

TRI-STATES HEALTH ALLIANCE: THE NOT SO OBVIOUS CHOICE

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Tri-States Health Alliance (TSHA) needs to prioritize from among four proposed information technology projects. All the proposals conformed with the mission of TSHA, fit its business model and should help improve patient satisfaction. However, not all could be done this year. Seven criteria were established and weighted. This case documents the processes and results of those evaluations.

INTRODUCTION

“Argh! These physicians don’t understand anything about information security,” Teresa complained to her colleagues. She continued, “Dr. Epperson called me aside after our meeting and said the physicians had to have the system he is advocating now – that’s our Proposal A4. He added that it was costing physician’s offices thousands of dollars to handle the records transport and filing. On the other hand, though, he expressed some concerns about what HIPAA would say if we were providing sensitive patient information over the internet.” (Note: The HIPAA Privacy Rule provided federal level protection for personal health information and gave patients many rights regarding who has access to their information. On the other hand, this act balanced this privacy with the “need to know” rights of health care providers.)

Allen, the director of the MIS department, responded, “Yeah, well I got cornered by Mr. Hunter from the board of directors. The board thinks system A1 is desperately needed because they had a couple of physicians who were doing an awful job with length of patient stay. That’s really important to them because that is how the hospital gets paid. And, then, there’s another doctor who has them worried because of suspected unusually high mortality rates. Right now, there’s no way to really prove this and, therefore, no basis for disciplinary action.”

“You know the other two proposals are probably just as important to these individuals and their departments,” Yong added “The oncology department is up for reaccreditation this

year and they are really scrambling to come up with the data they need to support this. TSHA collects data, but not the right data. Other departments have registered the same complaint. I'm sure that Heather, the Director of Quality Control, is pushing Proposal A2 as a reaction to that problem.

“My wife works in the HR department and the director of Human Resources' Proposal A3 is the result of an unusual number of complaints about one department not providing necessary paperwork for them to complete their work. Although they are the worst, there are complaints all over about delays, lost documents and such. TSHA seems to be losing sight on their internal customer. Everyone is so focused on the patient that they seem to have forgotten it's a team effort and they need to co-operate. The amount of work Warren has already put into this effort was obvious from his presentation.”

Allen nodded, “Well folks, we don't have the budget or the resources available to do them all - definitely one of them and possibly two, but not all. We have been tasked to prioritize these proposals and we need to keep the personalities out of our decision.”

TRI-STATES HEALTH ALLIANCE

TSHA was a locally-owned and managed health care system based in Northeast Tennessee, USA, and serving the health care needs of Northeast Tennessee, Southwest Virginia, Eastern Kentucky, and Western North Carolina. TSHA was formed when Metropolitan Medical Center Hospital, Inc. acquired six additional health care facilities in Northeast Tennessee in 1998. The integrated health care delivery system of TSHA included nine area hospitals and health facilities, 21 primary/preventive care centers and 13 out-patient care sites. These facilities housed 1122 licensed beds and employed 4,457 team members.

With the implementation of the Health Care Act, (ObamaCare) all health care facilities needed to become more price sensitive as profitability became more constrained. Passing cost increases along to external customers was no longer an option. Faced with mounting demands for health care technology, it became essential that management decision making be able to identify those technologies which would provide the best return on dollars invested, as well as satisfy the employees using them. Physicians were so busy that they had limited time to learn new systems and would be unforgiving of anything that didn't save them time to be with their patients.

Determination of the best technology projects has always been difficult, but rapid changes in health care delivery systems along with continuous improvements and new technologies has further complicated these management decisions.

THE PROJECT TEAM AND PROPOSALS

Allen, the MIS Manager for Tri-State Health Alliance, had been with the organization nearly from the start. Most of the IT infrastructure TSHA used had been developed by him, purchased by him and managed by him. There was little he didn't know about anything even

marginally related to the system. He used small teams made up of internal and external personnel to help make and implement decisions. Due to the long term importance of this project and the costs involved, he chose to lead this team.

Yong was an independent MIS consultant specializing in healthcare applications. Allen and TSHA had used his services over the past eight or nine years and the relationship had been successful for both parties, leading to a long-term, ongoing consulting contract. Allen had found in the past that their skills sets complimented each other and, along with Yong's expertise in the area, this made him a natural inclusion on this team.

Teresa was a recent graduate of local university's MIS program. Her senior internship had been at TSHA. Allen was impressed by her and successfully pushed to have her hired full time upon her graduation last year. Also, being relatively new, she had both more cutting edge knowledge from her university studies and had less of a vested interest in any current methods. What she lacked in expertise, she more than made up for in energy and enthusiasm. While an outsider might feel that her inclusion on the team was primarily for learning purposes, Allen knew that she often had creative and insightful ideas and was capable of holding her own.

Over the preceding months, various groups in TSHA had met with Allen to ask about certain MIS solutions they address perceived problems in the organization. Quite appropriately, patient satisfaction was of primary concern to all, and while each addressed patient satisfaction, it was with different methods.

"Everyone was aiming for the same target," Allen said, "but everyone was using a different weapon. We needed to find some compromise. We have the same limitations as any organization – time, money, personnel – so we needed to find a solution that doesn't squander those resources but yet meets the needs of the most groups.

"It was time to meet with all these people in one room and see if we can't come to some sort of decision. To this end, we got the main proponent of each system to make a presentation to the group and advocate their plan."

Project Proposal A₁

James Hunter, a member of the board of directors, supported Proposal A₁ which was for an information system which would be used to evaluate physician performance. The data for input had been identified and was already being tracked by TSHA and submitted to a national database. Data on physician Diagnosis Related Groups (DRG), which are the diagnoses most often shown for a patient by a specific physician, was stored in this database. Also, data related to length of stay (how long a patient stays in the hospital) was captured along with the cost data for each patient. Lastly, data on mortality rates was gathered and stored. Hunter proposed that these three measures could be used to determine a physician's

performance. Good physician performance was necessary for the well-being of the community and for the competitive position of the hospital which operated in a highly competitive environment. No system was currently operational in any of the hospitals which addressed physician performance.

Project Proposal A₂

Heather Long, the director of quality control, backed proposal A₂, an information system to track patient satisfaction. While a current system existed, it was administered by a third party and was part of a national patient satisfaction system. The current system was designed to fit the basic needs of thousands of hospitals and therefore did not track many of the things needed by individual groups within each hospital. Hospitals were “making do” with the existing system. For example, cardiology and oncology had different accrediting groups and each required that different data be included to address accreditation issues. The current system did not allow this and could not be adjusted to meet these needs. The proposed new system would track data specifically needed for each group as well as a set of universal data to be used to compare diverse groups.

Project Proposal A₃

Warren Colt, the director of Human Resources, advocated proposal A₃, an information system to evaluate the performance of different departments within the hospitals. It was felt the departments had a lack of coordination and cooperation, and it was believed that if incentive pay could be tied to departmental cooperation, there would be direct rewards associated with departmental evaluation. The HR department had put considerable work into defining which departments served other departments in the hospitals and that would determine who would fill out questionnaires for each department. They had further developed the questionnaire and a mechanism for evaluating the results, as well as a formula addressing how these average scores would be calculated in an individual employee’s incentive pay. It was believed that improved coordination would be the end result which would improve morale and reduce complaints within the hospitals, as well as increase patient satisfaction.

Project Proposal A₄

Jeff Epperson, a hospital physician, presented proposal A₄ which asked for an information system which would allow on-line sharing of patient data between the hospitals and its physicians. The initial program would allow physicians access to patient data which was currently transferred manually between hospitals and practicing physicians. For example, lab results were currently printed from a digitized file, the printed copies were delivered to the responsible physician’s office and filed with the patient’s records. Many clinical applications could fit into this data transfer model including X-Rays and Mammograms among others. This streamlined approach would increase physician efficiency and reduce time now taken from manual delivery of such documents.

WHICH ALTERNATIVE?

All the proposals conformed with the mission of TSHA, fit its business model, and should help improve patient satisfaction. However, not all could be done this year. The MIS team was tasked with coming up with a good way to prioritize the projects. A series of meetings with Hunter, Long, Colt and Epperson, along with input from upper management, developed the criteria and the weights for each criteria as shown in Table 1

The MIS team used the scale shown below in Table 2. This scale had been validated for effectiveness through theoretical comparison with a large number of other scales and had been used successfully in the past at TSHA as a way of evaluating project by all departments. All stakeholders would be familiar with this scale.

The projects were reviewed and for each criterion the question was asked, “Which proposal is more preferable with respect to fitting this criterion?” The results are displayed in table 3.

“Not everyone will be happy, but it’s hard to argue with numbers, especially if you helped put them together.” Allen told the team.

APPENDIX

TABLE 1
Project Criteria and Weights

Criteria	Weight
The project supports key business initiatives	.25
The project has a strong internal sponsor	.15
The project has strong customer/patient support	.15
The project uses a realistic level of technology	.10
The project can be implemented in less than 1 year	.05
The project provides positive NPV	.20
The project has low risk of not meeting scope, time, and cost objectives	.10
Total	1.00

TABLE 2
The Scale Used to Evaluate Alternatives.

Intensity of preference on an absolute scale	Definition
1	Equal preference
3	Moderate preference of one over others
5	Essential or strong preference
7	Very strong preference
9	Extreme preference
(2, 4, 6, 8)	(Intermediate values when compromise is needed)

TABLE 3
The Results

Criteria	Weight	A ₁	A ₂	A ₃	A ₄
The project supports key business initiatives	.25	9	9	5	2
The project has a strong internal sponsor	.15	7	9	5	2
The project has strong customer/patient support	.15	5.5	9	5	2
The project uses a realistic level of technology	.10	6	9	5	7
The project can be implemented in less than 1 year	.05	4.5	2	5	9
The project provides positive NPV	.20	5	7	5	5
The project has low risk of not meeting scope, time, and cost objectives	.10	2	5	5	9
Total	1.00				