Patient Safety: It's Not Rocket Science James P. Bagian, MD, PE Director, Center for Health Engineering Department of Anesthesia University of Michigan Founding Director, VA National Center for Patient Safety jbagian@umich.edu

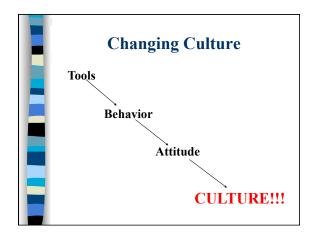
IOM Goals Safe Timely Efficient Effective Equitable Patient-Centered

Patient Safety - The Problem Not New 1964 - Schimmel (Ann. Int. Med.) 1981 - Steel (NEJM) 1991 - Harvard Practice Study (NEJM) 1995 - Family Practice MDs (JFamPrct) 11/99 - IOM Report Deaths due to Preventable Adverse Events greater than MVA, Breast Cancer, or AIDS

Where Healthcare Was/Is	
■ Cottage Industry Mentality	
Virtually Total Reliance on:	
- Professional/Individual Responsibility	
- Individual Perfection	
- Train and Blame	
■ Little Understanding of Systems	
Relative to People and Processes	
- Ignorance vs Arrogance	
Culturally Different!!!!	
Typical Approach	
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■ New Policies, Regulations,Reporting	
Systems, Training	
Good First Step But	
Lack of Systems Insight	-
- Superficial Solutions (?Answers)	
- Inadequate Follow-Up	
Lost Opportunity	
Goal Selection	-
Clear Not Confined With Total	
- Not Confused With Tactics	
Compelling Relevance To Those Who Must Take Action	
Relevance 10 Those who must take Action Early Stakeholder Involvement in Goal Definition	
Reinforced By Leadership	
Visible Participation	
All levels – not hierarchical	

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Typical Missing Features	
Clear Understanding of Goal	
■ Preventive Approach	
■ Field Understanding & Buy-In	
Systems Approach	
■ Sustainability	
■ Trust/Culture of Safety	
Safety System Design	
■ High Reliability Organizations	
■ Role of Reporting	
Learning or Accountability	
■ Systems-Based Solutions	
– Patient Centered – DUH!!!!	
■ Importance of Close Calls	
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Guiding Principles For Patient]
Safety System	
Learning, Not Accountability System	
Reporting System Characteristics Non-punitive - Confidential and De-identified	
Internal and External	
Importance of Close Call	
Reports Should Emphasize Narratives	
Interdisciplinary Review TeamsAbout Identifying Vulnerabilities NOT	
Statistics	
Prompt Feedback	
Open to All Comers	

Safety & Human Error: Challenges	
 Healthcare Views Errors as Failings Which Deserve Blame - Fault Train and Blame Mentality Blind Adherence To Rules Corrective Actions Focusing on Individual No Blood No Foul Philosophy 	
Safety & Human Error:	
Cornerstones	
 People Don't Come to Work to Hurt Someone or Make a Mistake Must Keep Asking "Why?" 	
Patient Safety - Strategy	
 Invite People to Play Problem Recognition Remove Barriers (Punitive, Difficulty, Black Hole Effect) 	
Learning NOT Accountability System Importance of Close Call Blameworthy Definition Training (Middle thru Top Management)	
 Training (Middle thru Top Management) Leadership At All Levels Human Factors Approach Tools That Guide Behavior 	





Causation/Actions: Who vs.What &Why		
■ Who		
- 'Whose Fault Is This?'		
Actions focused on correcting individual		
- 'Corrects' only after problem occurs		
 Limited scope of action and generalizability 		
■ What & Why		
 Actions focus on systems level causation 		
– Widespread applicability		
 Stronger preventive strategy 		

Human Factors Engineering and "Actions" Weaker Warnings and labels (watch out!) ■ Training (don't do that) Procedure changes (work around that) ■ Interlock, lock-in, lock-out, etc (let me design it so you can not do that - forcing functions) Stronger Is there one right action??? Communication ■ Communication Identified As Principal Factor >70% Of RCAs Medical Team Training (MTT) Developed To Improve Results - Crew Resource Management Principles AND - Briefings and De-Briefings Association Between Implementation of a Medical Team Training Program and Surgical Mortality Julia Nedy, RN, MS, MPH Peter D, Mille, PhD, MS Yimong Young-Xu, SeD, MA, MS Beian T, Carray, MD Priscilla West, MPH David H, Berger, MD, MHCM Lisa M, Mazzia, MD Dougles E, Paull, MD James P, Bagian, MD, PE

Weily et al. Assoc. Between MTT and Surg Mortality. JAMA. 2010;304(15):1693-1700.

MTT Impact ■ N=108; 74 MTT, 34 Control ■ MTT 50% greater decrease in mortality than Control ■ Dose-response – - 0.5 deaths/1000 procedures less per quarter p=0.001 - 0.6 deaths/1000 procedures per increase in briefing/debriefing p=0.001 What Have We Learned? Actions needed well before entering the - Timeout period is too late in many cases - Systems-based approaches beyond individual Involvement of all disciplines Structured communication that drives discussion - Briefings & debriefings, Medical Team Training essential **Action Assessment** ■ Characteristics of Actions - Temporary vs. Permanent - Procedural vs. Physical Action Evaluation - Process - Outcome

 Management Involvement Formalized, Not Ad Hoc Regular Part of Agenda For All Levels Safety Permeates the Fabric of All Activities 	
Relentless	
Sustainable Systems Approach Problem Identification Clear Goal Definition Involvement Of All Sectors Identify Systems Influences Identify Systems Controls Identify Constraints Critique – Go To Worst Critics Early On Pilot – Volunteers First Then Others Evaluate	
Essential Elements For	
 Sustainable Improvement Appropriate Goal Identification & Selection Transparent Prioritization Identification of Real Causes System-based Countermeasures That Address Underlying Causes Stronger Actions That Are Explicit Measurement of Actions Process & Outcome 	

Leadership -	
What Can You Do Right Now?	
■ Lead by Example	
Relentless Drumbeat	
■ Eliminate 'Whose fault is it?'	_
Encourage Skepticism	
- Devil's Advocate is Valued	
 Distinguish Real Priorities From Official Priorities 	-
■ What Happened?, What Should Have	
Happened?, What Usually Happens?	-
Part of Every Agenda	
Claring Theoryton	
Closing Thoughts	
■ Not About Errors!!!	
Counting reports is not the objective,	
identifying Vulnerabilities <u>is</u> – Hope they increase	
-Analysis, Action, & Feedback	
are the key	
Prevention NOT Punishment	
Cultural change is the key – takes time	
Safety is the Foundation	
Upon which Quality is Built	