

Challenges for Hospitals: Creating and Maintaining High Reliability

PRESENTER

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RELIAS



THE RELIAS MISSION

To measurably improve the lives of the most vulnerable members of society and those who care for them.

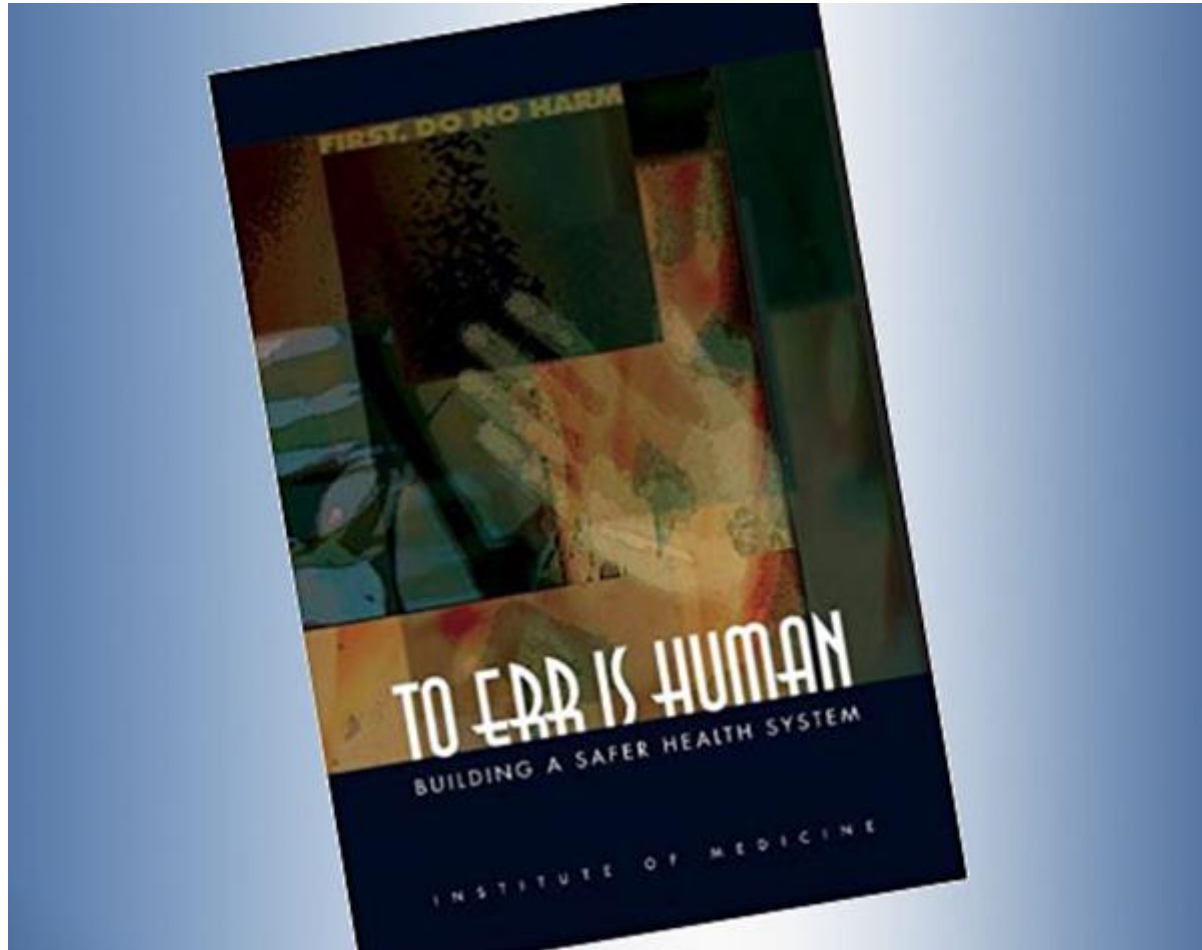
Learning Objectives

- The evolution of the patient/safety movement
- Gain insight into key drivers associated with variation in care amongst clinical teams
- Refresh initiatives in building a culture of high reliability within your organization to improve patient care
- Learn how to successfully implement change initiatives for mitigating clinical risk
- Understand the challenging landscape and where we are today

Evolution of the Patient Safety Movement

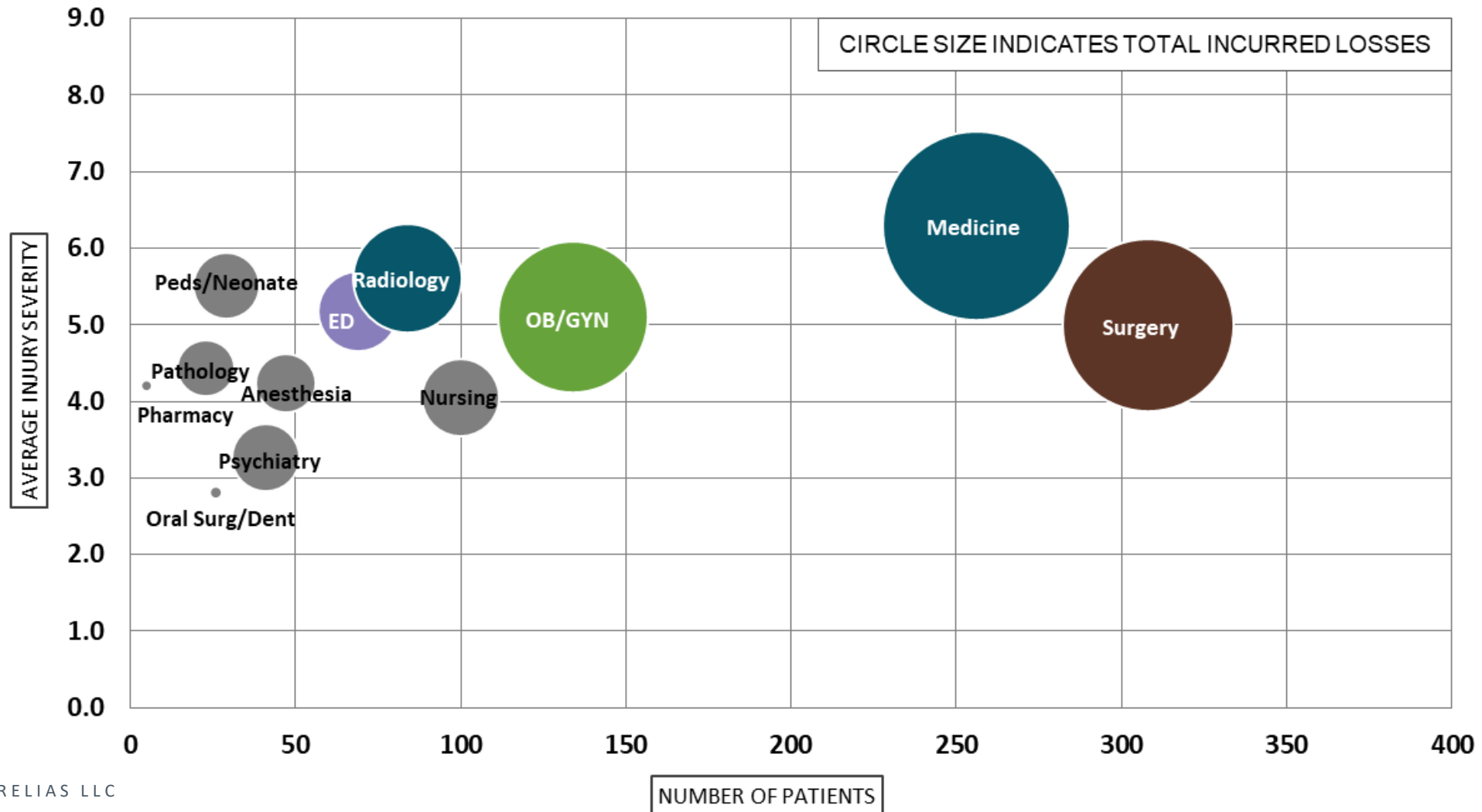


The IOM Report “To err is Human”



- The Institute of Medicine (IOM) released a report in 1999 entitled “*To Err is Human: Building a Safer Health System*”.
- The report stated that errors cause between 44 000 and 98 000 deaths every year in American hospitals, and over one million injuries.
- The report called for a 50% reduction in medical errors over 5 years.¹ Its goal was to break the cycle of inaction regarding medical errors by advocating a comprehensive approach to improving patient safety.

Hot Spots for Patient Safety



What Gets Publicized is Not the Major Issue

Wrong site surgery (1 per 113,000 surgeries)



Suit: Brain surgery allegedly botched

Published: Feb. 9, 2010 at 10:16 AM

DEARBORN, Mich., Feb. 9 (UPI) -- A Flat Rock, Mich., woman suffered brain damage after surgery was begun on the wrong side of her head to fix an aneurysm, her family alleges in a lawsuit.

Retained foreign body (1 per 9000-19,000 cases)



Surgical sponge is left in teenager's abdomen

\$535,000 settlement

Published: April 20, 2009

\$535,000 settlement

The plaintiff was 18 when she underwent a laparotomy at the defendant hospital.

Two nurses and one scrub technician allegedly conducted three separate counts of surgical instruments and sponges during the procedure.

For nearly a year following the procedure, the plaintiff had a low-grade fever and suffered flu-like symptoms. Ultimately, she developed a lump in her groin and underwent a CT scan of her abdomen, which revealed the presence of a foreign object.

The Majority of Technical Errors Do Not Occur Where Expected

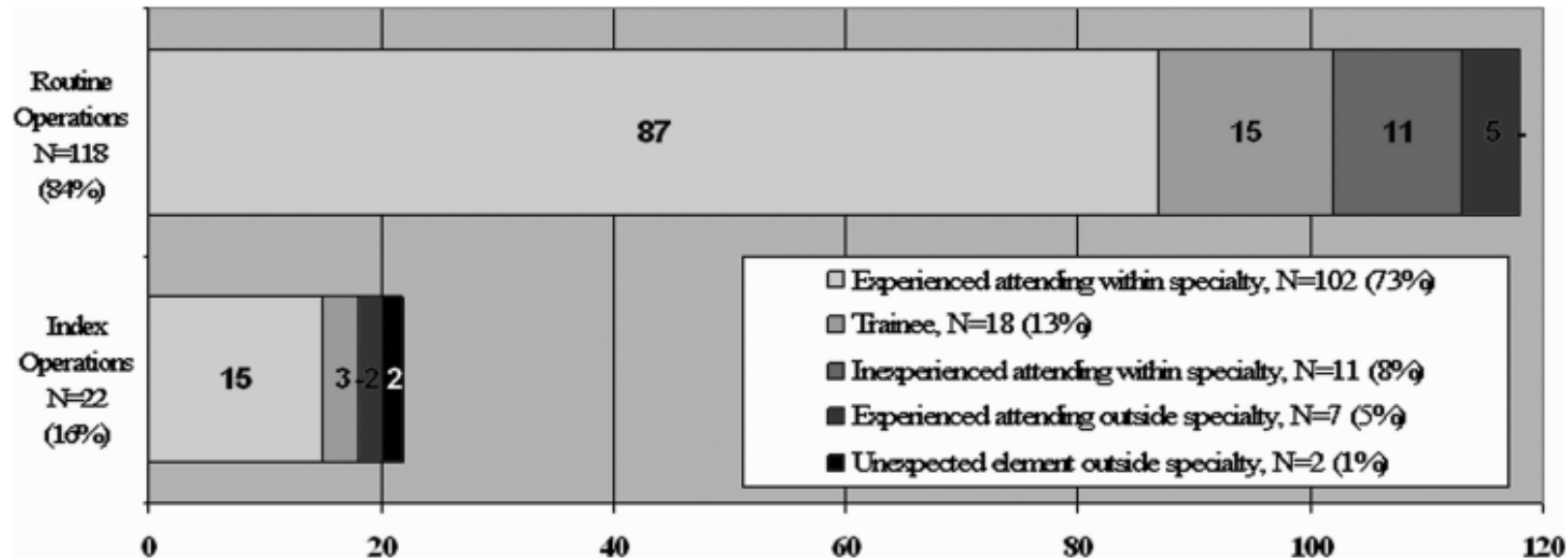


FIGURE 2. Surgeon experience level in 140 technical errors among index operations (advanced procedures requiring special training) versus routine operations. Index operations are high-complexity, subspecialty procedures for which additional training and specialization beyond a standard residency and/or fellowship is usually required. All other operations are considered routine. Surgeons' experience level was ascertained from their number of years in practice, specialty training, and volume of experience with the specific procedure.

- Technical errors usually involve experienced surgeons performing common/routine procedures
- Regenbogen, Ann Surg (2007)

System Factors Can Increase the Likelihood of Error

Table II. Incidents, by contributing factor

<i>Factors cited as contributing to error in an incident</i>	<i># of incidents</i>	<i>% of incidents*</i>
Systems factors	126	86%
Inexperience/lack of competence	75	53%
Communication breakdown	62	43%
Excessive workload/inadequate staffing	30	22%
Lack of supervision	29	21%
Fatigue	21	16%
Interruptions/distractions	21	16%
Technology/equipment failure	22	15%
Administrative complexity/bureaucracy	9	6%
Inappropriate protocol	2	1%
Ergonomics (lighting, space, etc.)	2	1%

- Systems factors—Involve interrelationships between individuals, their tools, and the environment they work in
- Systems factors contributed to 86% of errors

Gawande, Surgery (2003)

The Need for Coaching in Healthcare?

THE NEW YORKER
Oct 3, 2011

Personal Best: Top athletes and singers have coaches. Should you?

by Atul Gawande

“No matter how well trained people are, few can sustain their best performance on their own. That’s where coaching comes in.”
- Barry Blitt



The Impact of OB Team Training

BEFORE TRAINING

59 events

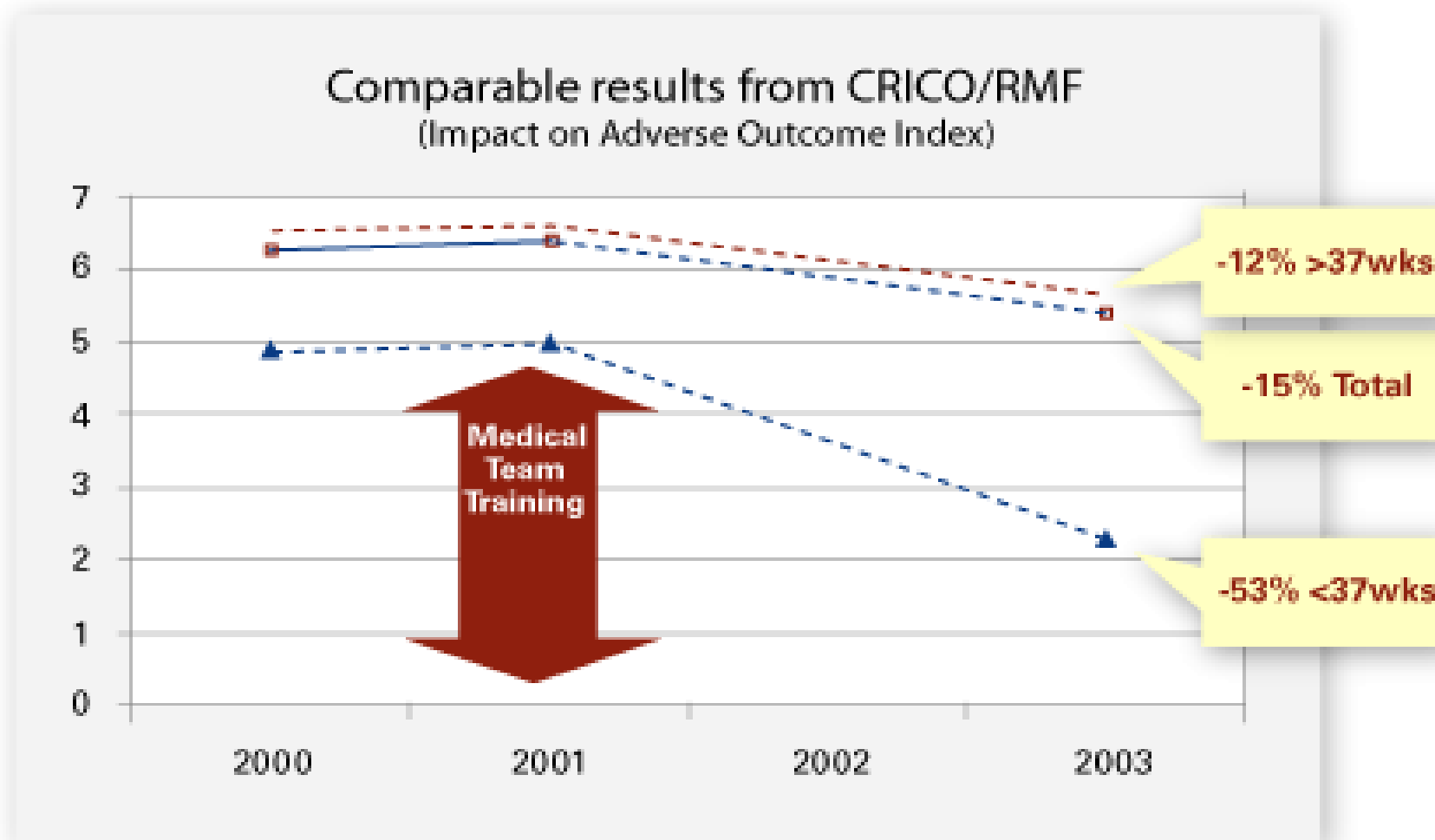
78% high-severity

AFTER TRAINING

50 events

62% high-severity

The Impact of OB Team Training...



Mann et al. Cont OB/GYN, 2006

2 Decades after the IOM Report...



- The IOM The report stated that 44,000 to 98,000 people died each year due to medical error. This, we now know, severely underestimated the true numbers
- Today we know that the number is which is more likely 200,000 to 400,000 deaths in the USA, and many millions globally.
- When we add in patient harm resulting from error, this number rises astronomically.
- Maternal Mortality crisis

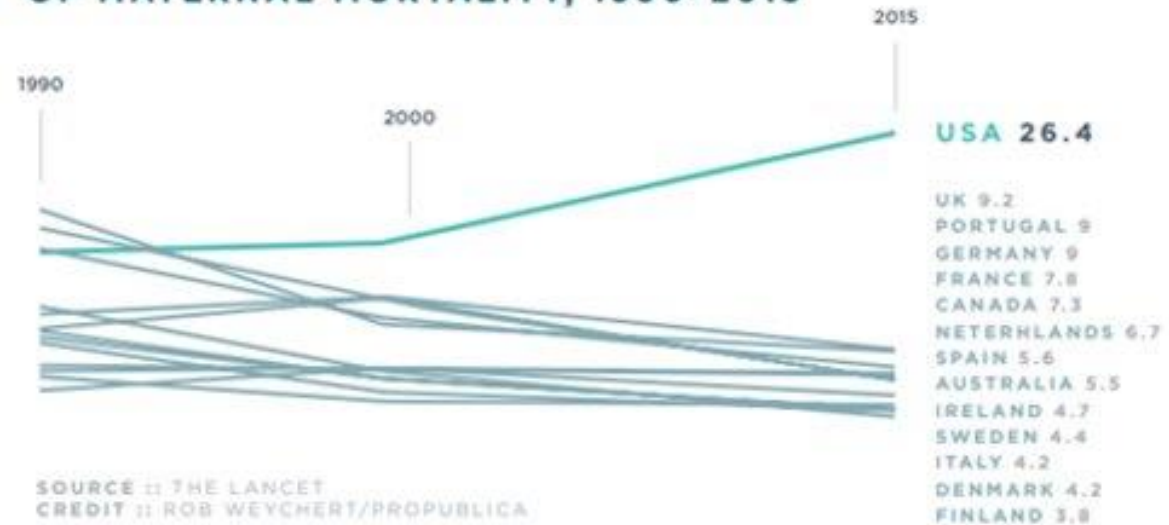
Maternal Mortality Crisis

MATERNAL MORTALITY'S NATIONAL FOCUS

A Rising Crisis

- More American women are dying of pregnancy-related complications than any other developed country
- — and is the only country where the rate is rising.

GLOBAL, REGIONAL, AND NATIONAL LEVELS OF MATERNAL MORTALITY, 1990-2015



SOURCE :: THE LANCET
CREDIT :: ROB WEYCHERT/PROPUBLICA

*Only data for 1990, 2000 and 2015 was made available in the journal.

Identifying and Reducing Variation in Care



The 5 Principles of a High-Reliability Organization

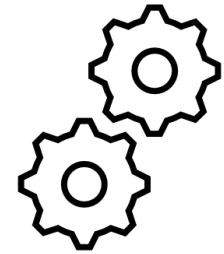
Preoccupation with Failure



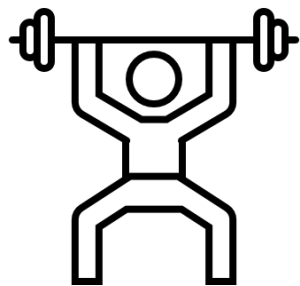
Reluctance to Simplify



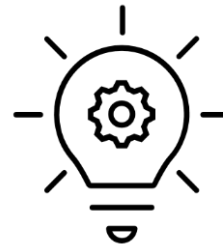
Sensitivity to Operations



Commitment to Resilience



Deference to Expertise



The Journey to High Reliability

01

REDUCE VARIATION

Standardize clinical knowledge and readiness-to-practice

Assess and personalize learning

Deliver consistent, evidence-based content

02

PERSONALIZE LEARNING

Acknowledges what you already know

Respect for your time

Uses clinical vignettes and case-based scenarios

Learners drive their own experience

03

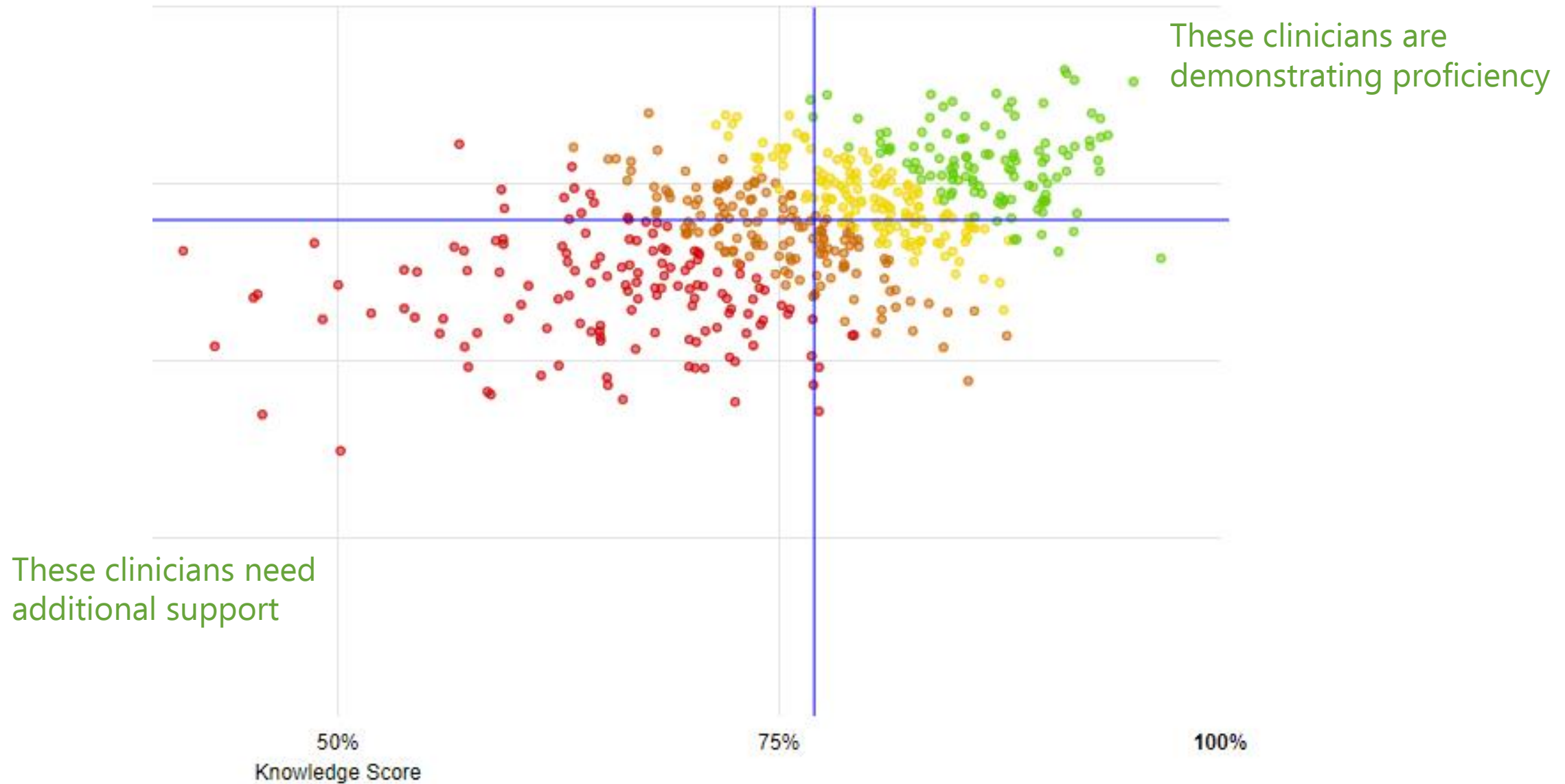
EMPOWER HIGH RELIABILITY

Creates a common vision

Promotes interprofessional teamwork and improvements

Supports a culture of continuous improvement

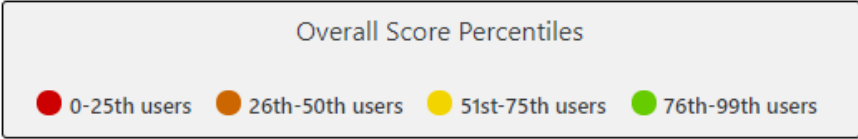
Identification of Variation



Example Scatter Plot with De-identified Data

Fetal Heart Monitoring: Nurse Baseline Data

**Nurses
Percentile Averages**
Knowledge: 52nd
Judgement: 47th



Baseline Assessment Round

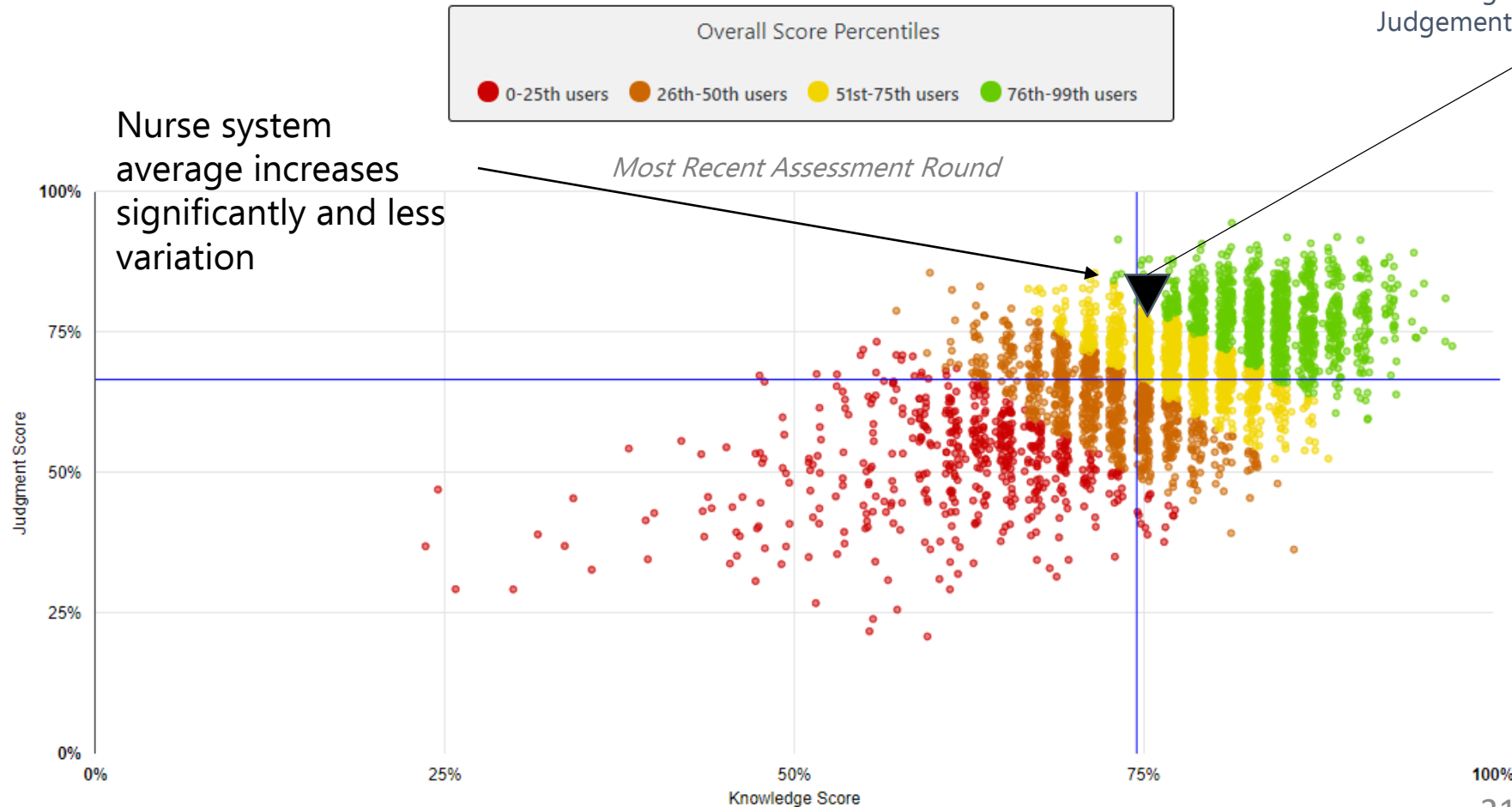


Demographic Data
Fetal Assessment and Monitoring, Nurses
N = 3424 Nurses
Knowledge 50th percentile score: 74.5%
Judgment 50th percentile score: 66.6%
Data as of 01/01/2020
Percentiles based on n = 33445 Nurses

Example Scatter Plot with De-identified Data

Fetal Heart Monitoring: Nurse Second Assessment Following Education (Personalized Learning)

**Nurses
Percentile Averages**
Knowledge: 61st
Judgement: 55th



Demographic Data

Fetal Assessment and Monitoring, Nurses

N = 3440 Nurses

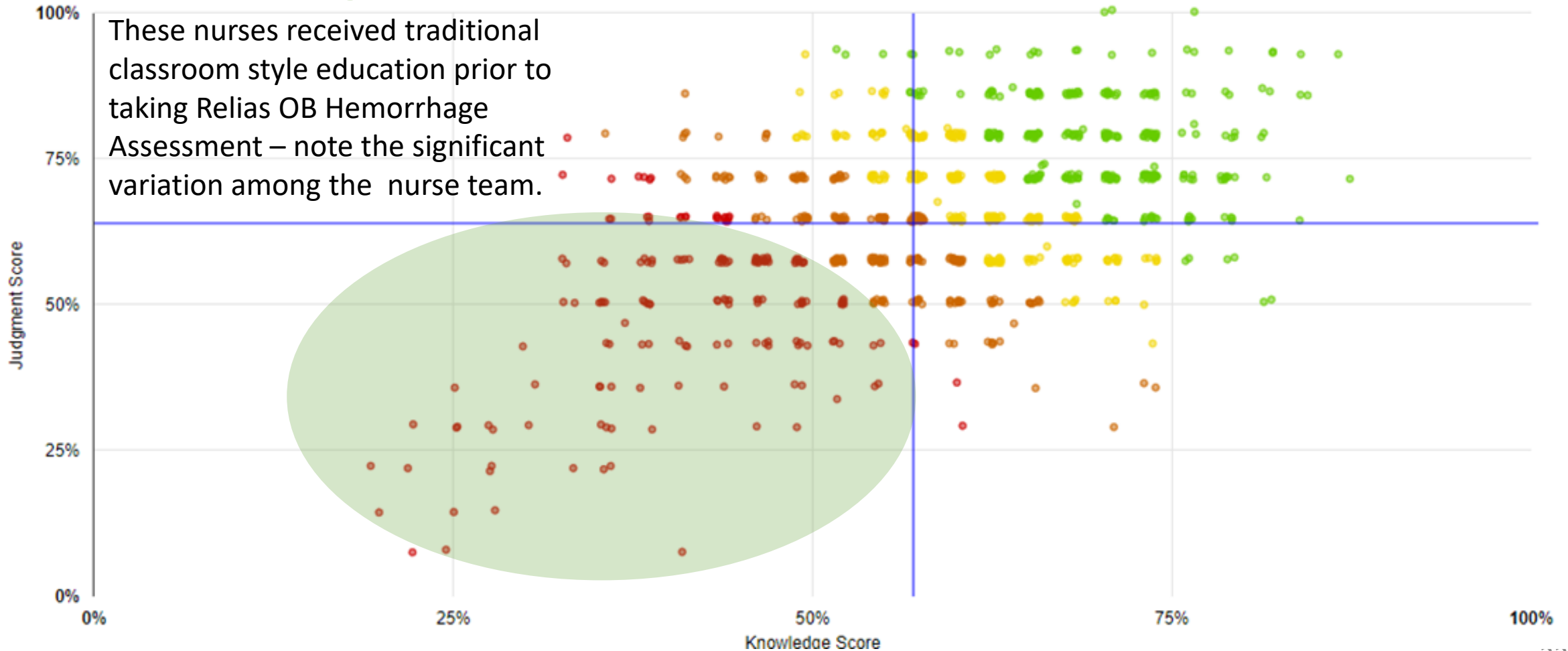
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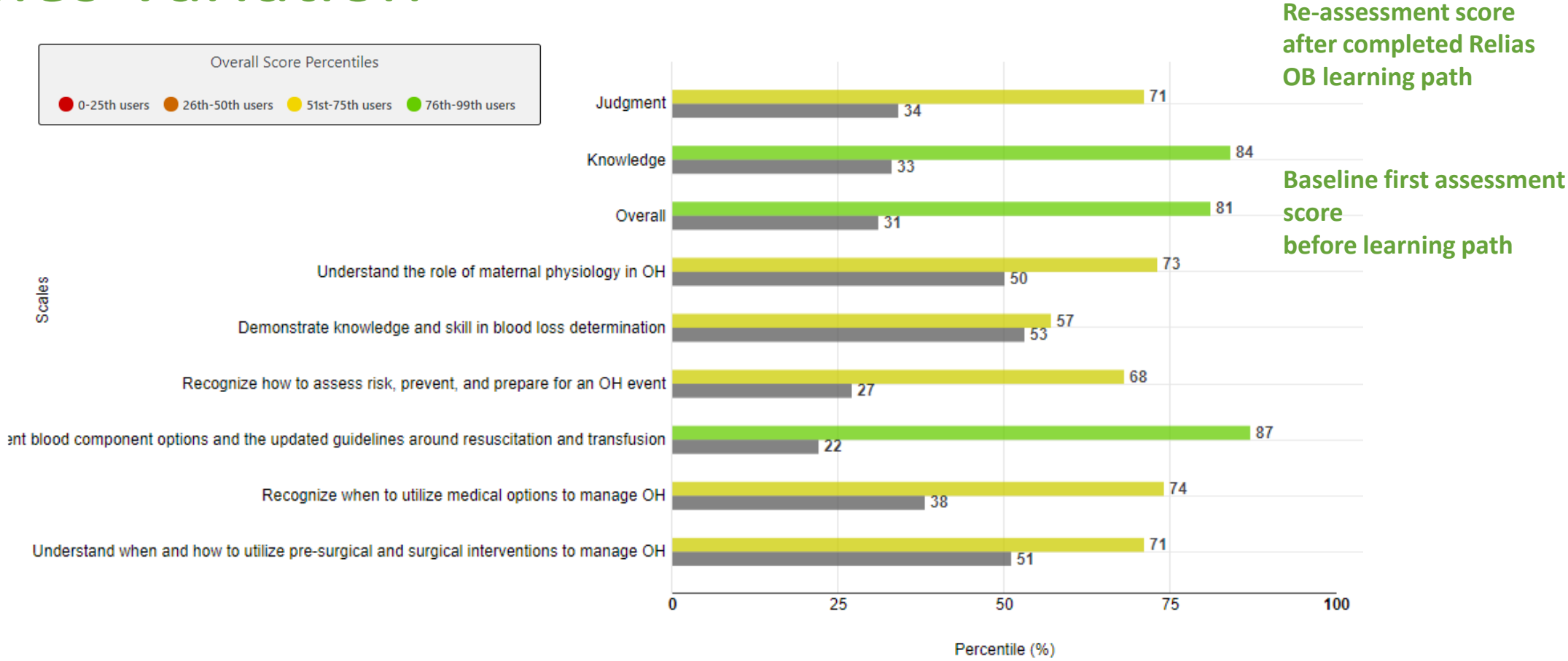
Data as of 01/01/2020

Percentiles based on n = 33445 Nurses

Accreditation Measure in Obstetric Hemorrhage: Scatterplot by User: Obstetric & Post-Partum Hemorrhage Baseline Assessment Results



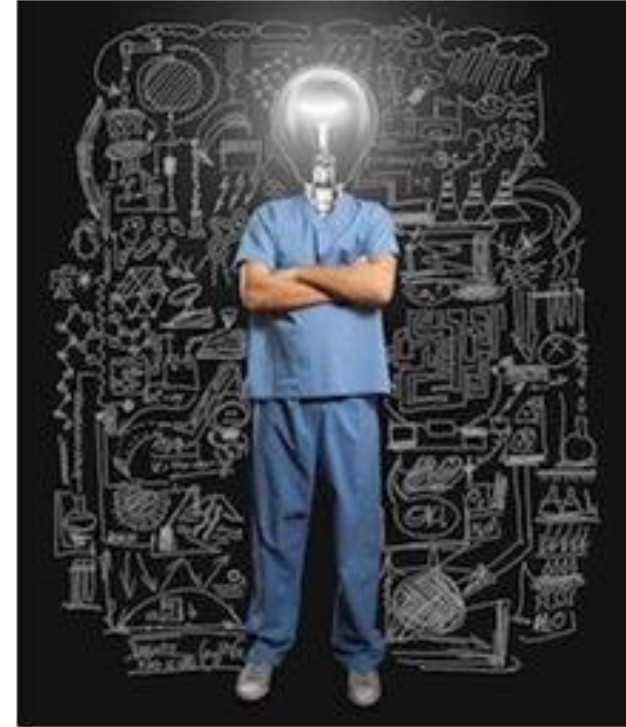
Relias OB Tracks Baseline, Improvement and Identifies Variation



Initial = 2312 Nurses vs Current 2019 = 1846 Nurses
National Peer Group N = 24046 Nurses

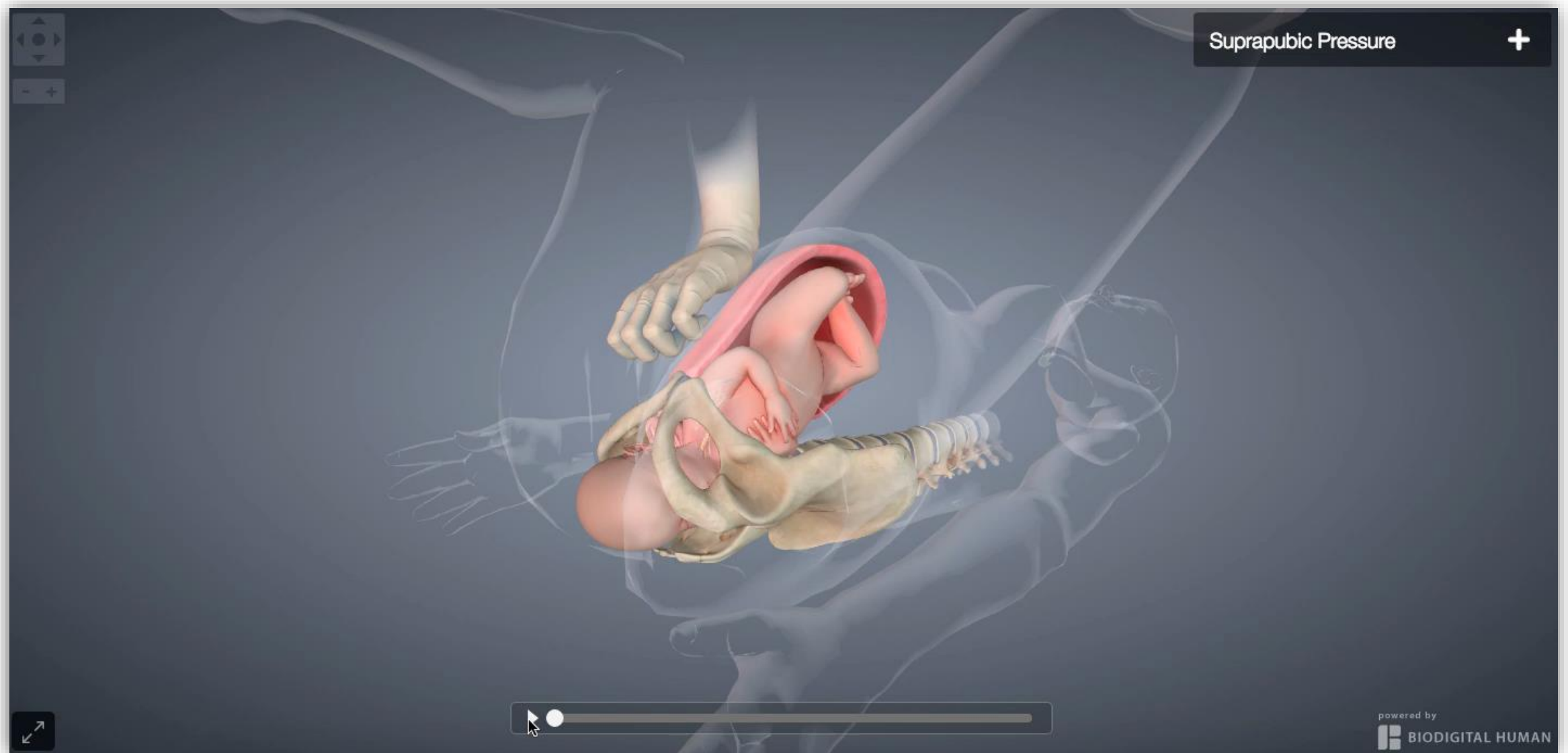
Principles of Adult Learning

- 6 Principles of Adult Learning
 - Internally motivated & self-directed
 - Bring life experiences & knowledge
 - Goal-oriented
 - Relevancy-oriented
 - Practical
 - Like to be respected
- Different Learning Styles
 - Visual
 - Auditory
 - Tactile/Kinesthetic
 - Experiential
- Knowledge is Complex & Comes in Different Forms
 - Concepts
 - Skills
 - Judgment



"Knowledge is not like a hard drive-it is a process of building circuitry in the brain."
- Mike Connell, Learning Expert

Creating a Common Vision/Shared Mental Model



Putting it All Together: Two Case Studies

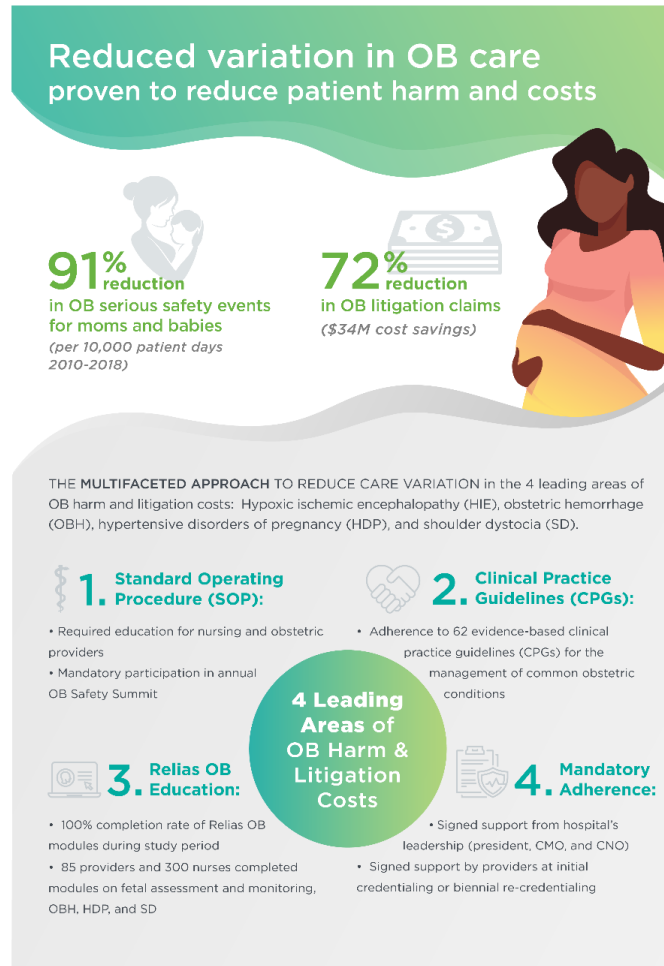
Publication on OB Improvement

Journal of Patient Safety and Risk Management

October 2019 edition

Authors: Nancy Cossler, MD, Peter Pronovost, MD, PhD, et.al.

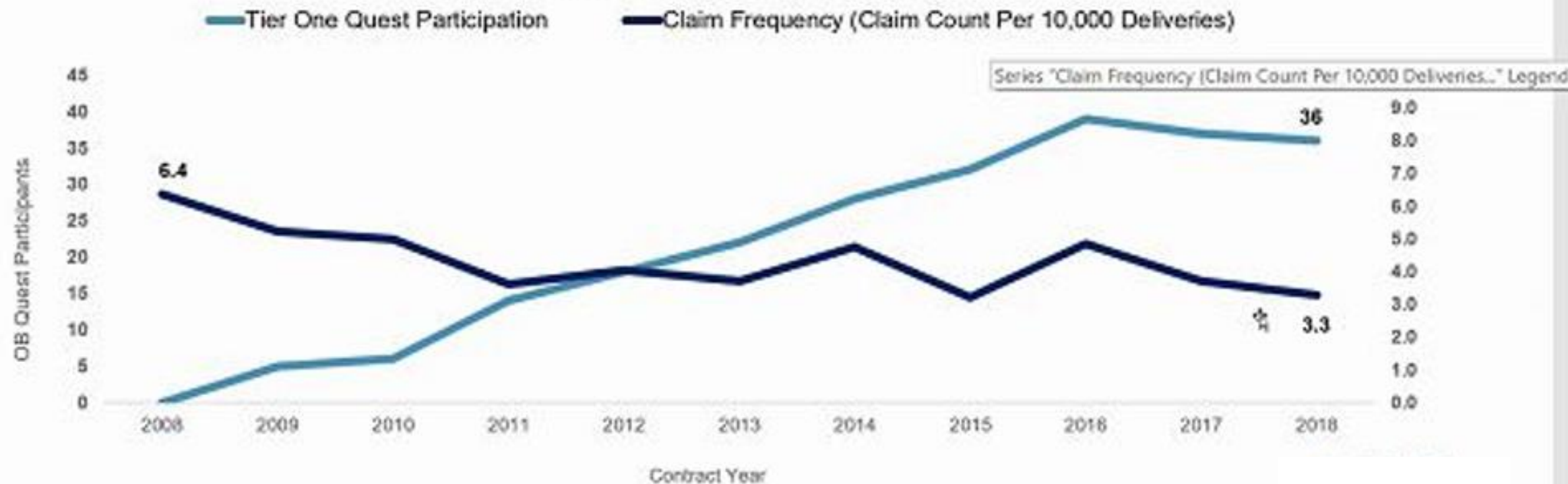
Titled:
“Malpractice Litigation, Quality Improvement, and the University Hospitals Obstetric Quality Network”



RELIAS
OBSTETRICS

OB Claim Frequency Dropped by 50% since Inception of OB Quest

OB Claim Frequency and OB Quest Participation
(Reduced from 8.4 Per 10K Deliveries to 3.3 or 50%)



THANK YOU