Performance Improvement

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Presented at 3rd Asian Perioperative Nursing (ASIORNA) Conference 2012 & 5th Asian Perioperative Nursing Leadership Forum
"Influence on Safe and Quality Perioperative Care: Global Collaboration",
1 September 2012, Centara Grand & Bangkok Convention Centre at CentralWorld, Bangkok

OR Nurses are the most efficient and energetic hospital staff I have ever known.

Performance improvement has been initiated and implemented all the time by these energetic people.

Topics:

1. Brief the PI journey in Thailand
2. Some PI concepts & models
   - Voice of customer
   - 3P – basic building block
   - Process improvement model
   - The Productive Operating Theatre
   - High Reliability Organization

The Healthcare Accreditation Institute, Thailand

An independent government agency responsible for reinforcing healthcare quality improvement using self assessment, accreditation and knowledge sharing.

R & D Program
Under The Health System Research Institute (HSRI)

1993-1999

Institute of Hospital Quality Improvement & Accreditation
(under HSRI)

1999-2009

The Healthcare Accreditation Institute
(Public Organization)

2009-

Starting the Healthcare Performance Improvement Journey in Thailand

Start of the Improvement Journey

- 1981 Community hospital management
- 1983 Nursing service
- 1984 STAR the hospitals
- 1985 Rural healthcare system & network
- 1989 Nursing quality assurance

MOPH

Quality Improvement

R&D Program Under The HSRI

TQM in
8 Public Hospitals

What did we do?

- Find the right people
- Analyze the current trends
- Work with the people on what they have
- Learn with them

1993 1996 1998 2000 2002 2004 2006 2008 2009

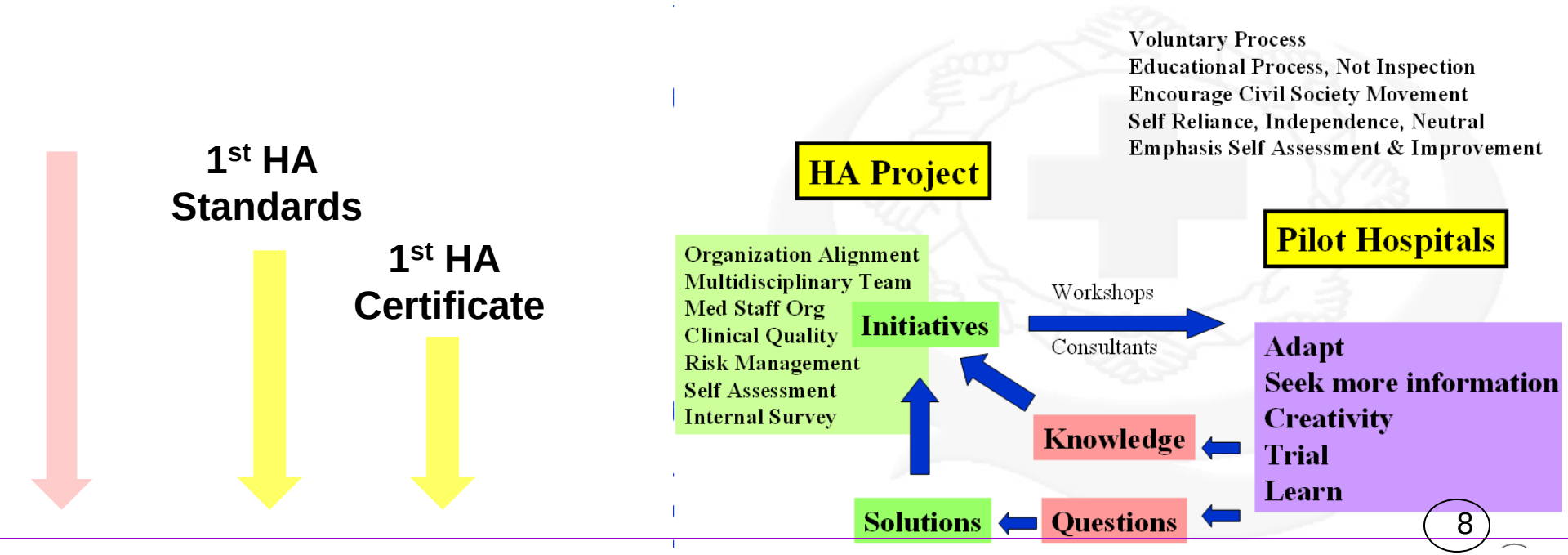
External Evaluation Mechanism

What did we do?

- Manage the opportunity
  - SSO hospital standard focus on audit mode
- Use comprehensive framework
  - Cover the whole organization
- Encourage Paradigm shift
  - Accreditation as an educational process
- Give freedom to test during R&D phase

Hospital Accreditation

Quality Improvement



Expansion

What did we do?

- **Response to the policy makers strategically**
- **Use threat to scale up**

Hospital Accreditation

Quality Improvement

TQM in
8 Public Hospitals

demand
for quality
& access

1st HA
Standards

1st HA
Certificate

UC

1993 1996 1998 2000 2002 2004 2006 2008 2009

Stepwise Recognition

Step 3: Quality Culture
Identify OFI from standards

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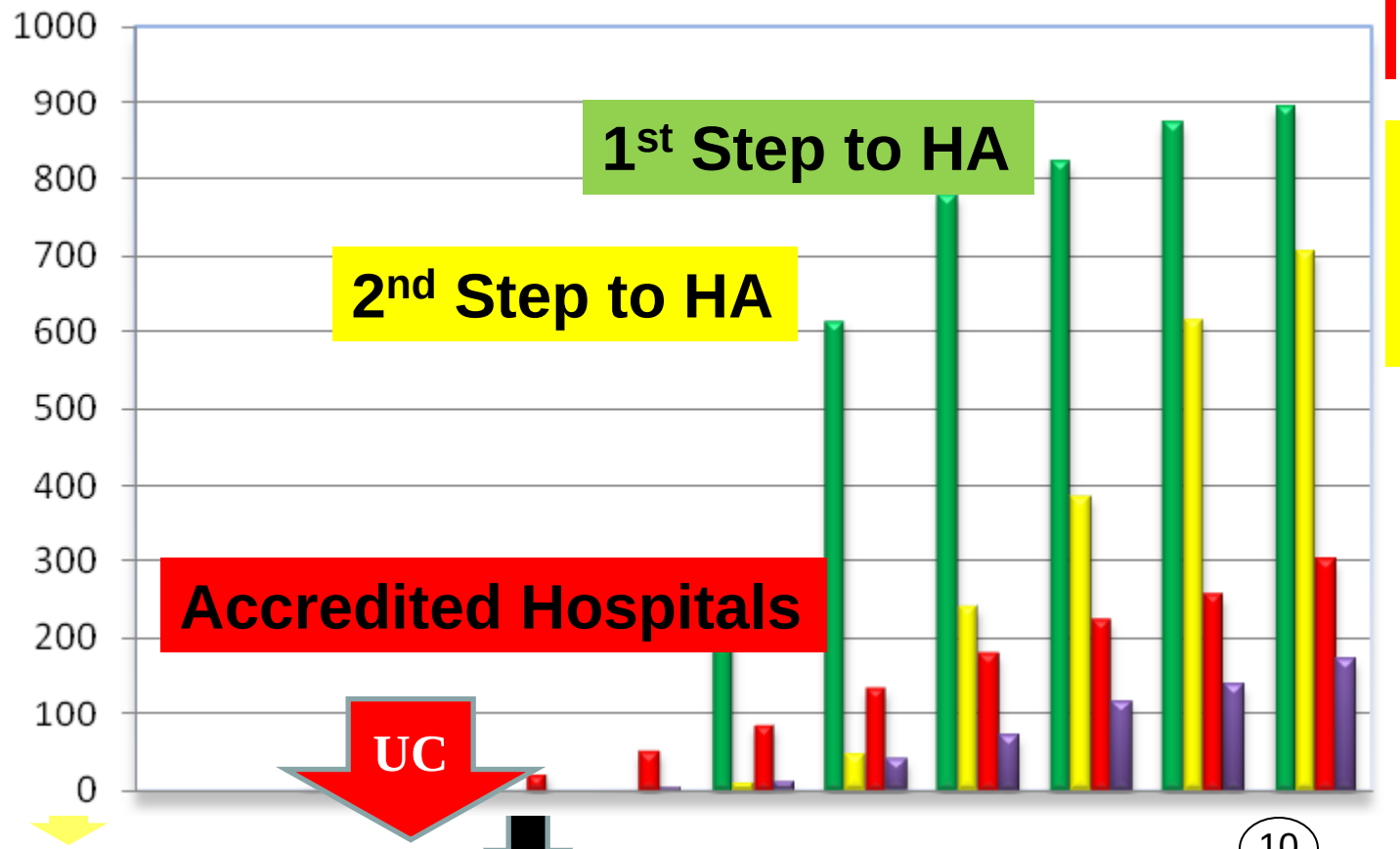
Step 1: Ri
Identify C
Focus on h



1st HA Standards C

1993 1996 1998 2000 2002 2004 2006 2008 2009

Improvement Concepts & Models

NHS Institute for Innovation and Improvement

What staff told us……

Not having right equipment
Starting late
Not finishing on time
Poor communication
Stressed
Poor team working
Interruptions
Cancelled patients……

NHS Institute for Innovation and Improvement

We are trying to create this!

Experienced Based Design involves patients in the design of Healthcare, more deeply than any other process in the NHS.

It harness the energy of patients and staff to make meaningful lasting improvements

'NHSI 2009'

Voice of Customer

Who are the customers of OR?

What are their requirements?

How do they feel? What are their experience?

How do we learn from them?

Communication & Information Sharing

Someone had prepared a common pain medication and had entered in the chart that Darlene had taken the medication before it was actually administered.

When Darlene was presented with the medication, she reminded the clinician that she was allergic to that particular medication and refused to take it.

However, Darlene was told that her chart could not be amended by that clinician. The “dose” she didn’t take stayed on file uncorrected, creating the impression it was fine for her to take.

Despite her warnings about her allergies, Darlene was in fact administered the incorrect pain medication after her surgery and experienced a severe allergic reaction.

Better Planning Up Front

Laurel received some basic information to help her prepare for surgery, and did what she could to prepare her home for her post-surgery period, but she soon found she was desperately unprepared for her post-surgical experience.

A couple of days after her surgery, Laurel was discharged from hospital without any social support in place. Laurel decided to stay at a local hotel to recover further before embarking on the five-hour drive home. *"I had to stay in a hotel room by myself. I needed ice and a person to care for me."*

Once she arrived home, she found herself alone without adequate assistance. *"I live alone and out of town, and nobody was able to bring me to rehab appointments. You think you are totally prepared but then you realize it's more than you thought."*

Patient Influence & Control

- "You lose all control and self protection in an alien world. The vulnerability changes your ability to act which increases your vulnerability even more."
- "Hard or complex decisions need to have the patient or family member fully involved, and able to tell of previous experience and preferences."
- "Once you are in the surgery receiving area, you are like a lab rat…[the staff] are busy, but…"
- "You're put on the table with little attention to dignity… it's no big deal to them, but that does not mean it's no big deal to me."
- "I am a number: a bed, days in hospital, a surgery spot."

Anxiety & Fear

- "If you have allergies or other complications, it is more scary because you know what can happen and you can see when the staff aren't listening to you."
- "If the clinicians are dismissive of the patient's special needs or other conditions, this increases the patient's stress and anxiety."
- "If patients are clear on what to expect, how to manage their pain, and who to call for help, they will have much less fear and anxiety."
- "Waking up hurts and is frightening and makes you scared about more things."
- "Patients need VERY HUMAN interactions at this time (recovery)."

Coordination of Whole Patient Care

Karen's husband was a relatively fit senior with comorbidities. Following the surgery, he was admitted to the ward where he soon developed symptoms of a *C. difficile* infection. Unfortunately, it was three days before the lab tests were ordered and antibiotics administered.

According to Karen, *"the Staff did not respond to the symptoms of infection as a comprehensive process…they treated the symptoms individually. If symptoms are only matched to individual specialist 'snapshots,' you don't get an overall 'moving picture' of the patient's complete condition."*

The symptoms, although each minor on its own, combined to create a catastrophic consequence. Karen's husband died of a gastrointestinal bleed eight days after his surgery.

The Most Responsible Clinician

There needs to be a “most responsible clinician” who will care for the whole patient:

- Have a very high level of medical training (e.g., nurse practitioner, hospitalist, or other physician).
- Be responsible for the “whole patient.”
- Help with medications, monitor side effects, etc.
- Oversee hand-off of patient to clinical medical navigator.
- Create feedback loops so that each unit or team is informed of patient outcomes/conditions..

A clinical medical navigator should be available to support patients. The navigator needs to be a doctor or have a VERY high level of medical training (e.g., nurse practitioner), not just a personal advocate or lay volunteer.

Patient Feedback

Getting feedback from patient experience

- Use open-ended techniques such as "Tell us about your experience."
- Note that "satisfaction" is not the same as the patient's "experience."

Successful outcome:

- "A surgery is successful only when I am totally back to normal."

Patients want to know how the information is ultimately used. Patients fear the consequences of completing feedback forms and whether their comments will affect their current or future care.

What can we do?

1. *Improve quality of communication and information-sharing at all stages of the perioperative process to ensure continuity of care*
2. *Better planning up front*
3. *Increase patient influence, control and decrease vulnerability*
4. *Anxiety and fear vs. safety and security*
5. *Most responsible clinician to oversee coordination of whole-patient care*
6. *Patient feedback*

Supplier → **Input** → **Process** → **Output** → **Customer**

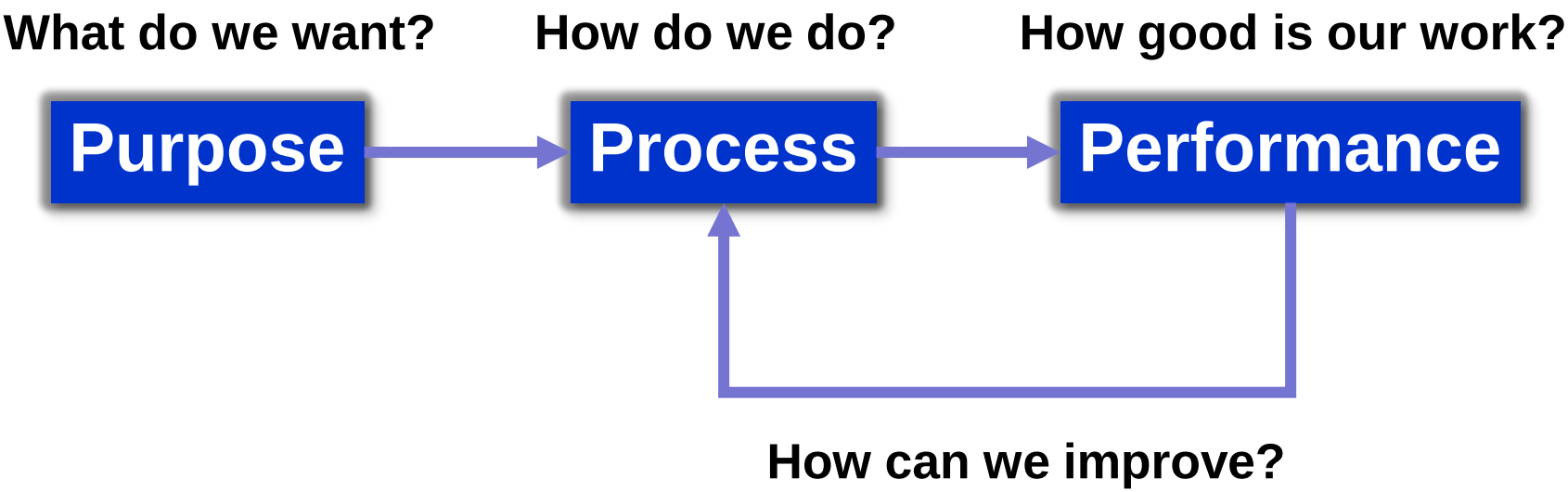
Quick Tips—When Planning for Surgery

Before having surgery, ask your physician these questions:

1. What operation are you recommending?
2. Why do I need the operation?
3. Are there alternatives to surgery?
4. What are the benefits of having the operation?
5. What are the risks of having the operation?
6. What will happen if I don't have this operation?
7. Where can I get a second opinion?
8. What has been your experience in doing the operation? How many have you performed?
9. Where will the operation be done?
10. What kind of anesthesia will I need?
11. How long will it take me to recover?
12. How much will the operation cost?

Do we take the opportunity to listen to our patients about service changes we may be considering….

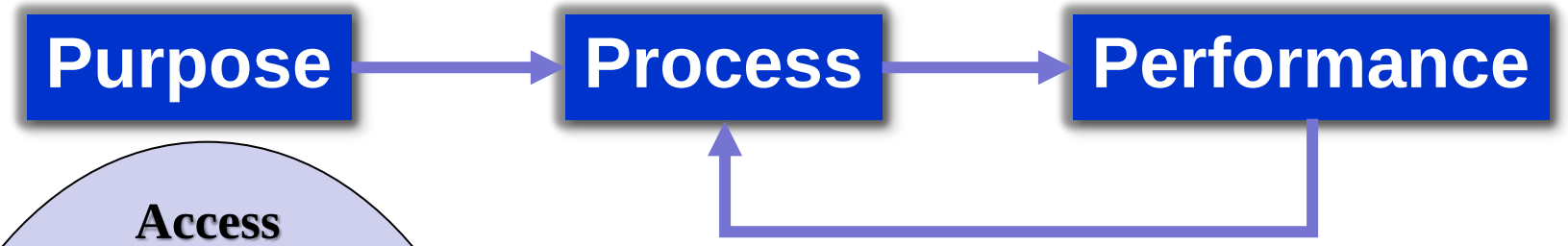
3P: Basic Building Block



Activity level: e.g. time out
Project level: e.g. SSI prevention project
Unit level: OR management system

P - Purpose

What do we want? How do we do? How good is our work?



How can we improve?

Access
Appropriate
Competency
Continuity
Coverage
Effective
Efficiency
Equity
Humanized/Holistic
Responsive
Safety
Timeliness

Better
Faster
Safer
Cheaper

Perioperative Efficiency

Perioperative efficiency is maximizing the number of surgical patients that can be served while ensuring a high level of quality and safety, and optimizing the amount of resources and related costs that are used within a defined budget.

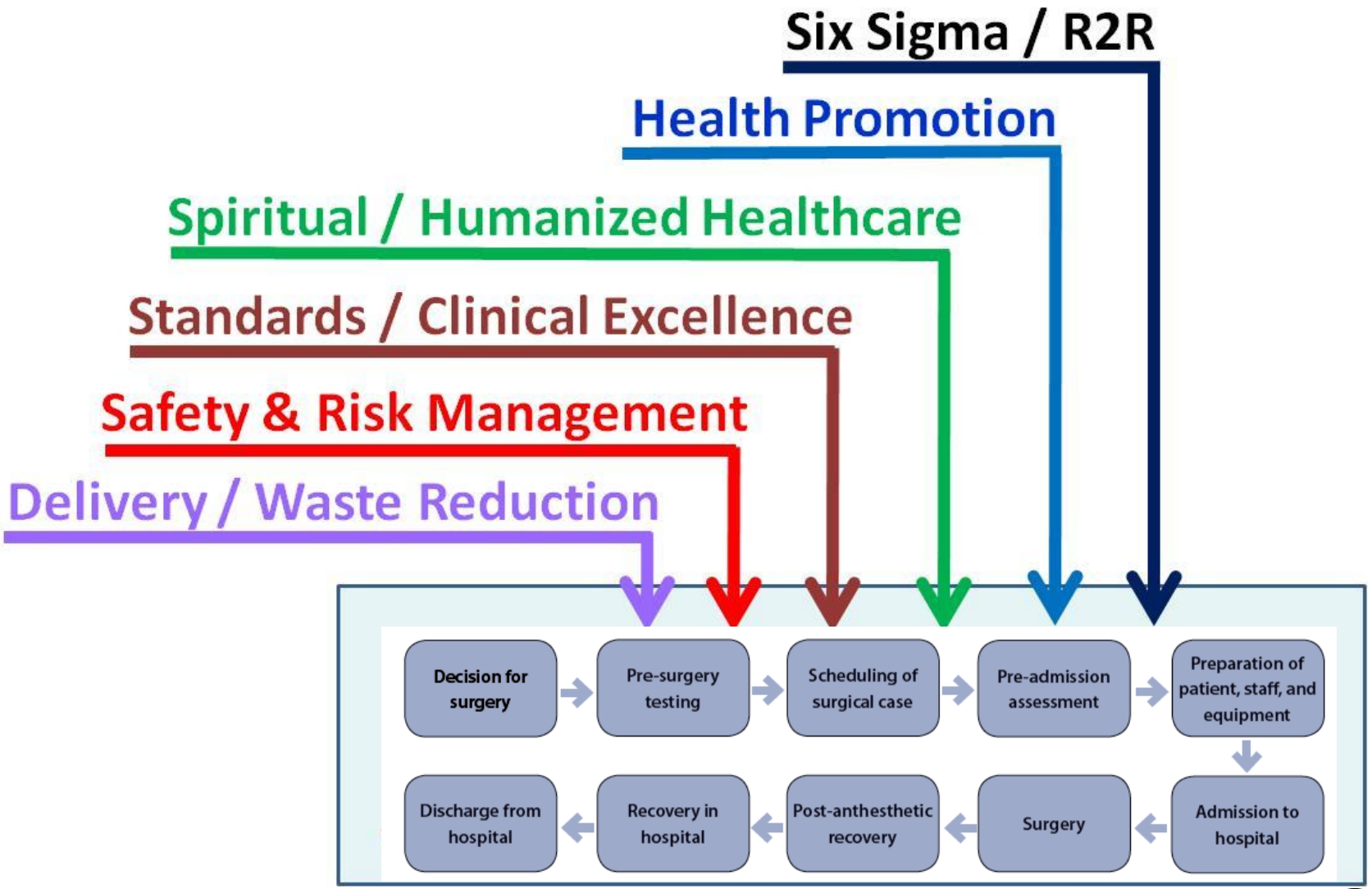
- **Scheduling efficiency** (optimizing resources assigned to the operating room).
- **Financial efficiency** (reducing cost per case).
- **Operational efficiency** (overall system efficiency, which requires work process redesign).
- **Practitioner-centred efficiency** (maximizing surgical cases that can be performed).
- **Patient-centred efficiency** (providing interventions only when necessary, and providing a smooth patient flow with no unnecessary waiting).

Archer and Marcario (2006)

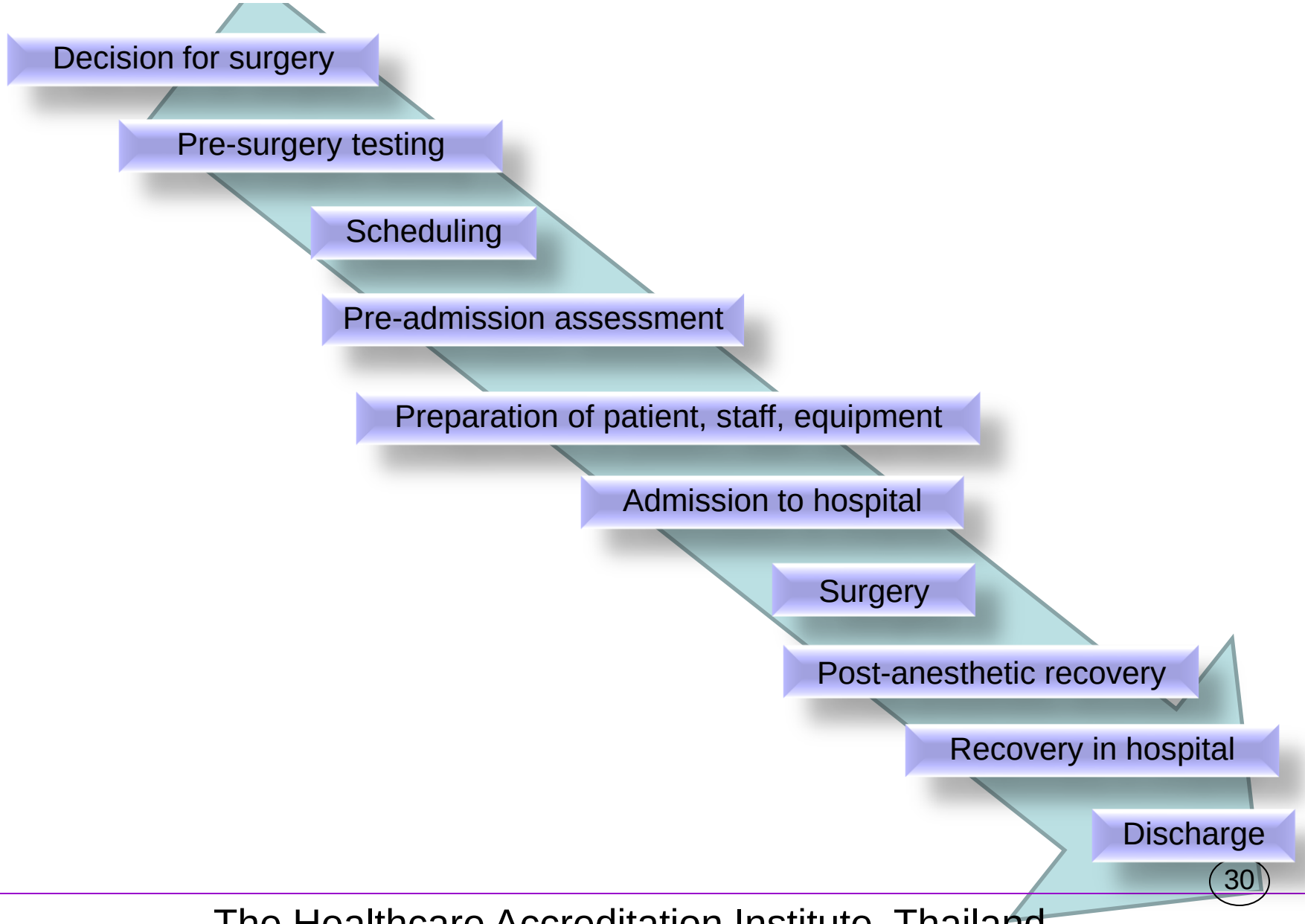
Ontario's Surgical Performance Indicators

- % First Case On Time or Early
- % Subsequent Case On Time or Early
- Average Patient-In to Patient-Out Minutes
- Average Patient-In to Anesthesia-Ready Minutes
- Average Turnover Minutes
- % Scheduling Accuracy
- % Utilized 7 a.m. to 3 p.m.
- % Same Day Add-On Weekdays
- % Unplanned Closures
- % Same Day Cancelled or Postponed
- % Returns to Surgery Within 24 Hours
- % Patients Screened Prior to Surgery
- % Surgical Checklist/Timeout Compliance
- % Priority Cases (various)—Access Within 0–2 hours, 2–8 hours, 8–48 hours, 2–7 days

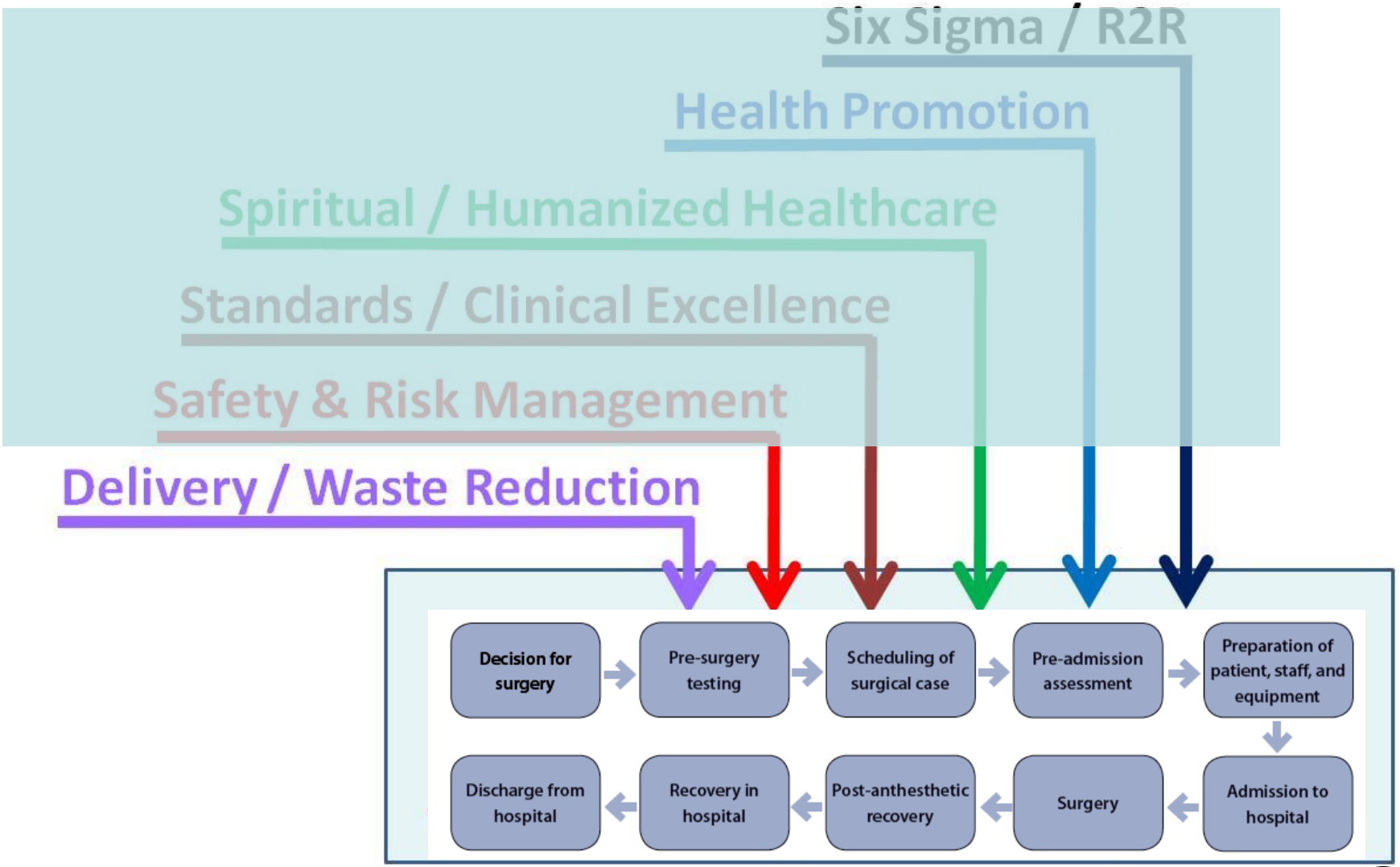
Comprehensive Process Improvement Model



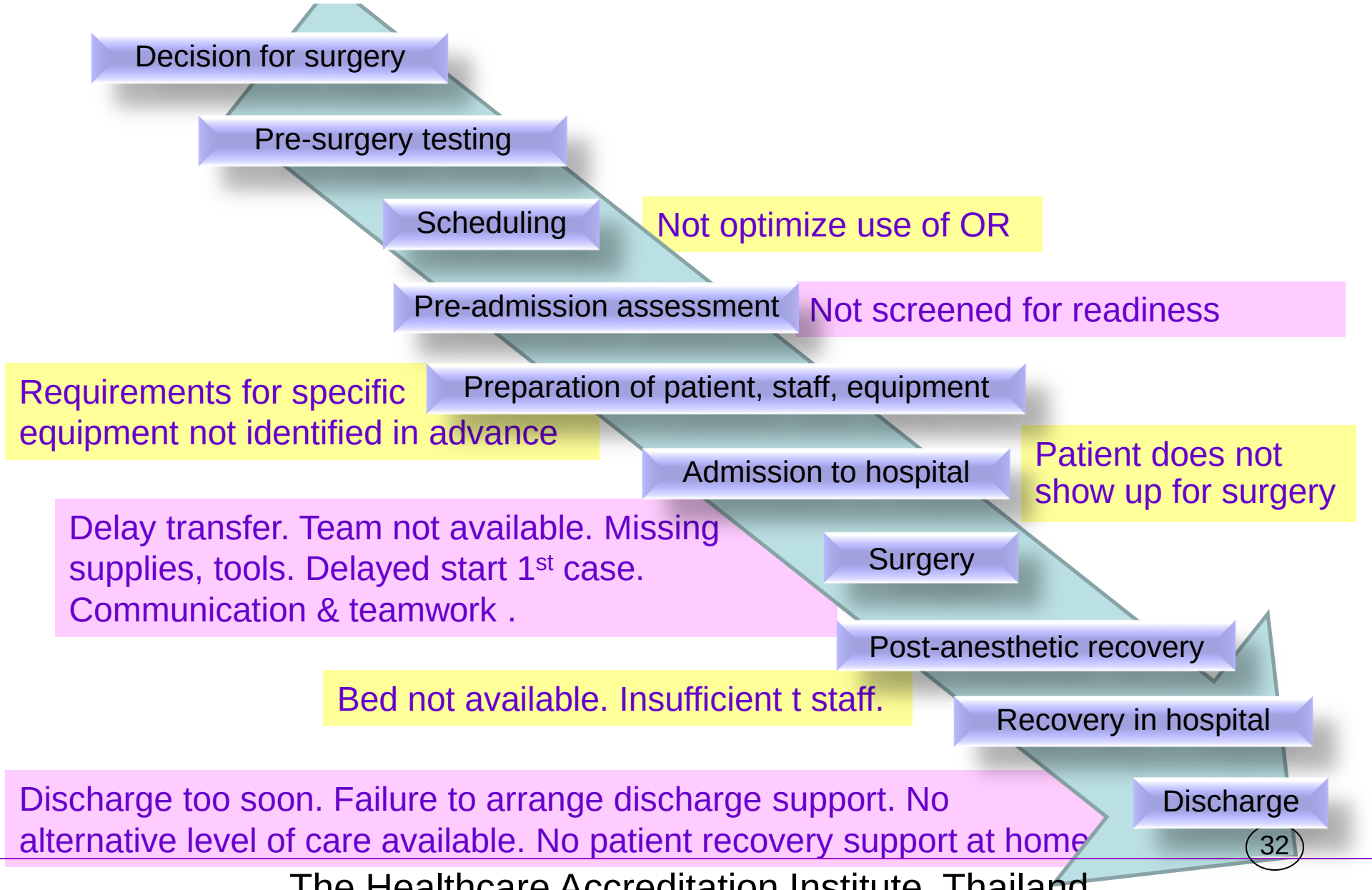
The Perioperative Processes

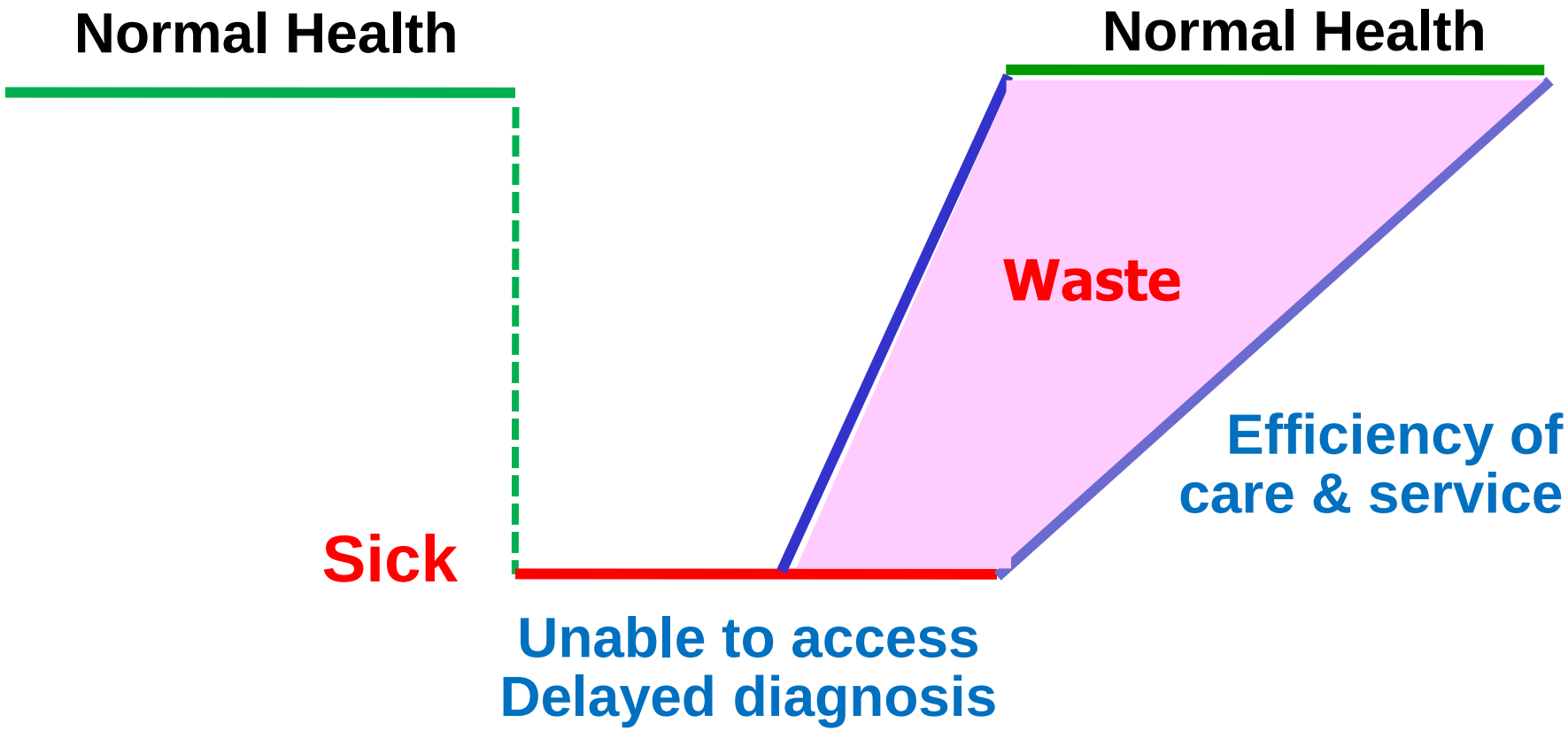


Comprehensive Process Improvement Model



Identify Waste in the Processes

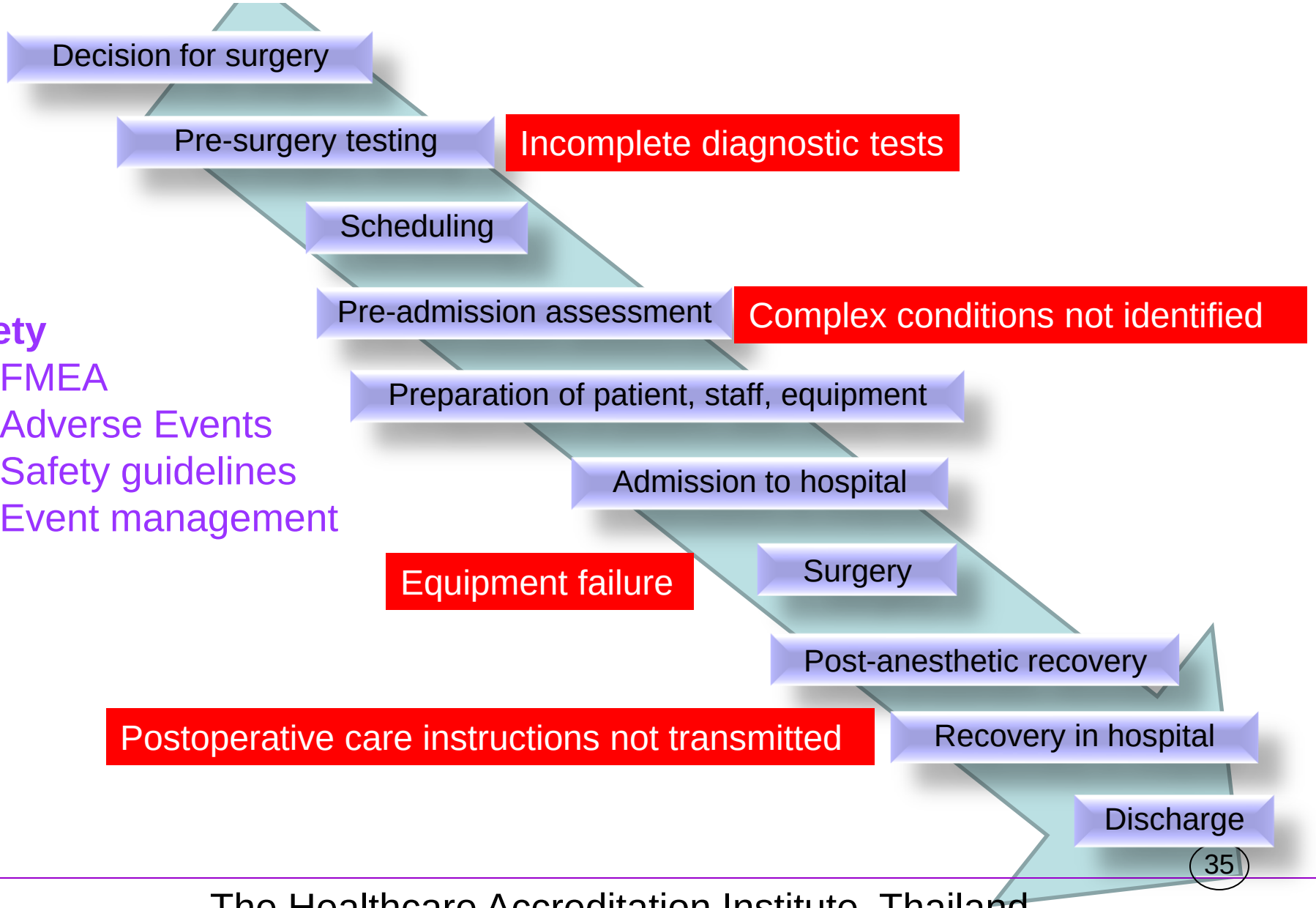




Lean = bring back desirable health status as soon as possible

Comprehensive Process Improvement Model

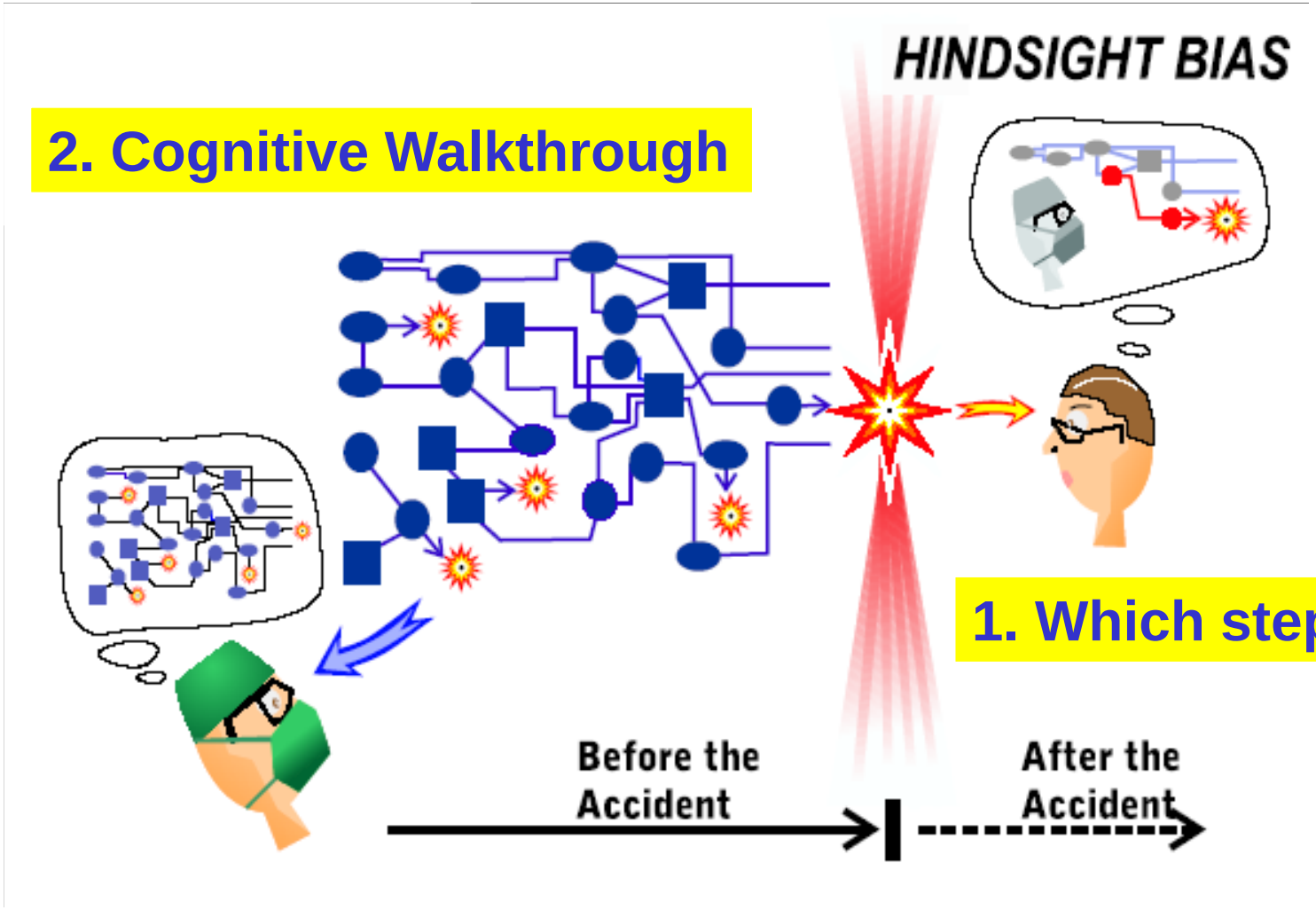
Identify Risk in the Processes



Safety

- FMEA
- Adverse Events
- Safety guidelines
- Event management

Simplified RCA



30 Safe Practices for Better Health Care

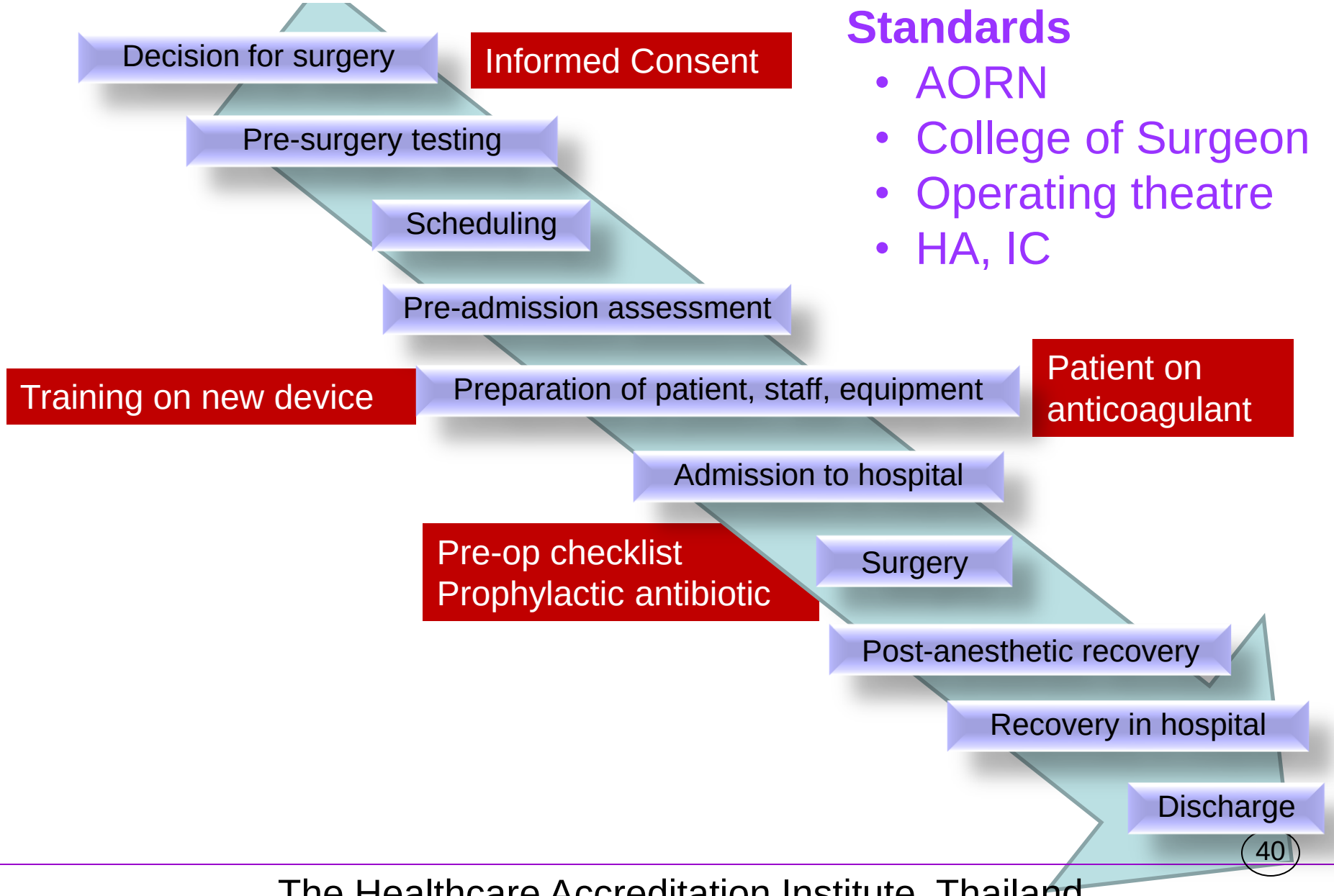
1. Creating a Culture of Safety
2. Refer patient (high-risk elective procedure.)
3. Use an explicit protocol for nursing care.
4. All patients in ICU be managed by critical care physicians.
5. Pharmacists actively participate.
6. Record & read back verbal orders.
7. Use standardized abbreviations and dose designations.
8. Patient care summaries not be prepared from memory.
9. Transmit change in care information.
10. Ask patient to recount informed consent discussion.
11. Patient's preference for life-sustaining treatments.
12. Computerized prescriber-order entry system.
13. Protocol to prevent the mislabeling of radiographs.
14. Protocols to prevent wrong-site/patient procedures.
15. Evaluate for risk of an acute ischemic cardiac event during surgery.

30 Safe Practices for Better Health Care

16. Evaluate for the risk of developing pressure ulcers.
17. Evaluate for the risk of developing deep vein thrombosis.
18. Utilize dedicated anti-thrombotic services.
19. Evaluate each patient for the risk of aspiration.
20. Adhere to effective methods of preventing CL-BSI.
21. Evaluate each pre-operative patient the risk of SSI.
22. Patients at risk for contrast media-induced renal failure.
23. Evaluate for risk of malnutrition.
24. Risk of an ischemic and/or thrombotic complication.
25. Decontaminate hands.
26. Vaccinate health care workers against influenza.
27. Medications preparation space.
28. Labeling, packaging, and storing medications.
29. Identify all "high alert" drugs.
30. Dispense medications in unit-dose or, unit-of-use form.

Comprehensive Process Improvement Model

Standard, Guideline, Evidence



Standards

- AORN
- College of Surgeon
- Operating theatre
- HA, IC

Sales Representatives in OR

In 1997, a hospital was fined by New York State for quality-of-care violations related to the death of a woman undergoing a routine hysteroscopic procedure. Among its findings, the state said the hospital violated accepted standards of medical practice by **allowing an unauthorized and unlicensed individual (a medical equipment sales rep) to participate in the surgical procedure**. The state also charged that the patient's rights were not maintained because **the patient was not informed** that a sales rep would observe or participate in her procedure. In addition, **the device (a hysteroscopy electrosurgery system) had not been approved by the hospital prior to its use** and the surgeon and nursing staff had not received training on the device.

ECRI Institute (2007)

- Put a white board in OR, write down the patient's name, age, medication that will affect the safe conduct of the operation, site of the problem, names of everyone in the room.
- Use as a centerpiece for preoperative **briefing**.
- Discuss fluid administration, proposed length of operation, the possible difficulties.
- Invite everyone in the room to speak up if they see something unusual or dangerous.
- Consider also operation without music.
- Require call out from anesthesia every 30 minutes. This is a great chance to compare the progress of the surgeon to the progress of the patient.
- BP, pulse, urine output, temperature, and oxygenation can easily be discussed.
- Do a **debrief** at the end of the procedure.

Richard C. Karl "Staying Safe: Simple Tools for Safe Surgery"

Briefing –

or how to make the day go better

1. Who is in my team?
   New/inexperienced/need help?
2. What are we doing?
   Routine/special/
3. Do we have th
   SSD/disposable
4. Any 'outside' i
   Ward/recovery/b
5. Time?
   Enough/tight/hol
   /planB?

Used in Cornwa

Anaesthetist holds consent for	
Patient's name and DO	
What operation are you	
Are there potential pro	
Which side are you op	
Surgeon dem	
What antibiotic have y	
Has Heparin been give…	Heparin was given ……
Are TED stockings on?	TED stockings are on

Key: surgeon text, anaesthetist text

Debriefing / or how was it?

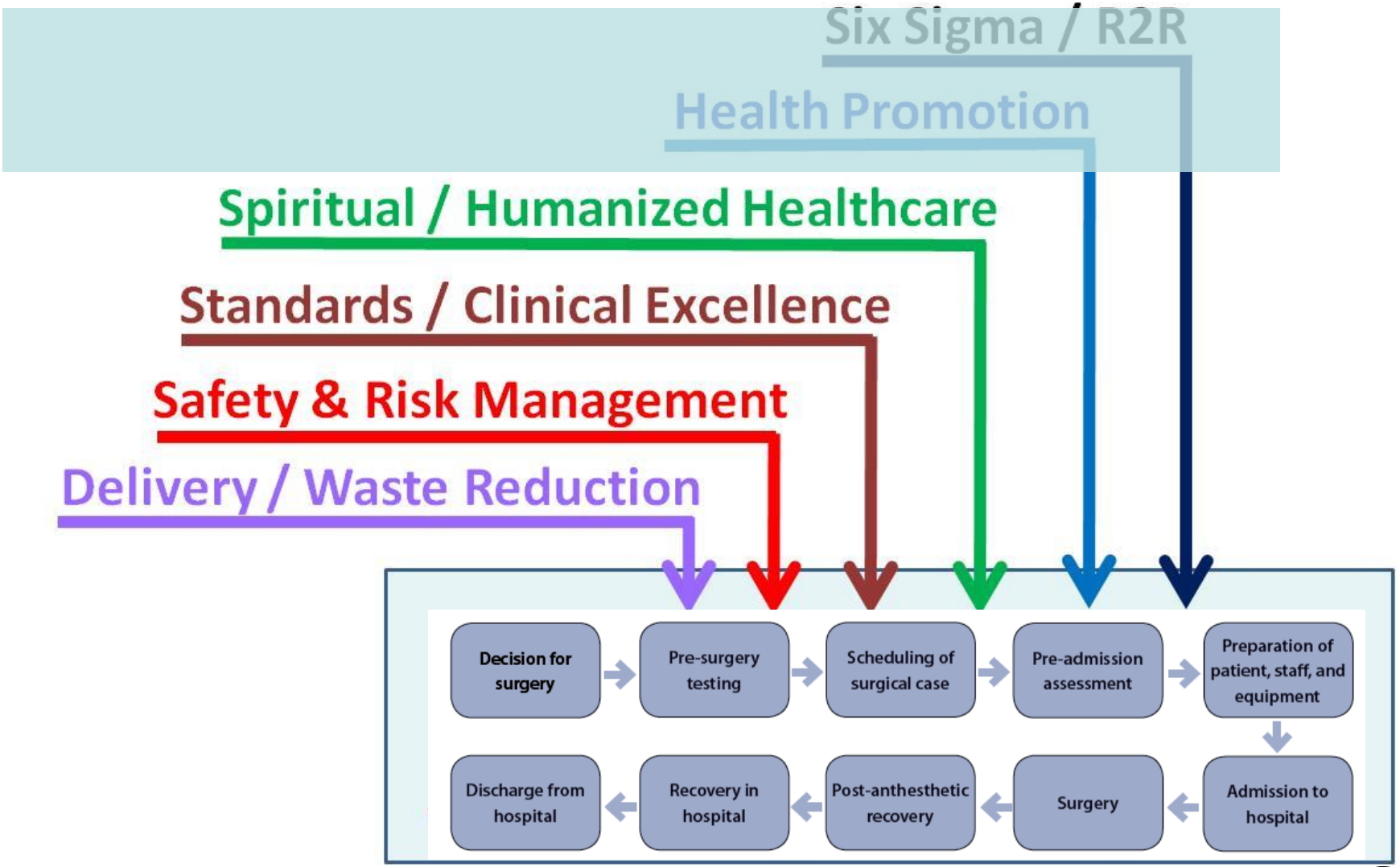
What went well?
- Was there a shared understanding of the plan?
- Did briefing help?
- Did we communicate well?

What challenged us?
- Any glitches or near misses?
- Was time an issue?

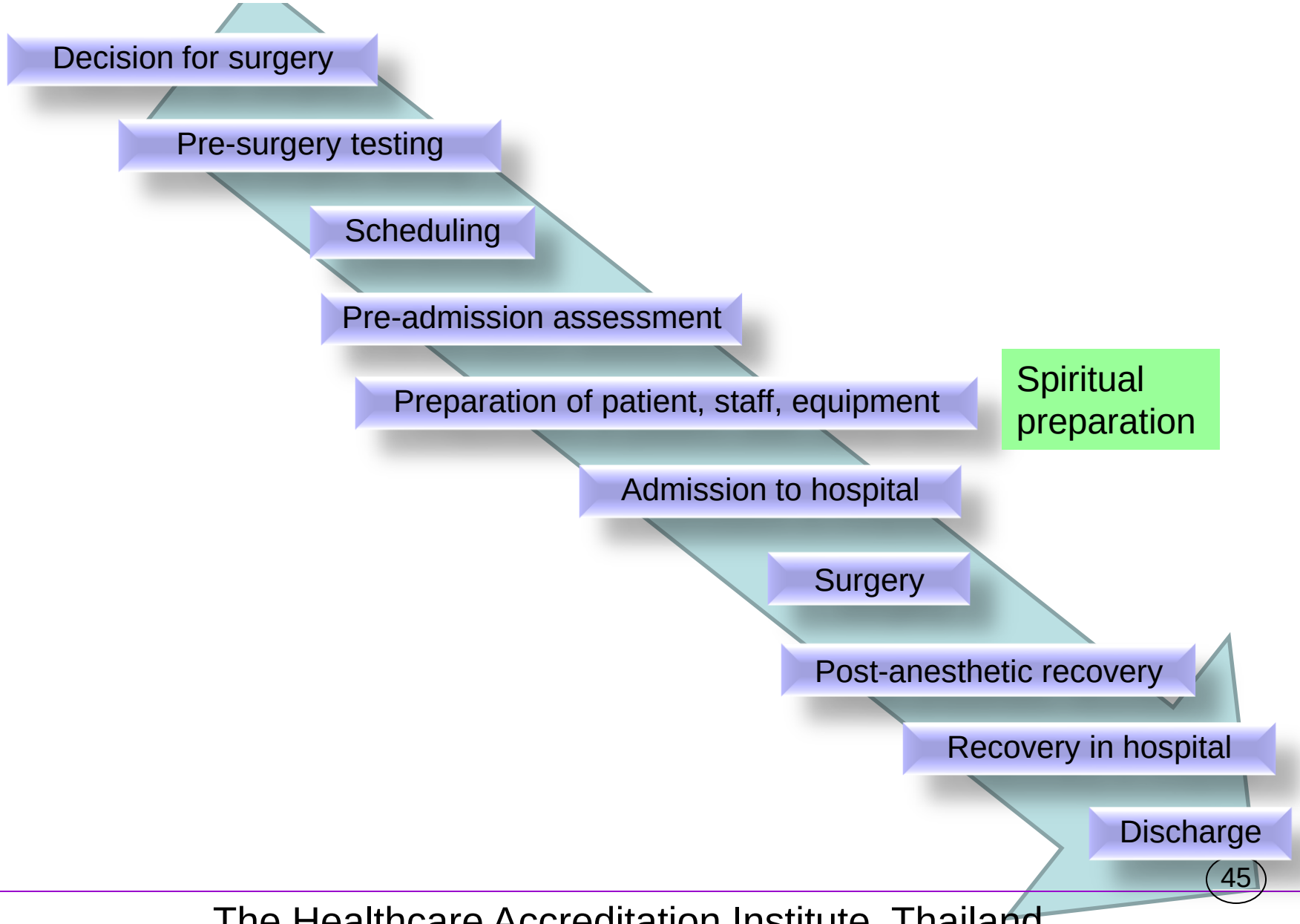
What did we learn - want to change now?
- What are the issues?
- Who's going to record them?
- How will we test new solutions?

By implementing briefing and debriefing into operating theatres Central Manchester NHS Foundation Trust was able to demonstrate a statistically significant improvement in staff attitudes; specifically team work climate, safety climate and job satisfaction.

Comprehensive Process Improvement Model



Spirituality



Spirituality & Surgery

I began doing the guided imagery a week before the operation. It took me to a favorite place of peace and happiness and then transported me into the operating room where I could see a group of capable and efficient health care professionals preparing for a guest who turned out to be me!

I knew as I observed them that they wanted to do their very best to take care of me.

And others were around me too — family members and friends, smiling, offering words of assurance and love, filling the whole room with their light. I also felt the presence and healing energy of angelic beings and loved ones who have died.

Spirituality & Surgery

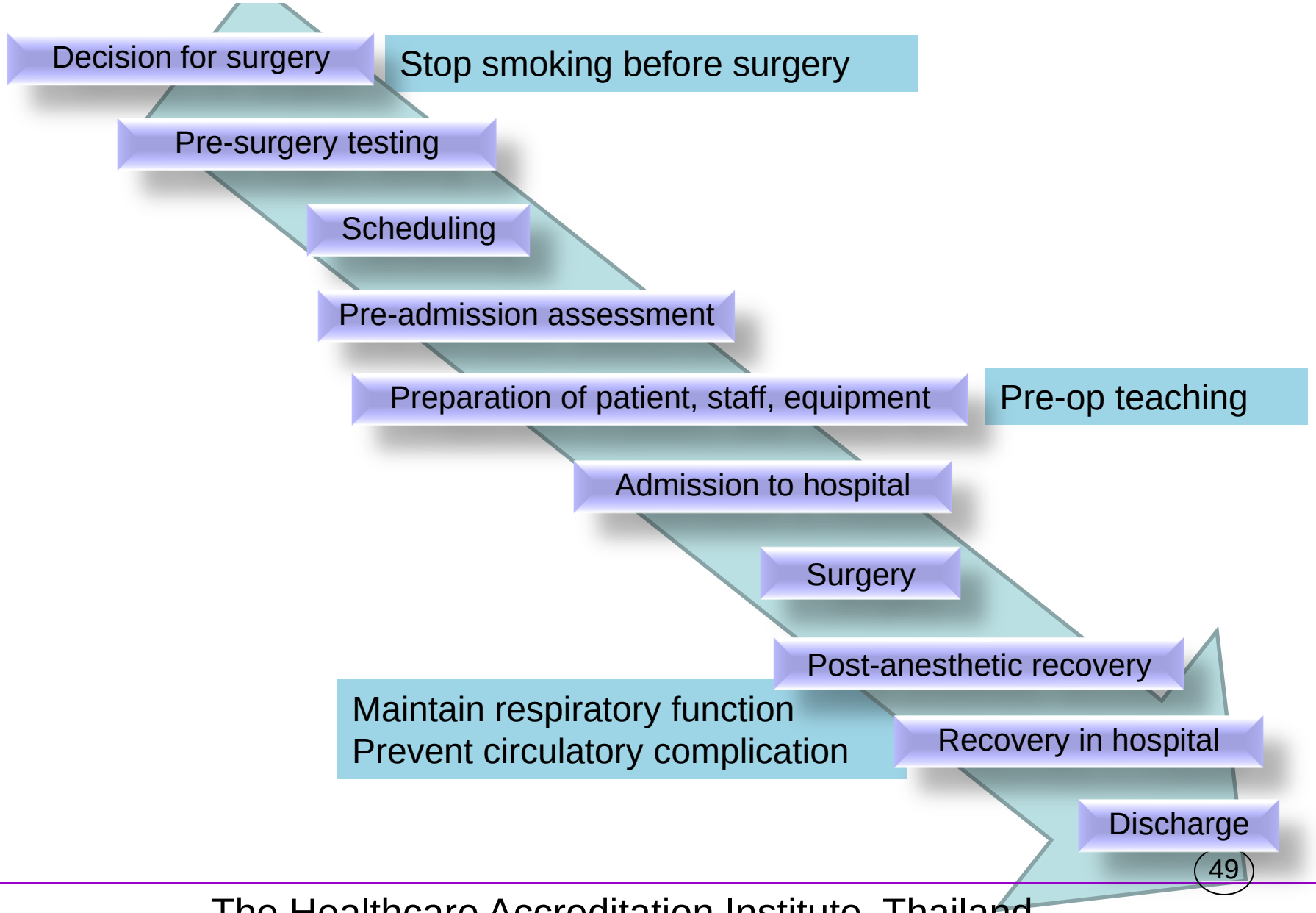
As I lay on a stretcher outside the operating room, I recalled this imagery and replayed it in my mind.

The combination of prayers, love, light, and positive and confident feelings that went with me into the operating room was something I had never experienced before. It struck me that this was the most important spiritual lesson of the operation.

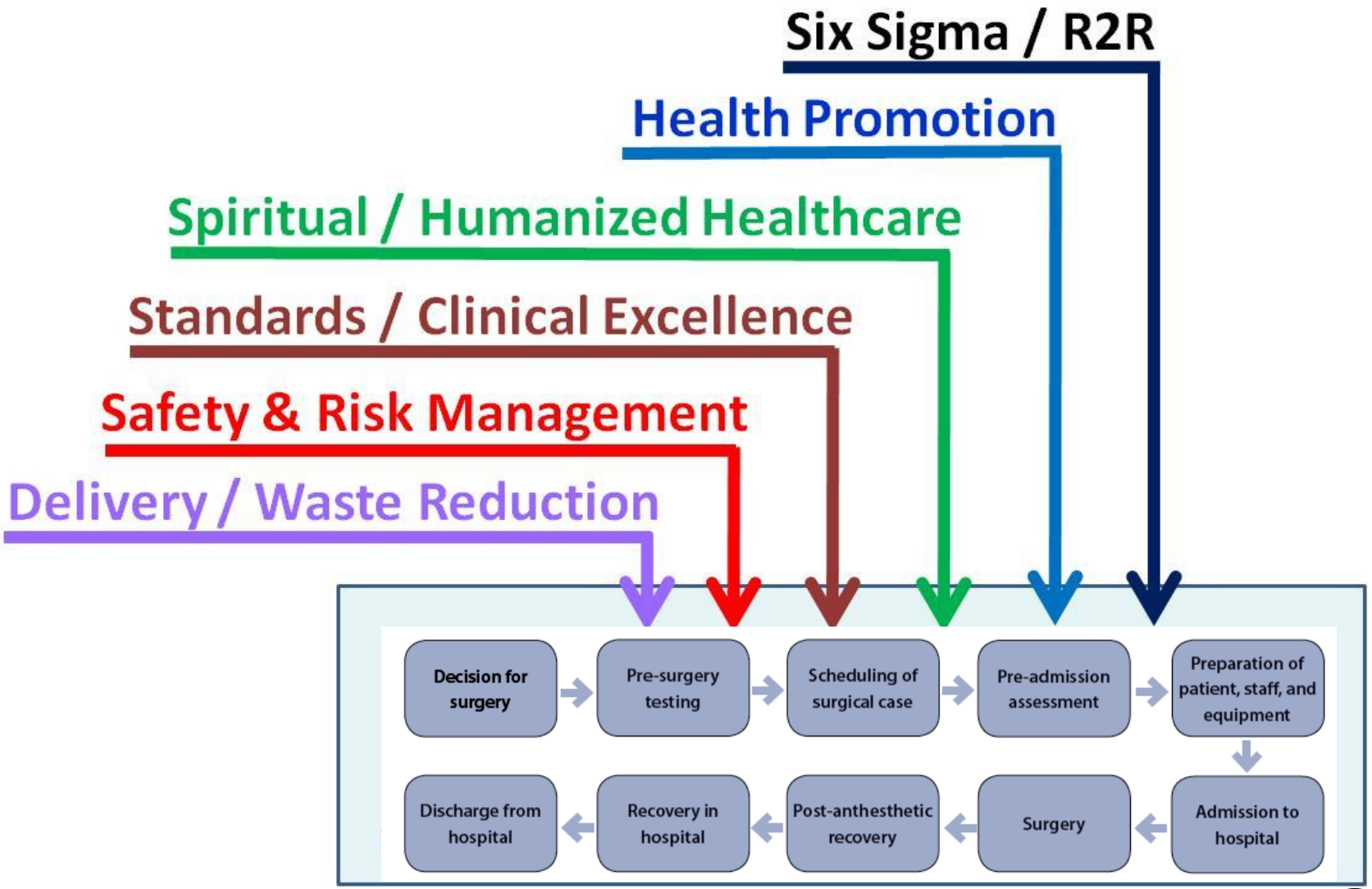
So before I went under the anesthesia, I expressed thanks in a little speech to the surgeon and his team for all the time, talent, and commitment they were devoting to the healing arts. I told them that I had total confidence in their ability to do the best operation possible. I believed what I had been experiencing in the imagery would indeed be how the surgery and my recovery would unfold.

Comprehensive Process Improvement Model

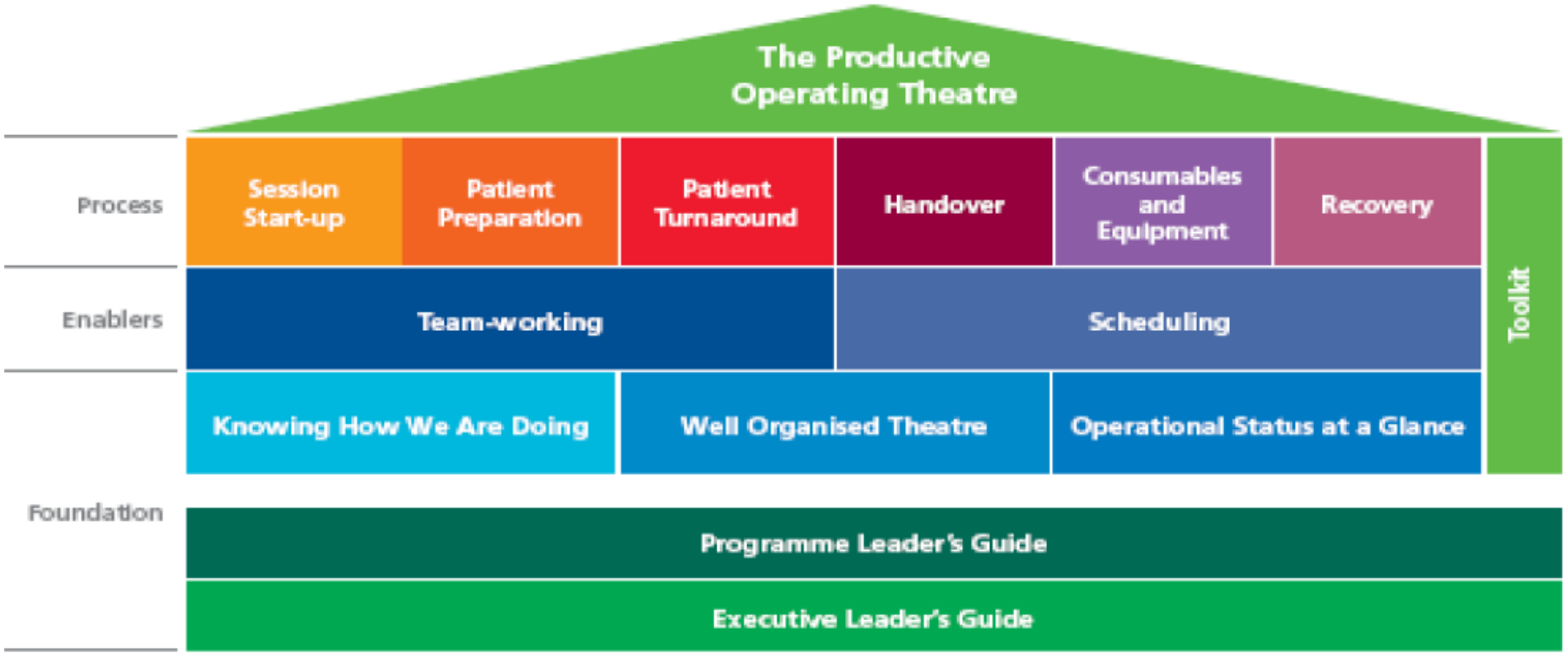
Health Promotion



Comprehensive Process Improvement Model



The Productive Operating Theatre



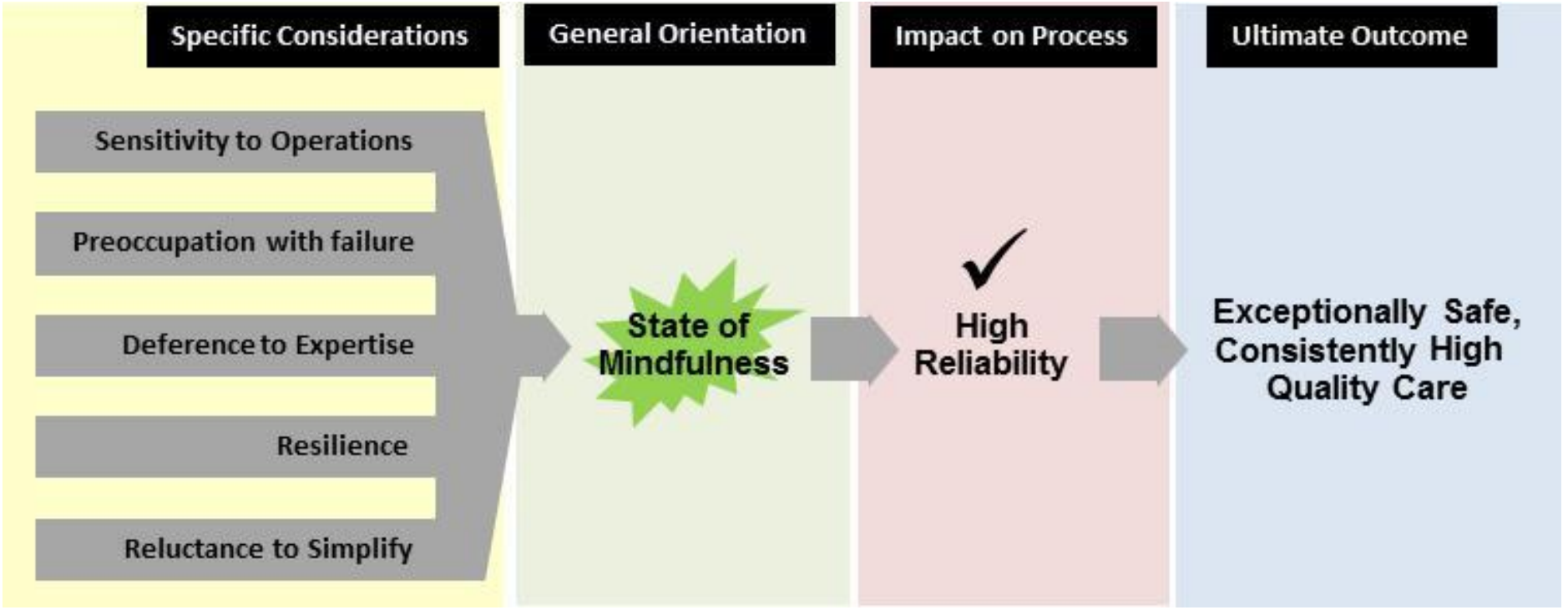
- A systematic way to deliver significant improvements in safety, efficiency and patient care.
- A proven method of involving and enabling front line theatre teams to transform the way they work.
- A cultural change program.

High Reliability Organization

High reliability concepts are insights into how to think about and change the vexing quality and safety issues you face. Creating a culture and processes that radically reduce system failures and effectively respond when failures do occur is the goal of high reliability thinking.

AHRQ (2008)

HRO Concepts



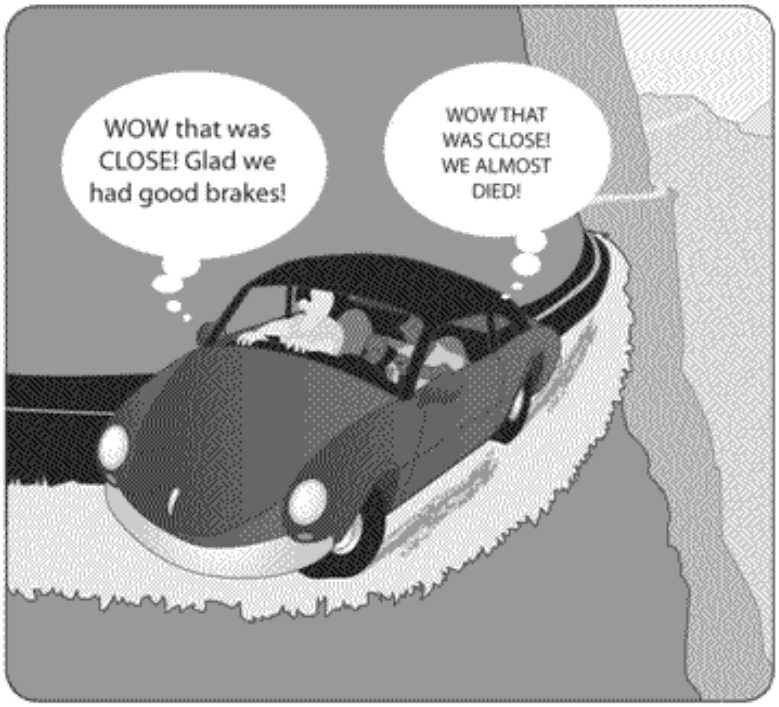
AHRQ (2008)

Sensitivity to Operation

Maintaining "situational awareness" is important for staff at all levels because it is the only way anomalies, potential errors, and actual errors can be quickly identified and addressed

AHRQ (2008)

Preoccupation with failure



HROs are focused on predicting and eliminating catastrophes rather than reacting to them. These organizations constantly entertain the thought that they may have missed something that places patients at risk.

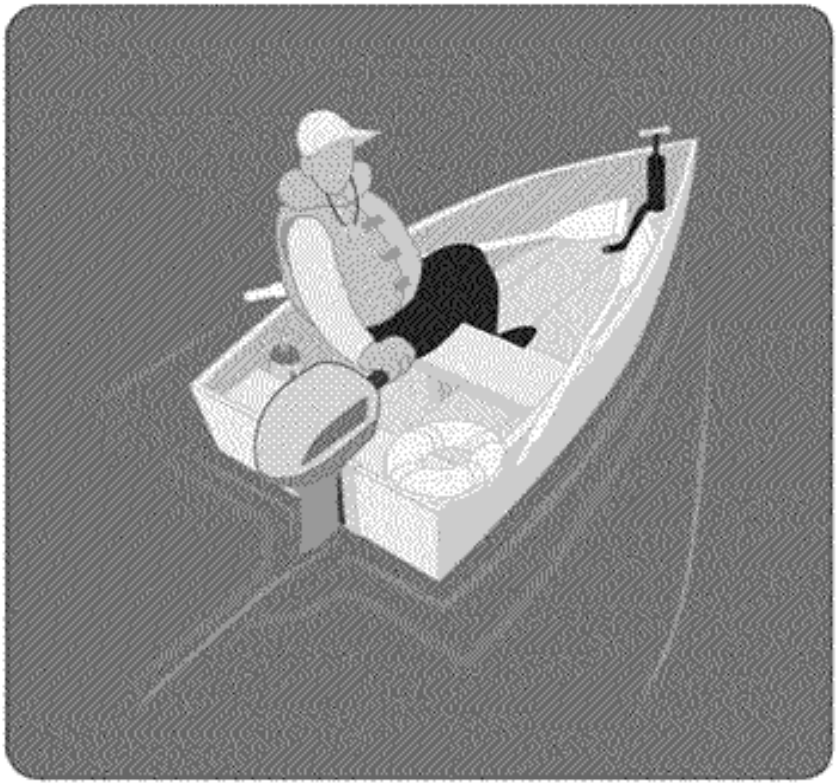
AHRQ (2008)

Deference to Expertise

A high reliability culture requires staff at every level to be comfortable sharing information and concerns with others—and to be commended when they do so

AHRQ (2008)

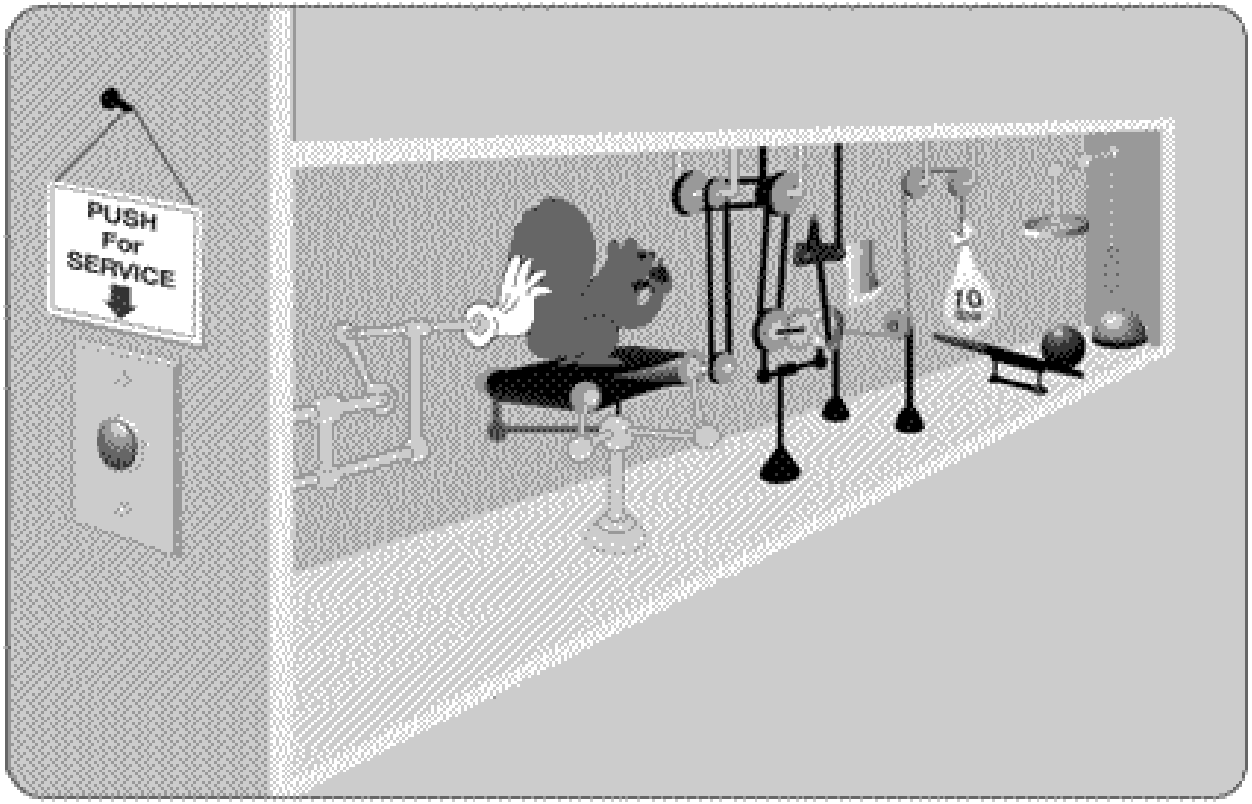
Resilience



An HRO prepares for failures by training staff to perform quick situational assessments, working effectively as a team that defers to expertise, and practicing responses to system failures

AHRQ (2008)

Reluctance to Simplify



The HRO accepts that their work is complex and do not accept simplistic solutions for challenges confronting complex and adaptive systems

AHRQ (2008)

We benefit a lot from works and effort of other people. Let works pass through ourselves without holding them, continually improve our performance, and hand them over to the newcomer generation.

Thank you