University of Iowa Health Care

Presentation to
The Board of Regents, State of Iowa
October 29-30, 2008

Agenda

- Opening Remarks (Robillard)

- Volume and Financial Performance (Kates & Fisher)

- Initial Impressions: Highlighted Areas of Opportunity & Management Approach (Kates)

- Clinical Information Systems (Carmen)

- University of Iowa Institute for Biomedical Discovery (Rothman)

Operating and Financial Performance

First Quarter FY09

Ken Kates

Associate Vice President and CEO, UI Hospitals and Clinics

and

Ken Fisher

Associate Vice President for Finance and CFO, UIHC

Volume Indicators
July 2008 through September 2008

UNIVERSITY *of* IOWA HEALTH CARE

	Actual	Budget	Prior Year	Variance to Budget	% Variance to Budget	Variance to Prior Year	% Variance to Prior Year
Operating Review (YTD)							
Admissions	7,407	7,542	7,355	(135)	-1.8% ⚪	52	.7% ⚪
Patient Days	49,089	47,579	47,667	1,510	3.2% 🟢	1,422	3.0% 🟢
Length of Stay	6.63	6.31	6.48	0.32	5.1% 🔴	0.15	2.3% ⚪
Average Daily Census	533.58	517.16	518.12	16.42	3.3% 🟢	15.46	3.0% 🟢
Surgeries – Inpatient	2,875	3,157	2,744	(282)	-8.9% 🔴	131	4.8% 🟢
Surgeries – Outpatient	3,209	2,914	2,863	295	10.1% 🟢	346	12.1% 🟢
Emergency Treatment Center Visits	12,428	11,433	11,035	995	8.7% 🟢	1,393	12.6% 🟢
Outpatient Clinic Visits	185,402	180,886	172,321	4,516	2.5% 🟢	13,081	7.6% 🟢

	Actual	Budget	Prior Year	Variance to Budget	% Variance to Budget	Variance to Prior Year	% Variance to Prior Year
Case Mix	1.8358	1.7722	1.7129	0.0636	3.6%	0.1229	7.2%
Medicare Case Mix	1.9303	1.9188	1.8284	0.0115	0.6%	0.1019	5.6%

🟢 Greater than 2.5% Favorable   ⚪ Neutral   🔴 Greater than 2.5% Unfavorable

4

Admissions by Clinical Department
July 2008 through September 2008

UNIVERSITY *of* IOWA
HEALTH CARE

	Actual	Budget	Prior Year	Variance to Budget	% Variance to Budget		Variance to Prior Year	% Variance to Prior Year	
Operating Review (YTD)									
Family Medicine	323	312	294	11	3.6%	🟢	29	9.9%	🟢
General Surgery	859	803	842	56	7.0%	🟢	17	2.0%	⚪
Internal Medicine	2,113	2,251	2,240	(138)	-6.1%	🔴	(127)	-5.7%	🔴
Neurology	392	371	331	21	5.6%	🟢	61	18.4%	🟢
Neurosurgery	563	530	468	33	6.2%	🟢	95	20.3%	🟢
Obstetrics/Gynecology	790	772	762	18	2.3%	⚪	28	3.7%	🟢
Ophthalmology	25	27	28	(2)	-8.2%	🔴	(3)	-10.7%	🔴
Orthopedics	631	626	552	5	0.8%	⚪	79	14.3%	🟢
Otolaryngology	136	172	172	(36)	-21.0%	🔴	(36)	-20.9%	🔴
Pediatrics	596	692	627	(96)	-13.9%	🔴	(31)	-4.9%	🔴
Psychiatry	539	581	594	(42)	-7.2%	🔴	(55)	-9.3%	🔴
Cardiothoracic	163	126	106	37	29.5%	🟢	57	53.8%	🟢
Urology	203	238	270	(35)	-14.7%	🔴	(67)	-24.8%	🔴
Other	74	40	68	34	85.8%	🟢	6	8.8%	🟢
Total	7,407	7,542	7,354	(135)	-1.8%	⚪	53	0.7%	⚪

🟢 Greater than 2.5% Favorable   ⚪ Neutral   🔴 Greater than 2.5% Unfavorable

5

Outpatient Surgeries – by Clinical Department
July 2008 through September 2008

	Actual	Budget	Prior Year	Variance to Budget	% Variance to Budget	Variance to Prior Year	% Variance to Prior Year
Operating Review (YTD)							
Cardiothoracic	18	13	26	5	38.5% 🟢	(8)	-30.8% 🔴
Dentistry	143	97	145	46	47.4% 🟢	(2)	-1.4% ⚪
Dermatology	13	14	12	(1)	-7.1% 🔴	1	8.3% 🟢
General Surgery	442	341	367	101	29.6% 🟢	75	20.4% 🟢
Gynecology	162	155	170	7	4.5% 🟢	(8)	-4.7% 🔴
Internal Medicine	0	3	3	(3)	-100.0 🔴	(3)	-100.0% 🔴
Neurosurgery	78	18	21	60	333.3% 🟢	57	271.4% 🟢
Ophthalmology	888	788	795	100	12.7% 🟢	93	11.7% 🟢
Orthopedics	669	683	648	(14)	-2.0% ⚪	21	3.2% 🟢
Otolaryngology	467	408	394	59	14.5% 🟢	73	18.5% 🟢
Pediatrics	0	3	0	(3)	-100.0% 🔴	0	0.0% ⚪
Urology *w/ Procedure Ste.*	329	392	282	(63)	-16.1% 🔴	47	16.7% 🟢
Total	**3,209**	**2,915**	**2,863**	**294**	**10.1%** 🟢	**346**	**12.1%** 🟢

🟢	⚪	🔴
Greater than 2.5% Favorable	**Neutral**	**Greater than 2.5% Unfavorable**

6

Inpatient Surgeries – by Clinical Department
July 2008 through September 2008

University of IOWA HEALTH CARE

	Actual	Budget	Prior Year	Variance to Budget	% Variance to Budget	Variance to Prior Year	% Variance to Prior Year
Operating Review (YTD)							
Cardiothoracic	241	254	208	(13)	-5.1% 🔴	33	15.9% 🟢
Dentistry	41	47	31	(6)	-12.8% 🔴	10	32.3% 🟢
Dermatology	0	0	0	0	0.0% ⚪	0	0.0% ⚪
General Surgery	751	800	706	(49)	-6.1% 🔴	45	6.4% 🟢
Gynecology	196	225	202	(29)	-12.9% 🔴	(6)	-3.0% 🔴
Internal Medicine	0	0	0	0	0.0% ⚪	0	0.0% ⚪
Neurosurgery	452	496	440	(44)	-8.9% 🔴	12	2.7% 🟢
Ophthalmology	41	46	37	(5)	-10.9% 🔴	4	10.8% 🟢
Orthopedics	745	794	679	(49)	-6.2% 🔴	66	9.7% 🟢
Otolaryngology	214	247	213	(33)	-13.4% 🔴	1	0.5% ⚪
Pediatrics	0	0	0	0	0.0% ⚪	0	0.0% ⚪
Urology *w/ Procedure Ste.*	194	249	228	(55)	-22.1% 🔴	(34)	-14.9% 🔴
Total	**2,875**	**3,158**	**2,744**	**(283)**	**-9.0%** 🔴	**131**	**4.8%** 🟢

🟢 Greater than 2.5% Favorable   ⚪ Neutral   🔴 Greater than 2.5% Unfavorable

Emergency Treatment Center
July 2008 through September 2008

UNIVERSITY of IOWA
HEALTH CARE

	Actual	Budget	Prior Year	Variance to Budget	% Variance to Budget	Variance to Prior Year	% Variance to Prior Year
Operating Review (YTD)							
ETC Visits	12,428	11,433	11,035	995	8.7% 🟢	1,393	12.6% 🟢
ETC Admits	3,265	3,215	3,062	50	1.6% ⚪	203	6.6% 🟢
Conversion Factor	26.3%	28.1%	27.7%		-6.6% 🔴		-5.3% 🔴
ETC Admits / Total Admits	44.1%	42.6%	41.6%		3.4% 🟢		5.9% 🟢

🟢 Greater than 2.5% Favorable   ⚪ Neutral   🔴 Greater than 2.5% Unfavorable

Clinic Visits by Clinical Department
July 2007 through September 2008

UNIVERSITY of IOWA
HEALTH CARE

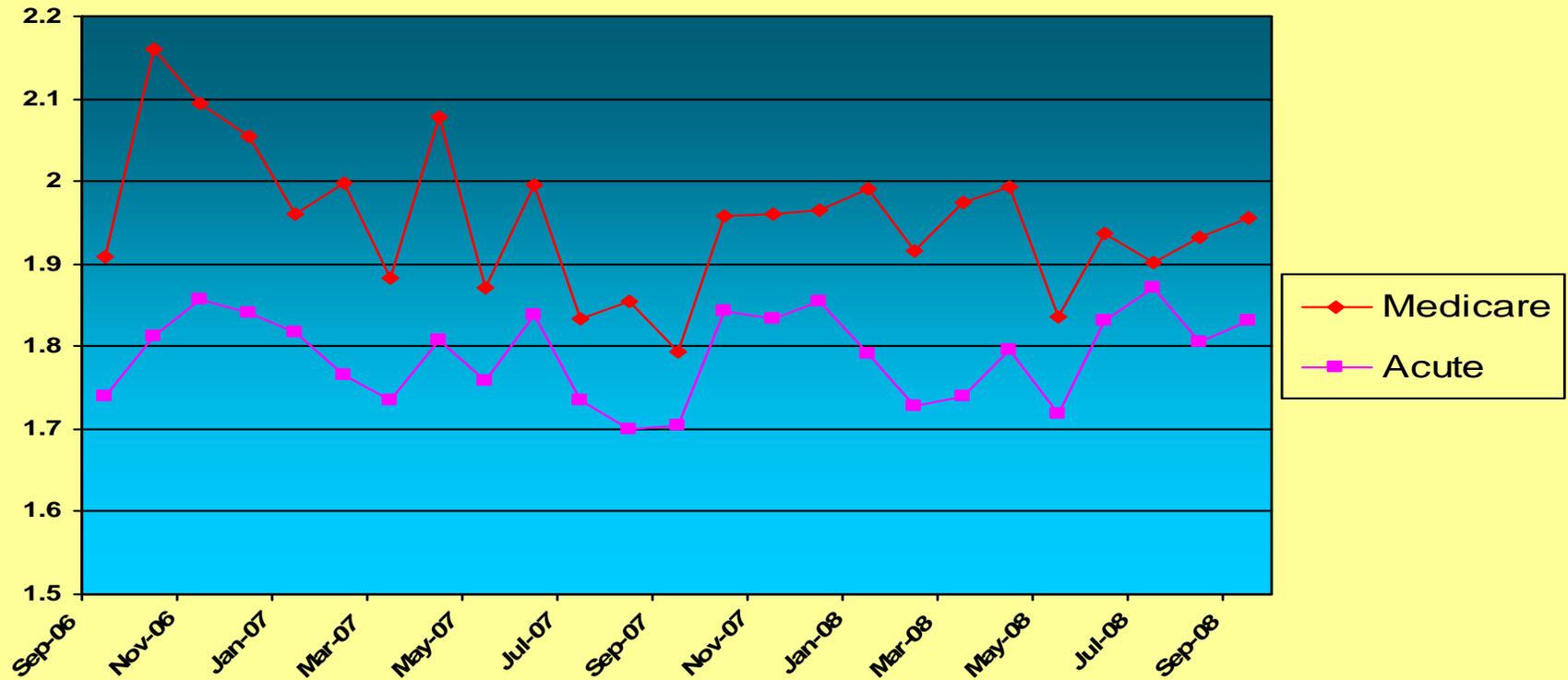|	Actual	Budget	Prior Year	Variance to Budget	% Variance to Budget		Variance to Prior Year	% Variance to Prior Year	
Operating Review (YTD)									
Anesthesia	3,767	4,170	4,172	(403)	-9.7%	🔴	(405)	-9.7%	🔴
CDD	1,929	1,752	1,771	177	10.1%	🟢	158	8.9%	🟢
Clinical Research	1,944	1,983	1,965	(39)	-2.0%	⚪	(21)	-1.1%	🔴
Dermatology	6,459	6,345	5,923	114	1.8%	⚪	536	9.1%	🟢
ETC	12,430	11,067	10,904	1,363	12.3%	🟢	1,526	14.0%	🟢
Employee Health Clinic	5,032	4,200	4,785	832	19.8%	🟢	247	5.2%	🟢
Family Care Center	23,203	25,208	24,295	(2,005)	-8.0%	🔴	(1,092)	-4.5%	🔴
General Surgery	6,931	6,592	6,899	339	5.1%	🟢	32	0.5%	⚪
Hospital Dentistry	5,917	6,169	5,925	(252)	-4.1%	🔴	(8)	-0.1%	⚪
Internal Medicine	27,182	26,948	25,360	234	0.9%	⚪	1,822	7.2%	🟢
Neurology	3,931	3,903	3,946	28	0.7%	⚪	(15)	-0.4%	⚪
Neurosurgery	2,375	2,225	2,216	150	6.7%	🟢	159	7.2%	🟢
Obstetrics/Gynecology	17,546	16,615	15,977	931	5.6%	🟢	1,569	9.8%	🟢
Ophthalmology	18,329	19,191	16,103	(862)	-4.5%	🔴	2,226	13.8%	🟢
Orthopedics	13,439	13,148	12,899	291	2.2%	⚪	540	4.2%	🟢
Otolaryngology	7,204	6,868	7,010	336	4.9%	⚪	194	2.8%	🟢
Pediatrics	9,820	8,535	8,388	1,285	15.1%	🟢	1,432	17.1%	🟢
Psychiatry	9,964	9,886	9,690	78	0.8%	⚪	274	2.8%	🟢
Cardiothoracic	619	561	540	58	10.3%	⚪	79	14.6%	🟢
Urology	3,936	3,767	3,562	169	4.5%	🟢	374	10.5%	🟢
Other	3,445	1,754	1,646	1,691	96.4%	🟢	1,799	109.3%	🟢
Total	**185,402**	**180,885**	**173,976**	**4,517**	**2.50%**	🟢	**11,426**	**6.57%**	🟢

🟢 Greater than 2.5% Favorable   ⚪ Neutral   🔴 Greater than 2.5% Unfavorable

9

Case Mix Index

# UIHC Comparative Financial Results
Fiscal Year to Date September 2008

	Actual	Budget	Prior Year	Variance to Budget	% Variance to Budget	Variance to Prior Year	% Variance to Prior Year
NET REVENUES:							
Patient Revenue	221,436	227,914	194,299	(6,478)	-2.8%	27,137	14.0%
Appropriations	1,754	1,754	3,512	0	0.0%	(1,758)	-50.1%
Other Operating Revenue	11,680	10,722	10,415	958	8.9%	1,265	12.1%
Total Revenue	**$234,870**	**$240,390**	**$208,226**	**($5,520)**	**-2.3%**	**$26,644**	**12.8%**
EXPENSES:							
Salaries and Wages	$127,636	$124,302	$108,865	$3,334	2.7%	$18,771	17.2%
General Expenses	93,167	91,742	80,281	1,425	1.6%	12,886	16.1%
Operating Expense before Capital	$220,803	$216,044	$189,146	$4,759	2.2%	$31,657	16.7%
Cash Flow Operating Margin	**$14,067**	**$24,346**	**$19,080**	**($10,279)**	**-42.2%**	**($5,013)**	**-26.3%**
Capital- Depreciation and Amortization	17,906	18,946	16,952	(1,040)	-5.5%	954	5.6%
Total Operating Expense	$238,709	$234,990	$206,098	$3,719	1.6%	$32,611	15.8%
Operating Income	**($3,839)**	**$5,400**	**$2,129**	**($9,239)**	**-171.1%**	**($5,968)**	**-280.3%**
Operating Margin %	**-1.6%**	**2.2%**	**1.0%**		**-3.8%**		**-2.6%**
Gain (Loss) on Investments	2,872	4,287	5,720	(1,415)	-33.0%	(2,848)	-49.8%
Non-Recurring Items	-	-	-	0	0.0%	0	0.0%
Net Income	**($967)**	**$9,687**	**$7,849**	**($10,654)**	**-110.0%**	**($8,816)**	**-112.3%**
Net Margin %	**-0.4%**	**4.0%**	**3.8%**		**-4.4%**		**-4.2%**

Comparative Accounts Receivable
at September 30, 2008

	June 30, 2007	June 30, 2008 (Preliminary)	September 30, 2008
Net Accounts Receivable	$101,254,328	$110,533,709	$134,478,550
Net Days in AR	49	48	54
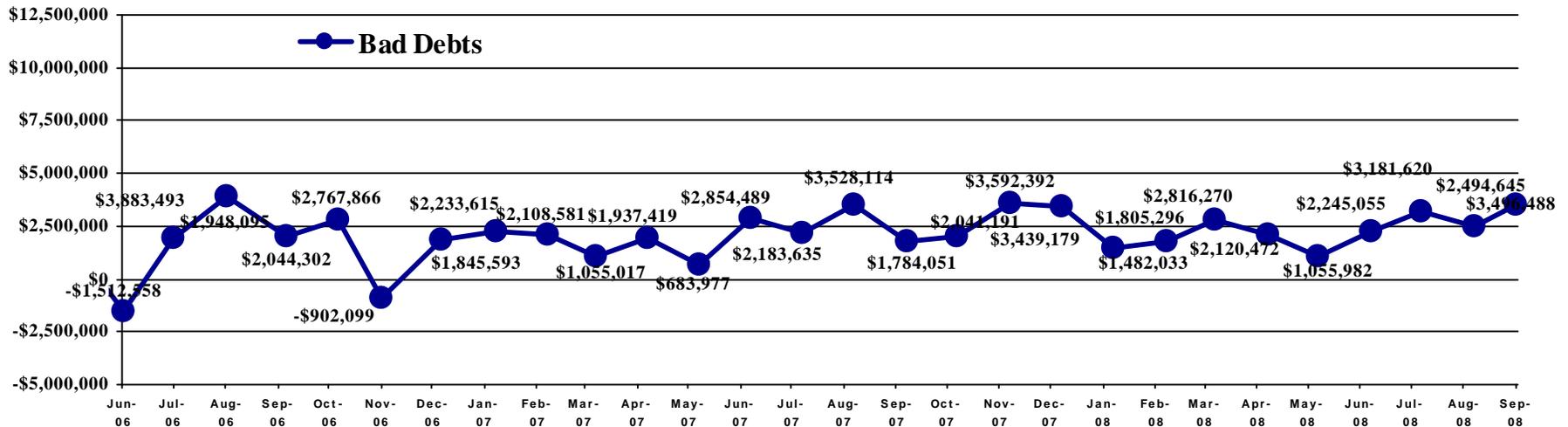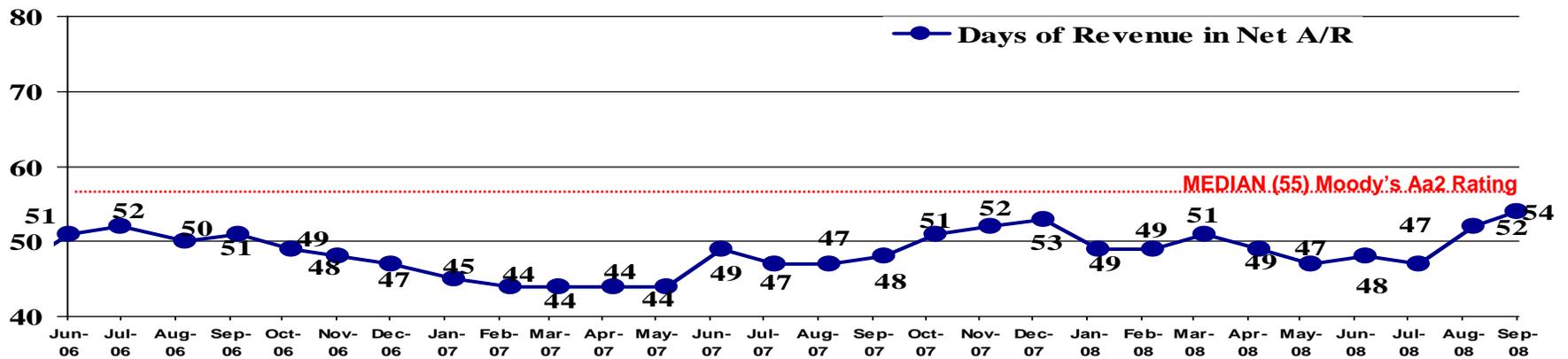
Initial Impressions:

Highlighted Areas of Opportunity & Management Approach

Ken Kates

Associate Vice President and CEO, UI Hospitals and Clinics

Challenges Facing Academic Medical Centers

National Trends

- Workforce shortages and work redesign

- Clinical quality and outcomes

- Competitive environment

- Sustainable financial margin

- Capacity management

- Patient safety

- Supply chain management

- Revenue cycle

Three Key Areas Highlighted:

- Managing Access, Throughput and Capacity
  - Inpatient beds
  - Operating rooms

- Executing Multiple Improvement Initiatives

- Cost Management

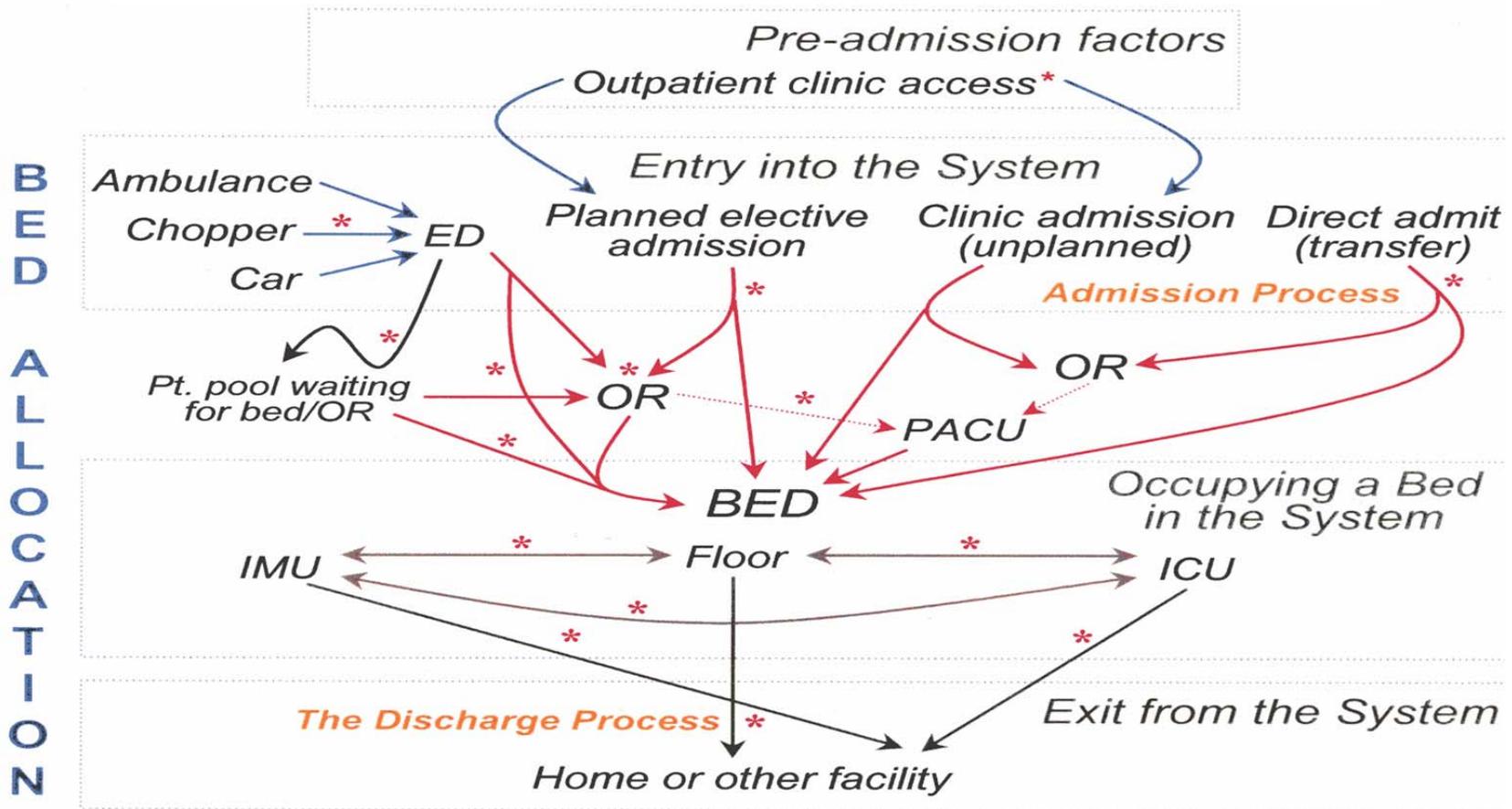# *Management Guiding Principles*

- Nothing Trumps Clinical Patient Safety/Quality

- Commit to Excellence

- Prioritize - What to Focus On and Not to Focus On

- Measure the Important Things - Benchmark

- Right People in the Right Roles

- Communicate at All Levels - Transparency

- Recognize and Reward Success

- Program Management as a Core Competency

- Discipline and Rigor
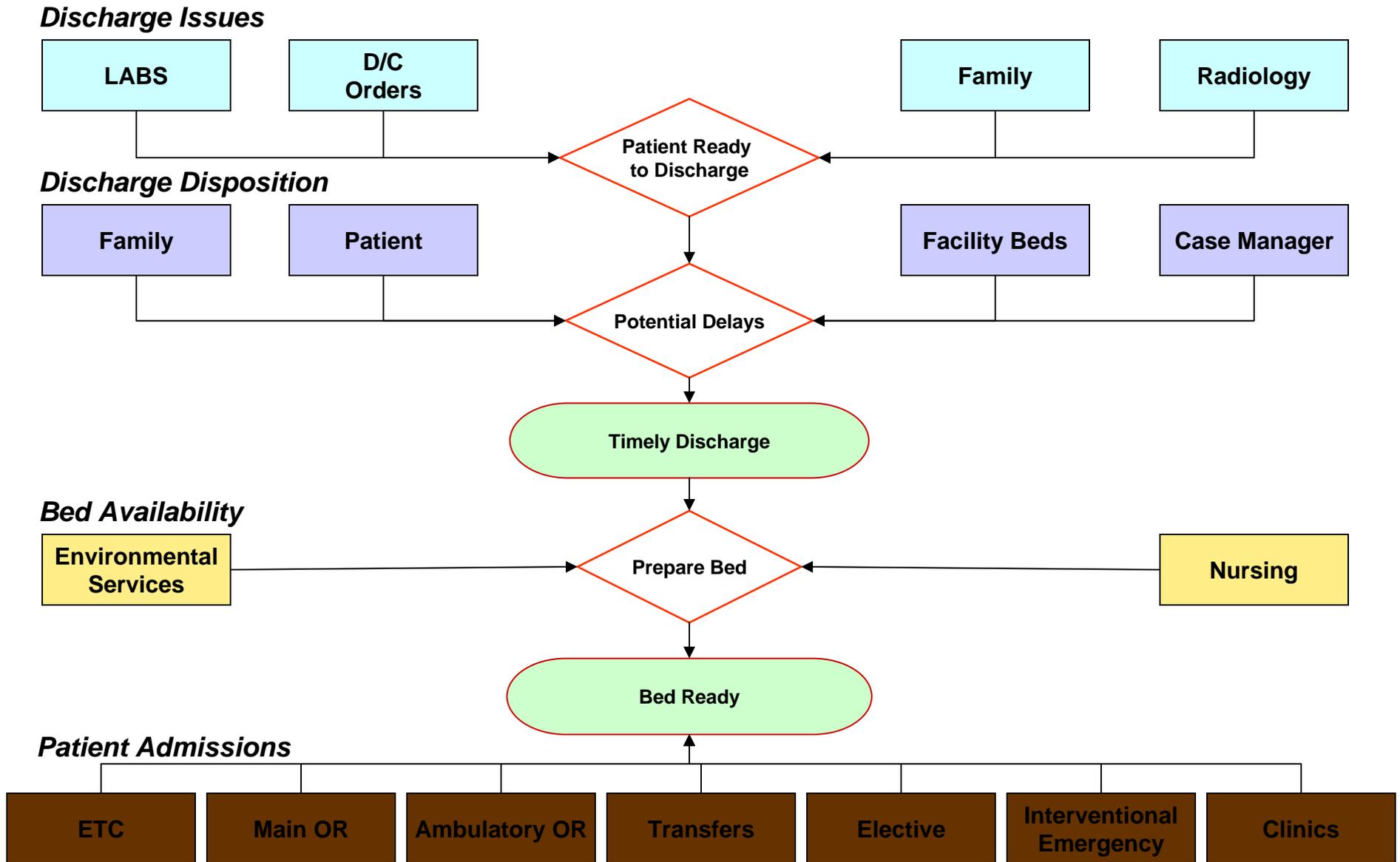
Managing Access, Throughput and Capacity

How to increase capacity incrementally and efficiently to support program growth – bridging from today until new facilities are on line?

Inpatient Bed Management

Factors Affecting Timeliness of Discharge & Bed Availability

UNIVERSITY of IOWA
HEALTH CARE

Discharge Issues

| LABS | D/C Orders | | Family | Radiology |

Patient Ready to Discharge

Discharge Disposition

| Family | Patient | | Facility Beds | Case Manager |

Potential Delays

Timely Discharge

Bed Availability

| Environmental Services | | Nursing |

Prepare Bed

Bed Ready

Patient Admissions

| ETC | Main OR | Ambulatory OR | Transfers | Elective | Interventional Emergency | Clinics |

Discharge Time

- Process Metrics

  - Average Discharge Time (overall, Adult/Children's, by service, by unit)

  - Bed Turnaround Time (elapsed time between patient leaving bed to bed cleaned)

  - Average Length of Stay

  - Readmission Rates (readmit within 30 days of discharge)

- Outcome Metrics (earlier discharge time is expected to result in the following)

  - Outside transfers placed within 24 hours of request

  - Reduce Emergency Room Average Bed Time (lag between bed request to leave ER)
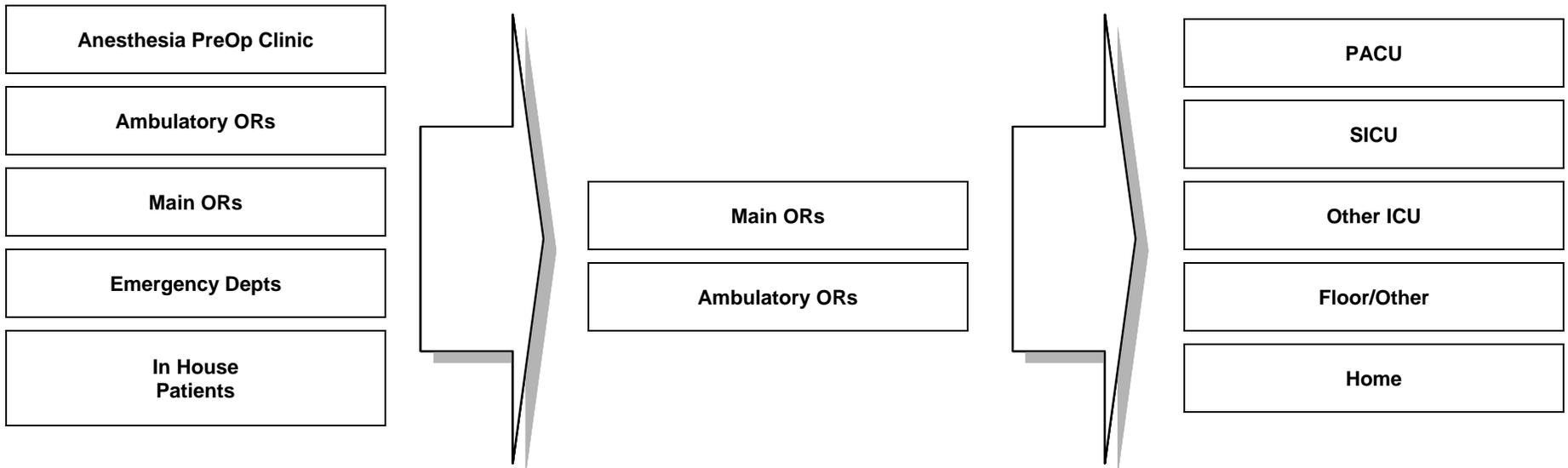
  - Reduce PACU Average Bed Time

The Complexity of Throughput and Capacity

University of Iowa HEALTH CARE

Operating Rooms

Pre-Op   Intra-Op   Post-Op

| Scheduling | Testing, Pre-Reg, Chart Prep | Patient Arrival & Prep | Intra-Operative | Recovery/ Transfer/ Discharge |

Anesthesia PreOp Clinic
Ambulatory ORs
Main ORs
Emergency Depts
In House Patients

Main ORs
Ambulatory ORs

PACU
SICU
Other ICU
Floor/Other
Home

Managing / Tracking Many Tactics

UNIVERSITY *of* IOWA HEALTH CARE

PeriOp Re-Design Initiative Team Chair:

Group: Patient Flow / Teamwork Team Members:

Example

MAJOR GOAL: Improve patient flow and maximize efficiency/productivity in perioperative process

Initiative Task	Results Expected Target/Results	Action	Next Steps	Responsible	Due Date	Current Status	Status Last Week	Progress From Last Week	Challenges
1 Start Time									
1.10 Staggered Starts	Staggered starts for timely first cases	a. Measure average pt. times from Pre Op to Incision b. Quantify steps needed for staggered start c. Decide on times to target	Measure and Report Measure and Report Group study		2/8/07 2/15/07	Complete Complete InProgress	Complete Complete InProgress		Reluctance to move Anesth. Conference Residents arriving late to Pre-op H&Ps, Equipment delays, etc.
1.20 Define On-Time Start Marker	Consensus on what marks on-time	a. Establish alternatives to In-OR as on-time start b. Survey AMC peers on their methodology c. Gather consensus on definition of timely start d. Monitor and enforce new start time	Group study Group study Group study		2/2/07 2/7/07 3/16/07	Complete Complete InProgress	Complete Complete InProgress		Reluctance to move Anesth.Conference Requires commitment from leadership H&Ps, Equipment delays, etc.
2 Increase Available OR Blocks									
2.10 Lengthen OR Day	Night block time established	a. Design late-afternoon blocks (second sitting) b. Line up staffing for second sitting c. Create Optime room locations for Second Sitting d. Surgeons sign up for second sitting block e. Monitor utilization	Group study Define Shifts Software Change Gather sign-ups Measure and Report		2/1/07 2/12/07 3/5/07 3/5/07	Complete Complete Complete InProgress	Complete Complete Complete InProgress		Not enough surgeon volunteers yet
2.20 Add ORs	Build additional 2 ORs	a. Propose location(s) for two additional OR's b. Determine approximate cost of options c. Allocate dollar toward formal architectural plan	Group study Group study Group study			Complete Complete InProgress	Complete Complete InProgress		Capital allocation issues meeting 3/26
2.30 Move Services Off-site	Shift select services offsite	a. Identify services which would be moved offsite b. Identify offsite locations for them to move to c. Shift services to offsite locations	Group study			Complete	Complete		
3 Reduce Turnover Time									
3.10 Measure Room Turnovers	Monitor times to identify outliers	a. Measure historic turnover times b. Set target for turnover times (35/20/20) c. Install "turnover greaseboard" to monitor in real-time	Measure and Report Group study IS Request		2/8/07 2/8/07 4/1/07	Complete Complete InProgress	Complete Complete InProgress		Need Assistance from Epic
3.20 Reduce Turnover Times	Turnovers similar to targeted avg.	a. Reduce factors which prolong turnovers	Group Study			FutureTask	FutureTask		
4 Increase Specialization									
4.10 Anesthesia Specialization	Increase DACC specialization	a. Measure current levels of Anesthesia specialization b. Increase specialization of Anesthesia assignments	Measure and Report Group study		2/15/07	Complete InProgress	Complete InProgress	Geographic pod assignment being explored. Data to be analyzed. DACC buy-in secured.	
4.20 Nurse Specialization	Increase nurse specialization	a. Measure current levels of Anesthesia specialization b. Specialize nursing assignments inter-location	Measure and Report Group study						
5 Reduce PACU LOS									
5.10 Expedite PACU Throughput	Increased throughput in PACU	a. Measure current PACU LOS b. Identify bottlenecks in PACU / Bed Access / Floors Work w Bed Access to coordinate timely c. communication d. Implement improved informational processes	Measure and Report Group study Group study		2/23/07 2/23/07 3/23/07	Complete Complete InProgress	Complete Complete InProgress	Proposal for a greaseboard in Bed Access showing current PACU patient status has been met w enthusiasm from leadership. Nuances of report and corresponding workflows are being investigated.	Capping -- as was the case on Unit# on 3/15 -- leads to OR backups, backed up PACUs, patients overnighting, sub-optimal clinical care and substantial patient dissatisfaction.
6 Surgeon's Lounge									
6.10 Redeploy Surgeons Lounge	Surgeon's Lounge as dictation/work room	a. Identify appropriate use of Surgeon's Lounge (dictation) b. Identify alternative locations for nursing PC access c. Install additional PCs for nursing access (block room) d. Communicate plan to faculty and staff	Group study Group study IS Request Group study		2/23/07 2/23/07 3/16/07 3/21/07	Complete Complete Complete Ongoing	Complete Complete InProgress	Alternate Nursing workstation areas have been identified and built. Lounge has been freed for physician use.	

22

Action Forcing Process

Example

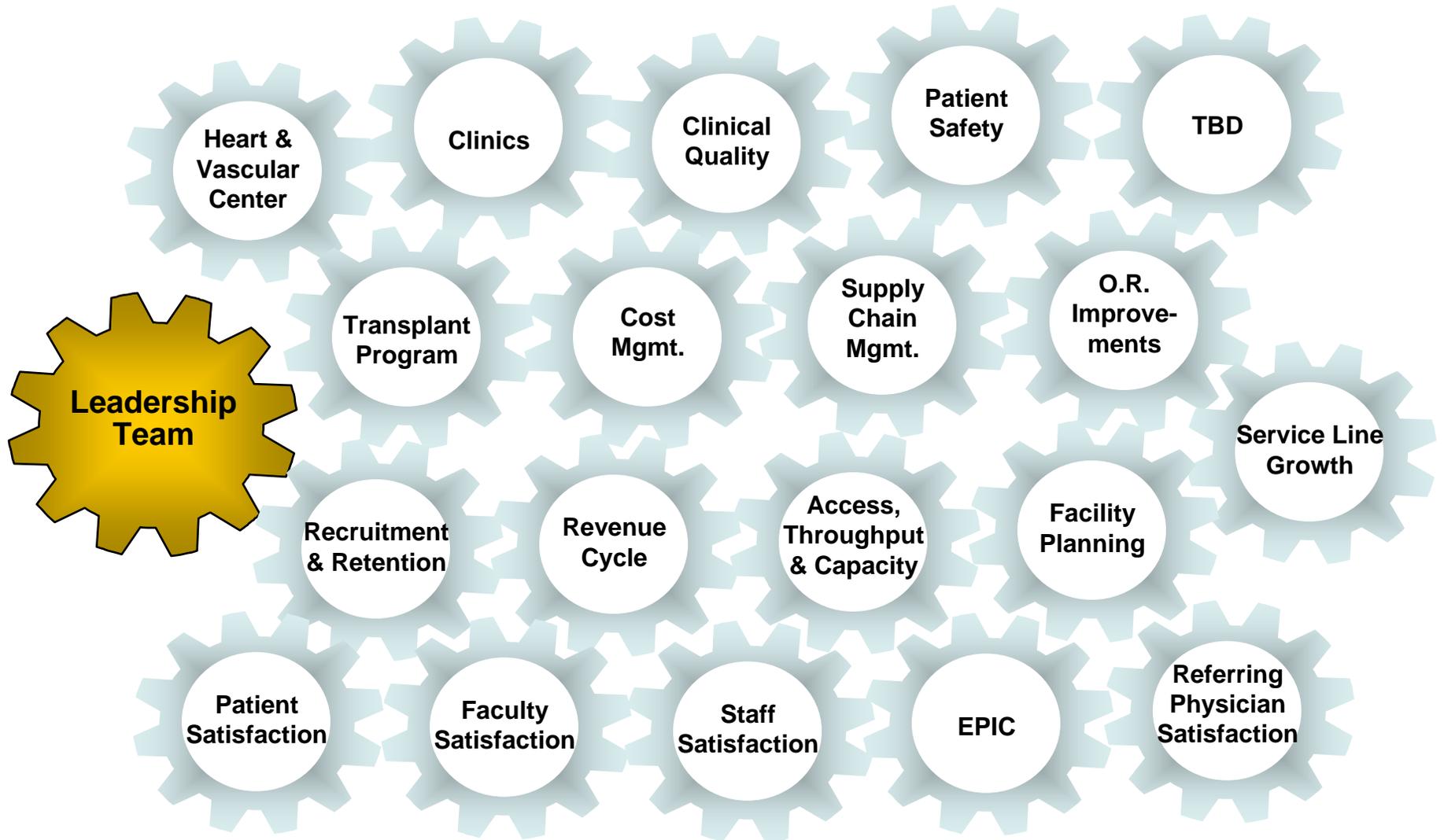PeriOp Re-Design Initiative -Executive Summary

Group	Initiative	Current Status	Last Week's Status		Initiative	Current Status	Last Week's Status		Initiative	Current Status	Last Week's Status	Pages
1. Patient Flow												2-3
	1 Start Time	At Risk	At Risk	5	Reduce PACU LOS	At Risk	In Progress	9	GOR Facility Redesign	At Risk	At Risk	
	2 Increase Available OR Blocks	At Risk	In Progress	6	Surgeon's Lounge	Complete	In Progress	10	Streamline Pre-op Flow	Future Task	Future Task	
	3 Reduce Turnover Time	In Progress	In Progress	7	Perioperative Scorecard	In Progress	In Progress	11	Standardized Orders & CMS Compliance	In Progress		
	4 Increase Specialization	In Progress	In Progress	8	SSI Crew Training	In Progress	In Progress					
2. Supplies, Instruments & Equipment												4-6
	1 Inventory Reduction	In Progress	In Progress	5	Equipment	In Progress	In Progress					
	2 Instruments	In Progress	In Progress									
	3 Reduce Implant Costs	In Progress	In Progress									
	4 Improve supply chain efficiency	In Progress	In Progress									
3. Patient Experience												7-9
	1 Improve Wayfinding	In Progress	In Progress	5	Waiting Room Experience	In Progress	In Progress	9	Volunteerism	Complete	Complete	
	2 Patient Family / Communication	In Progress	In Progress	6	Clarifying Patient Expectation	In Progress	In Progress	10	Pagers for Families	Complete	Complete	
	3 Standardize Pre-Surg Instruction	In Progress	In Progress	7	Pre-op Ante Room	Complete	Complete					
	4 Remodel 2nd Floor Corridor	In Progress	In Progress	8	Upgrade 2nd Floor Plumbing	Complete	Complete					
4. Scheduling/Clinics												10-11
	1 Standardize OR Scheduling	In Progress	In Progress	5	Optime Driving RFA	In Progress	In Progress	9	Anesthesia Clinic Referrals	Future Task	Future Task	
	2 Valet Enhancement	Complete	Complete	6	Pre-Surgical Paperwork	In Progress	In Progress	10	Increase Payor Mix	In Progress		
	3 Procedure Expansion	In Progress	In Progress	7	Patient Pre-Surg Packets	In Progress	In Progress					
	4 Clinic Centralization	In Progress	In Progress	8	Clinic Staffing Ratios	In Progress	In Progress					
5. Systems Support												12-13
	1 Phoenix - Orders & Clin Doc	At Risk	At Risk	5	Coordination of Time Tracking	In Progress	In Progress	9	RFID	Future Task	Future Task	
	2 Optime Enhancements	In Progress	In Progress	6	Add-on Identification	Complete	Complete	10	Nursing I.S. Infrastructure	In Progress		
	3 Turnover Greaseboard	In Progress	In Progress	7	Anesthesia Reports	In Progress	In Progress	11	PC/Workstation Audit			
	4 Bed Access Interface	In Progress	In Progress	8	Ideal Start Time Field	In Progress	In Progress					
OR Scorecard		In Progress										14-17

Legend		
Goal likely to be achieved	Green	
Goal likely to meet future resistance	Yellow	
Goal already meeting resistance	Red	

Executing Multiple Organizational Improvement Initiatives Using Program Management Methodologies

- What are the changes/redesign initiatives that we should focus on now?

- How to ensure projects are completed successfully, on time and on budget?

- How should we organize to deliver and sustain the required results?

Many Improvement Initiatives

Heart & Vascular Center

Clinics

Clinical Quality

Patient Safety

TBD

Leadership Team

Transplant Program

Cost Mgmt.

Supply Chain Mgmt.

O.R. Improvements

Service Line Growth

Recruitment & Retention

Revenue Cycle

Access, Throughput & Capacity

Facility Planning

Patient Satisfaction

Faculty Satisfaction

Staff Satisfaction

EPIC

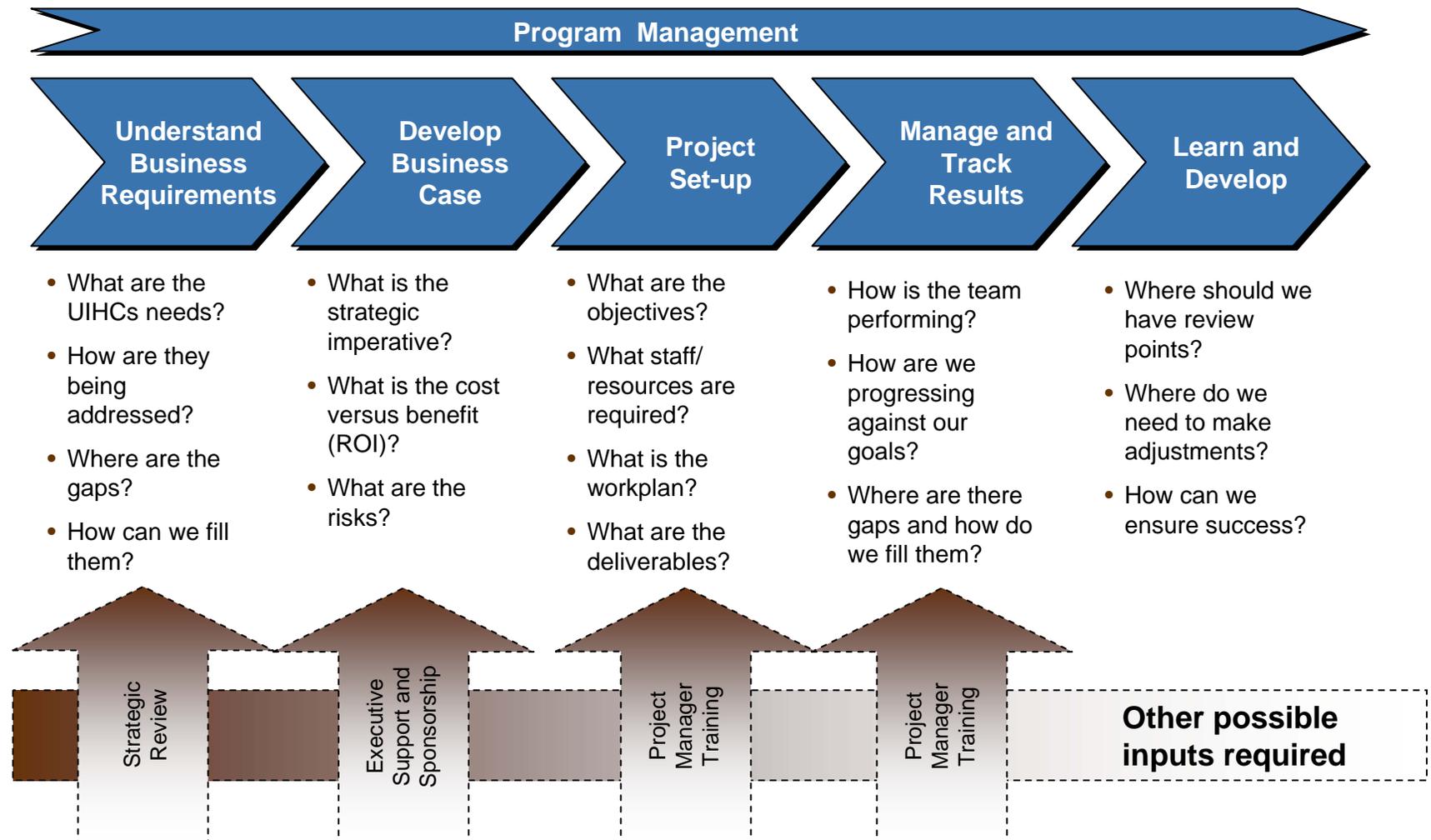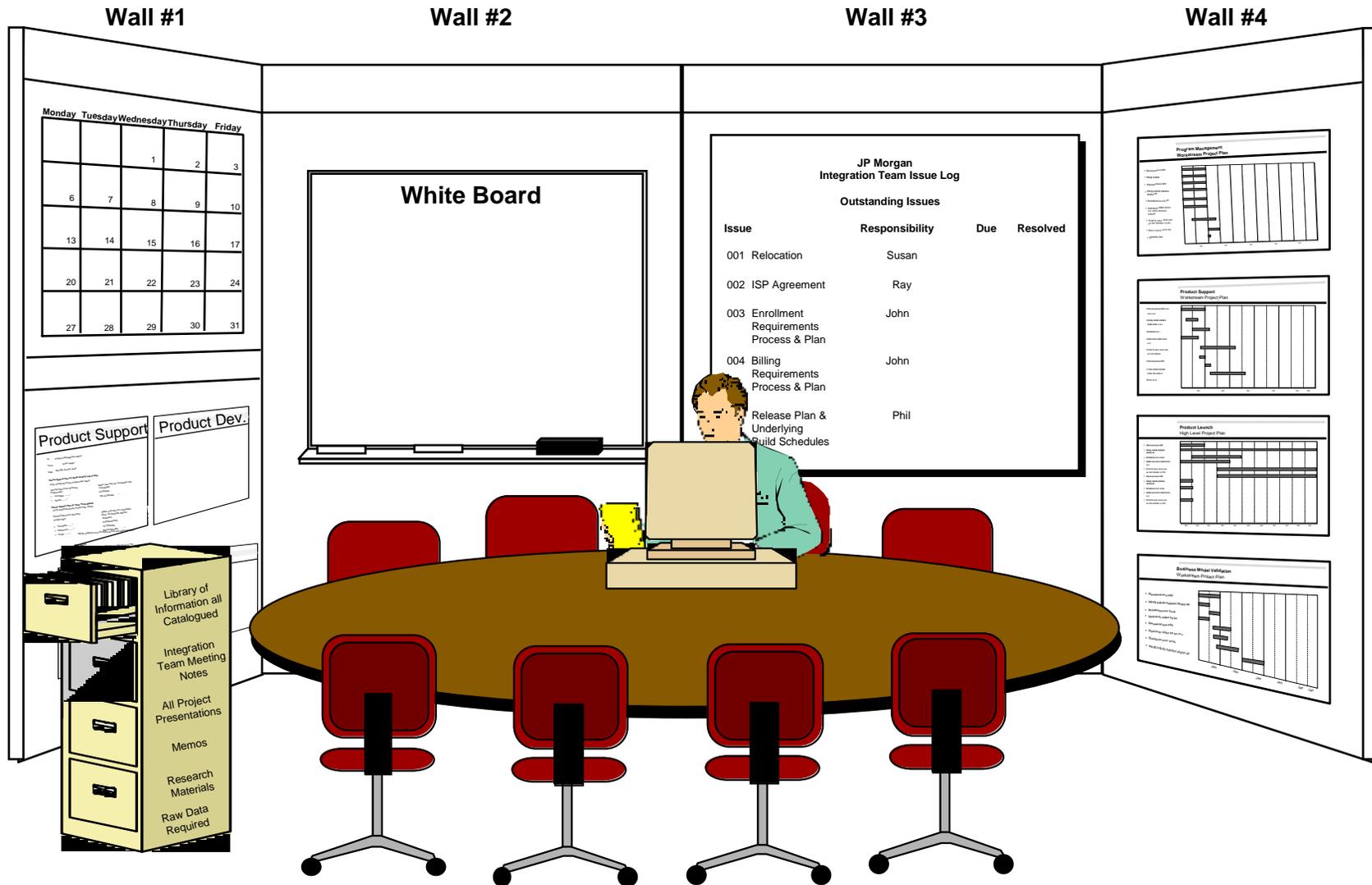Referring Physician Satisfaction

What is Program Management?

Program Management:

- Marshalling a potentially disparate set of projects and organizational roles into a cohesive program to meet defined UIHC objectives

- Responsible for high level coordination and integration of major business change

- An infrastructure to ensure projects are completed successfully, on-time and on-budget

A Common Process for Managing Programs

UNIVERSITY *of* IOWA
HEALTH CARE

Program Management

Understand Business Requirements	Develop Business Case	Project Set-up	Manage and Track Results	Learn and Develop

- What are the UIHCs needs?
- How are they being addressed?
- Where are the gaps?
- How can we fill them?

- What is the strategic imperative?
- What is the cost versus benefit (ROI)?
- What are the risks?

- What are the objectives?
- What staff/ resources are required?
- What is the workplan?
- What are the deliverables?

- How is the team performing?
- How are we progressing against our goals?
- Where are there gaps and how do we fill them?

- Where should we have review points?
- Where do we need to make adjustments?
- How can we ensure success?

Strategic Review

Executive Support and Sponsorship

Project Manager Training

Project Manager Training

Other possible inputs required

The PMO as the "command center"

Why use a Program Management Office?

- Provides a **central focal point** for the entire organization to hold and disseminate information from all the projects and activities

- Creates a **consistent way** of dealing with administrative procedures to provide consistency and better control across projects and work teams

- Enables an **understanding of the dependencies** within and between projects, as they relate to work products and deliverables across multiple UI Health Care processes

- Provides **experienced staff** to assist project staff to effectively apply tools and procedures

- Centralizes a plan which is the **big picture** showing the program level activities and work products from each project or work team

- Creates a central location for **resource and expense control** and for accountability

- Focuses specific emphasis on **delivery of benefits**

- **Avoids diverting managers** from their primary focus...running the business

Managing Costs

How to moderate expense growth?

Corrective Action is Required to Improve Financial Performance

Expense growth must be constrained and revenues maximized to improve our financial performance

- Initiatives being implemented include:

- Rigorous expense management limiting budget additions and excess payroll growth with budget authority flexing based on activity

- Recasting of the FY 09 operating budget to achieve operating margin target

- Fully deploying physical capacity and utilizing efficiently (beds, ORs, high tech imaging)

- Continued focus on supply chain opportunities - benchmarks

- Providing support to leadership team to enhance execution of targeted initiatives (Program Management Office)

UI Hospitals and Clinics Clinical Information Systems

Lee Carmen

Associate Vice President for Information Systems

Clinical Information Systems at UIHC

- 1970 – 2005 : Internal development of electronic medical record system (INFORMM / IPR)

- 1995 - 1996 : Acquisition / implementation of commercial laboratory / inpatient pharmacy system (Cerner)

- 2001 – 2003 : Acquisition / implementation of commercial patient access / patient accounting system (GE / IDX)

- 2005 – 2006 : Selection / acquisition of commercial clinical information system (Epic)

- 2007 – 2009 : Implementation of Epic

Business Objectives

- Improving Quality & Safety

  - 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

  - Enable rules-based electronic alerts

  - Reduce patient turn-around times

  - Improve use of standard clinical protocols

  - Reduce practice variation

● **Improving Operational Efficiencies**

  – 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

  – 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

  – Reduce duplicate / unnecessary orders
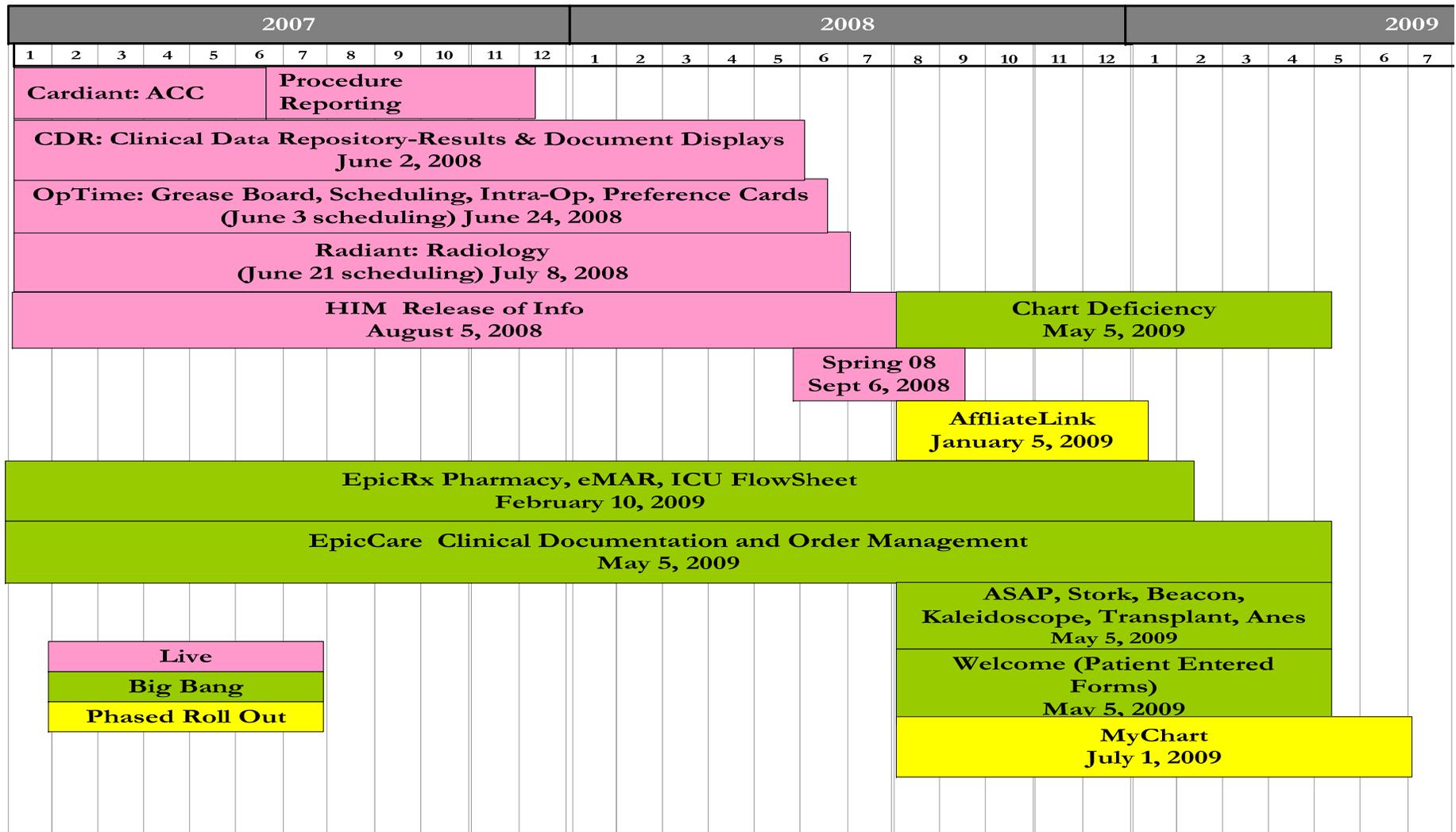
Epic Clinical Information Systems

- Enterprise solution

- Highly integrated

- Wisconsin-based vendor

- Focuses on large integrated healthcare delivery networks, academics, children's hospitals

- Contract signed fall 2006

- Project kick-off January 2007

Epic Clinical Information Systems Project Scope

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

Epic Project Timeline

2007												2008												2009						
1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7

Cardiant: ACC   **Procedure Reporting**

CDR: Clinical Data Repository-Results & Document Displays
June 2, 2008

OpTime: Grease Board, Scheduling, Intra-Op, Preference Cards
(June 3 scheduling) June 24, 2008

Radiant: Radiology
(June 21 scheduling) July 8, 2008

HIM Release of Info
August 5, 2008

Chart Deficiency
May 5, 2009

Spring 08
Sept 6, 2008

AffliateLink
January 5, 2009

EpicRx Pharmacy, eMAR, ICU FlowSheet
February 10, 2009

EpicCare Clinical Documentation and Order Management
May 5, 2009

ASAP, Stork, Beacon, Kaleidoscope, Transplant, Anes
May 5, 2009

Welcome (Patient Entered Forms)
May 5, 2009

Live

Big Bang

Phased Roll Out

MyChart
July 1, 2009

38

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	$ 3.4 M / Yr
Implementation & Training	Primary Vendor Staff	$ 10 M
	Third Party Staff	$ 3.0 M
	UIHC Staff	$ 13 M

Contract Term: Perpetual License

Calculations Assume Minimum 7 Year Use

Return On Investment Analysis

| Benefit	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
Pharmacy	$1,953,948	$2,032,106	$2,113,390	$2,197,926	$2,285,843	$2,337,277	$2,472,368
Laboratory	$1,183,442	$1,230,780	$1,255,395	$1,280,503	$1,306,113	$1,332,236	$1,358,880
Radiology	$687,360	$714,854	$729,151	$743,735	$758,609	$773,781	$789,257
Patient Safety	$3,201,919	$3,329,996	$3,436,097	$3,545,901	$3,659,544	$3,777,170	$3,898,924
Clinical Staff Efficiencies	$1,349,227	$2,698,455	$4,047,682	$5,396,909	$5,612,785	$5,837,297	$6,070,789
Medical Records Management	$210,000	$218,400	$227,136	$236,221	$245,670	$255,497	$265,717
Revenue Cycle	$1,027,500	$1,059,000	$1,091,760	$1,125,830	$1,161,264	$1,198,114	$1,236,439
TOTAL	**$9.6 M**	**$11.2 M**	**$12.9 M**	**$14.5 M**	**$15 M**	**$15.5 M**	**$16 M**
							$94.9 M

Pharmacy Calculations provided by UIHC Pharmacy based upon Leapfrog formulas and published case studies

Calculations provided by 2 External Firms based upon UIHC Service metrics in 2002

Estimates based on 2002 Expenses, Assume 4% Expense Growth

Epic Implementation Challenges

- Clinician engagement

- Project staff recruitment / retention

- Project impact on operations

- Managing expectations

- Interim workflows

- Staff training

- Data conversions

- Integration with existing systems

- System testing
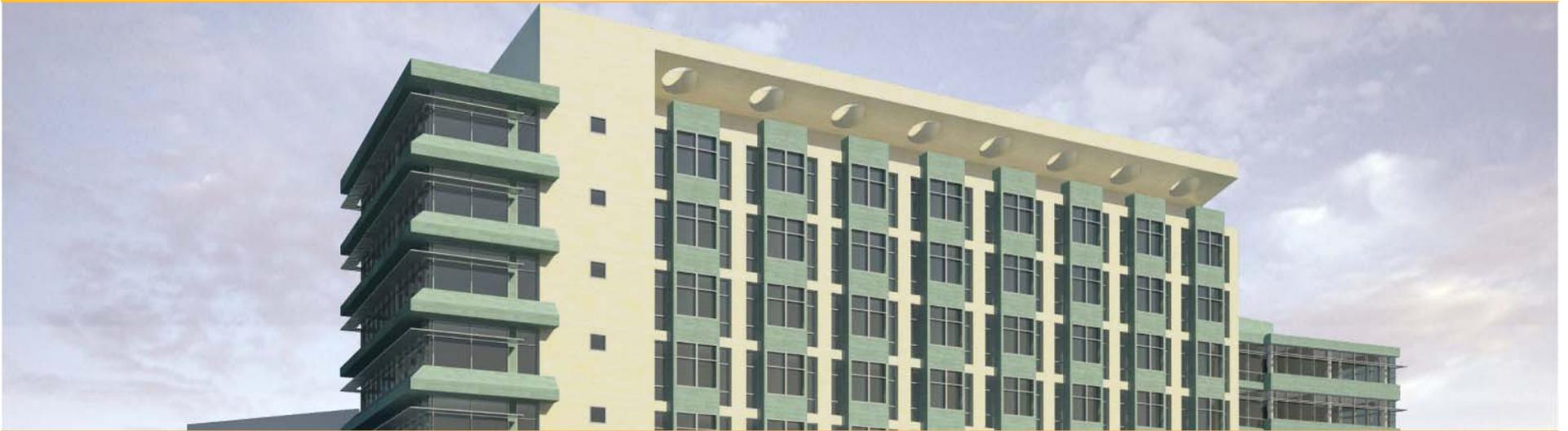
University of Iowa Institute for Biomedical Discovery

Paul Rothman, MD

Dean, Carver College of Medicine