

Leading High Reliability Organizations in Healthcare

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Author/Founder

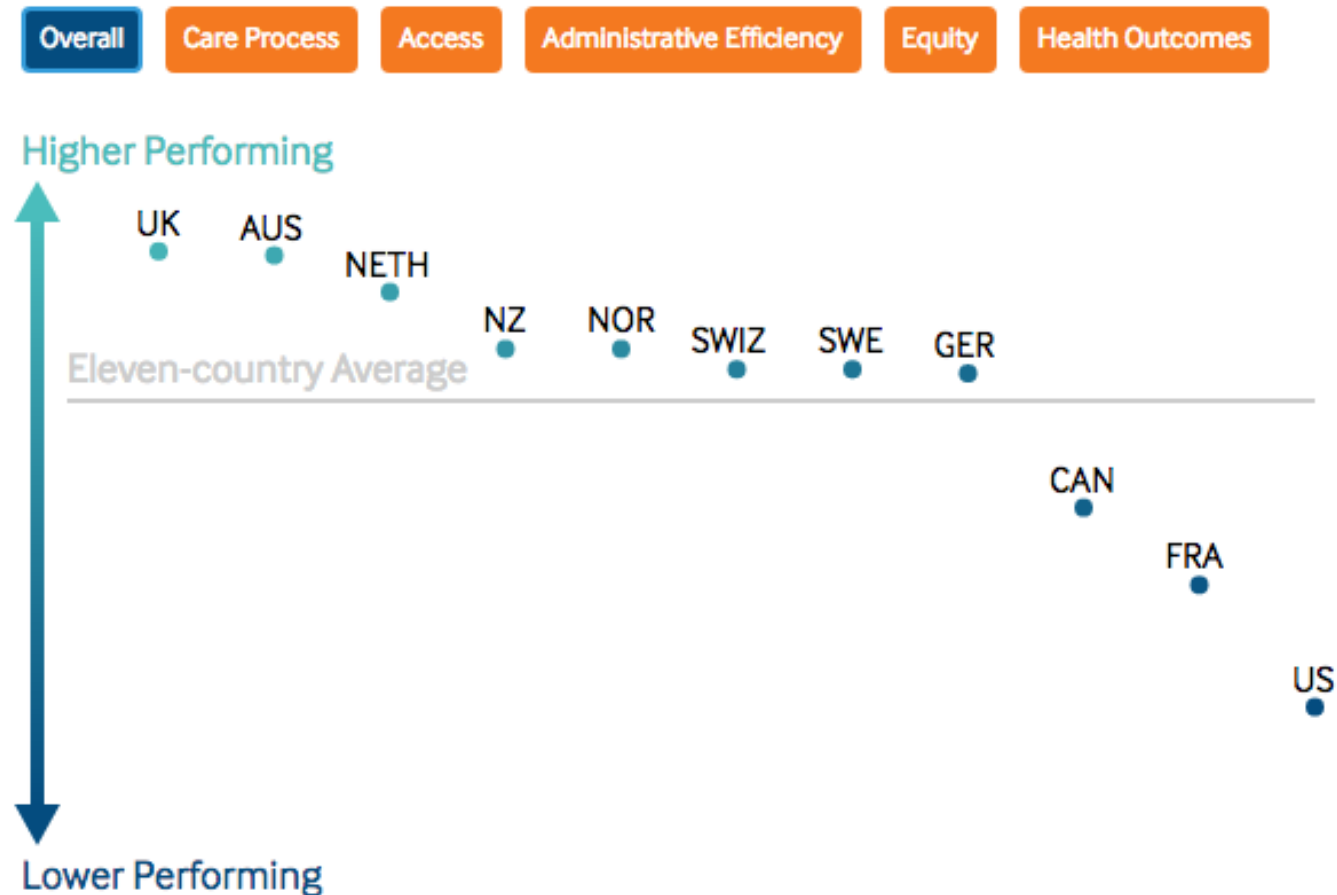
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Baseline Performance – Healthcare Compared

Exhibit 3. Health System Performance Scores



Note: See [How This Study Was Conducted](#) for a description of how the performance scores are calculated.

Source: Commonwealth Fund analysis.

Organizations Excelling in Reliability



HOW IT CAN HELP SAVE YOUR LIFE



Powering Business Worldwide

PRODUCTS & SERVICES CUS

LEC

arc faults and electrical safety



Sustainability

HEALTHCARE



- Even if you're hurt and can't respond, the Advisor knows your exact location through GPS technology and can direct emergency responders to the scene













Payers are driving value by
redistributing* \$1.9B in reimbursement
through Value-Based Purchasing




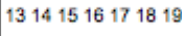
Today's Lesson: How to Become Paul

Reimbursement is Shifting to Reliability = Clinical Outcomes and Value

	Compliance-Based Payments	Penalty-Based Reductions			Incentive-Based Payments
WHAT	 Inpatient Quality Reporting	 Hospital-Acquired Conditions (HACs)	 Readmissions	 Value-Based Purchasing (VBP)	
HOW	 Hospitals that submit data, including HAI data, are eligible for Medicare's annual payment update (APU).	 Lowest quartile of hospitals that fail to avoid preventable conditions (e.g., infections) receive a penalty.	 Hospitals with excess readmissions are penalized. HAIs linked to a 60% increase in 30-day readmissions.	 <i>HAIs directly affect your score.</i> Low-performing hospitals subject to reductions.	 High-performing hospitals eligible to earn money.
FINANCIAL IMPACT	 1/4 reduction in your APU	1% reduction	Up to 3% reduction	Up to 2% reduction	Earn up to 2+%

Source: CALHIIN

How Much Is At Stake for Your Organization?

						Value-Based Care Report		Overall Star Rating	1	100022
VALUE-BASED PURCHASING (VBP)						FY2019 Score (% of Possible Points for Domain)				Net change: Annual reimbursement reduction or incentive
Person and Community Engagement Domain Score						16				\$ (2,650,343)
1. Base Score						2	HCAHPS Summary Star Rating	2		
2. Consistency Score						14				
Clinical Care - Outcomes Domain Score						10				
Clinical Care - Safety Domain Score						13				
Efficiency Domain Score						0				
Fiscal Years		2013	2014	2015	2016	2017	2018 FCST	VBP Multiplier by Year		
VBP Total Performance Score		36.74	35.87	27.3	31.6	20.2500	13.39		9.6797	
VBP Multiplier		0.99675	0.99690	0.99558	0.99786	0.992440	0.9877434		0.9867	

Then, Paul can lose it all in readmission and hospital-acquired conditions penalties



The cost of poor reliability comes to healthcare

Becoming a High Reliability Healthcare Organization

- What is reliability?
- How bad is it today?
- What causes poor reliability?
- What improves it?
- How do we sustain it?

HIGH RELIABILITY is:

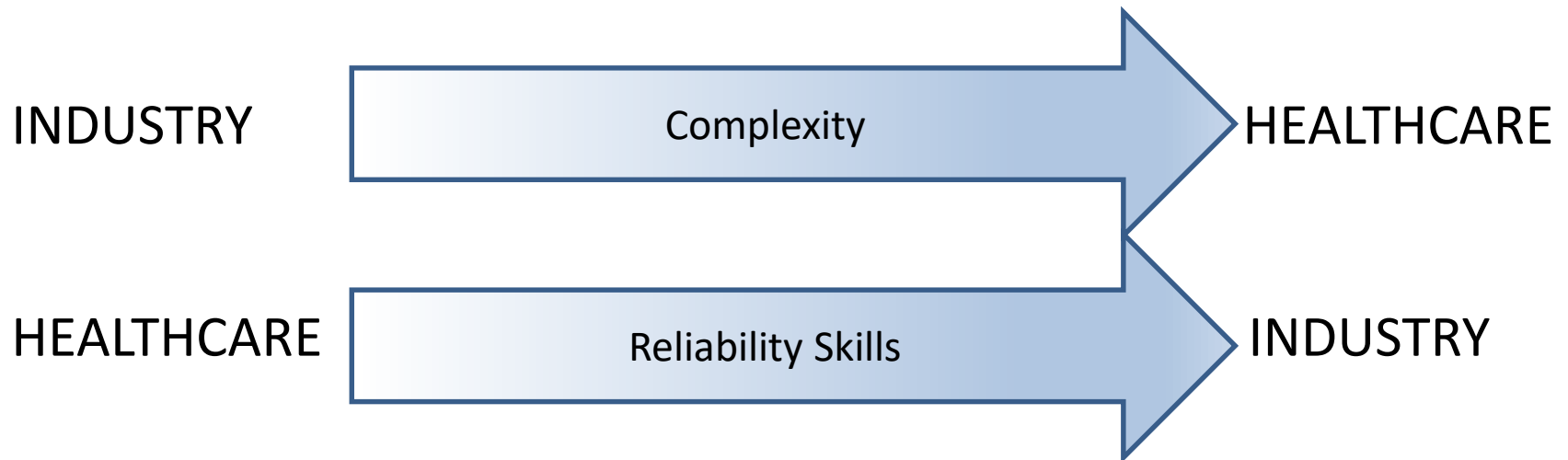
**CAPABILITY IN ACHIEVING THE
EXPECTED OUTCOME**

THROUGH TIME

High Reliability is Not...

- Just about safety
- Six wrong site surgeries every week
- Patient and caregiver satisfaction below national median
- Readmissions being big business for you
- Entertaining your State Inspectors

Comparing Complexity and Reliability Skills



If this is true, how are you going to compete and win the margins to sustain your mission?

Required: Systems Approach to High Reliability

Systems Engineering

Reliability Engineering

Expected outcome for the expected time

Measured using the probability of survival or failure and commonly cost of failure or time between/until failure

Safety Engineering

Expected preservation of life and environment

Measured using accidents, close calls, catastrophic failure (Loss of life or equipment)

High Reliability

Step 1: Safety Engineering - Leadership's Role

“I was absolutely amazed that the NASA people I argued with against the launch...

didn't even mention to other members of the mission management team that there was a concern...”



High Reliability Healthcare

It may seem a strange principle to enunciate as the very first requirement in a hospital that it should do the sick no harm.

Florence Nightingale

Step 2: Reliability Engineering
principles taught to leadership and
staff (Yellow – Master Level)

High Reliability Organizations Utilize 3Ms:

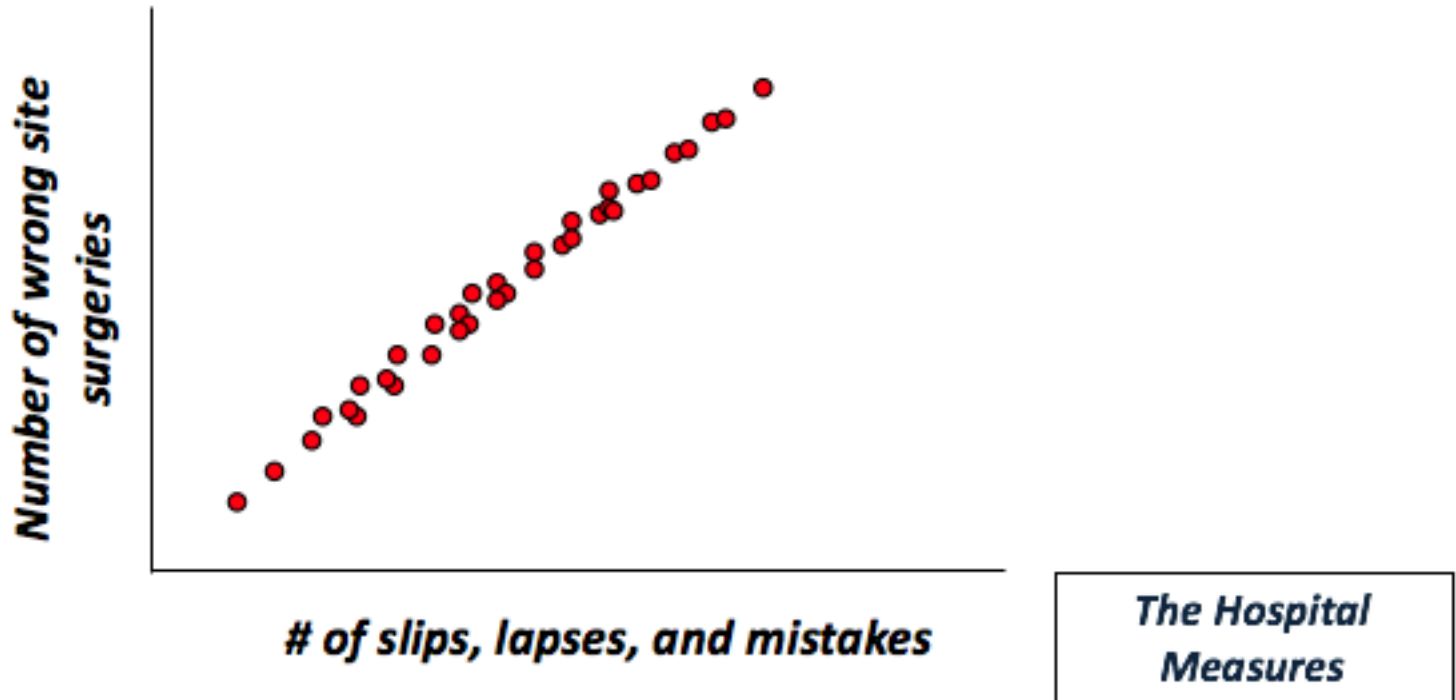
1. Measure daily

2. Manage to that measure

3. Make it easy to do the right thing

Utilize the 3Ms of Performance Reliability

1. Measure the Process - Daily



Failure Mode and Effects Analysis the Right Way & the Healthcare Way

HRO Starts FMEA

Healthcare Starts FMEA

Conceptual Design and Approval

Prototype

Piloting & First Assembly Dry Run

“Open the Door”

Planning and Definition

Service Design and Development

Process Design and Development

Quality & Process Validation

Pilot – Controlled Variable

Pilot – Stress test

Pilot – All Variables “Full Dress”

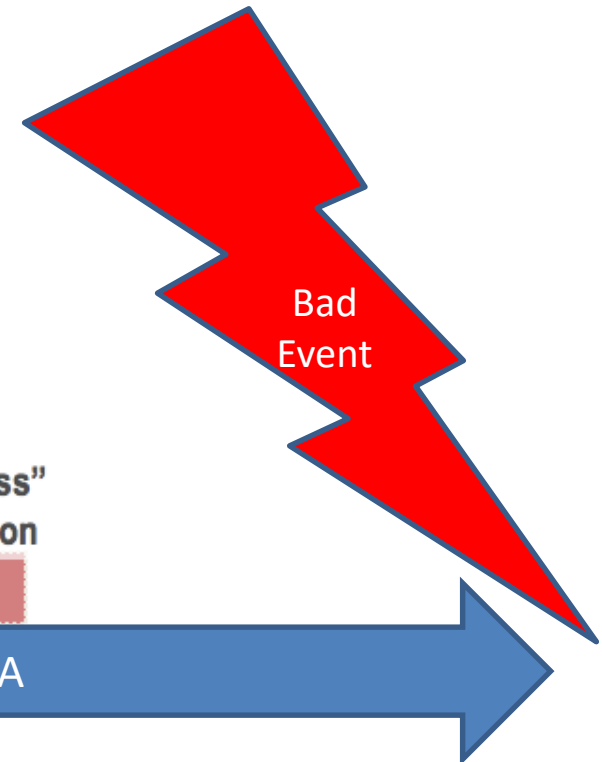
Full Production

System FMEA

Design FMEA

Design FMEA

Process FMEA



2. Manage to the Measure – Every Day



Don't accept failure

3. Make it easier for teams to solve problems



“Circulate among followers consistently,”

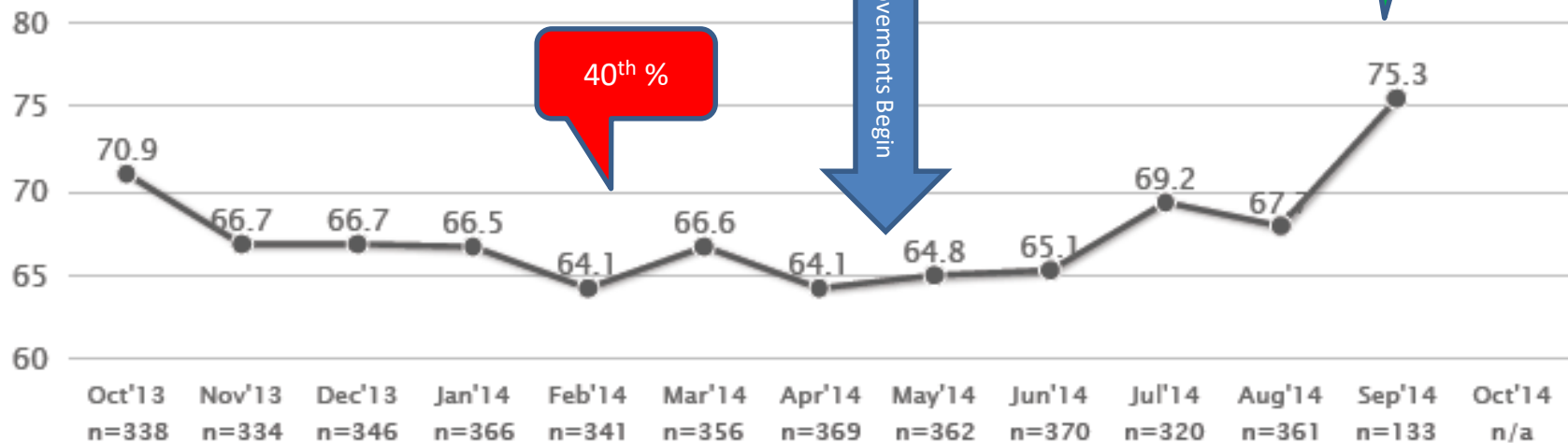
Abraham Lincoln

The movie, “Lincoln,” Directed by Steven Spielberg

What Can Be Achieved

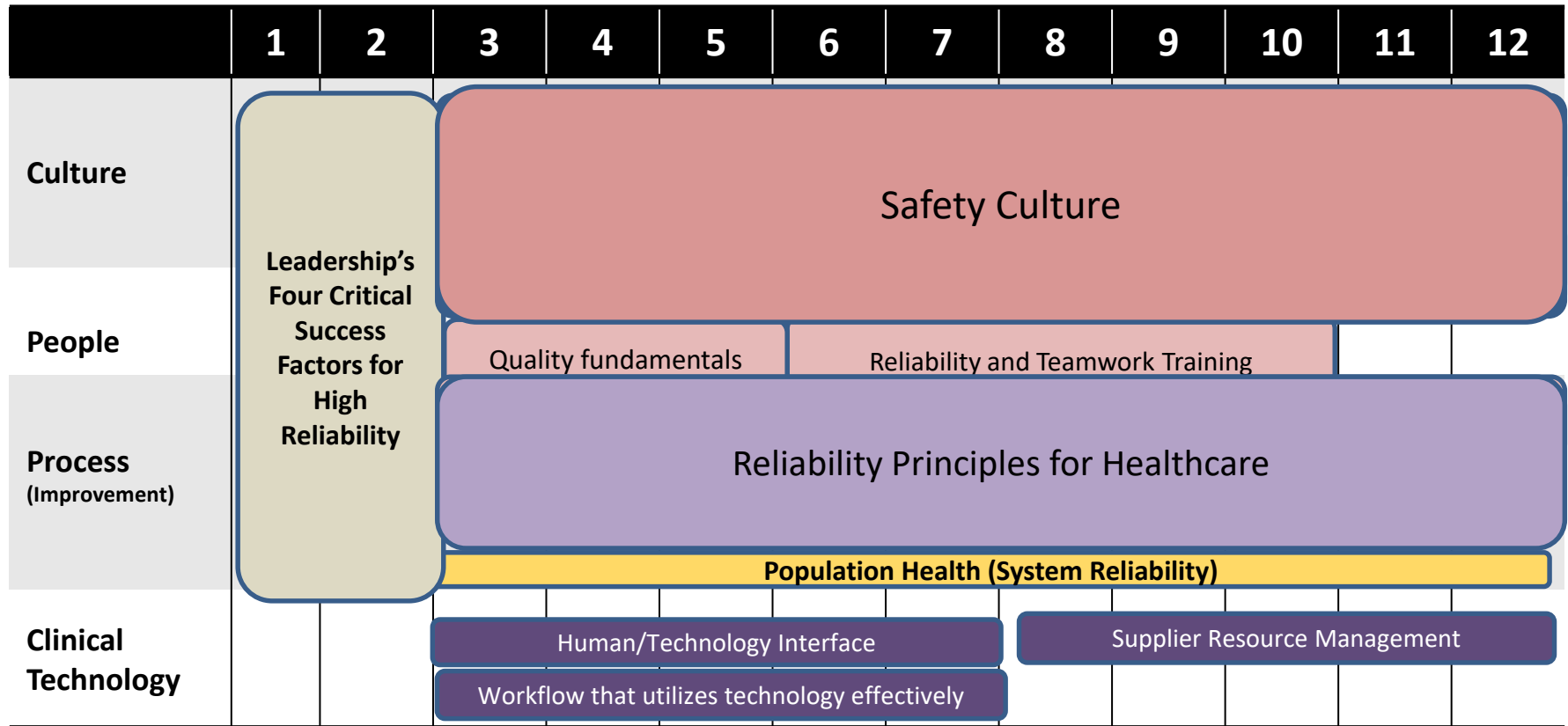
CAHPS - Response of Hosp Staff

Inpatient
All My Sites
Top Box by Discharge Date
Domain - CAHPS - Response of Hosp Staff (CMS View Applied)




- Benchmark for clinical outcomes – Center of Excellence
- Top 5% in Value-Based Purchasing with Zero Penalties
- Leads the market and wins the margins

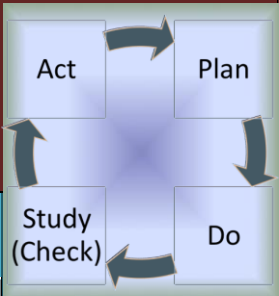
How to Build Reliability Skills - Example of a High Reliability Training System



Get a Roadmap to Improve Reliability in Healthcare

Roadmap to High Reliability

		Measure					Manage the measure					Improve and Design					Control		Reinforce		
Utilizing 3Ms		Define the Issue					Analyze/Validate contributing factors					Achieve capability and stability									
Lean Six Sigma		What does the customer value?																			
Leading Change		Prepare for change/Train/Engage/Enable/empower					Explore/Together					Experiment/Explore/While building consensus with stakeholders					Train/Enable/empower/Hold/Accountable		Celebrate		
Customer/Operational/Community/Institutional	Key Questions	What's our purpose? Issue? Defect?	Who are the customers, who are involved?	What's the Voice of the Customer? Design Criteria?	What's the demand look like?	Primary? Improving quality or productivity? Data analyst? Potential?	Can't measure it (break it)	Why process stable?	Current process capability (defect meeting customer's needs)?	What are the validated root causes, 2 contributing factors?						Best outcome measure?	Countermeasure successful?	Is this the right way?	Will process continue? Reliability? Codeability? Accountability?	All risks managed? Success? High?	Reinforced? Improvement? Customer? High? Stream?
	Tools	Chart/Template	Stakeholder Analysis/Engagement/Resistance	Survey/Quality Function Deployment (QFD)/Ishikawa Matrix	Demand state/ front customer/ Last time.	Main Street/ Avenue/ In the Roadmap	System Analysis (MSA) (Ishikawa) RAG, Risk/Agreement Analysis	Statistical Process Control (SPC) (Result management)	Current State/ Capability/ Characteristic/ and key variables/ Student/ Quotient/ Equi/ Ppk/ Sigma level	Validating root causes/ Contributing factors/ Hypothesis/ Test/ Confidence Interval/ Testing/ Phasing						Comparison/ Ideas/ Design/ Import/ Experiments	Plot/ Countermeasure/ Design/ Experiments	Standard/ Work/ Instruction	Measure/ Frequency/ Stop/ Defects/ Occurring/ Stop/ Line	FMEA/ Visual/ Management/ SPC/ Risk/ Safety/ Teams/ TPS/ And/ at/ Control/ Plan	Recognition/ Benefits
Customer/Operational/Community/Institutional	Key Questions																				
	Tools																				
Production/Operational/Community/Institutional	Key Questions																				
	Tools																				
Production/Operational/Community/Institutional	Key Questions																				
	Tools																				
Sponsor/Champion/Operational/Community/Institutional	Key Questions																				
	Tools																				



Acronyms and Meanings

- CI Continuous Improvement
- VSM Value Stream Map
- SIPOC Supplier, Input, Process, Output, Customer Map
- SPC Statistical Process Control
- JIT Just-In-Time
- QFD Quality Function Deployment
- FMEA Failure Mode & Effects Analysis

Available free at www.rpmexec.com

What is your next step to reliability?