In a recent study, the New England Healthcare Institute found that an estimated one-third to one-half of all patients in the U.S. do not take their medications as prescribed by their doctors. The result? $100 billion each year in excess hospitalizations alone.

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Background

Many patients who neglect to take prescribed medications may think they’re affecting only themselves. But when rolled up to the national level, lack of adherence to medications contributes to a much larger—and extremely costly—impact. In a 2007 study, the New England Healthcare Institute found that an estimated one-third to one-half of all patients in the U.S. do not take their medications as prescribed by their doctors. The result? $100 billion each year in excess hospitalizations alone, with a significant portion of the cost borne by US employers.

Challenges

**Why is nonadherence a problem?**

Poor medication adherence, or nonadherence, is a major source of health care inefficiency in the US. Nonadherence is defined as a patient’s failure to comply with the directions for a prescribed medicine, such as not taking the recommended dosage or not taking the medicine at all.

Nonadherence can have many causes — financial, psychological and logistic — each of which has far-ranging effects.

![Figure 1. Mortality and hospitalization rates for patients with chronic diseases.](image-url)
The impact of poor adherence

Poor health outcomes
For patients with a chronic illness, such as diabetes or high cholesterol, medication adherence tends to be quite low. Although prescribed medicines can improve these patients’ health outcomes, many do not follow their prescriptions consistently. A 2006 study of heart disease and diabetes patients showed that non-adherent patients suffered nearly twice the mortality rates of adherent patients (12.1 percent versus 6.7 percent). Similarly, the risk of hospitalization for patients with diabetes with low adherence was almost three times as high as that of patients with high adherence (30 percent versus 13 percent).

Spiraling medical costs
Studies have found that overall health care costs are much higher for patients with low medication adherence. A 2005 study of people with diabetes showed that those with low adherence had annual health care costs that were twice as high ($16,498) as those who were adherent ($8,886).

Unnecessary employer spending
In 2009, the New England Health Institute estimated that the annual cost of drug-related deaths, including poor medication adherence, was as much as $290 billion per year. This means that a typical midsized employer with $10M in claims would have additional unnecessary spend of $1M (10 percent) on health care costs.

Price: a major barrier to better patient adherence
There are many barriers to improved patient adherence. These include complex medication regimens, lack of patient literacy, poor case management and patient counseling, and high out-of-pocket prescription costs. Both the Kaiser Family Foundation and the National Business Group on Health suggest that nonadherence has also increased since the US recession began in 2008. This indicates that out-of-pocket costs are a particular contributing factor.
Solutions

Removing barriers: Three ways to reduce out-of-pocket prescription costs

1. Generics
To save money, consumers can switch from brand name medications to generics. Castlight research shows that a one-percent increase in an employer’s generic dispensing rate, or GDR, can lead to a one-percent savings on total prescription spend.²

2. Therapeutic alternatives
Often, there are alternatives to brand name medications that can be equally effective. For example, the cholesterol medicine Lipitor can cost up to $216 for a prescription of 30-day supply of the 20 mg dose. Yet, research shows that patients using Lipitor may often do just as well on alternatives such as simvastatin, pravastatin sodium, and Sio-Niacin C. (note: these patients will still need a doctor’s prescription to switch).

3. Channel shifting
Patients who are on long-term therapies can also save by purchasing larger quantities of their medications through mail order—which also leads to improved medication adherence.

Figure 2. Estimated three-year cost savings realized by utilizing three methods of reducing out-of-pocket costs for a Lipitor prescription³.
A 2012 study by researchers at the University of California, San Francisco (UCSF), San Francisco General Hospital, and the Kaiser Permanente Division of Research showed that ineffective communication has a direct effect on medication adherence.

Transparency is the key to success

Transparency can help your employees become better prescription shoppers by giving them ways to actively engage in their own health care. There are three ways that transparency into prescription medications can help, and even increase, employee engagement:

Alert employees to savings opportunities. Electronic/web-based notifications and alerts are fast, convenient and highly engaging ways to keep employees updated on potential savings. They remove many of the financial barriers associated with non-adherence to prescription regimens.

Education, education, education. Studies show that health care consumers who have a higher level of knowledge about their conditions have a much higher rate of medication adherence, which is essential to manage chronic conditions.

Facilitate communication. A clear dialogue between employees and their physicians is essential. A 2012 study by researchers at the University of California, San Francisco (UCSF), San Francisco General Hospital, and the Kaiser Permanente Division of Research showed that ineffective communication has a direct effect on medication adherence. Of the 9,377 people studied, those who gave their doctors low marks for communicating were less likely to keep taking their medications as prescribed.

Conclusion

Many companies have committed to providing health care transparency to their employees. But the potential for improved cost savings remains for those who have not. Castlight Health provides a complete transparency solution with the tools employers need to spark employee behavior change toward adherence and value-based health care decision-making.

References


2. The generic dispensing rate is the number of generic prescriptions filled divided by the total number of prescriptions filled.

3. Data from Castlight database, March 2013.

Castlight Health enables employers, their employees, and health plans to take control of health care costs and improve care. Named #1 on The Wall Street Journal’s list of “The Top 50 Venture-Backed Companies” for 2011 and one of Dow Jones’ 50 Most Investment-Worthy Technology Start-Ups, Castlight Health helps the country’s self-insured employers and health plans empower consumers to shop for health care. Castlight Health is headquartered in San Francisco and backed by prominent investors including Allen & Company, Cleveland Clinic, Maverick Capital, Morgan Stanley Investment Management, Oak Investment Partners, Redmile Group, T. Rowe Price, U.S. Venture Partners, Venrock, Welcome Trust, and two unnamed mutual funds. For more information, please visit our website at www.castlighthealth.com or call (415) 829-1400.