



## Product-Line Management and Employee Assessments of Work Environment: A Study of Hospitals

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In previous issues of *Transition Watch* we reported on the implementation of service lines throughout the VA. In this article, we look at the implementation of service lines in the private sector and present some of the findings from our study of the organizational structure of eleven different private sector hospitals in five integrated delivery systems across the country. Like VA, many other healthcare organizations are focusing on the design of their organizational structure in order to improve operations. Designing an organizational structure based on either function (professions) or product (service lines) is fundamental to any organization, irrespective of the industry.

In theory, both service line and functional structures present advantages and disadvantages relative to the work environment of an organization. One way a service line structure helps to improve this environment is through customer focus. Service line managers are able to concentrate on a limited set of services for which they control the full array of activities required for producing those services. Another advantage of the service line structure is that it helps promote interdisciplinary teamwork. By grouping employees from different disciplines in the organization, the service line structure presents an opportunity for more effective interactions among these individuals.

Nevertheless, the service line structure has several important limitations. In a traditional functional arrangement, the department managers are responsible for ensuring that staff members are in compliance with professional standards. With the absence of this oversight in the service line structure, employees may lose important opportunities for professional development. In addition, the constraints imposed by the service line

structure limit the exposure of employees to different types of services that the organization provides, which further contributes to the lack of professional development and job

satisfaction. In order to achieve the benefits of the service line structure without eliminating the functional structure, many hospitals have adopted a variety of intermediate structures such as task forces, teams, and liaisons. These intermediate arrangements exist as parallel structures to the functional department.

Our recent private sector study<sup>1</sup> assessed the effects of service lines on an organization's work environment. In addition, the study examined whether the effects of service lines are sensitive to the approach used to implement them, as there has been longstanding debate over the benefits of implementing the service line structure incrementally versus discontinuously (i.e. in a rapid or abrupt manner).

The sample for the study consisted of 11 general acute care hospitals that were members of a research consortium, the Center for Health Management Research. This consortium provides financial and logistical support for research addressing organizational and managerial issues of interest to its members. Funding for the study was provided by the consortium and the National Science Foundation.

The hospitals in the sample had some combination of functional, service line divisional, or service line parallel (intermediate arrangement) structure among four or more of the following clinical areas: behavioral health, cardiac care, cancer, geriatrics, orthopedics, and women's health. A clinical area was considered to have a functional structure if the department chiefs (e.g. nursing, social services, and physical therapy) had line and budget authority. On the other hand, if the service line managers had line and budget authority, the clinical areas were categorized as service line divisional structures. The clinical areas that had a functional structure as well as task forces or liaisons to coordinate activities across departments were grouped as service line parallel structures. This definition is an aggregation of a more refined set of definitions given in the Winter 1999 issue of *Transition Watch* (available on the web at <http://www.hsrd.research.va.gov/publications/internal/trans6.pdf>).

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## A Study of Hospitals

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The two primary sources of data for this study were employee survey and site visits. A sample of staff nurses and therapists at each facility were surveyed to obtain data on measures of work environment. Four scales were used to measure the work environment: customer focus, teamwork, professional development, and job satisfaction. Data on the organizational structure of the clinical area was obtained by interviewing the senior manager, middle manager, and frontline employees at the hospital.

The implementation approach of the organizational structure was considered to be incremental if a clinical area progressed to a service line divisional structure using some sort of a transient structure. If the service line divisional structure was introduced straight from a functional structure, the implementation approach was considered to be discontinuous.

### Results

The results of the study show that:

- Employees from the service line divisional structure reported scores for customer focus and teamwork that were no different than those from employees in the functional or parallel structures.
- For professional development and job satisfaction, employees from service line divisional structures reported lower scores than those reported by their counterparts from functional and parallel structures.
- Employees from service lines that were implemented discontinuously reported higher scores for customer focus, job satisfaction, and professional development than did employees from service lines that were implemented incrementally.

### Discussion

In this study there was no evidence that service lines offer the kinds of benefits to organizations that theory often suggests. Indeed, the results point to the negatives of service line management with no clear offsetting benefits to the organization. However, these findings are confounded by how the service line is implemented.

The effectiveness of a service line structure depends in part on how it is implemented. An incremental approach provides opportunity for opponents of the change to undermine the effort during the transition period. Even if the organization moves forward in implementing the service line, the legiti-

macy of the structure becomes damaged by the protracted controversy and political infighting. Employees may perceive an extended transition period as an indication of ambivalence on the part of senior managers as to how jobs should be organized. By contrast, a discontinuous implementation approach may limit such opposition by establishing new arrangements for line and budgetary authority quickly, thereby communicating to employees that the new structure is both legitimate and permanent.

While the service line structure may have the potential to benefit an organization, the implementation process may need careful consideration in order to realize any potential benefit. Organizations also may need to make changes in other areas of their operations, such as information and financial systems, to support this type of structure. In this study, many sample hospitals had done little in this manner to support their service lines. This may explain the lack of any support for the parallel structures. In addition, the fact that better results were observed for service lines implemented discontinuously than for those implemented incrementally supports the idea that the performance of service lines might partly depend on implementation issues rather than the design concept itself. Service lines may make important contributions to organizational performance if implementation issues are managed effectively.

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*Transition Watch* is a quarterly publication of the Office of Research and Development's Health Services Research and Development Service. Its goal is to provide timely, accessible health care change information and resources to aid VHA managers in their planning and decision making. Summaries and analysis of ongoing survey and management studies within VHA will be included, as well as organizational change resources from within and outside VA. For more information or to provide us with your questions or suggestions, please contact:

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## Innovative Thinking: The Learning Xchange

Written from an interview with Carter Mecher, MD, and Robert Means, PhD

Exploring how ideas and innovations diffuse through organizations, and how learning takes place and facilitates positive change is the focus of the group called the Learning Xchange. This interdisciplinary group includes VA representatives from the Employee Education System (EES), health care economists from the Management Science Group, health services researchers, clinicians, administrators, participants in VA's Quality Scholars program, and those interested in patient safety, as well as experts from outside VA such as economists, anthropologists with educational expertise, and experts in organizational development and quality management. The common thread of all those involved in the Learning Xchange is an interest in building an understanding of why some innovations spread easily through an organization while others do not, and then translating that understanding into practical strategies that VA staff can use to promote positive change.

It all began about two years ago, when the then Under Secretary for Health charged a small group with investigating why the many good ideas in one part of VA weren't being taken up or used by others in VA. Carter Mecher, MD, Chief Medical Officer for VISN 7, led the small working group that set out to identify barriers and facilitators to spreading innovations.

Through the ongoing efforts of members of the Learning Xchange emerged an organizational learning and change implementation theory that content, context, and community must all be considered in order to effectively accomplish change or adopt new ways of working.

- *Content* commonly refers to information about the innovation or change that is given to learners in some form, traditionally via a training approach.
- *Context* refers to the physical work environment, including the work itself as well as the distractions, competing priorities, and conflicts operating within that environment that may either support or inhibit change.
- *Community* involves people and the complex personal relationships that underscore the social aspect of how we learn - the concept of "sense-making" - in which people talk about and attempt to make sense of something with their colleagues and peers.

Content is often the primary focus of traditional change methods, with the expectation that if people are

given enough new information about how to do something differently, the desired change will occur. However, the Learning Xchange has found that even the best content will make no difference in change implementation unless context and community are also taken into consideration. Without understanding how people accept content and apply it to their own context and social group/community, how they make sense of it and incorporate it into their work, change cannot occur.

Traditional change efforts focus on training to bring about change. The Learning Xchange has recognized that these traditional approaches are often

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### Report on the integration of affiliated VA medical centers now available

Investigators with MDRC's Management Consultation Service recently completed a study of three VA health care systems (Chicago, New York Harbor, and Boston) that were integrating medical centers with strong affiliations with different medical schools. Commissioned by VA's Chief Research and Development Officer, the purpose of the study was to examine the impact of facility integration on the academic mission of these systems.

We reported findings from the study in two previous issues of *Transition Watch*, August 2001 (vol. 4, no. 4) and May 2002 (vol. 5, no. 3). The study is now complete and copies of the final report, *Integration of Affiliated VA Medical Centers: Second Report*, are available, either by contacting the MDRC at MDRC.Boston@med.va.gov or by downloading the report from the HSR&D web site at <http://www.hsr.d.research.va.gov/publications/internal/integrt2.htm>

The report may be of interest to VISNs and medical centers as they conduct their CARES analyses. Although the study focuses on three systems that are somewhat unique in VA, the findings have broader applicability: first, in understanding the role of academic affiliates in organizational change and, second, in offering lessons about the challenges and processes of integrating VA medical centers.

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unsuccessful in bringing about lasting change that will affect work practice. One Learning Xchange effort reviewed VA's waits and delays project. Learning Xchange explored how people learned about needed changes to improve waits and delays and whether they were successful in incorporating and sustaining these new ideas/strategies for improvement. They found that there was excellent content available to staff, but very little consideration of context and community. In observed cases, staff received a lot of information, but not what they needed in order to be able to deal with decisions that had to be made before change could occur, taking into consideration the dynamics of the local culture. For example, clinicians were provided with strategies to reduce queues, yet demand for services was not being constrained.

An outcome from the Learning Xchange's theory of content, context, and community has been the endorsement of a VA-derived model for learning and

change called Water Cooler Logic (see box for details and example). This approach is now a change management process owned by VA that has been implemented in 15 projects across the organization, in VHA, VBA, and the National Cemetery Administration. Water Cooler Logic shows that solutions for encouraging successful change implementation are often found to be fairly simple and, most importantly, almost always local. Learning Xchange members are working to develop strategies that will help surface this local know-how, nurture it, and put it to good use.

The Learning Xchange suggests that, despite conventional perceptions, learning is fundamentally social, informal, collaborative, and local. Members are working hard to illuminate a better understanding of how learning and change happen in an organization, as well as developing innovative strategies for helping change occur.

For more information about the Learning Xchange or Water Cooler Logic, contact Robert Means, PhD, Director of Research and Dissemination of Innovations for EES at (440) 546-2774.

## Water Cooler Logic

Water Cooler Logic is an approach to conducting learning and change management interventions and practice upgrades. It consists of three phases:

- The *discovery phase* involves observing and talking to those who will be affected by or will need to implement a change process.
- *Co-design* uses "divergent thinking" to brainstorm wide possibilities for the change, followed by "convergent thinking" to classify and group the resulting possibilities into practical solutions and products. Key participants in this phase are members of the workplace community who will be affected by, or will need to implement the change.
- *Deep implementation* involves trying out the proposed change process while maintaining a willingness to revise, adjust, amend, or even stop the process if it's not working and try something else.

Staff at the Lexington, Kentucky VAMC, who had formed a group called the Patient Safety Clearinghouse, used Water Cooler Logic to examine a potentially critical problem with medical gases that was affecting ventilators in the Intensive Care Units.

In the discovery phase, the group conducted interviews with nursing, respiratory therapy, physician, and engineering staff to clearly understand the events from each group's perspective. Observations of related work areas were also conducted. Findings from this phase corrected erroneous information and identified the need for a number of changes in work practices, communication methods, and training. This information was used to begin the co-design phase of developing changes in areas such as communication with the Chief of Staff's office, improvement and implementation of a training program for staff working with medical gases, and education of Medical Center employees about the Patient Safety Clearinghouse and their role in patient safety. Deep implementation of work practice changes is progressing, providing enhanced patient safety and staff communication.

Members of the Patient Safety Clearinghouse felt that the Water Cooler Logic approach capitalized on the group's diversity, as issues were identified quickly from different perspectives, and a complete and balanced picture emerged. Since this approach benefits from local knowledge and does not require "experts", problems and issues are examined from a basic level, often resulting in fairly simple solutions.