

# Keyphrase: Improve healthcare efficiency

Distributed Healthcare Integrated Systems

---

## The Benefits of Patient and Partner Self Service

How standard technologies can help improve healthcare efficiency

A Healthcare and IT Whitepaper

October 18, 2008

Sponsored by:



ISV/Software Solutions

Atlanta Charlotte San Diego

<http://www.engage2day.com>

[info@engage2day.com](mailto:info@engage2day.com)

+1.404.223.6350

---

## **Executive Summary**

It is no secret that healthcare providers are experiencing a crisis of resources to improve healthcare efficiency. They are finding themselves caught in between rising costs and increased demand from a consumer base increasingly frustrated with exorbitant prices. In this environment, any provider that can decrease costs without decreasing quality of service stands to “win big” in terms of customer loyalty and retention.

However, in the midst of a rising labor shortage that puts skilled medical personnel in high demand, decreasing costs without decreasing quality is a difficult task. However, many healthcare providers can realize significant costs savings with workflow automation and self-service portals for both their partners and their patients. Furthermore, if implemented correctly, automation and self-service can actually improve healthcare efficiency and the quality of service, by ensuring higher consistency and greater ease of use for patients and partners.

The savings from automation go beyond replacing human resources with technological ones. Skilled personnel are freed from mundane tasks, allowing them to devote more time and resources to tasks suited to their training and expertise. This focus improves healthcare efficiency and employee morale, creating a virtuous cycle leading to even more savings. In addition, the consumer is given a means of control as these processes are pushed back to them; the mundane in an employee’s eyes is quite relevant in the consumer’s eyes. While one party relinquishes an “unimportant task” and regains time and satisfaction, the other party regains control, visibility and empowerment. All in all, this develops a win-win situation.

If many healthcare providers, especially those operating with a small staff and budget, are to survive the coming squeeze between increased demand and increased labor shortages, they will need to turn make cut somewhere. The advantage of a technological solution is that providers of any size can decrease costs while increasing service, helping them weather the storm.

## The Rising Costs in the Business of Medicine

It is no secret that healthcare costs are skyrocketing across the board. While policy makers are proposing a variety of solutions to help consumers cope with these costs, but it is worth looking at the issue from the supply end and examining other options. What factors are forcing healthcare providers to increase their costs and what options are available?

New technology and equipment are part of the costs to healthcare providers in today's connected environment. However, with the rising demand for services, a majority of healthcare costs come from labor costs. PriceWaterhouse Coopers has estimated that in 2003 more than 15 percent of the \$1.7 trillion in healthcare spending went to paying the salaries and benefits of hospital workers.<sup>1</sup> More recently, the Healthcare Financial Management journal estimated that labor costs account for more than 60 percent of total healthcare expenses.<sup>2</sup>

Not all of these personnel are skilled medical practitioners. In fact, nearly 50% of personnel either perform non-medical functions, or perform medical functions that require little or no training.<sup>3</sup>

**Table 2. Employment of wage and salary workers in health care by occupation, 2006 and projected change, 2006-2016. (Source: <http://www.bls.gov/oco/cg/cgs035.htm>) (Employment in thousands)**

Occupation	Employment, 2006		Percent change, 2006-16
	Number	Percent	
<b>All occupations</b>	13,621	100.0	21.7
<b>Management, business, and financial occupations</b>	579	4.2	18.2
<b>Professional and related occupations</b>	5,955	43.7	21.3

<sup>1</sup> [http://goliath.ecnext.com/coms2/gi\\_0199-6440057/7-steps-toward-gaining-control.html#abstract](http://goliath.ecnext.com/coms2/gi_0199-6440057/7-steps-toward-gaining-control.html#abstract)

<sup>2</sup> [http://goliath.ecnext.com/coms2/gi\\_0199-6440057/7-steps-toward-gaining-control.html#abstract](http://goliath.ecnext.com/coms2/gi_0199-6440057/7-steps-toward-gaining-control.html#abstract)

<sup>3</sup> <http://www.bls.gov/oco/cg/cgs035.htm>

**Table 2. Employment of wage and salary workers in health care by occupation, 2006 and projected change, 2006-2016. (Source: <http://www.bls.gov/oco/cg/cgs035.htm>) (Employment in thousands)**

Occupation	Employment, 2006		Percent change, 2006-16
	Number	Percent	
Service occupations (Non-skilled medical, and other support)	4,334	31.8	27.1
Office and administrative support occupations	2,446	18.0	14.4

For the remaining 50% that do require highly skilled personnel, there is a serious labor shortage driving up salaries. "Nursing is hurting a lot," says Michael Davis director of research at Gartner in an Oracle white paper. "We also don't have enough people in pharmacy and radiology." Evidence only points to these shortages continuing to increase, driving costs even higher as demands increase.

### Self Service and Automation Savings

With new technological innovations, many of the functions performed by non-skilled support staff can be taken over by automated or self-service technology. Appointment scheduling and confirmation is a perfect example of such a function. Traditionally, physician offices and hospitals employ an army of secretaries responsible for signing patients up for appointments. As lower-cost alternative, online scheduling software can automate this process, cutting down on call volume and giving patients an easy way to schedule appointments without hassle.

Automated attendants and dialers also offer great potential for cost savings and self-service. General billing or information inquiries can often be answered without human intervention. For many calls, Microsoft estimates that healthcare providers could see a savings of \$5-\$15 dollars a call.<sup>4</sup> This helps providers run with a much leaner support staff, freeing up resources to go to endeavors that are more valuable.

<sup>4</sup> <http://www.microsoft.com/speech/community/newsletter/articles/0206article2.mspx>

---

Automation and self-service can go beyond cost savings, though, by providing additional benefits to both the business and consumer. By allowing patients to self-serve through devices and systems they use every day, providers can radically change the way they provider healthcare, increasingly the level of service they offer patients.

At the center of this revolutionary potential is a device that everyone is familiar with, the cell phone. Many IT professionals are beginning to recognize the cell phone's potential in the medical world. Its ubiquity makes it a great candidate for self-service delivery. In addition, innovations in both the phone itself and in speech recognition technology make self-service via phone very user-friendly in this use and environment.

An April 2008 business week article reported a number of interesting uses that the cell phone is finding in the medical world. Researchers have developed a way to replicate the functions of expensive medical equipment using standard smart phones. Other organizations have developed ways that patients can track and monitor their medical records through a phone interface.<sup>5</sup>

Most interesting, however, is an application that improves communication between patients and caregivers remotely. Patients suffering from diabetes or asthma can enter home test results into their cell phone. A doctor reviews these uploaded results and recommends changes in diet or lifestyle based on the patient-updated information, stored directly in the online patient file. Applying this process and technology use in a trial run, this application reduced emergency room hospital visits by 100% for all 50 participants involved.<sup>6</sup>

### **Self Service for Partners**

While there are clear advantages in developing self-service mechanisms for patients, there is even more potential and upside for new efficiencies in developing these sorts of applications for partners. The modern health-care environment is a distributed one, where multiple organizations coordinate to provide care for a single individual. This is especially true in the growing areas of home care (home health, long term care, etc.) and mobile clinical care. In both of these fields, providers rely on independently contracted caregivers with no direct tie to the organization or facility. Often times these caregivers are individuals, independent nurses or medical technicians, working independently from any organizational structure. They (independent caregivers) do not have the expertise or resources to invest in systems or devices that would help improve coordination and communication between themselves and

---

<sup>5</sup> [http://www.businessweek.com/technology/content/apr2008/tc20080429\\_186428.htm](http://www.businessweek.com/technology/content/apr2008/tc20080429_186428.htm)

<sup>6</sup> [http://www.businessweek.com/technology/content/apr2008/tc20080429\\_186428.htm](http://www.businessweek.com/technology/content/apr2008/tc20080429_186428.htm)

---

provider organizations; many times these independent caregivers may server more than one provider organization depending on the service, specialty and location/region served.

Instead, provider organizations must supply the tools to improve coordination. The most efficient and cost effective way to do so is through the infrastructure that already exists in the cell phone and the internet. Doing so will enable a number of efficiencies for any provider organization. Field staff can rely on remote consultant or assistance from more knowledgeable medical professionals.

Caregivers can proactively manage their appointments and billing. All of this is possible with the use and structure of hardware and infrastructure that are already in place.

### **Conclusion: Integration is the Key**

While partner and patient self-service alone will certainly help provider organization function more efficiently, these systems are not enough on their own. The data they collect needs to be integrated into the organization as a whole, creating a 360 view of the patients and partners who interact with the provider through technology, processes and task exposure. This integration approach will help distributed healthcare providers work as a unified whole, providing consistent service to patients at competitive prices.

#### ***About Engage, Inc.***

*Engage delivers innovative managed services, software and communications enhancing an enterprise's ability to achieve and sustain competitive advantages through embracing secure solutions to transact commerce, communicate, and collaborate amongst customers, partners and staff.*

*Engage, Inc. delivers solutions to customers in the Ancillary Healthcare, Distribution, Public Sector, Retail and Small & Medium Business segments.*

#### ***For more information regarding Engage and other products and services:***

*Please navigate to [www.engage2day.com](http://www.engage2day.com), call 404-223-6350 or email [info@engage2day.com](mailto:info@engage2day.com) for more information.*