

Improving Culture & Employee Engagement with Lean Tools

Jim R. Gebhart, FACHE
President
Mercy Hospital
Oklahoma City, Oklahoma USA

- **Introductions**
- **The Need**
- **The Process**
- **The Results**





Oklahoma City

Singapore

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Oklahoma City

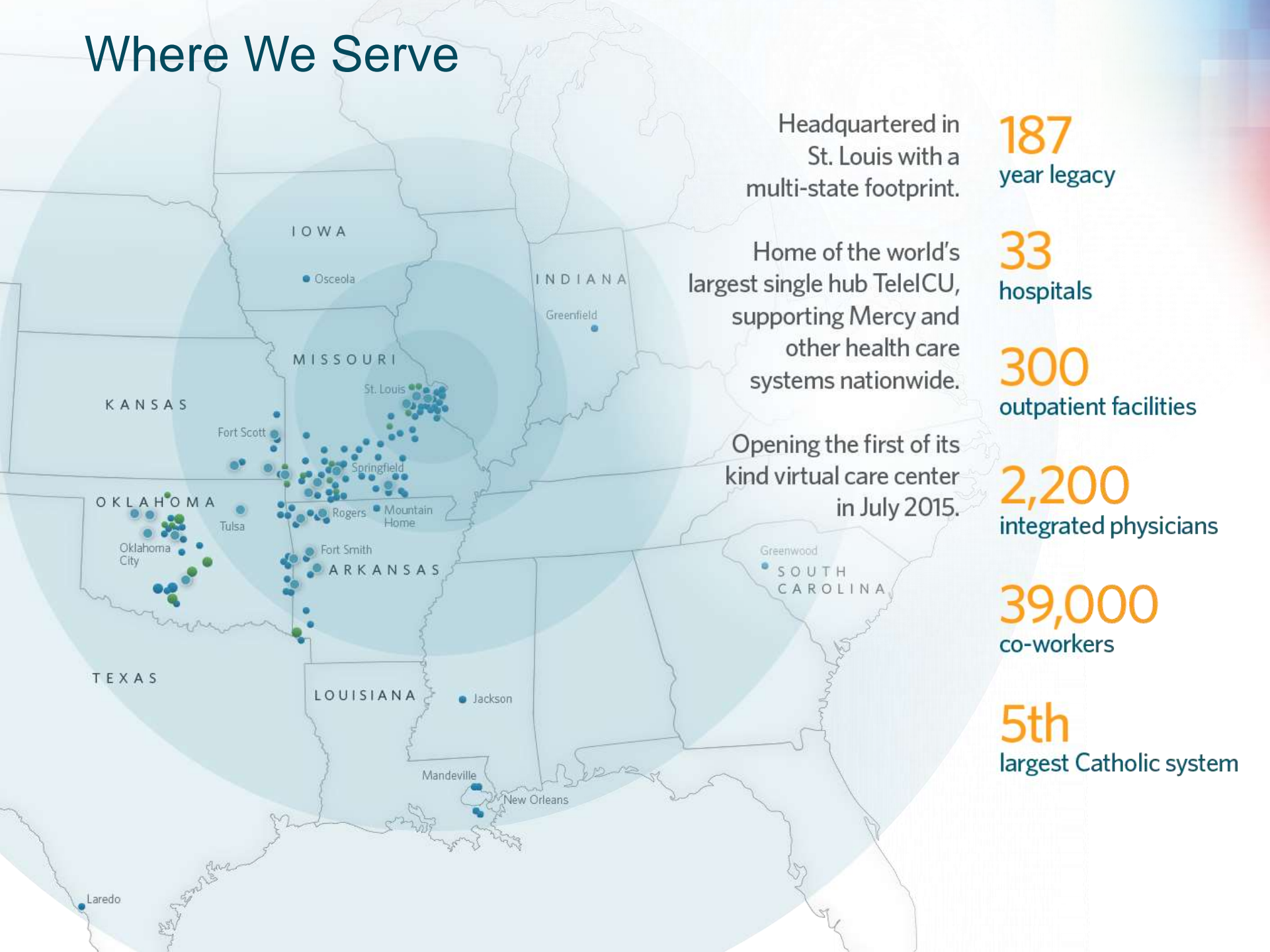
- 3rd largest city in the United States
- Diversified industry
 - Aerospace
 - Energy
 - BioScience
 - Manufacturing
 - Healthcare
 - International
 - Government







Where We Serve



Headquartered in St. Louis with a multi-state footprint.

187
year legacy

Home of the world's largest single hub TeleCU, supporting Mercy and other health care systems nationwide.

33
hospitals

300
outpatient facilities

Opening the first of its kind virtual care center in July 2015.

2,200
integrated physicians

39,000
co-workers

5th
largest Catholic system



20

Year in Review

15

Mercy Hospital Oklahoma City

Designation/Accreditations

- SAVI Center of Excellence
- ASGE Center of Excellence
- Joint Commission Certification for Advanced Stroke Center
- Certified Healthy Business
- Joint Commission Top Performer



AWARDS and ACCOMPLISHMENTS

- NRC perception - best overall quality, image/reputation, doctors, nurses
- PRC patient satisfaction
 - Place to work ★★★★★
 - Communication ★★★★★
 - Immediate supervisor ★★★★★
 - Overall empowerment ★★★★★
 - Senior leadership ★★★★★
 - Teamwork within department ★★★★★
 - Training and professional development ★★★★★
- Readers' Choice Best Place to Have a Baby



“The simplest and most practical lesson I know...is to resolve to be good today, but better tomorrow.”

Catherine McAuley

Founder, Sisters of Mercy

Dublin, Ireland 1827



Lean thinking....the why

Periods in the development of thinking

	1980-1990	1990- mid-90s	Mid-90s- 1999	2000+
FOCUS ON	Production cell and line	Shop-floor	Value stream	Value system
APPROACH	Highly prescriptive, using lean tools	Highly prescriptive, imitating lean organization	Prescriptive, <i>emulation</i>	Integrative, using <i>different</i>
INDUSTRY SECTOR	Automotive—vehicle assembly	Automotive and computer assembly	<p><i>Improving customer value to improve organizational alignment. Decrease variability</i></p>	
TYPICAL ACTIVITY IN THIS PHASE	Application of JIT-techniques, 5s, kanban	Emulation of lean organization training and TQM		

Do No Harm

- **440,000** people die every year from hospital errors, injuries, accidents, and infections
- **1 out of every 25** patients develops an infection while in the hospital—an infection that didn't have to happen.
- A Medicare patient has a **1 in 4** chance of experiencing injury, harm or death when admitted to a hospital
- Today alone, more than **1,000** people will die because of a preventable hospital error

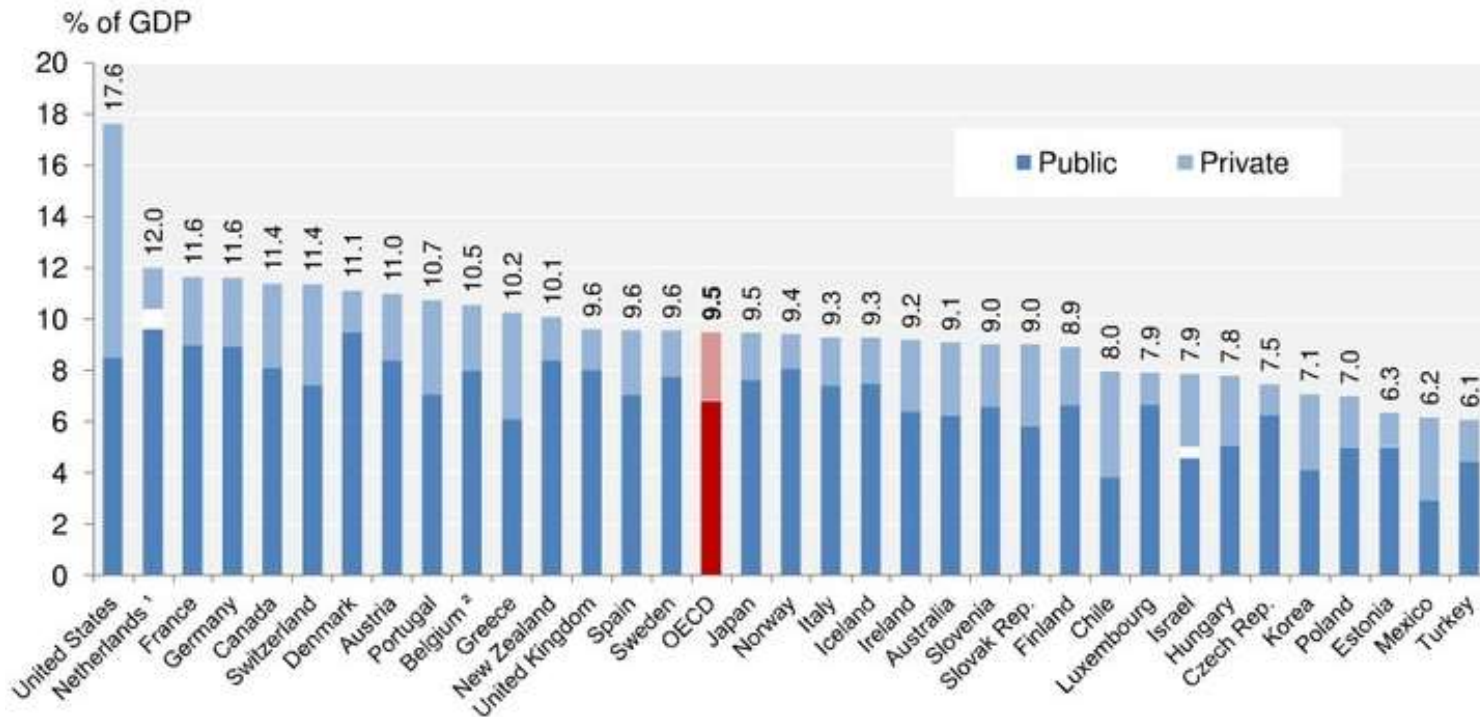
International Ranking for Medical Procedures

	United States	Rank compared with OECD countries	OECD average
MRI units	31.6 per million population	2 nd	12.5 per million population
MRI exams	97.7 per 1 000 population	2 nd	46.3 per 1 000 population
CT scanners	40.7 per million population	3 rd	22.6 per million population
CT exams	265.0 per 1 000 population	3 rd	123.8 per 1 000 population
Tonsillectomy	254.4 per 100 000 population	1 st	130.1 per 100 000 population
Coronary bypass	79.0 per 100 000 population	3 rd	47.3 per 100 000 population
Knee replacements	226.0 per 100 000 population	1 st	121.6 per 100 000 population
Caesarean sections	32.9 per 100 live births	6 th	26.1 per 100 live births

Source: OECD Health Data 2012.

At 17.6% of GDP in 2010, US health spending is one and a half as much as any other country, and nearly twice the OECD average

Total health expenditure as a share of GDP, 2010 (or nearest year)



1. In the Netherlands, it is not possible to clearly distinguish the public and private share related to investments.

2. Total expenditure excluding investments.

Information on data for Israel: <http://dx.doi.org/10.1787/888932315602>.

Source: OECD Health Data 2012.

I'm sorry.

For what?

That we didn't move forward with Lean. Why did it fail?

Too big a scale at first, didn't have the right focus.

Message OK

Q W E R T Y U I O P
A S D F G H J K L
↑ Z X C V B N M ✕
. ? 1 2 3 space return

Plan

DO

STUDY

Act

Please

DO

something

already!

Unconscious
Incompetence

vs.

Conscious
Incompetence

First Things First

Lean is a **cultural transformation**.

It changes how an organization **works** and **thinks**.

It requires new **habits**, new **skills**, and often a **new attitude** throughout the organization from senior leadership to front line service providers.

Lean & Employee Engagement

FIVE PRINCIPLES OF LEAN THINKING

- **Provide** the **value** customers actually desire
- Identify the value stream and **eliminate waste**
- Line up the remaining steps to create **continuous flow**
- Pull production based on **customers consumption**
- Start over in a **pursuit of perfection** “the happy situation of perfect value provided with zero waste”

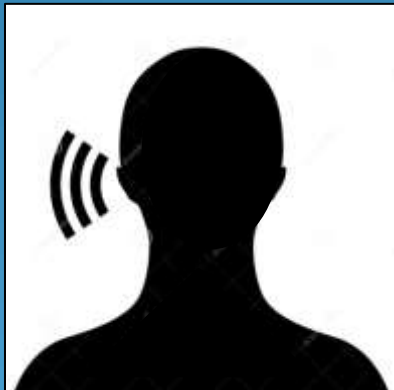
LEADERSHIP



HUMILITY



LISTENING



DISCIPLINE





LEAD DIFFERENTLY

Out of **Sight,** Out of **Mind**

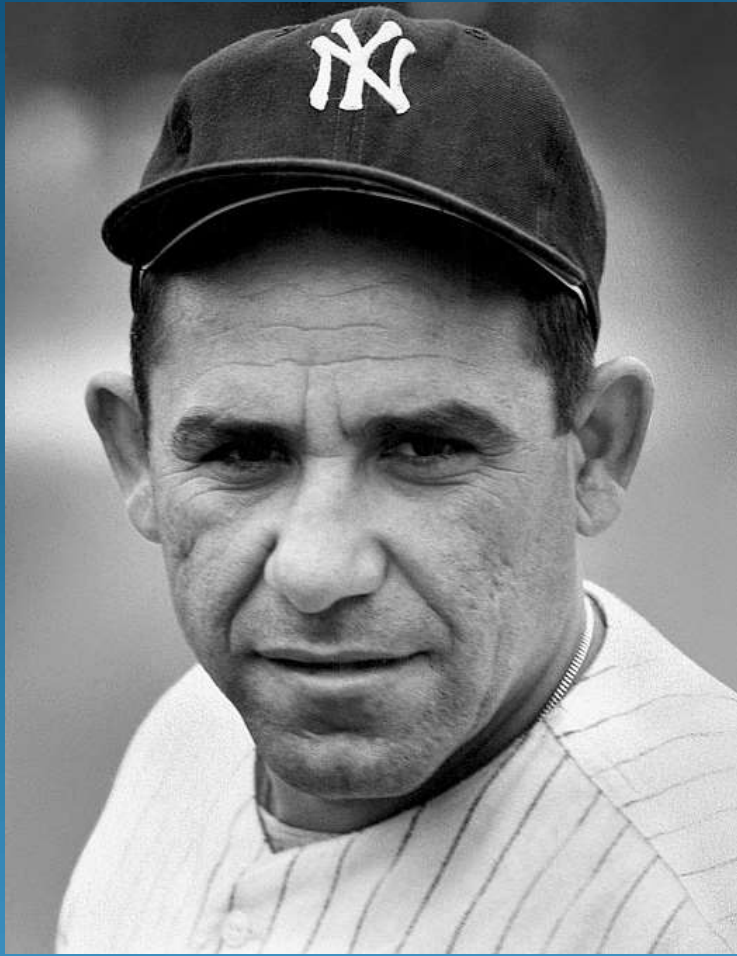
What We are Missing in the “Gemba”?



HUMILITY



LISTENING



Yogi Berra

“You can see a lot just by looking.”



Sherlock Holmes

“You see, but you do not observe.”

Why?

“Excellence is never an accident. It is always the result of high intention, sincere effort, and intelligent execution; it represents the wise choice of many alternatives - choice, not chance, determines your destiny.”

DISCIPLINE



Five Dimensions of Excellence



Why go to GEMBA?



Answering patient call lights



Performance Plans	Plan meets EU-targets?	Capacity target	Cost-Efficiency target
Austria	No	X	X
Belgium	Yes	✓	✓
Bulgaria	Partly	X	X
Cyprus	Partly	✓	X
Czech Rep.	Yes	X	X
Denmark	Yes	✓	✓
Estonia	Partly	✓	X
Finland	Partly	✓	X
France	No	X	X
Germany	No	X	X
Greece	Partly	X	✓
Hungary	Partly	✓	X

Don't let a bad experience go to waste.

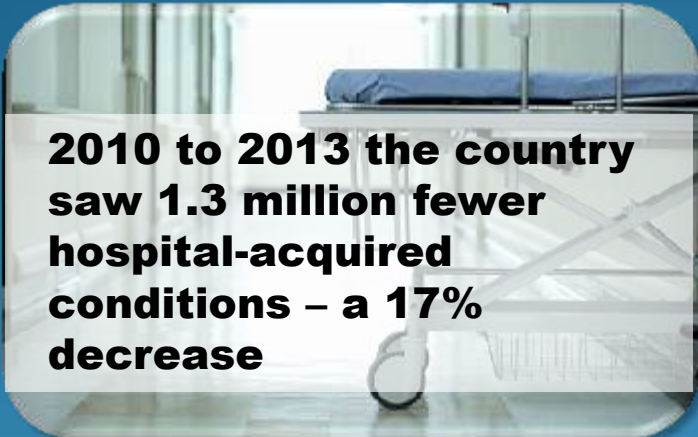
How **water** would be good.




time department
Overproduction equipment
Extra Transportation inefficient bed
defects waiting needs completing
charts specimens treatment more
due case idle history Moving include activities meet material ED co-workers claims
ahead because correctly locations instead analysis disorder
clean-up Delays chart just facility current
medical etc location services Missing many supplies
fully elements first charting complete
available Collection business blood inefficiencies expectations
Creation central unnecessary medications linen lab daily draws
central information scheduled materials IVs errors denials
process Excessive layout/process Having Hoarding Searching
Batching doing customer Inventory Excess
assignments increasing co-worker's Gathering
additional and/or Patients room Medication
Multiple resources people
appointments

**Lean
gets
RESULTS**

National results.... we're making improvements



2010 to 2013 the country saw 1.3 million fewer hospital-acquired conditions – a 17% decrease




44% reduction in adverse drug events



14% reduction in catheter-associated urinary tract infections

20% reduction in pressure ulcers



\$12 billion was saved in health care costs during the three-year time span

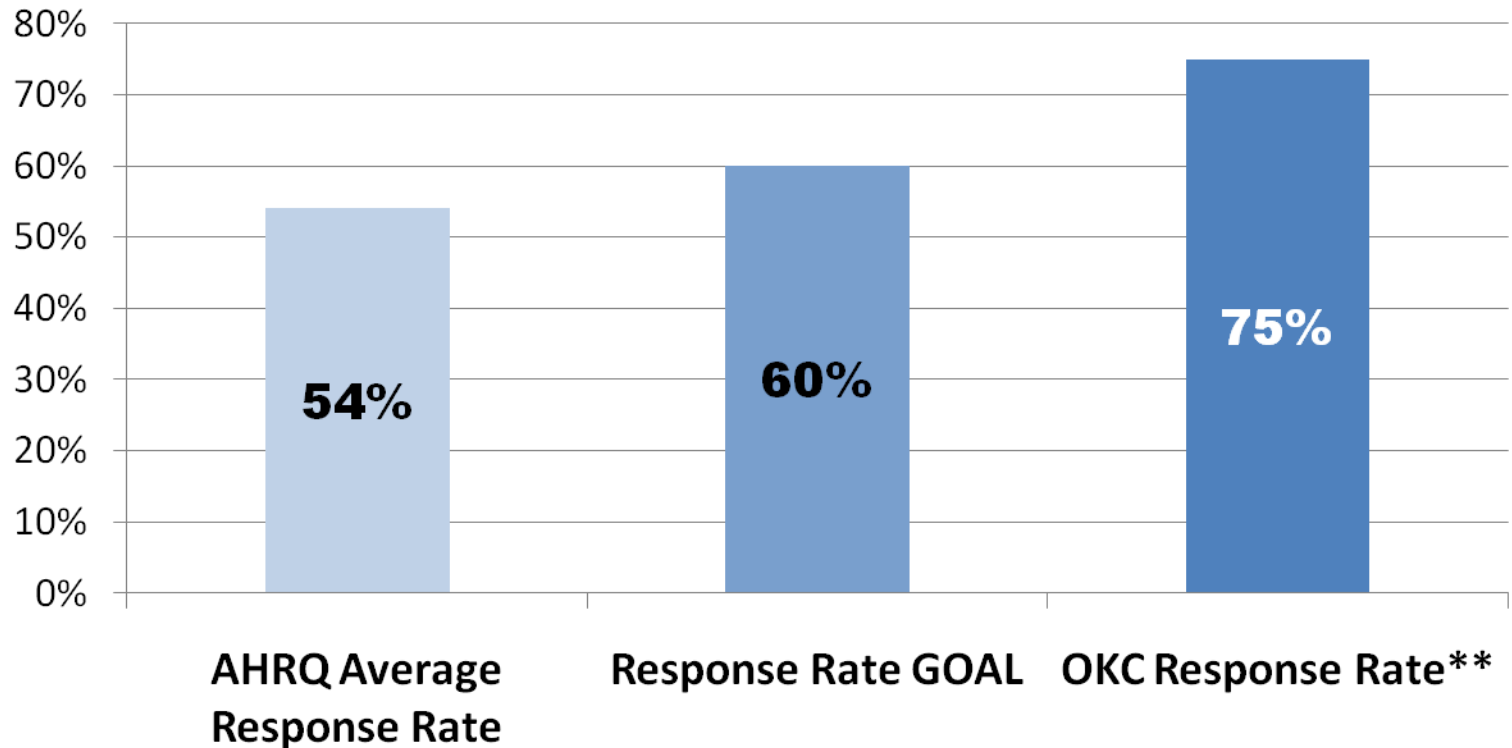
Local results.... we're making improvements

- **64%** reduction in Hospital Acquired Infections (2014-15)
- **All 12** elements of Culture of Safety Survey showed **improvement**
- **4.7** point improvement overall
- **Higher** than national benchmarks in **all** categories
- **78%** reduction in Hospital Acquired Pressure Ulcers (2014-15)

Local results.... we're making improvements

- **11.3** point **improvement** as place to work
(nationally a 20 percentile point improvement in ranking)
- **Improvement** in **every** engagement element
- **Higher ranking** on every engagement element as compared to Mercy Ministry average
- Outpatient satisfaction scores improved by **4.3 points** year/year

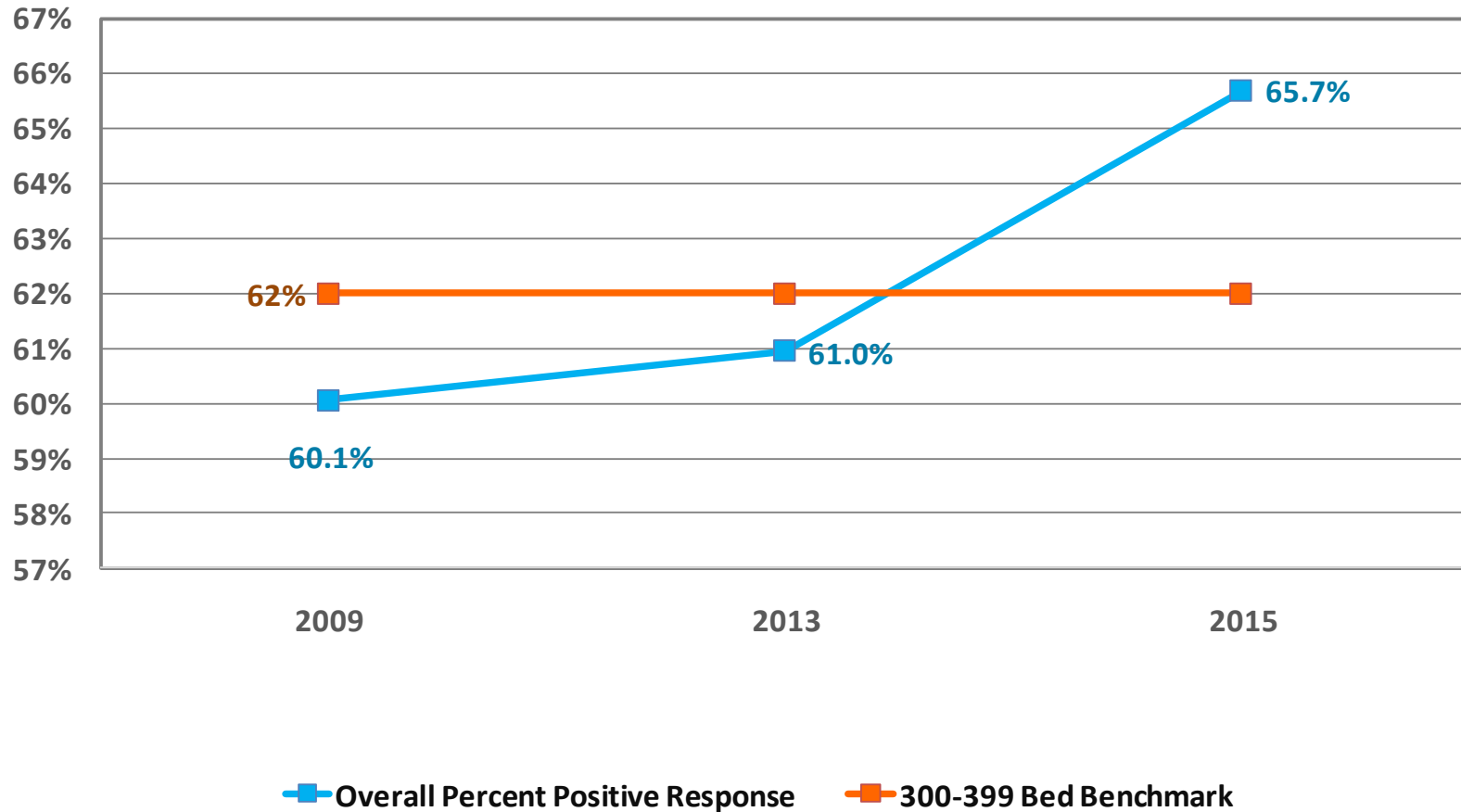
AHRQ* Hospital Survey on Patient Safety (HSOPS) 2015



**Agency for Healthcare Research and Quality*

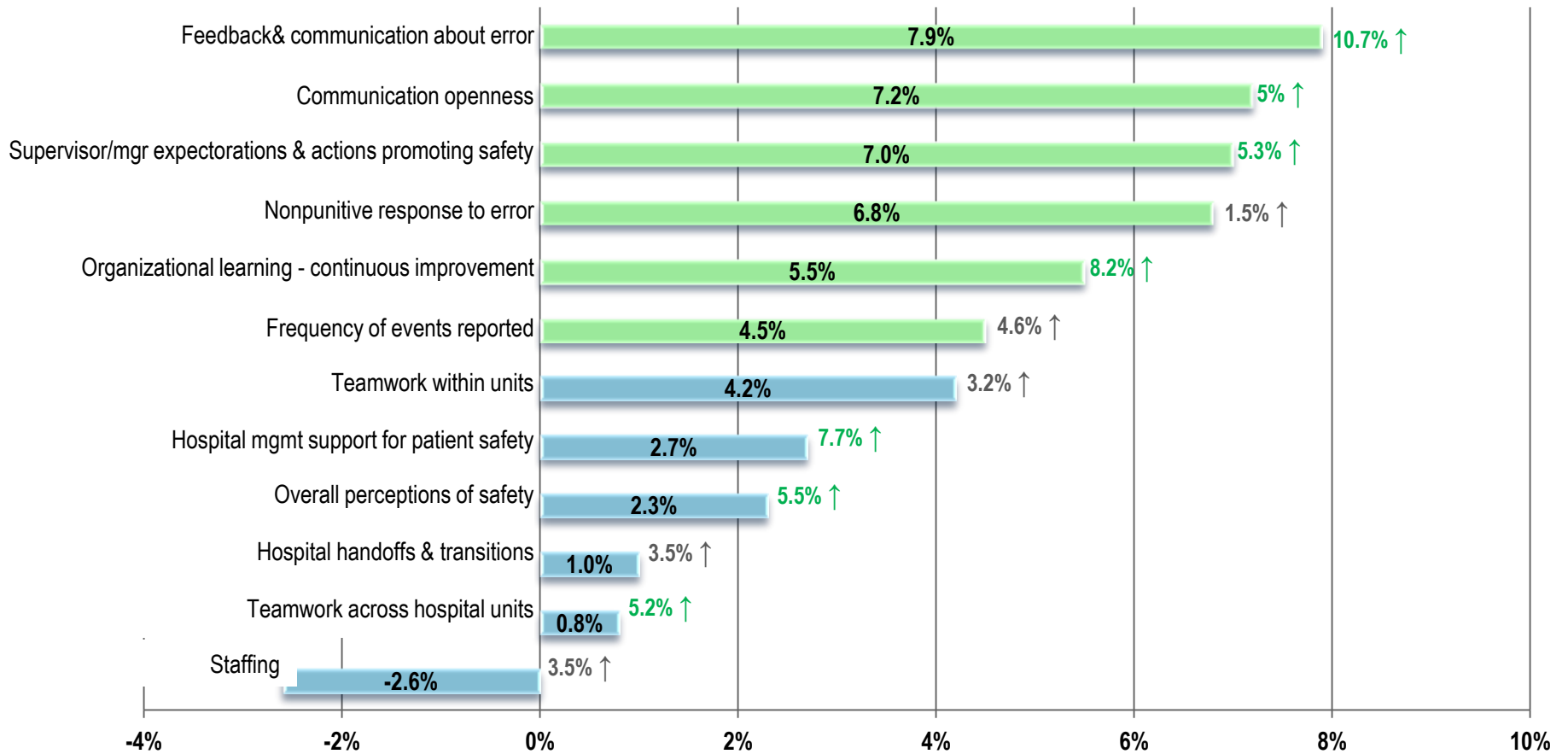
***Approximate - 1655 Total Participants of 2200 Eligible*

Mercy Hospital OKC Overall Percent Positive Response



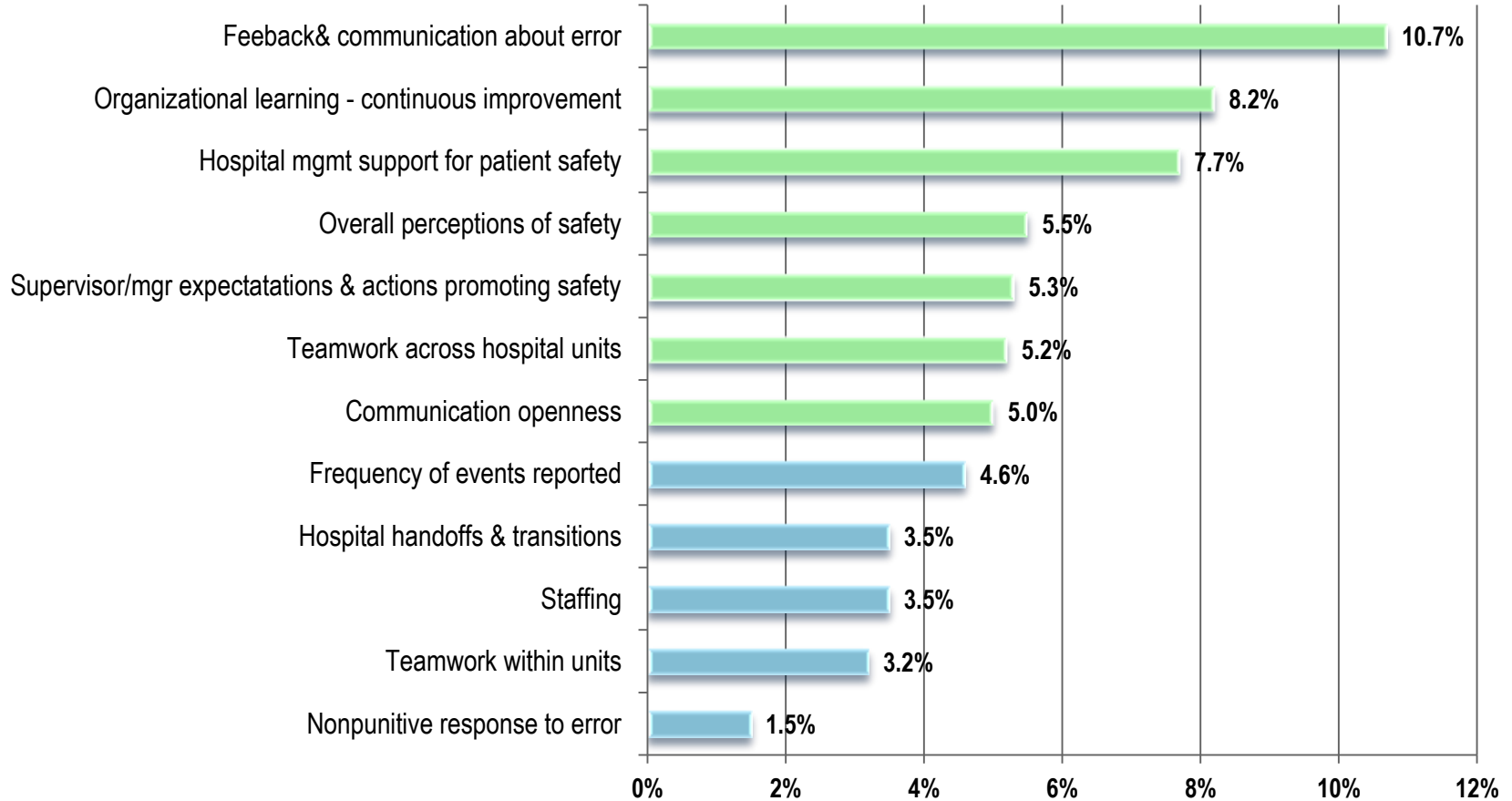
MHOKC 2015 HSOPS Results

Difference from 300-399 Bed AHRQ Benchmark



MHOKC 2015 HSOPS Results

Movement from Previous Data



Percent Excellent Comparisons

		N of Cases	1549	1217					
Key Driver	Question	2013	2014	2015	2016	2017	PL Ranking*	Overall Ranking*	
	As a Place to Work	31.6	42.9		-	-	79.0	53.3	
1	Patient Care	27.8	37.3		-	-	64.6	54.3	
	Staff's Concern and Caring Attitude	31.4	39.3		-	-	55.5	46.0	
2	Focus on Health and Wellness	-	32.7		-	-			
	Encouraging/Supporting Healthy Lifestyle	-	38.9		-	-			
3	Senior Leadership	17.9	28.8		-	-	78.1	51.1	
	Support of Employees to Provide Excellent Service	20.2	31.3		-	-	64.8	42.6	
	Patient Safety	31.7	38.3		-	-	48.1	33.1	
	Appropriateness of Safety Measures Put in Place	33.9	41.4		-	-	43.4	32.5	
	Teamwork Between Departments	16.5	23.3		-	-	67.8	50.5	
	Promptness of Services of Other Departments	16.7	23.4		-	-	69.8	48.7	
	Teamwork Within Department	35.4	45.7		-	-	76.9	54.9	
	Reliability of Other Members of Team or Work Group	37.7	46.6		-	-	73.4	54.9	
	Communication	13.2	19.8		-	-	77.9	49.7	
	Communication Between Departments	12.8	18.0		-	-	79.4	54.6	
	Direct Leader	50.6	54.6		-	-	89.9	80.2	
	Exhibiting Behavior Consistent With Values	50.1	56.0		-	-	82.1	51.6	
	Indirect Leader	N/A	N/A		-	-	100.0	94.0	
	Creating and Sustaining Experience	N/A	N/A		-	-			
	Training and Professional Development	26.3	31.8		-	-	81.5	53.0	
	Level of Training Received to Achieve Career Goals	27.9	32.7		-	-	77.6	47.6	
	Empowerment	21.7	29.7		-	-	75.0	41.4	
	Understand Impact of Strategy for Success	-	32.9		-	-			
	Extent to Which Hospital Meets its Mission	-	39.5		-	-			
	Extent Ministry Committed to Caring for Poor	-	43.0		-	-			

Significant improvement on every element

Higher PL ranking on every element as compared to Ministry average

*Process Level Ranking - Mercy Hospital Oklahoma City Percent Excellent Ranking compared to the 2014 Employee Norms

*Overall Ranking - Overall Mercy Percent Excellent Ranking compared to the 2014 Employee Norms

*Results suppressed for questions with < 5 employees responding

MORE
than a
ONCE
and done

0%
5%
90%



Lab

The bulletin board is organized into several sections:

- Top Left:** A diagram titled "Dimensions of Excellence" showing a central box connected to five surrounding boxes. Below it is a document titled "New Improvement Opportunity Cards".
- Top Center:** A section titled "New Improvement Opportunities" with several sticky notes. Below it is a "PICK Chart / Work Wait Board" with more sticky notes.
- Top Right:** A section titled "Monitoring" with many sticky notes. To its right is a section titled "Escalate Up / Hospital-Wide Improvement" with more sticky notes and a cluster of yellow star-shaped sticky notes.
- Middle:** A horizontal section titled "Work In Progress" with a "PLAN DO STUDY ACT" label. Below it are sections for "Challenge" and "Kibosh" with sticky notes.
- Bottom:** A horizontal section with five categories: "CLINICAL", "CULTURAL", "STEWARDSHIP", "COMMUNITY", and "SERVICE". Each category has a corresponding chart or document. The "CLINICAL" chart shows a goal of 50. The "STEWARDSHIP" chart shows a goal of 2200. The "SERVICE" chart shows a goal of 30. To the right of these charts is a section titled "Implemented Ideas" with a "DONE!" label and many sticky notes.

Lab

Implemented Ideas

Mercy Lab Improvement Opportunity
Code: _____
Name: Caroline Nguyen Date: 4/15/15
List the Problem: Wet label on tubes and tubes.
Why is it happening? all come in bag but I put in chiller but didn't seal
Potential Solution: CP will be done
Please print extra

Mercy Lab Improvement Opportunity
Name: Tracy Date: 7/16/15
List the Problem: Excessive use of bubble wrap for shipping
Why is it happening? CP will be done
Potential Solution: CP will be done

DONE!

Mercy Lab Improvement Opportunity
Name: Wolfgang Date: 4/15/15
List the Problem: Need to know which diagnostic code to use when coding
Why is it happening? CP will be done
Potential Solution: CP will be done

Mercy Lab Improvement Opportunity
Name: CP Date: 8/3
List the Problem: Lab tubes are not getting sealed
Why is it happening? CP will be done
Potential Solution: CP will be done

Mercy Lab Improvement Opportunity
Name: CP Date: 8/3
List the Problem: Lab tubes are not getting sealed
Why is it happening? CP will be done
Potential Solution: CP will be done

Mercy Lab Improvement Opportunity
Name: Yashoda Date: 7-30-15
List the Problem: Specimen missing or getting tossed without setting up cutlows
Why is it happening? Not checking Outstanding List.
Potential Solution: Go to outstanding list at the end of day. May be make somebody responsible to check them
Merely Excellent Impact: Clinical, Cultural, Stewardship, Community, Service
Owner: _____
What is the action plan? Next Steps: _____
When will this be completed? _____
Does this event need to be reported to the MER? _____
No Yes If yes, who reported? _____

Mercy Lab Improvement Opportunity
Name: Chryl Swanson Date: 8/15/15
List the Problem: Doctors using large transport tube for cytology cases
Why is it happening? That is all CP gives to couriers.
Potential Solution: Only distribute 15ml tubes to save on Cytolyte.
Merely Excellent Impact: Clinical, Cultural, Stewardship, Community, Service
Owner: _____
What is the action plan? Next Steps: _____
When will this be completed? _____
Does this event need to be reported to the MER? _____
No Yes If yes, who reported? _____

Mercy Lab Improvement Opportunity
Name: CP Date: 8/3
List the Problem: Lab tubes are not getting sealed
Why is it happening? CP will be done
Potential Solution: CP will be done

Mercy Lab Improvement Opportunity
Name: CP Date: 8/3
List the Problem: Lab tubes are not getting sealed
Why is it happening? CP will be done
Potential Solution: CP will be done

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Name: CP Date: 8/3
List the Problem: Lab tubes are not getting sealed
Why is it happening? CP will be done
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Nuclear Medicine



Daily Improvement Huddle
Mondays & Thursdays
3:00 PM
(or when patient care permits)

↑ New Protocols ↓
Completed Protocols

NEW IMPROVEMENT OPPORTUNITIES



IDEAS! MOUNTED ABOVE PATIENTS OR WALLS! CAN IN HOUSE CARE PROVIDE BETTER CARE IN CASES OTHER TOP 10



JDI

Work In Progress
Can Do Strong Act

JDI Monitoring

Escalate Up

Hospital Wide Improvements

IMPLEMENTED IDEAS

BRAVO!
JULIET
CELEBRATE
WARRIORS?

WARRIORS
TEAM



4CD

DAILY HUDDLE Monday - Friday

5 DIMENSIONS OF EXCELLENCE



Here's How this Works!

- Management team will set overall strategic improvement opportunities
- All employees will be expected to contribute to the improvement opportunities
- All employees will be expected to contribute to the improvement opportunities
- All employees will be expected to contribute to the improvement opportunities
- All employees will be expected to contribute to the improvement opportunities

Daily Team Meeting Instructions

Improvement Cards

NEW IMPROVEMENT OPPORTUNITIES

WORKING ON THIS

"Just Do It's"

WORKING ON THIS

Monitoring

WORKING ON THIS

ESCALATE UP

Celebrate

WORKING ON THIS

PICK CHART/WORK WAIT BOARD

WORKING ON THIS

WORK IN PROGRESS Plan Do Study Act

WORKING ON THIS

HOSPITAL-WIDE IMPROVEMENTS

New Coworkers
Mary Stefani

Upcoming Events

Implement

Chart

WORKING ON THIS

Chart

WORKING ON THIS

WORKING ON THIS

Early diagnosis of C. diff. improves outcomes

Possible

Kibosh

CULTURAL



Mercy

STEWARDSHIP

REPROCESS THE PROBES

- 250,000 probes collected each year
- 14,600 lbs. landfill waste avoided



COMMUNITY

SERVICE


WORKING ON THIS

IMPLEMENTED IDEAS



New Improvement Board- Mock Up

Opportunity Cards




Huddle times
10:30am
1:00pm

Huddle Leader Standard Work

Here's How this Works!

- Throughout your shift be on the lookout for new improvement opportunities!
- If an improvement opportunity is identified fill out the first half of an Improvement Card!
- Then place the card in the New Improvement Opportunity section of the improvement board!
- During the Daily Improvement Huddle, share the new ideas and discuss and prioritize on the PICK Chart.
- When the idea moves to either a green or yellow or PICK the DSI leader will fill out the second half of the card with input from the group.

<p>New Improvement Opportunities</p> 	<p>Just Do Its</p> <table border="1" style="width: 100%; height: 100%; border-collapse: collapse;"> <tr><td style="width: 33%; height: 33%;"></td><td style="width: 33%; height: 33%;"></td><td style="width: 33%; height: 33%;"></td></tr> <tr><td style="width: 33%; height: 33%;"></td><td style="width: 33%; height: 33%;"></td><td style="width: 33%; height: 33%;"></td></tr> </table>							<p>Monitoring</p>	<p>Escalate Up</p> <table border="1" style="width: 100%; height: 100%; border-collapse: collapse;"> <tr><td style="width: 33%; height: 33%;"></td><td style="width: 33%; height: 33%;"></td><td style="width: 33%; height: 33%;"></td></tr> </table> <p>Hospital-Wide Improvements</p>																																						
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Implement Possible	Challenge Kibosh																																														

Co-worker Health Huddle Board

Handwritten note on the wall, partially obscured by the photo.



Client	Business	Membership	Customer	Administrative	Education
<p>Handwritten notes and sticky notes in the Client column.</p>	<p>Handwritten notes and sticky notes in the Business column.</p>	<p>Handwritten notes and sticky notes in the Membership column.</p>	<p>Handwritten notes and sticky notes in the Customer column.</p>	<p>Handwritten notes and sticky notes in the Administrative column.</p>	<p>Handwritten notes and sticky notes in the Education column.</p>

Handwritten notes and sticky notes on a corkboard, including a calendar for October 2014.

Marian	Heather	Kerr	Deb	Pat	Arlene	MA
<p>Marian Phy. On-board (Red Staff)</p>	<p>Heather Phy. On-board (Red Staff)</p>	<p>Kerr Phy. On-board (Red Staff)</p>	<p>Deb Phy. On-board (Red Staff)</p>	<p>Pat Phy. On-board (Red Staff)</p>	<p>Arlene Phy. On-board (Red Staff)</p>	<p>MA Phy. On-board (Red Staff)</p>



Sometimes
it is just that
simple.