High Reliability Organizations – The Key to Improving Quality and Safety

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National Healthcare Leadership Conference
Toronto – 11 June 2007
Agenda

- Overview
- Healthcare HROs
- AHRQ initiatives
- What you can do right now
The concept of the high reliability organization (HRO) was developed by industries other than healthcare

- Highly complex organizations with
- Potential for catastrophic consequences

HROs have fewer than normal accidents
Industry examples include those that are highly dependent on technology:

- Nuclear plants
- Space shuttle
- Aircraft carriers
- Air traffic control

Disasters are very rare
HRO “Mindfulness”

- Preoccupation with failure
- Reluctance to simplify interpretations
- Sensitivity to operations
- Commitment to resilience
- Under-specification of structures (willingness to organize around experts)
HRO Characteristics

- Organize socially around failure
- Establish a culture of
  - Mindfulness (alert, aware, resilient)
  - Reporting
  - Measurement
  - In-depth analysis of all errors/near misses
  - Adaptive learning
- Establish system redundancy
Hospitals & hospital systems continue to have safety & quality problems that harm patients & make care more costly & unreliable.

Healthcare, while complex, is significantly different from industries in which the HRO concept was developed.

Can principles & concepts of HROs be applied in healthcare?
Common Principles

- Decreases in accidents occur through a change in organizational culture.
- Technology usually does not improve safety unless there is a concomitant change in culture (it can make it worse).
- Critical values include:
  - Mindfulness
  - Reporting & measurement
  - Root cause & other analyses
  - Adaptive learning
Some Differences

- Errors combined with near misses in healthcare are relatively common
- Focus on failure is not enough (quality is important as well as safety)
  - Quality & reliability can be in conflict in HROs in other industries
- Massively redundant systems, often found in HROs in other industries, are not economically feasible in healthcare
As with other tools developed in non-healthcare industries, the HRO concept can be applied successfully in healthcare thorough selection & modification.

HRO concepts/principles do not offer a complete quality/safety solution but can make an important contribution to safer care.
AHRQ Initiatives

- HRO learning network
- Hospital Survey on Patient Safety Culture (HSOPS)
- TeamSTEPPS
- Patient Safety and Quality Improvement Act of 2005
**Purpose**: to support patient safety leaders & to provide a forum for

- Sharing experiences
- Learning about & identifying ways to implement research findings & promising practices that can lead to high reliability

**Composition**: patient safety leaders & some C-suite leaders from 19 health care systems

- 31 States & the District of Columbia
- Mix of experienced patient safety activists & less experienced participants
Work with the Willing

HRO Network is made up of Innovators, Early Adopters, and some Early Majority
Cooperative Activity

- Working together, the senior leadership of these hospitals systems is focusing on HRO activities.

- The learning network provides the opportunity for technical assistance from AHRQ as well as sharing of knowledge from one member system to another, creating a mutual learning community.
Activities

- Site visits & conferences
- Collaborative improvement projects undertaken by subgroups of participants
- Joint projects, such as assessing safety culture, improving teamwork, & aligning policies & procedures to establish a “just culture”
HSOPS is designed for hospitals or systems; they administer an assessment of their own safety culture.

AHRQ’s survey is one of several that are available.

Information on culture is critical to establishing a comprehensive patient safety program.
Team work & communications are essential components of achieving high reliability.

The easiest way to improve teamwork is through training.

AHRQ provides TeamSTEPPS, a complete package of training materials developed in conjunction with the DoD.
It’s important to

- Encourage reporting of safety events
- Move beyond blame & train syndrome
- Recognize that there is a need to modify policies & procedures to ensure a just culture
Measurement

- HROs document performance & improve reliability through measurement

- Measurement historically has been a difficult issue in healthcare
  - Fear of reporting
  - Limited focus for what is measured
    - Measure only that for which data already exist
    - Measure only limited processes ("rifle shots")
    - Report results in silos
“Are patients safer now? Data from neither the entire US health care system nor the individual hospitals can yield a credible answer.”

JAMA - August 9, 2006

The Patient Safety and Quality Improvement Act of 2005

- Creates “Patient Safety Organizations (PSOs)"
- Establishes “Network of Patient Safety Databases”
- Requires reporting of findings annually in AHRQ’s National Health Quality/Disparities Reports
- Mandates Comptroller General to study effectiveness of Act (by 2010)
What Does Law Address?

- Fear of malpractice litigation
- Inadequate protection by state laws
  - Privilege
  - Confidentiality
- Inability to aggregate data on a large scale
Patient Safety Organizations

- Collect, analyze patient safety (PS) data
- Assist providers to improve quality & safety
- Develop & disseminate PS information
- Encourage culture of safety & reduce risks to patients
- Operate PS evaluation systems; provide feedback to participants
- Maintain confidentiality & security of data
Network of Patient Safety Databases

- Facilitates exchange of data among PSOs
- Employs common formats (definitions, data elements, etc.); promotes interoperability
- Generates de-identified information relevant to preventing harm to patients
  - Aggregation of data
  - Analysis of events, profiles, reports
  - Dissemination of results, best practices
- Provides benchmarking & trend reports
AHRQ Inventory of Reporting Systems

- Begun in January 2005
- Establishes evidence base for developing common formats & definitions for patient safety events
- Represents many operating systems & other stakeholders
  - Federal & state
  - Collaboratives, chains
  - International
PSERS* Meta-database

- 61 PSERS
- >100 PSE reporting forms
- >1,000 Definitions of PSE terms
- >10,000 PSE reporting variables

Supporting documentation
(PSERS descriptions, PSE reporting forms, encoding schemes, patient safety reports, etc.)

* Patient Safety Event Reporting System
Inventory Findings

- Few systems collect information on the complete improvement cycle
- Commonality found for some definitions
- Variability found for many
  - Clinical event, e.g., drug reaction
  - Accident, e.g., fall
  - Demographic, e.g., provider type, facility type
Next Steps

- Develop & publish proposed rules governing certification & operation of PSOs
- Review PSO applications & publish list of PSOs whose certifications are accepted
- Finish inventory; coordinate development of initial common formats & definitions
- Develop plan for supporting a network of patient safety databases
What You Can Do Right Now

- Become (further) educated about what it takes to be an HRO
- Assess your institution’s culture of safety
- Commit to the concept of teamwork & undergo team training
- Commit to the concepts of
  - A just culture
  - A culture of measurement
For Additional Information

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  - [http://www.ahrq.gov](http://www.ahrq.gov)

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