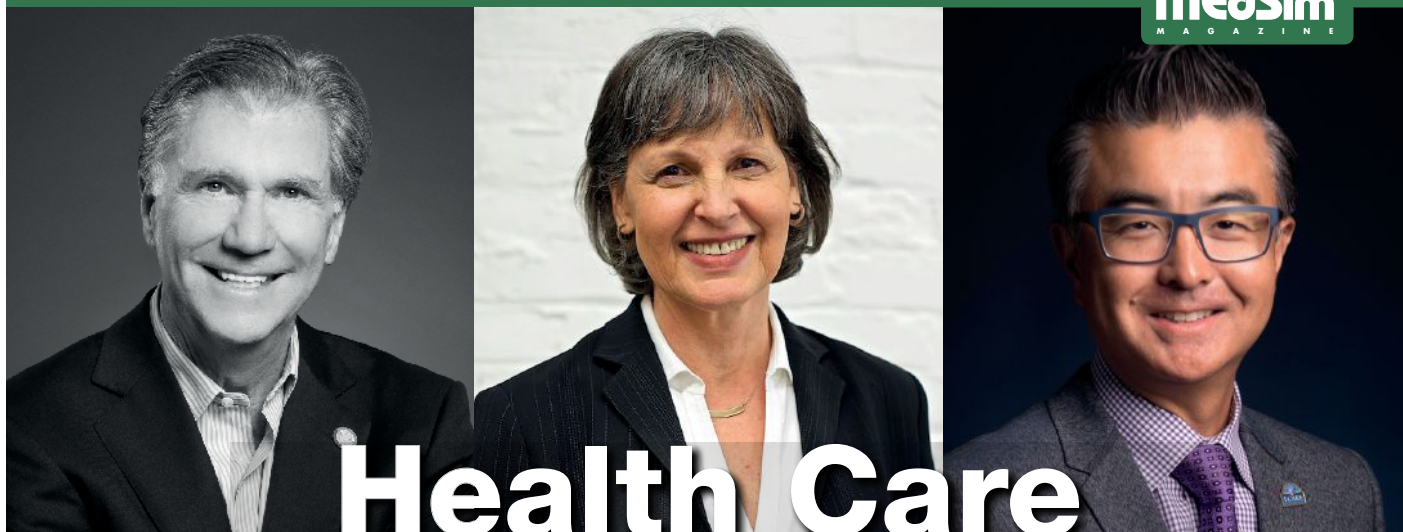


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Change Agents





Bette Gardner, CEO and Founder, Breakthrough Learning

Medical Training Magazine: *Friday Night at the ER* began 25 years ago as a problem solving tool for complex systems. Please tell us how it is different from conventional methods?

Bette Gardner: Conventional problem solving is linear (A leads to B), and this approach typically breaks down a problem into manageable parts for study and improvement. In contrast, I based *Friday Night at the ER* on a systems thinking approach to problem solving; it recognizes that parts of a system are interrelated and change over time, so that solutions depend on non-linear (non-obvious) feedback relationships. A leads to B, but when you look at the whole system you see that the change in B causes ripples of change elsewhere that, in turn, feeds back to change A. This is “dynamic complexity” (in contrast to “detail complexity”), and it requires a problem-solving approach that examines interdependent relationships – one that can measure and predict the broader consequences of our actions over time within a whole system.

MTM: Please explain your ‘new approach’ for San Jose Medical Center in 1990.

BG: When I was working with the San Jose Medical Center in 1990, leadership there had been struggling to manage

Above
Bette Gardner is the CEO and Founder of Breakthrough Learning. She created the *Friday Night at the ER* simulation game.

All images
Breakthrough Learning.

high-volume, emergency-origin patient demand. An improvement team had been diligently reducing emergency treatment time and streamlining the admissions process, yet the hospital’s high rate of paramedic diversions persisted.

Our new approach involved mapping patient flow throughout the hospital and building a computer-based simulation model to quickly test ideas and see consequences of many potential interventions. This type of rapid testing of interventions would have been impossible in the real world where delays and change obscure our ability to see and measure results.

We learned that the hospital could dramatically improve performance in the ED and stop the diversion of paramedic patients with just three interventions: two that involved people from other departments of the hospital, and one that required a policy change in the community emergency medical system. It was a system problem that required a systems thinking solution.

MTM: Please share with us the game components of *Friday Night at the ER*.

BG: *Friday Night at the ER* is a tabletop, team-learning game that simulates the challenge of managing a hospital during a 24-hour period. To keep the game activity to just one actual hour, the game board compresses the hospital into four departments, and virtual hours tick by in minutes.

Four players per game board, each playing the role of a hospital department manager, each handling patient flow and staffing, dealing with situations that arise and documenting performance. Patients and staff arrive and depart, workloads are uneven, events pop up unexpectedly, department managers communicate, scores accumulate.

Yet as players perform distinct functions, they come to realize they also depend on each other. They discover that quality and cost problems can be solved only if they collaborate, are open to new ideas, and use data for decision-making. These are three essential behaviors for putting systems thinking into practice, so the game serves as both a demonstration and a practice field for applying systems thinking.

MTM: When does learning take place during the game and why is the debrief so important?

BG: The learning process begins during the game play as soon as players realize that they must reach across functional boundaries and work as a team to achieve quality and cost goals. Because the simulation compresses space and time, players can see the consequences of their decisions – an essential enabler for learning. Once players grasp that they depend on one another, they naturally begin to move from silo thinking to systems thinking.

But the learning capstone is the debrief, when players are guided to examine their assumptions and learn why and how their performance was self-limiting. They must step back from the flurry of action (the game play) to reflect about the lessons of the experience and their practical application.

I’m always fascinated to see during the debrief how people from healthcare

as well as other industries - and from the US as well as other countries - find the same value and relevance in the experience and its lessons. I believe that's testimony to the universality of systems thinking and the learning value of tools that enable people to understand it.

MTM: Hospitals, education systems and corporations around the world are using the game to train their staffs. Please share some of the professional successes.

BG: There are so many *Friday Night at the ER* facilitators using the game in uniquely different ways that it's hard to share just a few, but the first person who comes to mind is Dr. Mary Dolansky from Case Western Reserve University. Mary has a deep understanding of how systems thinking affects healthcare quality and safety, and she is a leader in the practical application of systems thinking as a core competency for nurses and other clinicians. She uses the game in interdisciplinary coursework, in her role as the director of the QSEN Institute and as a senior fellow in the VA Quality Scholars program.

Another success for us is the recent rollout of *Friday Night at the ER* at one of the largest hospital systems in the US. This organization will be using the game with all its supervisory nurses to teach critical thinking and leadership skills.

In the corporate realm, we're working with HREC (the Human Resources Executive Committee), which is China's largest and most influential network for HR professionals. Our partners there are using the game to teach cross-functional collaboration to their clients, many of whom are China-based Fortune 500 and Forbes 2000 companies.

MTM: As you know patient safety organizations such as IHI as well as others have made patient safety a priority. What impact do you feel the game could have on the following:

- a) Medical and nursing schools?
- b) Education and training of healthcare providers?
- c) Technology development?

BG: There is an abundance of evidence that patient safety requires both teamwork and appreciation of the system of care. This is precisely what *Friday Night at the ER* teaches. Using our game tool,



students discover that no one part of the system can achieve quality goals; rather, they learn experientially that it takes serious collaboration and shared responsibility across functional, professional and ideational boundaries to get desired outcomes.

Medical and nursing schools are obliged to teach teamwork, appreciation of system and interprofessional collaboration – now formally identified as core competencies by authoritative bodies such as ACGME, AACN and QSEN. Yet health profession educators are challenged to come up with ways to effectively teach these soft and semi-soft skills. It's one thing to tell students about the concepts; it's quite another to show students what they actually have to do to put these ideas and behaviors into routine practice. That's where experiential learning like *Friday Night at the ER* is enormously helpful.

Learning technology is evolving. Simulation can and should take multiple forms to meet different learning needs. *Friday Night at the ER* makes a contribution to learning technology for the health professions in at least two ways: (1) it's a simulation that teaches leadership and critical thinking skills rather than clinical skills; and (2) its technology takes the form of a face-to-face, tabletop exercise in which human interaction (within teams and across disciplines) provides inherent value to its specific learning objectives.

MTM: How do you think healthcare providers and industry can work together more effectively to achieve better outcomes?

BG: Better health outcomes go beyond clinical practice, so partnerships between healthcare providers and industry can offer high yield. Employers are natural partners with providers because both have common interests in improving health status and reducing health care costs. Providers can deliver education programs to employers to prevent injury and illness, they can offer immunizations on site, they can screen employees for diabetes, high blood pressure and such. And employers can offer a variety of wellness services for healthy work places and healthy lifestyles, such as nutritious food and exercise facilities. Together, healthcare providers and employers can conduct public policy reform initiatives to institute things like helmet laws for bikers, violence prevention programs, better school lunch

Above
Bette Gardner is not
only the creator of
*Friday Night at the
ER*, but also leads
team-learning game
programs.

menus, access to mental health services, and so on.

As one example, we are excited to be working with Engage Winona, a community collaborative in Wisconsin, where healthcare, business, non-profit and government leaders have come together because they recognize the opportunity and power of collaboration across boundaries to achieve common goals.

There are so many community and workplace areas that powerfully impact health, and providers, industry and other community leaders can make a far greater difference by collaborating rather than staying in their own silos.

MTM: *With the upcoming shortage of doctors and nurses, what role will simulation play in education and training of healthcare professionals? How can games be used to assure skill and knowledge competence?*

BG: Shortages of doctors and nurses call for more and better use of mid-level and supporting practitioners. It is widely recognized that we have a doctor/nurse workforce that is over qualified for many routine tasks that can be safely off-loaded with proper training and protocols. The use of simulation can be greatly expanded to enhance the skills and capabilities of alternative practitioners.

more effective communication, better coordination of care, clear roles and streamlined protocols.

MTM: *“Training decay” is a well-known phenomenon within the professional training community; pilots are tested every six months, teams are trained and retrained until they sync. Please give us some examples of how this is effectively working in healthcare and programs that you can highlight that are most effective.*

BG: First of all, as preventive measures, my experience is that learning is best retained when these conditions are present:

- The learning experience is engaging and memorable.
- The learning experience includes practice applying the learning.
- The student is expected, shortly following the training, to put the learning into practice and will be held accountable for this.
- Learning points are revisited and reinforced at intervals following the initial learning experience, either through refresher training/practice or from repeated applications on the job.

In areas where training decay can substantially impact safety, one successful approach that comes to mind is the requirement of certain volume mini-

perceived shortfalls it can address to be more responsive to the rapidly evolving healthcare environment.

BG: There is a need and opportunity in health professions education for more rapidly and effectively training mid-level practitioners for their expanding roles.

For healthcare managers, an under-developed area is soft skills training. These encompass a range of competencies like open-mindedness, reasoning, judgment, decision-making, leadership, and interpersonal effectiveness.

Another competency gap in many healthcare organizations is the capability of managers to use data for tracking performance, for analysis and for decision making.

And finally, a rapidly evolving environment calls for people who are adept at change and capable at innovating. There are methods and skills that can be taught for seeking new ideas, systematically testing them, and successfully putting new practices in place. **MTM**

Biography

Bette Gardner is the CEO and Founder of Breakthrough Learning. She created the *Friday Night at the ER* simulation game, one of several innovative developments that has marked her 30-year career in leadership development, business planning and management consulting.

Gardner designed *Friday Night at the ER* based on her interest in creating innovative tools that employ principles of systems thinking to manage within complex systems. She initially developed the game following a consulting engagement that led to breakthrough performance at an urban hospital and trauma center. She now assists customers to successfully use the product with training and support services.

Gardner has also developed computer-based tools for learning and decision support, including 'management flight simulators' for private clients and for the public. She collaborated with Peter Senge and Arthur Andersen to create The Fifth Discipline-Interactive, and with High Performance Systems (now isee systems) to create simulations for population health management and for healthy communities' development.

“... we can cite demonstrated successes of simulation for skills training and resulting quality outcomes.”

For those concerned about the impact of expanding scope of practice on safety, we can cite demonstrated successes of simulation for skills training and resulting quality outcomes. Multiple studies document its effectiveness. In at least one independent study that measures systems thinking, *Friday Night at the ER* was found to move the needle for medical quality improvement leaders.

Our existing personnel can also learn to more effectively perform in teams. In an era of shortages, collaboration across disciplines is more vital. This too, is an excellent use of simulation in particular with interprofessional teams to teach

mums for continued licensure or credentialing. For example, level I trauma centers must treat a minimum number of severely injured patients per year; some states require a minimum number of surgeries to operate a cardiac surgery program; some medical staffs require doctors to maintain minimum volumes to perform certain complex procedures. This approach is not foolproof – but ongoing volume as a proxy for experience and skill upkeep is effective when coupled with other quality protections.

MTM: *Finally, your challenge to the education and training industry – some*