

Work Environment NEWS

GULF COAST HEALTH SERVICES STEERING COMMITTEE

SUMMER 2005

Building a Better Delivery System: A New Engineering/Health Care Partnership

by Gerald Goodman, DrPH, Texas Woman's University

A newly released report presents the case of greater collaboration between systems engineers and health care professionals to address quality and cost issues in health care. The publication, "Building a Better Delivery System: A New Engineering/Health Care Partnership" was released by the National Academies (NA), which is a collaboration among the National Academy of Science, the National Academy of Engineering, and the Institute of Medicine. Key issues driving this initiative are patient safety, as discussed in the various Institute of Medicine (IOM) studies, and the cost of care. A common problem underlining these two issues is the fragmented nature of health care - structurally as an industry and operationally in the delivery of care.

The report is important to the work being done by the WorkSource, and parallels in many ways the "Go for the Gold" best practices program. Essentially, both "Go for the Gold" and the NA study encourage health care professionals to learn from best practice models of other health professionals, and, possibly more importantly, look for successful programs and practices from other industries. It is in this latter area that the NA Report is most important.

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health care professional. However, the techniques of system engineering are very evident in health care. Hospital purchasing managers are familiar with supply-chain management. Supply chain management is a systems analysis tool, classified in the systems engineering toolkit as an "enterprise-management tool". The "supply chain" is defined as the physical and informational resources required to deliver a good or service to the final customer. It includes all activities required to bring a product to the end user, including the gathering of the raw

materials, processing, storage, and delivery. Of importance to health care is the on-time delivery of supplies in order to minimize inventory costs.

We are using human factors engineering to improve medical devices, such as the operating front panel of the infusion pump, and to improve the physical or built environment of the nursing unit. Root cause analysis, statistical process control (control charts), and Failure Modes and Effects Analysis (FMEA) are systems engineering approaches to analyzing problems. These techniques are a part of current JCAHO requirements for performance appraisal. Yet, it is unlikely that

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we as health care professionals have properly identified the science behind these techniques or trained personnel to use them with the rigor required by other industries.

What the article stresses is not the use of system engineering tools per se, because as noted earlier, we are already using such tools. Rather, the article stresses the need to understand healthcare as a system, and apply the tools and techniques from systems engineering in an organized, systematic manner. The framework suggested in the Report is to divide the health care system into four nested levels. These are:

- The individual patient
- The care team (professional care providers, the patient, and family members)
- The organization infrastructure (hospitals, clinics, nursing homes)

- The political and economic environment under which the organization and individuals operate (regulatory, environmental, markets)

The concerns expressed in the Report are interesting. For example, under the Individual Patient, we have two somewhat disparate ideas, consumer-driven health care and patient-centered care. Consumer driven care runs directly into issues of the Care Team, namely the independent trusteeship of the physician. The question for systems engineering is what tools can be used to provide information to the patient while maintaining the professional integrity of the physician? Information technology is the most visible recommendation with a glut of real and pretend medical information available to patients through the Internet. However, that approach does not take into account the reality of the organization of and

the operating culture of health care. Here, systems engineering might suggest that you cannot successfully change one part of a system, in this case the individual patient's knowledge gathering behavior, without taking into consideration other existing parts of the system, such as the structure and culture of the care team, and the process of providing care.

So, perhaps the lessons to be learned from the Report are that we must look at and understand health care as a system, that proven systems analysis tools have been successfully used in many other industries to improve quality while cutting costs, and that systems change is a science requiring skills not taught to the traditional health care professional.

The full report can be obtained at <http://www.nap.edu/books/030909643X/html>.



Ready, Set, Participate!

It is time to declare your hospital's interest in participating in the Work Environment Project 2005! Each hospital CEO in the 13-county Houston-Galveston Area region will receive an invitation to participate in this year's Work Environment Project in September. In order to participate, they must return a participation response in September, indicating who their contact will be for the project this year.

Participation in the project yields several benefits. First, through our annual surveys, we provide valuable benchmarking data on regional nursing and human resources measures related to staffing, retention, and quality of care that isn't available from any other source. In the last two years, we have included data from hospitals that encompass 70% or more of the beds in the region and from a diverse array of hospitals in terms of size and mission. We have found that hospitals of various missions and sizes share data outcomes unrelated to those differences and have recommended practices relevant to a diverse audience. Especially valuable

is the confidential report provided to each hospital CEO showing how their hospital data compares to regional data.

Second, you receive an invitation to Go For The Gold! our interactive learning exchange, which is designed to facilitate recommended practice sharing and encourage networking among hospital participants. In the last two years, we have shared information on 84 recommended practices, selected by subcommittees for their excellence and relevance to improving the work environment in hospitals. In addition, participants are kept up-to-date on news and newsmakers in our region through the speakers at our event and the quarterly newsletter, Work Environment News.

Encourage your CEO to join this project this fall! Also, encourage colleagues at hospitals who have not participated to join the project. Participation is available without charge, thanks to the HRSA grant funding.

GO FOR THE GOLD!

Improving the Work Environment in Hospitals

Second Annual Learning Exchange

The 2nd Ideal Hospital Work Environment Learning Exchange was held on Friday, April 29, 2005 at the Houston Community College — Southwest Campus. A gathering of 137 health and human resources professionals from 32 (65%) of the 49 hospitals participating in the Ideal Hospital Work Environment Project came together to share best practices and network with peers about innovations to improve the work environment. Only participating hospitals receive invitations to this event.

The theme for this year's event was Mining for Gold. The half-day began with a continental breakfast accompanied by the Bellaire High School Brass quintet. This set the stage for an invigorating Interactive Learning Exchange, which was held in a large auditorium that contained theater style seating for the main presentations, as well as partitioned discussion areas organized around the five dimensions of an Ideal Work Environment.



Lottie Lockett speaks on Bar Code Medication Administration

Attendees heard:

A review of the history of the project, including early results from the 2004 Work Environment Survey.

Debra Simmons, a Clinical Nurse Specialist and Senior Clinical Quality Improvement Analyst at The University of Texas M.D. Anderson Cancer Center and a member of the technical core for the Center of Excellence for Patient Safety Research and Practice. Ms. Simmons gave a passionate and thought-provoking presentation on reengineering health delivery systems to make them safer for the patient. Especially popular was her humorous ending using "Candy Factory" episode footage from the "I Love Lucy" television show.

Introductions exchanged in a Speed Networking session, in which attendees were encouraged to make new acquaintances and share experiences and ideas.

Recommended practices from 15 area hospital presenters representing the five dimensions of an Ideal Work Environment: Professionalism,

Teamwork and Interpersonal Communication, Staff Training and Development, Environmental Factors and Economic Considerations.



Debora Simmons speaks on Safe Systems – Safe Practice – Safe Patients



Kathy Shingleton and Thelma Ellen networking

Participants were also given a notebook containing brief summaries of the 37 recommended practices included in the Learning Exchange as well as articles on nurse-physician relationships. Attendees received business card holders as mementos in which to place the business cards of those they met at the event.

In the Go for the Gold! evaluations, 94% of participants indicated that they would apply some of the work environment practices that they learned to their organizations. In

addition, 96% thought that the work environment practices presented addressed issues relevant to their organization. Comments from attendees included comments like: "well organized, fast paced; kept my attention", "wonderful event – excellent presenters – seamless organization. Thanks for the course syllabus", "Debra Simmons is an excellent speaker, her information was very valuable." Attendees also made some great suggestions for next year's event.

This fall, participants will receive a follow-up email asking what ideas from Go for the Gold! they have put into practice. Share your story and it may become a feature in an upcoming issue of Work Environment News or you may be asked to be a presenter in the next Go for the Gold!

Work Environment Survey

UPDATE

All Work Environment Survey 2004 data analysis has been completed. The regional report has been completed and is viewable at www.gchssc.com under the Publications menu. Individual, confidential hospital reports have also been distributed to CEO's for their review.

The April 29 Go for the Gold! Interactive Learning Exchange was a very successful benchmarking event, with 137 attending to learn about 37 recommended practices. An article in this newsletter describes the event in detail.

Work is well underway in revising and reviewing the Work Environment Survey for fall 2005. A group of hospital participants from 2004 has made suggestions for changes to the survey. One change is that the data collection portion of the survey is being separated from the recommended practice collection portion of the survey. We hope by having two surveys that it will be easier for survey contacts to send these very different components of the survey to different personnel who may complete them. The survey should be complete and ready for data entry by September 30, 2005. A new survey deadline has been established for the data entry —

November 30, 2005; this date was selected in order to move the survey deadline away from year-end, which was a source of frustration for some hospitals.

In addition to the survey, we are excited this fall about welcoming graduate students from Texas Women's University, under the guidance of Dr. Gerald Goodman, to the project. They will be assisting members of the Work Environment Workgroup subcommittees by doing research on recently published articles related to the dimensions of the Ideal Work Environment Model. This information will be used as subcommittees review and update the model's content this fall.

The Survey Plan for 2005 is:

- Survey review/revision – Summer 2005
- Invitations to participate and survey ready for entry – September 2005
- Data entry deadline – November 30, 2005.

Thank you for participating in this project!

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