

The Quality Colloquium at Harvard University

Pre-Conference Symposium Patient Safety Officer Certificate Training

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Sunday, August 19, 2007

Our Aim

- The purpose of the Pre-Conference Symposium on Patient Safety is to give participants the understanding and tools necessary to conduct state-of-the-art clinical practice improvement projects and help direct the patient safety program at their organizations

Learning Objectives

- By the end of this Patient Safety Officer Training, participants will be able to
 - Summarize the current state of safety
 - Translate national research into actionable improvement activities in his/her local setting
 - Identify key safety challenges
 - Use quality improvement methods to design solutions that address clinical as well as non-clinical processes
 - Create a safety plan that will outline key activities for local implementation

What's required?

- There are 4 required elements
 - Pre-course reading (6 hours)
 - The Pre-Conference Symposium on Patient Safety (6 hours)
 - Select elements of the Harvard Colloquium meeting (10 hours)
 - Post meeting on-line assessment (1.5 hours)

What's required?

- At the end of the course, participants will have 90 days to complete the on-line assessment module
- Completion of the 4 elements of the training will earn the participants a certificate of Patient Safety Officer training completion

Today's Agenda

- | | |
|--------------|---|
| 12:30 – 1:00 | Introductions and Overview of Session |
| 1:00 – 1:45 | Mental models and framing |
| 1:45 – 2:00 | Break |
| 2:00 – 3:00 | Background on Patient Safety and Core Curriculum |
| 3:00 – 3:30 | Overview of Patient Safety Tools and Methods of Analysis |
| 3:30 – 4:00 | Managing an Adverse Event: The Aftermath
Small Group Exercise:
Conducting a Root Cause Analysis |
| 4:00 – 4:15 | Break |

Today's Agenda

- 4:15 – 4:45 Disclosure of Adverse Events: What Do You Do When Bad Things Happen?
- 4:45 – 5:30 Applied Statistics and Data Analysis Tools
- 5:30 – 6:00 Improving Safety, Implementing Change
- 6:00 – 6:30 System and Organizational Aspects of Safety
- Small Group Exercise – Mapping the Pre-Conference Patient Safety Symposium to the rest of the Colloquium sessions
- 6:30 – 6:45 Concluding comments, questions and Post Test logistics
- 6:45 Adjourn

Introductions

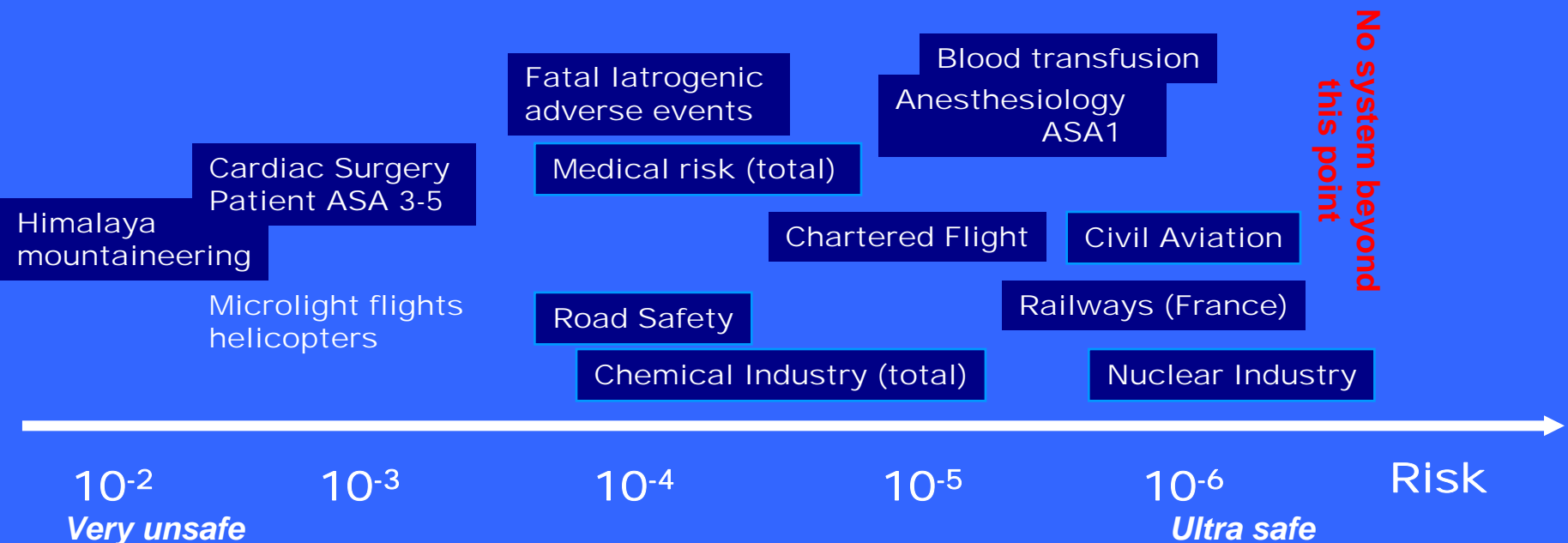
- Introduce yourself to your neighbors
 - who you are, where you from, your day-job, and your expectations of this session
- We will cull expectations from the group

Who Are We?

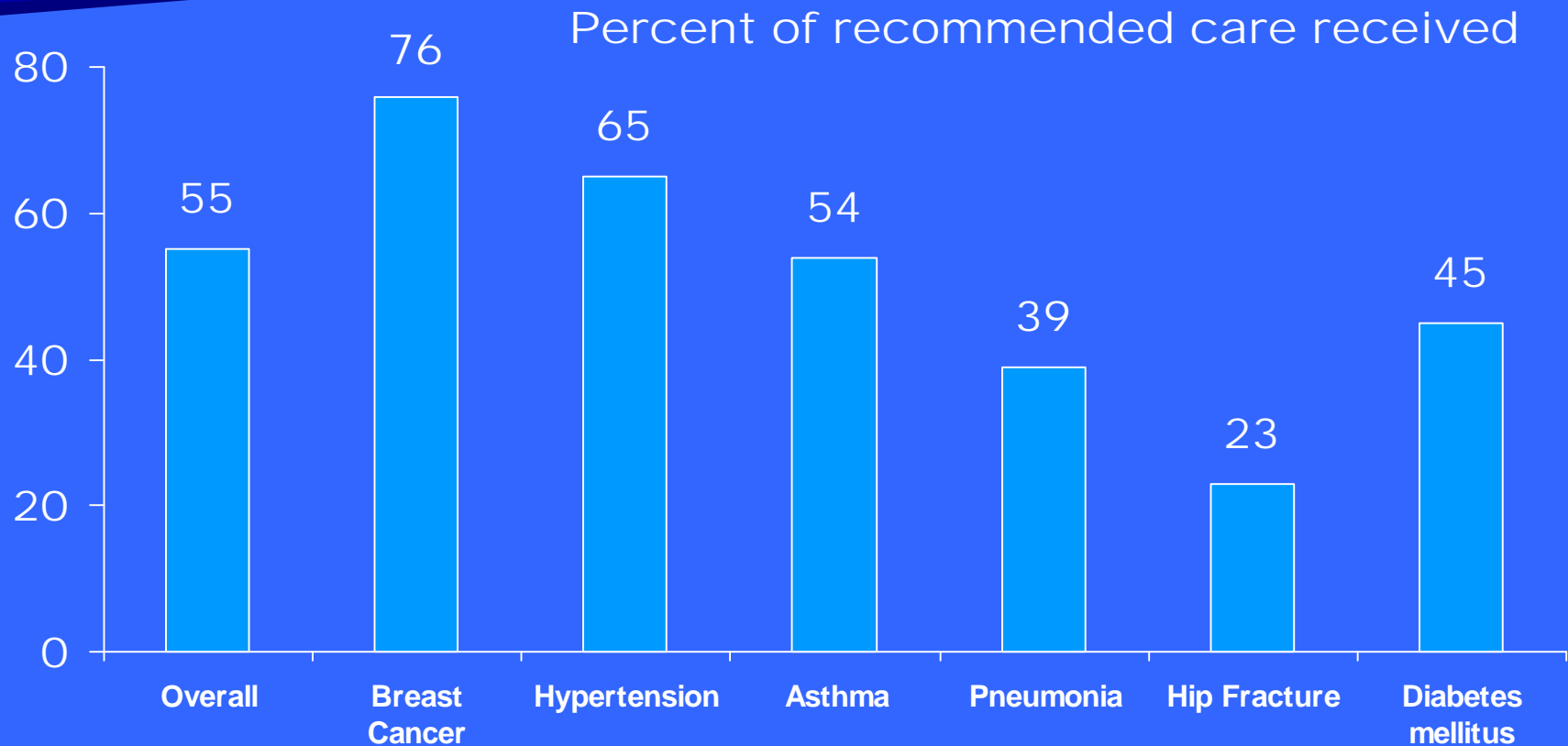
- We are an overloaded system
- We cannot keep up with complex diagnostic and therapeutic technologies
- We have not changed workflows and roles in the past couple of centuries
- We have placed most emphasis on sickness control, not on health promotion
- We face the same challenges everywhere, but are tackling them independently

Adverse Event Rates in Healthcare

Amalberti, R, Auroy, Y, Berwick, D, Barach, P. Five System Barriers To Achieving Ultra-safe Health Care. *Annals of Internal Medicine*, 2005;142:756-764.

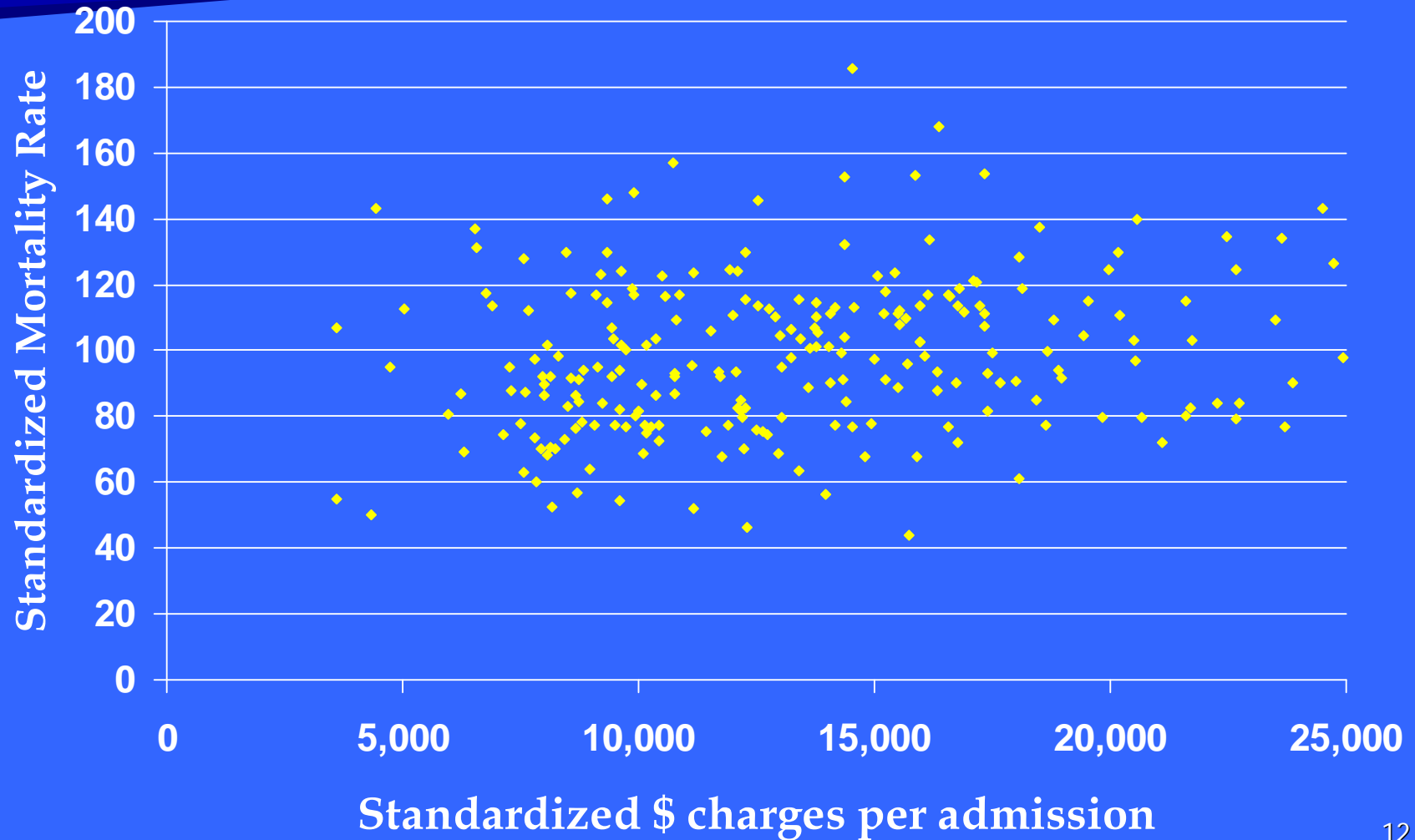


U.S. Adults Receive Half of Recommended Care



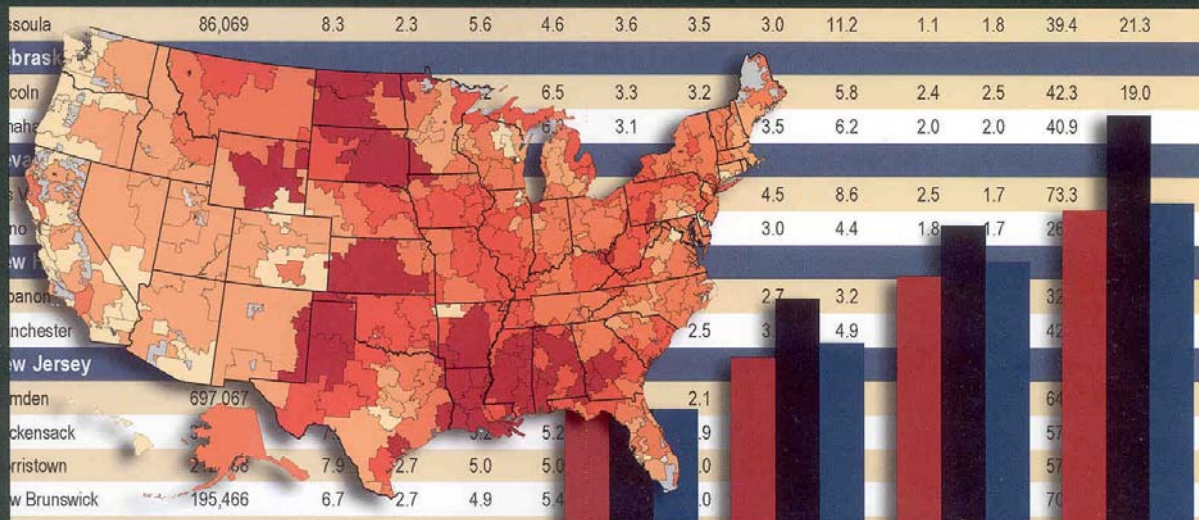
Source: McGlynn et al., "The Quality of Health Care Delivered to Adults in the United States," *The New England Journal of Medicine* (June 26, 2003): 2635–2645.

Variation in death rates and charges in US hospitals



The Quality of Medical Care in the United States:

A Report on the Medicare Program



The Center for the Evaluative Clinical Sciences
Dartmouth Medical School

The Dartmouth Atlas of Health Care 1999

CPR Quality During Cardiac Arrest

- Two companion studies of CPR quality
 - Chest compressions were not delivered half of the time and compressions were too shallow (“out-of-hospital”)
 - Quality of multiple CPR parameters was inconsistent and often did not meet published guidelines (“in-hospital”)

THE PATIENT SAFETY CURRICULUM

Patient Safety Domains	Knowledge, Skills, Attitudes
1. Theoretical Foundations	Microsystems, historical trends, chaos, complexity, competency and learning
2. Behavioral Aspects of Medical Professionalism	Ethics, patient quality of life, resolution of conflict
3. Interpersonal Issues	Communication, stress and coping
4. Human Factors and Ergonomics	Design history, error taxonomies, safety tools, decision support systems, fatigue factors, user centered design
5. Systems Analysis	Usability criteria , organizations and learning disasters, place for human error
6. QI Learning	Pareto/flow charts, and other QI tools, best practices, act cycles
7. Injury Epidemiology	Workplace hazards, worker safety, phases of injury, medico-legal aspects
8. Medication Safety	Adverse and near-miss reporting, ISMP tools and website, look/sound-alikes
9. Crisis Management Tools	Team work, shared decision making, situational awareness
10. Simulations	Micro-, macro-, debriefing, immersion levels, scripting, role playing

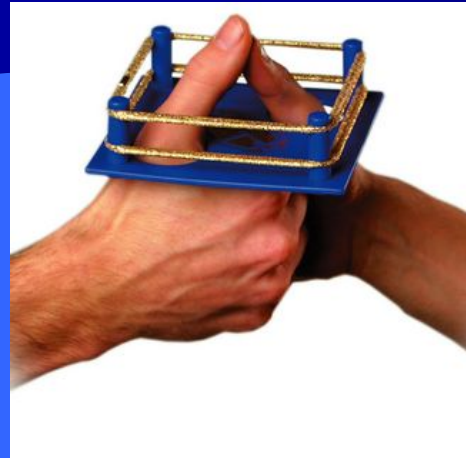
Mental Models and Framing

Julie K. Johnson, MSPH, PhD

Overview

- Describe mental models
- Discuss how we use mental models to frame issues and how that framing both contributes to and limits our understanding of a situation
- Explore the relationship between mental models, patient safety, and quality improvement

Before We Begin . . .



- Choose an opponent for thumb wrestling
- The goal is for you to win this competition as many times as you can in 15 seconds
- Winning means pinning your opponent's thumb

What happened?

- How many points did you get?
- What were the assumptions you brought into this game?
- How did your assumptions affect your behavior?

Mental Models

- The images, assumptions, and stories we carry in our minds of ourselves, other people, institutions, and every aspect of the world
- They determine what we see, and most importantly, *how we act*

What Might this Mean for Our Work?

- For example, mental models from our work in clinical care
 - Frequent flyer
 - Patient non-compliance
 - “Difficult” patient/family
- What are the implications for mental models as related to patient safety? For students, clinicians, administrators?

Mental Models

- None are perfectly accurate
- Differences in mental models explain how two clinicians can understand the same event differently
- Are generally invisible to us – until we look for them

How Can We Surface Our Mental Models?

- Working with mental models requires surfacing, testing, and improving our internal pictures of how the world works
- 2 skills can be helpful
 - Reflection – understanding your own mental models and the implications
 - Inquiry – learning the questions you can ask to help you test your own and other's mental models

Relationship of Mental Models to Framing

- Mental models frame what we see and how we respond
- Our mental models are internal
- Framing is the interaction of our mental models and the situation at hand
- Framing contextualizes the experience, e.g., the safety event

Small Group Exercise – *Exploring Frames*

- Divide into groups of 4 – one person from each group will be selected to be the observer and note taker for the group
- Each group will get a set of 3 postcards
 - Each postcard is covered with a different frame that reveals only part of the postcard
- Without uncovering the cards or revealing their frame to the group, discuss these questions:
 - What do you see within the frame?
 - What is the story you can tell?
- Participants will then look at the cards and discuss:
 - How did your frame limit what you know?
 - How does someone else's frame contribute to, or disrupt, your understanding of the issue?

Debriefing

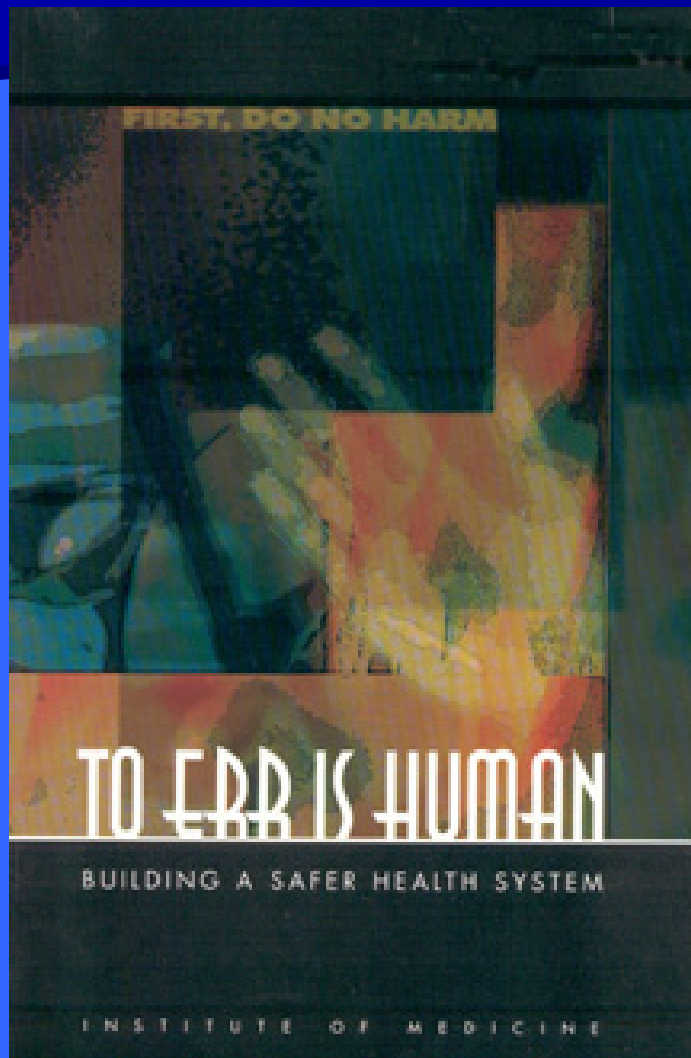
- What was your group's experience with the exercise?
 - What surprised you?
 - What did you learn?
- How do your mental models affect the frames you use?
- How might your professional framework limit what you know?
- How can you think about mental models and frames in the context of patient safety?

Break

Background on Patient Safety and Patient Safety Core Curriculum

Paul Barach, MD, MPH

Institute of Medicine November 1999



- Human Error and performance limitations
- Establish near miss voluntary reporting systems and protect from discovery
- Creating Safety systems in health care organizations
- Errors lead as major cause of death, injury
- Create a safety culture
- Create and inculcate a safety curriculum
- Team training and simulation
- Establish national safety authority
- **Anesthesiology—only clinical domain to make patient safety central to its mission**
- Altman, et al. 2004---five years later-- IOM most important report in 2 decades
- Wachter, 2006---C+ grade on report card

In both aviation and medicine, people depend on technology as the solution...

**Newer technology doesn't
eliminate error.....**

*Nor does even newer
technology....*

Human Error Rates

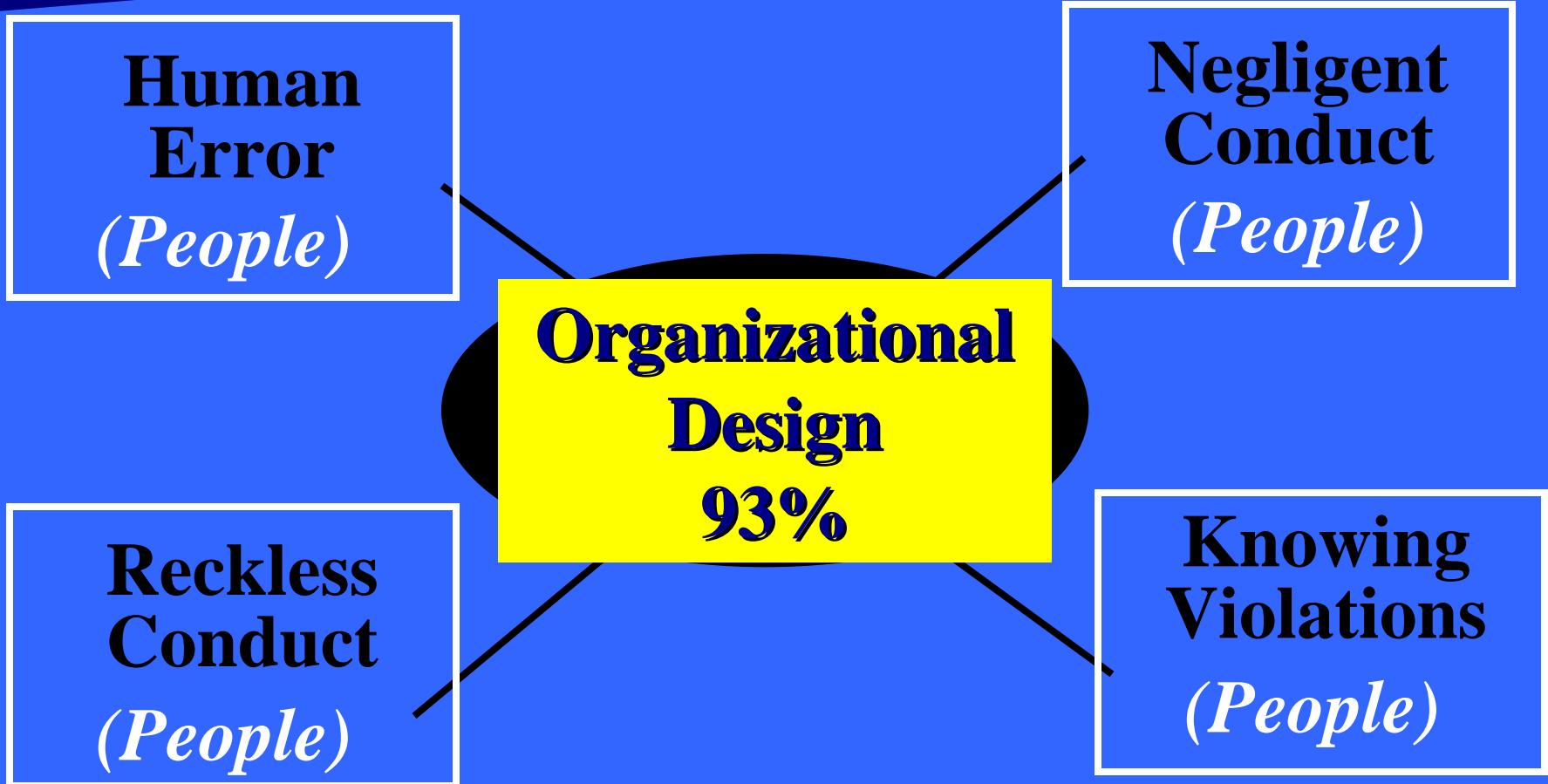
Error of commission (misreading a label)	3/1000
Error of omission (item embedded in procedure)	3/1000
Error of omission (without reminders)	1/100
Error in simple arithmetic (with self check)	3/100
Personnel on different shift fail to check conditions unless directed by a checklist	1/10
Errors under very high stress when dangerous activities are occurring rapidly	25/100

Adapted from: Park, K. Human Error. In Salvendy, G, ed. "Handbook of Human Factors and Ergonomics", New York. John Wiley & Son, Inc. 1997: 163.

Human vs. Design Flaws

- How many didn't see two "the's"?
- Human errors (7%) can be reduced by rigorous practices/standardization/simulation training/ building a safety culture, etc.

The 93% vs. 7% Rule



Case I: The Role of Human Factors in an Unexpected MI

- A 45-year-old woman for parathyroidectomy with no past medical history, under general anesthesia
- After uneventful induction of anesthesia, the patient became hypotensive
- Resident gave 1 cc of phenylephrine
- HR went to 150's and VT
- CPR required
- Epinephrine given
- ST changes; TEE-severe LV hypokinesis

Similar Vials: Atropine & Phenylephrine



Drug swap examples in last year

- Neosyneprhine for Fentanyl
- Norepinephrine for Dexamethasone
- Atropine for Neosyneprhine
- Cis-atracurium for Neostigimine
- Cefazolin and Vecuronium

Medication Cart Drawer—does Your Cart Look different?



Performance Shaping Factors Affecting Human Vigilance

- Fatigue
- Environmental Conditions/Built Environment
- Task Design
- Psychological Conditions
- Competing Demands
- Hand offs/Sign outs

Medication ADEs Take-Home Points

- Medication errors are the #1 cause of preventable adverse events in the OR, including death

Medication ADEs

Take-Home Points

- To reduce medication errors in the OR
 - Label syringes with color-coded, pre-printed labels conforming to ASTM standards
 - Use easily identified “ready-to-use” syringes to administer emergency drugs
 - Standardize location of medications on anesthesia cart
 - Always review “6 Right’s” (patient, drug, dose, route, time, concentration)
 - Safety engineered syringes (e.g., red plunger for relaxants)

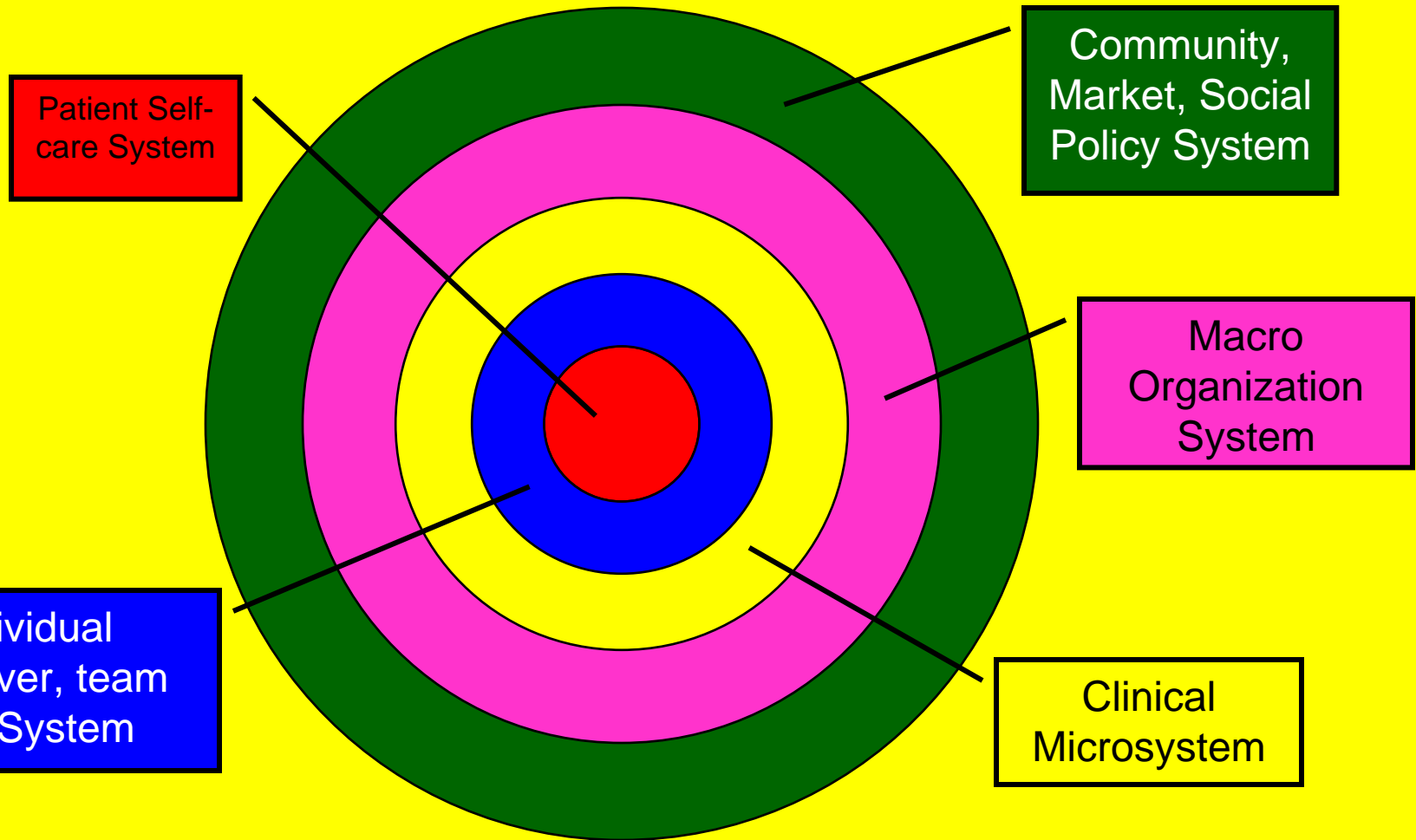
Medication ADEs Take-Home Points

- A need for careful analysis of causal connections between drugs and adverse event
 - Non-standardized taxonomy makes it difficult to analyze
 - Nebeker J, Barach P, Samore M. *Annals of Internal Medicine* 2004;140:795-801.
 - Jacobs J, et al. *Annals of Thoracic Surgery*, 2007

Consider the Microsystem

- Small group of clinicians and staff working together with a shared clinical purpose to provide care for a defined set of patients
- The clinical purpose defines the essential parts of the microsystem
 - Clinicians and support staff
 - Information and technology
 - Care processes
- Source of excellence in health care organizations

Microsystems Exist Within Other Systems



What Are the Essential Elements of a Microsystem?

- Core team of health professionals
- Defined population of patients they care for
- Information & information technology
- Support staff, equipment, environment
- Processes, activities specific to accomplishing the aim

A Common View of a Clinical Organization



Communication examples

- Vague--"Patient got into a little trouble"; "Mostly stable"
- Ambiguous-"Patient went south"
- Confusing-"He was all over the place but you don't have to worry about that"
- Lack specificity-"I gave him a little propofol"
- Imprecise Analogies-"He was like a roller-coaster"
- Objectification and depersonification-"The Gall Bladder in room 34 is doing fine"
- Derogatory--"Circling the drain"; "GOMER"

How Do We Do At Sharing Information?

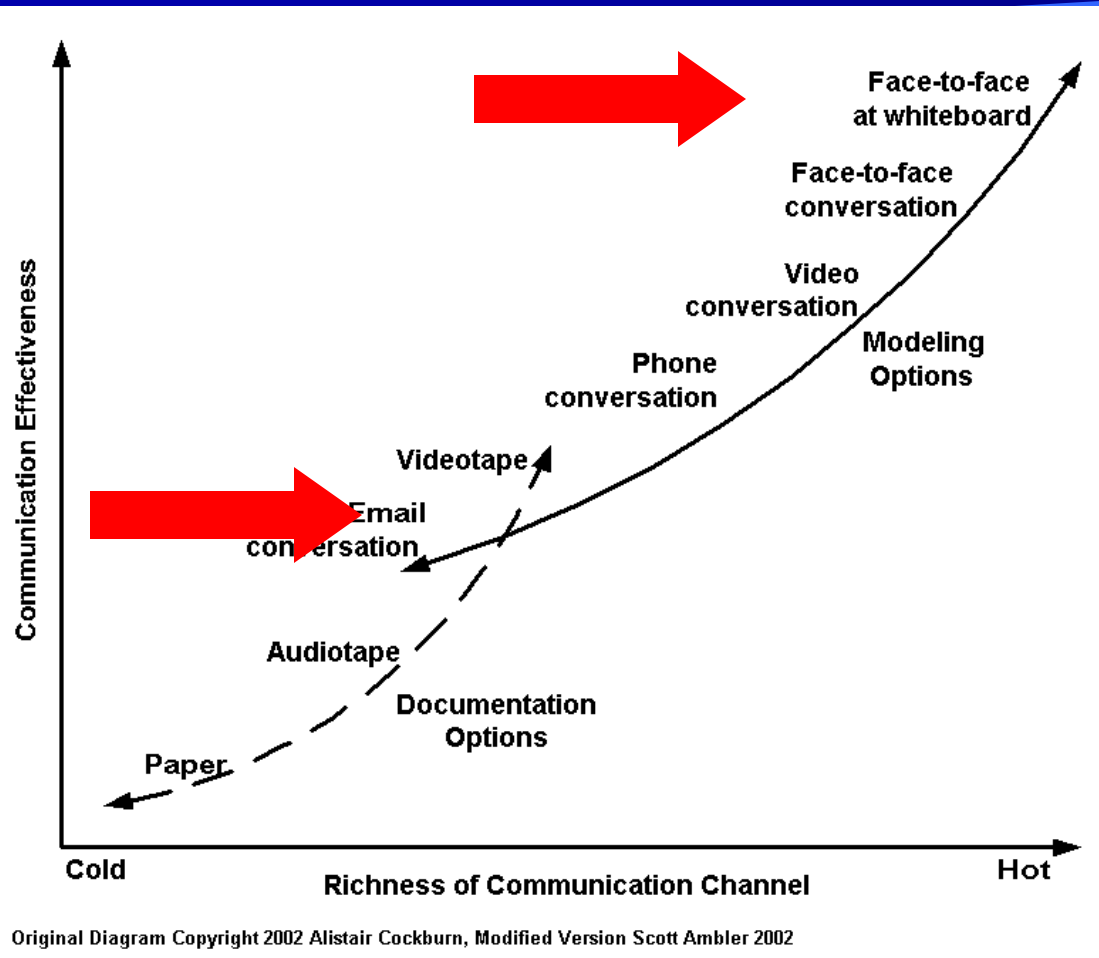
■ Verbal handoffs

- Interruptions lead to diversion of attention, forgetfulness, and error (Coiera, BMJ 1998)

■ Written handoffs

- Inconsistent
- Missing code status, allergies, age, sex (Lee, JGIM 1996)

Hand-off as a Form of Communication



Original Diagram Copyright 2002 Alistair Cockburn, Modified Version Scott Ambler 2002

“When you move from right to left, you lose richness, such as physical proximity and the conscious and subconscious clues. You also lose the ability to communicate through techniques other than words such as gestures and facial expressions. The ability to change vocal inflection and timing to emphasize what you mean is also lost... Finally, the ability to answer questions in real time, are important because questions provide insight into how well the information is being understood by the listener.”

—Alistair Cockburn

Role of Hand-offs

- Exchange of vital information
- Shared mental models and cognition of patient status
- Exchange and uptake of responsibility
- Part of the microsystem life-cycle
- Vital to Unit, patients, and workers survival

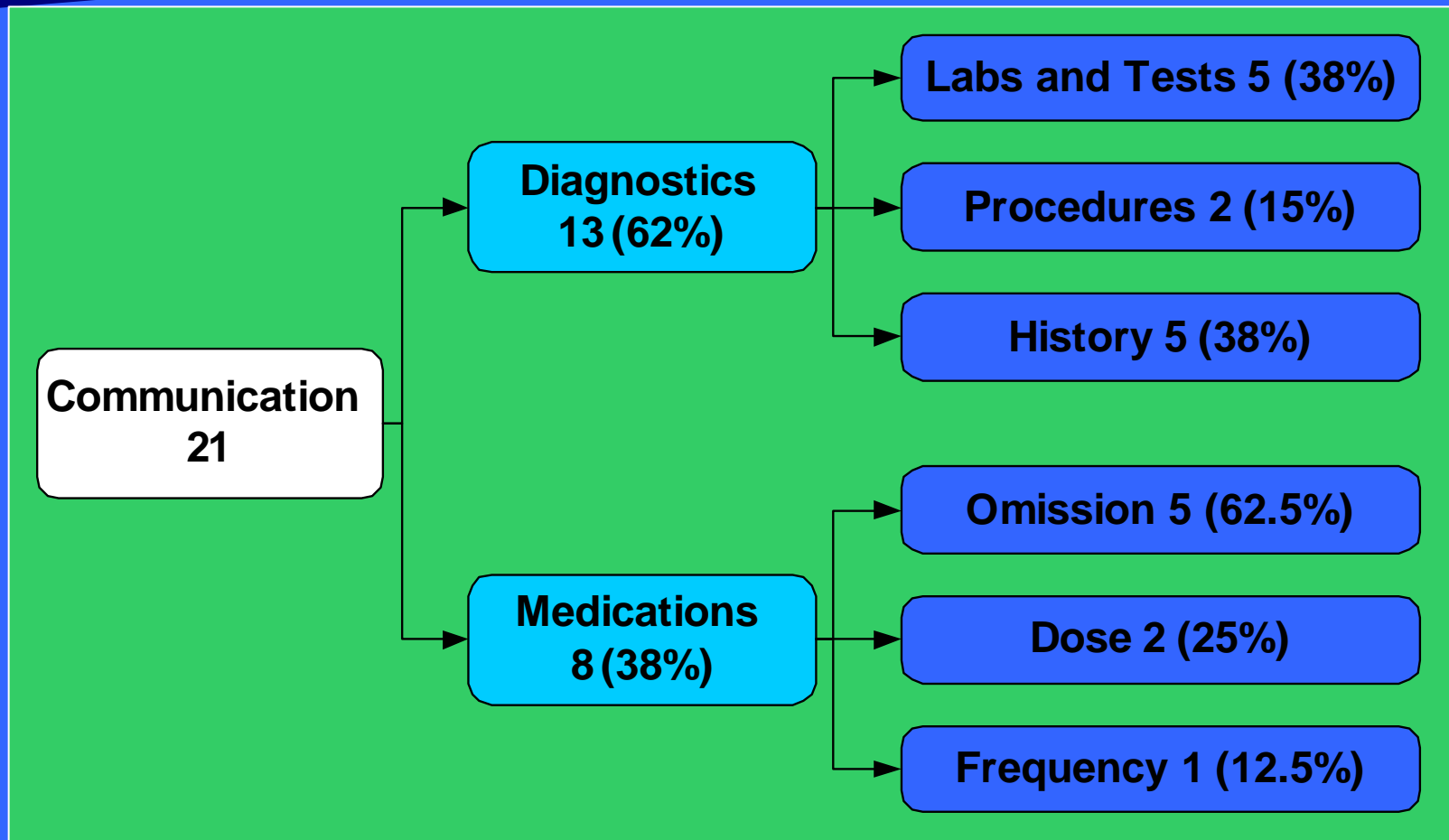
Shift changes in hospitals

- Shift changes (handoffs, sign-outs) represent transitions that can impact the quality of patient care and patient safety
- The literature in this area has been dominated by the nursing profession
- We still know relatively little about the factors related to shift changes in health care that can undermine patient care

Errors in Communication – 1 night of sign-out

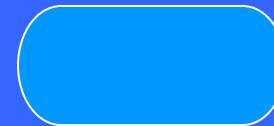
- Was there anything bad that happened or almost happened last night because
 - the VERBAL sign-out wasn't as good as it could have been?
 - the WRITTEN sign-out wasn't as good as it could have been?

Errors in Communication – 1 night of sign-out

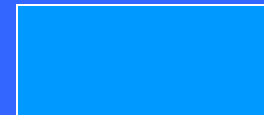


Process Mapping

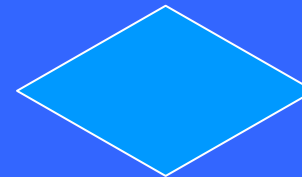
- Ovals are beginnings and ends



- Boxes are steps or activities



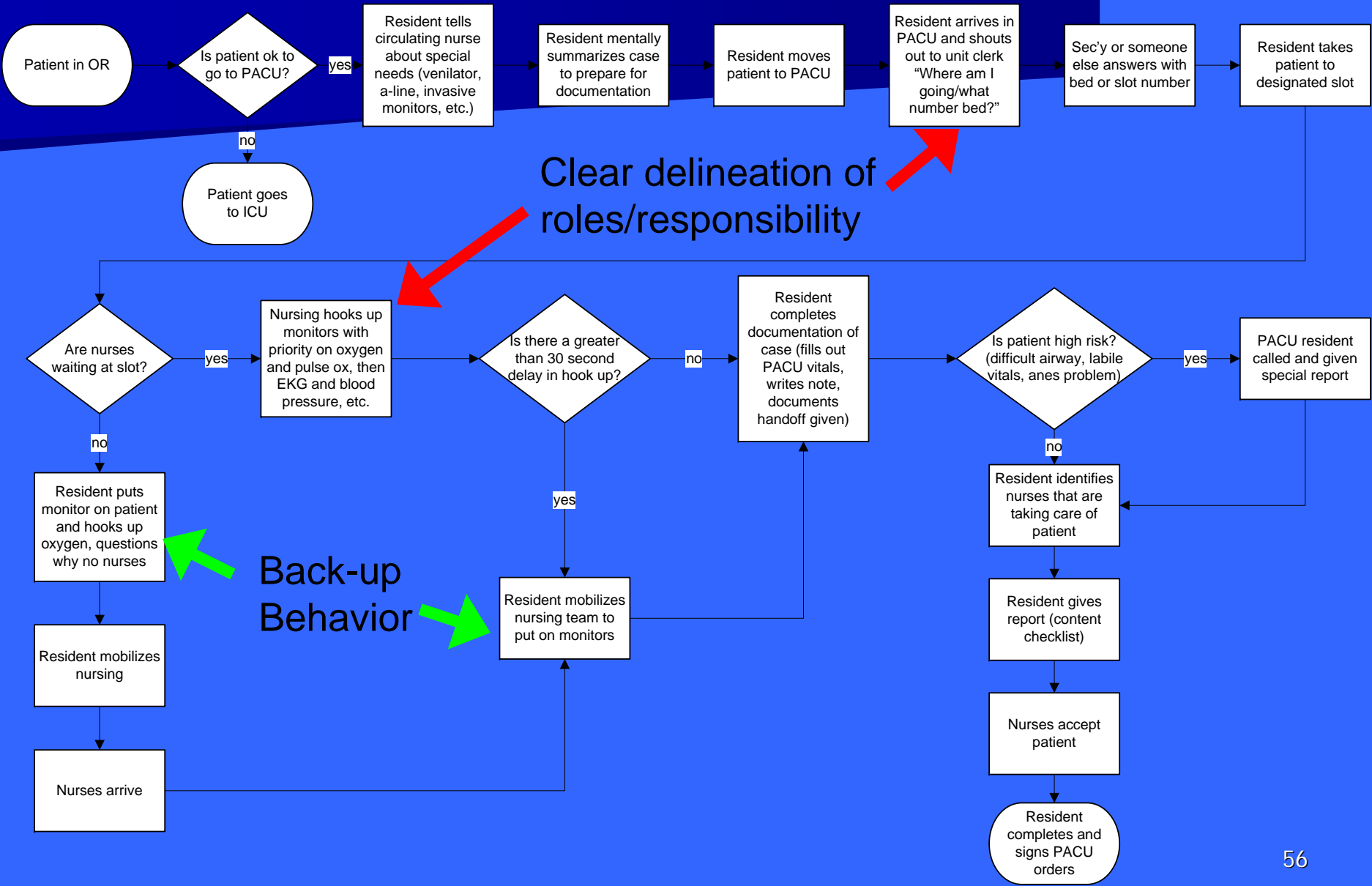
- Diamonds are decision points
 - Questions with yes/no answers



- Arrow indicates direction and sequence



Anesthesia Resident to Nurse Hand-Off



Clear delineation of roles/responsibility

Back-up Behavior

The Nurses' Voice

There's just lack of communication all the way around. As the nurse, you're there with the patient the majority of the time, and a lot of times the doctor would go in, and let the patient know that he or she is going for whatever procedure or test, and write NPO after midnight. You have no idea! Instead of coming to that nurse, so everybody would be on the same wavelength...

I don't think we are included in anything other than what's in the chart. The doctors think we have time to sit down and read every note.... Every consult.... And that doesn't happen. We just don't have time.

The attendings look right through you! Don't even acknowledge you! I find that to be a big problem, because it filters down. What kind of example are you setting for your residents and interns if you don't even acknowledge the nurse?

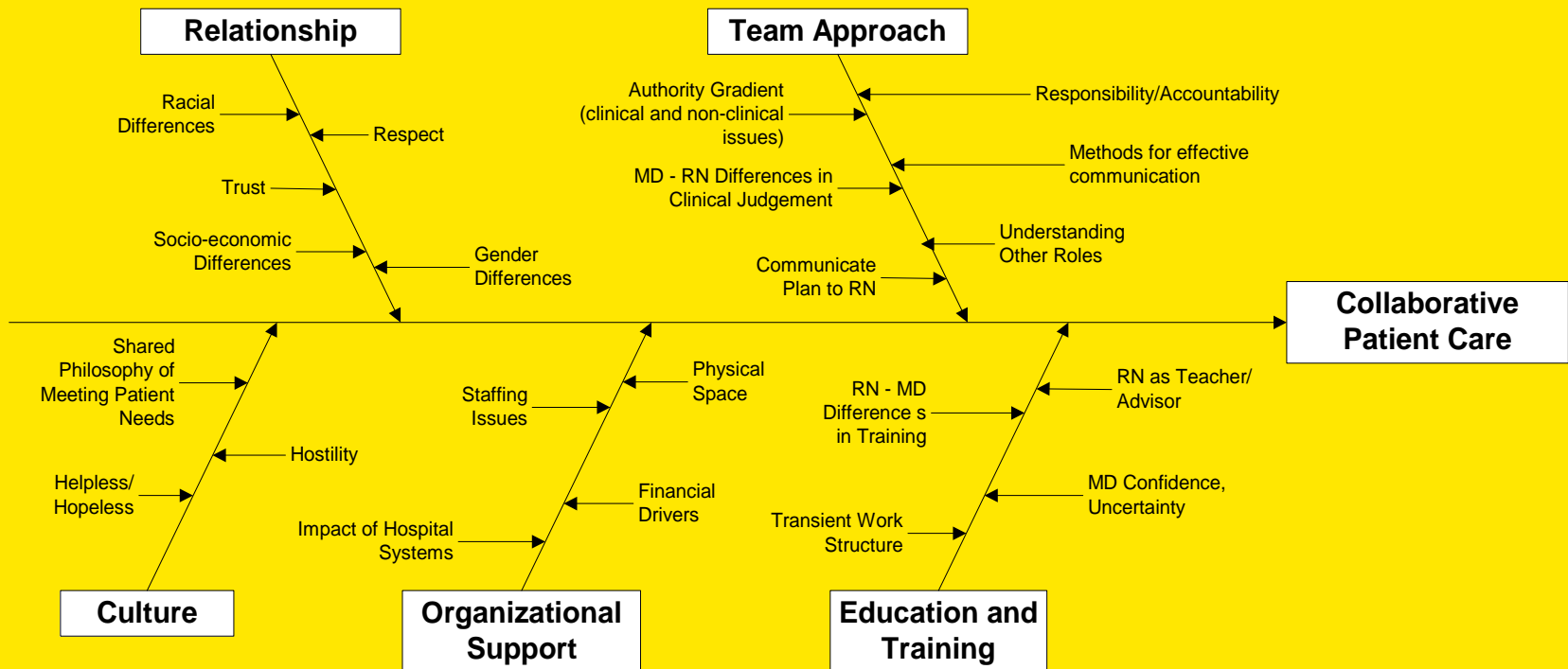
The Physicians' Voice

Sometimes you realize that you are both working toward helping the patient. It's not an antagonistic relationship -- you are both there to help this person get better and get out of the hospital.... That is really important to keep in mind. The nurses that I interact best with... We're on the same page. We've got the same goals in mind.

I would have to say, in general, the work relationship, the tone of the work relationship, is hostile.

It's become this huge battle rather than a collaborative effort. There's a little bit of a feeling of us against them.

Factors in Nurse-Physician Communication



Hand-off Strategies in Settings with High Consequences for Failure

- 21 strategies in all, here are the 7 for improving handoff update effectiveness
 - Face to face verbal update
 - Additional update from practitioners other than the one being replaced
 - Limit interruptions during update
 - Topics initiated by incoming as well as outgoing
 - Limit initiation of operator actions during update
 - Include outgoing teams' stance toward changes to plans and contingency plans
 - Read-back to ensure that information was accurately received

•Patterson, ES et al. 2004

Determine the Standard Content: ANTICIPATE

- Develop a checklist
- Have disciplines customize to their needs
- Can be used to evaluate the quality of hand-offs

Arora, et al, 2005

✓ Administrative Data

- Patient name, age, gender
- Medical record number
- Room number
- Admission date
- Primary inpatient medical team, primary care physician
- Family contact information

✓ New Information (Clinical Update)

- Chief complaint, brief HPI, and diagnosis (or differential diagnosis)
- Updated list of medications with doses, updated allergies
- Updated, brief assessment by system/problem, with dates
- Current “baseline” status (e.g., mental status, cardiopulmonary, vital signs, especially if abnormal but stable)
- Recent procedures and significant events

✓ Tasks (What needs to be done)

- Specific, using “if-then” statements
- Prepare cross-coverage (e.g., patient consent for blood transfusion)
- Warn of incoming information (e.g., study results, consultant recommendations), and what action, if any, needs to be taken that night

✓ Illness

- Is the patient sick?

✓ Contingency Planning / Code Status

- What may go wrong and what to do about it
- What has or hasn't worked before (e.g., responds to 40mg IV furosemide)
- Difficult family or psychosocial situations
- Code status, especially recent changes or family discussions

1. Understand and attempt to reduce the variation in the process

- All disciplines “required” a verbal hand-off
- BUT due to competing demands (OR, clinic, etc.), this verbal communication sometimes did not occur
 - Educate residents on this important priority
- Individual-level variation also present
 - “Some residents are better at making themselves available and touching base with you [during the hand-off] than others...”

2. Hand-off = Transfer of information + professional responsibility

- Transfers were at times separated in time and space
 - In one program, departing residents forward their pager to the on-call resident after they provide a verbal hand-off.
 - In another program, the on-call resident transfers a virtual pager to their own pager at a designated time which often occurs well before they receive a verbal hand-off.
- Develop and train for hand-over competencies

3. Need to ensure “closed-loop” hand-off communication

- In two cases, patient tasks were divided and assigned to other team members
 - To facilitate early departure of a post-call resident (to meet resident duty hour restrictions)
 - BUT results of these tasks were not formally communicated to anyone
- Residents ensured “closed-loop” communication by building required follow-up on these tasks into the process

4. Keep the focus on patient care: Role Clarity and back-up behavior

- Anesthesia resident to PACU RN
 - Interdisciplinary hand-off with challenging complex fast-paced environment
- Clear delineation of responsibility to ensure patient care
 - Anesthesia resident to call out for a bed
 - Unit clerk to respond with bed #
 - PACU RN to hook up monitors
- Equally important back-up behaviors
 - Can empower participants to focus on the patient care
 - "If nursing delay >30 sec, then resident to hook up monitors and call for RN"

Applications of a Standard Language

- “Read-back”
 - Reduces errors in lab reporting



“Read-backs” at your neighborhood Drive-Thru

■ **Table 2**
Description of Errors

Description of Error	No. (%) of Occurrences
Incorrect name of patient	10 (34)
Incorrect test result	9 (31)
Incorrect specimen/test repeated	6 (21)
Recipient refused to repeat message	4 (14)
All	29 (100)

29 errors detected during requested read-back of 822 lab results at Northwestern Memorial Hospital. All errors detected and corrected.

What are important
team competency
requirements?

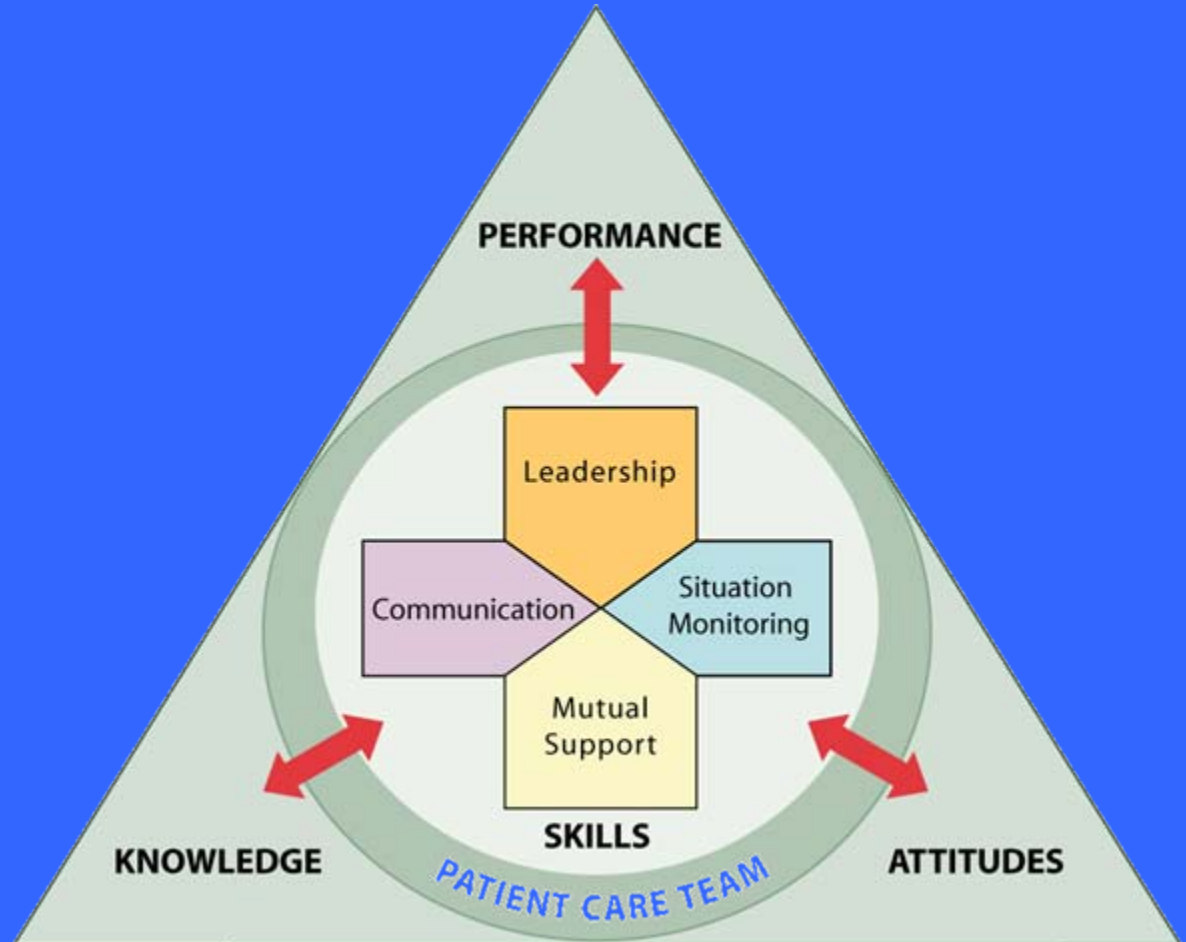
Medical Team Training

Team Competencies

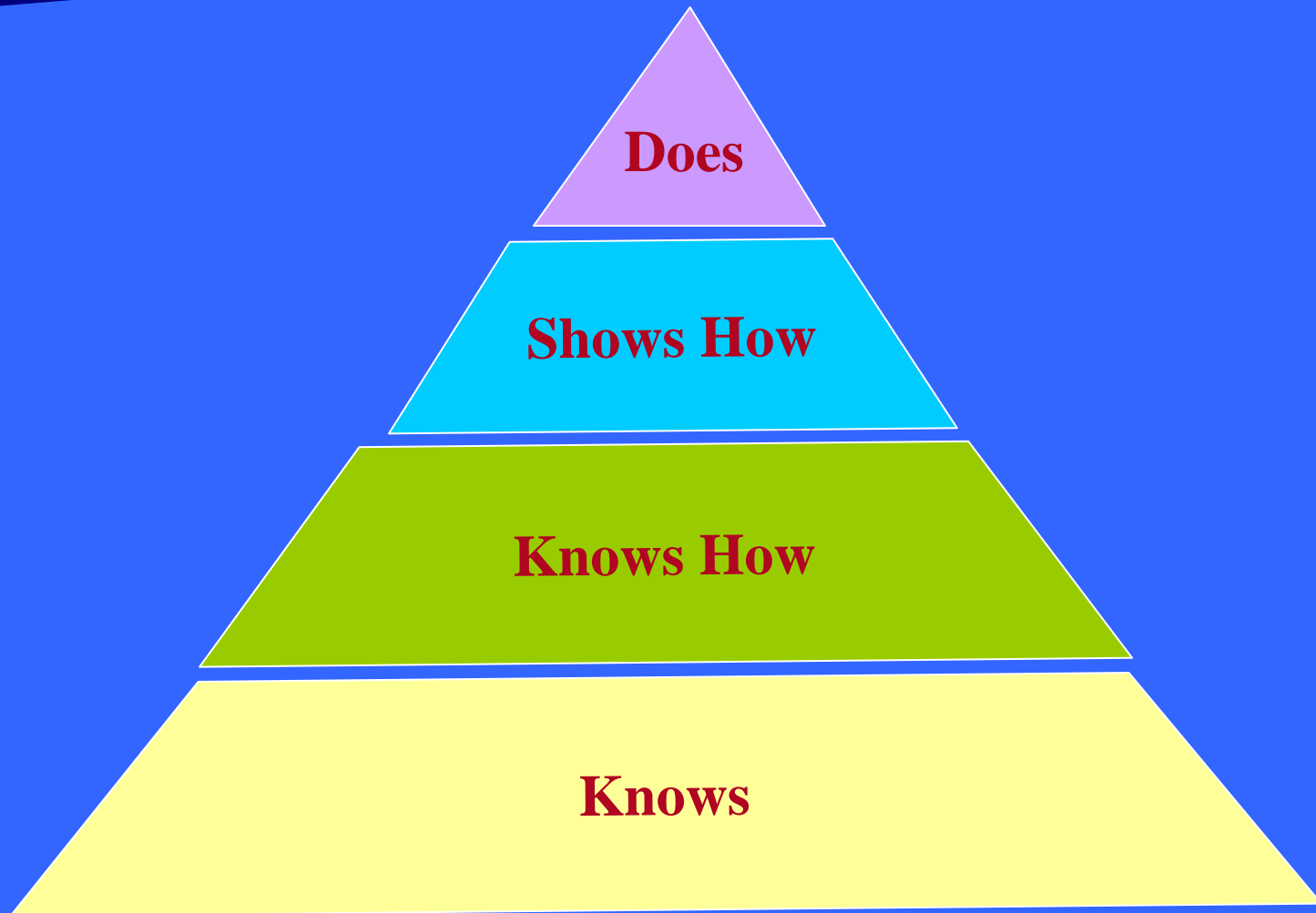
- Knowledge Competencies
 - The principles and concepts that underlie a team's effective performance
- Skill Competencies
 - The learned capacity (psychomotor and cognitive) to interact with other team members
- Attitude Competencies
 - Internal states that influence team members to act in a particular way

The TeamSTEPPS Framework

- **Knowledge**
 - Shared Mental Model
- **Attitudes**
 - Mutual Trust
 - Team Orientation
- **Performance**
 - Adaptability
 - Accuracy
 - Productivity
 - Efficiency
 - Safety



Miller's Pyramid



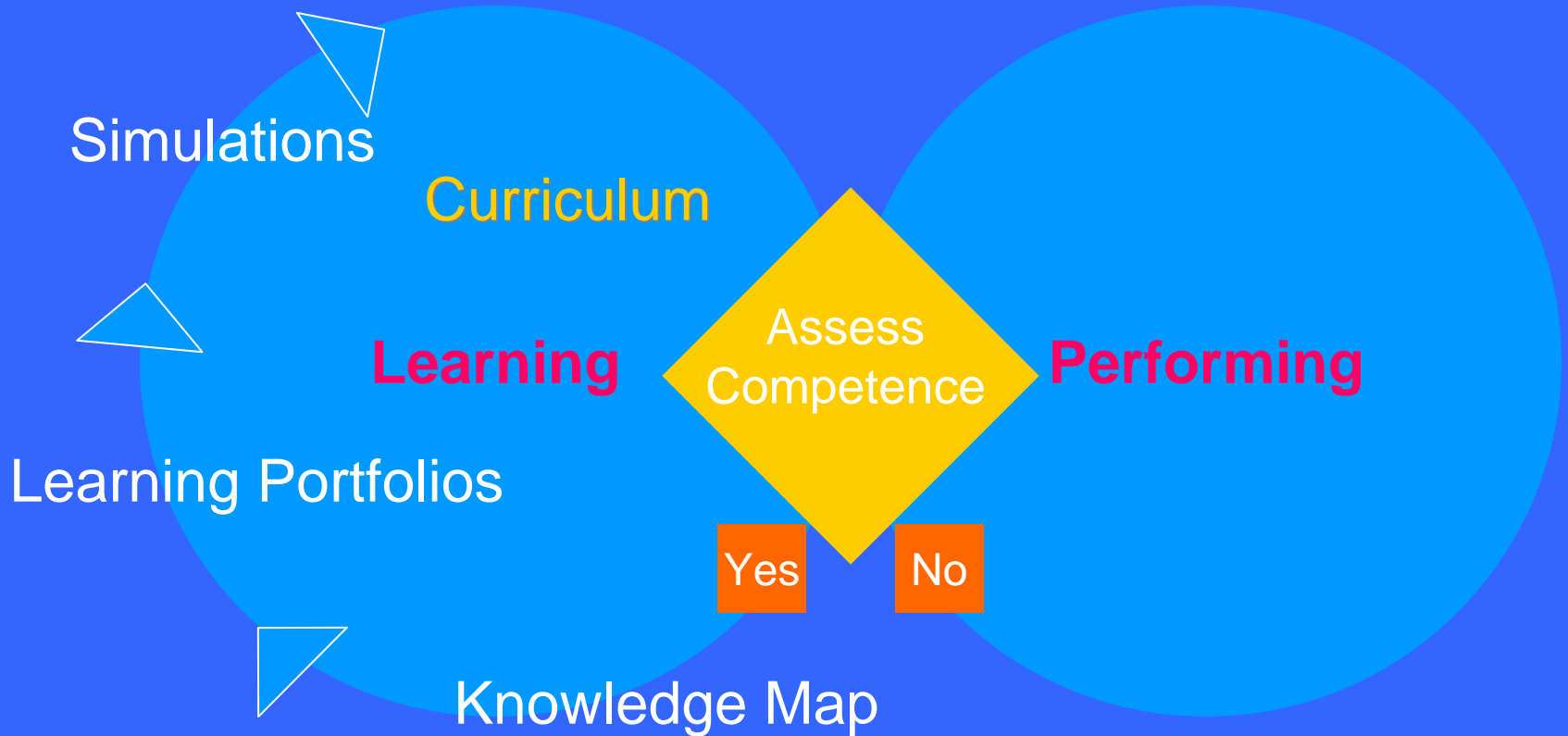
Challenges to Medical Education Addressed by Simulation

- Training clinicians in risky procedures on real patients is less acceptable
- Limited opportunities to experience rare events and crises
- Apprenticeship means you have to wait for something to happen
- Opportunities for reflective learning and deliberate practice
- Training for teamwork is rare
- Simulation is less costly

Uses of Simulators in Healthcare

- Education and training of clinicians, engineers, medics, and ancillary personnel
- Evaluating new drugs and technologies
- Evaluating performance
- Credentialing
- Brief and de-brief planned surgery
- Team training
 - Contingency training
 - Crises intervention (CRM)
- Disaster planning and preparedness
- Disclosure
- RRT

Adaptive and Reflective Life-Long Learning



Barriers To Achieving Ultra-safe Healthcare

- Acceptance of limitations on maximum performance
- Abandonment of professional autonomy
- Transition from mindset of craftsman to that of an equivalent actor
- Develop a culture of safety
- Simplify professional rules and regulations

Amalberti R, Berwick D, Barach P. *Annals of Internal Medicine* 2005;142:756-764.

Overview of Patient Safety Tools and Methods of Analysis

Julie K. Johnson, MSPH, PhD

Managing an Adverse Event

Small Group Exercise
*Conducting a
Root Cause Analysis*

Julie K. Johnson, MSPH, PhD

Paul Barach, MD, MPH

Tools and Methods of Analysis

- Numerous methods and tools are available for analyzing adverse events, near misses, and the context of care
- Regardless of the tool used, the goal is to determine at the organizational level how to prevent errors from occurring in the future

Tools and Methods of Analysis

- Thomas and Peterson identified eight of the most common methods used and analyzed the strengths and weaknesses of each. They found that some methods are better for detecting latent errors --- the system errors --- and some are better for detecting active errors and adverse events
- An adverse event is usually the culmination of numerous latent errors plus an active error, so methods that explore the context of the systems in which the adverse event occurs are more appropriate for detecting latent errors

Types of Tools

Latent Errors

Incident Reporting

Autopsies and M&M Conferences

Malpractice Claims Files Analysis

Active Errors

Chart Review

Administrative Data Analysis

Information Technology

Adverse Events

Direct Observation

Clinical Surveillance

Tools and Methods of Analysis

■ Retroactive Analysis

- Root Cause Analysis (RCA) is a thorough retrospective investigation to identify factors that contributed to the occurrence of an error

■ Proactive Analysis

- Failure mode and effects analysis (FMEA) identifies potential contributing factors to potential adverse events

Adverse Event Management Plan



A Microsystem Framework for Analyzing Events

- One method that we have found to be useful for systematically looking at patient safety events builds on Haddon's overarching framework on injury epidemiology

The Haddon Matrix

	Human	Vehicle	Environment
Pre-event	<i>Alcohol intoxication</i>	<i>Braking capacity</i>	<i>Visibility of hazards</i>
Event	<i>Resistance to injury insults</i>	<i>Sharp, pointed edges and surfaces</i>	<i>Flammable materials</i>
Post-event	<i>Hemorrhage</i>	<i>Rapidity of energy dissipation</i>	<i>Emergency medical response</i>

Source: Haddon, W. A Logical Framework for Categorizing Highway Safety Phenomena and Activity. J. Trauma 1972; 12:197.

Haddon Matrix adapted to Patient Safety in the Microsystem

	Patient/ Family	Health Care Professional	Systems/ Environment
Pre-event			
Event			
Post-event			

Small Group Exercise

- Patient safety scenario and the Haddon Matrix
- Allison's Story
 - See video and handout

ABMS Patient Safety Improvement Program

Patient Safety Scenario - Allison Stuart

**2-year-old
12-kg female patient**

History:

- Prematurity
- Chronic lung disease / asthma
- Congestive heart failure after tetralogy of Fallot repair

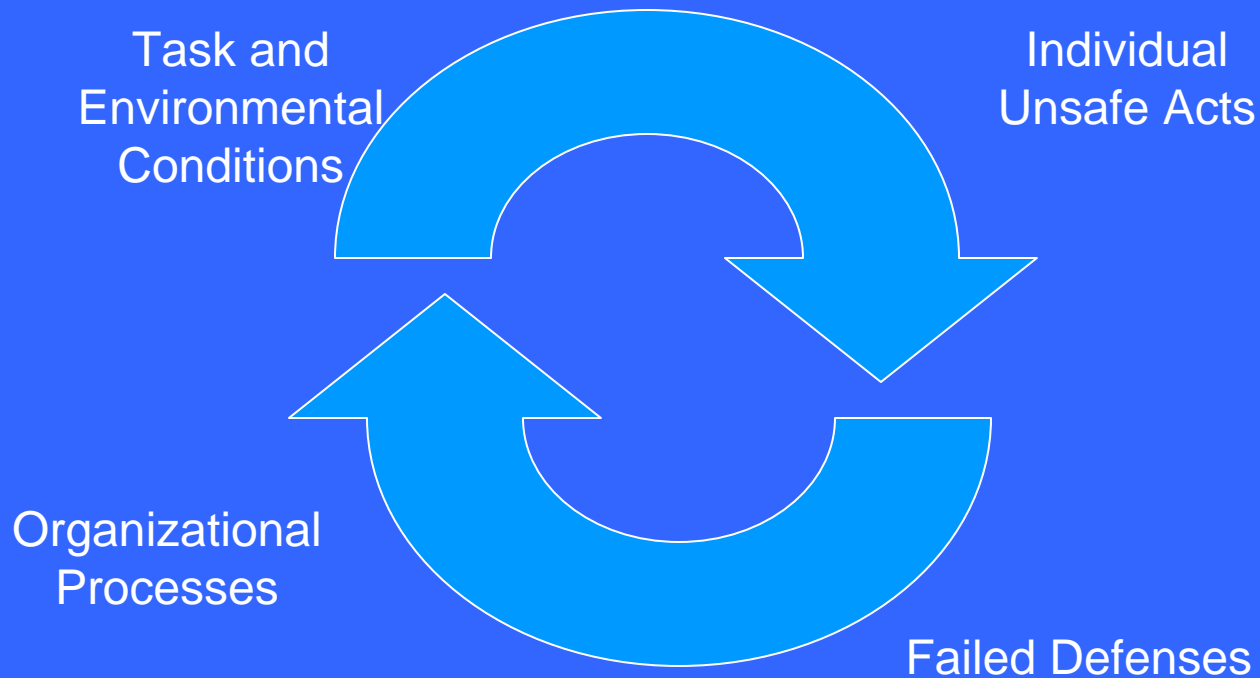
Case adapted from:
Dowdell EB. Pediatric medical errors part I: The case. A pediatric drug overdose case. *Ped Nurs* 2004;30(4):328-330.
Caitlin A. Pediatric medical errors part II: Case commentary. A source of tremendous loss. *Ped Nurs* 2004;30(4):331-335.
Mohr JJ, Barach P, Cravero J, et al. Microsystems in healthcare; part 6. Designing patient safety into the microsystem. *Jt Comm J Qual Saf* 2003; 29(8):401-408.

Course Map Transcript Search Resources Help Volume Off Refresh Play Back Page 01 of 01 Next % of course completed: 6% Save and Exit

Debriefing

	Patient/ Family	Health Care Professional	Systems/ Environment
Pre-event	Orientation to the process	Probabilistic Risk Assessment (PRA) Scenario Building Hazard Analysis Checklists	Failure Modes Effects Analysis (FMEA) Human Factors Engineering
Event	Interview	Crew Resource Management (CRM) Checklists	Root Cause Analysis (RCA)
Post-event	Interview, Focus Group Interviews	Microsystem Analysis Morbidity and Mortality Conference (M&M)	Root Cause Analysis (RCA)

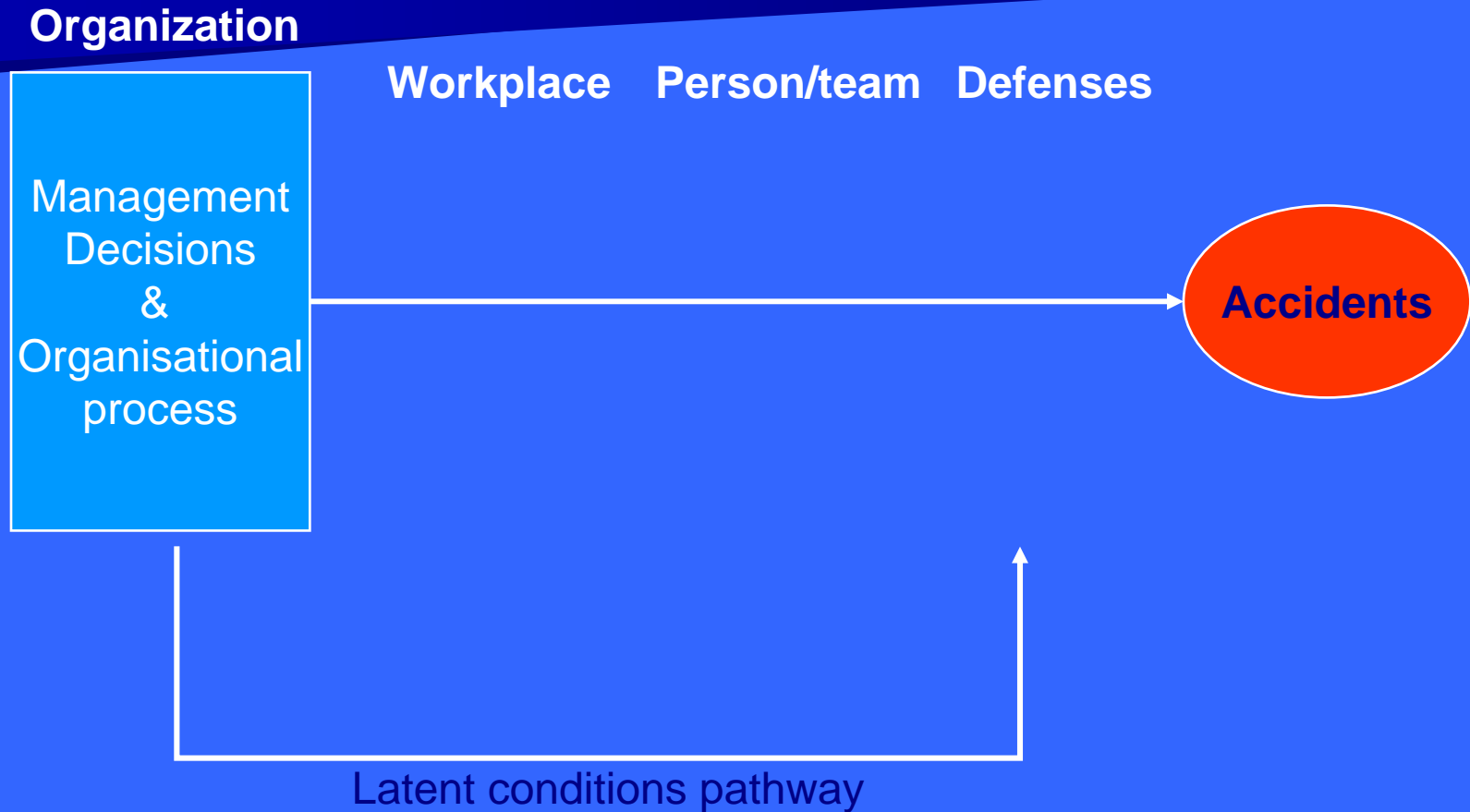
Elements of Organizational Accidents



James T. Reason. The Human Factor in Medical Accidents. Medical Accidents.

Vincent C, Ennis M, and Audley R. Oxford University Press 1993

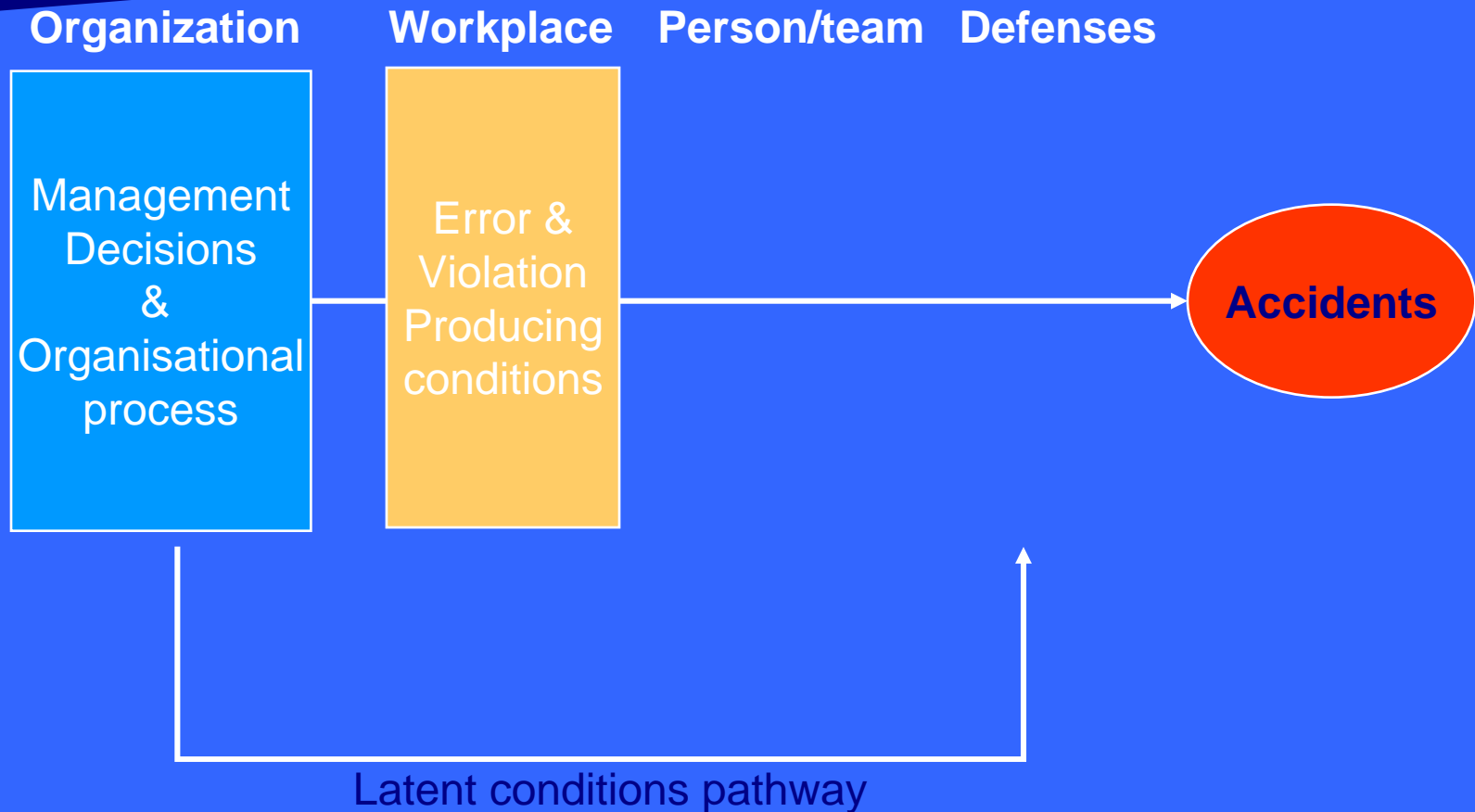
Organizational Accident Causation Model



Elements of Organizational Failure

- Incompatible Goals
- Organizational Structural Deficiency
- Inadequate Communications
- Poor Planning and Scheduling
- Inadequate Control and Monitoring
- Design Failures
- Deficient Training
- Inadequate Maintenance Management

Organization Accident Causation Model



Workplace Conditions Promoting Unsafe Acts

- High Workload
- Inadequate Knowledge, Ability or Experience
- Inadequate Supervision or Instruction
- Stressful Environment
- Mental State
- Change

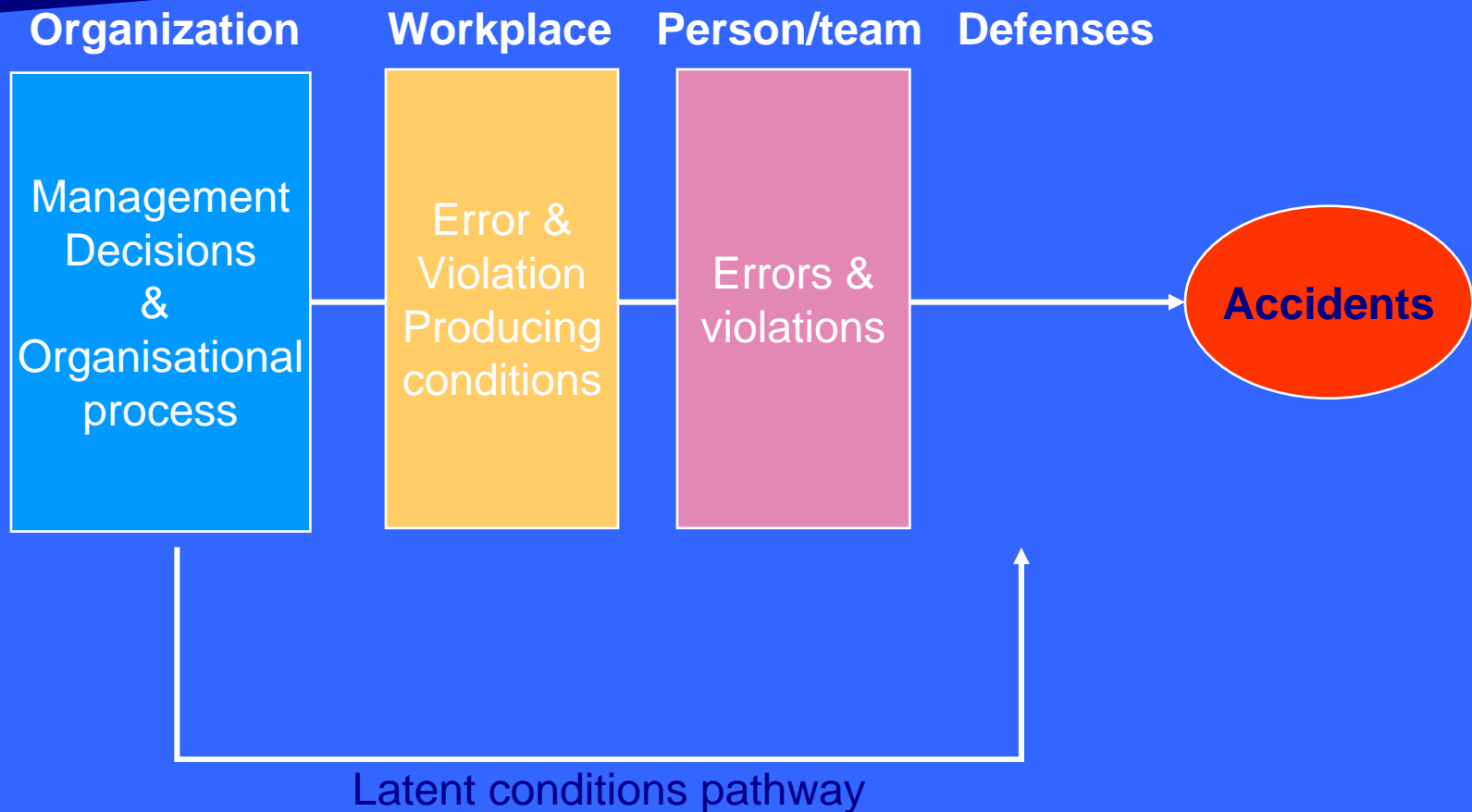
Workplace Error Producing Conditions

- Unfamiliarity(x17)
- Time Shortage(x11)
- Poor Human-System Interface (x8)
- Information Overload (x6)
- Negative Transfer(x5)
- Misperception of Risk (x4)
- Inexperience Not Lack of Training (x3)
- Inadequate Checking (x3)
- Poor Instructions(x3)
- Educational Mismatch (x2)
- Disturbed Sleep (x1.6)

Work Environment Violation Producing Conditions

- Lack of Safety Culture
- Management/Staff Conflict
- Poor Morale
- Poor Supervision
- Condone Violations
- Misperception of Hazard
- Lack of Management Concern
- Little Pride in Work
- Macho Culture
- "Bad outcomes Won't Happen"
- Low Self-Esteem
- License to Bend Rules
- Ambiguous or Meaningless Rules

Organizational Accident Causation Model



Person /Team

Individual Unsafe Acts

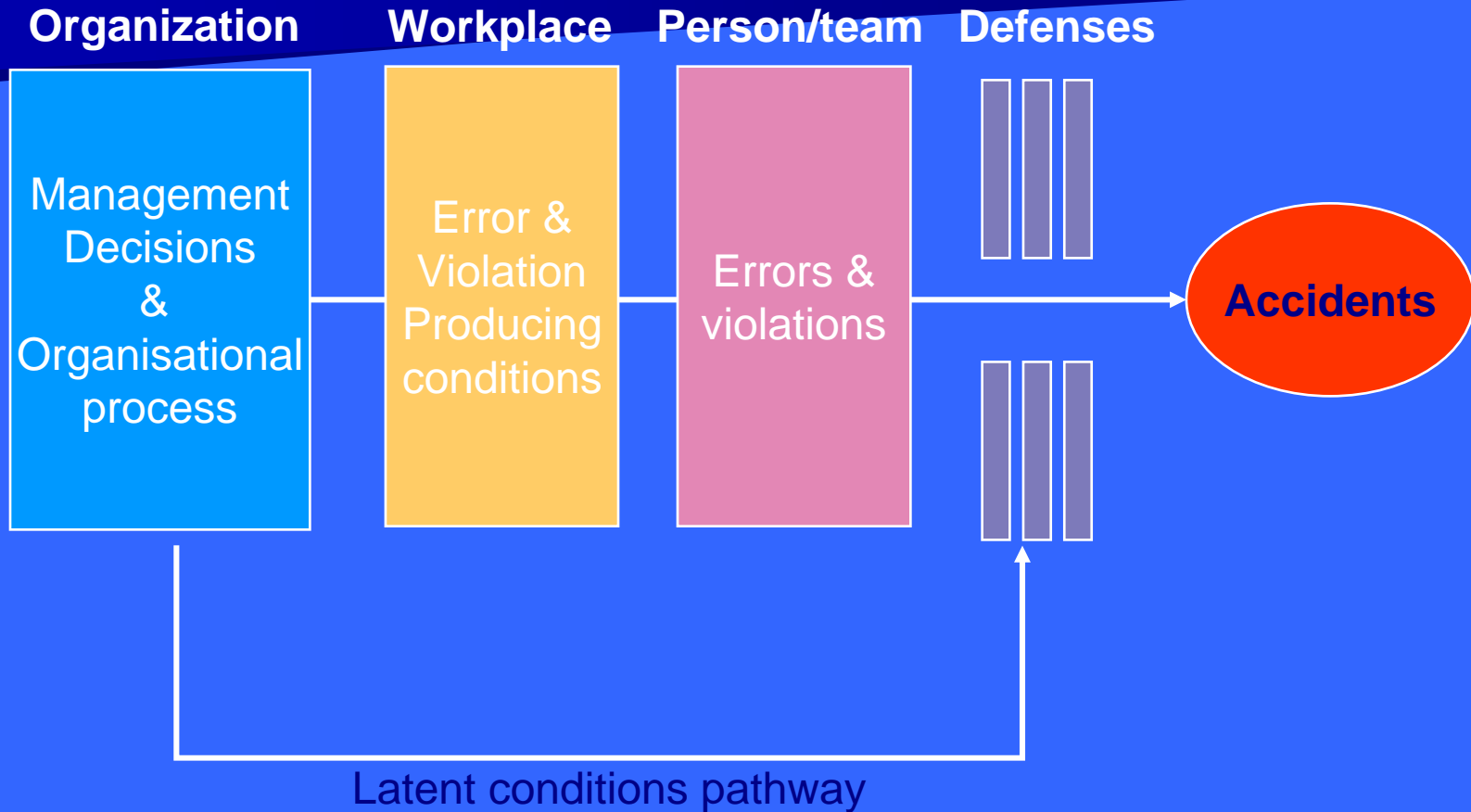
■ Errors

- Attentional Slips and memory lapses (Intrusions, omissions)
- Mistakes
 - Rule –based
 - Knowledge-based

■ Violations(deliberate deviation from regulation)

- Routine (shortcuts)
- Optimizing Violations
- Exceptional
- Deliberate

Organizational Accident Causation Model



Break

Disclosure of Adverse Events: What Do You Do When Bad Things Happen?

Becki Kanjirathinkal, MS, RN,
CPHQ, CMQ/OE, CPHRM

Paul Barach, MD, MPH

Adverse Event Management Plan



Small Group Exercise

Disclosure

Disclosure Process

- Identify incidence of patient harm or a potentially compensable event (PCE)
- Initial disclosure and apology
- Case Review
- Follow-up disclosure
- Discuss restitution

What do patients want?

1. To know what happened
2. To receive an apology
3. To know what is being done to prevent it from happening again

Disclosing Adverse Events

- Disclosure is required when
 - Has a perceptible effect on the patient not discussed in advanced with patient
 - Necessitates a change in patient care
 - Poses risk to patient's future health
 - Involves non-consented treatment or procedure
- Reduces chances of being sued
- Transparency in process helps the team address guilt
- New laws in 22 states requiring disclosure

Cantor M, Barach P, et al. Jt Comm Qual Patient Saf 2005;31:5-12.

Barach, P, Cantor M, 2007

Disclosure Conversation Planning

- Review disclosure principles
- Decide who, when, where
 - Decide who will be point contact person for patient/family
- What to say and how to say it
- Anticipate questions
- Planning next steps
- Debriefing/emotional support for the individual(s) doing the disclosing

Disclosure Conversation

- Learn to effectively communicate and explain the facts
- Expression of concern/responsibility
- Discuss present/future needs
- Describe actions taken and explain specific process for finding the answers

Risk Management Support

- Manage contact with patient and/or family
- Coordinate regulatory/accreditation requirements
- Managing reputation risks
 - Media/Crisis communication
 - Internal and external
- Managing complaints and claims
 - Early non litigious settlement

Resources

- Cantor M, Barach P, Derse A, et al. JCAHO 2005;31:5-13.
- Kramam SS, Hamm G. Ann Intern Med 1999;131:963-967.
- Clinton H, Obama B. NEJM 2006.
- Gallagher T, et al. NEJM 2007.
- <http://www.sorryworks.net>
- Risk Management Pearls on Disclosure of Adverse Events. American Society for Healthcare Risk Management at <http://www.ashrm.org>

Applied Statistics and Data Analysis Tools

Davis Balestracci, MS

Improving Safety, Implementing Change

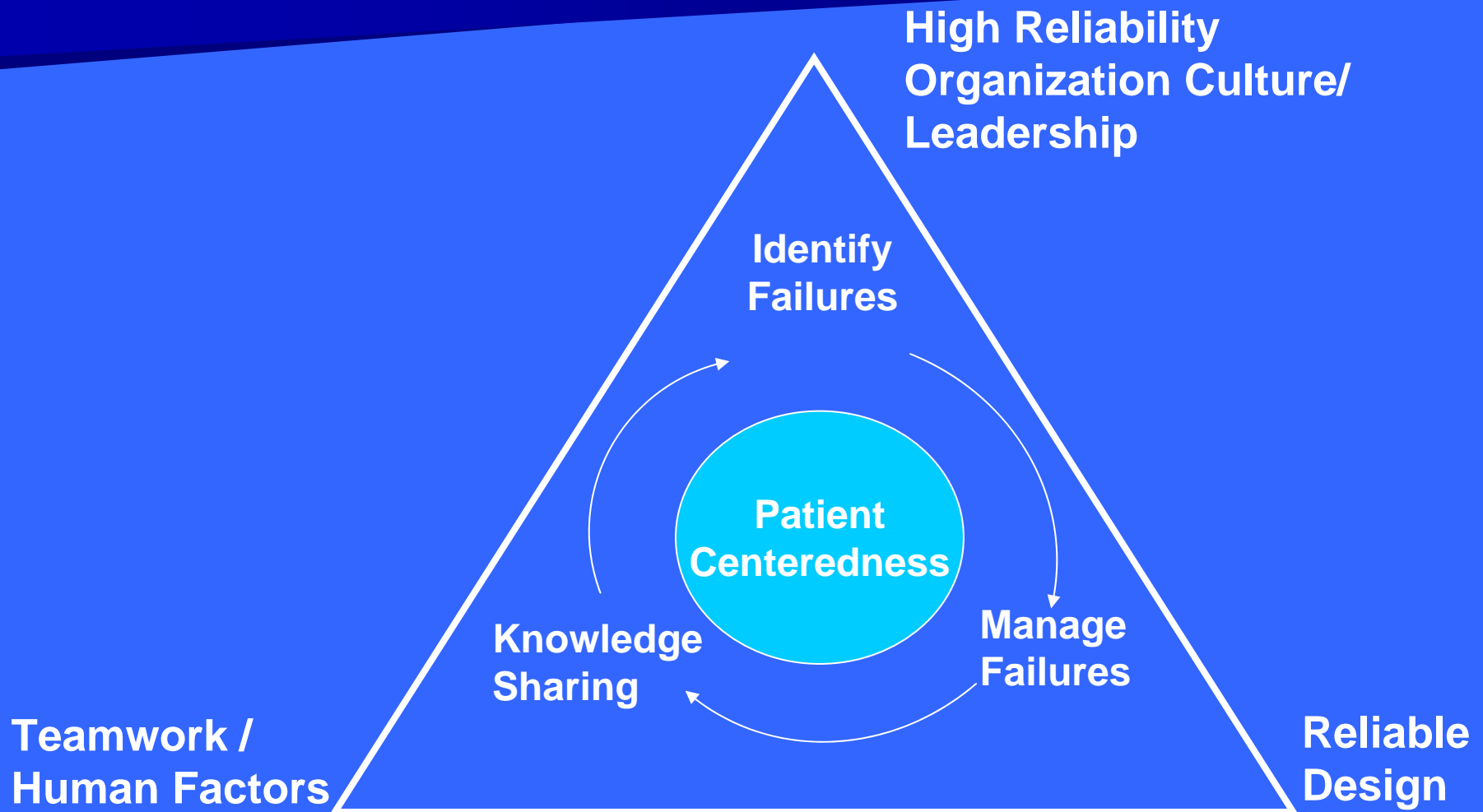
Creating a Patient Safety Plan

Becki Kanjirathinkal, MS, RN,
CPHQ, CMQ/OE, CPHRM

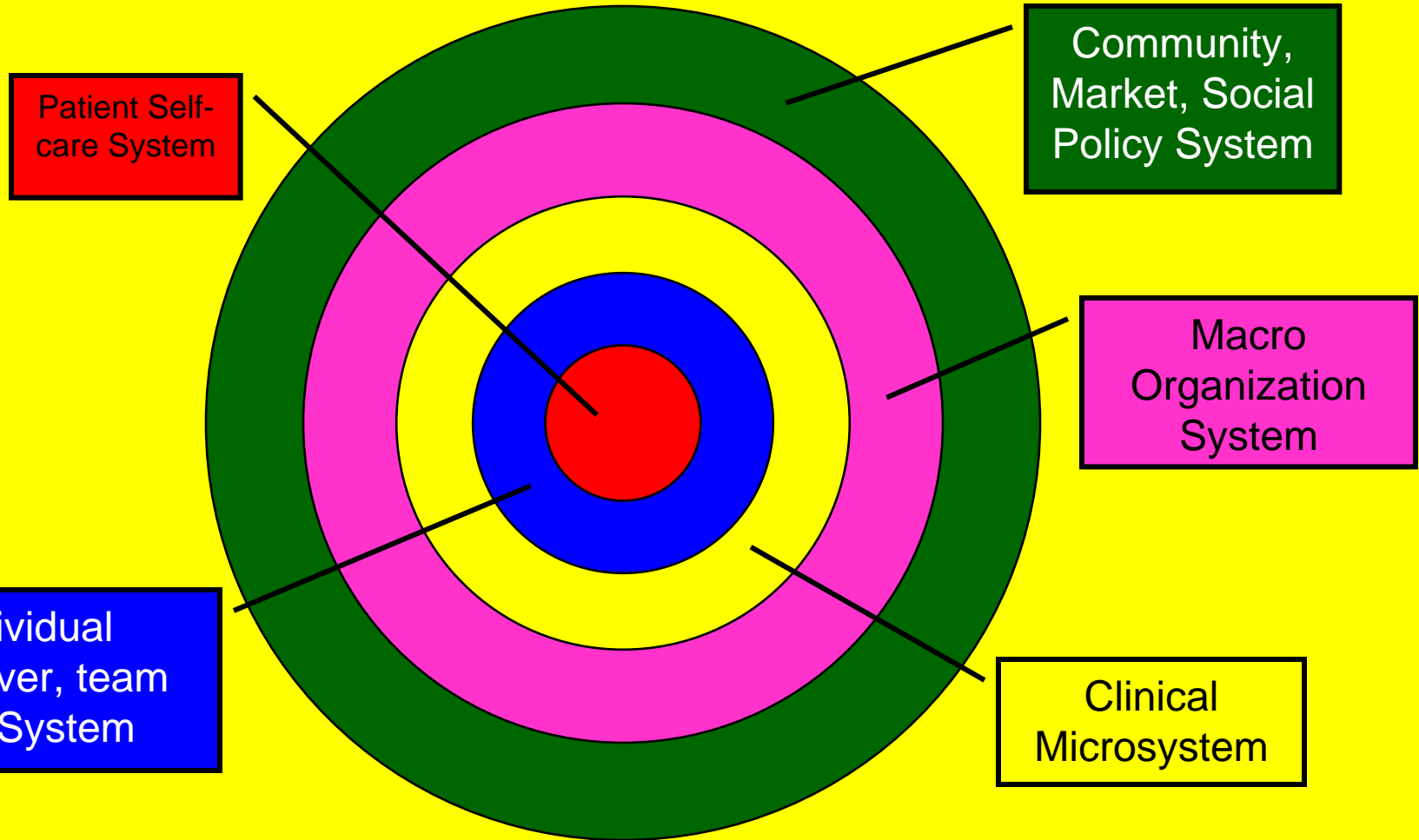
Paul Barach, MD, MPH

Patient Safety Plan

2



Microsystems Exist Within Other Systems



Vertical Alignment



Getting Started

■ Self-assessment

- Alignment with organizational strategy
- Program Infrastructure
- Inventory of current patient safety activities
 - Resource allocation
 - Capacity
- Results

Safety Program

- Linkage with Leadership/Organizational Culture
- Oversight responsibility/infrastructure
- Stakeholder Engagement
- Work Plan Development
- Execution Model(s)
- Monitoring/Measurement
- Participation/accountability
- Spread/Sustainability

Creating a Patient Safety WorkPlan

AIM: Safest Hospital

Objective: Zero incidence of harm

Tactics

- Crew resource management (CRM)
- SBAR
- Rapid response teams

What's on the Horizon for Patient Safety?

- The role of the built environment
- Patient centered processes
- Smart automation
- Adaptive informatics
- Focus on the team and simulation
- Full disclosure
- Telemedicine/remote care

Knowledge & Skill Set

- Leadership/Negotiation Principles
- Human Factors Engineering
- Behavioral Science Principles
- Systems Thinking and Complexity Theory
- Performance Improvement
- Project Management
- Change Management
- Patient Safety Language Literacy

Resources

- Advanced Training Program, Intermountain Healthcare, Salt Lake City.
<http://intermountainhealthcare.org/xp/public/institute/courses/atp/#objectives>
- Leadership Guide to Patient Safety from the Institute for Healthcare Improvement at <http://www.ihl.org>
- The University of Michigan Healthsystem Patient Safety Toolkit at <http://www.med.umich.edu/patientsafetytoolkit/>

Small Group Exercise – Mapping the Pre-Conference Patient Safety Symposium to the rest of the Colloquium sessions

Julie Johnson, MSPH, PhD

Paul Barach, MD, MPH

What do you think is on the horizon
for patient safety in the next 5
years?

Concluding comments, questions, and Post Test logistics

THE PATIENT SAFETY CURRICULUM

Patient Safety Domains	Knowledge, Skills, Attitudes
1. Theoretical Foundations	Microsystems, historical trends, chaos, complexity, competency and learning
2. Behavioral Aspects of Medical Professionalism	Ethics, patient quality of life, resolution of conflict
3. Interpersonal Issues	Communication, stress and coping
4. Human Factors and Ergonomics	Design history, error taxonomies, safety tools, decision support systems, fatigue factors, user centered design
5. Systems Analysis	Usability criteria , organizations and learning disasters, place for human error
6. QI Learning	Pareto/flow charts, and other QI tools, best practices, act cycles
7. Injury Epidemiology	Workplace hazards, worker safety, phases of injury, medico-legal aspects
8. Medication Safety	Adverse and near-miss reporting, ISMP tools and website, look/sound-alikes
9. Crisis Management Tools	Team work, shared decision making, situational awareness
10. Simulations	Micro-, macro-, debriefing, immersion levels, scripting, role playing

Rules for Health Care Design in the 21st Century

■ Current Approach

- Do no harm is an individual responsibility
- Information is a record
- Secrecy is necessary
- The system reacts to needs
- Professional autonomy drives variability

■ New Approach

- Safety is a system property
- Knowledge is shared and information flows freely
- Transparency is necessary
- Needs are anticipated
- Decision making is evidence-based

Final Thoughts

- We are in a transition phase
 - From error counting to harm prevention
 - From rules to migration
 - From reports to stories
 - From technology to more system mind-fullness
 - From one size fits all to individualization / customization
 - Focus on recovery and near misses
 - Collaboration and sharing
 - Algorithms and standardization
 - Competency based training
 - Careful automation
 - Seasoned regulation
- Safety is not a “top-priority”---safety is a precondition

Adjourn