The High Cost of Healthcare
In 2006, the cost of healthcare in the United States totaled about $2.0 trillion, representing 16% of the gross domestic product.\(^1\) In addition, companies paid an average of $8,343 per employee for healthcare costs compared to $7,634 in 2005 (Hewitt Associates, 2006). This represented a 9% increase in costs.\(^2\)

Supply Management versus Demand Management
There are 2 major ways to manage healthcare costs. Supply Management, which is the more traditional way, consists of having providers decide what should be done for patients. One of the goals is to reduce the supply of healthcare through utilization management and a gatekeeper. Supply Management limits the type of care received and when it is received. Other ways to reduce the supply of healthcare involve insurance plan strategies, such as increased deductibles and copays, coverage service limitations, and eligibility rules.

Another way to manage healthcare costs is called Demand Management. With this approach, patients decide what to do for themselves with and without provider assistance. Demand Management helps consumers manage their actual and perceived need and demand for healthcare services. The goal is to produce wiser healthcare consumers by providing self-care information that empowers people to make informed medical decisions.

What Is Self-Care?
Self-care refers to a decision making process that helps increase efficient and appropriate use of medical services. It consists of a number of skills that include knowing:

- When a real medical emergency occurs
- When and when not to see a physician
- When to treat oneself at home and how
- When to use outpatient rather than inpatient services
- When diagnostic tests are appropriate
- When and how to question a provider’s recommendation

The use of self-care is not a new phenomenon. According to the American Pharmaceutical Association, 80% of Americans treat themselves for headache pain, 76% for stomach upsets or heartburn, 73% for colds or coughs, and 71% for fevers.\(^3\)
The Economic Case for Self-Care

In 2005, Americans went to hospital emergency rooms 114 million times.\textsuperscript{4} It has been estimated that 55.4\% of emergency room visits or 61 million were for non-urgent conditions, such as headaches, sore throats, and stubbed toes (Center for Disease Control and Prevention, 2005).\textsuperscript{5} Because the cost for the same treatment is about three to four times higher in a hospital emergency room than in a healthcare provider’s office, money is being spent needlessly.

In addition, many people go to the doctor for problems that could be treated at home using self-care. In 2005, there were approximately 900 million visits (about 3 visits per person) to office based physicians.\textsuperscript{6} It is estimated that 25\% of these visits, or 227 million, were unnecessary.\textsuperscript{7} Since the average doctor visit in this country costs $60.00, there is a great cost associated with inappropriate use of these services.

The Benefits of Self-Care

There are a number of benefits from teaching employees/members to make better healthcare decisions. They include:

• Reduced physician and E.R. visits
• Reduced healthcare costs
• Avoidance of medical errors
• Reduced absenteeism
• Increased productivity
• Saved time
• Increased patient satisfaction with their care
• Improved quality of care
• Increased patient empowerment and sense of control

If your employees/members are mostly male, it is important to make sure your self-care program reaches the female member of each household. This is because women make 75\% of healthcare decisions for themselves and their families. Women also account for 60\% of all physician visits and spend approximately 2 out of every 3 healthcare dollars.

Self-Care Is Ideal for Self-Funded Companies

Since self-funded organizations pay out-of-pocket for every healthcare dollar spent, reducing unnecessary demand can produce a significant cost savings. Plans will save money for every single unnecessary doctor and E.R. visit that is avoided. Thus, medical self-care programs have become quite popular with self-funded companies and Taft-Hartley funds.

Components of a Successful Self-Care Program

1. Self-Care Guide

The most important part of a self-care program is the use of a self-care publication. They can be in the form of books, booklets, or brochures. The guides answer four basic questions:

• What is a real medical emergency?
• When do I need to consult a physician?
• Can I treat this illness myself?
• What self-care procedures should I use?

Criteria for Selecting a Self-Care Guide

\textbf{Currency} - Most self-care guides have a shelf life of about 3 years. You want to make sure the guide you select is up-to-date so check for when it was last revised.

\textbf{Proven Cost Effectiveness} - Determine if there has been any research to support the effectiveness of the self-care guide. Just because a guide is in print doesn’t mean that it can reduce unnecessary utilization. Preferably, 5 or more studies on the publication should have shown favorable results.
Appropriate Reading Level - Twenty-seven million Americans are considered to be illiterate while 45 million are marginally literate. It is important to make sure the publication you select has a reading level that addresses the educational background of your employees/members. Generally, the reading level should be no higher than 6th grade based upon a readability test such as Flesch-Kincaid or Dale-Chall.

Attractive Layout and Design - Most consumers prefer a self-care guide that uses a flow chart format. This design quickly and easily enables the reader to know exactly what course of action to take.

Low Cost - Most self-care guides are inexpensive. In quantity, you can purchase a self-care booklet for approximately $3.00 to $4.00 per copy while a more comprehensive self-care book will cost about $5.00 to $8.00 per copy.

Customization Options - Providers of self-care publications offer numerous customization options including imprinting your name and logo on the front cover, redesigning the entire cover, adding or subtracting topics, printing a letter from the union/company president on the inside cover, etc.

Credibility - Inquire as to who is responsible for the writing and review of the self-care guide. Most self-care publishers have very strong clinical review teams.

Availability of Other Services - Find out what other services the self-care publisher provides, such as mailing the guides to employees/members’ homes, storage of guides until they are needed, etc.

Use of Self-Care Guides
Some organizations considering the distribution of self-care guides are concerned the guides won’t be used by their employees/members. While some guide recipients will not read them, research has shown that anywhere from 52 to 76% of consumers will use them at least one time within 6 months. Research has also shown that the savings these readers experience more than covers the cost of the entire program. The Return-On-Investment for a self-care program is quite significant as evidenced by the case histories that follow.

2. Self-Care Workshops
Most organizations will mass distribute a self-care guide. Others offer workshops to their employees/members at which time the guide is distributed and discussed and the benefits of medical self-care are presented. There are 3 different ways to provide self-care workshops:
- DVD
- PowerPoint presentation
- Online seminar

3. Nurse Advice Line
Another aspect to a self-care program is the use of a nurse advice line. Employees can call a toll-free number 24 hours a day, 365 days a year and speak to a registered nurse. The nurse can address many of the things that are contained in a self-care guide. There is the added assurance, however, of speaking to a health professional. These types of nurse advice lines cost about $6.00 to $10.00 per family per year. They do not get the same use a self-care guide does as only about 5 - 10% of the people with access to the service will call it.

4. Self-Care Software
We are seeing an increase in the use of self-care software. Self-care information can be put on web sites, company intranets, networks, and workstations. The same type of self-care information that is in a book can be downloaded by employees. An advantage is that it can be updated on a periodic basis.

Some organizations mistakenly think, however, that if they put self-care information online, they will reach all of their employees. Only a small percentage of an employee/union population will go online to access this information. The vast majority of people prefer to receive a printed self-care publication. Consumers are more likely to go online to find out information about a chronic illness, like diabetes or heart disease, as opposed to an everyday health problem, such as a cold or sore throat. They also won’t take the time to boot up their computer in an emergency situation. They would rather go to their bookshelf to read about the problem in a self-care book. To this end, online self-care information should only be used as an adjunct to a paper version.
5. Promotional Materials

It is important to remember that self-care is a process, not an event. It doesn’t end with the distribution of a self-care guide or notifying employees about a nurse advice line. A self-care program needs to be reinforced through ongoing communications so that people are constantly reminded that they have a self-care book on their shelves, a toll-free number they can call, or software to download. Communications should consist of monthly or quarterly mailings to the employee or notices at the union hall to constantly reinforce the concept of medical self-care.

Legal Implications of Self-Care

Some unions and corporations are concerned about the legal ramifications of providing a self-care program. They fear that if misinformation is presented, they will be held liable. These fears are unfounded.

Self-care guides have been in existence for over 30 years and are in approximately 30 million homes. To the author’s knowledge, there has not been a single lawsuit brought against the publisher of a self-care guide. Even the nurse triage call center area has been virtually free from litigation. These telephonic services have been in existence for about 20 years and cover approximately 35 million lives. As far as is known, only one lawsuit has ever been brought against a nurse advice line.

Self-Care Case Histories

Of all the areas of wellness that have been researched, medical self-care provides the most consistent return on investment (ROI) in the shortest period of time. Companies and unions have realized an average savings of $82.26 per employee/member in 9.3 months in 16 independent studies on the self-care publications of the American Institute for Preventive Medicine. (See table.) A number of these studies are described below.

Teamsters Local Saves Money on Actives and Retirees

Teamsters Local 436 in ValleyView, Ohio gave 900 active members and 240 retirees the Health at Home® book. A research study showed the active employees avoided 47 doctor visits and 23 E.R. visits. This produced a total savings of $10,865 or $119.40 per member. The Return on Investment (ROI) was 20:1. The active employees also reported reducing absenteeism by 14 days which produced additional savings. The retirees showed similar success. They avoided 15 doctor and 8 E.R. visits. The total savings was $3,705 or $78.82 per retiree. This amounted to a Return on Investment (ROI) of 13:1.

Teachers Union Saves $89 Per Member

The United Teachers of New Orleans (UTNO) Health and Welfare Fund in Louisiana provided Health at Home® to both teachers and staff. An evaluation showed the members avoided 41 doctor visits and 26 E.R. visits. This came out to a total savings of $11,615 or $89.35 per member. Factoring in the cost of the self-care guide, the Return on Investment (ROI) was 16:1. In addition, the members decreased absenteeism by 32 days and 71% stated the guide was a valuable employee benefit.

Audit of Claims Data at Berk-Tek, Inc. Showed 24% Savings

A study conducted by Capital BlueCross in Harrisburg, PA on a self-care program it implemented for Berk-Tek Manufacturing, a maker of fiber optic cable, demonstrated significant reductions in healthcare utilization. The claims data for 371 employees was analyzed over one year time periods both pre- and post-distribution of the HealthyLife7 Self-Care Guide. There were not other changes in the company’s benefit design during the study period. The data showed that employees who received the guide had decreases in both the frequency and total costs for all types of physician office visits, lab tests, and emergency room visits. The 12 month savings was $39.06 per employee which amounted to a 24.3% decrease in costs. The frequency of physician office visits was reduced by 18.4%, while emergency room visits decreased 19.8%. The Return-On-Investment was 5:1. The study also demonstrated that the benefits of the self-care program carried over to the dependents of employees as they, too, reduced their utilization. An analysis of all 938 members showed a 12 month savings of $21.67 per person. This represented a 17.8% reduction in costs. The frequency of physician and E.R. visits for members decreased 11%. The Return-On-Investment was 7:1.
Self-Care Guides Save Florida Hospital $84.18/Employee

In an effort to contain healthcare costs, Florida Hospital Medical Center in Orlando gave 4,382 employees the HealthyLife® Self-Care Guide. Five months after the guide was distributed, evaluation questionnaires were sent to 1,236 employees and were returned by 365 of them (a 30% response rate). It was determined that these employees had reduced physician office use by 126 visits and emergency room use by 52 visits. Using the hospital’s insurance records, it was calculated that the average cost for a physician office visit is $55.00 and the average cost for an emergency room visit is $462.00. This amounted to a savings of $30,954 or $84.81 per employee in the 5 months. In addition, employees were absent from work 72 fewer days.

Children’s Self-Care Guides Save $122.78 Per Family on Medical Costs

Florida Hospital Medical Center in Orlando has reported that providing its employees with the HealthyLife® Children’s Self-Care Guide produced a savings of $14,366 for 183 families in a 5 month period of time. Evaluation questionnaires were sent to 390 employees and were returned by 183 of them (a 47% response rate). It was determined that these families had 39 fewer pediatrician office visits and 31 fewer emergency room visits. This amounted to a savings of $16,467 or $89.98 per employee in the 5 months.

Dean Health Plan Reduces Doctor and E.R. Visits

Dean Health Plan in Madison, WI provided the Health at Home® book to all 60,000 of its member households. After 6 months, surveys were sent to 1,000 members and were returned by 366. The average age of the responders was 37.8 years. Seventy-eight percent were female and the average household consisted of 2.8 persons. The savings received due to decreased physician visits was $44.07 per member while the savings due to reduced E.R. visits was $15.50 per member. This produced a total savings of $59.57 per member. Dean Health Plan determined that the Return-On-Investment of this program was 13:1. They also found that 1.4 members per household had used the guide in the past 6 months and 85% considered it to be a valuable healthcare benefit.

Seniors’ Self-Care Guide Produces $57.00 Per Patient Savings in One Year

Wellspan Health System in York, Pennsylvania implemented the Partners for Health Self-Care Program for 268 older Americans. This program consisted of an hour workshop on the benefits of self-care and how to use the HealthyLife® Seniors’ Self-Care Guide. One year after the workshop, a questionnaire was sent to the participants to determine the effectiveness of the guide. The data showed that the participants had decreases in both the frequency and total cost for doctor and emergency room visits. The 12 month savings was $57.49 per person for the 197 seniors who returned the questionnaire.

Largest Self-Care Study Ever Conducted Demonstrates Reduction in Utilization

In an effort to reduce healthcare costs amongst its managed care membership, BlueCross BlueShield of Massachusetts provided 338,963 members with the DecisionCare™ Guide developed by the American Institute for Preventive Medicine. The guide was custom designed based on the plan’s most frequently used ICD-9 codes. The analysis looked at claims data for 51,021 members who received the DecisionCare™ Guide and an equal number of members who did not for a 9 month time period, both pre- and post-distribution. The two managed care samples were similar with respect to age and gender. The results showed a 3.2% decrease in E.R. visits in the group that received the DecisionCare™ Guide. The results were statistically significant.

Other Self-Care Guide Research Results

In a survey of 1,396 recipients of the Health at Home® guide:
- 99% of employees found the self-care guide to be informative
- 97% of employees stated the self-care guide is easy to understand
- 97% of employees thought the self-care guide is a source of good health advice
- 86% of employees felt the self-care guide is an invaluable employee benefit
- 63% of employees thought the self-care guide positively affected their families
Table 1 – Summary of Research on AIPM Self-Care Guides

<table>
<thead>
<tr>
<th>Organization</th>
<th>Year</th>
<th># of People</th>
<th># of Months</th>
<th>Documented Cost Savings</th>
<th>R.O.I.*</th>
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</thead>
<tbody>
<tr>
<td>United Way</td>
<td>2005</td>
<td>4,819</td>
<td>6</td>
<td>$49.47 $125.96 $175.43</td>
<td>29:1</td>
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<tr>
<td>United Way</td>
<td>2005</td>
<td>1,360</td>
<td>6</td>
<td>46.57  33.59  80.16</td>
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<tr>
<td>Whatcom County</td>
<td>2005</td>
<td>95</td>
<td>6</td>
<td>3.47   8.06   11.53</td>
<td>3:1</td>
</tr>
<tr>
<td>United Teachers New Orleans</td>
<td>2004</td>
<td>130</td>
<td>12</td>
<td>17.35  72.00  89.35</td>
<td>17:1</td>
</tr>
<tr>
<td>Teamsters Local 436-Actives</td>
<td>2003</td>
<td>91</td>
<td>12</td>
<td>28.41  90.99  119.40</td>
<td>20:1</td>
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<tr>
<td>Teamsters Local 436-Retirees</td>
<td>2003</td>
<td>47</td>
<td>12</td>
<td>17.55  61.28  78.83</td>
<td>13:1</td>
</tr>
<tr>
<td>Bloomington Hospital</td>
<td>2001</td>
<td>839</td>
<td>12</td>
<td>28.65  69.01  97.66</td>
<td>16:1</td>
</tr>
<tr>
<td>Bloomington Hospital</td>
<td>2000</td>
<td>627</td>
<td>12</td>
<td>25.53  42.49  68.02</td>
<td>11:1</td>
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<tr>
<td>Bloomington Hospital</td>
<td>1999</td>
<td>625</td>
<td>12</td>
<td>27.19  63.36  90.55</td>
<td>15:1</td>
</tr>
<tr>
<td>Dean Health Plan</td>
<td>1999</td>
<td>366</td>
<td>6</td>
<td>44.07  15.50  59.57</td>
<td>13:1</td>
</tr>
<tr>
<td>Lewis-Gale Clinic</td>
<td>1997</td>
<td>327</td>
<td>12</td>
<td>57.79  14.44  72.23</td>
<td>14:1</td>
</tr>
<tr>
<td>Health Net</td>
<td>1996</td>
<td>165</td>
<td>6</td>
<td>17.88  16.97  34.85</td>
<td>14:1</td>
</tr>
<tr>
<td>Western Southern Life</td>
<td>1996</td>
<td>197</td>
<td>6</td>
<td>17.00  40.61  57.61</td>
<td>26:1</td>
</tr>
<tr>
<td>Lewis-Gale Clinic</td>
<td>1996</td>
<td>79</td>
<td>5</td>
<td>25.97  12.19  38.16</td>
<td>15:1</td>
</tr>
<tr>
<td>Capital Blue Cross</td>
<td>1995</td>
<td>371</td>
<td>12</td>
<td>26.01  13.05  39.06</td>
<td>5:1</td>
</tr>
<tr>
<td>Capital Blue Cross</td>
<td>1995</td>
<td>938</td>
<td>12</td>
<td>16.45  5.22  21.67</td>
<td>7:1</td>
</tr>
<tr>
<td>Indian Industries</td>
<td>1995</td>
<td>197</td>
<td>6</td>
<td>8.88   66.45  75.33</td>
<td>30:1</td>
</tr>
<tr>
<td>Florida Hospital</td>
<td>1994</td>
<td>801</td>
<td>5</td>
<td>18.26  57.81  76.07</td>
<td>38:1</td>
</tr>
<tr>
<td><strong>Average Totals</strong></td>
<td></td>
<td><strong>670</strong></td>
<td><strong>8.88</strong></td>
<td><strong>26.47</strong> <strong>44.94</strong> <strong>71.41</strong></td>
<td><strong>16:1</strong></td>
</tr>
</tbody>
</table>

*Return-On-Investment - The number of dollars saved for every dollar spent on the publication

ROI Analysis Available for Your Organization

Your organization can receive a free Medical Self-Care Return-on-Investment Analysis. This will let you know how much money they can expect to save by providing a self-care guide to their employees/members. To receive your analysis, email the American Institute for Preventive Medicine with your number of employees/members at aipm@healthylife.com.

What Readers of Self-Care Guides Say

Here is a sampling of comments from employees/members who have received self-care guides.

Jeff Bilbrey, Lowe’s

“One evening about 1½ years ago, I was experiencing stomach pain and vomiting. When the symptoms persisted until the next morning, I used Health at Home® to determine what I should do. The guide stated that with my symptoms, I should see a doctor which I promptly did. My doctor said my body’s systems were shutting down and I was diagnosed with acute pancreatitis. Within one hour, I was hospitalized for the condition and spent 30 days in intensive care. My physician said I would have died had I not been treated when I was. Your book saved my life.”

Nurse, Fairview Health System

“I had been experiencing severe abdominal pain. I consulted the Health at Home® self-care book, called the NurseLine, and was advised to go to the Emergency Room. I was diagnosed with ovarian cancer. Luckily, it was caught early and after surgery and chemo, my prognosis is excellent. I credit the book for helping me decide the right thing to do.”

A.S., Age 34, Female

“My son contracted a rare blood disorder which at the time we were unaware of. I checked his symptoms in the book first which instructed us to call his doctor.”
R.M., Age 30, Male
“"I think the self-care guide is a great asset for me. It enabled me to understand my symptoms and assisted me in recovering faster.”

C.C., Age 48, Female
“I like the flow chart model. Easy to use, yet does not “talk down” to the consumer. Thanks for providing this addition to my personal reference library.”

S.M., Age 43, Female
“I learned a lot of things which I probably would never have thought to ask my doctor.”

R.D., Age 75, Female
“When my husband had a high fever, I followed the instructions concerning tepid water sponge bath, etc. to help bring down his fever. Although he still needed to see a doctor, I was able to make him more comfortable. The Guide also gives you some tips which allow you to do something to help. This, I feel, alleviates anxiety.”

Conclusion
It is estimated that healthcare costs will increase another 9% in 2007. Although there are many ways to manage these costs, medical self-care represents one of the lowest cost, yet most effective ways to do so. Employees/members like it because they save time and money and feel empowered. Organizations like it because they are able to provide a low cost benefit and save a great deal of money simultaneously. Thus medical self-care produces the proverbial “win - win” situation. It is a program that every union and corporation should strongly consider.

Endnotes
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5. Center for Disease Control and Prevention, 2005
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10. Ibid
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16. Lewis, S. Large Self-Care Study Demonstrates Significant Positive Results. Employee Health and Fitness 1998; 20,3:25-28
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