

E-Learning and Healthcare

Building the Business Case

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Human capital has become the most important competitive advantage in hospitals and health systems. As such, organizations need a new strategy for learning and training of their employees. Moreover, the knowledge and competencies of healthcare providers is not only an important competitive advantage but also essential to the quality of care and health of the community. It is for this reason and many others that today's Top Healthcare Organizations are embracing technology-based training in record numbers. E-Learning is now at the forefront of technology based education. The benefits of E-Learning are extremely compelling. They include a reduction in costs associated with employee travel, reduction in time spent away from the patients, and reduced learning times.

What is E-Learning?

E-Learning can be a confusing topic, in part because, like the medical industry, it contains an alphabet soup of acronyms, technology based buzzwords, overlapping definitions, and a variety of delivery options.

E-Learning means using technology to deliver training and educational materials. It is that simple.

Advantages of E-Learning

Some of the outstanding advantages to a Healthcare Origination for elearning are listed below:

- **Reduced overall cost** is the single most influential factor in adopting e learning. The elimination of costs associated with nurses and other employees' travel, lodging, meals, meeting room costs, educator's salaries for a few CE's or to meet the regulatory requirements of the Joint Commission, OSHA, and the like are directly quantifiable. The reduction of time spent away from the patient is also known as "opportunity" cost, and may be the greatest savings. E-Learning is not just an add-on or just one more thing we are asking staff to do. E-Learning is an integral and cost effective approach to achieving goals such as service improvement.
- **Learning times are reduced** an average of 40 to 60 percent as compared to classroom-based instruction¹
- **Increased retention and application of information** to the job increases an average of 25% over classroom instruction²
- **Consistent delivery** of content is possible with e learning, where as curriculum taught though traditional classroom methods are often diluted by filtering through various educators; and

- **Proof of completion and certification** can be automated. Certificates of completion can be awarded immediately upon completion of the course. Test scores can be immediately documented and can be electronically added to the individual's transcript. Additionally, the individual's transcript may be retrieved with a push of a button for any audit of educational records.

Along with the increase retention, reduced learning time and other benefits to the employee, particular advantages of Elearning include:

- **On-demand availability** allows medical professionals to complete educational requirements during low census at work or may be completed from home and closer to the time and place of need.
- **E-Learning is transforming continuing medical education (CME)**. It is very expensive and time consuming to send nurses, doctors, and other health professionals away conferences/seminars/courses. E-learning is a good solution to this problem. Many hospitals are in fact doing something called "Just in time" CME to bring value added improvements to patient care. Additionally, *Self-pacing* for learners reduces stress and increases satisfaction.³

Imagine a scenario in which a nurse goes online for instruction about performing a diagnostic electrocardiogram (ECG). The nurse is tested online by being shown a diagram of a torso and then being asked to place the leads on that torso using the mouse. Once the nurse has mastered this online segment, he or she moves to the clinical environment to gain the crucial supervised practice required to successfully and safely perform the ECG. By preparing for that step in advance, the nurse gained confidence and requisite background knowledge prior to the hands-on portion of the learning, saving time with a preceptor to work toward mastery of the skill. The documentation for this can be automated and meet clinical competency requirements.

- **Interactivity** engages nurses, physicians, and other employees motivates them to become active participants for the learning process, increasing retention and ultimately improving patient and employee safety and quality

Cost of creating E-Learning

Most analyses show that it costs significantly more for traditional classroom training vs. E-Learning.

Savings

In determining the ROI for E-Learning, you need to factor in the savings due to reduction in time spent on training.

Reduction in time spent on training

Typically, the time a healthcare worker must spend being trained is reduced by about 40% using eLearning. This was verified by studies comparing traditional classroom instruction to equivalent E-Learning instruction at Xerox, IBM and Federal Express.

Improved performance

People learn better with E-Learning. They remember what they learn more accurately and longer (retention) and they are better able to use what they learn to improve their performance (transfer).

Across many different studies and reports from the military, education and industry show 15-25% increases in learning achievement.

Example of ROI Calculations

Assuming a traditional classroom training plan that includes 500 learners who each experience a week of training, travel for half of them (250 employees), the time constraint of a 3 month roll-out (5 educators, 10 locations)-all compared to an equivalent E-Learning scenario using very conservative assumptions, including an opportunity cost rate of \$400 per day.

	Classroom Training	E-Learning
Wages of Trainees (\$20/hr, burdened)	\$ 400,000	\$ 240,000
Travel Costs (50% of people traveling)	\$ 250,000	\$ -----
Trainer Wages	\$ 47,500	\$ 11,400
Trainer Travel	\$ 20,000	\$ -----
Development Costs (custom training)	\$ 160,000	\$ 400,000
Delivery Systems (1st year amortized)	\$ -----	\$ 35,000
Totals	\$877,500	\$686,400

These figures indicate that the E-Learning approach, saves approximately 20% in the first year of implementation. In the second and later years when development costs are not a factor for this course, the savings for E-Learning grows to nearly 50%. In addition, E-Learning can be rolled out in half the time, once developed.

The return-on-investment for eLearning can be 50%-60% greater than for traditional training, which itself can have a 4x ROI.

Best Practices

Best practices in Healthcare Organizations in many states provided support for the use of E-Learning. An alliance between the University of South Dakota (USD) and the Evangelical Lutheran Good Samaritan Society (a multistate, multisite provider of long-term and rehabilitation care) resulted in the development of the "Grow Our Own RN" program. USD provided the curriculum

and structure for the associate degree for society employees who often were unable to access academic programs because of geographical or time constraints. Through this collaboration, students were able to continue their employment, often in underserved areas, while advancing professionally. In fall 2004, 43 students were enrolled in the nursing program and another 70 students in six states were taking support courses. Given the dispersed nature of this program, E-Learning is a vital tool.

The School of Nursing at Indiana University has used E-Learning to bring together professionals, students, and consumers in one online classroom 4. Online Communities of Professional Practice is implemented through an online critical care course where professionals can earn continuing education credit and students can earn academic credit. The benefits of this learning environment include real-time learning that facilitates collaboration and critical thinking.

Health care facilities throughout the United States use the Internet to train faculty and students in computer-based medication and charting systems and to meet annual competencies. Training takes place before students reach the clinical site, decreasing the burden on development resources such as in-house staff educators and computer labs. This flexibility also allows professionals to focus on their training at times that are convenient for them.

The state of Oregon has developed regional simulation alliances that bring together practice and academia for the purpose of sharing scarce assets, including intellectual and financial resources. Human patient simulators, while costly, are needed by all clinical sites, large and small, to provide realistic training of staff.

Through the development of a statewide nursing curriculum, the Wisconsin Technical College System (WTCS) has been able to offer all didactic nursing courses online. Sixteen schools share the responsibility of offering these courses online, and because of the common curriculum, students may take courses from any WTCS school. This flexibility benefits students who have children and jobs by allowing them to avoid scheduling conflicts. These online offerings have also assisted schools with tight clinical scheduling, as many clinical sites are reaching capacity.

In Iowa, an organization known as Prepare Iowa has brought together a number of universities and public health agencies for the purpose of providing E-Learning in the public health arena. The course offerings in this program are free, and the infrastructure is flexible enough to allow for the use of a variety of course management systems.

E-Learning Equals Efficiency & Effectiveness

Healthcare organizations that employ e-learning can reap almost immediate results. Online learning provides easy access to required education through self-paced courses that are available anytime, anywhere. Also, e-learning guarantees consistency of the message--everyone in your organization gets the same information in the same way at the same time, which is crucial for compliance courses.

E-Learning can be easily updated. Also, e-learning facilitates easy, accurate tracking and reporting to help you ensure that critical knowledge is reaching the right people.

Employee turnover is a major healthcare challenge, and E-Learning can help alleviate it. For example, nursing staff turnover has become a multi-million dollar problem for many of the country's healthcare organizations. Even with a slow economy and the temporary ease of the nursing shortage, an organization's ability to better attract and retain qualified nurses is critical for quality and economics. An organization built on E Learning clinical courses to aid nurses in the various stages of their careers will aid in the decline in turnover rates.⁵

E-Learning can also influence HIPAA efforts (Health Insurance Portability and Accountability Act of 1996). E-learning is a cost-effective and efficient solution that can ensure awareness of the requirements among all employees. E-Learning avoids the additional costs of distributing materials, hiring quality classroom instructors, and arranging travel logistics and meeting spaces--which can translate into savings as high as 50 percent.⁶

E-Learning can also provide product training to clinical personnel or can be used to educate patients on disease states, drug compliance and wellness.

E-Learning Leverages Time and Money

Hospitals, medical offices, clinics, and long-term care facilities find themselves downsizing and right sizing, just like many other businesses in this economic climate.

Due to an increase in non-insured patients, lower Medicare and insurance reimbursements, hospitals are laying off staff.⁷ amednews.com. Some organizations or departments are merging, even closing, at an increasing rate. When you have fewer people, remaining workers must fill in the gaps. Organizations have to do more with less people and less money.

Effective training increases the productivity of remaining staff. But in today's economic environment, the key is to find the most cost-effective way to deliver training, and to maximize the potential of the human capital still under the organizational roof. E-Learning is the solution for the Healthcare Organization.

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