Operational Auditing: A Cultural Approach

by David M. Fetterman

Auditing a teaching hospital on a cultural level requires attention to both specific practices and underlying systems. The auditor must study specific charge documents, productivity statistics, computer use, personnel records, workplace conditions, health and safety concerns, procurement transactions, cash handling controls, as well as equipment, payroll, and travel controls. These specific mechanisms manifest the underlying systems which include operational efficiency, planning and analysis, supervisory structures, and information systems.

Two case studies illustrate the utility of the cultural approach in auditing: the hospital pharmacy and the emergency department, including critical care transport functions.

PHARMACY DEPARTMENT

Background

The Pharmacy Department is organized into five basic components: satellite pharmacies, the central pharmacy, drug information, inventory control, and the computer system.

The satellite pharmacies are located in the hospital wings. They are decentralized and clinically oriented by design. Approximately 75 percent of pharmaceutical medications are distributed through the satellites.

The central pharmacy is centralized and distributive in orientation.

The drug information center disseminates information to physicians, pharmacists, nurses, and other health care professionals through monthly

Anthropological concepts and techniques, combined with traditional audit techniques, complement and enhance the process of an operational audit. An anthropological approach enables the auditor to evaluate the organizational culture of an institution. Such a culture typically consists of shared knowledge about specific status levels, overlapping hierarchies, specific languages, sacred symbols, rituals, and behavior.[1]

An anthropologist studies a culture to learn the insider's cultural knowledge and better understand the patterns and processes of that culture. Similarly, the auditor who approaches an audit from a cultural perspective gains the cultural knowledge that underlies organizational behavior.

A teaching hospital represents a central place of medical culture where service to the patient is combined with intern and resident instruction and clinical research programs. In this environment, efficiency and prompt service to the patient are weighed against the need to provide an environment conducive to medical training.

Anthropological methods applied to auditing in this environment are particularly valuable. Such techniques include:

- Participant observation.
- Key informant interviewing.
- Informal and structured interviews.
- Expressive autobiographical interviews.
- Triangulation.
- In addition, unobtrusive measures may be used, such as physical traces, archives, folktales, proxemics, and questionnaires.

[1]M. S. Schall, "A Communication-Rules Approach to Organizational Culture," *Administrative Science Quarterly* (28, 1983), p.557, defines organizational culture as: a relatively enduring, interdependent symbolic system of values, beliefs, and assumptions evolving from and imperfectly shared by interacting organizational members that allows them to explain, coordinate, and evaluate behavior and to ascribe common meanings to stimuli encountered in the organizational context; these functions are accomplished through the mediation of implicit and explicit rules that act as cultural warrants.

newsletters and news bulletins. It responds to medication-related inquiries.

There are 89 full- and part-time employees on the Pharmacy Department payroll of which 44 are pharmacists. Scheduling ensures that pharmacists are available around the clock. The remainder of the staff are technicians, clerical workers, abstractors, and one total parental nutrition (TPN) registered nurse. The Pharmacy Department also employs four part-time interns and two residents.

Assessment

Our overall assessment of the department was positive. It is managed and staffed by high-caliber personnel and generally displays a high degree of effectiveness and efficiency in departmental operations. Management's prompt and thoughtful response to departmental concerns evidences a commitment to excellence. There were, however, a number of problems.

Late charges. In the area of operational efficiency, a loss of revenue resulted from a delay in processing documents. Patients were often discharged a week before some of their charge documents were processed, resulting in a late charge that the hospital could not recover. This problem was discovered during the survey phase through such techniques as key informant interviewing, formal interviews, use of archival materials (charge-out documents), listening to folktales about the process from various employees, and triangulation.

An informal meeting with a key informant working with fiscal records initially suggested that a problem might exist in this area. A formal interview was conducted with the departmental director and associate director of the hospital. They thought the problem might warrant attention, but doubted that any significant problem existed. A brief review of the archival data, particularly handwritten portions of the charge-out documents, suggested the potential for error. This information became more salient when combined with old folktales of routinely lost charges because charge-out documents were found months later behind filing cabinets or desks.

Finally, the information was triangulated—tested against various sources of information—before we determined that a problem definitely existed.

Then, we used reasonably conventional audit techniques to fully document the problem. A purposive sample of 60 charge-out forms were selected. They were coded while on the nursing unit and traced through the system. Late or missing charge forms were documented and reported.

On a financial audit, the assessment would note the unrecovered cost, and management would appear ineffective or lax. This approach would miss the organizational culture level entirely. A cultural approach is more concerned with the system's adaptation to its surroundings while including fiscal problems. From a cultural perspective, a behavior can be classified as adaptive or maladaptive.

Viewed in this light, as a symptom in a larger cultural system, the event generated an entirely different conclusion. Questions were raised as to the legitimacy of existing policies defining a charge as late and unrecoverable. Staffing and work load issues had to be explored. In this case, the department was understaffed; there weren't enough medical abstractors—the individuals who convert medications administered to patients into charges—to keep up with the work. The backlog resulted in late charges that could not be recovered.

Organizations will periodically make adaptations, and maladaptations, to their environments

Organizations, like organisms, make adaptations and periodically maladaptations to their environments. In this case, leadership (an adaptive response) was evidenced during the audit.[2] The director took preliminary measures to address the problem as soon as he received an audit memo on the topic. His responsive adjustment was a more important indicator of his strength as a manager than the late charges were as indicators of weakness.

Work loads. We found the overall planning and analysis for decision making in the Pharmacy Department to be appropriate and of a high caliber. Pertinent documents were reviewed and budgetary considerations were reevaluated on an "as needed" basis. In addition, scholarly literature was consulted routinely. The only significant area of weakness in this regard was in the measurement of work loads or productivity statistics.

The system of recording and analyzing productivity data was not sensitive to the clinical nature of the satellite pharmacists' behavior. In addition, there were analytical problems. Only the number of prescriptions were counted to determine productivity. This was misleading because one prescription might take two minutes to prepare while another prescription might require half an hour or an hour for preparation. The format used to collect work load statistics varied from satellite to nonsatellite pharmacy,

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[2] J.R. Meindl, S.B. Ehrlich, and J.M. Dukerick, "The Romance of Leadership," *Administrative Science Quarterly* (30, 1985), pp. 78-102; T. Peters and N. Austin, *A Passion for Excellence: The Leadership Difference* (New York: Random House, 1985).

and it was not comparable or consistent.

To further compound the problem, the productivity statistics compiled for management obscured the nature of the different staff activities, generating unrealistic standards of efficiency that were doomed to failure. More importantly, they provided misguided and inaccurate decision-making information to management.[3]

Cultural or anthropological techniques were useful in documenting that a problem existed. Using participant observation (which requires both involvement in and detachment from the lives of the people you are studying) meant participating in pharmacists' activities and observing their behavior. Participation in pharmacists' lives could involve going to meetings with them, going on rounds, discussing their research, helping move bottles or even a desk while learning about what they did on a daily basis.[4] This level of involvement sensitized the auditor to the conditions and constraints of the individual employee. At the same time the auditor or evaluator had to step back in order to observe and record employee behavior.

In this study, immersion into pharmacists' daily activities revealed that no one took the work load statistics seriously, although a systematic review of the figures outside this context suggested that the system was working fine. Observations of last-minute entries at the end of the week or humorous "guestimate" games played among pharmacists to determine the most credible work load figures suggested a problem with the quality of the data. In addition, observation of the pharmacists' schedules enabled the auditor or evaluator to make realistic recommendations for change. Recommending that all pharmacists add another recording task to their work load was totally unrealistic.

Immersion into the pharmacists' daily activities revealed that no one took the work load statistics seriously

The evaluator must recognize that "organizational departments assigned information-processing responsibilities are unlikely to remain neutral with respect to the uses of information."[5] Thus we realized that pharmacists might interpret the recommendation to collect work load statistics as a management tool, either to criticize for poor performance, or to adjust staffing, or to improve salaries, or as a formality that detracts from the primary objective of providing patient health care. (These perceptions of reality represent the cultural context of their behavior.) Understandably, pharmacists were resistant to change perceiving it as a potential threat to their culture.

In this case, overworked pharmacists identified a self-interest in data collection when the task of work load statistics was presented within the context of staffing needs. In addition, this framework set the tone for a "rational," scientific, and constructive endeavor from the pharmacists' perspective.

Pharmacist-nurse relationship. Requiring nurses to sign for medications taken from the satellite while the pharmacist is not available was a necessary step. Satellite pharmacists, however, protested the recommendation because they thought it might jeopardize the trusting relationship they had worked hard to build with the nurses. Appreciating the cultural context, we suggested that it would be wiser and more effective to recommend that the nursing supervisors require it of their nurses rather than having the pharmacists require it of the nurses. This effectively solved the problem without a memo, a report, or any turbulence.

Other findings. Key informants, used throughout the audit, provided the initial information that the work load statistics were considered a joke. They also served as informal monitors to communicate how the department's own plans were progressing and how the audit findings were being implemented. Recording such physical traces as routinely erased figures on the productivity worksheets or incomparable categories on productivity worksheets provided documentation.

Supervision. The Pharmacy Department had a system of supervision for its satellite pharmacies that was not well thought-out in advance. The management of the satellite system is decentralized and guided by working

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[3]The pharmacists' behaviors represented symbolic cultural artifacts of a system that was working in a maladaptive fashion. Management decision making was dependent on faulty data. However, the department had already taken steps to develop a more accurate work load measurement system. Departmental studies have already been conducted that are sensitive to actual pharmacist behavior and that account for both the percentage of time per task and the number of units or prescriptions dispensed. Management's diagnosis and treatment of its own problem represented a measure of their organizational self-awareness and self-directedness. In this case, the value of the cultural approach lay in discovering a potential problem and interpreting the data. The methods were useful in identifying a potential problem and collecting data for appraisal. A cultural interpretation of management's behavior was useful in explicating what the data meant.

[4]At Stanford University Hospital, satellite pharmacists make rounds with the physicians to build a team approach to patient health care. The pharmacist is able to be a more informed colleague when working with the physician regarding the appropriate selection and scheduling of medications.

[5]M. S. Feldman and J. G. March, Information in Organizations as Signal and Symbol, *Administrative Science Quarterly* (26, 1981), p.181.

supervisors, making supervision a more difficult task than in a highly centralized system that employs full-time supervisors. In addition, the satellite pharmacists were purposely selected by management to assume a clinical role to serve the growing and more specialized needs of the hospital. Many of these clinically oriented pharmacists regard administrative responsibilities as secondary in nature and as potentially detracting from their primary clinical duties. These conflicting world views, part of the cultural context of conducting pharmacy business, made implementation and enforcement of basic supervisory controls a challenge for the working supervisor and the director. Participant observation and informal interviews were extremely useful in gaining knowledge about this problem. The unofficial line was communicated in this unthreatening natural setting. Although the nature of the problem was documented and communicated to management, it was understood that the anonymity of individual pharmacists would be maintained.

Working supervisors had little time or opportunity to observe their staff pharmacists, hindering the supervisor's ability to assess and monitor individual performance which, in turn, diminished the credibility of the annual performance appraisal process among pharmacists. (Observation of pharmacists on a daily basis, combined with a review of pharmacists' and supervising pharmacists' schedules, verified this finding.)

Performance issues were not documented on an ongoing basis throughout the year. In addition, some supervisors did not solicit evaluative data from pertinent colleagues, such as nurses, physicians, and other nursing staff who worked directly with the satellite staff pharmacists. (Informal interviews with the satellite pharmacists' colleagues on the ward were combined with formal interviews with supervisors and a review of such written documents as job descriptions, performance appraisals, and management memoranda to triangulate these findings.)

There was inconsistent compliance regarding the submission of quarterly reports from satellite supervisors. A simple review of the submissions (or lack thereof) was sufficient to document this part of the finding which was confirmed by interviews with satellite supervisors and the director. This was a function of inadequate assimilation of supervisors into the philosophy or culture of central pharmacy management, inconsistent enforcement of delivery deadlines, and an unclear definition of the purpose of the quarterly reports. Also, there was no consistent format for supervisor reports to facilitate comparisons and consolidation of information.

Pharmacists complained that the evaluation system (a by-product of the structure) was unfair or at least inaccurate. Moreover, satellite managers—the link between the working pharmacist and the cognizant director—were working managers. This role divided their loyalties and inhibited the effective execution of the administrative component of their roles. A conventional fiscal or even program audit would have blamed the pharmacists and the satellite managers. A cultural perspective directed the auditor's eye to the underlying structure and values of an organization to isolate causes. Anthropological techniques provided the tools necessary to document the underlying problems.

Summary

There were problems in the Pharmacy Department, but the audit focused on the organizational culture level instead of the compliance level. Compliance issues were analyzed; however, the director's prompt response to the problems was more important than the observed and documented problems themselves. Moreover, had the audit focused on the compliance level alone, and not

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used compliance indicators as manifestations of larger issues, the results would have suggested the reverse of our positive evaluation. A cultural perspective provided a broad view of management activities.

Patient charge documents are viewed as part of the operational efficiency of a department. Work load measurement or productivity statistics and computer inventory capabilities are viewed as part of management's ability to plan and analyze for decision making. Organizational supervision is viewed from a structural perspective. Structural impediments to proper supervision can be identified and removed. Emphasizing the role of the specific supervisor, as compared with the structure of the department, would have drawn attention to the individual, not the larger structural cause of the problem.

In addition, workplace, health and safety, and physical security concerns represented additional manifestations of management's ability to control and use the hospital's resources wisely. Procurement, cash handling, and administrative record handling were more important as indices of management ability than were reports of simple compliance with rules and regulations or financial gain or loss.

A cultural perspective views departments as living, breathing organisms with their own life cycles

EMERGENCY SERVICES

Background

The Emergency Services Department consists of several cost centers including emergency, pre-hospital care training, life-support training, emergency education, emergency helicopter transportation (Life Flight), and patient transportation. We selected two of these cost centers, emergency and Life Flight, for review.

Emergency is the heart of the overall Emergency Services Department and the largest and most encompassing cost center. The emergency cost center is operated 24 hours a day, seven days a week. It provides medical care to any patient, and as part of a teaching hospital, also serves an educational function. Interns and residents complement their classroom instruction with experience gained working in emergency on a rotation basis, under the direct supervision of the attending physician.

Life Flight is the second largest cost center in the Emergency Services Department. It is also the newest addition to the Department and was only one year old at the time of our review. Stanford University Hospital entered an agreement with Santa Clara Valley Medical Center for the provision of helicopter transportation services. The service is referred to as the Life Flight Program. Stanford is responsible for the helicopter and the daily operation of the program. The Hospital contracts for the helicopter, pilots, and mechanics. The physicians and nurses who work in the program are Hospital employees.

Life Flight also provides 24-hour service, seven days a week, and is designed to complement rather than replace existing emergency medical services. One of the long-range objectives of this service is to change referral patterns. This would result in treatment of a larger number of extremely ill patients at Stanford.

Assessment

The overall assessment of these two cost centers concluded that they were efficiently operated. In general, budgetary controls were operating effectively. Staffing and organization also appeared appropriate. Insurance coverage was adequate and capital equipment controls were operating effectively. However, a few problems warranted attention in these areas.

Uncollected data. Revenue data compiled during the audit reflected positively on the Life Flight Program. In-house revenue data for Life Flight patients, however, was not collected on an ongoing basis during our review. An attempt to complete a cost-benefit analysis on the operation revealed that no data existed with which to work. In this case, the conceptual level of the cultural approach was more informative than its techniques.

A cultural perspective views departments as living, breathing organisms with their own life cycle. The collection of in-house revenue data is critical to monitor Life Flight at various stages of the program's development. We recommended that, in the future, ongoing information be collected regarding inpatient revenue for Life Flight patients. This would improve the evaluation process, enabling appropriate parties to complete a basic cost analysis (of revenue as compared with expense) at any point in its life cycle.

Duplicate resources. The Life Flight Program and critical care (emergency) transport each had its own set of dispatchers. This was partially a consequence of independent program development and partially a function of political territoriality. We identified this duplication by conducting informal interviews with key informants and managers who were caught in the crossfire between these two departments. We also conducted formal interviews with the principal parties involved to verify the information. The information was triangulated by reviewing

budgets from both of these departments.

Conceptually, we applied a cultural perspective to the hospital to view it holistically—as a functionally interrelated entity.[6] Focusing exclusively on the two cost centers as islands limits the evaluator's viewpoint. In some instances, the duplication of resources is necessary and appropriate, but in this case it was neither. From a cultural perspective, this duplication was a maladaptive pattern of behavior which could lead to further duplication in other programs under the umbrella of irreconcilable political differences.[7]

Management had lost control of the big picture.[8] We recommended that the department achieve substantial cost savings by consolidating the dispatching of these two programs. We also recommended that this be accomplished without deleteriously affecting their integrity.

Budget information. Another problem involved cultural communication. Budgetary information is one of the most significant forms of cultural knowledge in any organization. It is cultural in that it represents specific values and shapes organizational behavior.

A variety of symbolic statements can be made using the budget. At Stanford, the cognizant Associate Director supervising the Emergency Services Department is known for his review of every travel reimbursement under his purview. This sends a symbolic message throughout the system that management controls its resources by paying close attention to detail. In general, it is an effective message and a powerful control on hospital resources.

This unconscious cultural practice was made explicit during the audit.

We recommended elimination of the consulting fee during contract renewal negotiations. The audit technique used was simple and straightforward questioning of each line item in the budget. The auditor's analysis, however, was cultural in nature.

What should have been a one-time payment had become a routine item in the budget

A review of the budget line items by the departmental financial officer had become a monthly ritual. This review gave the financial officer a sense of purpose and engendered a perception of competence. This ritual sent a message to the rest of the staff that tight controls were in effect. Unfortunately, budgetary information is often taken for granted and, inadvertently, hidden in the ledgers. During our review of the budget, we identified a few consulting fees that seemed to warrant closer scrutiny. One fee involved contract negotiations to begin a departmental program. This payment was simply taken for granted as part of the politics of doing business. The payment should have been a one-time occurrence, but instead had become a routine item in the budget. Although the financial officer's scrutiny was effective for most expenditures, closer attention was required for exceptional expenditures such as consulting fees.

The ritual had become divorced from a fundamental element of its cultural meaning and "without this connection, rituals are just habits and do nothing but give people a false sense of security and certainty."[9]

Basic cultural knowledge was not being communicated, since the management information system (the budget) was functioning from a mechanical point of view. Management's blind spot, the unseen information, thereby severely minimized the effectiveness of the system.

Another consulting fee was for professional assistance in relocating the heliport and helicopter fueling system, showing that a substantial amount could have been saved by refueling at a closer location. The allocation was appropriate and a review of the in-house figures verified that a substantial cost saving would have resulted from a change in the refueling site. The department's actions demonstrated how "the gathering of information provides a ritualistic assurance that appropriate attitudes about decision making exist."[10] The only problem was that nothing had been done with either the allocated consulting fee or the information. The lack of basic cultural communication regarding these fiscal affairs cost the hospital money in lost savings. The auditor shared this information with senior management and, in the process, reopened atrophied lines of communication.

Status misunderstandings. Role and status differences represent another form of cultural knowledge

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[6]For a detailed explanation of how a holistic cross-cultural lens improves evaluation, see D. M. Fetterman, "Focusing on a Cross-cultural Lens in Evaluation," *Evaluation Research Society Newsletter,* (1985), Vol. 9, No. 2, pp. 1-5. See also D.M. Fetterman, *Ethnography in Educational Evaluation* (Beverly Hills, California: Sage Publications, 1984) and D.M. Fetterman, and M.A. Pittman, *Ethnographic Evaluation: Theory, Practice and Politics* (Beverly Hills, California: Sage Publications, 1986).

[7]This type of organizational disease can spread like a cancer—unchecked and uncontrolled, it can kill an institution from within.

[8]P.S. Millington, "Internal Audit as Evaluation: How Management Evaluates its Efficiency and Effectiveness," paper presented at the joint Evaluation Research Society/Evaluation Network annual meeting (1983).

[9]T. E. Deal and A. A. Kennedy, *Corporate Cultures: The Rites and Rituals of Corporate Life* (Reading, Massachusetts: Addison-Wesley Publishing Company, 1982), p. 62.

[10]Feldman and March, p. 177.

that often rivals budgetary concerns in importance. Communication of this nature between Life Flight nurses and Emergency nurses warranted ongoing attention. From the outset of the Life Flight Program, management had intitiated activities to anticipate and respond to rivalry and friction between these nurses. However, some miscommunication and misunderstanding remained about the nature of the Life Flight nurses' role.

Life Flight nursing staff work patterns are different from their peers' in Emergency. The readiness requirements of Life Flight nurses appear to preclude their scheduled use in Emergency. A comparison with Emergency nurses' high-pressure, high-volume work patterns revealed that the work loads seem imbalanced and thus inequitable to some Emergency nurses. Special uniforms are required of Life Flight nurses, representing another significant difference between the nurses. One of the most important reasons for the use of these uniforms involves marketing of the program, but there is also a functional basis for the use of their apparel. In addition, these uniforms serve as symbols to make a group a more cohesive team. Simultaneously, however, uniforms communicate a status differential that appears unfair to some Emergency nurses.

We recommended that management continue to be sensitive simply by including this issue in the report. This served to sensitize significant power brokers in the culture to an ongoing problem. Viewing the hospital from a cultural perspective sensitizes the auditor to all of the cultural resources available, including power brokers, to facilitate solutions to long-term, often intangible problems.

The techniques used to identify the problem and collect data included participant observation (by spending time in Emergency and Life Flight), informal interviewing of pertinent parties, and a review of management correspondence on the topic. Phone calls and electronic messages were also used to communicate with other program officials at institutions that had similar problems. The cultural concepts regarding roles, status, and symbols, however, represented the most significant set of tools guiding data collection and analysis regarding this finding.

Patient wait. We also observed a classic problem in Emergency called patient wait. Patient wait is one of the most common problems of emergency rooms, particularly in teaching hospitals, and Stanford is no exception. As with the duplication of resources in the Life Flight program, we extended our vision of the problem beyond the immediate cost center under study. The department relies on other departments to provide prompt lab results. A breakdown in the flow of cultural information, such as a delay in radiology test results, has an impact on Emergency as well as other parts of hospital culture.

Having this perspective sensitizes the auditor to all of the hospital's cultural resources

We also extended our vision organizationally to find a potential solution. We crossed clan and tribal boundaries to recommend that Emergency use the Community and Patient Relations volunteers and professional staff services. They were able and willing to help waiting patients. This type of assistance was useful in reducing patient anxiety simply by providing a contact point and comfort. In addition, volunteers and professional staff can be used to track down delayed test results. In this case, knowledge of the cultural system as a whole was applied to the situation. Viewing the hospital as an interdependent entity with many functional components was useful in ameliorating a basic problem in the teaching hospital.

Conclusion

Viewing a teaching hospital from a cultural perspective, rather than exclusively from a compliance orientation, improves an audit or evaluation. It provides concepts to guide inquiry and interpretation.

Using an anthropologist's cultural approach draws attention to the systems level of analysis, illuminating the interconnected nature of a department and focusing on the structure and values of an organization and how they shape the behavior of organizational natives. Adopting this perspective enhances the relevance of audit findings. Finally, understanding the cultural context of the evaluated program increases the probability that the client will accept both the evaluation findings and the recommendations.

Cultural knowledge and cultural indicators guide audit concerns and shape audit recommendations. Adopting a cultural perspective and using cultural concepts and techniques enable the auditor to focus on the level of abstraction that most concerns senior management—adaptive long term survival.[11]

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[11]DRGs–Medicare's diagnostic related grouping represent an excellent example of an external environmental constraint which hospitals must learn to adapt to if they are to survive. "Strong cultures are not only able to respond to an environment, but they also adapt to diverse and changing circumstances." Deal and Kennedy, *Corporate Cultures* (1982), p. 195.