# Defining the role of healthcare leadership
# for organizational safety challenges

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**Abstract:** This paper draws on healthcare work systems research conducted in several healthcare facilities in both urban and rural domains in the United States to determine the most salient organizational design and management factors that impact intervention success, either negatively or positively. Thematically, the common technical subsystem focus across studies was the goal of reducing healthcare associated infections, which cause a risk to patients, healthcare workers and other stakeholders who visit healthcare facilities. The methodology used in these studies was MacroErgonomic Analysis and Design (MEAD). The objective of this paper is to heighten the awareness of ODAM factors that improve or impede process improvement efforts. The expected outcome is to provide information to help ergonomists prepare, plan, and manage their work system interventions to maximize system performance and well-being for patients and workers.

**Keywords.** Healthcare, Macroergonomics, organizational management

As healthcare researchers and industry increasingly understand healthcare as a sociotechnical system (STS), the STS framework is ever more applied to address the myriad safety challenges that have persisted under traditional interventions. A challenge for which the STS framework has been applied is the reduction of healthcare-associated infections (HAIs). In the U.S. alone, HAIs are estimated to cost 100,000 lives and a staggering $45 billion annually [CDC, 2014].

Four studies were conducted in four separate healthcare facilities in both urban and rural regions in the United States. The organizational theme of study interventions that experienced success was the level of consistent engagement of leadership. Those facilities that were supported by the leadership of the facility met their target HAI rate reduction goal, while those that exhibited varying and inconsistent engagement of the leadership failed to meet their HAI rate reduction goals.

These employed the MEAD method to apply the STS framework and facilitate the analysis and organization of data by identifying variances (non-optimal situations) within STS domains and misalignments among STS domains. MEAD consists of 10 major analyses that facilitate 1) a "deep dive" of the system to understand the challenges, 2) analyses to identify misalignments within and across system domains, and 3) support the implementation and measurement of an intervention (Hendrick and Kleiner, 2001).

## 1.  Leadership Involvement in the "Deep Dive"

Relevant to healthcare leadership is the necessary investment of resources to conduct a deep dive of the challenge and quantify the various facets of the system. More importantly, however, is the necessary leadership support to create the culture that allows a shift away from the traditional model of "accountability to follow processes" to a paradigm that fosters exploration of why policies to conduct processes in a particular manner are not fully supported by frontline healthcare workers. Leadership support is required for accurate and complete acquisition of information regarding the challenge being addressed. The STS model considers that people are an important source of knowledge to uncover frontline challenges in the system that will support development of a fully informed strategy. With healthcare leadership believing that all healthcare employees come to work to do their best job, frontline staff become willing to share the daily challenges that create barriers to an optimally functioning system. Related to that notion is the consideration that when healthcare workers make errors, these are errors deemed a reasonable action at the time; therefore, understanding why the action is a valuable piece of system information.

Logically, this view requires that data collection methods support accurate identification of barriers and facilitators. Data collection methods include document reviews, chart review, focus groups, interviews, patient safety events, "near miss" reports, anonymous surveys, and observations. An important consideration for leadership is supporting a procedure for data collection that will yield accurate assessments. For example, contracting with an outside group to conduct focus groups with frontline staff may yield better clarifying information than if a facility risk manager were to conduct the task. Likewise, leadership support of a work culture that embraces reporting of near events as a learning opportunity for the system will yield a true assessment of system challenges.

## 2.    Leadership Involvement during Solution Development

Leadership support during solution development can encourage movement toward innovative thinking that avoids the pitfalls of traditional healthcare approaches. Research has demonstrated that the least effective solutions involve sanctions and training and the most effective solutions involve physical and process changes, such as improvements to usability of medical devices, workflow, and resource location. Leadership support to find solutions that begin from the perspective of plenty of resources facilitates innovation that can later be adapted for the resources available.

## 3.    Leadership Involvement during Implementation and Measurement

Finally, leadership has a vital role in supporting and expecting measurement of solutions to ascertain value and goal attainment to send the message of active engagement in the solution process. Leaders can allocate resources in such a way that each solution and measure is the responsibility of an individual who is supported for the task. The measurement strategy will elucidate the system impact of interventions and empower the owner of the solution an opportunity to optimize the intervention. Holding intervention resources consistent while measuring the intervention provides merit to support expansion of the intervention into other units.

**References**

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