The High Reliability Journey: Keys to a Successful Robust Process Improvement® Program

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Citrus Valley Health Partners

and

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Director of Solutions Development

Joint Commission Center for Transforming Healthcare

August 30, 2016

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Why the need for high reliability health care?

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CBS News / CBS Evening News / CBS This Morning / 48 Hours / 60 Minutes / Sunday Morning / Face The Nation /

CBSNEWS Video | US | World | Politics | Entertainment | Health | MoneyWatch

CBS/AP / *December 4, 2014, 6:11 PM*

Hospital medication error kills patient in Oregon

20 Comments / **26** Shares / **48** Tweets / Stumble / Email More +

A hospital in Bend, Oregon, says it administered the wrong medication to a patient, causing her death.

Loretta Macpherson, 65, died shortly after she was given a paralyzing agent typically used during surgeries instead of an anti-seizure medication, said Dr. Michel Boileau, chief clinical officer for St. Charles Health System.

He said Macpherson stopped breathing and suffered cardiac arrest and brain damage.

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Mix-up leads to surgical procedure on wrong baby

Comment / 4.6K Shares / Tweet / Stumble / Email

LEBANON, Tenn. - The happiness of their son's birth was marred for a couple in Tennessee after they learned doctors mixed up their baby with another and mistakenly performed a surgical procedure on their healthy newborn.

"The baby was perfect, healthy and beautiful," new mom Jennifer Melton told CBS Nashville affiliate WTVF. Little Nate was delivered at University Medical Center in Lebanon, Tennessee.

Not long after the birth, her newborn went for what Melton thought would be a routine physical. A couple of hours later, he was brought back.

"At that point the nurse started to mention the procedure they had done that they had clipped his tongue," said Melton.

Somehow, a doctor without the parents' signed consent performed a surgical procedure on Nate that apparently was meant for another child.

Baby Nate in his mother's arms / WTVF

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CNBC

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Medical errors are third-leading cause of death in United States: Study

Dan Mangan | @_DanMangan

11 Hours Ago

CNBC

Go to the doctor or hospital when you're sick in the hopes of getting better, and you might end up dead, instead.

A new study estimates that medical errors are actually the third-leading cause of death in the United States, responsible for a whopping 251,454 fatalities in 2013.

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Current State of Quality

- Routine safety processes fail routinely
  - Hand hygiene
  - Medication administration
  - Patient identification
  - Communication in transitions of care

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RPI® and High Reliability

- How did HROs achieve zero harm?
  - How to get from low to high reliability?
  - No guidance in this literature
- Aiming for zero means impatience
  - How do we address safety processes that fail 40-60% of the time?
  - How to get major improvement quickly?
- Answer?

RPI = Lean, Six Sigma, and change management

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HIGH RELIABILITY MODEL

Leadership

Commitment to zero patient harm

Safety Culture

Empowering staff to speak up

Robust Process Improvement®

Systematic, data-driven approach to complex problem solving

Chassin MR, Loeb JM. High-Reliability Health Care: Getting There from Here. *Milb Q* 2013;91(3):459-90

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RPI ® in Health Care Today

- Only a small percentage of hospitals or systems use RPI in any form or fashion
- RPI is used differently by different hospitals
  - Most use only some of the parts
  - Most have one department or a single individual using RPI
  - Most do not have a plan for spread
  - Most do not have RPI embedded into their daily work

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The High Reliability Journey Requires Use of RPI®

Use of ROBUST PROCESS IMPROVEMENT®

Tools

- Methods
- Training
- Spread

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Citrus Valley Health Partners
Journey to High Reliability

Robert Curry - President & CEO
Citrus Valley Health Partners
August 30, 2016

CVHP

Who We Are

- Non-profit health system; 3 hospitals (625 total beds), inpatient hospice hospital and expansive home health program
- 3,200+ employees
- Over 1,000 physicians
- Serving nearly 1 million people in the East San Gabriel Valley of Los Angeles County
- Payer mix is over 80% government

Our Mission

Our MISSION is to help people keep well in body, mind and spirit by providing quality health care services in a compassionate environment

CVHP 2.0 Journey Begins

- Culture of inertia
- Quality of care was a “B” average, and accepted
- Employee engagement was also average
- Patient satisfaction was dismal
- Financially we were struggling – BB rated (junk bonds)
- Transformational journey to sustainability

If we didn’t do something,
we could no longer serve our Mission

Cultural Transformation

- Culture is defined as an organization's beliefs and behaviors
- Needed the right leaders
- Needed to engage employees
- Needed transparent communications
- Needed to think and "do" differently

And we did…

Turnaround Efforts

- Reduce workforce by 300 FTE's through Voluntary Separation Plan
- Initiated 100% productivity targets (250 pay periods above 100%)
- Engaged physicians through selecting 15 coaches
- Started a 250 member IPA to align our physicians
- Set goals at 100% compliance for Core Measures
- Began "Building Connections" program to improve patient satisfaction
- Eliminated all out-sourced vendors
- Changed three hospital based physician groups
- Completely re-organized executive management
- Managers changed or we changed managers

Success Recognized

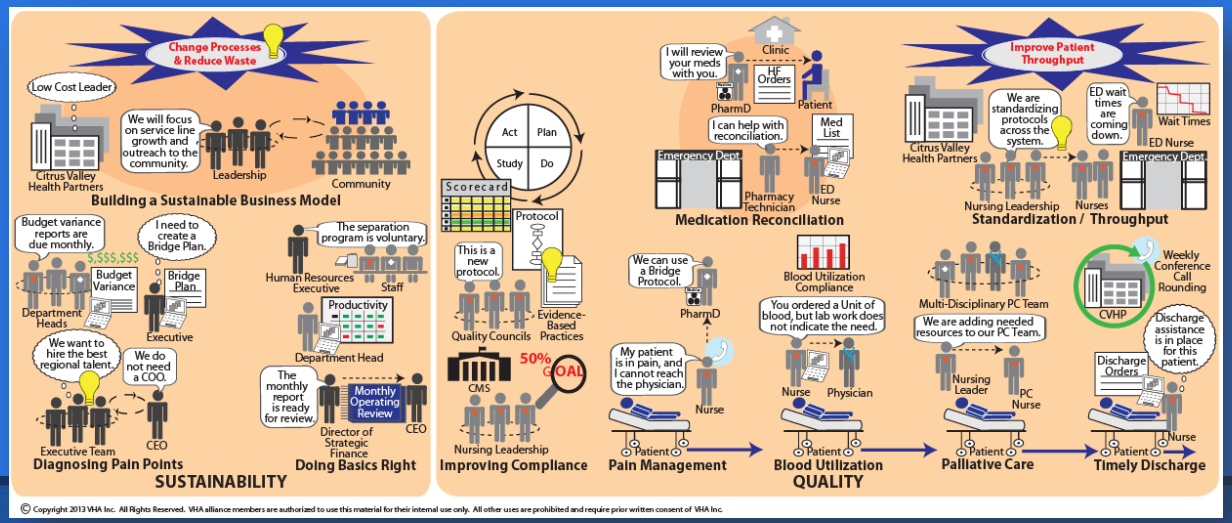
- American College of Surgeons National Surgical Quality Improvement recognized both QVC and ICC as two of 44 participating hospitals that have achieved meritorious outcomes for surgical patient care four years in a row
- Cleverley and Associates awarded CVHP the 2014 Community Value Leadership Award – the only "non-teaching large hospital" in California to receive award; one of the top 2% in the nation
- The Joint Commission's Top Performer on Key Quality Measures® for two consecutive years

Success Recognized

- Five Bond upgrades (BB to A-)
- LeapFrog Group, “A” rating for all three hospital for patient safety
- Get With The Guidelines ® - Stroke Gold Plus Quality Achievement Award
- Get With The Guidelines® Heart Failure Gold Quality Achievement Award three years consecutively
- Five years in a row – CVHP named Best Place to Work and Best Hospitals as recognized in the San Gabriel Tribune

VHA Leading Practice Blueprint®

- In 2013, selected by VHA to create a Leading Practice Blueprint® that lead to…
- In August 2014, VHA presented us with VHA's West Coast Region Leading Practice Blueprint® Award
- Recognized for our financial, operational and clinical results turnaround



But…

It wasn’t enough

Harm was still occurring (2013)

JJ
85 years
Death after Anesthesia

UY
70 years
Medication Error

DA
40 years
Glycemic Control

QQ
86 years
Fall

DF
82 years
CLABSI

JY
94 years
Equipment Failure

HG
36 years
CLABSI

HR
53 years
Burn

QB
58 years
Fall

NH
52 years
Unplanned return to OR

QN
41 years
CLABSI

QH
41 years
Mishandled Specimen

QE
84 years
OR Complications

BV
63 years
DVT

ZK
39 years
Unplanned return to OR

ZT
91 years
Medication Error

RV
57 years
Transfusion Reaction

ZY
82 years
CLABSI

ZX
77 years
Lethal Allergic Reaction

RV
57 years
Transfusion Reaction

PO
91 years
Injury other than Fall

QB
58 years
Fall

GH
30 years
Delay in Diagnosis

JJ
42 years
CLABSI

QW
86 years
Undiagnosed Sepsis

LO
36 years
Delay in Treatment

RT
73 years
Unplanned return to OR

DA
90 years
Glycemic Control

ER
36 years
Unexpected Blood Loss

RV
57 years
Transfusion Reaction

FD
81 years
CLABSI

FD
51 years
Unplanned return to OR

PO
91 years
Injury other than Fall

RV
57 years
Transfusion Reaction

ZR
24 years
SSI

ZX
77 years
Undiagnosed Sepsis

JJ
42 years
CLABSI

RV
77 years
Transfusion Reaction

RT
73 years
Unplanned return to OR

GH
37 years
Delay in Diagnosis

QF
87 years
CLABS

ZF
71 years
OR Complications

GF
53 years
Delay in Diagnosis

QV
77 years
Glycemic Control

IU
90 years
DVT

ZA
96 years
Fall

BB
64 years
Injury other than Fall

LO
36 years
Delay in Treatment

RR
55 years
Fall

FD
58 years
Unplanned return to OR

ZV
82 years
Fall

UI
89 years
Unplanned return to OR

SF
54 years
Delay in Treatment

ER
36 years
Medication Error

JW
49 years
CLABSI

BI
51 years
Transfusion Reaction

NE
88 years
Unplanned return to OR

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Delay in Diagnosis

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Delay in Treatment

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NM
78 years
Unplanned return to OR

HH
69 years
CLABS

RD
72 years
Other Issues - procedures

GV
68 years
Delay in Treatment

TQ
80 years
Unplanned return to OR

CVHP

Harm was still occurring (2013)

MR DOU
52 years
Code
Malfunction

Michael's Story

- 52 year old, engaged to be married
- Came to our ED in September 2013 for severe abdominal pain
- Appendectomy was performed

What Do Patients Want?

Donald Berwick, MD

Founder, Institute for Healthcare Improvement

Former Acting Administrator, CMS

Don't hurt me

High Reliability

Heal me ✓ 2.0

Better Outcomes

Be nice to me

We needed definitive cultural transformation

We needed to act and think differently – like a highly reliable organization

Our NEW Mission

Our MISSION is to help people keep well in body, mind and spirit by providing quality health care services in a *safe*, compassionate environment

Think Like a Highly Reliable Organization

1. Preoccupied with failure
2. Resist temptation to simplify their observations and experiences within their environment
3. Sensitivity to operations
4. Commitment to resilience
5. Deference to expertise

The Center for Transforming Healthcare

- Engaged The Joint Commission's Center for Transforming Healthcare in June 2013
- Core team began 3-day training in January 2014
  - Core team included:
    - Executive team
    - Board member who was a educator/statistician for decades
    - Corporate Director of Process Improvement

Words From our CFO

- "It truly is not about focusing on ROI, but about doing what is right for our patients and our future."
  Roger Sharma, CPA, CFO

- We had to think differently…

Roger Sharma
CPA, CFO, EVP

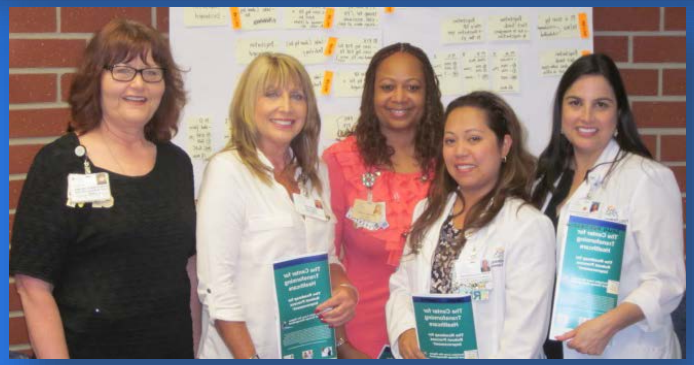
Chief Transformation Officer

- Established new executive position and department to implement and provide oversight
- Selected William Choctaw, MD, JD to be our Project Deployment Leader, Black Belt in training and Chief Transformation Officer for the system

William Choctaw MD,JD
Chief Transformation Officer

2014 - Wave I Green Belts

- First class of Green Belt candidates were selected, including three physicians:
  - Hospitalist
  - OB/GYN (minimally invasive surgical specialist and future leader)
  - Critical care specialist
- Other candidates included a cross-section of departments, services and hospitals



Physician Engagement

- Crucial to project and program success – 14 trained thus far
- Began with our Physician Coaches
  - CVHP champions and mentors for new physicians on staff
- Now training physician champions who are not necessarily coaches, but future leaders
- Integrate a variety of physicians and specialists both hospital based and private practice based
- Offer make-up sessions to account for time restraints
- Physicians comment it has changed the way they think about problems/solutions, becoming more patient and thoughtful

Wave I - Six Green Belt Projects

- Six projects were selected:
  - Continuum of Care
  - Emergency Department Flow
  - Hand-off Communications
  - Meditech Optimization
  - Medicare Denial Prevention Project
  - Surgical Site Infections

Cultural Transformation Began

- Halo Effect
- Camaraderie
- Team Spirit – nicknames (CTW, A-Team)
- Helpfulness between teams
- Candidness of frustrations, challenges and also successes
- Truly thinking differently – even outside of work
  - "Mom, don't go all Green Belt on me."

    -son of Green Belt on cleaning his room more efficiently

On our way to building a culture that aspires to eliminate harm

ZERO

2015 – Wave II Green Belts

- 24 Green Belts certified
- Included six physicians
- 7 projects

2015 – Wave II Projects

- ED Flow II – Patients Boarded in ED
- HCAHPS/Physician Communication
- Inpatient Discharge
- Nurse Staffing
- Perioperative Area/start times
- Protected Health Information
- Safety/Hand Hygiene

2015 - Wave II Black Belts

- Two Black Belt Candidates:
  - William Choctaw MD, JD
  - Denise Ronquillo, Corporate Director Process Excellence
- Black Belt projects
  - ED Surge – response to overcrowding
  - Home Health – improving order tracking and financial performance

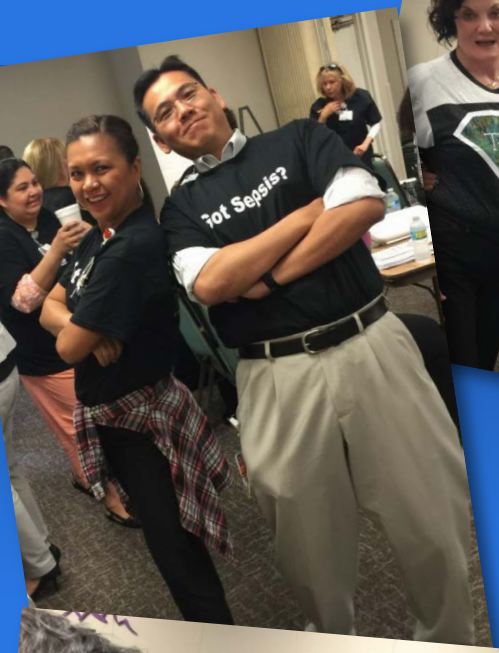
2016 – Wave III Green Belts

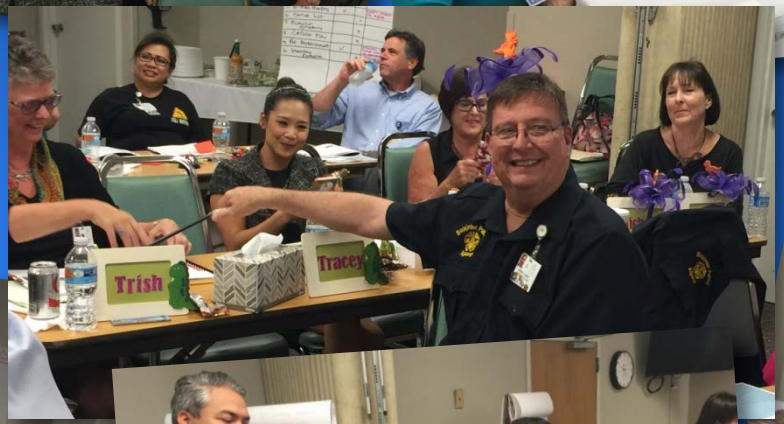
- 30 Green Belt Candidates
- Includes myself, President/CEO of system
- Four physicians
- One board member
- Six projects
- Currently in the Improve/Control stage of DMAIC

2016 – Wave III Team Themes

- Bo(a)rder Patrol – Care Coordination Team
- TRex – Medication Safety Team
- Med Detectives – EHR Team
- Go with the Flow – Patient Flow Team
- Fall Busters – Patient Safety Team
- Got Sepsis? – Sepsis Team

Wave III Teams, Training, Fun





CVHP

Board(er) Patrol

- Focus on care coordination and reducing LOS
- The Dirty Dozen
- My “Ah-Ha” moment
- Different hospital Monday through Friday vs. Weekends
- P-Value

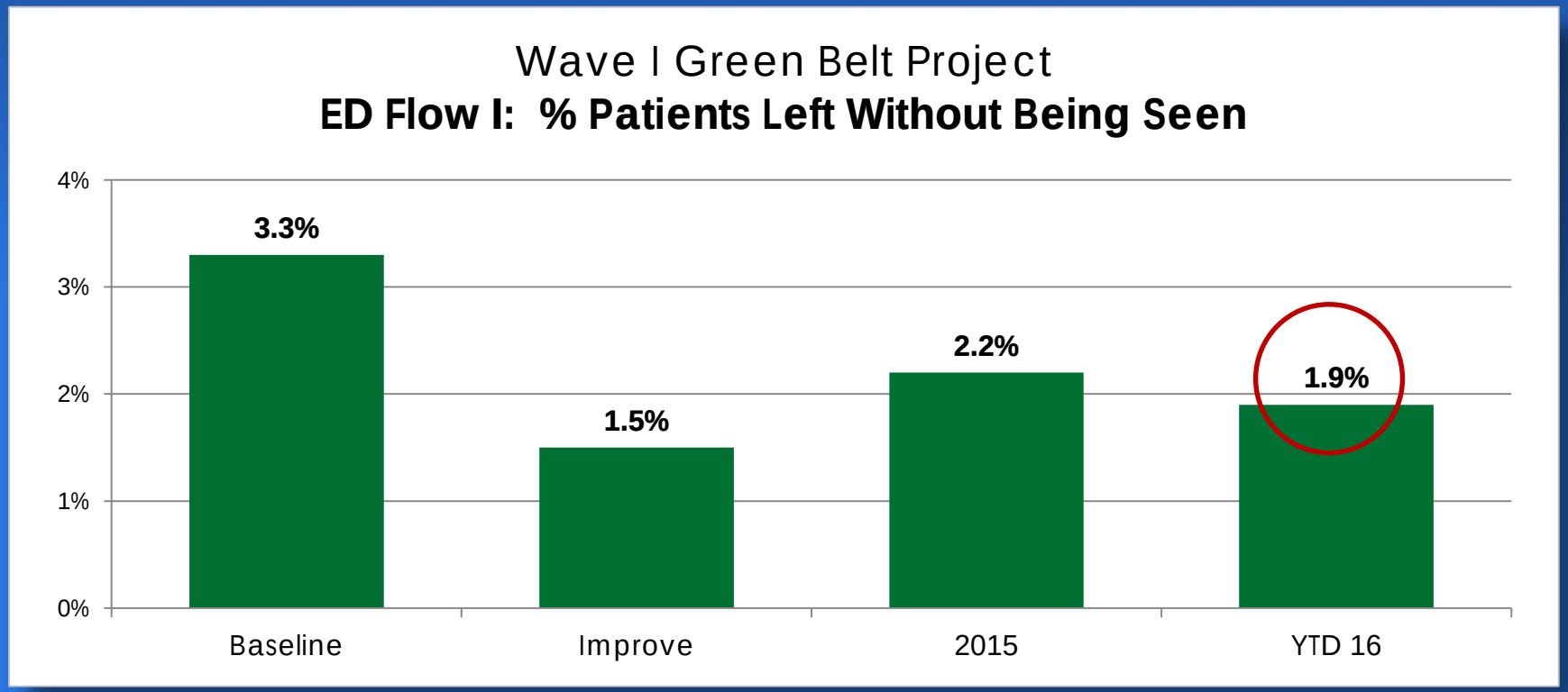
CVHP Cultural Shift

- Lean Six Sigma, Robust Process Improvement methods and tools have infiltrated the entire system
- Reduced silo mentality - integrating departments and team members across the system
- Speaking a new language and thinking differently
- Process Excellence
- Culture of Safety

Sustainability

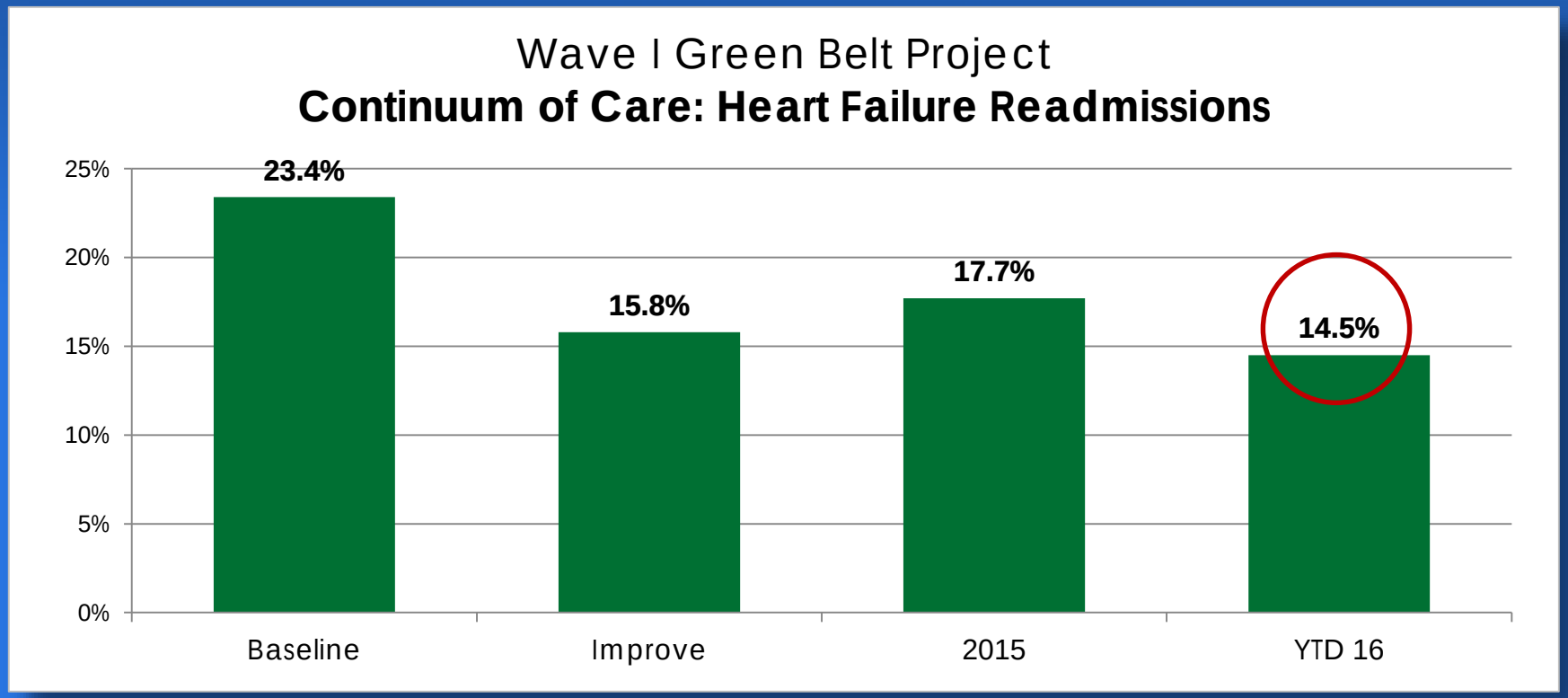
Wave I - ED Flow I

Measure: % Patients Left Without Being Seen (FPH)



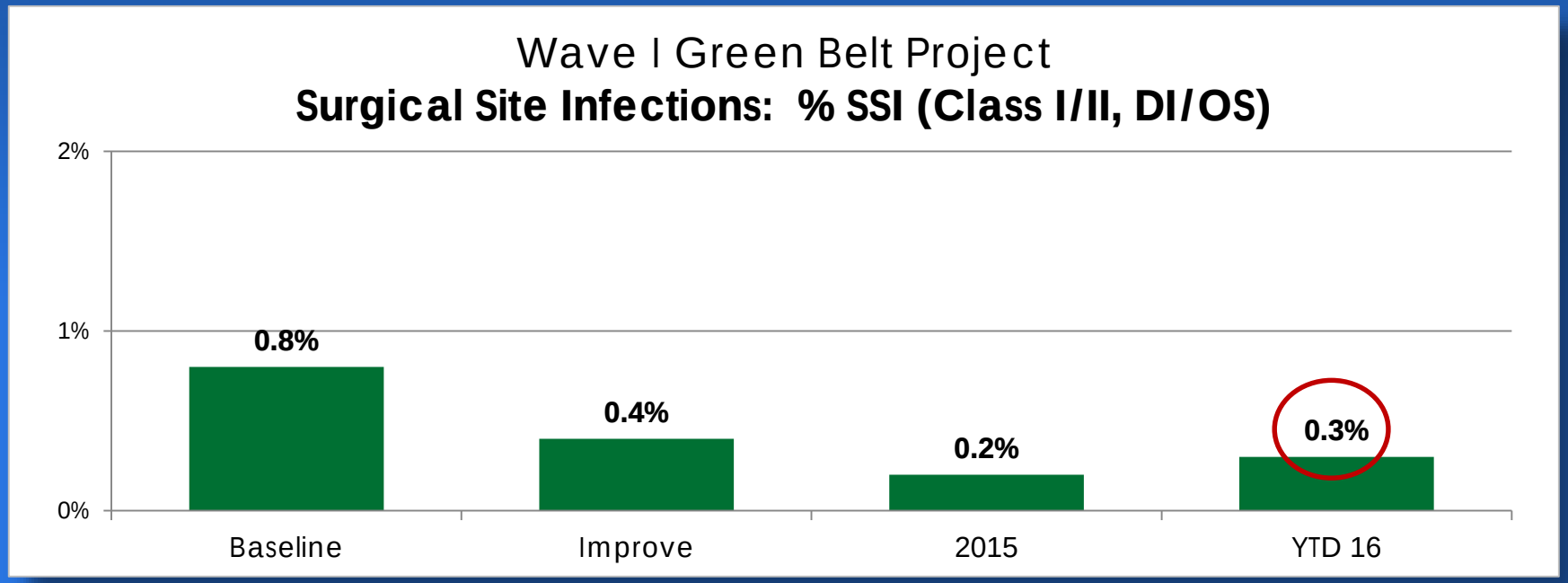
Wave I - Continuum of Care

Measure: 30 Day All Cause Readmission Rate (CVHP)



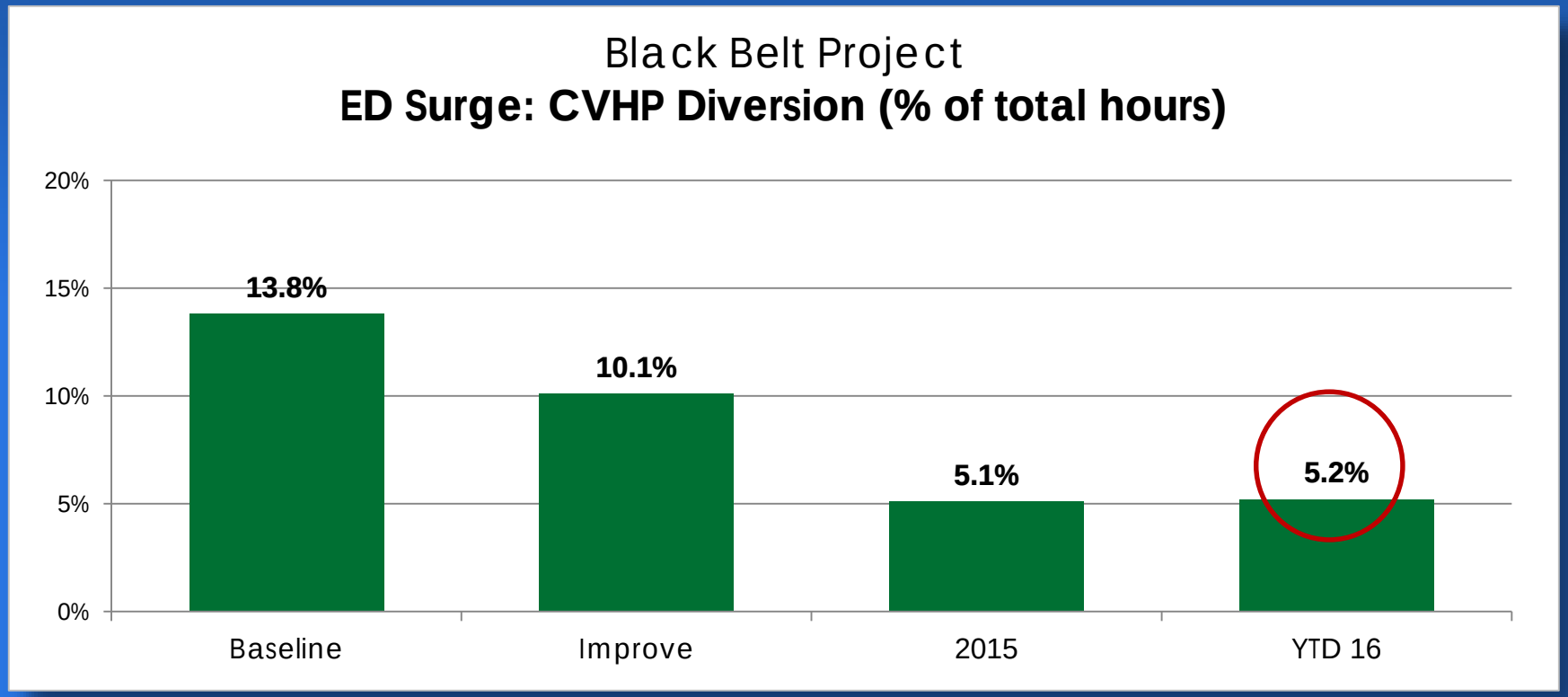
Wave I - Surgical Site Infection

Measure: DI/OS, Class I/II SSI (ICH)

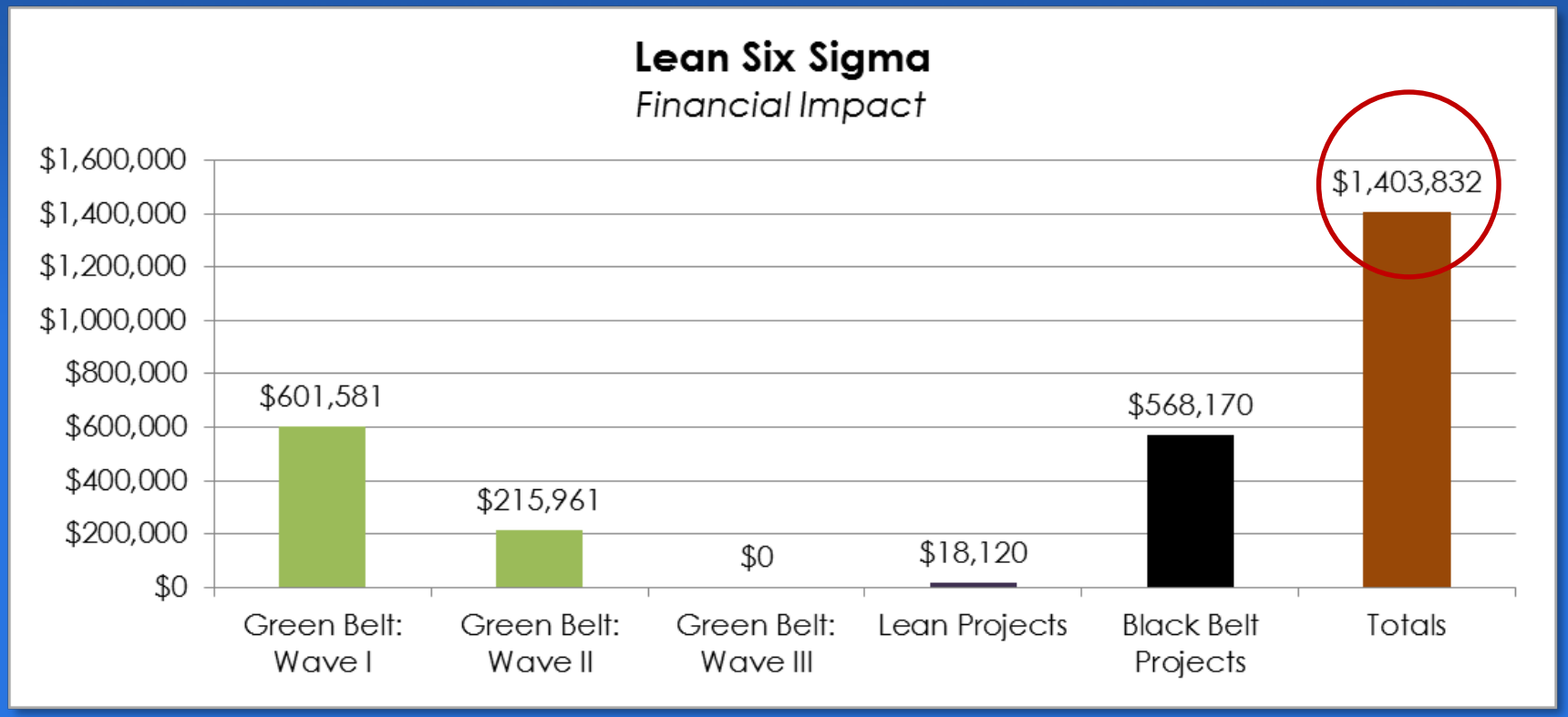


ED Surge Black Belt Project

Measure: CVHP Diversion Hours



Financial Impact



Closer to Eliminating Harm

JJ
85 years
Death after Anesthesia

UY
70 years
Medication Error

DA
40 years
Glycemic Control

QQ
86 years
Fall

DF
82 years
CLABSI

JY
94 years
Equipment Failure

HG
36 years
CLABSI

HR
53 years
Burn

QB
58 years
Fall

NH
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Unplanned return to OR

QN
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CLABSI

QH
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Mishandled Specimen

QE
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OR Complications

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DVT

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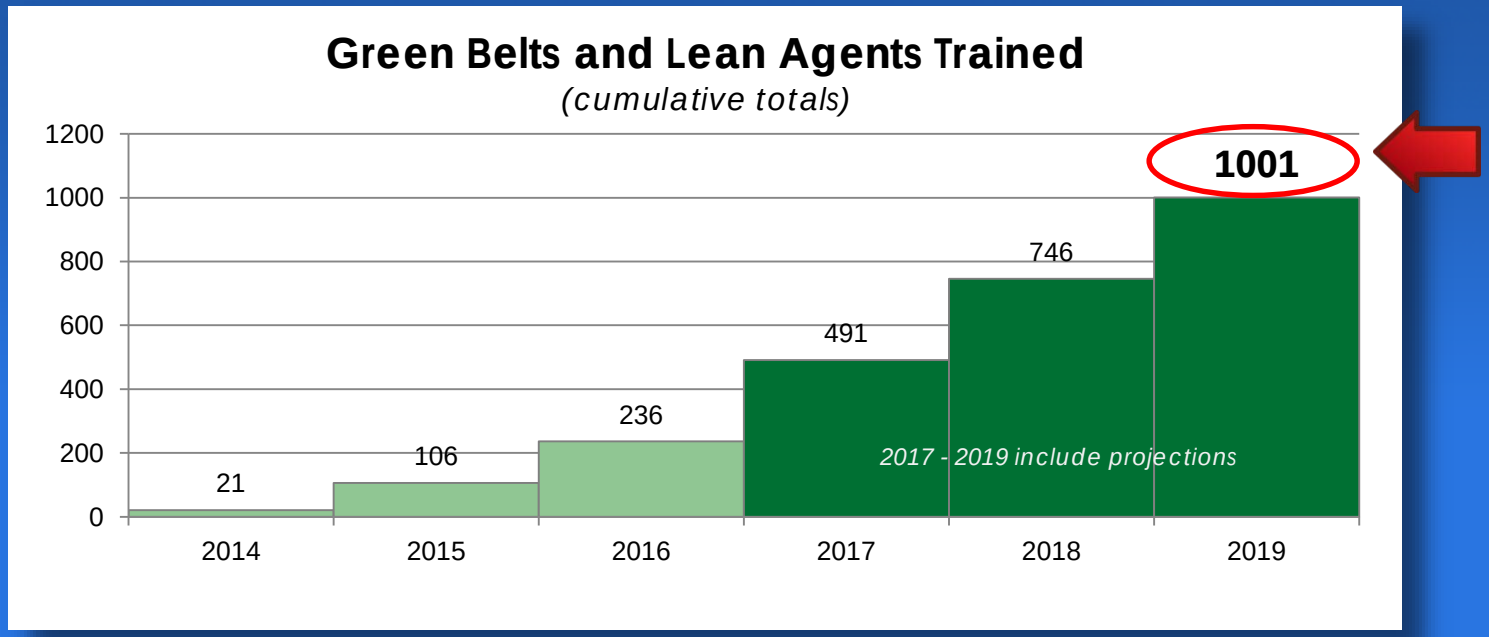
DVT

2017 Plans

- Six GB projects
- 30 additional GB trained employees and physicians
- Two Black Belt projects
- 50 Lean projects
- 225 Lean Agents trained
- Begin Lean Six Sigma Education Series

- Possible projects: Teletracking, Sepsis II, Centralized Scheduling, Nurse Retention, Supply Chain Management

Expanding Number Trained



Successful Change is Possible

- With the right culture, right people – successful change is possible
- Sustainable quality and financial improvements through RPI/LSS
- Employee and physician engagement is high
- Growth in many of our services
- Recognized throughout the country as a model for change
- Most importantly, commitment to high reliability has permeated our culture

Commitment to HRO

"The first step that a healthcare organization must take if it wishes to achieve high reliability is a commitment from the leadership to this goal. No important organizational aims can be achieved without such a commitment. Further, all components of the leadership must be committed: the governing body, management, physicians and nurses."

Mark Chassin, MD
President, The Joint Commission

Thank you!

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