

MaineHealth



# Leveraging Analytics to Drive Action

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The Maine Health Blueprint

08.28.2018

# Every Survey...Every Article...Every Report in Healthcare

## A common priority



BECKER'S  
**Hospital CFO Report**

Financial Management



### Top priorities for hospital CFOs today

Written by [Laura Dyrda](#) (Twitter | Google+) | April 27, 2017 | [Print](#) | [Email](#)

[in Share](#) Declining reimbursements, high deductible health plans and uncertainty from government payers are the key issues keeping hospital and health system CFOs across the country up at night. But many are developing innovative ways to address these issues with population health and waste eliminating strategies.



### Healthcare IT News

TOPICS

### CIOs top 3 strategic priorities for 2018, a year of federal policy uncertainty

CIOs need to eliminate unwarranted care variations, deploy telemedicine and encourage adoption of consumer-centric technologies, The Advisory Board says.

By [Bill Siwicki](#) | January 31, 2018 | 12:13 PM



## Lower Cost of Care

# Top trends driving this...

## Providers are Struggling

Average operating margin  
~2.2% (1 of 3 have negative  
margins)

## There is Significant Waste...and Opportunity

\$700B in annual waste (overuse,  
misuse, variation, inefficiency,  
harm)

## Understanding Cost/Margins is a Requirement

Relevant in both FFS and FFV  
settings and physicians are  
ready to engage

## Driving Out Cost is Mission Critical

Major initiatives on variation and  
waste are in motion in every  
health system

## Alternative Payment Models Gaining Steam

All are trying to prepare, but  
don't have the data they need

## MDs are Ready to Engage on Cost, Value

But most health systems don't  
know how to get started



**Understanding  
Costs is the  
first step!**

# Since you can't fix, what you don't know?

THE WALL STREET JOURNAL.



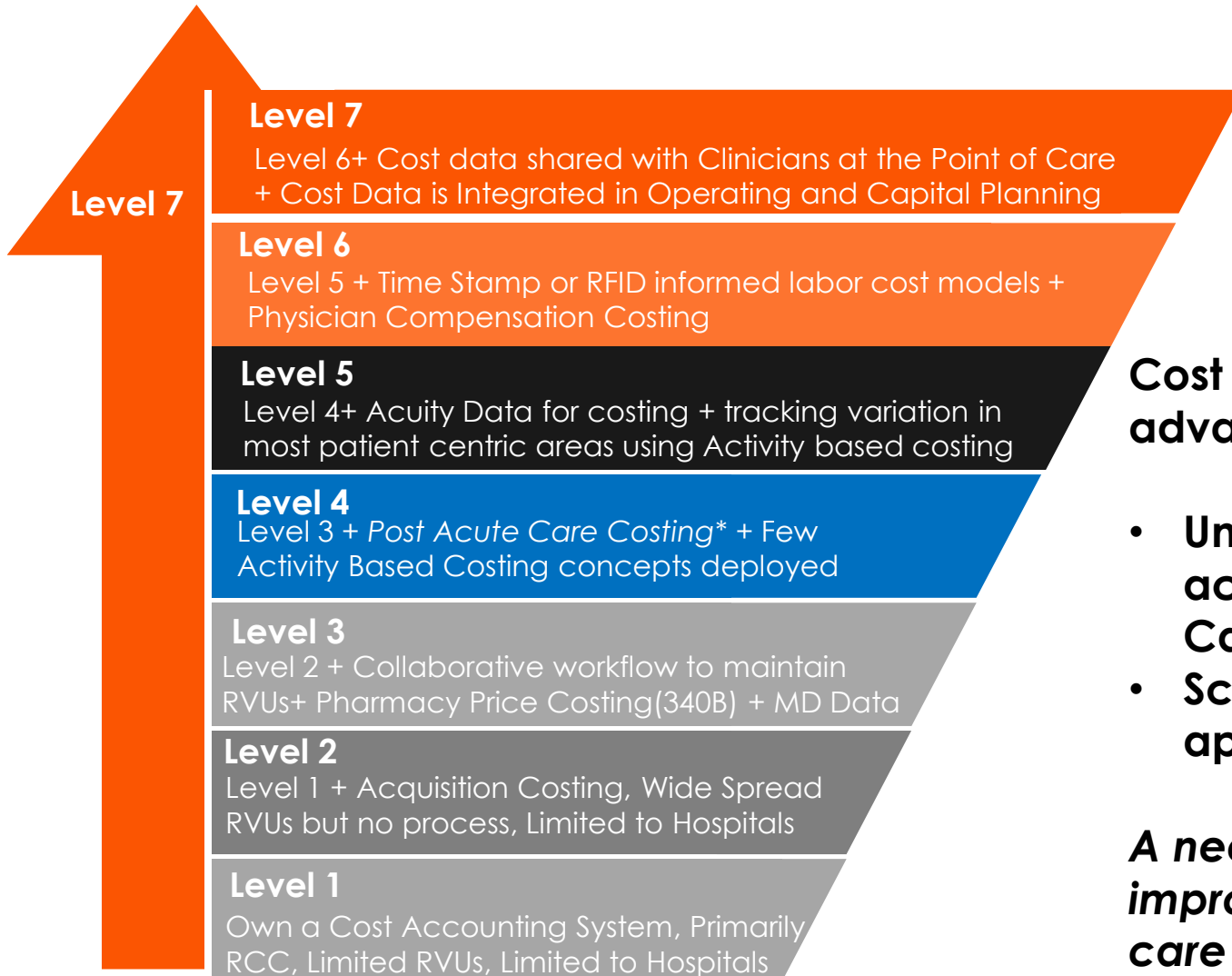
## Summary

- Huge gap in understanding cost of care
- Significant cost variation
- Opportunity for efficiency improvement
- Health Care Pricing is inaccurate!

## The Flaws

- Focus on a **single procedure**
- **Unscalable** model to understand costs
- No solution to the **pricing** problem!
- No solution for **tracking** the impact of improvements – it's not easy!

# Step 1: Commit to a level! Adopt Advanced Cost Accounting



**Cost accounting has advanced...**

- **Understand variation across the Continuum of Care**
- **Scalable, data driven approach**

***A necessary tool for improvement & value based care***

# Step 2: The missing piece...

To drive action, data needs to be in hands of decision makers in a meaningful way!

## Self Service Data Discovery via drill down reporting

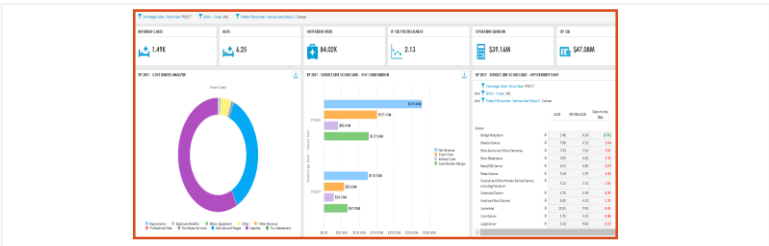
	Charge	Cases	Implied Quantity	Variable Direct Cost	RX 340B Package Price	RX GPO Package Price	RX WAC Package Price
<b>ancer and Blood Disorders</b>							
411758455							
20000011 - HC RX 250 - 011	\$2,398	1	30.00	\$569	\$5,795	\$7,370	\$91
20000026 - HC RX 636 W ALT REV - 026	\$250	1	1.00	\$26	\$0	\$41	\$
20000027 - HC RX 636 W ALT REV - 027	\$2,815	1	159.20	\$510	\$5,994	\$9,599	\$121
20000031 - HC RX 636 W ALT REV - 031							
<b>GPO</b>							
00009001103 - PFIZER US PHARM	\$1,999	1	71.00	\$552	\$1	\$912	\$
00009001104 - PFIZER US PHARM	\$74	1	2.00	\$15	\$0	\$372	\$
00085433101 - MERCK SHARP D	\$0	1	0.00	\$0	\$4,272	\$7,061	\$71
00764780010 - B.BRAUN	\$888	1	21.00	\$73	\$709	\$2,761	\$21
00310032130 - ASTRAZENECA LP-	\$6,327	1	23.00	\$599	\$6,313	\$44,034	\$441
00338004902 - BAXTER HEALTHCA	\$94	1	17.00	\$44	\$101	\$1,608	\$21
00338004903 - BAXTER HEALTHCA	\$1,704	1	55.00	\$169	\$349	\$2,608	\$41
00338004904 - BAXTER HEALTHCA	\$2,124	1	48.00	\$167	\$377	\$1,399	\$21
00338004910 - BAXTER HEALTHCA	\$172	1	24.00	\$62	\$30	\$3,382	\$51
00338004911 - BAXTER HEALTHCA	\$469	1	23.00	\$67	\$104	\$6,226	\$81
00338004938 - BAXTER HEALTHCA	\$2,019	1	39.00	\$138	\$586	\$15,720	\$241
00338055311 - BAXTER HEALTHCA	\$0	1	0.00	\$0	\$398	\$2,569	\$51
00338055318 - BAXTER HEALTHCA	\$7,934	1	169.00	\$795	\$18,356	\$59,261	\$1191

## Interactive Data Dashboards

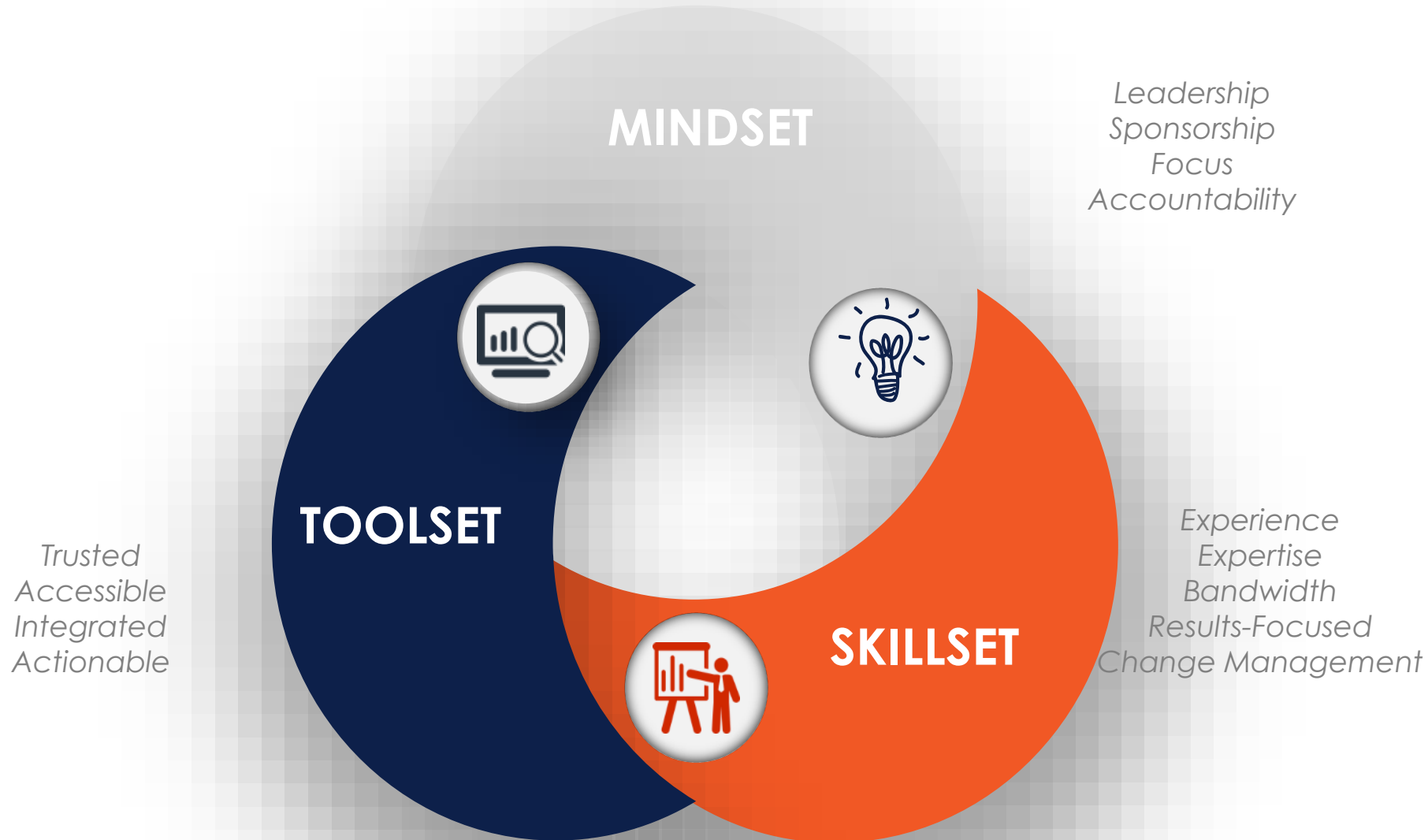
### Executive Leadership



### Clinical Leadership



# Our Case Study Today



MaineHealth

# Maine Medical Center Case Study:

**Leveraging Analytics To Drive Action**

August 28, 2018

PATIENT  
CENTERED

RESPECT

INTEGRITY

EXCELLENCE

OWNERSHIP

INNOVATION



# Introductions and Background

**Be a role model. Take responsibility. Set high standards.**  
**Embrace change. Be an active listener.**  
**Act with kindness and compassion.**

# Maine Health Background

- MaineHealth is a not-for-profit family of high-quality providers and healthcare organizations committed to the health and well-being of the communities and people we serve. As the largest healthcare organization in Maine and a leading healthcare provider serving northern New Hampshire, MaineHealth is recognized as one of the nation's top integrated healthcare delivery networks.
- 11 community hospitals in a dozen counties in Maine and New Hampshire
- 18,000 employees and 1,500 employed and independent physicians working together through the MaineHealth Accountable Care Organization
- Multiple physician practices in the communities we serve
- Complete behavioral and mental health care network, including southern Maine's only private, nonprofit psychiatric hospital as well as community-based services at dozens of locations



# Maine Medical Center Background

- Flagship hospital for MaineHealth
- Maine Medical Center is the state's largest medical center, licensed for 637 beds and employing more than 8,000 people. Maine Medical Center's unique role as both a community hospital and a referral center requires an unparalleled depth and breadth of services, including the state's only medical school, through a partnership with Tufts University School of Medicine, and a world-class biomedical research center, the Maine Medical Center Research Institute.
- Epic Hospital since 2012
- Stratajazz Hospital since 2016



# Stan Jakubowski: Role Of Presenter

- At Maine Medical Center for just over a year.
- Senior Financial Systems Support Analyst – Database guy
- Degree in computer science
- Working with health care data for over 18 years
- NO business or clinical background ( None, Zippo)
- **Legos are great** -- I like to build things
- Learned how to help people think logically and solve problems using the data/information they already have.



Act with kindness and compassion.

Be an active listener.

Be a role model.

Set high standards.

Take responsibility.

Embrace change.

# Our Decision Support Crew

- Tige Monacelli
  - Frank Isakson
  - Angelique Wright
  - Joe Gasbarrone
  - Stan Jakubowski
  - Paul Anderson
  - Strata Staff
- ❖ Dashboards
  - ❖ Custom Reports
  - ❖ Programing and Maintaining Epic Data Feeds to Strata
  - ❖ End User Training
  - ❖ Super User Training
  - ❖ Costing
  - ❖ Monthly Financial Stats

Act with kindness and compassion.

Be an active listener.

Be a role model.

Set high standards.

Take responsibility.

Embrace change.

# Actionable Dashboard & Reporting Design

# The Desire For Service Line Dashboards



We Went Looking For A Tool.

# These are the droids we are looking for

- The Dashboards Strata Decision Support were a good choice.
- The cost data was already in Strata. We had charge level cost data going back to 2014.
- It has a nice tool for building Dashboards. It is flexible but still fairly easy to use.
- Could Create Standard source reports and use Parameter logic to apply to different service lines.
- Strata can handle multiple service line definitions. These definitions can be updated as needed.



**THESE AREN'T THE DROIDS  
YOU'RE LOOKING FOR...**



# 12 Service Lines at MMC

- Adult Medicine
- Surgical Services
- Neuroscience
- Oncology
- Cardiovascular
- Children's Health
- Women's Health
- Orthopedics
- Behavioral Health
- Critical Care
- ED & Urgent Care
- Primary Care

# Horse Trading And Lessons Learned



I'll trade you DRG 470 for DRG 520.

Our Task (should we choose to accept it)

Give Service Line Leaders a Dashboard  
Tool To Help Drive Decision Making

# Dashboard Anatomy – Global Parameter

Strata Decision TECHNOLOGY
Home | Dashboards | Reports | Financial Planning | Decision Support | More

Dashboards \ Cost Accounting

**Service Line - Orthopedic - IP** v

**Welcome To The Orthopedic IP Dashboard For MMC And MMP**

If you have additional questions or ideas, please share them at email: [FinancialIDS@MMC.org](mailto:FinancialIDS@MMC.org).

Alternatively you can also reach Stan Jakubowski at 662-6514 and Frank Isakson at 662-5615.

**Inpatient Case Volume By Program**

v Patient Encounter - MMC IP Service Line New: Orthopedics  
 And v Patient Encounter - MMC IP Service Line Program New: (All)  
 And v Discharge Date - Month (YTD): YTD (October - July)

	Full Year		YTD	
	FY2016	FY2017	FY2017	FY2018
Foot	30	31	7	38
General Medical Orthopedics	27	24	19	25
Hand	28	24	7	23
Joint Replacement	147	2,100	1,845	1,615
Medical Trauma - Orthopedics	93	71	58	48
Other Surgical Orthopedics	1,177	1,203	1,009	98
Pediatric Orthopedics	71	66	49	58
Sports Medicine	36	90	67	64
Surgical Trauma - Orthopedics	426	171	202	148
<b>Total MMC IP Service Line Program New</b>	<b>2,887</b>	<b>2,954</b>	<b>2,761</b>	<b>2,278</b>

**Global Report Filters**

v Patient Encounter - MMC IP Service Line New: Orthopedics  
 And v Patient Encounter - MMC IP Service Line Program New: (All)

**Inpatient Case Volume By Program - Partial Year To Date**

Program	Comparison (Orange)	Current (Blue)
Foot	6	11
General Medical Orthopedics	19	25
Hand	7	11
Joint Replacement	1.85K	1.62K
Medical Trauma - Orthopedics	59	46
Other Surgical Orthopedics	105	98
Pediatric Orthopedics	43	56
Sports Medicine	67	64
Surgical Trauma - Orthopedics	307	349

# Dashboard Anatomy – Data Points

- Volume
  - Average LOS
  - Opportunity Days
  - Case Mix Index
  - Payor Mix
  - Contribution Margin
  - Net Income
  - Financials Per Case
  - LOS Index
- Last 2 full years of data and current YTD compared to last year same months
  - Most change dynamically when we update the system date each month

## patient Case Mix Index - By Program

▼ Patient Encounter - MMC IP Service Line New: Orthopedics  
 And ▼ Patient Encounter - MMC IP Service Line Program New: (All)  
 And ▼ Discharge Date - Month (YTD): YTD (October - July)

	Full Year		YTD	
	FY2016	FY2017	FY2017	FY2018
Foot				
General Medical Orthopedics				
Hand				
Joint Replacement				
Medical Trauma - Orthopedics				
Other Surgical Orthopedics				
Pediatric Orthopedics				
Sports Medicine				
Surgical Trauma - Orthopedics				
Total MMC IP Service Line Program New				

# Dashboard Anatomy – Data Points

Opportunity Days

Financials Per Case

LOS Index

# Dashboard Anatomy – Links To Reports

## IP Average Length Of Stay Detail Report Link

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 [SL - IP Average Length of Stay - Orthopedic](#)

## IP Opportunity Days Detail Report Link

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 [SL - IP Opportunity Days - Orthopedic](#)

## IP Payor Mix By Program And By Fiscal Year Links

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Please click each link, then on the top right of the new windows toggle the button to (Chart) instead (Table).

 [SL - IP Payor Mix by Discharge FY - Graph - Orthopedic](#)

 [SL - IP Payor Mix by Program - Graph - Orthopedic](#)

## Attachments

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 [DRG\\_XWALK\\_April2018.xlsx](#)

## Orthopedic Specific Report Requests

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 [SL - IP Percent Distribution For A DRG LOS - Orthopedic](#)

 [SL - IP DRG By Primary Performing - Orthopedic](#)

 [SL - IP DRG Financials By Primary Performing - Orthopedic](#)

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Build It And They Will Come...



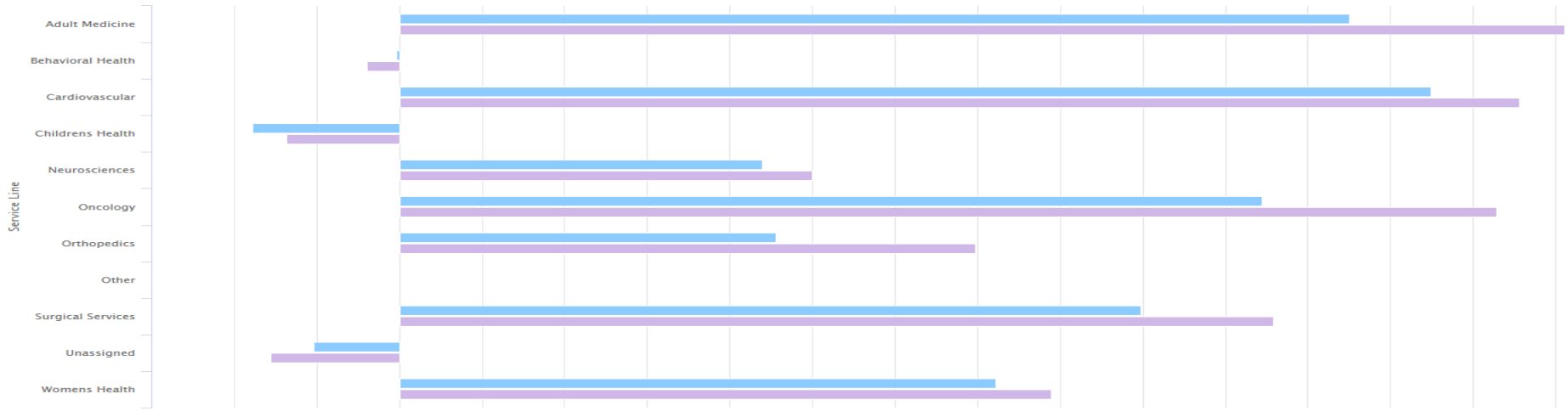


# We Needed Allies



# THE SLEC

### OP Contribution Margin(Combined Hospital and Professional)



	Cases per Year				Total Cost Per Case				Direct Cost per Case				Average Length of Stay per Case			
	FY2015	FY2016	FY2017	FY2018	FY2015	FY2016	FY2017	FY2018	FY2015	FY2016	FY2017	FY2018	FY2015	FY2016	FY2017	FY2018
Adult Medicine	[Redacted]															
Behavioral Health	[Redacted]															
Cardiovascular	[Redacted]															
Childrens Health	[Redacted]															
Neurosciences	[Redacted]															
Oncology	[Redacted]															
Orthopedics	[Redacted]															
Surgical Services	[Redacted]															
Ungroupable	[Redacted]															
Womens Health	[Redacted]															
Total Patient Encounter - MMC IP Service Line New	[Redacted]															

# Rollin'



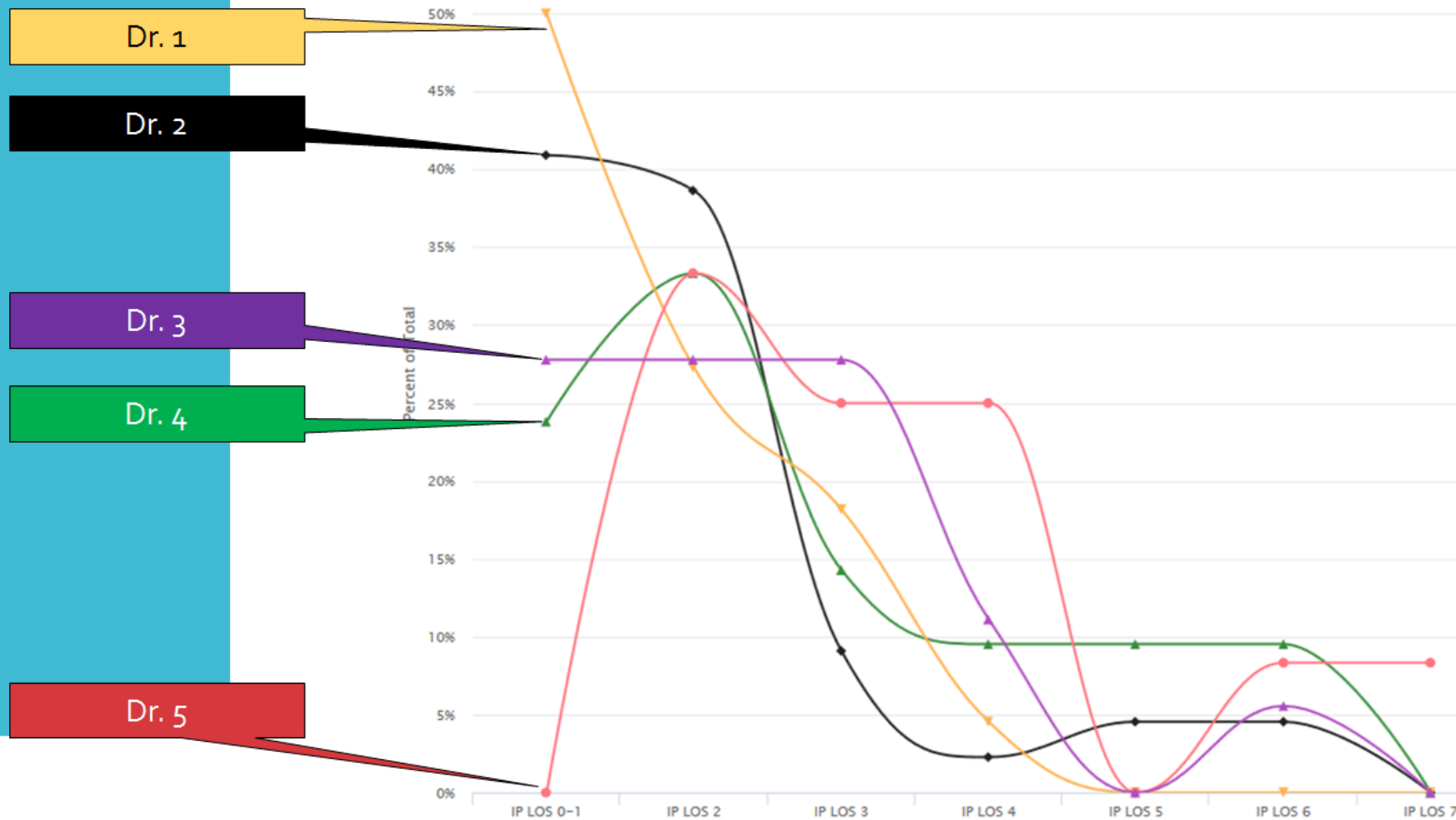
# Neuroscience: Single Spine Fusion Study

The table below highlight average per case utilization by Physician.

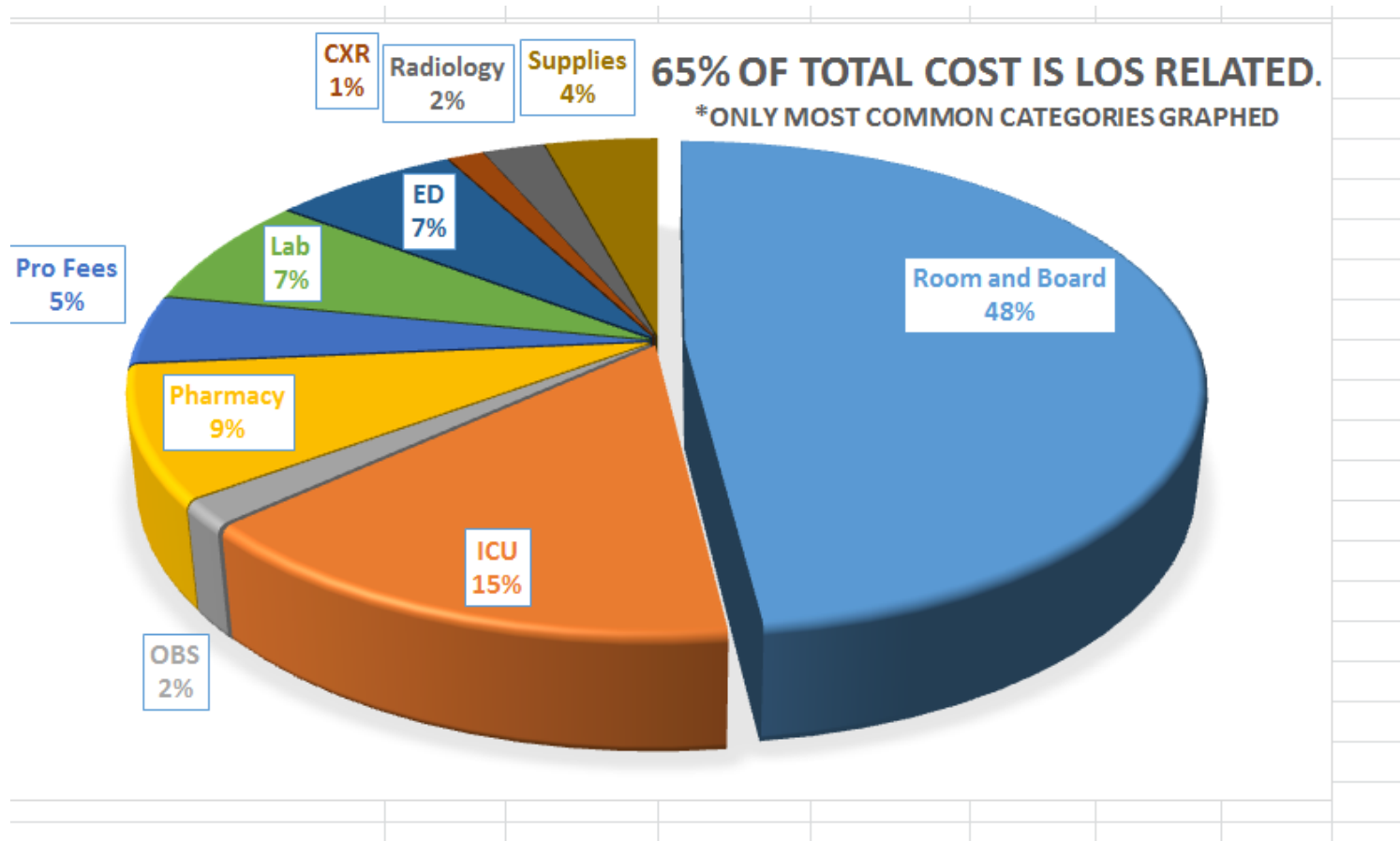
	Dr A	Dr B	Dr C	Dr D	Dr E	Subtotal
<b>Cases</b>	<b>44</b>	<b>22</b>	<b>21</b>	<b>18</b>	<b>12</b>	<b>117</b>
<b>Units Per Case</b>						
BONE CHIPS	1.0	0.8	2.0	1.1	1.7	1.2
BLOCKER	4.2	0.9	5.0	4.4	4.7	3.8
SPACER	1.1	0.9	1.1	0.8	0.8	1.0
ROD	2.0	2.3	1.9	2.2	2.0	2.1
CAGE	-	0.1	-	0.2	0.4	0.1
SCREW	4.1	7.1	3.9	3.8	4.8	4.6
WIRE	-	0.1	1.0	-	0.4	0.2
<b>Per Case Total</b>	<b>12.4</b>	<b>12.1</b>	<b>14.8</b>	<b>12.5</b>	<b>14.8</b>	<b>13.0</b>

# Neuroscience: Single Spine Fusion Study

## Percent Of Encounters Discharged Days 1 Thru 7



# Adult Medicine: IP Pneumonia Study



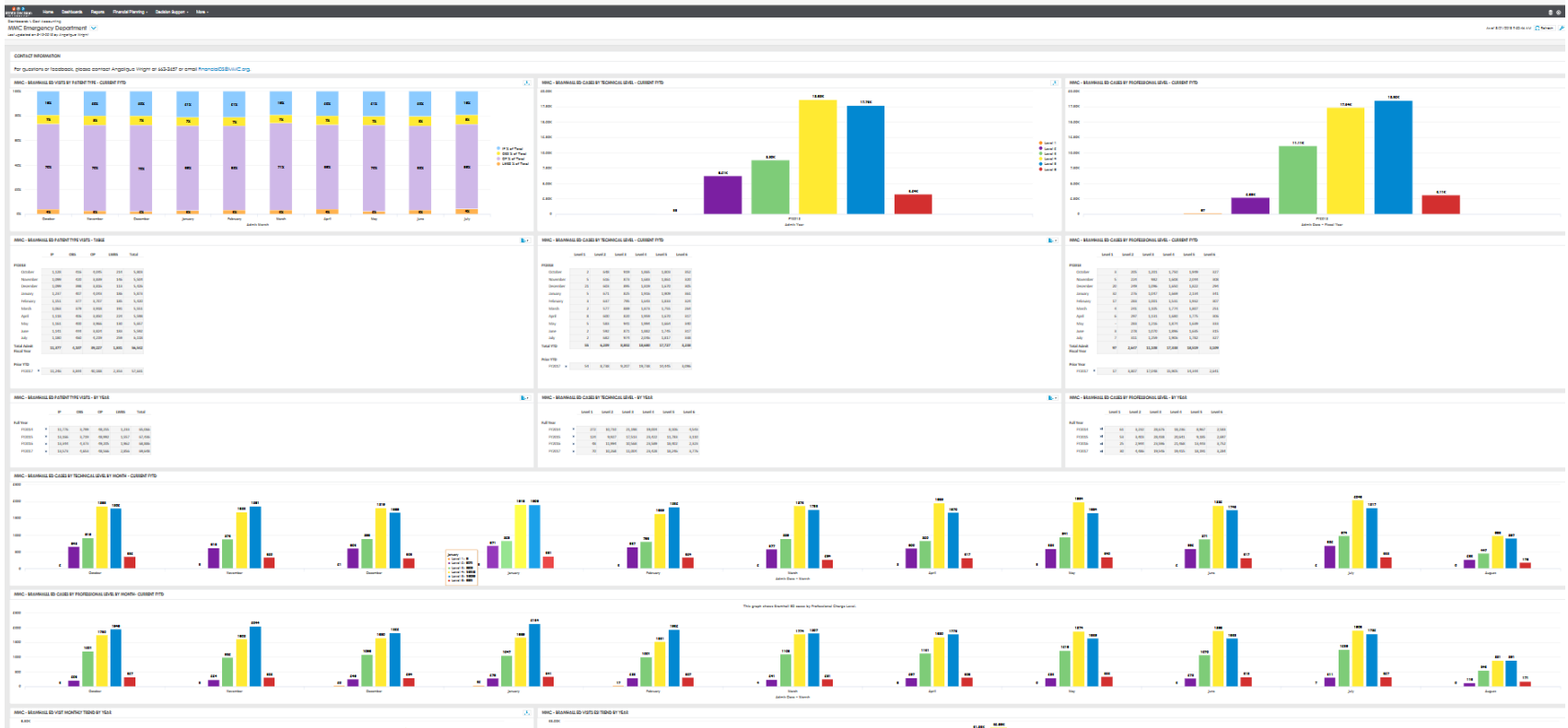
# Adult Medicine: IP Pneumonia Study

## Simple Pneumonia CXR Day Utilization (all ages)

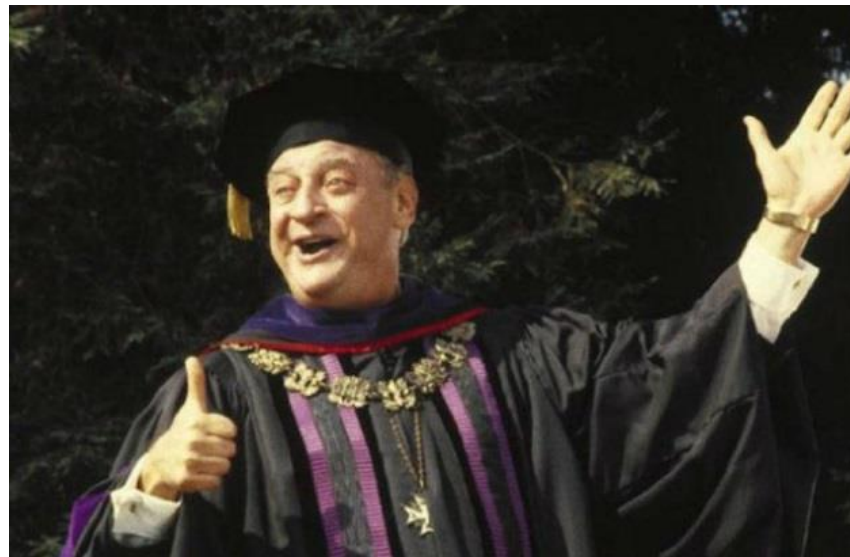
CXr 1 View	Prior FY			CY Month									Fiscal Year		
	FY2017			Quarter 1			Quarter 2			Quarter 3			FY2018		
	Cases	Billed Units Of	Direct Cost	Cases	Billed Units Of	Direct Cost	Cases	Billed Units Of	Direct Cost	Cases	Billed Units Of	Direct Cost	Cases	Billed Units Of	Direct Cost
Day 1	26	28		7	7		12	14		9	9		28	30	
Day 2	10	12		5	5		3	4		6	6		14	15	
Day 3	13	14		3	3		3	3		3	3		9	9	
Day 4	5	7		2	2		3	3		3	3		8	8	
Day 5	7	7		1	1		1	1		3	3		5	5	
Day 6	7	13		1	1		2	2		3	3		6	6	
Day 7	10	10		2	3		3	3		3	3		8	9	
Day 8 - 22	23	25		10	11		6	7		5	5		21	23	
Day 25 - 76	13	14		2	2								2	2	



# 3 Service Lines/'Service Areas' That Do Not Fit The Pattern



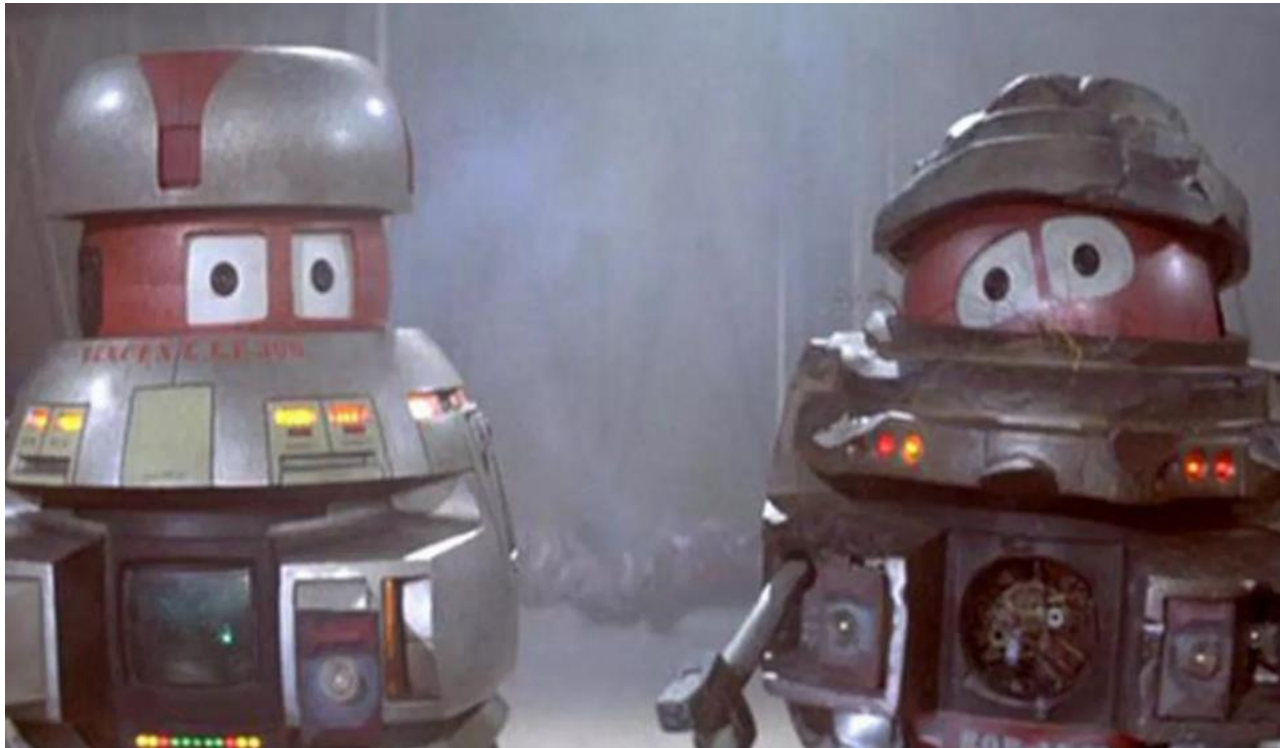
# Training End Users For Self Service



# Super User Training



# User Management and Data Security



# Strata Security Groups

## Group Management

Use this page to add and edit new groups. Click on a group to manage the users within a group.

Previous

USER GROUPS				MEMBERS	
Category	Name	Members	Name		
43	DSS - SL - Adult Medicine	22	1		<div style="background-color: #cccccc; width: 100%; height: 100%;"></div>
44	DSS - SL - Behavioral Health	15	2		
45	DSS - SL - Cardiovascular	17	3		
46	DSS - SL - Childrens Health	21	4		
47	DSS - SL - Critical Care	14	5		
48	DSS - SL - Emergency Department	25	6		
49	DSS - SL - Neurosciences	20	7		
50	DSS - SL - Oncology	21	8		
51	DSS - SL - Orthopedic	38	9		
52	DSS - SL - Surgical Services	20	10		
53	DSS - SL - Womens Health	19	11		
54	DSS - SL Primary Care	7	12		

# Examples Of Security On Reports

Email Security Tools

**Security** [X]


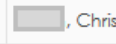

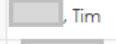
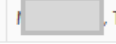
+ Add - Remove

	Identity	View Report	Edit Report	Edit Security
1	DSS - SL - Neurosciences	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	DSS - System Administrator	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Cancel Save

**Security** [X]

+ Add - Remove

	Identity	View Report	Edit Report	Edit Security
1		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
2	 , Chris	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	DSS - MMC Basic User	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	DSS - Super User	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	DSS - System Administrator	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
6	 , Lou	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7	 , Tim	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
8	 , Tige	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Cancel Save

# September 5<sup>th</sup> @ 1PM Central

**For providers only:** we invite you to join a product demo of StrataJazz<sup>®</sup>, the tool that Maine Medical Center uses for their Cost Accounting and Management Reporting, on September 5<sup>th</sup> at 1PM Central.

REGISTER BY GOING TO

**[WWW.STRATADECISION.COM/DEMO](http://WWW.STRATADECISION.COM/DEMO)**

AND SCROLL TO #2

Questions ??? Or Comments!!!!

Stan Jakubowski

Maine Medical Center

Senior Financial Systems Support Analyst

[SJakubowsk@MMC.org](mailto:SJakubowsk@MMC.org)

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