

# Thinking Out Loud... Aspiring for a Safe Survival

*“Human endeavor is caught in an eternal tension between the effectiveness of small groups acting independently and the need to mesh with the wider community.”*

—National Committee on Vital and Health Statistics, November 2001

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The year was 1959. I remember it vividly. That was the year a space capsule broke Earth's gravity for the first time and emerged onto a celestial landscape lit by stars and sun... beacons that guided the little transport to its final destination, the moon.

As a child, I thought the words “space capsule” were odd, but when I saw a space capsule many years later at the Smithsonian Institution I understood the origin of its name. It was so small that it resembled metal “outerwear” instead of the vehicle pictured in science fiction books that fueled my imagination. Nevertheless, I was filled with childish awe at the sheer audacity of the feat and with excitement about the prospects of going to places where humanity had never before gone. Instinctively I knew that the world had changed because of this daring feat and realized that I would be a part of this “brave new world.”

I feel the same way about the year 2003... not because of space exploration, but because of medical informatics—the fledgling science (relatively speaking) whose technology will link people to clinical information in real-time, a linkage many are convinced will defragmentize patient care

and move it to a level of quality impossible with a paper-based system of care.

I, too, believe that medical informatics will ultimately guide decisions that the care team will make on behalf of patients just as the celestial orbs once lit the way for that very small space capsule in 1959. Importantly, it will do so ubiquitously in real-time, at the point-of-care decision.

I would argue that the adoption of medical informatics within the healthcare community is already beginning to happen... and on a grand scale. Specifically, there is a convergence of events around the world that indicates nations are developing their infrastructures in order to integrate information technology into the process of care. In fact, I have never seen so many pivotal events converge in this way. The clues are in the open to see. In fact, they appear so frequently that they may no longer be clues. Rather, they are most likely mindset advances that are gaining momentum on the world stage. Because of this, I believe we are poised for extraordinary achievements over the next ten years, both here and abroad. Let's take a look at a few of the reasons supporting this belief.

### **U.S. Momentum**

With the private sector increasingly advocating its benefits in industry journals and the public sector publishing its recommendations and policies in government documents, U.S. momentum favors medical informatics. Case studies, investment studies (such as cost-benefit and return-on-value analyses), as well as new public policies continue to emerge into public thoroughfares and reinforce the growing perception that information technology, when blended into a redefined process of care delivery, can provide a level of personal protection that is lacking in the current system of care.

This is a powerful argument, for what do people want more than anything else? Without a doubt, the answer is *safe* survival for themselves and their families, not just survival. The question is, “Do patients feel that today's medical system offers safe survival?” Or, are they concerned that it is becoming more difficult to survive safely in today's fragmented medical system, despite the good intentions of the caregivers. Patient concern is driving private and public entities to reevaluate the healthcare delivery system.

For example, two Institute of Medicine reports, "To Err Is Human: Building a Safer Health System" and "Crossing the Quality Chasm: A New Health System for the 21st Century", grabbed national attention in 1999 and 2000, respectively, and had a direct connection with their audience on an intellectual, pragmatic, and experiential level. These are reports that every patient and patient-to-be instinctively understands, which is the strength of these reports. When I first read them as an information technology professional, my reaction was, "In order to solve these issues, we must have big, visionary thinking. We must have mindset collaboration wherein the issues share boundaries, and coordinated planning and action on a scale whose size is mind-boggling."

So much of what these reports discuss underscores the necessity to define the procedure underlying the process. This is because the procedure is the basic component of the care process and, by virtue of its performance, enables the delivery of care and defines its quality. In recognition of this truth, the following words, attributed to the 18th century luminary, J.W. Goethe, appear on the front page of the second Institute of Medicine Report: "Knowing is not enough; we must apply. Willing is not enough; we must do."

And so, the momentum to define the processes of care and its procedure is gaining recognition.

In 1987, the U.S. Congress established the Malcolm Baldrige National Quality Award to promote quality awareness—at first in manufacturing and small business, and then, 12 years later, in education and healthcare. To further its national acceptance, the President of the United States annually presents the award to achieving organizations in recognition of their following the Malcolm Baldrige National Quality Award methodology and complying with its stringent criteria. Today, this

award is considered the highest honor for performance excellence in the U.S., and as a result of its published methodology there is a renewed interest in other quality methodologies, such as the ISO-9000 and ISO-9001 Guidelines, as well as in Six Sigma, all intellectual linchpins that underwrite the science of information with a procedural documentation of the processes used to deliver services and products.

There is also the momentum derived from the Leapfrog Group, which is a consortium of healthcare service buyers representing 115 Fortune 500 companies and large private and public healthcare purchasers. As healthcare costs rise and news of medical errors is published more often, the Leapfrog Group is likewise growing in importance. Its mission is to "trigger a giant leap forward in quality, customer service and affordability of health care of all types." To achieve its mission, the Leapfrog Group incorporates the science of information into some of its solutions and has become an influential forum for technology.

Last, but certainly not least, there is the National Committee on Vital and Health Statistics. The recommendations contained in its November 2001 report, "Information for Health—A Strategy for Building the National Health Information Infrastructure,"<sup>1</sup> begins with this quote: "Human endeavor is caught in an eternal tension between the effectiveness of small groups acting independently and the need to mesh with the wider community." In the past, my definition of the word "community" in relation to medical informatics would have been far narrower than it is now. Today, it encompasses the world... a meta-place where boundaries exist only in our minds.

### **International Momentum**

Plainly, there is simultaneity of quality movements worldwide, as well as a focus on bringing the right clinical

information to the right person at the right time. There is also an international movement to use the power of technology to protect public health in ways that are only beginning to emerge, sparked by recent world events that require us to look to technology for protective information. All of these add to the reasons why I believe we are poised worldwide for extraordinary achievements in information technology, especially in medical informatics. Let's take a look at a few international examples.

In 1998, the British government created a seven-year initiative with a \$1-billion commitment to establish a healthcare information infrastructure. In the same year, Canada budgeted Canadian \$95 million over four years to develop its "Roadmap Initiative," and today budgets more than Canadian \$1.5 billion annually for its "Infoway" in healthcare.<sup>1</sup> On December 5, 2001, the European Union proposed quality as one of its three objectives and made the identification of best practices a focal point in helping to improve the diverse patterns of care across its constituent countries.<sup>2</sup> On October 14, 2002, the World Health Organization made a case for greater safety and quality of medications. Perhaps one of the more important examples of international momentum is the fact that the world's largest database of medicines, holding almost 3 million recorded cases of adverse drug reactions, is located at the Uppsala Monitoring Centre in Sweden.<sup>3</sup>

### **Uncomplicated Information for a Complicated World**

Undoubtedly, momentum toward medical informatics spins in the world's amphitheater in real-time and brings back to life a 1990 AMI Healthcare Systems Group tagline—"uncomplicated information for a complicated world." These words ring as true today as they did then. The question is, "Will the current momentum be strong enough to bring the world to where

it should to be in medical informatics in ten years?"

I believe that it is. This time, however, I believe that the rewards will be more meaningful on a personal level than were those afforded by the first space travel, as awesome as they were, because the delivery of quality care directly affects each of us now, as a caretaker or patient, and because we all aspire to a common goal—safe survival. Instinctively, I know that the world has once again changed.

### References

1. "Information for Health—A Strategy for Building the National Health Information Infrastructure." Report and Recommendations from the National Committee on Vital and Health Statistics. U.S. Department of Health and Human Services. November 15, 2001.
2. The European Commission. Employment and Social Affairs. Brussels. December 5, 2001.
3. "More Global Commitment Needed to Monitor Safety Quality of Medicines." World Health Organization Media Centre. Geneva. October 14, 2002. **D&T**