

Surgical Services New Facility Simulation Model

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Questions

Do we have enough...

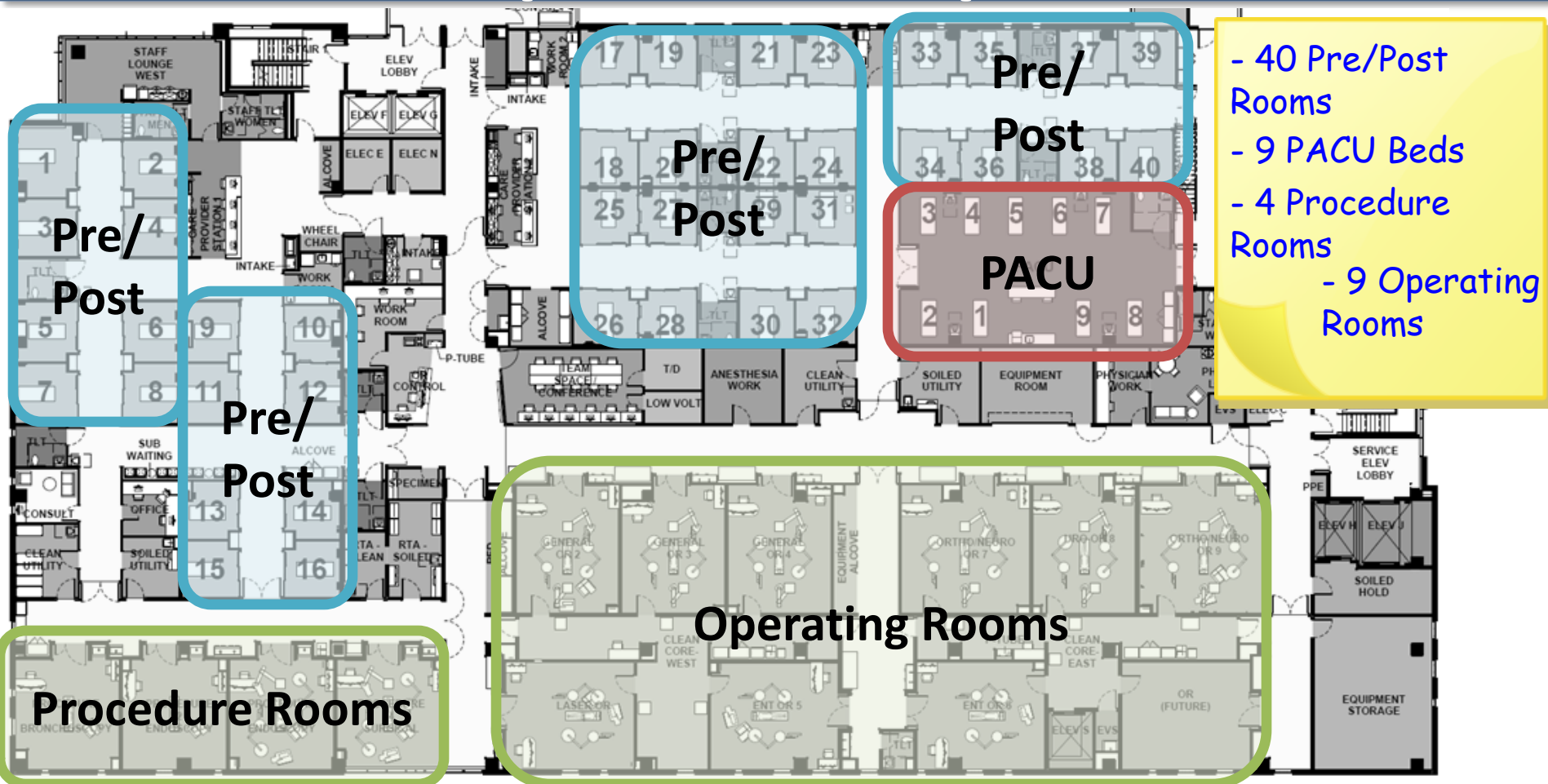
- Waiting Room Spaces?
- Pre/Post Rooms?
- PACU Beds?
- Procedure Rooms?
- Operating Rooms?



Surgery Floor Plan



Proposed Bed Spaces



- 40 Pre/Post Rooms
- 9 PACU Beds
- 4 Procedure Rooms
- 9 Operating Rooms

Surgery Crosswalk to Existing Building



Method

- Model room occupancy in the new design based off of historical data.
 - Modeled four separate high volume day
 - Wednesday, December 18th, 2013
 - Wednesday, January 15th, 2014
 - Monday, February 2nd, 2014
 - Tuesday, February 25th, 2014
 - Dates includes high volume Endo day with high volume ENT day

Data Source: Meditech Custom Report



Peri-

2/25/2014 thru 2/25/2014

MRN	Inpatient/Outpatient	Surgery Description	Planned / Unplanned	Scheduled Surgery Time	Registration Sign In Time	OPS Vitals Time	OR Time In	Pacu Admitted	OPS Room Post Surgery In	IPS/Floor Room Post Surgery In	Hospital Departure Time
P1	M000717393	O	NASOLACRIMAL	Planned	7:00	5:35	6:06	6:57	7:30	7:39	9:10
P2	M000701368	O	BRONCHOSCOPY FLEXIBLE	Planned	7:00	5:15	5:56	7:04	7:29	7:41	8:55
P3	M000690686	O	TONSILLECTOMY AND	Planned	7:15	6:45	6:51	7:08	7:45	8:56	11:30
P4	M000513760	O	MYRINGOTOMY WITH INSERTION	Planned	7:30	6:03	6:39	7:38	8:20	8:37	9:40
P5	M000249175	I	SPINAL HARDWARE REMOVAL	Planned	7:30	6:06	6:41	7:29	9:10	10:50	
P6	M000731945	O	MYRINGOTOMY WITH INSERTION	Planned	7:30	5:58	6:35	7:33	7:55	7:59	9:10
P7	M000702085	I	T&A,MYRINGOTOMY W/TUBE	Planned	7:30	6:14	6:41	7:38	8:36	9:26	
P8	M000730806	O	NASOLACRIMAL	Planned	7:30	5:48	6:12	7:33	8:00	8:09	10:35
P9	M000648323	I	TONSILLECTOMY AND	Planned	7:55	5:55	6:24	8:11	9:01	9:42	15:13
P10	M000465012	O	EGD	Planned	8:00	6:53	7:06	8:07	8:34	9:05	10:55
P11	M000676366	I	TONSILLECTOMY, REVISION	Planned	8:00	6:51	7:18	8:36	9:22	10:10	
P12	M000567529	I	MICRO LARYNGOSCOPY	Planned	8:00	5:46	6:17	8:09	10:39	11:03	
P13	M000718100	O	MEDIAL RECTUS RECESSION	Planned	8:15	8:26	8:46	10:30	11:25	12:08	14:45
P14	M000725942	I	CHEILOPLASTY/CLEFT LIP REPAIR	Planned	8:30	6:15	7:07	8:54	10:57	12:05	
P15	M000629239	I	T&A,MYRINGOTOMY W/TUBE	Planned	8:40	6:41	7:07	9:17	10:25	11:42	
P16	M000732092	O	INCISION AND DRAINAGE-LOWER	Planned	9:00	7:38	7:57	9:06	9:38	9:55	12:00
P17	M000415131	O	EGD 23HPH PROBE PLACEMENT	Planned	9:00	6:30	6:51	8:07	8:33	9:00	11:05



Model Notes

- I. Room occupancy will be captured in 15 minute increments
- II. Room capacity model not staffing model
- III. Pre/Post rooms will not be held during surgery time
- IV. Two family members with patient in Pre/Post rooms
- V. Procedure patients will use Pre/Post rooms 1 - 16
- VI. Travel time is captured within the source data
- VII. All Pre/Post nurses will be trained in phase 1 recovery
- VIII. PACU Phase 1 Guidelines:
 - i. All airway cases
 - ii. 10% estimate of all other case types



Model Details

Date: Tuesday, February 25, 2014

Time: 12:30

Cases: 58

Room occupied in this time period

Utilization				
Reg.	P/P	PACU	Pro.	OR
33%	43%	67%	50%	22%

Discharge Count			24
P-1	P-16	P-31	
Eye	Gen	EGD	
P-2	P-17	P-32	
Bronch	EGD	ENT	
P-3	P-18		
T&A	Dent		
P-4	P-19		
Tubes	T&A		
P-5			
Ortho			
P-6			
Tubes			
P-7			
T&A			
P-8	P-23		
Eye	T&A		
P-9	P-24		
T&A	EGD		
P-10			
EGD			
P-11			
T&A			
P-12			
T&A			
		P-43	
		EGD	
P-14			
ENT			
P-15			
T&A		MRI	

Procedure Pre/Post

Reg.	Wait
P-57	P-54
EGD	EGD
P-55	

Reg. =
Registration

P/P 1	P/P 2	P/P 9	P/P 10
P-52			P-48
EGD			EGD
P/P 3	P/P 4	P/P 11	P/P 12
P/P 5	P/P 6	P/P 13	P/P 14
P-46	P-49		
EGD	EGD		
P/P 7	P/P 8	P-16	
P-50	P-56		
EGD	EGD		

Patient
Pre
Surgery

P/P =
Pre/Post
Room

Surgical Pre/Post (West)

P/P 17	P/P 19
P-47	
URO	
P/P 25 <th>P/P 27</th>	P/P 27
P-35	
ENT	
P/P 26	P/P 28
	P-36
	ENT

EGD = Surgery Type

Surgical ORs (West)

OR 2	OR 3	OR 4
	P-29	
	T&A	
OR 1		OR 5

Surgical Pre/Post (East)

P/P 35	P/P 37	P/P 39
P-13	P-28	P-22
Eye	Eye	Gen
P/P 36	P/P 38	P/P 40
		P-21
		Ortho
PACU 3	PACU 4	PACU 5
P-27	P-30	P-33
T&A	Gen	Ortho
PACU 2	PACU 1	PACU 9
P-26	P-25	
Dent	Dent	

Patient
Post
Surgery

Pro. =
Procedure/
Endo Room

Pro. 1	Pro. 2	Pro. 3	Pro. 4
P-42			P-40
Dent			Dent

Waiting Room Occupancy			
2 Fam.	3 Fam.	4 Fam.	5 Fam.
29	59	89	119

Red Font = Discharged in this time period
Black Font = Discharged in previous time period

Stats: Model 2/25/14 - All PACU

- Tuesday, 2/25/14
 - 58 cases with a high volume of ENT patients
 - 2 rooms for Dr. L
 - 1 room for Dr. R
 - Dr. A working in the afternoon
- 93% Planned 7% Unplanned
- 78% Outpatient 22% Inpatient
- **All patients go to the PACU in this model**

Sample Slides Simulation
Animation for 2/25/14
All PACU

Date: Tuesday, February 25, 2014

Notes:

Time: 6:30

Cases: 58

Utilization				
Reg.	P/P	PACU	Pro.	OR
133%	23%	0%	0%	0%

Discharge Count			0
			MRI
			MRI

Procedure Pre/Post

Surgical Pre/Post (West)

Surgical Pre/Post (East)

Reg.	Wait	P/P 1	P/P 2	P/P 9	P/P 10
P-3	P-14	P-2			
T&A	ENT	Bronch			
P-15		P/P 3	P/P 4	P/P 11	P/P 12
T&A					
P-17					
EGD		P/P 5	P/P 6	P/P 13	P/P 14
P-20					
Eye					
		P/P 7	P/P 8	P/P 15	P/P 16

P/P 17	P/P 19	P/P 21	P/P 23
P-1	P-4	P-6	P-8
Eye	Tubes	Tubes	Eye
P/P 18	P/P 20	P/P 22	P/P 24
	P-5	P-7	P-9
	Ortho	T&A	T&A
P/P 25	P/P 27	P/P 29	P/P 31
P/P 26	P/P 28	P/P 30	P/P 32
P-12			
T&A			

P/P 33	P/P 35	P/P 37	P/P 39	
P/P 34	P/P 36	P/P 38	P/P 40	
PACU 3	PACU 4	PACU 5	PACU 6	PACU 7
PACU 2	PACU 1		PACU 9	PACU 8

Procedure ORs

Surgical ORs (West)

Surgical ORs (East)

Pro. 1	Pro. 2	Pro. 3	Pro. 4

OR 2	OR 3	OR 4

OR 7	OR 8	OR 9

Waiting Room Occupancy

2 Fam.	3 Fam.	4 Fam.	5 Fam.
15	29	43	57

OR 1	OR 5

OR 6	Future OR

Date: Tuesday, February 25, 2014
 Time: 11:15
 Cases: 58

Notes:

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Utilization				
Reg.	P/P	PACU	Pro.	OR
33%	43%	67%	50%	56%

Discharge Count			16
P-1		P-31	
Eye		EGD	
P-2	P-17		
Bronch	EGD		
P-4	P-19		
Tubes	T&A		
P-5			
Ortho			
P-6			
Tubes			MRI
P-7			
T&A			
P-8			
Eye			
P-9	P-24	P-39	
T&A	EGD	EGD	
P-10			
EGD			
P-11			
T&A			
P-12			
T&A			
			MRI

Procedure Pre/Post

Reg.	Wait	P/P 1	P/P 2	P/P 9	P/P 10
P-40			P-53		
Dent			EGD		
		P/P 3	P/P 4	P/P 11	P/P 12
		P-42			P-43
		Dent			EGD
		P/P 5	P/P 6	P/P 13	P/P 14
		P-46		P-18	
		EGD		Dent	
		P/P 7	P/P 8	P/P 15	P/P 16

Surgical Pre/Post (West)

P/P 17	P/P 19	P/P 21	P/P 23
P-44			
Ortho			
P/P 18	P/P 20	P/P 22	P/P 24
P-47		P-29	
URO		T&A	
P/P 25	P/P 27	P/P 29	P/P 31
P-35			P-38
ENT			Tubes
P/P 26	P/P 28	P/P 30	P/P 32
	P-36	P-37	
	ENT	Eye	

Surgical Pre/Post (East)

P/P 33	P/P 35	P/P 37	P/P 39	
P-20		P-28	P-3	
Eye		Eye	T&A	
P/P 34	P/P 36	P/P 38	P/P 40	
P-16			P-21	
Gen			Ortho	
PACU 3	PACU 4	PACU 5	PACU 6	PACU 7
P-14	P-15	P-23	P-32	
ENT	T&A	T&A	ENT	
PACU 2	PACU 1		PACU 9	PACU 8
P-22	P-13			
Gen	Eye			

Procedure ORs

Pro. 1	Pro. 2	Pro. 3	Pro. 4
		P-48	P-25
		EGD	Dent
Waiting Room Occupancy			
2 Fam.	3 Fam.	4 Fam.	5 Fam.
29	60	91	122

Surgical ORs (West)

OR 2	OR 3	OR 4
P-34	P-27	
ENT	T&A	
OR 1		OR 5
P-26		
Dent		

Surgical ORs (East)

OR 7	OR 8	OR 9
P-33		
Ortho		
OR 6		Future OR
P-30		
Gen		

Date: Tuesday, February 25, 2014

Time: 11:30

Cases: 58

Notes:

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Utilization				
Reg.	P/P	PACU	Pro.	OR
33%	35%	56%	75%	67%

Discharge Count			18
P-1		P-31	
Eye		EGD	
P-2	P-17		
Bronch	EGD		
P-3			
T&A			
P-4	P-19		
Tubes	T&A		
P-5			
Ortho			
P-6			
Tubes			MRI
P-7			
T&A			
P-8			
Eye			
P-9	P-24	P-39	
T&A	EGD	EGD	
P-10			
EGD			
P-11			
T&A			
P-12			
T&A			
P-15			
T&A			MRI

Procedure Pre/Post

Reg.	Wait	P/P 1	P/P 2	P/P 9	P/P 10
P-52	P-40				
EGD	Dent				
		P/P 3	P/P 4	P/P 11	P/P 12
		P-42			P-43
		Dent			EGD
		P/P 5	P/P 6	P/P 13	P/P 14
		P-46		P-18	
		EGD		Dent	
		P/P 7	P/P 8	P/P 15	P/P 16

Surgical Pre/Post (West)

P/P 17	P/P 19	P/P 21	P/P 23
P-44			
Ortho			
P/P 18	P/P 20	P/P 22	P/P 24
P-47		P-29	
URO		T&A	
P/P 25	P/P 27	P/P 29	P/P 31
P-35			
ENT			
P/P 26	P/P 28	P/P 30	P/P 32
	P-36		
	ENT		

Surgical Pre/Post (East)

P/P 33	P/P 35	P/P 37	P/P 39	
P-20		P-28	P-22	
Eye		Eye	Gen	
P/P 34	P/P 36	P/P 38	P/P 40	
P-16			P-21	
Gen			Ortho	
PACU 3	PACU 4	PACU 5	PACU 6	PACU 7
P-14		P-23	P-32	
ENT		T&A	ENT	
PACU 2	PACU 1		PACU 9	PACU 8
P-34	P-13			
ENT	Eye			

Procedure ORs

Pro. 1	Pro. 2	Pro. 3	Pro. 4
	P-53	P-48	P-25
	EGD	EGD	Dent
Waiting Room Occupancy			
2 Fam.	3 Fam.	4 Fam.	5 Fam.
34	64	94	124

Surgical ORs (West)

OR 2	OR 3	OR 4
P-37	P-27	P-38
Eye	T&A	Tubes
OR 1		OR 5
P-26		
Dent		

Surgical ORs (East)

OR 7	OR 8	OR 9
P-33		
Ortho		
OR 6		Future OR
P-30		
Gen		

Date: Tuesday, February 25, 2014

Time: 11:45

Cases: 58

Notes: Procedure Pre/Post Flip #2

Utilization				
Reg.	P/P	PACU	Pro.	OR
100%	40%	78%	25%	56%

Discharge Count			19
P-1		P-31	
Eye		EGD	
P-2	P-17	P-32	
Bronch	EGD	ENT	
P-3			
T&A			
P-4	P-19		
Tubes	T&A		
P-5			
Ortho			
P-6			
Tubes			MRI
P-7			
T&A			
P-8			
Eye			
P-9	P-24	P-39	
T&A	EGD	EGD	
P-10			
EGD			
P-11			
T&A			
P-12			
T&A			
P-15			
T&A		MRI	

Procedure Pre/Post

Surgical Pre/Post (West)

Surgical Pre/Post (East)

Reg.	Wait	P/P 1	P/P 2	P/P 9	P/P 10
P-49		P-52	P-40		
EGD		EGD	Dent		
P-50		P/P 3	P/P 4	P/P 11	P/P 12
EGD		P-42			P-43
P-54		Dent			EGD
EGD		P/P 5	P/P 6	P/P 13	P/P 14
		P-46		P-18	
		EGD		Dent	
		P/P 7	P/P 8	P/P 15	P/P 16

P/P 17	P/P 19	P/P 21	P/P 23
P-44			
Ortho			
P/P 18	P/P 20	P/P 22	P/P 24
P-47		P-29	
URO		T&A	
P/P 25	P/P 27	P/P 29	P/P 31
P-35			
ENT			
P/P 26	P/P 28	P/P 30	P/P 32
	P-36		
	ENT		

P/P 33	P/P 35	P/P 37	P/P 39	
P-20		P-28	P-22	
Eye		Eye	Gen	
P/P 34	P/P 36	P/P 38	P/P 40	
P-16			P-21	
Gen			Ortho	
PACU 3	PACU 4	PACU 5	PACU 6	PACU 7
P-14	P-38	P-23	P-48	P-53
ENT	Tubes	T&A	EGD	EGD
PACU 2	PACU 1		PACU 9	PACU 8
P-34	P-13			
ENT	Eye			

Procedure ORs

Surgical ORs (West)

Surgical ORs (East)

Pro. 1	Pro. 2	Pro. 3	Pro. 4
			P-25
			Dent

OR 2	OR 3	OR 4
P-37	P-27	
Eye	T&A	
OR 1		OR 5
P-26		
Dent		

OR 7	OR 8	OR 9
P-33		
Ortho		
OR 6		Future OR
P-30		
Gen		

Waiting Room Occupancy

2 Fam.	3 Fam.	4 Fam.	5 Fam.
35	67	99	131

Date: Tuesday, February 25, 2014

Time: 12:00

Cases: 58

Notes:

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Utilization				
Reg.	P/P	PACU	Pro.	OR
0%	48%	22%	25%	56%

Discharge Count			22
P-1	P-16	P-31	
Eye	Gen	EGD	
P-2	P-17	P-32	
Bronch	EGD	ENT	
P-3	P-18		
T&A	Dent		
P-4	P-19		
Tubes	T&A		
P-5			
Ortho			
P-6			
Tubes			MRI
P-7			
T&A			
P-8			
Eye			
P-9	P-24	P-39	
T&A	EGD	EGD	
P-10			
EGD			
P-11			
T&A			
P-12			
T&A			
P-14			
ENT			
P-15			
T&A			MRI

Procedure Pre/Post

Reg.	Wait	P/P 1	P/P 2	P/P 9	P/P 10
	P-50	P-52	P-40		P-48
	EGD	EGD	Dent		EGD
	P-54	P/P 3	P/P 4	P/P 11	P/P 12
	EGD	P-42			P-43
		Dent			EGD
		P/P 5	P/P 6	P/P 13	P/P 14
		P-46	P-49		
		EGD	EGD		
		P/P 7	P/P 8	P/P 15	P/P 16
				P-53	
				EGD	

Surgical Pre/Post (West)

P/P 17	P/P 19	P/P 21	P/P 23
P-44			
Ortho			
P/P 18	P/P 20	P/P 22	P/P 24
P-47			
URO			
P/P 25	P/P 27	P/P 29	P/P 31
P-35			P-38
ENT			Tubes
P/P 26	P/P 28	P/P 30	P/P 32
	P-36		P-34
	ENT		ENT

Surgical Pre/Post (East)

P/P 33	P/P 35	P/P 37	P/P 39	
P-20	P-13	P-28	P-22	
Eye	Eye	Eye	Gen	
P/P 34	P/P 36	P/P 38	P/P 40	
			P-21	
			Ortho	
PACU 3	PACU 4	PACU 5	PACU 6	PACU 7
P-27		P-23		
T&A		T&A		
PACU 2	PACU 1		PACU 9	PACU 8

Procedure ORs

Pro. 1	Pro. 2	Pro. 3	Pro. 4
			P-25
			Dent
Waiting Room Occupancy			
2 Fam.	3 Fam.	4 Fam.	5 Fam.
22	51	80	109

Surgical ORs (West)

OR 2	OR 3	OR 4
P-37	P-29	
Eye	T&A	
OR 1		OR 5
P-26		
Dent		

Surgical ORs (East)

OR 7	OR 8	OR 9
P-33		
Ortho		
OR 6		Future OR
P-30		
Gen		

Date: Tuesday, February 25, 2014

Time: 14:00

Cases: 58

Notes:

Utilization				
Reg.	P/P	PACU	Pro.	OR
0%	50%	44%	50%	11%

Discharge Count			31
P-1	P-16	P-31	
Eye	Gen	EGD	
P-2	P-17	P-32	
Bronch	EGD	ENT	
P-3	P-18		P-48
T&A	Dent		EGD
P-4	P-19		
Tubes	T&A		
P-5	P-20		
Ortho	Eye		
P-6	P-21		
Tubes	Ortho		MRI
P-7	P-22		
T&A	Gen		
P-8	P-23	P-38	P-53
Eye	T&A	Tubes	EGD
P-9	P-24	P-39	
T&A	EGD	EGD	
P-10			
EGD			
P-11			
T&A			
P-12			
T&A			
	P-28	P-43	
	Eye	EGD	
P-14			
ENT			
P-15			
T&A			MRI

Procedure Pre/Post

Reg.	Wait	P/P 1	P/P 2	P/P 9	P/P 10
		P-60		P-49	P-26
		EGD		EGD	Dent
		P/P 3	P/P 4	P/P 11	P/P 12
		P-54	P-55	P-25	
		EGD	EGD	Dent	
		P/P 5	P/P 6	P/P 13	P/P 14
		P-59	P-57		
		EGD	EGD		
		P/P 7	P/P 8	P/P 15	P/P 16
		P-58	P-56		
		EGD	EGD		

Surgical Pre/Post (West)

P/P 17	P/P 19	P/P 21	P/P 23
P/P 18	P/P 20	P/P 22	P/P 24
P/P 25	P/P 27	P/P 29	P/P 31
P-35			P-37
ENT			Eye
P/P 26	P/P 28	P/P 30	P/P 32
			P-34
			ENT

Surgical Pre/Post (East)

P/P 33	P/P 35	P/P 37	P/P 39	
P-33	P-13		P-47	
Ortho	Eye		URO	
P/P 34	P/P 36	P/P 38	P/P 40	
P-30	P-29	P-27	P-44	
Gen	T&A	T&A	Ortho	
PACU 3	PACU 4	PACU 5	PACU 6	PACU 7
P-42	P-52			
Dent	EGD			
PACU 2	PACU 1		PACU 9	PACU 8
P-41	P-40			
Gen	Dent			

Procedure ORs

Pro. 1	Pro. 2	Pro. 3	Pro. 4
	P-46	P-50	
	EGD	EGD	

Waiting Room Occupancy			
2 Fam.	3 Fam.	4 Fam.	5 Fam.
14	41	68	95

Surgical ORs (West)

OR 2	OR 3	OR 4
OR 1		OR 5
P-36		
ENT		

Surgical ORs (East)

OR 7	OR 8	OR 9
OR 6		Future OR

Date: Tuesday, February 25, 2014

Time: 14:15

Cases: 58

Notes:

Utilization

Reg.	P/P	PACU	Pro.	OR
0%	48%	22%	50%	22%

Discharge Count

33

P-1	P-16	P-31	
Eye	Gen	EGD	
P-2	P-17	P-32	
Bronch	EGD	ENT	
P-3	P-18		P-48
T&A	Dent		EGD
P-4	P-19		
Tubes	T&A		
P-5	P-20		
Ortho	Eye		
P-6	P-21		
Tubes	Ortho		MRI
P-7	P-22		
T&A	Gen		
P-8	P-23	P-38	P-53
Eye	T&A	Tubes	EGD
P-9	P-24	P-39	
T&A	EGD	EGD	
P-10	P-25		
EGD	Dent		
P-11		P-41	
T&A		Gen	
P-12			
T&A			
	P-28	P-43	
	Eye	EGD	
P-14			
ENT			
P-15			
T&A		MRI	

Procedure Pre/Post

Reg.	Wait	P/P 1	P/P 2	P/P 9	P/P 10
		P-60		P-49	P-26
		EGD		EGD	Dent
		P/P 3	P/P 4	P/P 11	P/P 12
		P-54	P-55		
		EGD	EGD		
		P/P 5	P/P 6	P/P 13	P/P 14
		P-59	P-57		
		EGD	EGD		
		P/P 7	P/P 8	P/P 15	P/P 16
		P-58		P-40	P-52
		EGD		Dent	EGD

Surgical Pre/Post (West)

P/P 17	P/P 19	P/P 21	P/P 23
P/P 18	P/P 20	P/P 22	P/P 24
P/P 25	P/P 27	P/P 29	P/P 31
			P-37
			Eye
P/P 26	P/P 28	P/P 30	P/P 32
			P-34
			ENT

Surgical Pre/Post (East)

P/P 33	P/P 35	P/P 37	P/P 39	
P-33	P-13		P-47	
Ortho	Eye		URO	
P/P 34	P/P 36	P/P 38	P/P 40	
P-30	P-29	P-27	P-44	
Gen	T&A	T&A	Ortho	
PACU 3	PACU 4	PACU 5	PACU 6	PACU 7
P-42				
Dent				
PACU 2	PACU 1		PACU 9	PACU 8
P-46				
EGD				

Procedure ORs

Pro. 1	Pro. 2	Pro. 3	Pro. 4
	P-56	P-50	
	EGD	EGD	
Waiting Room Occupancy			
2 Fam.	3 Fam.	4 Fam.	5 Fam.
12	37	62	87

Surgical ORs (West)

OR 2	OR 3	OR 4
P-35		
ENT		
OR 1		OR 5
P-36		
ENT		

Surgical ORs (East)

OR 7	OR 8	OR 9
OR 6		Future OR

Date: Tuesday, February 25, 2014

Time: 14:30

Cases: 58

Notes:

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Utilization				
Reg.	P/P	PACU	Pro.	OR
0%	45%	44%	25%	22%

Discharge Count			33
P-1	P-16	P-31	
Eye	Gen	EGD	
P-2	P-17	P-32	
Bronch	EGD	ENT	
P-3	P-18		P-48
T&A	Dent		EGD
P-4	P-19		
Tubes	T&A		
P-5	P-20		
Ortho	Eye		
P-6	P-21		
Tubes	Ortho		MRI
P-7	P-22		
T&A	Gen		
P-8	P-23	P-38	P-53
Eye	T&A	Tubes	EGD
P-9	P-24	P-39	
T&A	EGD	EGD	
P-10	P-25		
EGD	Dent		
P-11		P-41	
T&A		Gen	
P-12			
T&A			
	P-28	P-43	
	Eye	EGD	
P-14			
ENT			
P-15			
T&A		MRI	

Procedure Pre/Post

Reg.	Wait	P/P 1	P/P 2	P/P 9	P/P 10
		P-60		P-49	P-26
		EGD		EGD	Dent
		P/P 3	P/P 4	P/P 11	P/P 12
			P-55		
			EGD		
		P/P 5	P/P 6	P/P 13	P/P 14
		P-59	P-57		
		EGD	EGD		
		P/P 7	P/P 8	P/P 15	P/P 16
		P-58		P-40	P-52
		EGD		Dent	EGD

Surgical Pre/Post (West)

P/P 17	P/P 19	P/P 21	P/P 23
P/P 18	P/P 20	P/P 22	P/P 24
P/P 25	P/P 27	P/P 29	P/P 31
			P-37
			Eye
P/P 26	P/P 28	P/P 30	P/P 32
			P-34
			ENT

Surgical Pre/Post (East)

P/P 33	P/P 35	P/P 37	P/P 39	
P-33	P-13		P-47	
Ortho	Eye		URO	
P/P 34	P/P 36	P/P 38	P/P 40	
P-30	P-29	P-27	P-44	
Gen	T&A	T&A	Ortho	
PACU 3	PACU 4	PACU 5	PACU 6	PACU 7
P-42	P-50	P-56		
Dent	EGD	EGD		
PACU 2	PACU 1		PACU 9	PACU 8
P-46				
EGD				

Procedure ORs

Pro. 1	Pro. 2	Pro. 3	Pro. 4
	P-54		
	EGD		
Waiting Room Occupancy			
2 Fam.	3 Fam.	4 Fam.	5 Fam.
14	39	64	89

Surgical ORs (West)

OR 2	OR 3	OR 4
P-35		
ENT		
OR 1		OR 5
P-36		
ENT		

Surgical ORs (East)

OR 7	OR 8	OR 9
OR 6		Future OR

Date: Tuesday, February 25, 2014

Time: 14:45

Cases: 58

Notes:

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Utilization				
Reg.	P/P	PACU	Pro.	OR
0%	40%	56%	25%	11%

Discharge Count			35
P-1	P-16	P-31	
Eye	Gen	EGD	
P-2	P-17	P-32	
Bronch	EGD	ENT	
P-3	P-18		P-48
T&A	Dent		EGD
P-4	P-19		
Tubes	T&A		
P-5	P-20		
Ortho	Eye		
P-6	P-21		
Tubes	Ortho		MRI
P-7	P-22		
T&A	Gen		
P-8	P-23	P-38	P-53
Eye	T&A	Tubes	EGD
P-9	P-24	P-39	
T&A	EGD	EGD	
P-10	P-25		
EGD	Dent		
P-11	P-26	P-41	
T&A	Dent	Gen	
P-12			
T&A			
P-13	P-28	P-43	
Eye	Eye	EGD	
P-14			
ENT			
P-15			
T&A		MRI	

Procedure Pre/Post

Reg.	Wait	P/P 1	P/P 2	P/P 9	P/P 10
				P-49	
				EGD	
		P/P 3	P/P 4	P/P 11	P/P 12
			P-55		
			EGD		
		P/P 5	P/P 6	P/P 13	P/P 14
		P-59	P-57		P-42
		EGD	EGD		Dent
		P/P 7	P/P 8	P/P 15	P/P 16
		P-58		P-40	P-52
		EGD		Dent	EGD

Surgical Pre/Post (West)

P/P 17	P/P 19	P/P 21	P/P 23
P/P 18	P/P 20	P/P 22	P/P 24
P/P 25	P/P 27	P/P 29	P/P 31
			P-37
			Eye
P/P 26	P/P 28	P/P 30	P/P 32
			P-34
			ENT

Surgical Pre/Post (East)

P/P 33	P/P 35	P/P 37	P/P 39
P-33			P-47
Ortho			URO
P/P 34	P/P 36	P/P 38	P/P 40
P-30	P-29	P-27	P-44
Gen	T&A	T&A	Ortho
PACU 3	PACU 4	PACU 5	PACU 6
P-54	P-50	P-56	
EGD	EGD	EGD	
PACU 2	PACU 1		PACU 9
P-46	P-36		PACU 8
EGD	ENT		

Procedure ORs

Pro. 1	Pro. 2	Pro. 3	Pro. 4
	P-60		
	EGD		

Surgical ORs (West)

OR 2	OR 3	OR 4
P-35		
ENT		
OR 1		OR 5

Surgical ORs (East)

OR 7	OR 8	OR 9
OR 6		Future OR

Waiting Room Occupancy

2 Fam.	3 Fam.	4 Fam.	5 Fam.
14	37	60	83

Date: Tuesday, February 25, 2014

Time: 15:00

Cases: 58

Notes:

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Utilization				
Reg.	P/P	PACU	Pro.	OR
0%	40%	33%	50%	11%

Discharge Count			36
P-1	P-16	P-31	
Eye	Gen	EGD	
P-2	P-17	P-32	
Bronch	EGD	ENT	
P-3	P-18		P-48
T&A	Dent		EGD
P-4	P-19		
Tubes	T&A		
P-5	P-20		
Ortho	Eye		
P-6	P-21		
Tubes	Ortho		MRI
P-7	P-22		
T&A	Gen		
P-8	P-23	P-38	P-53
Eye	T&A	Tubes	EGD
P-9	P-24	P-39	
T&A	EGD	EGD	
P-10	P-25		
EGD	Dent		
P-11	P-26	P-41	
T&A	Dent	Gen	
P-12			
T&A			
P-13	P-28	P-43	
Eye	Eye	EGD	
P-14			
ENT			
P-15	P-30		
T&A	Gen	MRI	

Procedure Pre/Post

Reg.	Wait	P/P 1	P/P 2	P/P 9	P/P 10
				P-49	P-56
				EGD	EGD
		P/P 3	P/P 4	P/P 11	P/P 12
			P-55	P-50	
			EGD	EGD	
		P/P 5	P/P 6	P/P 13	P/P 14
		P-59			P-42
		EGD			Dent
		P/P 7	P/P 8	P/P 15	P/P 16
		P-58		P-40	P-52
		EGD		Dent	EGD

Surgical Pre/Post (West)

P/P 17	P/P 19	P/P 21	P/P 23
P/P 18	P/P 20	P/P 22	P/P 24
P/P 25	P/P 27	P/P 29	P/P 31
			P-37
			Eye
P/P 26	P/P 28	P/P 30	P/P 32
			P-34
			ENT

Surgical Pre/Post (East)

P/P 33	P/P 35	P/P 37	P/P 39	
P-33			P-47	
Ortho			URO	
P/P 34	P/P 36	P/P 38	P/P 40	
	P-29	P-27	P-44	
	T&A	T&A	Ortho	
PACU 3	PACU 4	PACU 5	PACU 6	PACU 7
P-54				
EGD				
PACU 2	PACU 1		PACU 9	PACU 8
P-46	P-36			
EGD	ENT			

Procedure ORs

Pro. 1	Pro. 2	Pro. 3	Pro. 4
	P-60	P-57	
	EGD	EGD	
Waiting Room Occupancy			
2 Fam.	3 Fam.	4 Fam.	5 Fam.
12	34	56	78

Surgical ORs (West)

OR 2	OR 3	OR 4
P-35		
ENT		
OR 1		OR 5

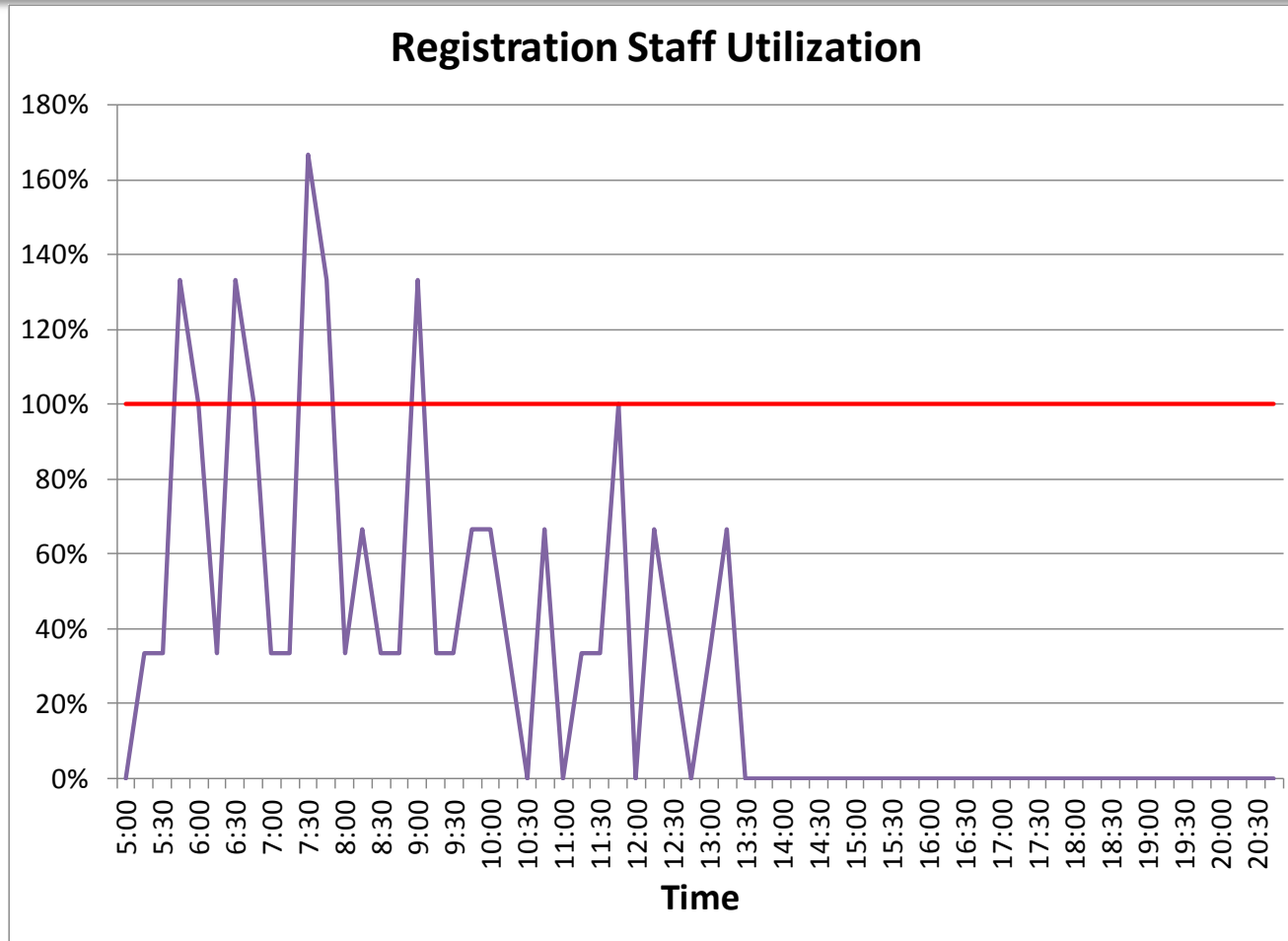
Surgical ORs (East)

OR 7	OR 8	OR 9
OR 6		Future OR

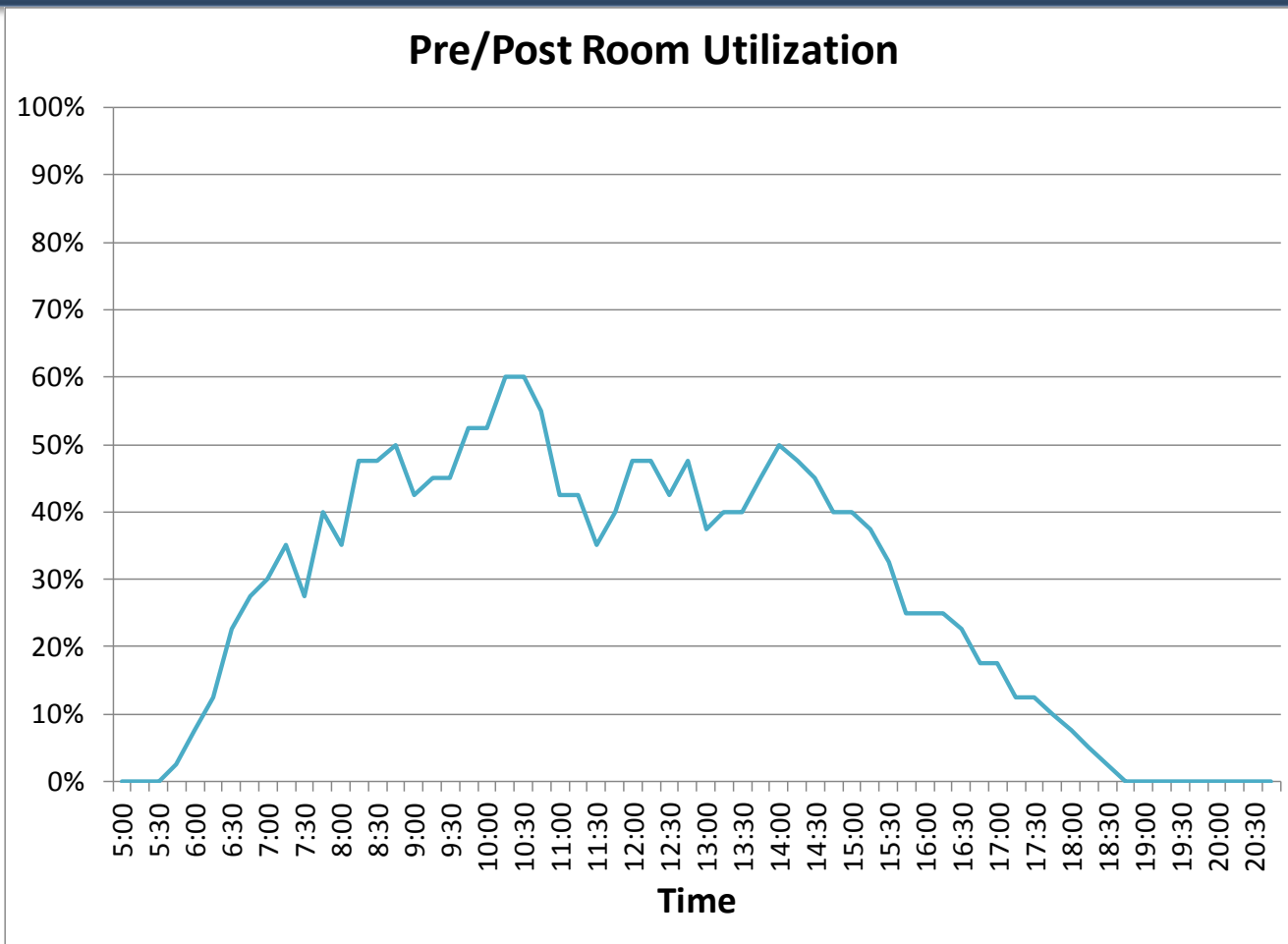
Results: Model 2/25/14 – All PACU

- 58 - PACU Patients (100%)
- 3 - Procedure Pre/Post Room Flips
- 2 - Surgical Pre/Post Room Flips
- Average Room Utilization (7AM to 3PM):
 - Pre/Post = 39%
 - PACU = 36%
 - Procedure Rooms = 37%
 - Operating Rooms = 40%

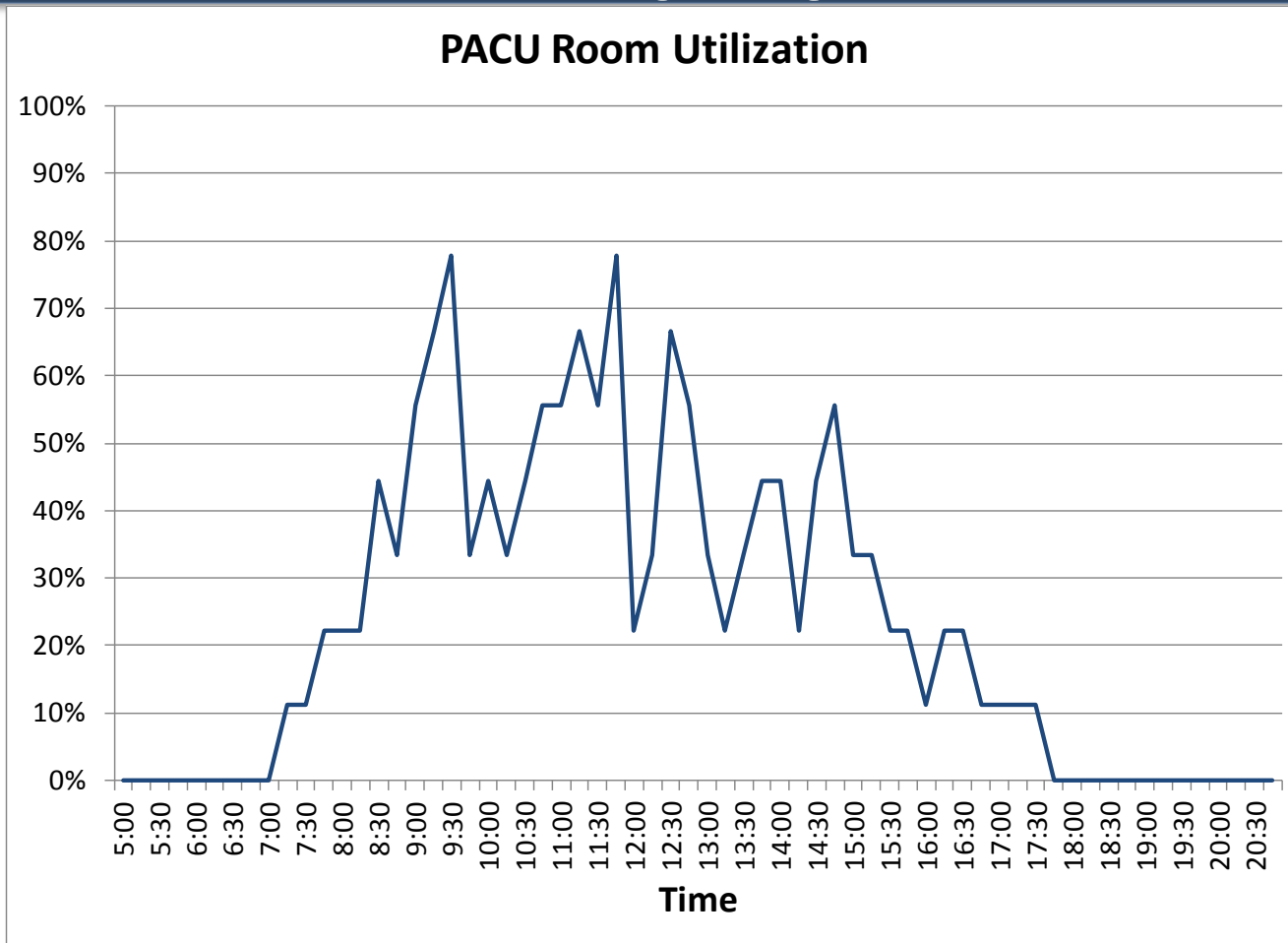
Registration Utilization 2/25/14 – All PACU



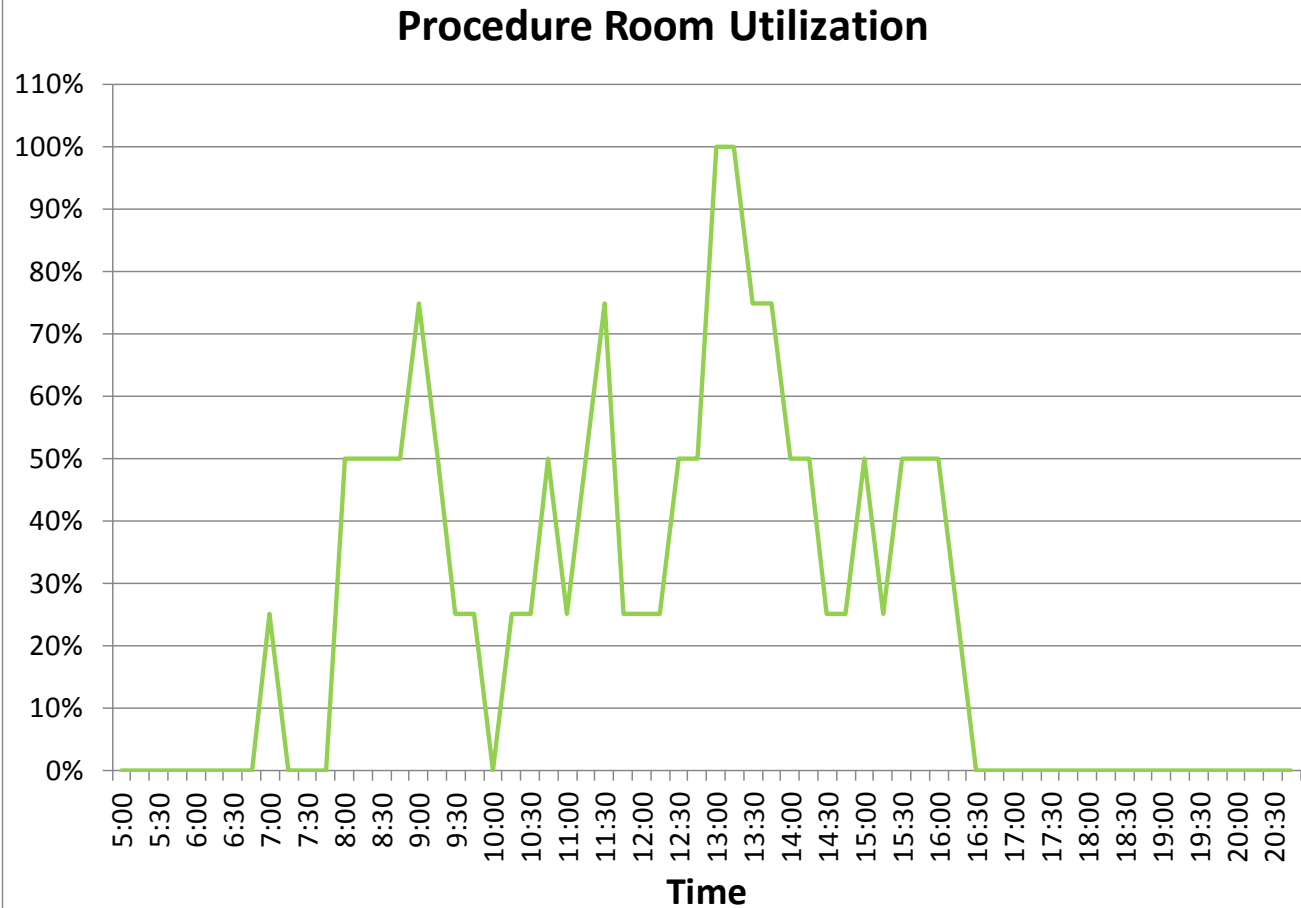
Pre/Post Room Utilization 2/25/14 – All PACU



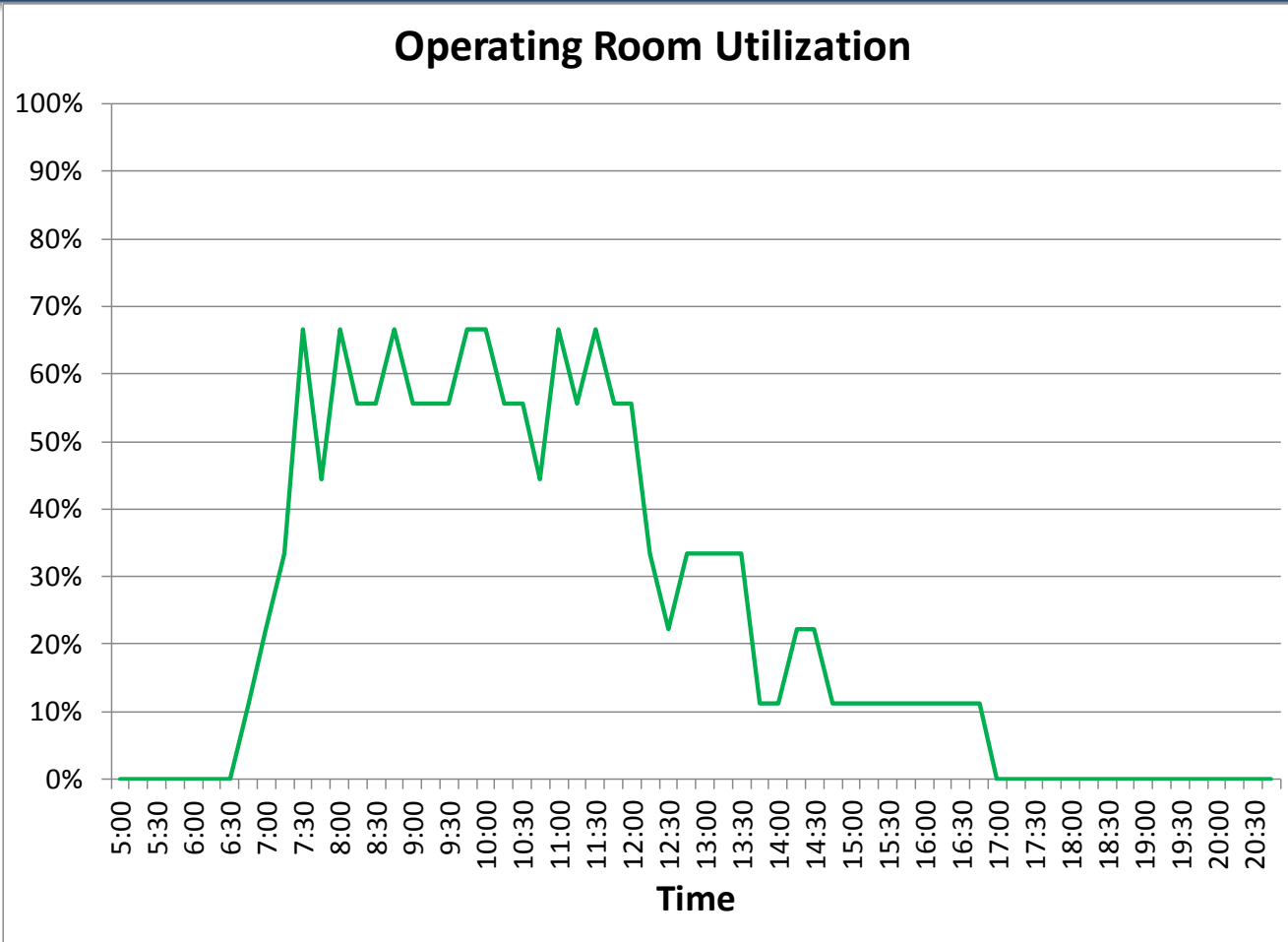
PACU Utilization 2/25/14 – All PACU



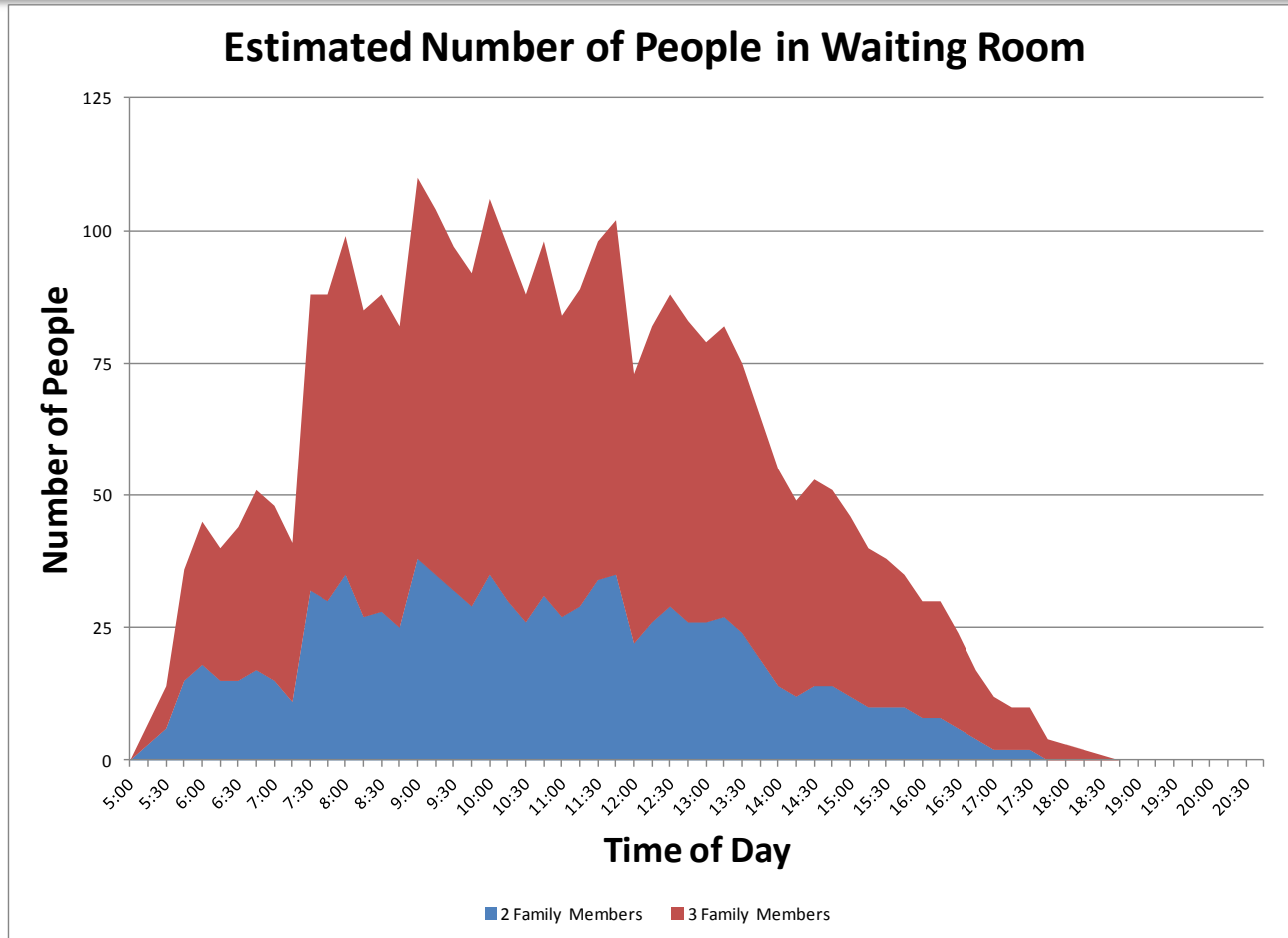
Procedure Room Utilization 2/25/14 - All PACU



Operating Room Utilization 2/25/14 – All PACU



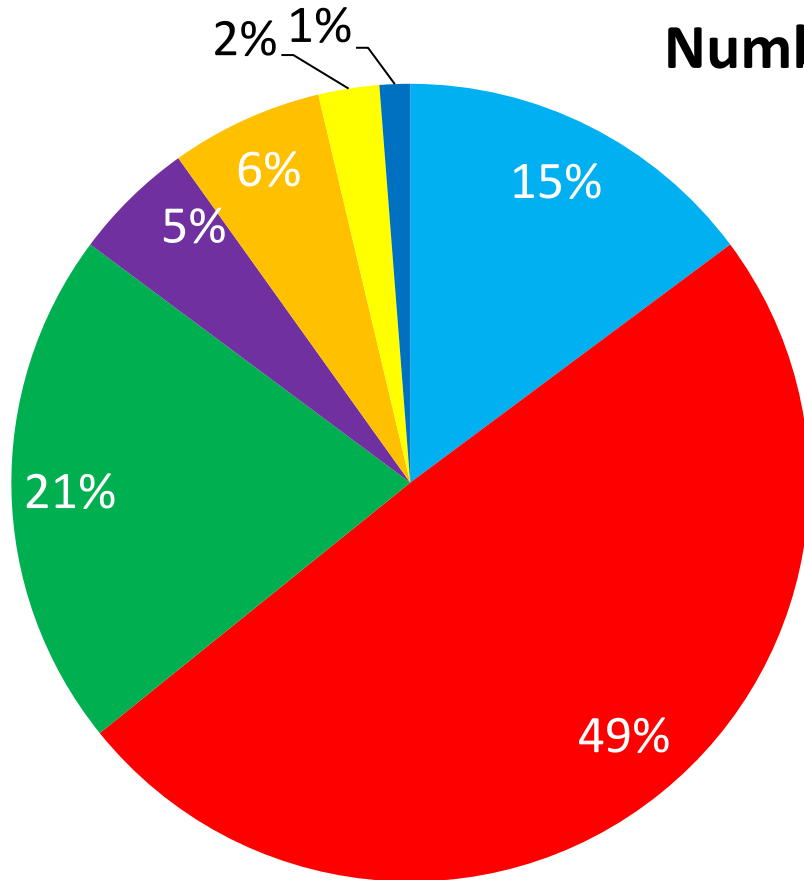
Waiting Room Occupancy Estimates 2/25/14 – All PACU



Average Number of Family Members

Number of Family Members with Patient

Average of 2.6 Family Members Per Patient



- 1 Family Member
- 2 Family Members
- 3 Family Members
- 4 Family Members
- 5 Family Members
- 6 Family Members
- 7 Family Members
- 8 Family Members

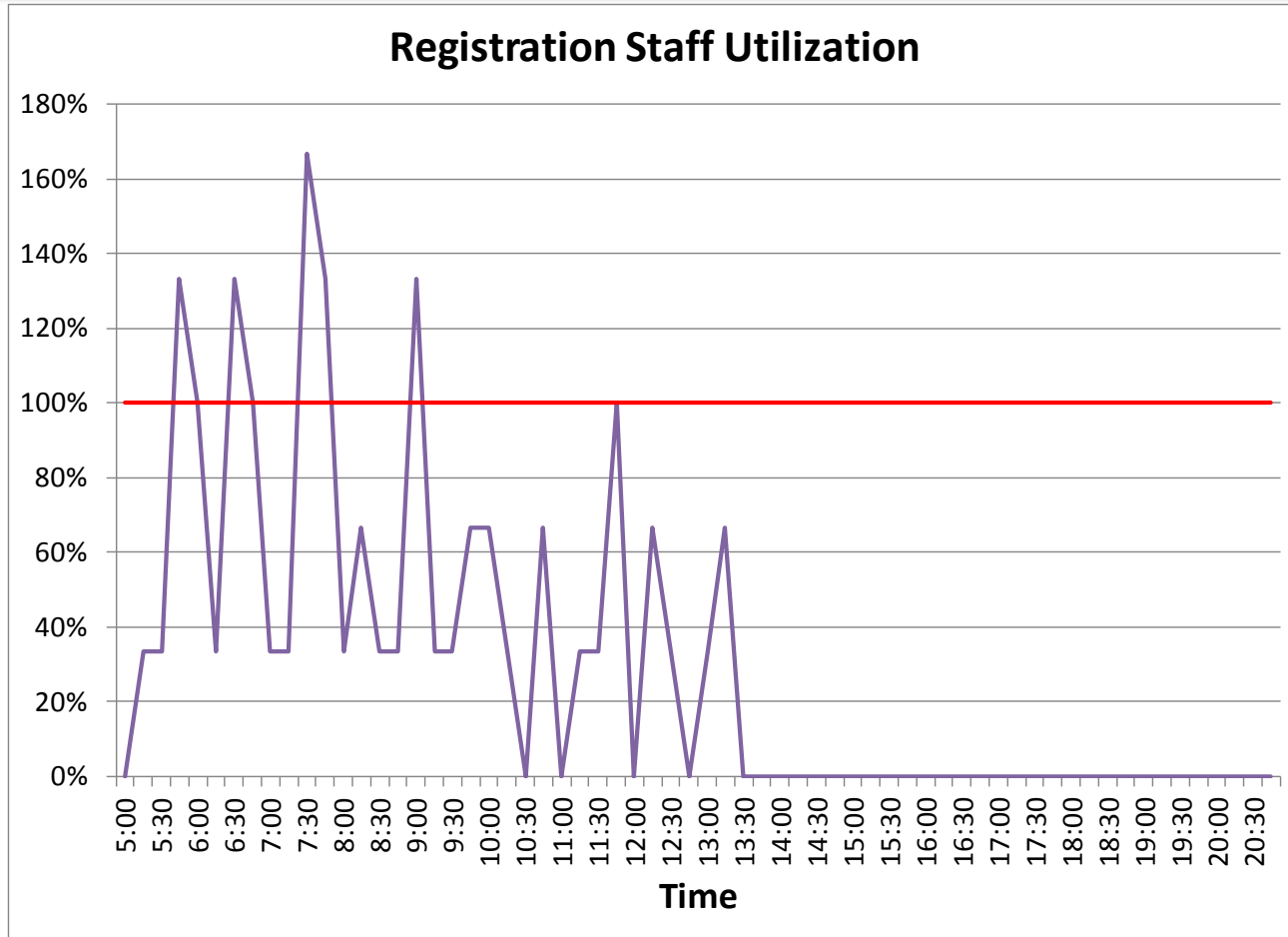
Stats: Model 2/25/14 – Airway PACU

- Tuesday, 2/25/14
 - 58 cases with a high volume of ENT patients
 - 2 rooms for Dr. L
 - 1 room for Dr. R
 - Dr. A working in the afternoon
- 93% Planned 7% Unplanned
- 78% Outpatient 22% Inpatient
- **Only Airway and 10% chance remaining patients go to PACU in this model**

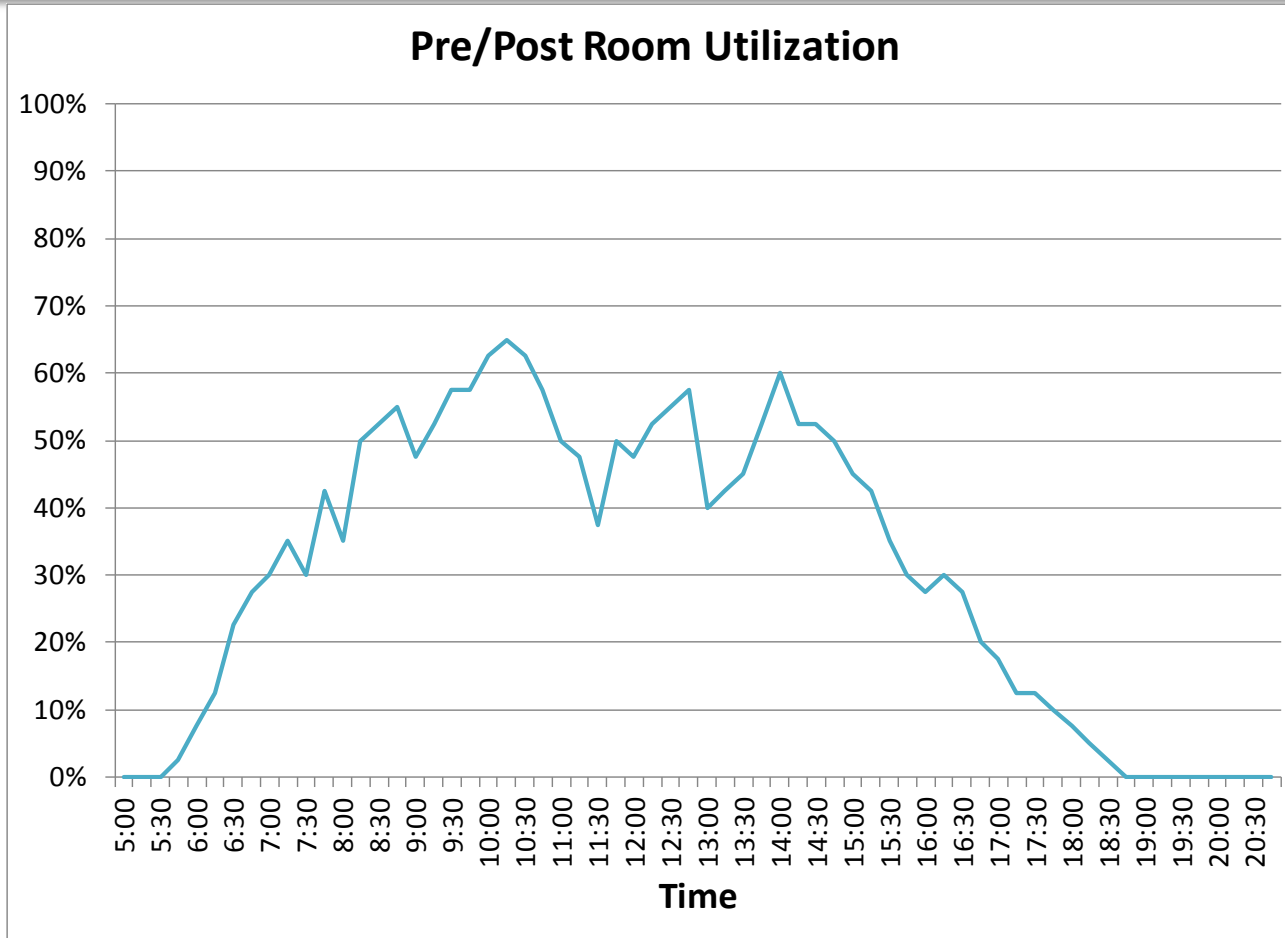
Results: Model 2/25/14 – Airway PACU

- 23 - PACU Patients (40%)
- 3 - Procedure Pre/Post Room Flips
- 2 - Surgical Pre/Post Room Flips
- Average Room Utilization:
 - Pre/Post = 44%
 - PACU = 16%
 - Procedure Rooms = 37%
 - Operating Rooms = 40%

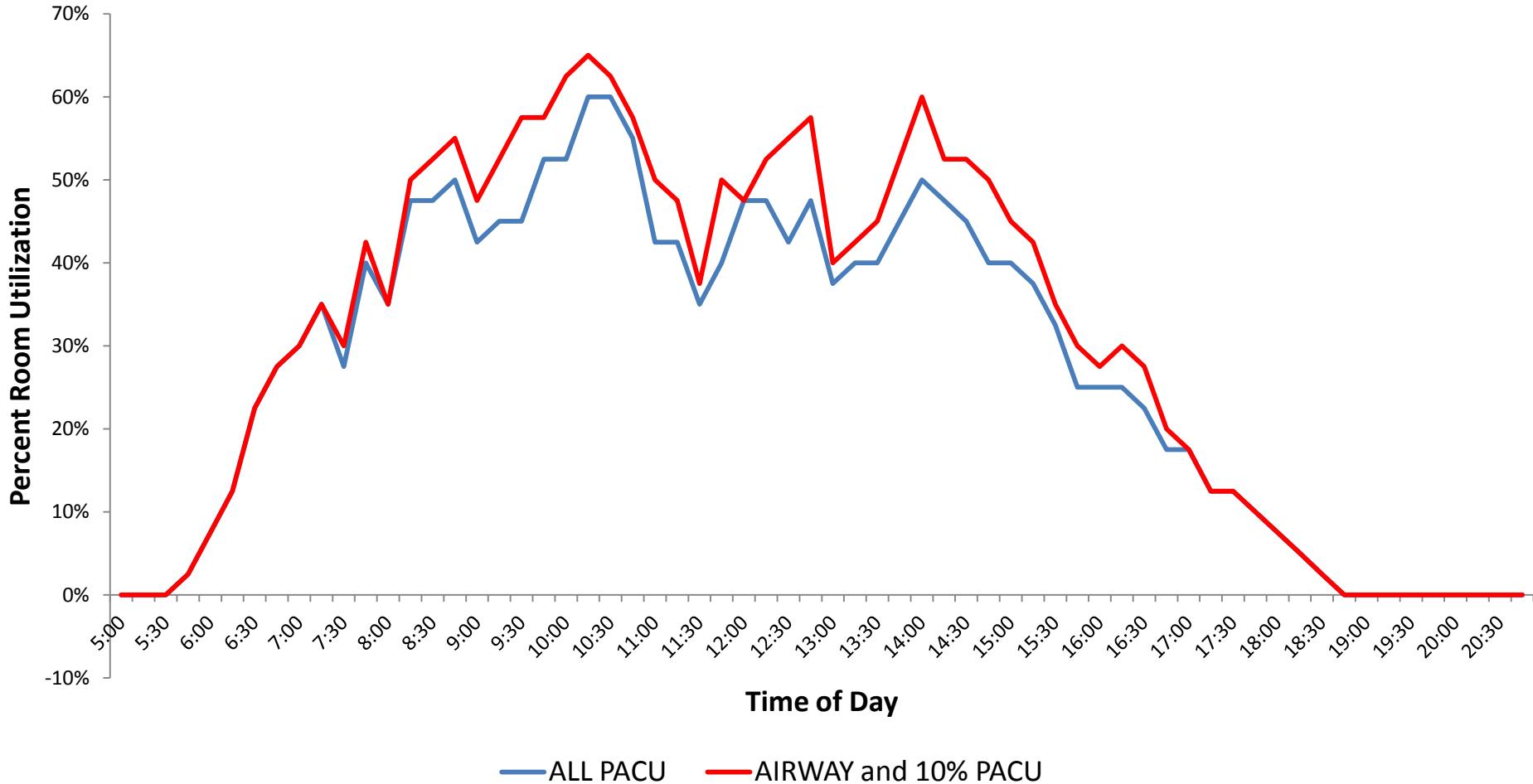
Registration Utilization 2/25/14 – Airway PACU



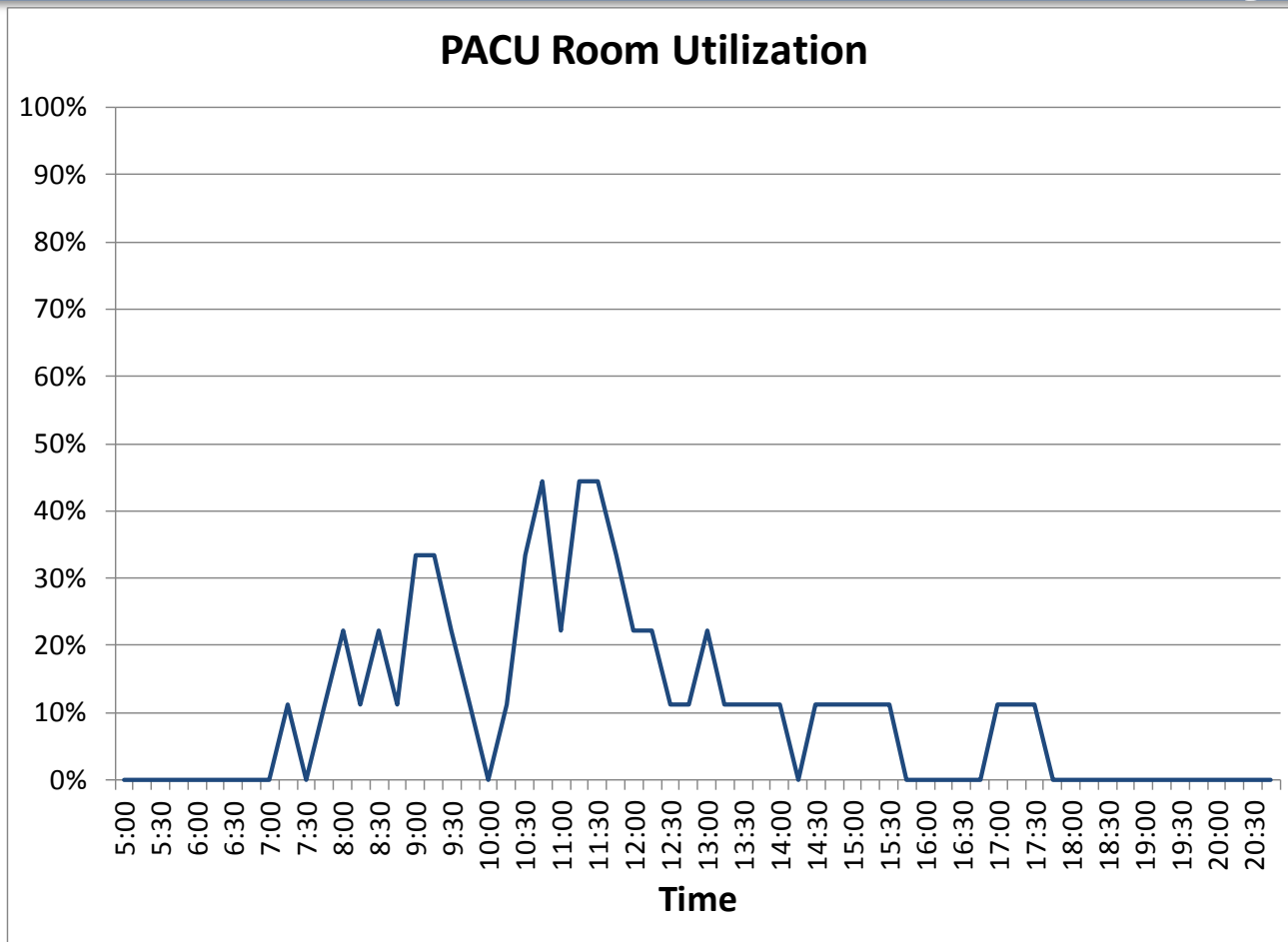
Pre/Post Room Utilization 2/25/14 – Airway PACU



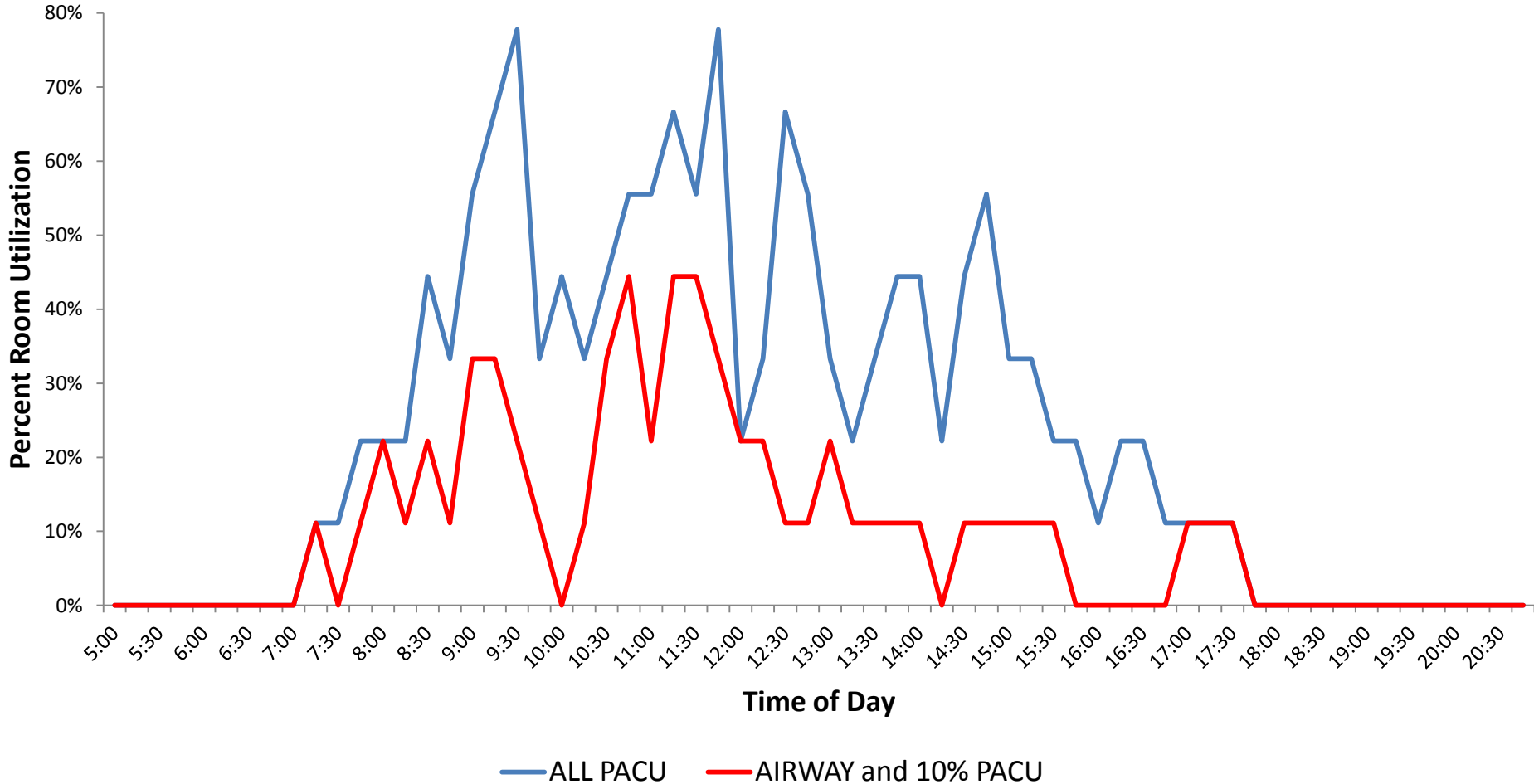
2/25/14 Pre/Post Room Utilization Comparison



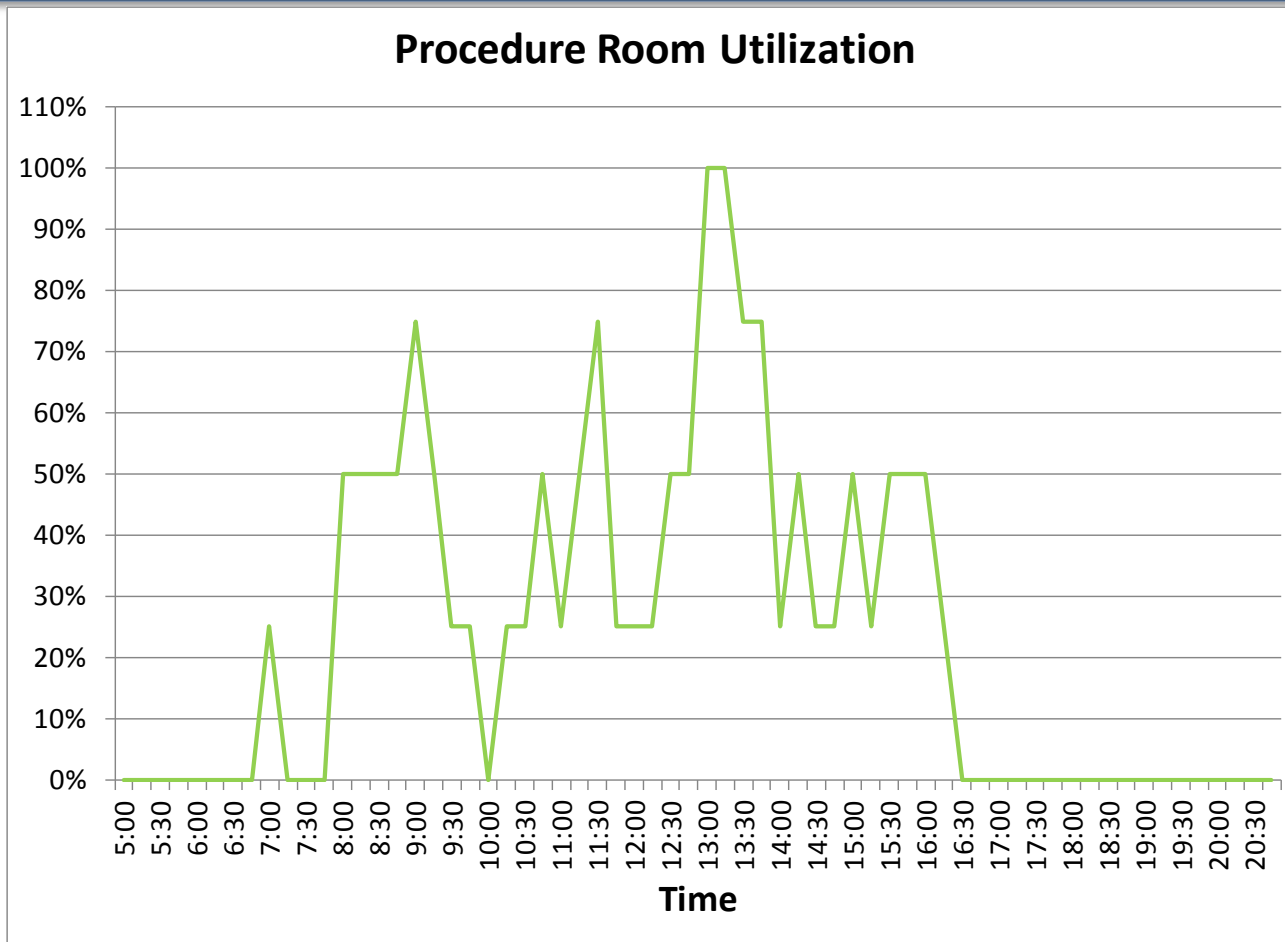
PACU Utilization 2/25/14 – Airway PACU



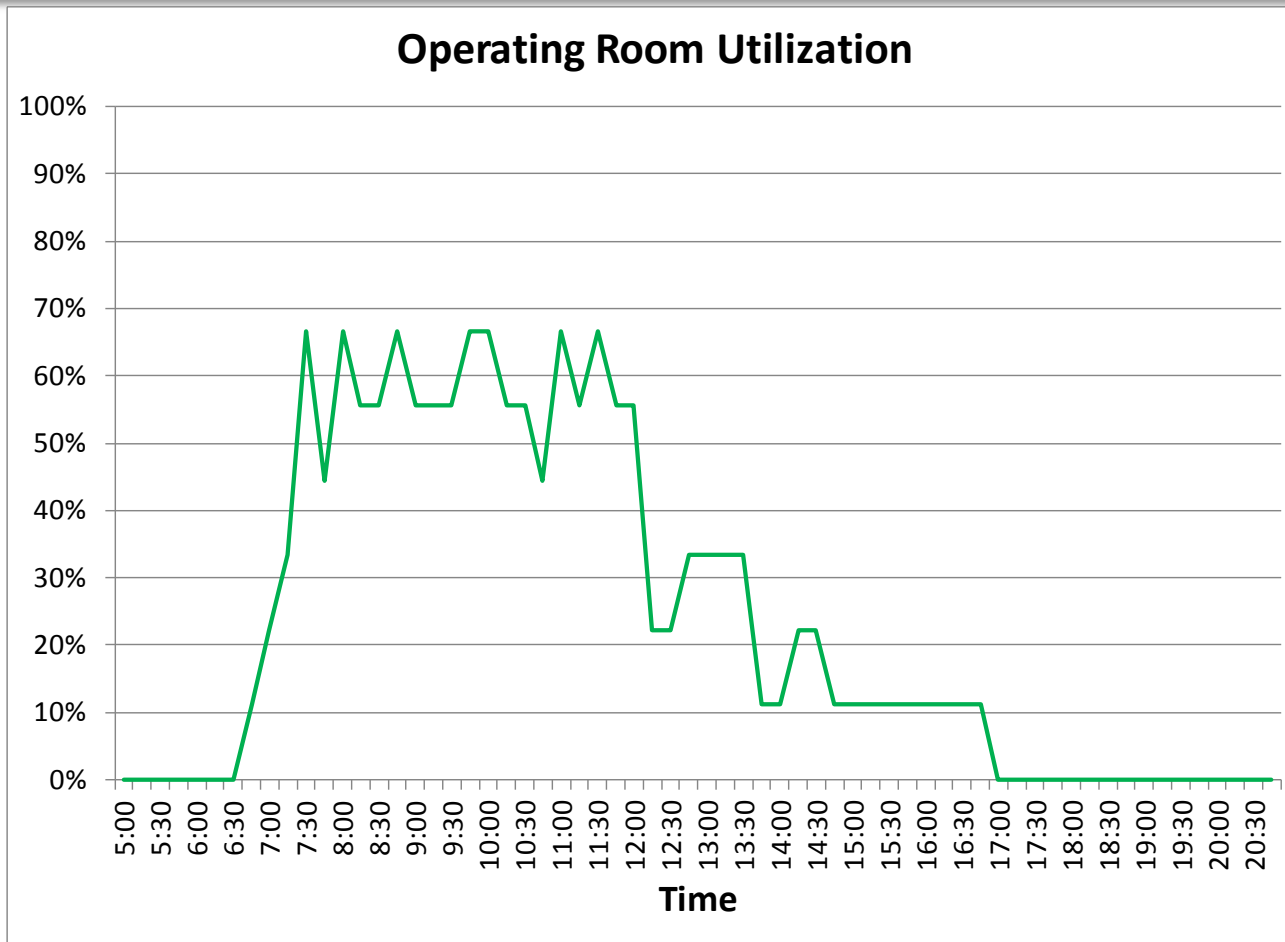
2/25/14 PACU Room Utilization Comparison



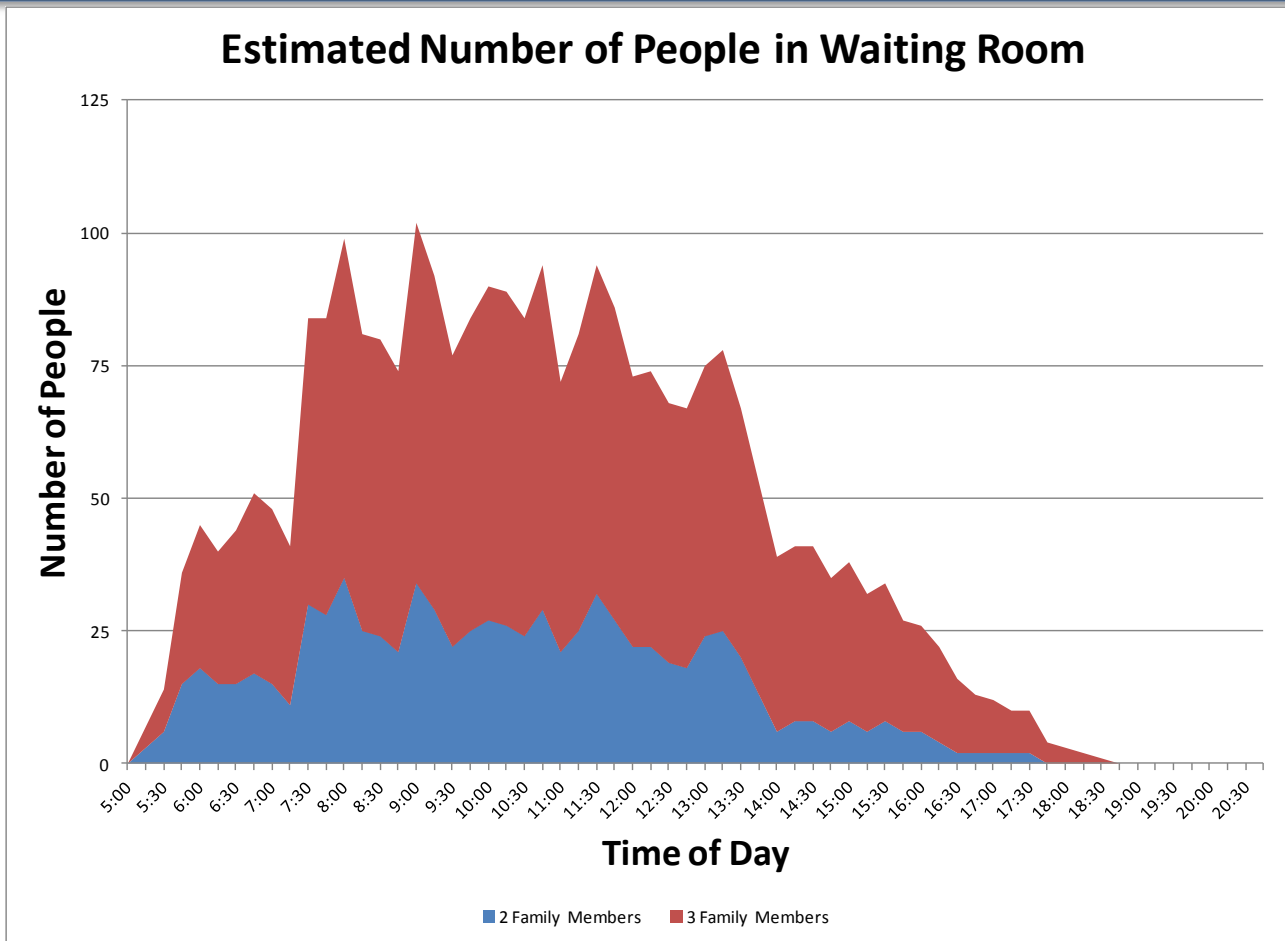
Procedure Room Utilization 2/25/14 – Airway PACU



Operating Room Utilization 2/25/14 – Airway PACU



Waiting Room Occupancy Estimates 2/25/14 – Airway PACU



Discussion and Reflection

- Bed Capacity
- PACU Guidelines
- Concerns
- Opportunities for improvement
- Next steps



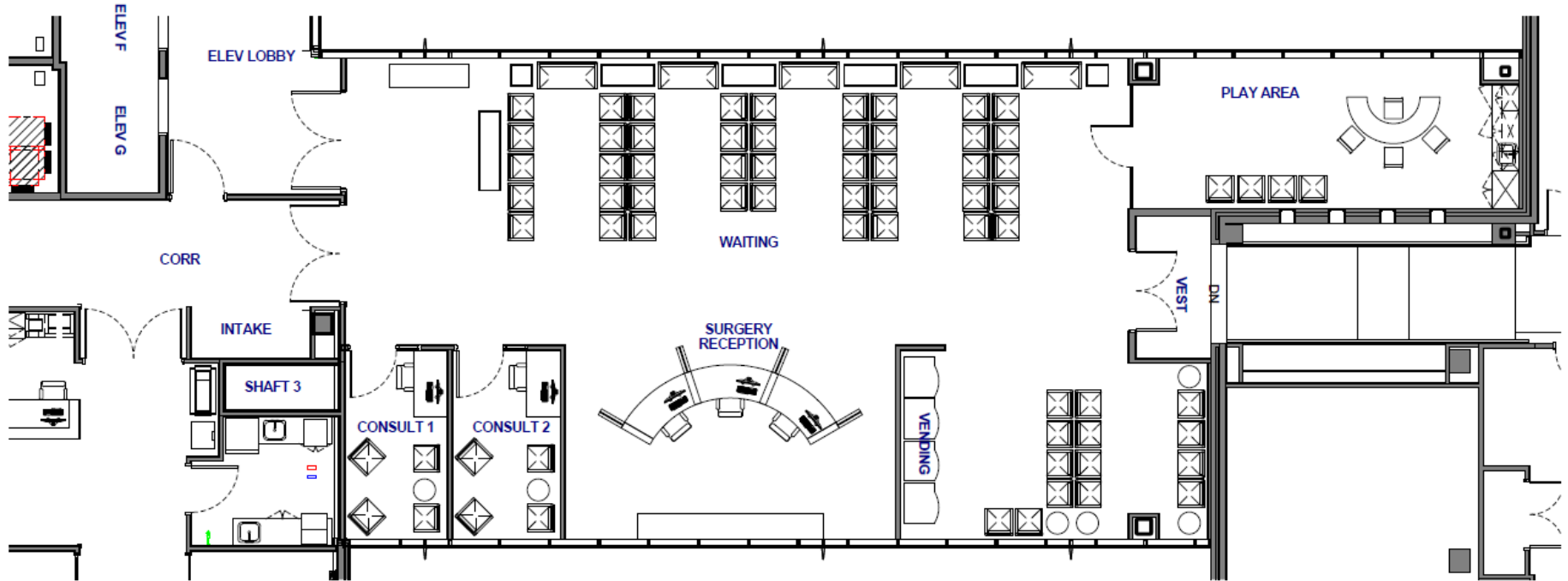
Results

- Increase waiting room size to meet demand.
- Postpone outfitting two operating rooms until demand is needed.
 - Estimated Cost Avoidance: **\$812,538**

Cost Avoidance Calculations

Room Detail	Qty	Description	Manufacturer	Cost
Operating Room 6	1	Anesthesia Machine, 3-Gas	Datex-Ohmeda	\$76,000.00
	1	Cart, Anesthesia, 6-Drawer, Locking	InterMetro Industries	\$3,659.60
	1	Ceiling Column, Anesthesia, Rotational	Getinge - MAQUET	\$14,000.00
	1	Ceiling Column, Equip Manager, Rotationa	Getinge - MAQUET	\$27,250.00
	1	Electrosurgical Unit w/Cart & Footswitch	Valleylab	\$11,717.00
	1	Headlight, Fiberoptic w/Light Source	Codman Div J & J	\$5,000.00
	1	Light, Surgery, Dual Head, Ceiling Mt.	Getinge - MAQUET	\$42,000.00
	1	Monitor, Gas Analysis, CO2/O2/N2O/Agent	Datascope	\$15,000.00
	1	Monitor, Physio, OR (L)	Philips Medical Systems	\$60,000.00
	1	Monitor, Display, Flat Panel	Karl Storz Endoscopy - America	\$4,958.00
	1	Monitor, Display, LCD, 52"	NDS Surgical Imaging	\$15,000.00
	2	Pump, Infusion, Syringe	Abbott/Omni-Flow	\$5,345.00
	1	System, Integration, Surgery Suites	Karl Storz Endoscopy - America	\$85,000.00
	1	Table, Instrument, Nested	Blickman Health Industries	\$2,100.00
1	Table, Surgery, Electric, Remote Control	Steris	\$38,000.00	
		OR 6 Total	\$405,029.60	
Operating Room 10	1	Anesthesia Machine, 3-Gas	Datex-Ohmeda	\$76,000.00
	1	Cart, Anesthesia, 6-Drawer, Locking	InterMetro Industries	\$3,659.60
	1	Ceiling Column, Anesthesia, Rotational	Getinge - MAQUET	\$14,000.00
	1	Ceiling Column, Equip Manager, Rotationa	Getinge - MAQUET	\$27,250.00
	1	Electrosurgical Unit w/Cart & Footswitch	Valleylab	\$11,717.00
	1	Headlight, Fiberoptic w/Light Source	Codman Div J & J	\$5,000.00
	1	Light, Surgery, Dual Head, Ceiling Mt.	Getinge - MAQUET	\$42,000.00
	1	Monitor, Gas Analysis, CO2/O2/N2O/Agent	Datascope	\$15,000.00
	1	Monitor, Physio, OR (L)	Philips Medical Systems	\$60,000.00
	1	Monitor, Display, Flat Panel	Karl Storz Endoscopy - America	\$4,958.00
	1	Monitor, Display, LCD, 52"	NDS Surgical Imaging	\$15,000.00
	2	Pump, Infusion, Syringe, 4-Channel Progr	Abbott/Omni-Flow	\$9,924.00
	1	System, Integration, Surgery Suites	Karl Storz Endoscopy - America	\$85,000.00
	1	Table, Surgery, Electric, Remote Control	Steris	\$38,000.00
		OR 6 Total	\$407,508.60	
		Total Cost Avoidance	\$812,538.20	

Proposed Waiting Space Changes



67 SEATS IN WAITING + 10-12 IN PLAY AREA= 79 TOTAL

Questions?

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• **Email:** ibmitchell@etch.com

• **Office Location:** Ground Floor Main Hospital