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About FYA

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With every issue, FYA provides insights into the topics that concern healthcare leaders today and the challenges that will be faced in the near future.

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Diffusion of Innovation (Part III)

By David L. Sundahl

In the first two parts of this three-part series on the diffusion of innovation, we first considered the importance of diffusion. We also introduced the five most salient characteristics of successfully diffused innovations. In the second installment, we analyzed two cases of diffusion. Each innovation relies on essentially the same technologies – computer hardware and software – but have disparate diffusion rates. The differential adoption/diffusion rates for Electronic Medical Records and online shopping make perfect sense in light of their performance on the critical dimensions of diffusion.

Today will conclude with just one piece of advice for how to improve the diffusion/adoption of an innovation.

People Don't Buy Innovations (but they might hire them to do a job)

For years a certain fast food restaurant chain had tried to improve milkshake sales and profits by focusing on the product and the customer. They tried to be more sophisticated in segmenting their customers along a variety of psycho-behavioral dimensions. And in panels comprised of most-likely consumers, the firm's market researchers explored whether making the shakes thicker, more chocolaty, cheaper or chunkier would reverse the product's fortunes. Even though many of the proposed product features met with a positive consumer response during the research phase, none of the new variations of milkshakes they introduced in test markets significantly altered sales or profits.

Some colleagues of ours were hired to do a smaller-scale market research project. They approached the marketplace in an entirely different way. To learn what jobs the customers sought to get done, the researchers spent an 18-hour day in a restaurant carefully chronicling who bought milkshakes. They recorded for each milkshake customer the time of purchase; what other products he or she purchased; whether the customer was alone or with a group; whether he or she consumed it on the premises or drove off with it; and so on. The most surprising insight from this work was that fully one-third of all milkshakes were bought in the morning, for *breakfast*. And most often, the milkshake was the *only* item these customers purchased.

The researchers then returned to interview customers who purchased a morning milkshake to understand what they were going to do with it. They also asked what other products they purchased instead of a milkshake. Most of these morning milkshake customers had hired the milkshake to do a similar job. They were rushing to work, didn't have time for breakfast, and needed to eat in the car to get to work on time. They faced a long, boring commute and needed something to make it more interesting. They weren't yet hungry, but knew that if they did not eat something now,

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they'd be hungry by 10 AM. They were driving, so they could only eat one-handed.

The customers they talked to had tried bagels, but this got their clothes and car all crumbly. They had tried breakfast sandwiches – greasy steering wheel. Banana? Hungry again too soon. Donuts were too sticky and gone too fast. And so on. Milkshakes, on the other hand, could be eaten with one hand, were not usually messy, took some time to consume, and kept customers' bellies full until lunchtime. A milkshake wasn't particularly healthy, but was no worse than most options. All in all, it was a pretty good solution for the job of the long, boring commute.

Customers of milkshakes were not so much buying milkshakes as they were *hiring milkshakes to do certain jobs*. There are many lessons to be drawn from this fact – which is how customers see the world. The most important lesson, however, is that innovators should observe the behavior of customers directly. *Intuit®* has done this for years; it's how they got the idea for *QuickBooks®* and how they developed its functionality.

In relation to the five criteria of successful diffusion of innovations, direct observation of customers is absolutely critical.

- **Relative Advantage.** Most of the effort and energy diffusing an innovation is spent here. Innovators who understand the real – whether practical or, especially, emotional – jobs that customers want done will easily beat the competition.

- **Compatibility.** Rather than creating a great innovation that doesn't fit with the values and behaviors of customers, direct observation enables innovators to fit innovations perfectly into users' lives.
- **Complexity.** Whether something is overly complex or suitably simple is easily discovered and improved through direct observation.
- **Trialability.** Direct observation allows innovator and user to try things. Successful trials can "roll out" on a larger scale.
- **Observability.** Direct observation not only enables innovators to see the jobs people need done, it helps innovators to understand how to market virally and to increase current users' likelihood to recommend.

Most innovators recognize and put much emphasis on "relative advantage." But as the last three columns have shown, successfully diffusing a worthwhile innovation requires success on most of the five criteria. Furthermore, by observing customer behavior directly, an innovator can understand the jobs customers need done, furthering each dimension of successful diffusion of innovations.

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About



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Crystal Ball for 2007

By Rick Kneipper, Chief Administrative Officer and Co-Founder of PHNS

As 2006 rolls to an end it's time to think about where healthcare is going in 2007. Consider the following healthcare industry trends from "Top seven health industry trends in '07" published by PricewaterhouseCoopers Health Research Institute:

1. **States take the initiative** – states take the lead on such tough issues as coverage for the uninsured, funding stem cell research and regulating pharmas;
2. **Transparency could be revealing** – 32 states now require providers and payers to disclose charge information for certain procedures and six others have voluntary programs, which could lead to consumers making more educated healthcare choices;
3. **Time to walk the talk on technology** – President Bush continues to push for electronic medical records and so far 38 states are participating in statewide or community electronic sharing projects;
4. **Consumers take the wheel** – an increasing trend among employers towards consumer-driven health plans will begin to temper or reduce healthcare costs;
5. **Price check** – increased market and regulatory pressure on pharmas to reduce drug costs;
6. **Obesity is the new smoking** – obesity is projected to lead to 400,000 deaths annually, and individuals classified as obese have 30-50 percent more chronic medical problems than those who smoke or drink heavily, which will cause a new focus on this public health issue; and
7. **Small is big** – increased innovation in services and treatments through new, smaller and more agile healthcare service entities, not the traditional large established entities.

The conclusion in the PricewaterhouseCoopers' report is very direct:

"Whether we stand on the inside of the health industry looking out, or outside looking in, we all agree-the current state isn't sustainable and major change is required. Now more than ever before, health leaders will need to enhance their operations

and their reputations. Failure to close the gap between how consumers view the industry and how the industry views itself could be devastating to both. There are a myriad of issues facing health organizations and opportunities for executives to address them, but solutions must move beyond business issues. Rather, healthcare is a people business. To be sustainable, health organizations must communicate and connect with their customers through innovative approaches and fresh perspectives-beginning in 2007."

That's PricewaterhouseCoopers' list of 2007 healthcare issues – I'd appreciate it if you would e-mail your additions or deletions so we can come up with our own FYA list of the top seven healthcare issues for 2007 from healthcare CEOs.

Please send your suggestions to me at Richard.Kneipper@phns.com



About

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FYA - For Your Advantage is brought to you by TrendLeader Connections. The function of TrendLeader Connections is producing educational materials and seminars that help healthcare executives differentiate between fads and trends; and making connections with "Trend Leaders" within the healthcare industry.

We are committed to delivering new perspectives and ideas, creative and innovative healthcare solutions, provocative concepts and quality educational materials to today's healthcare leaders. We want to concentrate on "what comes after what comes next."

Nurse Staffing Ratios Find Proponents and Opponents

There is little evidence that mandated ratios of nurses to patients improve the safety and quality of care. But that's not stopping an increasing number of states, including Massachusetts, Texas and Illinois, from considering legislation to ensure minimum staffing ratios. The concept of staffing ratios became law in California in 2004 requiring nurses in medical-surgical units to care for no more than five patients at a time. A bill introduced in Congress last year would set national standards limiting the number of patients each registered staff nurse can care for in each hospital unit, based on the severity of illness.

Many hospitals and nursing societies oppose these mandated ratios, contending that they don't provide enough flexibility to run hospitals safely and efficiently, and may force hospitals to close units if they can't meet the minimums because of nurse shortages – especially because many states already have or are considering laws that would ban mandatory overtime for nurses.

At the same time, mandated ratios have strong support from nurses unions around the country, who say that forcing hospitals to meet minimum staffing requirements is the only way to ensure patient safety, reduce patient deaths, recruit new nurses and stop the ones already on the job from burning out and leaving the profession. In Massachusetts, where a nurses union supports legislation to establish minimum ratios, hospitals are supporting a countermeasure to ensure public reporting of nurse staffing, and have already launched a Web site with hospital staff plans. You can view the site at www.patientsfirstma.org.

The Wall Street Journal reports that in California, managed-care company Kaiser Permanente agreed to meet ratios before the state law was enacted as part of an agreement with its nurses. It says its hospitals now consistently exceed the ratios set by law, with one nurse for every four patients in the medical-surgical units, and meet or exceed mandated ratios for specialty units such as critical care and intensive care, which by law must have one nurse for every two patients.

Opponents warn that a growing nursing shortage will make it harder to comply with minimum ratios. Hospitals are unable to fill about 118,000 positions now – or an 8.5 percent vacancy rate. By 2020, the shortage is projected

to rise to more than one million nurses.

Opponents of mandated ratios say none of the studies of staffing and quality have identified the optimal ratio, and there is no direct evidence that setting minimum staffing ratios improves care, especially when ratios don't take into account differing skills of nurses and the severity of patients' illnesses.

Pat Rutherford, a nurse and vice president at the nonprofit Institute for Healthcare Improvement (IHI), told *The Wall Street Journal*, "The intention of those advocating nurse-to-patient ratios is right – they want to make sure there is enough professional nursing care to intervene with their loved ones in the hospital." "The right solution is to get rid of the wasteful and unnecessary work nurses have to do so they have more time for patient care."

At last week's IHI patient-safety conference in Orlando, Florida, Ms. Rutherford presented an alternative to ratios: a redesign of medical-surgical units so nurses, who may spend only a third of their time on direct patient-care activities, can reduce time spent on paperwork, charting, finding supplies and resolving operational problems.

Hospitals are also turning to more sophisticated computer programs and models to help them analyze their staffing needs and allocate the nurses on staff more efficiently. Overlook Hospital in Summit, New Jersey, uses a "Traffic Light" system with red, orange, yellow or green signals that enables them to see on a computer screen where nursing-care shortages are mounting and move nurses from other units as needed.

Others are working on solutions to hire nurses from temporary agencies or shuffle staff from one unit to another even if they don't have the right skills – such as putting obstetrics nurses in intensive care. The aim is to ensure that nurses with the right training and background are in specific units when needed.

Researchers at Villanova University, Indiana University and the University of Florida are developing computer simulation models to help hospitals identify the most appropriate nurse-to-patient ratio for each type of unit and create computer-generated nursing schedules.

But in the end, most agree the real need is to increase the number of available trained nurses.