SYSTEMS THINKING

Systems Thinking is a proven tool that should always be considered for solving large-scale problems. Here's a look at it for front-line managers from the perspective of a large hospital.

Employee turnover and absenteeism, patient complaints, nursing shortages, department conflicts, amalgamations/integrations, outbreaks, bed shortages – whatever challenges you face as a manager, you have the power to make positive changes.

This power does not lie, however, in specific leadership techniques, such as assertive listening, service excellence, servent based leadership. While these techniques are effective, by themselves they provider only shortsighted solutions. They don't address the bigger questions, the "whys":

- Why do we have such high absenteeism and workplace injuries?
- Why is the real bed turnover so much slower than the discharge data?
- Why do some units avoid outbreaks while others have them all the time?

Unless health care managers take a long, hard look at these whys, they never will be able to solve problems rather than symptoms.

It is through systems thinking, a leadership approach formulated in the 1920s and in more modern time explored and developed by Peter Senge, the author of *The Fifth Discipline: The Art and Practice of Learning Organizations* (Doubleday, 1994), and Charlotte Roberts, co-editor of *The Dance of Change* (Doubleday, 1999), that the why questions can be effectively addressed.

What is systems thinking? What are the benefits? How do you apply it in your organization?

Putting Problems in Context

Systems thinking is a discipline by which you study, understand, and influence your whole organization. In other words, instead of dealing with one crisis after another, you focus on strengthening the system as a whole, identifying the key relationship in the organization that are driving the problems. This way, you not only find the plausible solutions to your most pressing problems, you also gain a perspective that empowers you to anticipate and diffuse problems before they blow up into major crises.

What exactly is a system? A system is a collection of parts in which the components work independently to achieve a common goal. For example, an MRI is a mechanical system. It consists of a moving table, a very large rotating magnet, a series of digital receivers to record the emitted radio waves as they have moved through the patients body a computer to collate these images and present the picture in the way the system was designed and myriad other parts. Together these parts allow physicians to diagnose disease and injury without invasive techniques, but separately the parts are useless. They must be connected to one another properly for the entire system to fulfill its purpose.

Similarly, a hospital is a collection of parts that must work together to achieve the goal of the hospital. People, processes, policies, facilities, programs, and other components must be connected in some fashion to operate both separately and together to fulfill a specified objective, such as ensuring quality patient care, providing an opportunity for teaching and research, being a leader for innovative patient care, or identifying and implementing significant cost reduction measures. Like the MRI, if any of the parts aren't working properly or if the parts aren't joined together properly, the hospital will exercise some form of breakdown. Hospital units such as materials management, pharmacy, housekeeping, and patient care cannot function separately. Without each department working in conjunctions with the next, patients do not receive the coordinated care they need.

The words are simple – the concept is difficult to execute. It is easy to say, "We must work together." We all understand that. From individuals within departments cooperating with one another to departments working smoothly together, we realize the necessity for groups to find common ground to move forward. Yet, how many times when there is a problem in the emergency department do we leaders ask that department, working alone, to address the problem? How many times do we "fix" a departmental issue, only to have another department or group of employees suffer because the solution that made so much sense to emergency now causes problems for the medical-surgical unit? We consistently ask our department managers to manage their departments when what we want them to do is lead the hospital.

Three Levels of Thinking

How do you put systems thinking to working in your hospital? The starting point is to identify the level of thinking from which you are attempting to solve the problem.

Events Level – At the events level, you note the symptoms to problems: employee turnover or absenteeism, low moral, diminishing quality of care, and so forth. Notice the term symptoms. A common trap managers fall into is to view the symptoms in isolation. As a result, they generate quick solutions that in the short term may seem to be effective but in the long run often exacerbate the underlying problems. Although the events perspective is an essential first step to solving any problems, you need to view the challenge in a broader context to determine what changes would work best to ameliorate the situation.

Patterns Level – If you think of events as individual points on a graph, then the patterns perspective is what you see when you connect the dots – the trends that have been happening over time or over several departments. At this level, you ask such questions as:

- How long has this problem or trend been occurring?
- Are other departments experiencing the problem?
- Are there other events that seem to have triggered the problem? What are they?

You take a step back from the individual events and look for patterns, which might help you better understand the extent of the problem. When data points are grouped together, for example, absenteeism in surgical nurses as well as absenteeism among the X-ray technicians, common patterns often emerge. This also forces you to look at the links between the problems you may be experiencing – problems in other departments that may be related to yours – and how any solutions you develop will impact those departments.

But you can't stop here. You still need more information to determine why the patterns look as they do and how you can reverse the troublesome trends.

Systems Level – Once you have identified what is wrong and the trends associated with the problem, the next step is to ask yourself "Why?" Let's take an example. Absenteeism among nurses has increased dramatically after a recent schedule change which saw the elimination of all 8 hour shifts to 12 hour shifts. Why? It may seem obvious that the staff is unhappy with the new shift structure. But don't stop there!

When you ask about reasons for higher absenteeism, most nurses say they are working even longer hours that the 12 hour shifts because they cannot complete all the required paperwork. You delve into the increased paperwork issue and find that medical records has made a major change in the way of patient records are organized and what documents are required. Medical records made this change with no input from other departments; it responded to requirements for increased documentation from the Ministry of Health.

If you had concluded that the shift change caused the increased absenteeism and had returned to the 8 hour shifts, you wouldn't have solved the problem – in fact, you might have exacerbated it. Getting to the true cause of the problem takes time and persistence, but these are essential to resolving problems. Keep asking why until, like peeling an onion, you get to the core issues. Say recent patient satisfaction surveys were very negative. Yet the hospital is adequately staffed to meet patient care needs. In fact, recent improvements in patient facilities should have increased patient satisfaction.

What are the patterns associated with this event? How long have the surveys been negative? Which departments are affected? What changes have been made in other departments that could be affecting patient satisfaction in your department? What changes have you made in your department that could be affecting patient satisfaction in other departments? More important, which departments should be working cooperatively to resolve this issue? And, finally, what unrelated policies or procedures have been implemented that could trigger caregivers to feel unvalued and unappreciated? It is necessary to look not only at the units where satisfaction is low but also at how decisions and actions of other units are affecting patient satisfaction.

The Bottom Line

As Einstein observed, "We cannot solve our problems at the same level of thinking that created them." In other words, the best solutions to your hospital's most pressing challenges are not the ones you see right in front of you. Look beyond the events and patterns to discover what in the system is causing the problems. Then you will gain insight as to where you should focus your energy and resources to create long lasting, positive change in your organization. Remember, when you work on the system, the problems work themselves out.

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