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FEATURE STORY

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simulation game provides financial management training

All healthcare leaders should grasp the essentials of financial management, but gaining that knowledge may look to some like an unappealing chore. Here's how one health system made it interactive, engaging, and fun.

AT A GLANCE

> Adventist HealthCare developed a workshop with a reality simulation game as an engaging means to teach nonfinancial managers about the relationships between cash flow, income statements, and balance sheets.

> Thirty AHC staff, about half financial and half nonfinancial, were trained as workshop facilitators, and all managers with budget oversight were asked to complete the workshop.

> The workshop was very positively received; participants' average scores on workshop questionnaires increased from 77.4 percent correct on a presession questionnaire to 91.3 percent correct on a postsession questionnaire.

Healthcare leaders require financial acumen. Whether the leader's role is administrative or clinical, the need for financial savvy has become an inescapable reality, imposed upon the industry by today's depressed payment rates across the continuum of care.

This need has been highlighted by The Advisory Board Company, which found that "among leadership competencies identified by the Nursing Leadership Academy, financial savvy ranked among the three lowest leadership competencies both in terms of the managers' own self-assessments as well as their supervisors' evaluations of their performance."[a]

Adventist HealthCare (AHC), a healthcare system based in Rockville, Md., validated this point in results of an internal leadership needs assessment that the health system conducted in 2005: Financial knowledge was identified as a key learning priority. This finding prompted AHC to embark on an initiative to impart this knowledge to its clinical leaders.

A Learning Tool

AHC's objective was to design a learning tool that would help its healthcare leaders become financially savvy. A guiding principle in this effort was that learning must extend beyond the classroom and make real business sense in the leaders' daily work. It would not be simply a matter of teaching leaders accounting skills or how to read financial statements. It would be about helping them to see how their daily staffing decisions were linked to changes in cash flow and the balance sheet, and had a direct impact on the income statement.

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a. *Fundamentals of Nursing Finance: A Foundation for Financial Leadership*, Washington, D.C.: The Advisory Board Company, 2007, www.advisory.com.

Financial health simulation game board (photo used with permission from Schuster Kane Alliance).

Recognizing this principle led AHC's CFO to consider nontraditional training tools. Among the options explored was an existing teaching tool that was being successfully used in industries such as banking, insurance, and manufacturing. The CFO and AHC's other financial leaders concurred that the tool could be effectively adapted for the healthcare environment.

Adapting the tool was an extensive process. AHC's executive leaders assembled a design team of clinical, educational, and financial healthcare leaders who clearly understood the challenges facing health care today. The design team included a hospital CFO, an operating room director, an intensive care director, the education director, and accounting leaders.

The team designed a "game" that would provide an interactive, engaging, and fun means to learn about the relationships between cash flow, income statements, and balance sheets through reality-based simulation. The game would be presented in a workshop called "Financial Health: Impact of Everyday Management Decisions."

Preliminaries

Thirty people, about half financial and half nonfinancial, were trained as workshop facilitators using the simulation game. Leaders of each AHC facility delivered the clear message throughout the system that all managers with budget oversight (about 330 people) were expected to complete the workshop.

Each session was introduced by two lead facilitators (one financial, one nonfinancial) who explained the game's objectives, agenda, and participant expectations. The lead facilitators explained the rationale for the workshop's eight-hour duration; the goal was to move participants beyond the level of merely gaining knowledge of financial concepts to a level where they would be able to *apply* new knowledge to realistic management situations.

After brief exercises designed to reduce participant anxiety regarding financial content, participants were asked to complete a 25-item, preworkshop questionnaire assessing their knowledge of healthcare financial terminology and concepts. Upon participants' completion of the questionnaire,

the facilitators provided correct answers, along with explanations.

The financial facilitator then walked through the basic components of three major types of financial statements: a balance sheet, an income (profit and loss) statement, and a cash flow statement. Metaphors and parallels to personal financial records were used to aid participants' understanding. For example, balance sheets were described as "snapshots" and related to personal assessments of assets and liabilities, whereas income statements were explained as "movies" showing financial activity over time. Cash flow statements were related to personal checkbook registers. The facilitator used sample personal financial statements to begin illustrating the concepts, then advanced to actual AHC financial statements.

How to Play the Game

Following this preliminary discussion, the participants were ready to be introduced to the simulation game that they would play. The nonfinancial facilitator explained that the game would be a team learning event designed to simulate financial events that occur in a healthcare organization (not an individual competition like Monopoly®, though the game board looked similar).

The six members of each team would represent executives of a healthcare facility, working together toward financial goals. They would be required to make decisions as events took place and information became available, and observe the results of their actions. The combination of new information and results would allow for informed risk-taking. The facilitator emphasized that the most important objective of the game was to *learn*. Participants were encouraged to engage in the problem-solving processes and closely observe the results of the financial events.

At the beginning of each player's turn, the team member would roll the dice and move his or her game piece around the squares along the outside of the board. Each square resulted in a different type of activity. For example, the names of the three most common squares and the subsequent required activities were as follows:

> *Admission*—dice rolled to determine the number of patients and the case mix index, then recorded supplies usage/expense (linked directly to the number of patients) and accounts receivable
> *Pay expense*—paid the oldest outstanding expense from cash and removed it from accounts payable
> *Collect receivable*—added revenue to cash and removed it from accounts receivable

The financial changes resulting from each turn would be recorded on at least one of six large, laminated financial statements that were posted on the wall by each team table:

> Team Goal and Information Sheet
> Income Statement
> Cash Flow Statement
> Supplies Sheet
> Fixed Asset and Loan Ledger
> Balance Sheet

In the center of the board were boxes representing the current status of major asset and liability categories (e.g., cash, accounts receivable, accounts payable, long- and short-term debt). "Chips" representing monetary value indicated the amounts existing prior to the game; this healthcare facility was not new, but had been running for some time. The chip amounts matched the starting amounts shown on the laminated Balance Sheet.

In addition to recording financial transactions on the laminated statements during a turn, each participant also was asked to move and/or add to the chips as necessary to reflect changes. Teammates were encouraged to provide support as needed, and facilitators would offer assistance as well. Having participants record financial events both on the laminated statements and with the chips on the board helped to ensure that different types of adult learners would assimilate the concepts successfully.

The facilitators also explained that participants would conclude each turn by drawing a card,

ABOUT ADVENTIST HEALTHCARE

Adventist HealthCare (AHC) is a diversified healthcare system comprising five hospitals, six nursing homes, a home health division, and other related services. AHC is based in Rockville, Md., and its primary service area encompasses the Washington, D.C., metropolitan area and northwestern New Jersey. The health system employs 7,200 full and part-time staff and 1,300 volunteers, and its patient capacity consists of 855 hospital beds, 709 comprehensive care beds, and 50 assisted living beds.

which could involve good luck, bad luck, and/or the need to make a team decision. For example, one "bad luck" card involved a power failure that closed the healthcare facility for two days, resulting in supply spoilage and lost revenue, and a "decision card" involved deciding whether to invest in launching a new orthopedic unit.

One round would be completed when six turns were completed, representing one month of the healthcare facility's operation. Participants would play a total of three rounds. The facilitators acknowledged that the game might seem a bit complicated at first, but assured participants that the concepts would become much clearer as they began playing.

Many participants described feeling liberated from the "foreign" language finance once was to them.

The Game Begins

At this point, participants were divided into tables of six (or as close as possible to six), and two tabletop facilitators (one financial, one nonfinancial) joined each table. The participants then began the first round, rolling dice to land on squares of the game board.

At the end of each round, participants closed out their income statements and determined their gross revenue, earnings before interest, taxes, depreciation, and amortization (EBITDA) and net revenue for the "month." They also assessed their cash on hand after paying overhead and payroll (the amounts of which were determined by rolls of the dice), as well as interest expenses. In addition, they recorded depreciation of their assets (a set amount per month). Participants completed balance sheets after the first and third rounds.

Between each round, the lead facilitators led all tables in a discussion of their experiences and learning. They asked participants questions such as:

- What factors led to a high EBITDA? Why were the EBITDA amounts of some teams substantially higher than others?
- What factors led to high or low cash on hand?
- What effect did case mix index have on revenue?
- What were some of the key things you experienced or learned during this first round?

Tabletop facilitators worked closely with participants throughout the game to answer their questions, relate the concepts to their day-to-day roles as managers, and ensure that participants stayed engaged in the game's activities.

WORKSHOP EVALUATION RESULTS: RESPONSES TO QUANTITATIVE ITEMS

Item	Mean
The Financial Health workshop has equipped me to do each of the following:	
Describe the meaning of basic financial terms and concepts (e.g., revenue, cash flow, income statement, balance sheet)	3.60
Identify financial factors influencing management decisions in a healthcare organization	3.59
Describe how individual job responsibilities relate to AHC financials and customer service	3.47
Make everyday management decisions that minimize expenses and maximize revenue while maintaining quality	3.47
The expertise of the facilitators was evident during the program.	3.70
(1 = Strongly Disagree, 2 = Disagree, 3 = Agree, 4 = Strongly Agree)	

Responses to quantitative items on the workshop evaluation were largely positive.

Following the game, the lead facilitators led participants in an exercise designed to illustrate the linkage between each individual's performance and the ultimate financial results for the individual's healthcare organization. Each participant then completed a postsession questionnaire, which reordered the items included on the preliminary questionnaire. Before the workshop concluded, each participant was asked to submit two commitments he or she would make toward improving AHC's financial health.

Results

Three hundred thirty-seven participants completed the workshop from April 10 through Nov. 15, 2006. Of these people, 142 completed a web-based workshop evaluation form sent to them afterward via e-mail. The responses regarding both the quantitative and qualitative items on the evaluation were very positive. For the quantitative items, respondents were asked to rate a number of takeaways from the workshop based on a scale of 1 to 4 (reflecting views ranging from "strongly disagree" to "strongly agree").

For the qualitative items, respondents were asked to answer three questions:

> What did you value most about the Financial Health workshop?

> How will you apply the knowledge and skills you learned today?

WORKSHOP EVALUATION RESULTS: RESPONSES TO QUALITATIVE ITEMS
What did you value most about the Financial Health workshop?
Theme 1: Engaging, enjoyable learning process
"The game made it fun and easy for the information to sink in. You learn better by doing!"
Theme 2: Effective facilitators
"We had terrific 'teachers' who were very knowledgeable and extremely helpful."
Theme 3: Networking/relationship-building
"Meeting other folks in AHC."
How will you apply the knowledge and skills you learned today?
Theme 1: Make more informed decisions
"Now I can go back to my department and be more aware of how what I do contributes to the bottom line."
What improvements could be made to the Financial Health workshop?
Theme 1: Shorten the session
"It was a bit long."
Theme 2: Provide more/other content
"Make it four games. By the third we were really getting it, and I believe if we had a fourth game instead of the wrap-up, it would have been more valuable. I enjoyed it!"
Theme 3: Extension beyond managerial level
"I think the charge nurses should take this seminar. It would help them to understand the meaning of throughput and why it is important to move patients."
Additional Comments
Theme 1: Appreciation
"I have never had so much fun learning more about a subject that is so pertinent to my work. Thank you to the creators."
Theme 2: Desire/need for additional learning
"May be a benefit to make this a regularly scheduled program so that we remain competent in our financial choices."

Many positive themes emerged from response to qualitative items on the workshop evaluation form.

> What improvements could be made to the financial health workshop?

They also were invited to offer additional comments.

Themes that emerged from the responses emphasized workshop attributes such as the enjoyable nature of the workshop, the excellence of the facilitators, and the applicability of the content. Responses regarding improvements were mixed, with some indicating that the workshop was too long and others indicating that it could even be extended.

To date, 170 sets of presession and postsession questionnaires have been analyzed. Participants' average score improved from 77.4 percent correct on the presession questionnaire to 91.3 percent correct on the postsession questionnaire. Given that each questionnaire contained 25 items, participant scores could theoretically range from zero (no items correct) to 25 (all items correct). Presession questionnaire scores ranged from six correct responses (two participants) to 25 correct (four participants), whereas the postsession questionnaire scores ranged from 11 correct (1 participant) to 25 correct (57 participants).

Following participation in the workshop, many leaders were able to follow a monthly presentation of organizational finances and much better understand what was being communicated. Many participants described feeling liberated from the "foreign" language finance once was to them. Most important, they were able to make stronger, more-informed management decisions that would increase revenue and/or reduce expenses, improving the organization's financial performance while retaining a high level of quality.

Implications for Other Healthcare Organizations

The educational approach using the financial simulation game is transferable to any type of organization within the continuum of health care (e.g., home health, senior living facilities, standalone laboratories, hospitals, research centers, psychiatric/behavioral health treatment centers). Workshops could be customized for specific target audiences as desired. The following features of the initiative were critical to success, and are recommended for any organization undertaking a similar effort:

> Strong level of executive sponsorship in terms of providing resources, supporting communications, and being willing to hold participants accountable

> Adoption of an interdisciplinary approach, with collaboration among financial, clinical, and educational staff

> Use of a simulation game that participants experience as fun, engaging, and applicable to their "real-world" work situations

> Applicability to people with many different levels of preexisting financial knowledge, to ensure that *all* participants gain some level of learning

> Creation of an opportunity for people from multiple facilities within a healthcare system to network with one another in an environment of openness with regard to financial matters

> Substantial investment in facilitator training, which provides essential support to participants while advancing facilitators' own career development

> Clear expectations as to which staff should participate in the training, and accountability for ensuring that they actually participate

Although in this particular instance, AHC did not implement structured follow-up activities consistently in the weeks and months following the workshop, the organization recognized the need to do so in the future, and for any organization that decides to develop a similar workshop, such follow up is an important element to consider. An effective approach might be to designate coaches to follow up with participants in the workplace, assisting them with application of the workshop content.

"Financial Health: Impact of Everyday Management Decisions" was the first AHC financial course in which an overwhelming majority of attendees actually felt positive about learning financial concepts and terms. More important, participants believed they were better prepared to fulfill their budgetary responsibilities after completing the course. As a result of this effort, AHC's senior executives are now able to focus all the organization's leaders on confidently and effectively controlling the levers that determine the organization's financial performance. ●

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