Care Delivery*
 - We will be recognized as a state and national leader in developing and implementing new and more efficient health care delivery models that emphasize a quality-driven patient experience
- Current Activity:
 - Final version of the Standards is ready for print
 - Initial dashboards have been distributed to the clinics and posted on the UI Health Care website, the Point, for internal access
 - All Departments are creating action plans to map out process improvement activity based on initial dashboards to be completed by August 15th
 - Advisory Group has been formed with members of various Clinic Leadership Teams to evaluate metrics and influence implementation

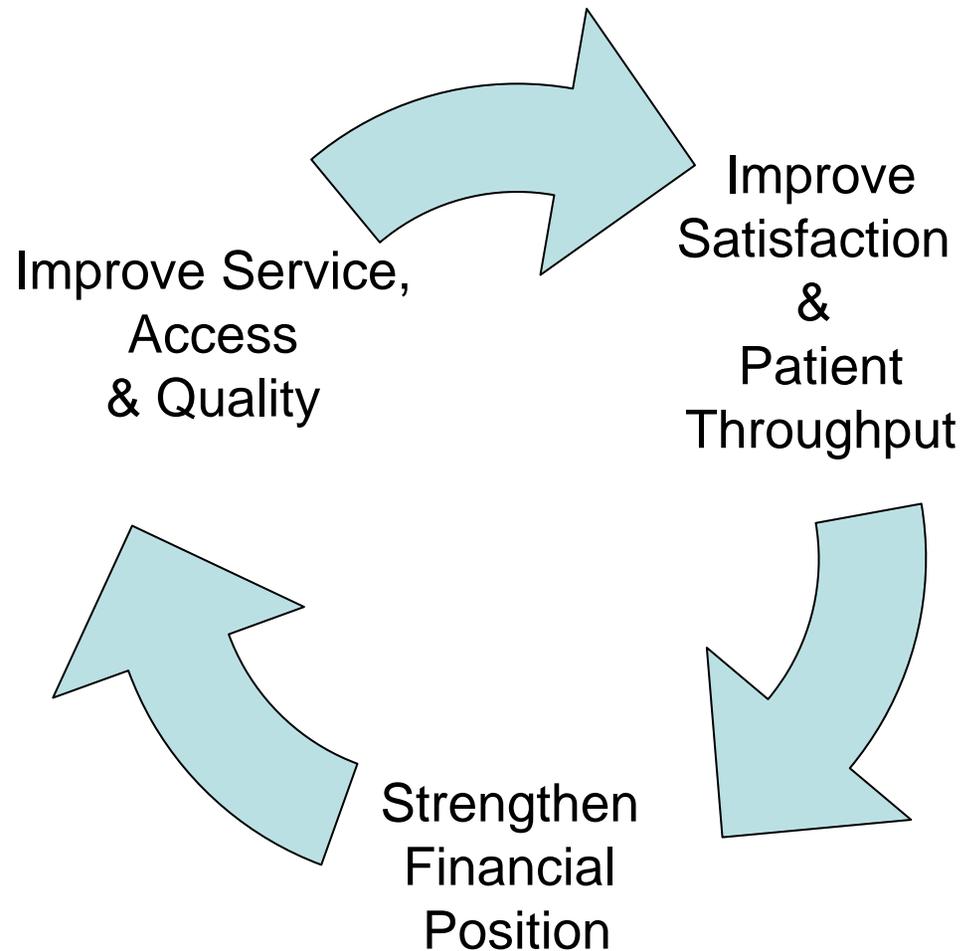
Process Improvement

- Goal: Improve Access and Quality by focusing on
 - Scheduling
 - Appointment Availability
 - Physician Availability
 - Patient Throughput in the Clinics
 - Patient Satisfaction
- Focus Areas
 - Front-End Activity
 - Clinical Throughput

Process Improvement (cont'd)

- Initiative Timeframe
 - Current Activity
 - Work with the test clinics to evaluate the process and determine the scope
 - Late August through September
 - Complete process improvement for the first test clinic
 - Were the clinic goals identified and met?
 - Identify successes and opportunities for improvement regarding the process in order to improve prior to activity in the next clinic
 - October / November
 - Complete process improvement for the second test clinic

UI Health Care Cycle of Success



Clinical and Translation Science Award Update

Bringing Discoveries to Iowa Communities

Jean Robillard, MD

Vice President for Medical Affairs and Dean CCOM

Clinical and Translational Science Award

Major Goal

- To serve as a magnet that brings together basic, translational, and clinical investigators, community clinicians, clinical practices, networks, professional societies, and industry to develop new professional interactions, programs, and research projects

Clinical and Translational Science Award (cont'd)

Purposes

- To create an incubator for innovative research tools and information technologies
- To synergize multi-disciplinary and inter-disciplinary clinical, translational and community researchers
- To catalyze the application of new knowledge and techniques to clinical practice at the front lines of patient care

Clinical and Translational Science Award (cont'd)

Objectives

- Improve and enhance the state of clinical research and clinical trials in the state, by building trust through community partnerships
- Force changes to ensure that clinical research and clinical trials are viewed in the context of long-term commitment to the community
- Allow all Iowans to have access to the most recent clinical trials and to the most advanced protocols to treat diseases
- Provide mechanisms that allow for follow-up health care to all citizens when a clinical trial or treatment ends.
- Allow primary care providers and community specialists to play a role in clinical trials
- Provide every citizen in Iowa the opportunity to access, in their own community, the most advanced treatment available

Clinical and Translational Science Award (cont'd)

Impact on the State of Iowa

- One of the major goals of the Clinical and Translational Research Initiative is to stimulate the development of new entrepreneurial ventures between the University, biotechnology companies and communities across the State of Iowa

Clinical and Translational Science Award (cont'd)

Financial Impact on State of Iowa

- The return will be in federal funds and new investments by new companies coming to Iowa
- We estimate that the funding of the CTSA will bring over \$65 million in federal dollars to the State of Iowa over the next 5 years in support of this initiative
- The success of this initiative will depend however on the direct commitment of the State to support the human infrastructure necessary to develop clinical research and clinical trials across the State of Iowa