



Virginia Mason™

Transforming Health Care

An Overview of the Virginia Mason Production System

Diane Miller, VP Virginia Mason

March 19, 2014



Virginia Mason

- Integrated health care system
- 501(c)3 not-for-profit
- 336-bed hospital
- Nine locations
- 500 physicians
- 5,500+ employees
- Graduate Medical Education
- Research Institute
- Foundation
- Virginia Mason Institute

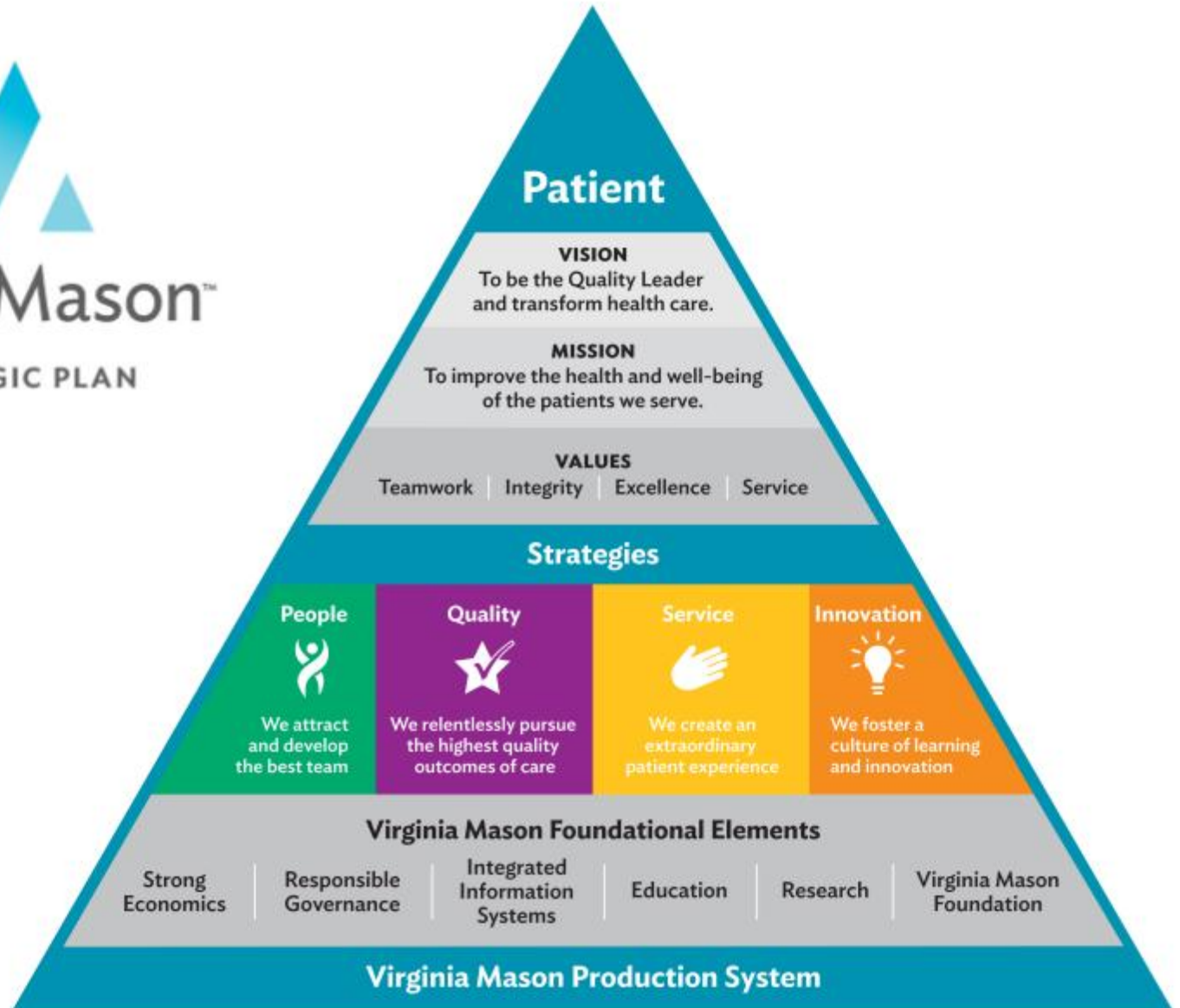
Sense of Urgency: Health Care Challenges

- Poor quality health care = 3% defect rate and costs the U.S. billions of dollars
- Health care is unaffordable and unavailable to millions of people
- Health care workers are negatively impacted by unreliable systems
- VMMC financial loss for two successive years



Virginia Mason™

OUR STRATEGIC PLAN



The Virginia Mason Quality Equation:

$$Q = A \times \frac{(O + S)}{W}$$

Q = Quality

A = Appropriateness

O = Outcomes

S = Service

W = Waste

Transforming Health Care...

FROM



TO

- Provider First
 - Waiting is Good
 - Errors are to be Expected
 - Diffuse Accountability
 - Add Resources
 - Reduce Cost
 - Retrospective Quality Assurance
 - Management Oversight
 - We Have Time
- Patient First
 - Waiting is Bad
 - Defect-free Medicine
 - Rigorous Accountability
 - No New Resources
 - Reduce Waste
 - Real-time Quality Assurance
 - Management On Site
 - We Have No Time

Aligned Expectations

VIRGINIA MASON MEDICAL CENTER PHYSICIAN COMPACT

Organization's Responsibilities

Foster Excellence

- Recruit and retain superior physicians and staff
- Support career development and professional satisfaction
- Acknowledge contributions to patient care and the organization
- Create opportunities to participate in or support research

Listen and Communicate

- Share information regarding strategic intent, organizational priorities and business decisions
- Offer opportunities for constructive dialogue
- Provide regular, written evaluation and feedback

Educate

- Support and facilitate teaching, GME and CME
- Provide information and tools necessary to improve practice

Reward

- Provide clear compensation with internal and market consistency, aligned with organizational goals
- Create an environment that supports teams and individuals

Lead

- Manage and lead organization with integrity and accountability

Physician's Responsibilities

Focus on Patients

- Practice patient care, quality medicine
- Engage in patient involvement in care and treatment decisions
- Attain and maintain optimal patient access
- Insist on seamless service

Collaborate on Care Delivery

- Work with other physicians, and management on team efforts
- Interact with respect
- Demonstrate the highest levels of ethical and professional conduct
- Behave in a manner consistent with group goals
- Participate in or support teaching

Listen and Communicate

- Communicate clinical information in clear, timely manner
- Request information, resources needed to provide care consistent with VM goals
- Provide and accept feedback

Take Ownership

- Implement VM-accepted clinical standards of care
- Participate in and support group decisions
- Focus on the economic aspects of our practice

Change

- Embrace
- Participate

-VIRGINIA MASON MEDICAL CENTER LEADERSHIP COMPACT-

Organization Responsibilities

Foster Excellence

- Recruit and retain the best people
- Acknowledge and reward contributions to patient care and the organization
- Provide opportunities for growth of leaders
- Continuously strive to be the quality leader in health care
- Create an environment of innovation and learning

Lead and Align

- Create alignment with clear and focused goals, strategies
- Continuously measure and improve organizational performance
- Manage and lead organization with integrity and accountability
- Resolve conflict with openness and empathy
- Ensure safe and healthy environment and systems for patients and staff

Listen and Communicate

- Share information regarding strategic intent, organizational priorities, business decisions and business outcomes
- Clarify expectations to each individual
- Offer opportunities for constructive open dialogue
- Ensure regular feedback and written evaluations are provided
- Encourage balance between work life and life outside of work

Educate

- Support and facilitate leadership training
- Provide information and tools necessary to improve individual and staff performance

Recognize and Reward

- Provide clear and equitable compensation aligned with organizational goals and performance
- Create an environment that recognizes teams and individuals

Leader Responsibilities

Set the Example

- Promote a culture where the patient comes first in everything we do
- Continuously improve quality, safety and compliance

Promote Team Medicine

- Develop exceptional working-together relationships that achieve results
- Demonstrate the highest levels of ethical and professional conduct
- Share responsibility and accountability within the team

Communicate

- Communicate VM values
- Courageously give and receive feedback
- Actively request information and resources to support strategic intent, organizational priorities, business decisions and business outcomes

Take ownership

- Implement and monitor VM approved standard work
- Foster understanding of individual/team impact on VM economics
- Continuously develop one's ability to lead and implement the VM Production System
- Participate in and actively support organization/group decisions
- Maintain an organizational perspective when making decisions
- Continually develop oneself as a VM leader

Foster Change and Develop Others

- Promote innovation and continuous improvement
- Coach individuals and teams to effectively manage transitions
- Demonstrate flexibility in accepting assignments and opportunities
- Evaluate, develop and reward performance daily
- Accept mistakes as part of learning
- Be enthusiastic and energize others

© Virginia Mason Medical Center, 2004

©Virginia Mason2003

leadership_compact_final.doc approved 10.21.03

VIRGINIA MASON MEDICAL CENTER BOARD MEMBER COMPACT

Organization's Responsibilities

- Facilitate the recruitment and retention of superior board members
- Provide a process for regular, written evaluation and self-evaluation
- Provide a thorough orientation process for new board members
- Support governance excellence with adequate board resources

- Share information regarding strategic intent, organizational priorities and business decisions
- Offer opportunities for constructive dialogue
- Report regularly on implementation of strategic intent and specific board objectives
- Disclose to and inform board on risks and opportunities facing the organization
- Provide materials to members necessary for informed decision making sufficiently in advance of board meetings

- Provide information and tools necessary to keep members informed and educated on local and national health care issues
- Provide educational and training opportunities to maintain a high level of board member effectiveness and knowledge
- Educate board members about organization, its structures and its guiding documents

- Manage and lead organization with integrity and accountability
- Create clear goals and strategies
- Continuously measure and improve patient care, service and efficiency
- Resolve conflict with openness and empathy
- Ensure safe and healthy environment and systems for patients and staff

Board Member's Responsibilities

Know the Organization

- Know the organization's mission, purpose, goals, policies, programs, and services
- Keep abreast of developments in the Health System's areas of expertise
- Understand the organization's policy and future trends and best governance practices

Focus on the Future

- Spend three fourths of every meeting focused on the future
- Consistently maintain current and vital strategic plan

Listen and Communicate

- Participate in additional opportunities and request information and resources needed to provide responsible oversight
- Provide and accept feedback
- Represent the board to the organization and be an advocate for the organization in the community

Take Ownership

- Attend meetings
- Ask timely and substantive questions at board and committee meetings consistent with your conscience and convictions
- Prepare for, participate in, and support group decisions
- Understand and participate in approving annual and longer range financial plans and Quality & Safety oversight
- Make an annual, personal financial contribution to the organization, according to personal means
- Serve on board committees or task forces

Promote Effective Change

- Foster innovation and continuous improvement
- Pursue necessary organizational change

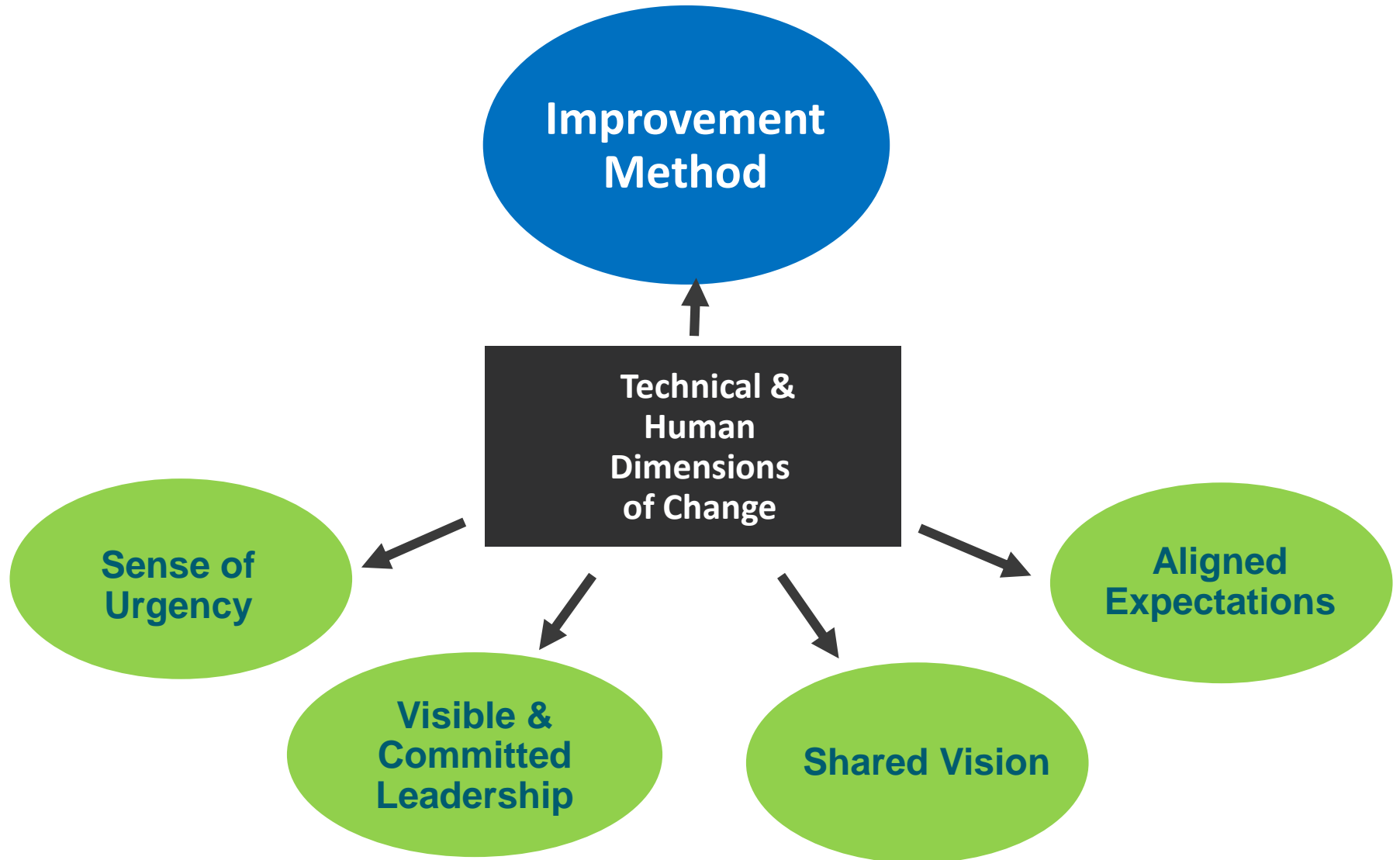
©2004 Virginia Mason Medical Center

Visible & Committed Leadership

Dr. Kaplan reviewing the flow of the process with Drs. Jacobs and Glenn



Requirements for Transformation



The Virginia Mason Production System



1. The patient is *always* first
2. Focus on the highest quality and safety
3. Engage all employees
4. Strive for the highest satisfaction
5. Maintain a successful economic enterprise

The Patient is *Always* First



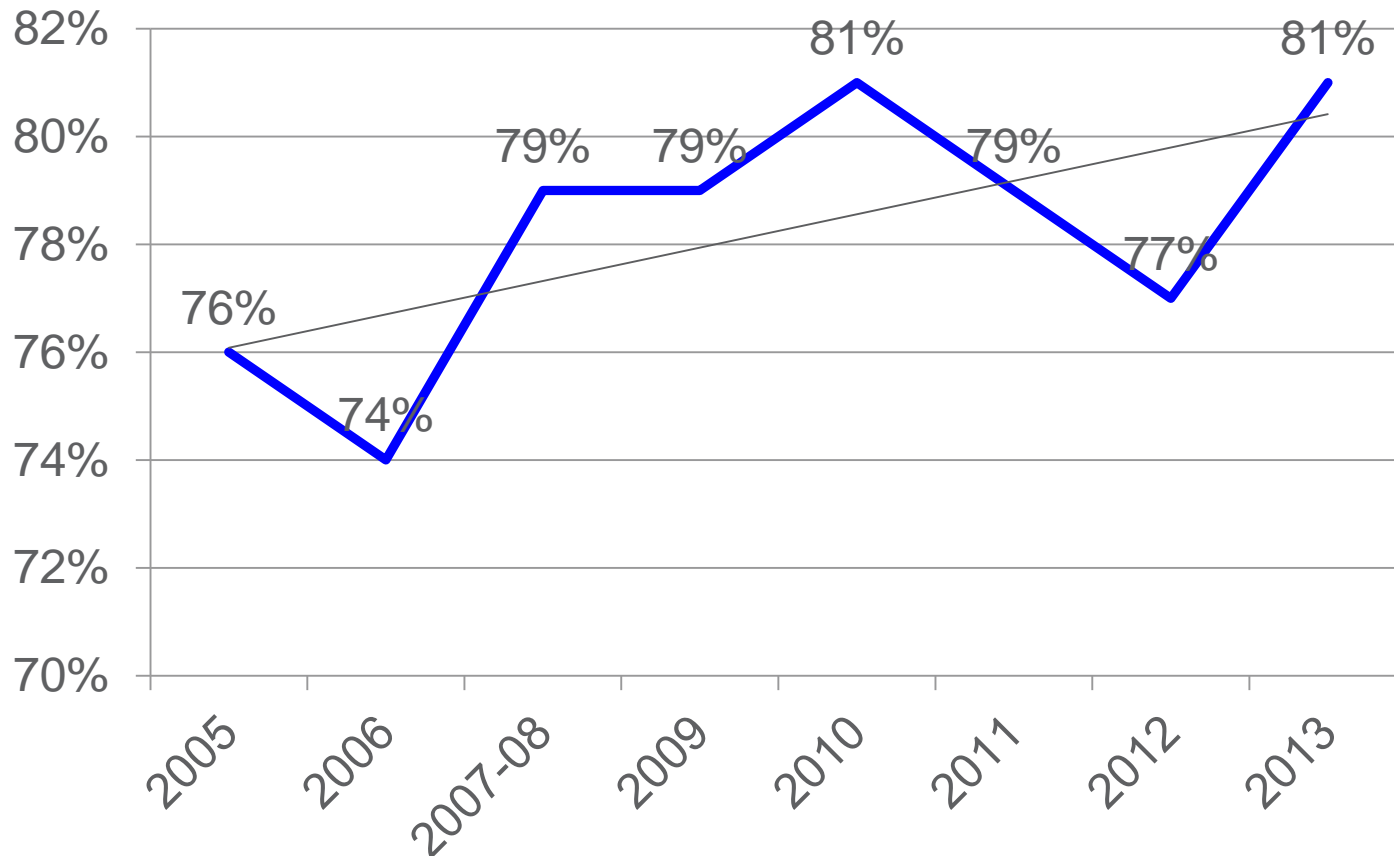
- The patient is at the top of our strategic plan
- Value is defined by the patient
- Patient's voice is embedded in our improvement activities

Focus on Highest Quality & Safety



- Embedding mistake proofing into everything we do
- Patient Safety Alert (PSA)
- 5S across Virginia Mason
- Standard Work

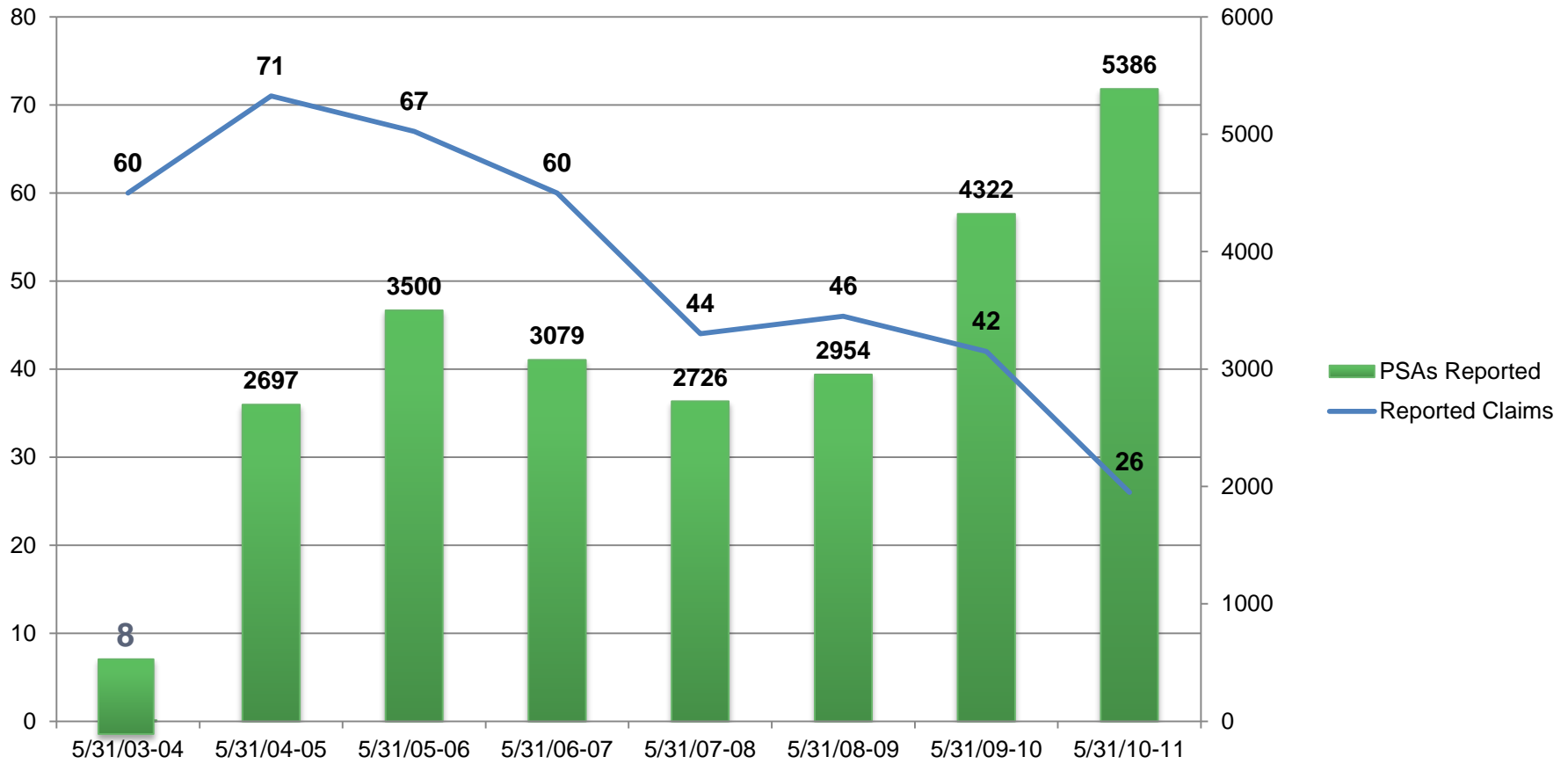
Safety Culture Question Staff Speak Up Freely*



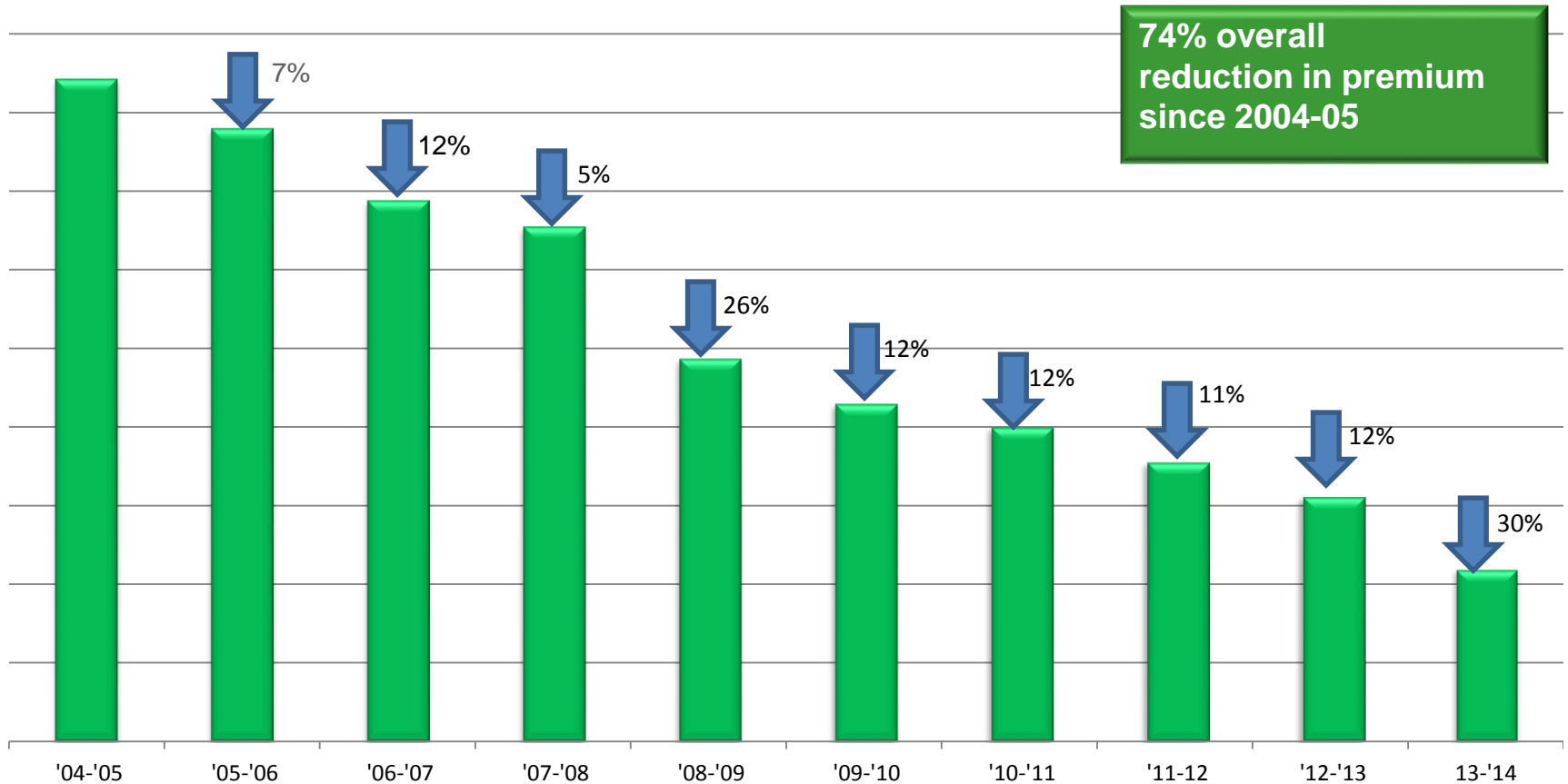
*Question: Staff will speak up freely if they see something that may negatively affect patient safety

Effectiveness of Patient Safety Program

Total Number of Claims and PSAs reported



Reduction of Hospital Professional/General Liability Premiums



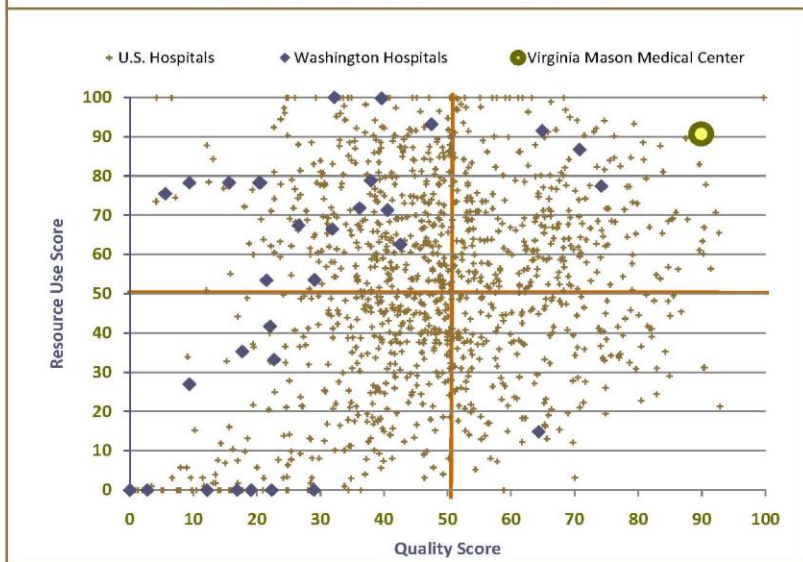
Leapfrog Hospital Recognition

The scatter plot below illustrates how your hospital compares to others in the state and across the country on Quality and Resource Use. (Please note that a higher Resource Use score is better.) Refer to the National Efficiency Score Comparison chart to better understand how your hospital ranks in overall Efficiency compared to others. Leapfrog's 2010 database contains 1,184 hospitals from 45 states.

Summary Scores

Quality	90
Resource Use	91
Efficiency	90

Quality and Resource Use Comparison



National Efficiency Score Comparison

Decile	Score Range
Top	74 or better ← Virginia Mason Medical Center
2nd	66 to 74
3rd	61 to 66
4th	57 to 61
5th	53 to 57
6th	49 to 53
7th	45 to 49
8th	39 to 45
9th	31 to 39
10th	Less than 31

Note: Decile score ranges are rounded to the nearest whole number.

Virginia Mason Quality Awards



3. Engage all Employees

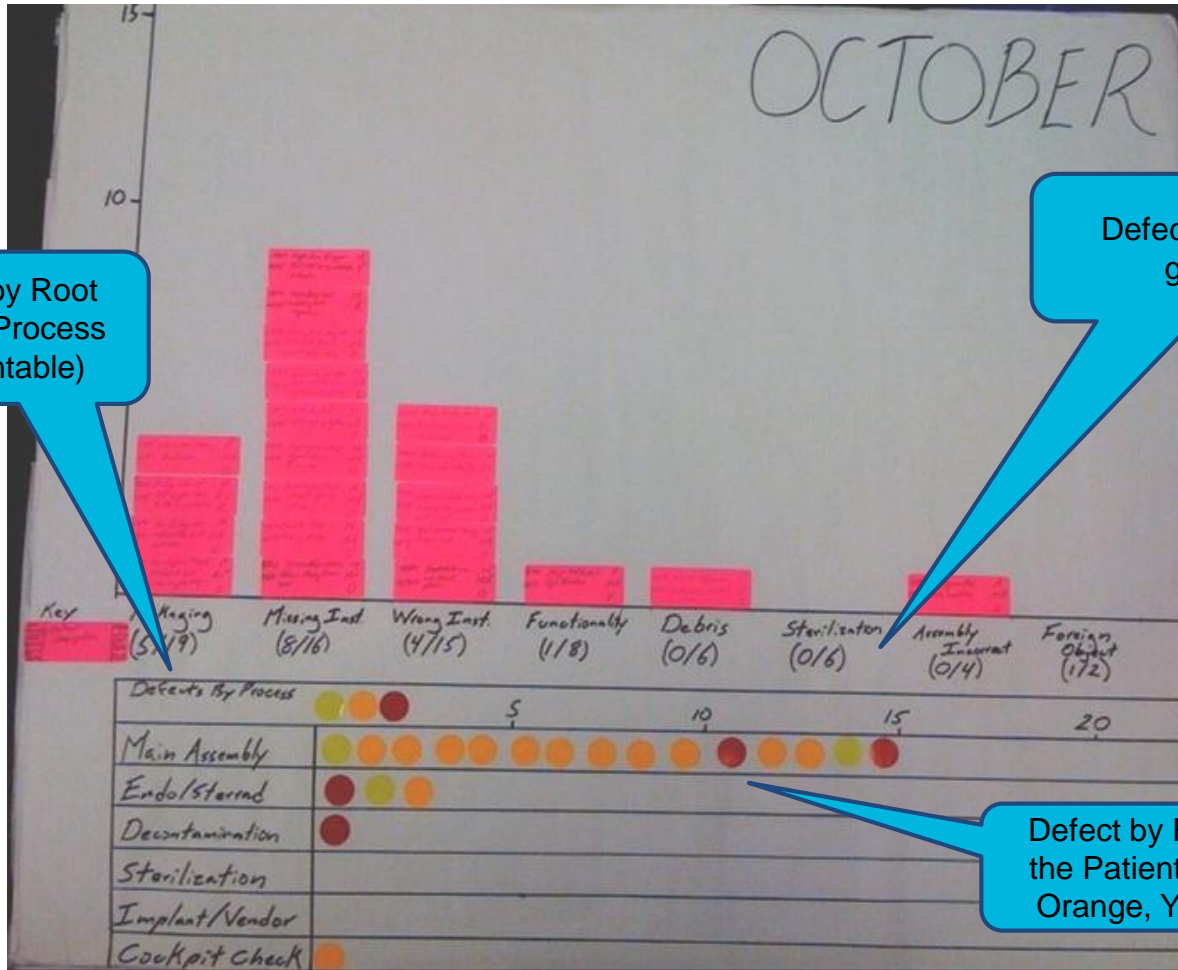
- Employees trained in VMF
- Involve employees in improvement with ELI
- RPIW/Kaizen



Virginia Mason Medical Center 2008 Idea Template

Idea Title:	Date:	
Problem or Opportunity:	Issue:	
How you tested the idea and results you got:	Circle types of waste reduced for patients and/or your team:	
Tip for using idea:		
Contact Information		
Your Name:	Email:	Department:
Idea Patient:	Email:	Department:
Testing Supervisor:	Email:	Department:
Employee #:		Employee #:
Employee #:		Employee #:
Have you finished testing and implementing idea? <input type="checkbox"/> Yes <input type="checkbox"/> No	To share your idea with others and earn idea points, submit it through the Idea Supermarket online form or send in the template (email: ideas@vmm.org or mailstop G2-KPC). Send any results or templates that should be protected with your idea electronically to the email box.	
Supervisor finished reviewing & recognizing idea? <input type="checkbox"/> Yes <input type="checkbox"/> No		
Remember to report the idea as a Patient Safety Alert if applicable		

Employee Engagement: Sterile Processing



Strive for the Highest Satisfaction Levels

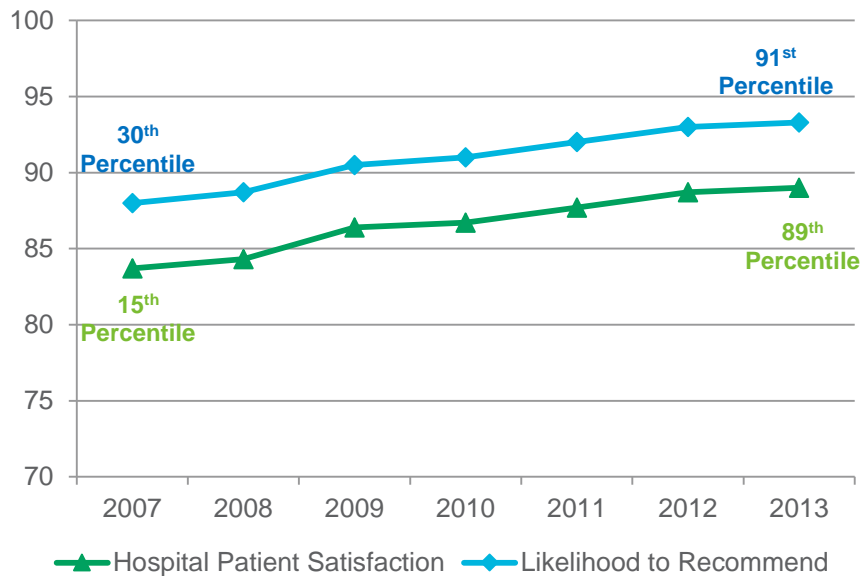


TOP 10 WAYS TO SHOW RESPECT

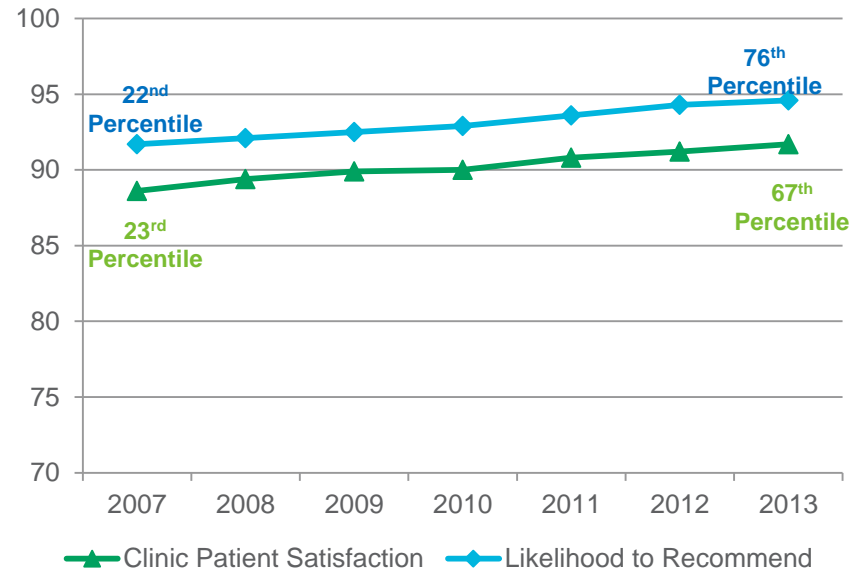
- 1) **Listen to understand.** Good listening means giving the speaker your full attention. Non-verbal cues like eye contact and nodding let others know you are paying attention and are fully present for the conversation. Avoid interrupting or cutting others off when they are speaking.
- 2) **Keep your promises.** When you keep your word you show you are honest and you let others know you value them. Follow through on commitments and if you run into problems, let others know. Be reliable and expect reliability from others.
- 3) **Be encouraging.** Giving encouragement shows you care about others and their success. It is essential that everyone at VM understand their contributions have value. Encourage your co-workers to share their ideas, opinions and perspectives.
- 4) **Connect with others.** Notice those around you and smile. This acknowledgement, combined with a few sincere words of greeting, creates a powerful connection. Practice courtesy and kindness in all interactions.
- 5) **Express gratitude.** A heartfelt "thank you" can often make a person's day and show them you notice and appreciate their work. Use the VM Applause system, a handwritten note, verbal praise, or share a story of "going above and beyond" at your next team meeting.
- 6) **Share information.** When people know what is going on, they feel valued and included. Be sure everyone has the information they need to do their work and know about things that affect their work environment. Sharing information and communicating openly signals you trust and respect others.
- 7) **Speak up.** It is our responsibility to ensure a safe environment for everyone at VM; not just physical safety but also mental and emotional safety. Create an environment where we all feel comfortable to speak up if we see something unsafe or feel unsafe.
- 8) **Walk in their shoes.** Empathize with others; understand their point of view, and their contributions. Be considerate of their time, job responsibilities and workload. Ask before you assume your priorities are their priorities.
- 9) **Grow and develop.** Value your own potential by committing to continuous learning. Take advantage of opportunities to gain knowledge and learn new skills. Share your knowledge and expertise with others. Ask for and be open to feedback to grow both personally and professionally.
- 10) **Be a team player.** Great teams are great because team members support each other. Create a work environment where help is happily offered, asked for and received. Trust that teammates have good intentions. Anticipate other team members' needs and clearly communicate priorities and expectations to be sure the work load is level loaded.

Virginia Mason Patient Satisfaction Results

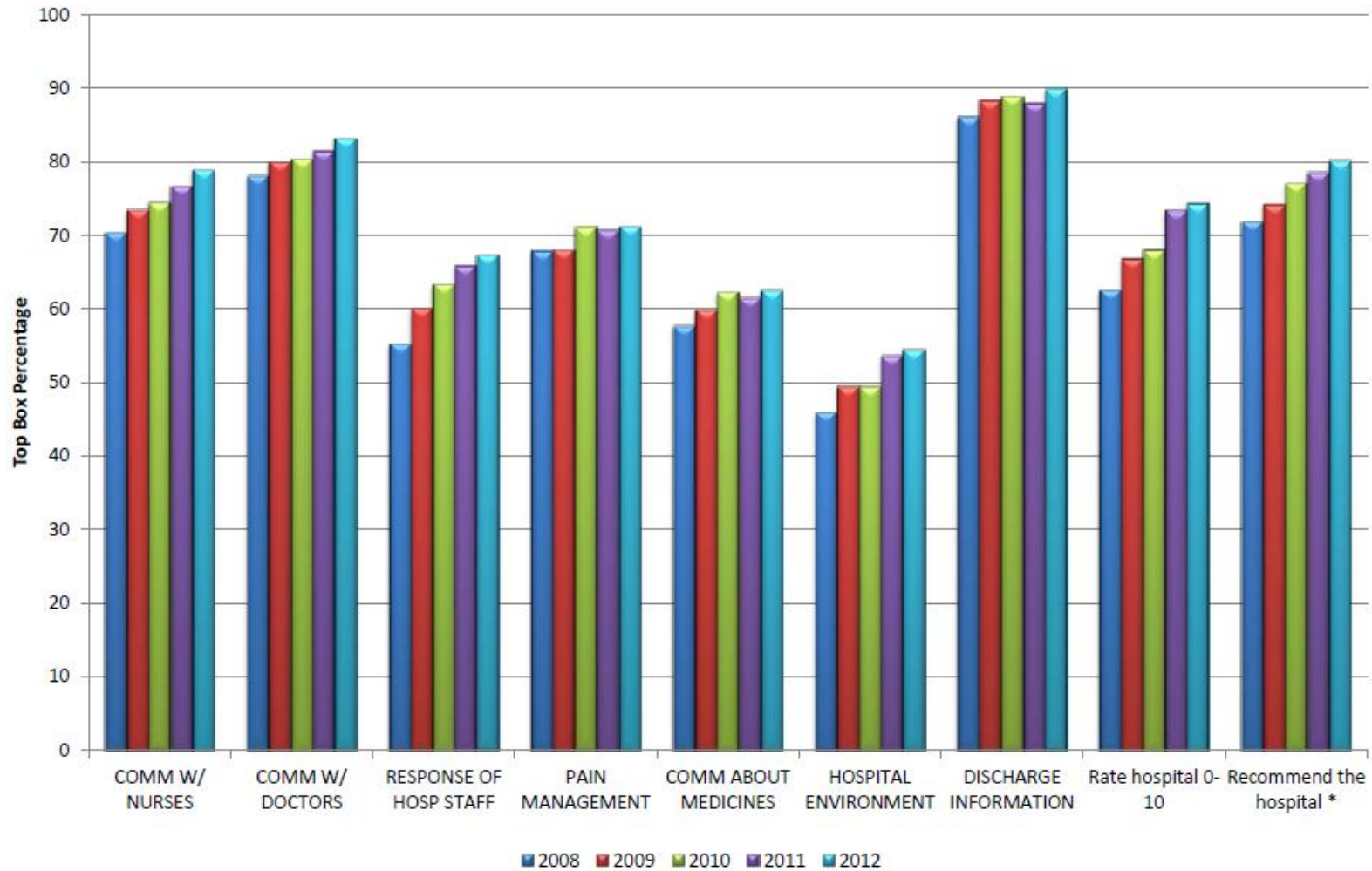
Hospital Patient Overall Satisfaction and Likelihood to Recommend



Medical Center Overall Satisfaction and Likelihood to Recommend



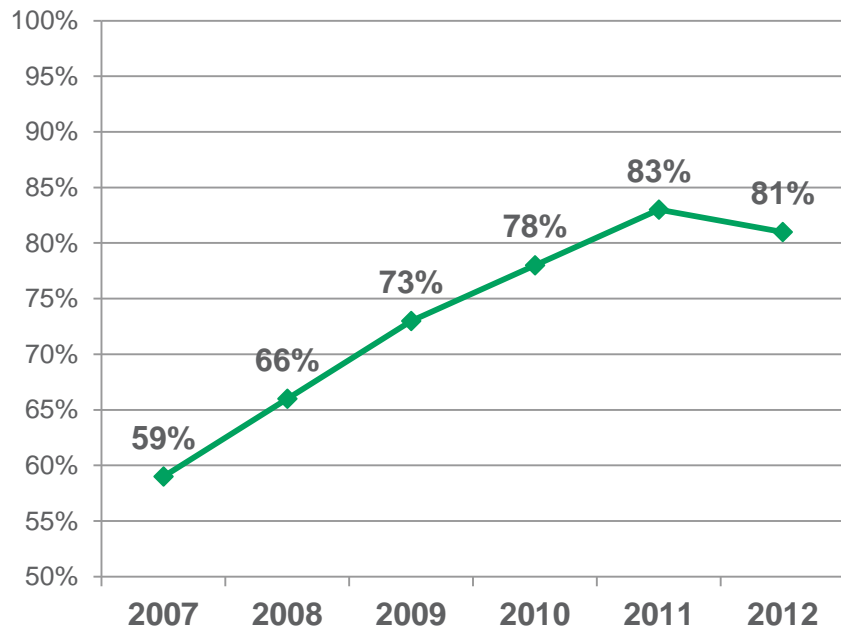
Virginia Mason Annual HCAHPS “Top Box” Performance Trend



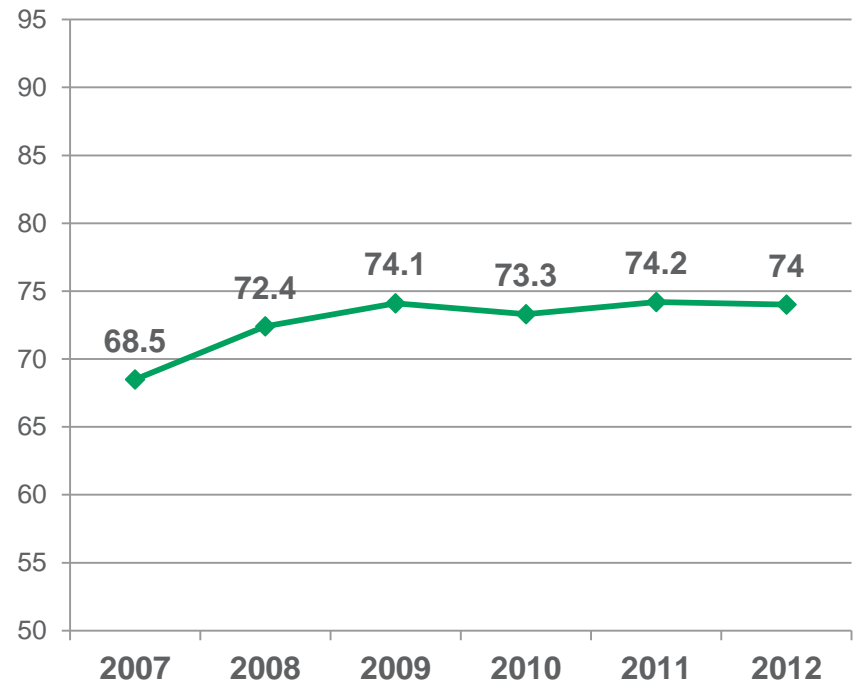
*Not a VBP metric

Virginia Mason Staff Partnership Results

Staff Partnership Response Rates

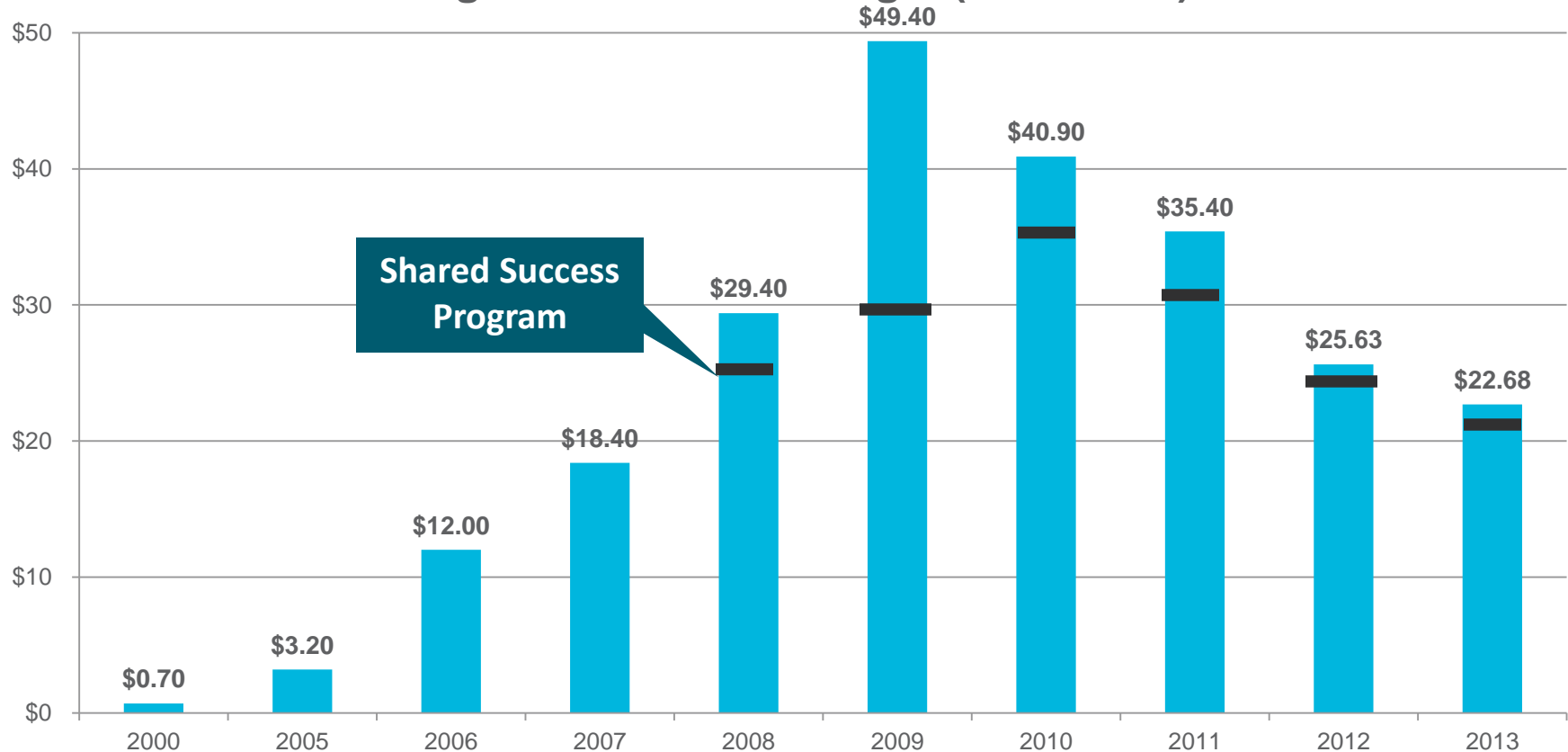


Staff Partnership Score



Maintain a Successful Economic Enterprise

Virginia Mason Net Margin (in Millions)



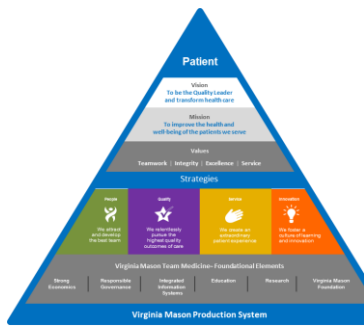
Leadership Requirements Needed to Sustain VMPS

1. Set priorities that align with the vision
2. Use VMPS tools & methods
3. Lead change
4. Allocate resources to VMPS
5. Require accountability
6. Implement standard work for leaders



Aligning Vision with Resources

Long Term Vision



Annual Goals

Quality and Safety
Prevention, Early Identification, and Treatment:

- Early Identification and Treatment of Severe Sepsis
- Eliminate Healthcare Associated Infections
- Glycemic Control
- Prevention Hospital Associated Delirium

Designing the Quality Care Continuum:

- Patient-Centered Coordinated Care
- Smoothing Patient Flow

Service: Patient Experience

- Integration of the Patient Experience

People: Team Engagement

- Strategic Staffing Initiative
- Transformational Leadership

Strong Economics

- Strong Economics

Integrated Information
Leveraging our Data:

- Measure and Improve our Results
- *Realizing the Potential of our EHR:*
- Enhancing Online Services

KPO Priorities

KPO Priorities		
Hospital	Clinic	Corporate
Reduce lead time	Reduce lead time	Reduce lead time
Improve access and level the patient flow	Improve access and day of visit workflow	Zero defects in HR/Payroll information flow
Eliminate falls with injury, medication errors & unplanned readmissions	Eliminate defects in the administration of Health Maintenance Module	Eliminate defects in the Distribution of Supplies & in OR instrument sets
Implement Standard Work for Leaders	Implement Standard Work for Leaders	Implement Standard Work for Leaders
Achieve margin targets	Achieve margin targets	Achieve margin targets

Clinic Priorities

Be There Share Prepare

Be There

- Be present with our patients; demonstrate that we know them and care.
- Treat every call, every message as our patient.
- Just say yes! Offer patients care when, where and how it is desired.
- Engage patients in using MyVirginiaMason to improve their health and well-being.

Share

- Help us grow! Champion our locations, services and quality to provide our patients what they need.

Prepare

- Implement new workflows using our electronic medical record (EMR).

2014 Clinic Priorities



Section Priorities

Section	Our goals/strategy	Key Metrics
Patient	• Be present with our patients; demonstrate that we know them and care	• Patient satisfaction (HCAHPS)
	• Treat every call, every message as our patient	• First call resolution rate
	• Just say yes! Offer patients care when, where and how it is desired	• Patient access
	• Engage patients in using MyVirginiaMason to improve their health and well-being	• Patient engagement
People	• Help us grow! Champion our locations, services and quality to provide our patients what they need	• Employee engagement
	• Implement new workflows using our electronic medical record (EMR)	• EMR adoption

2014 VMPS Priorities

Reduce Lead Time

Improve Quality

Home

Clinic

Hospital and/or
Emergency Department

Home



Throughout the patient's experience we will improve

Home → Access to Clinic → Clinic Day of Visit → ED Length of Stay → Acute Length of Stay → Home

Quality of Care:

- Surgical Variability (Smoothing Patient Flow)
- Falls with Injury
- Readmissions
- Hospital-Induced Delirium
- Glycemic Control
- Sepsis
- Hypertension

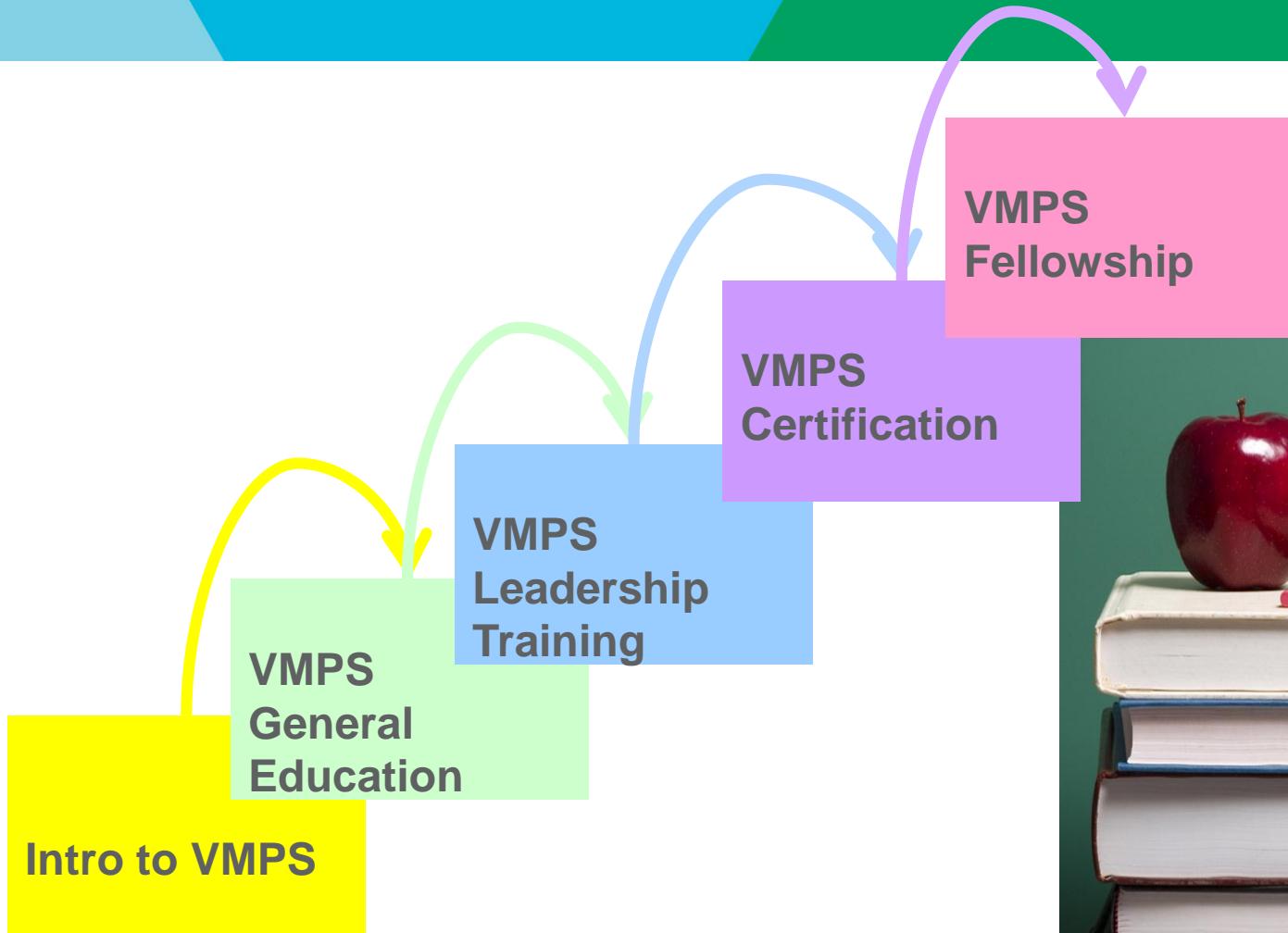
Supply Chain:

- The right supplies are available when and where they are needed – Just In Time (JIT).

Daily Management:

- The system we use to perform daily activities - standard operations and identify and eliminate waste with root cause analysis. Our system uses data to ensure we are continuously improving our business.

VMPS Education



Accountability: Genba Walks



Go to the place, look at the process, talk with the people

Inpatient Genba Rounds AGENDA			
Date:		Meeting Location:	Unit/Department - Action Item
Time:		Meeting Length:	30 minutes
Location:		Meeting Length:	30 minutes
Statement of Purpose: Guide Inpatient Genba Rounds on the unit.			
Item	Agenda Item Presenter	Time	COMMENTS/SUGGESTIONS/ACTION ITEMS
1	Foundational Elements for Agenda Leader	5	
2	Success to Highlight: Agenda Leader	5	•
3	Ramen Kabas Walk	5	•
4	Diagnosis Genba participants	10	
5	Summary Remarks	2	
PT			

Our Current Management System?



© DC Comics

Virginia Mason Leaders Have Two Jobs

1. RUN their business
2. IMPROVE their business

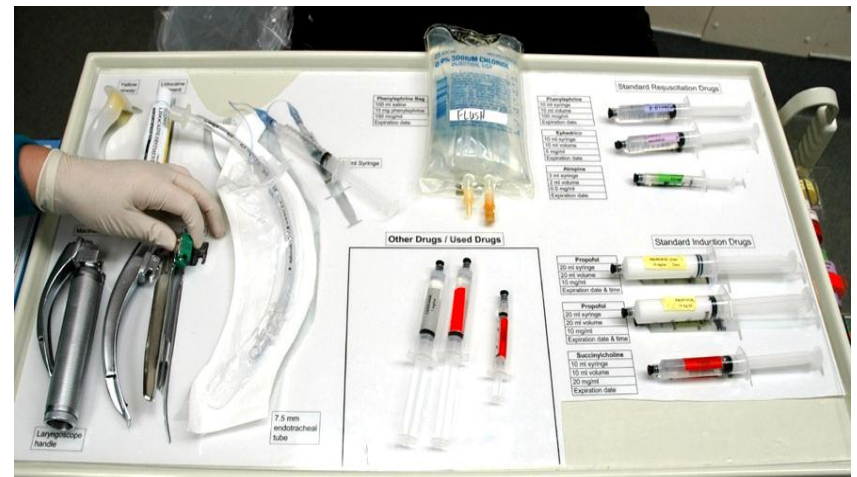


TODAY IS: 10/28 Thursday OUR DEMAND IS: _____ MD ON CALL: KOSS

OF PROVIDERS IN: 10 OUT: 5 % AWAY: _____ TEAM ASSIGNMENT: _____

RESOURCE NURSE: DAWN CM: _____

AM HUDDLE		TIME: <u>Lunch</u>		CAPACITY				
FULLY APPROPRIATE	ONE APPROPRIATE	PROVIDER PRESENT	PROVIDER NOT PRESENT	PROVIDER NOT PRESENT	PROVIDER NOT PRESENT	PROVIDER NOT PRESENT		
<u>E462 / Amber</u>	<u>11</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>		
<u>QA73 / Pam</u>	<u>9</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>		
<u>K147 / OUT</u>								
<u>TO15 / OUT</u>								
<u>TO01 / ERICA</u>								
PM HUDDLE		TIME:						
<u>E462 / Amber</u>	<u>10</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>		
<u>QA73 / Pam</u>								
<u>K147 / OUT</u>								
<u>TO15 / OUT</u>								
<u>TO01 / ERICA</u>								



Daily Team Huddle Board

Standing Topics for each huddle appear FIRST

- Huddle
1. Unit status
 2. Safety risks
 3. Review calendar
 4. Introductions / Float
 5. Weekly topics

New items added to reflect current issues

- Kronos scheduling
 - starts with next schedule
 - Modules are mandatory
 - Attend a practice session
- Cerner Downtime
Mon. nights (Tues AM)
MN - 0430, use
UH3 order forms.
- See BCM A Huddle
Card

Huddle Board

to do...

1. Flu: Sraddha Vijai

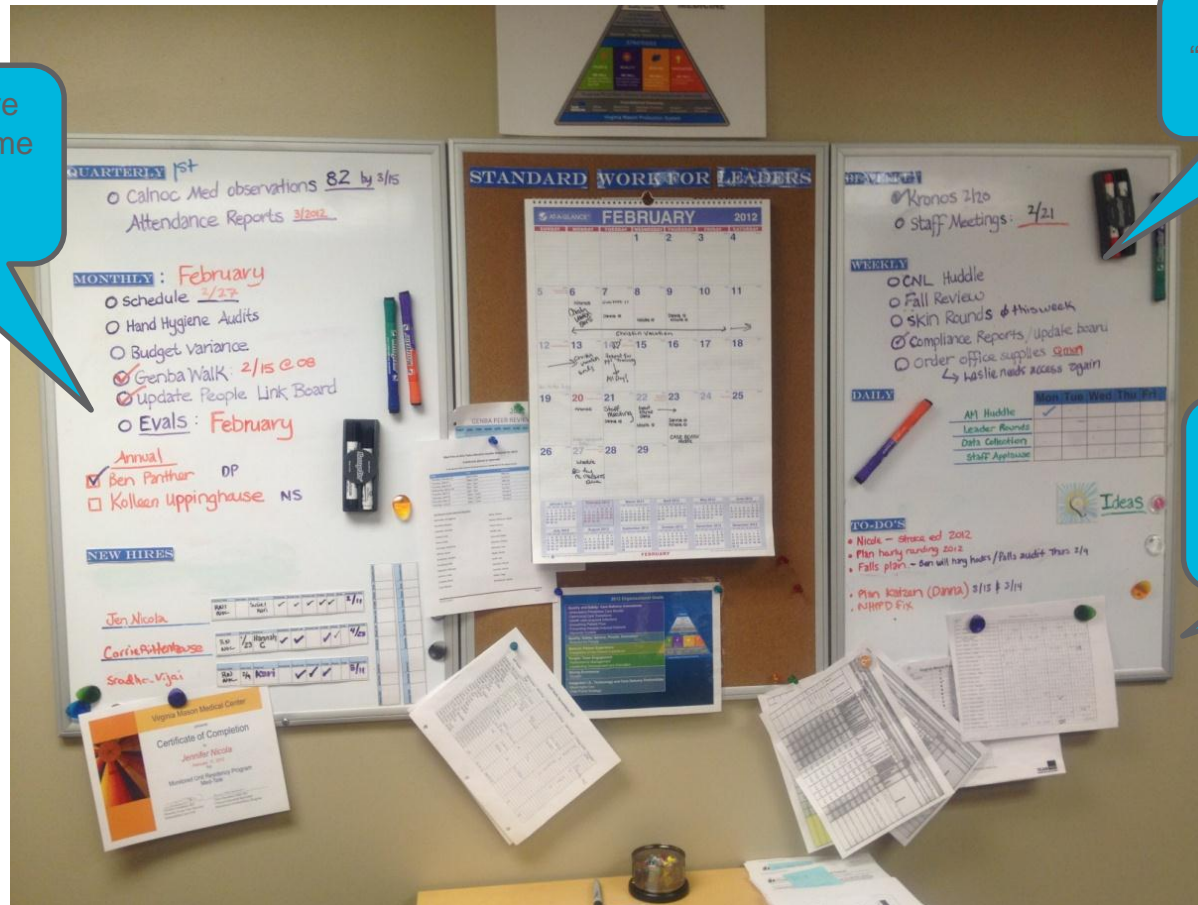
Wipe board pulls off of wall to use during huddle, then goes back up

Courtesy of Christin Gordanier, Hospital Level 9 (Tele)

Standard Work for Leaders

Key activities are segregated by time (daily, weekly, monthly)

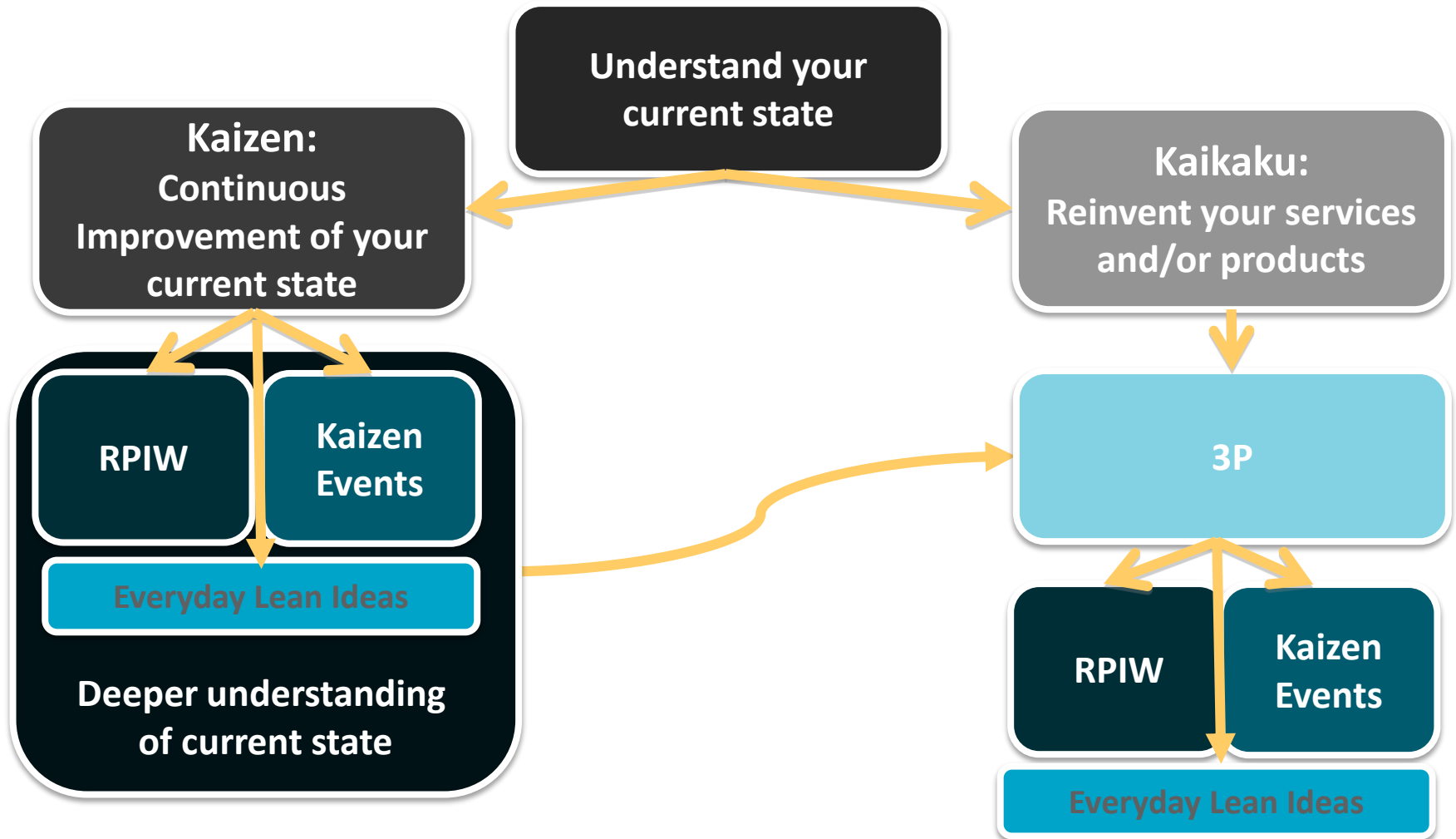
Very little is "permanent" on the board



Used by all leaders on Level 9 (Director, ANM's, etc.)

Courtesy of Christin Gordanier, Hospital Level 9 (Tele)

VMPS Improvement Pathways



Waste

Any task or item that does not add value from the perspective of the customer.



Just in Time (JIT)

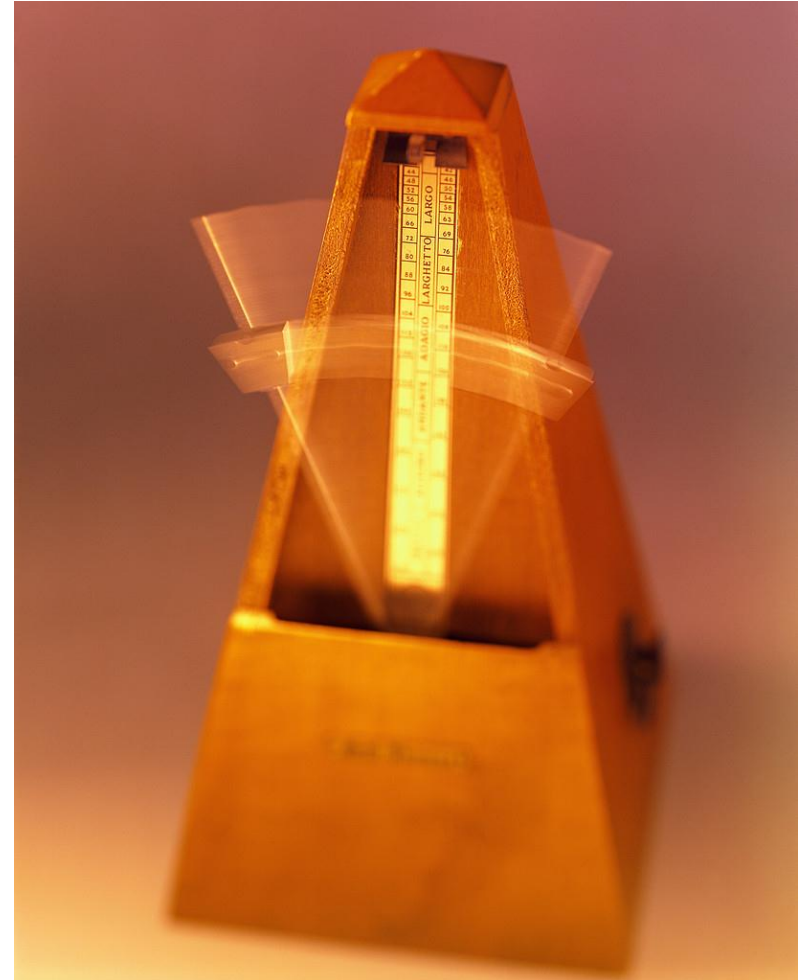
Definition:

Producing...

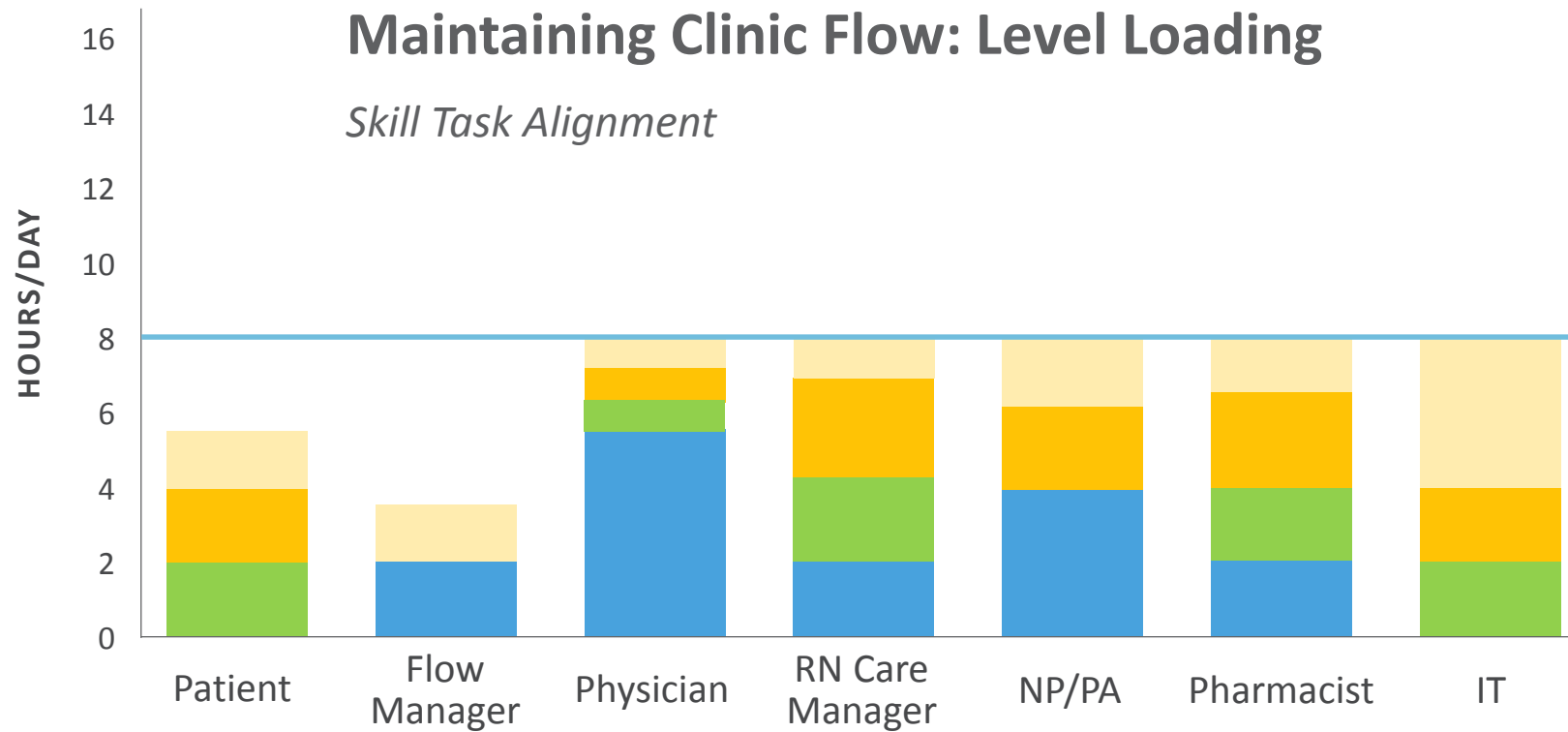
- Just what is needed
- Just the amount needed
- Just when it is needed

Using the...

- Minimum number of people
- Minimum materials
- Minimum equipment
- Minimum space



Heijunka

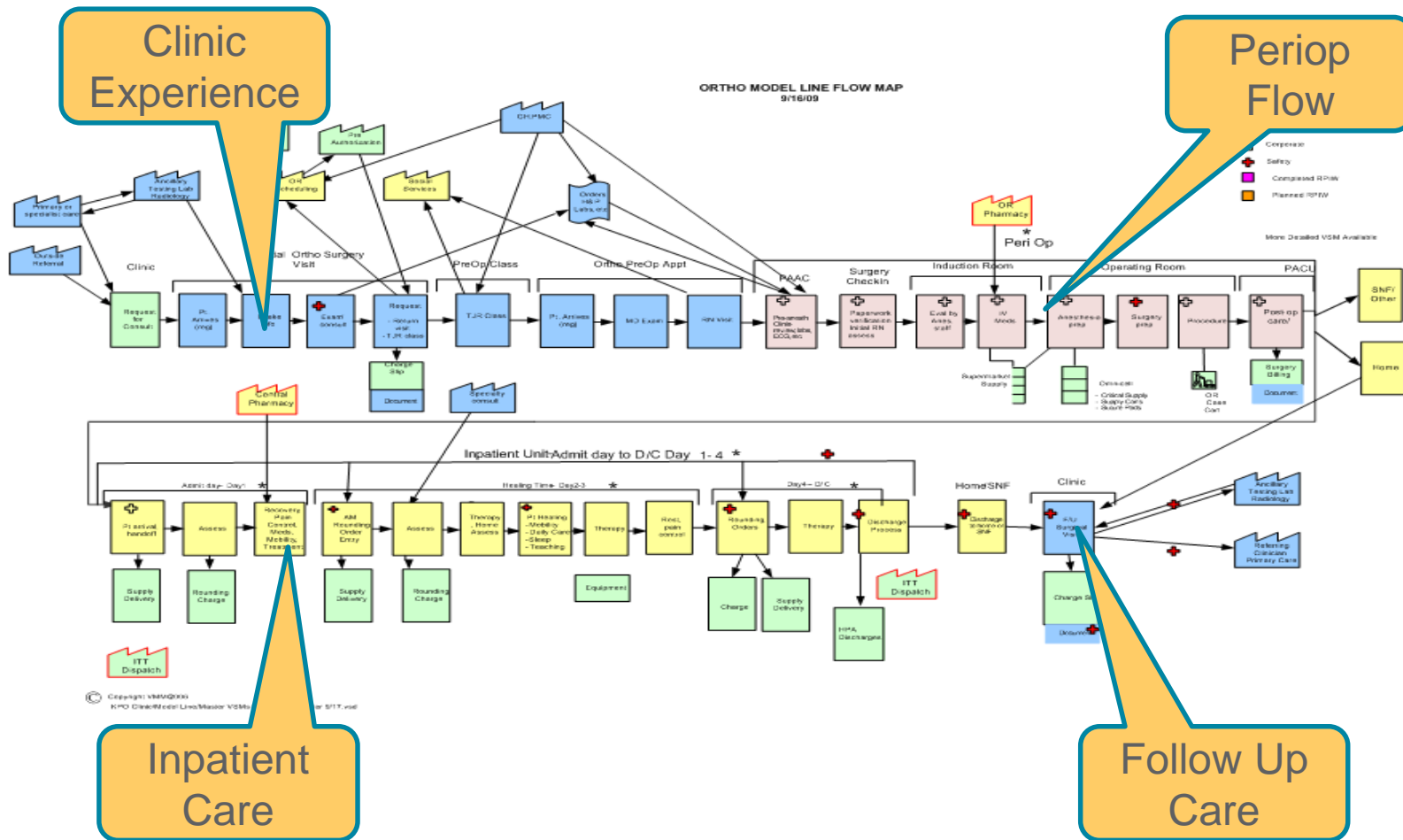


Lead Time, Cycle Time and Takt Time

Lead time the entire time required to provide a product or service, from request to completion	Cycle time the time required for one operator or machine to complete one cycle of work	Takt time the pace of customer demand
--	--	---



Orthopedic Model Line



5S Creates Safety



5S Anesthesia - Before

5S Creates Safety

<p>Yellow airway</p> 	<p>Lidocaine ointment</p> 	<p>Stylet</p> 	<p>10 ml Syringe</p> 	<p>Phenylephrine Bag</p> <table border="1"> <tr><td>100 ml saline</td></tr> <tr><td>10 mg phenylephrine</td></tr> <tr><td>100 mcg/ml</td></tr> <tr><td>Expiration date</td></tr> </table> 	100 ml saline	10 mg phenylephrine	100 mcg/ml	Expiration date	<p>Phenylephrine</p> <table border="1"> <tr><td>10 ml syringe</td></tr> <tr><td>10 ml volume</td></tr> <tr><td>100 mcg/ml</td></tr> <tr><td>Expiration date</td></tr> </table> <p>Ephedrine</p> <table border="1"> <tr><td>10 ml syringe</td></tr> <tr><td>10 ml volume</td></tr> <tr><td>5 mg/ml</td></tr> <tr><td>Expiration date</td></tr> </table> <p>Atropine</p> <table border="1"> <tr><td>3 ml syringe</td></tr> <tr><td>2 ml volume</td></tr> <tr><td>0.5 mg/ml</td></tr> <tr><td>Expiration date</td></tr> </table>	10 ml syringe	10 ml volume	100 mcg/ml	Expiration date	10 ml syringe	10 ml volume	5 mg/ml	Expiration date	3 ml syringe	2 ml volume	0.5 mg/ml	Expiration date	<p>Standard Resuscitation Drugs</p> 
100 ml saline																						
10 mg phenylephrine																						
100 mcg/ml																						
Expiration date																						
10 ml syringe																						
10 ml volume																						
100 mcg/ml																						
Expiration date																						
10 ml syringe																						
10 ml volume																						
5 mg/ml																						
Expiration date																						
3 ml syringe																						
2 ml volume																						
0.5 mg/ml																						
Expiration date																						
<p>Macintosh 3</p>  <p>Laryngoscope handle</p>	<p>Macintosh 4</p> 	<p>Miller 3</p>  <p>7.5 mm endotracheal tube</p>	<p>Other Drugs / Used Drugs</p> <div style="border: 1px solid black; height: 300px; width: 100%;"></div>	<p>Propofol</p> <table border="1"> <tr><td>20 ml syringe</td></tr> <tr><td>20 ml volume</td></tr> <tr><td>10 mg/ml</td></tr> <tr><td>Expiration date & time</td></tr> </table> <p>Propofol</p> <table border="1"> <tr><td>20 ml syringe</td></tr> <tr><td>20 ml volume</td></tr> <tr><td>10 mg/ml</td></tr> <tr><td>Expiration date & time</td></tr> </table> <p>Succinylcholine</p> <table border="1"> <tr><td>10 ml syringe</td></tr> <tr><td>10 ml volume</td></tr> <tr><td>20 mg/ml</td></tr> <tr><td>Expiration date</td></tr> </table> <p>Pancuronium</p> <table border="1"> <tr><td>3 ml syringe</td></tr> <tr><td>0.5 ml volume</td></tr> <tr><td>1 mg/ml</td></tr> <tr><td>Expiration date</td></tr> </table>	20 ml syringe	20 ml volume	10 mg/ml	Expiration date & time	20 ml syringe	20 ml volume	10 mg/ml	Expiration date & time	10 ml syringe	10 ml volume	20 mg/ml	Expiration date	3 ml syringe	0.5 ml volume	1 mg/ml	Expiration date	<p>Standard Induction Drugs</p> 	
20 ml syringe																						
20 ml volume																						
10 mg/ml																						
Expiration date & time																						
20 ml syringe																						
20 ml volume																						
10 mg/ml																						
Expiration date & time																						
10 ml syringe																						
10 ml volume																						
20 mg/ml																						
Expiration date																						
3 ml syringe																						
0.5 ml volume																						
1 mg/ml																						
Expiration date																						

5S Anesthesia “Shadow Board” –After

Setup

is the time spent preparing to provide the next product or service.

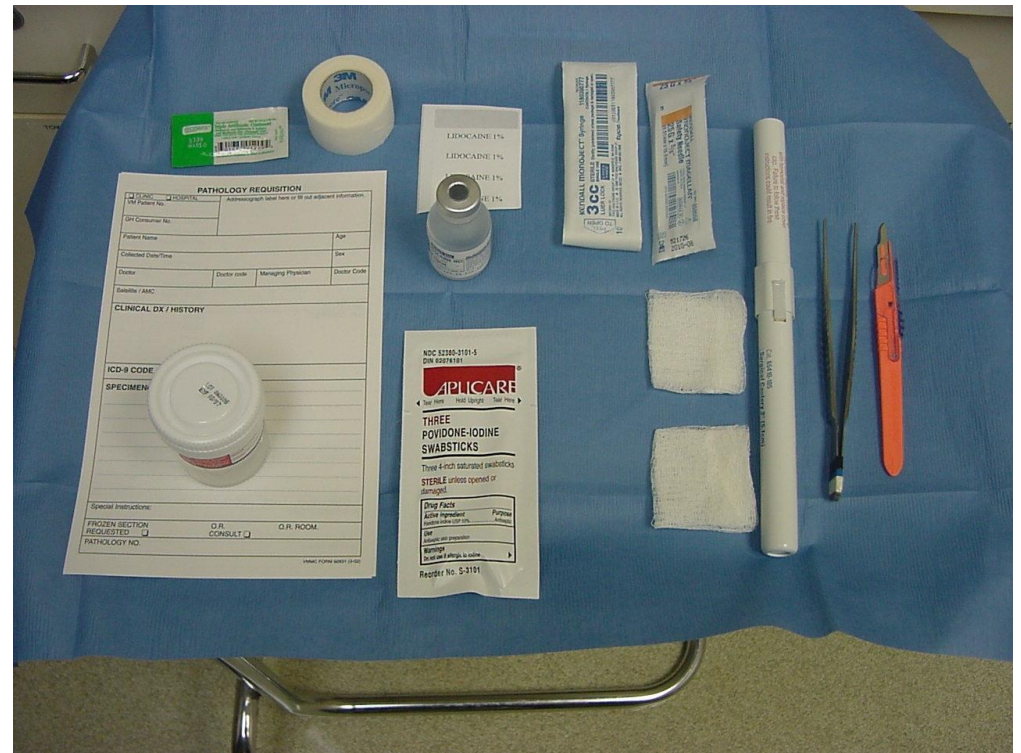
Setup *reduction* is a method to reduce or eliminate setup time to increase capacity and flexibility.



Setup

Typical setup activities:

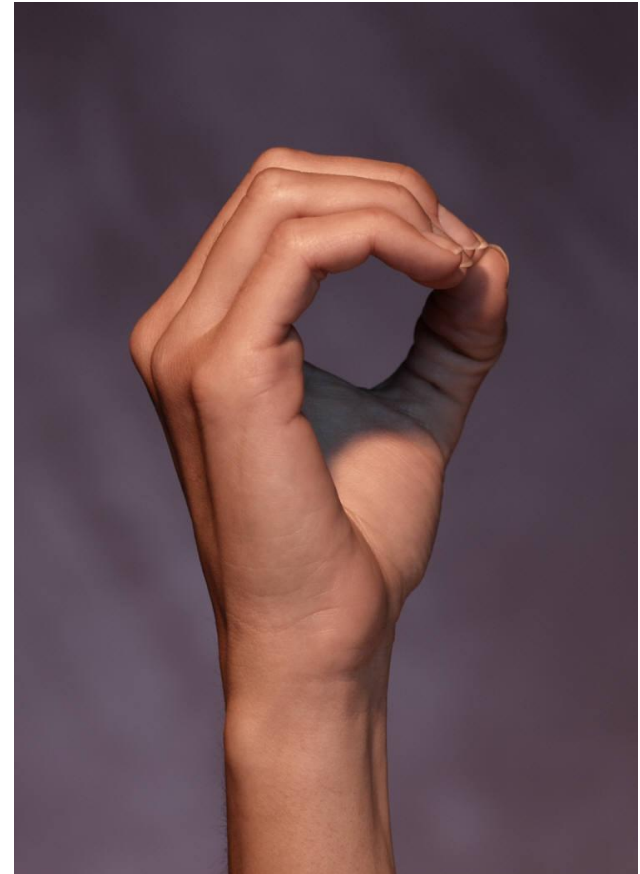
- gathering
- transporting
- opening
- removing from packaging
- assembling
- installing
- adjusting
- presenting
- disassembling
- cleaning



Mistake Proofing

Defects are mistakes that go uncorrected

The purpose of VMPS is to ensure zero defects



So what's good enough?

Imagine **99.9%** quality at VM...

- 15 defective surgeries/year
- 17 defective transfusions/year
- 1,000 defective medication administrations/year
- 182 wrong meals served/year
- 17,000 defective bills sent/year
- 125 defective paychecks/year



The Basic Elements of Mistake Proofing

mistake-proofing:

- inspection
- standard work
- visual control
- devices



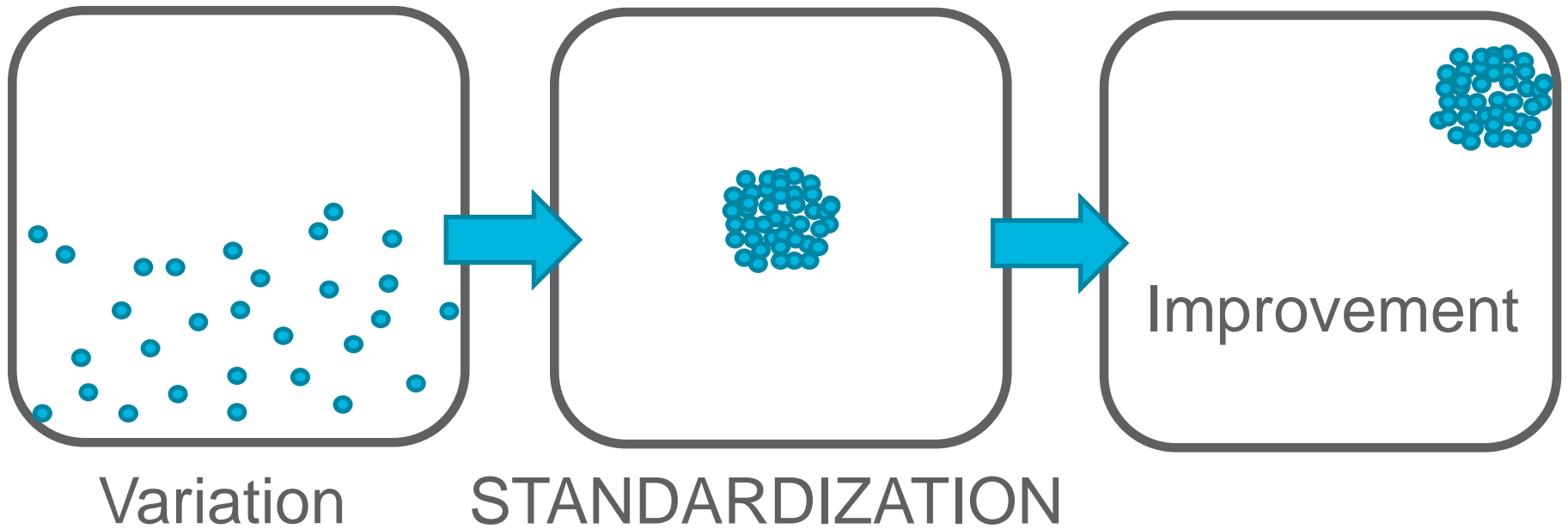
Standard Work

“Without standards,
there can be no improvement.”

– Taiichi Ohno
Founder of the Toyota Production System

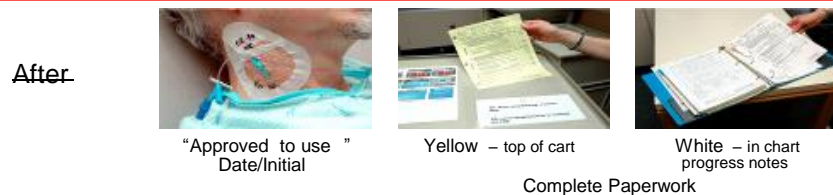
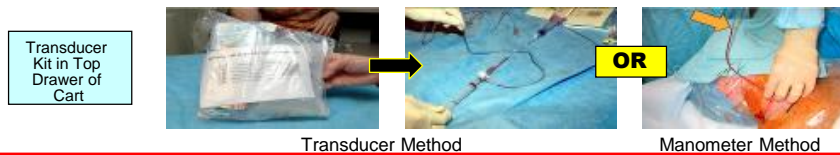
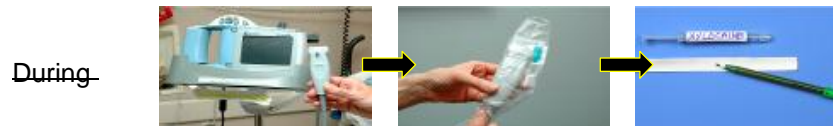
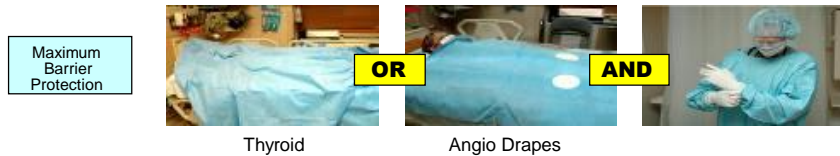


Adopt Standard Work



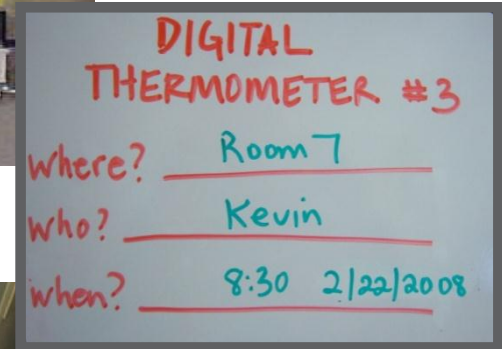
Standard Work

Central Line Insertion Standard Work



Visual Controls

Methods, devices, or mechanisms used to visually manage operations



Devices

MRI Back Exam

Exam Requested*

- | | | |
|--|--|---|
| <input type="checkbox"/> mr cspine | <input type="checkbox"/> mr tspine | <input type="checkbox"/> mr l spine |
| <input type="checkbox"/> mr cspine w/ w/o contrast | <input type="checkbox"/> mr tspine w/ w/o contrast | <input type="checkbox"/> mr l spine w/ w/o contrast |

Current Weight*

@ lbs kg Max Table Weight 200 kg/441 lbs

ICD9 Code(s)

Indications (select all that apply):*

- Motor deficit (781.99)
- Unremitting pain despite 6 weeks of appropriate therapy
(appropriate therapy is defined as 2 weeks of NSAIDs AND advice to stay active AND documentation of lack of improvement)
Document in relevant history field and apply appropriate ICD 9 code
- Strong suspicion of systemic disease
Document in relevant history field and apply appropriate ICD 9 code
- Neurogenic Claudication(435.9)
- Cauda Equina(344.60)
- Upper motor neuron findings: use myelopathy codes
 - Unspecified Region (722.70)
 - Cervical (722.71)
 - Thoracic (722.72)
 - Lumbar (722.73)
- Significant trauma or fall
Document in relevant history field and apply appropriate ICD 9 code
- Consult has been performed by physical medicine.

NOTE: A spine MRI will likely not be helpful for the patient with back or neck pain if none of these indications are present. The Spine Clinic physician on call will provide help by phone and offer a same day visit to assist in care of the patient. Text page (spine clinic page number) on V-Net and enter the following message: " Dr. --- wishes to speak with you about a patient with neck/back pain in whom an MRI is not indicated. Please call (pager number of ordering provider).

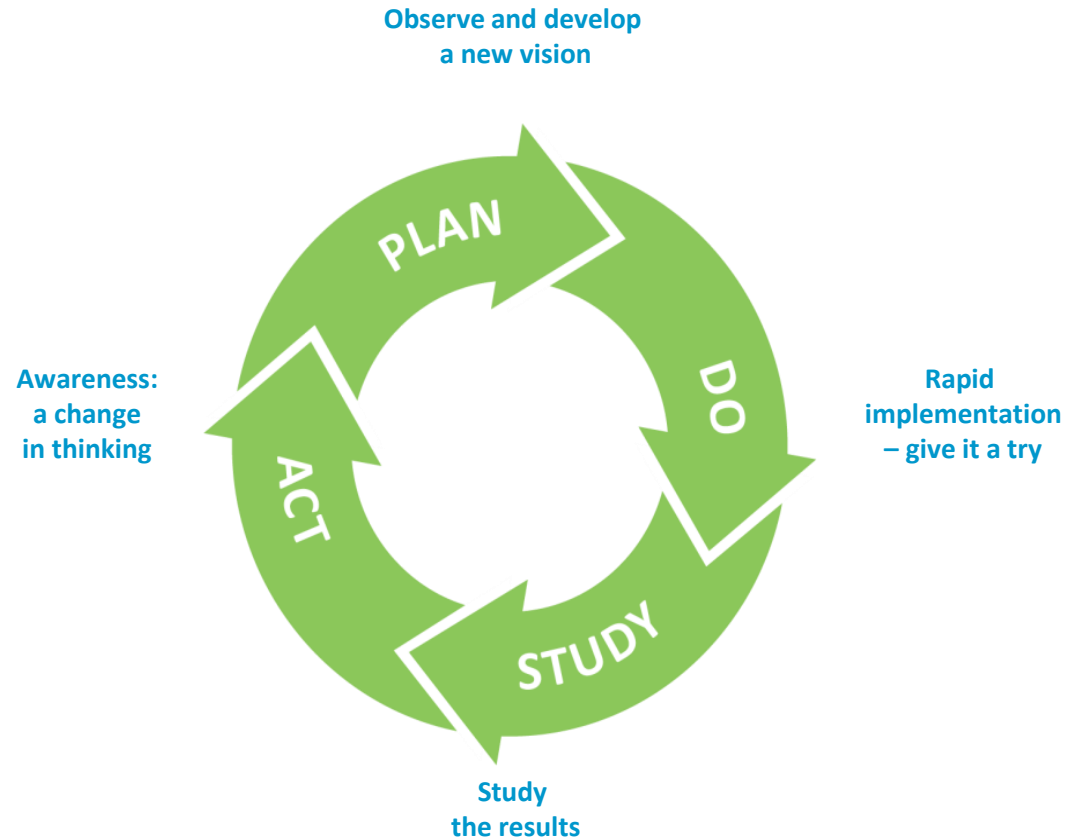


PDSA

How do we do our work?

- vigorously pursue waste
- use the PDSA method
Plan-Do-Study-Act
- continuously test/refine ideas
- focus on results
Example: defects down 66%

PDSA Cycle





***“In times of change,
learners inherit the earth,
while the learned find
themselves beautifully
equipped to deal with a
world that no longer
exists.”***

Eric Hoffer