Evaluation of the Healthwise Self-Care Program
for Physicians Health Plan of Fort Wayne

An Honors Thesis (HONRS 499)

by

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Abstract

The purpose of this thesis was to evaluate the Healthwise self-care program for Physicians Health Plan of Fort Wayne, Indiana. This was accomplished through both qualitative and quantitative measurement procedures using questionnaires and analyzing health insurance claims data.

The paper details the research methods used and gives an analysis of the findings. The following conclusions were drawn from this analysis; 1) Self-care is emerging as a valuable resource in empowering health-care consumers and may contribute to cost-containment; 2) The Healthwise program received an overwhelmingly positive response from participants based upon workshop evaluations; 3) The majority of program objectives were satisfactorily met with the others remaining uncertain — warranting future study; and 4) Small sample sizes and inconsistent data did not allow for conclusions to be drawn from the health insurance claims data analysis.
Acknowledgments

College seemed to fly by, and before I knew it my senior year was underway leaving me to develop an idea for my honors thesis. In class one day I mentioned an interest in research in the Health Science department, and by my next class Dr. James McKenzie had several ideas for me. Among these was an opportunity to work on an evaluation of a health education program used by a health maintenance organization (HMO) in Fort Wayne. The health educator of this HMO, Physicians Health Plan (PHP), completed her masters degree at Ball State University, lending familiarity to the methods PHP employs. Taking two semesters to complete, the project was a great learning experience. It helped me to understand my strengths and weaknesses and gave me the opportunity to work with some wonderful people.

I offer sincere thanks to Dr. McKenzie who, despite many other obligations, put in several hours of reading, editing and offering suggestions for this project. His help and patience have been indispensable and I am very grateful to have had his support in this project.

Special thanks also go out to Amy Doyle and Connie Bucher of PHP. Both women were very helpful in completion of this project. Amy lent constant encouragement and was readily available to answer questions and point out resources. She also offered suggestions for employment opportunities and continuing education in the health education field.

I also would like to thank my internship manager, Carol Folden, for her interest and encouragement in this project. Juggling both a full-time internship and a thesis in the same
summer semester, was a trying experience. But I was given the opportunity to work on this project after hours in the office and am grateful for that opportunity.

Finally, I extend thanks to my parents, Bill and Jeanne Tyler and sisters Brittney and Leslie who have always been a steadfast force of encouragement in my every endeavor.
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Chapter One -- Statement of the Problem

Introduction

It has often been said that knowledge is power, and health maintenance organizations (HMOs) are beginning to put this old adage into action. Through teaching members to become wise medical consumers, HMOs are giving both knowledge and power, hoping to create healthier, more productive workers while containing costs and limiting claims.

A Fort Wayne HMO, Physician’s Health Plan (PHP), has been attempting to combat these problems -- escalating costs and claims -- by using self-care as a educational tool. Through teaching self-care, home treatment of common illnesses and injuries, PHP is hoping to create knowledgeable members.

As one of the early proponents of the self-care movement, PHP has implemented the use of the Healthwise self-care program. Designed by Healthwise, a non-profit health promotion research and development center, this program includes a handbook and a 30-90 minute introductory workshop to orient members to the concept of self-care. The handbook addresses three basic concepts: identifying and treating common illness and injuries, improving physician-patient communication and creating cost-containment partnerships among employers and employees.
PHP hopes to create wise medical consumers who play active roles in their health care. In doing this, they ultimately wish to see an impact of this program on health care claims. Therefore, the focus of this thesis was to evaluate PHP's self-care program, assessing its impact on designated variables.

Statement of the Problem

The purpose of this project was to determine the impact of the Healthwise self-care program on selected variables.

Program Goals and Objectives

In order to determine the success of PHP's Healthwise program, the following goals and objectives were formed. These initiatives embody both qualitative and quantitative measures.

Goals:

1. To improve the quality of care that participants give and receive at home.
2. To strengthen the communication and partnership between health plan members and their health care providers.
3. To reduce unnecessary health care services.
Objectives:

1. As a result of the Healthwise program, participants will be able to predict an increased partnership with their health care providers.

2. After the workshop, participants will express a higher level of confidence in the quality of health care given and received in their homes.

3. The majority of participants will exhibit positive feedback after attending the Healthwise workshop.

4. After using the Healthwise handbook, participants will be able to decide whether or not to seek professional care.

5. During the workshop, participants will be able to correctly "diagnose" a common health problem using the Healthwise handbook.

6. Participants will be able to locate information concerning specific health problems, according to guidelines presented in the workshop.

7. According to an insurance claims history, unnecessary health care office visits will decrease six months following the workshop.

8. According to a follow-up survey, participants will:
   a) agree that the program has increased the quality of their home health care;
   b) report an increased ability to effectively work with their health care providers;
   c) indicate that they have used the handbook in the preceding time-frame; and,
   d) report an increased use of self-care compared to pre-workshop evaluations.
Limitations

Several limitations contributed to the quality of this thesis in terms of time, access to data and number of participants involved in the evaluation.

1. **Time:** The thesis was restrained by the time limits of graduation.

2. **Access to data:** Not all companies involved in the program completed questionnaires at regular intervals; nor was health insurance claim data available for all observation intervals.

3. **Limited number of participants:** PHP provides services for many small companies who have few employees participating in the program.

Definition of Self-care

No universal definition of self-care has been accepted. Following are several definitions complied by Kemper, Lorig and Mettler (1993):

- "comprising health maintenance, which includes disease prevention and care of self in illness," (Williamson & Danaher, 1978).

- "an intentional behavior that a lay person takes on his or her own behalf, or on the behalf of the family, friends or community to promote health or treat illness," (Levin, Datz, Holst, 1979).

- "consulting with other family members about symptoms, taking non-prescription medications, weight control, self-monitoring of chronic illness, participating in self-help groups such as Alcoholics Anonymous and consumer political action on health issues," (Fleming, 1984).

- Barofsky divides self-care into four groups:

  1. Regulatory self-care (eating, bathing, sleeping);
2. Preventive self-care (exercise, diet, brushing one's teeth);
3. Reactive self-care (responding to symptoms without physician intervention); and,

- "Actions taken by an individual with respect to a medical problem," (Vickery, 1986).

- The Consumer Self-Care in Health Conference defined self-care as, "parts of a matrix in the health care process whereby lay persons can actively function for themselves and/or others to 1) prevent, detect or treat diseases and 2) promote health so as to supplement or substitute for other resources" (1977).

- "Medical self-care is what you do for yourself to prevent, recognize and treat specific health problems" (Kemper, 1992).

- For the Healthwise program self-care is divided into three components:
  1. Identifying and treating common illness and injuries;
  2. Improving physician-patient communication, and;
  3. Creating cost-containment partnerships among employers, employees and health care providers.


Chapter Two -- Review of Related Literature

Introduction

The following literature review includes general self-care information and evaluation of several self-care programs. It is divided into the following categories: The history of self-care, The need for self-care, and evaluation of self-care programs.

The History of Self-care

Self-care has been used for centuries. It dates back to ancient Greek times, where the majority of health care was provided by the individual and family. According to Sigerist, a medical historian, the Babylonians brought their sick family members and friends to the market place where they would ask medical advice of passersby (Sigerist, 1941; 1951). This marks the beginning of self-care historically.

Later, in the 18th century the uses of self-care were put into writing, and self-care manuals emerged. John Wesley, founder of the Methodist Church, wrote a self-care manual entitled, Valuable Primitive Remedies in 1747 (Wesley, 1747), followed by Buchanan's Domestic Medicine in 1769 (Buchanan, 1769). These books promoted self-care use as a valuable form of medical treatment.
Even Thomas Jefferson was interested in self-care, requiring University of Virginia freshmen to take a course in medical self-care (Kemper, 1993).

Self-care became a popular competitor in the health care market -- seen in various forms. Thompsonians advocated the message, "Every man his own physician," using roots and herbs as viable home remedies. Another home care treatment used medicines in the sick which would cause disease in the healthy (Kemper, 1993). This self-care, called homeopathy, was inspired by Samuel Hahnemann. Finally, another self-care form used various water remedies. This method, called hydropathy, was started in Italy and had many success stories (Kemper, 1993).

Later in 1893, a feminist self-care advocate, Mrs. Lydia Estes Pinkham, began bottling her home remedy. She wrote that "Only a woman understands a woman's ills" (Kemper, 1993, p. 37). Other women followed suit, finding interest in self-care. The Boston Women's Health Collective was one group which renewed the self-care trend beginning in the 1960's (Boston Women's Health Book Collective, 1971).

Today, self-care has again sprung to life roused by health maintenance organizations (HMOs) and insurance companies in an effort to control rising health care costs and limit an escalating number of claims. With increased technology and an abundance of health care professionals, the American public tends to automatically see the doctor for minor
problems. "Physicians have replaced grandmothers in doling out common sense advice about colds, flus, preventing back pain, deciding whether stitches are needed or drawing blood under a throbbing fingernail -- all minor problems that, with a little guidance -- could be treated at home" (Sipf, 1990, p. 9). To combat the out-of-control costs of these minor visits, self-care has come back to life.

The Need for Self-Care

Employers, insurance companies and HMOs battling elevating health care costs, frustrated health-care providers and a discontented public are expressing a need for change. Using self-care may be one basic way to address several of these concerns.

Employers and Insurers

The marketplace is a competitive arena. In order to stay afloat, companies must control costs. Health care costs are a prime target, due to the ever continuing rise in consumption. Many companies are using inventive strategies to reduce this spending, through employee education (Battagliola, 1992; Employee Benefit News, 1991; FYI from PHP; Schmidt, 1991; Wojcik, 1992)

Searching for solutions to cost containment, some "companies have been alienating employees with cost-shifting, raising employees' deductibles and cutting benefits," according to Eric Sipf, president and
Chief Executive Officer (CEO) of Comprecare, one of Colorado's largest HMOs (Sipf, 1990, p. 9). Sipf believes the employees have a lot to gain from self-care programs. Indirectly, they gain by helping to improve a company's financial status and competitiveness which may lead to higher salaries, more perks and even greater job security. Directly, they gain by saving themselves out-of-pocket co-payments and deductibles through greater use of self-care strategies. Finally, their knowledge and power to handle their families' health problems increases, improving the quality of care they receive.

From an insurance company's standpoint, David Feffer, Chairman of Managed Care Corporation of Bellevue Washington agrees that employers need to push employees to become informed consumers. According to Cindy Krieg of Healthwise, 80% of malpractice claims can be traced to poor communication of the risks involved in the procedure. She further suggests that 70% of a correct diagnosis depends on what the patients tell their health care professionals. Currently, 84% of treatment is through physician care, 13% in hospitals and 3% in teaching or research hospitals. However, through education, Krieg believes these figures could make a dramatic change with 80% of treatment as self-care, 16.8% by physicians, 1.6% in hospitals and 0.6% in teaching or research hospitals. Finally, Krieg asserts that "Self-care has been around for generations, but today it's the most overlooked part of our health care system" (Wojcik, 1992, p.2).
Baptist Health System, the largest nonprofit health care system in Alabama, advertises educational seminars (held on company time) on medical self-care so that interested employees may attend. "We target only employees who will use the materials best," states Hilyer, Corporate Director of Health Promotion. "We don't want to blanket all the employees because we know some will not use the materials. This would not be cost-effective," (Battagliola, 1992, p.26 ). A six-month evaluation generated the following results; 68% of participants used the books, and of those 77% said their medical decision-making improved as a result.

Over and over again, self-care is being explored by many companies -- all in an effort to educate employees and cut costs. Some of these employers include; Union Pacific Railroad, Camsco (Kemper, 1992), Amalgamated Sugar Company, Blue Cross of Idaho (Sipf, 1990), Montana Power Company, Johnson & Johnson, Baptist Health System, Northwestern National Life Insurance Company (Battagliola, 1992), Employee Managed Care Corporation (Wojcik, 1992), Nationwide Insurance, University of Denver, The city of Commerce City, Deloitte & Touche, Dixon Paper, Swanson Rink and Super Value Stores (Colorado Springs Business Journal, 1990).
Employers are not the only ones reaping benefits from self-care programming. Health care providers also gain—creating knowledgeable patients who can thoroughly explain and detect symptoms.

Two nurses, Cypress and Gross, believe that providers create helpless patients by unconsciously encouraging passivity. Rather than encouraging patients to become involved, health care professionals often label assertive clients as a nuisance, disregarding their concerns and questions. On the other hand, the "good patient" passively allows care to be given, creating dependence on providers and hindering recovery. These women propose change through education. "As nurse educators we strive to make patients responsible for self-care so they can learn to take control of their conditions and their lives," (Cypress & Gross, 1989, p.20).

It may seem that health care professionals would be concerned about self-care, worrying that the public may be harmed by ineffectual home treatment. Also, years of schooling have built their training and experience, and still uncontrollable problems occur for them. However, these concerns do not seem to appear in the literature. In fact, an evaluation found one of the highest sources of physician dissatisfaction to be unnecessary office visits (Vickery, Kalmer, Lowry, Constantine, Wright, Loren, 1983). The minor health problems creating these visits, are precisely what self-care programs, such as Healthwise, strive to eliminate.
PHP conducted a provider survey, sending each provider a copy of the Healthwise manual and an evaluation. In an unpublished report, the response was overwhelmingly positive, with only a few minor changes suggested for the manual. Overall, the physicians were pleased to see an effort to improve doctor-patient communication (Physicians Health Plan, 1994).

Cindy Krieg of Healthwise, Inc., also found physicians praising the self-care concept. "The physicians are telling us that they only have an average of 7 minutes to spend with a patient, so the better trained people are to understand their problem, the better the doctor can make a diagnosis," (Employee Benefit News, 1991, p.).

Apparently, educating patients to be better consumers is an attractive proposition in the medical community, eliminating unnecessary visits and increasing the quality of the short doctor-patient interaction time.

The Public

Thus far, the need for self-care has been revealed through the perspectives of employers -- helping them cut costs, and health care professionals -- improving quality of care. Consumers also appear to display a need for self-care, which may fulfill a public demand.

Self-care is one answer to a system which is need of a major change, driven by a public with several unmet needs, according to David Carroll. In
his article, *Self-help and the New Health Agenda* (1994), Carroll identifies six reasons why the public wants and needs self-care programs. They include: 1) *Crisis and Change* in attitude toward doctors deriving from a new breed of physicians motivated by profit rather than service as well as assembly-line hospital care and cold, uncaring geriatric institutions who treat patients as diseases rather than persons; 2) *Insufficient Resources* illustrated by the 15 percent of Americans under age 65 with no medical coverage; 3) *Increased Interest in Alternative Medicines* such as acupuncture, herbalism, chiropractic therapy, tai chi, hypnosis, yoga and a myriad of others; 4) *A New Emphasis on Lifestyle and Personal Responsibility*. For example, of 2.1 million recorded deaths in 1990, 800,000 clearly involved poor health behavior (some deaths may derive from multiple behaviors); 400,000 attributed to tobacco use (cancer, heart disease, stroke, low birth weight, burns); 300,000 a result of diet or inactivity (stroke, colon cancer, diabetes); 100,000 accredited to alcohol and 500,000 charged to sexual behavior and illicit drug use; 5) *The Self-Care Movement* serves several purposes; including the ability to read signs that predict a crisis, to respond to crisis of the moment and the ability to establish and maintain a regimen; 6) *New Advocacy and Empowerment Ethos* is a trend recognizing those who are dealing with health issues and reaching out to educate others in order to prevent, comfort and influence others to fight the problem.
Health care consumption is rising -- along with it costs are escalating out of control. Among solutions to this difficult problem, self-care appears to be a growing trend meeting a myriad of needs. From the employer to the physician to the public, the benefits of self-care are in abundance.

**Evaluation of Self-Care Programs**

Although self-care appears to be a great benefit, data confirming these assumptions is a key factor in deciding its worth. Several companies have conducted such evaluations reporting exceptionally positive results.

In Meridian, Idaho, Joint School District No. 2 implemented a self-care program using the Healthwise Handbook. Of the 921 employees who participated, 90% felt that the book and workshop would help them improve the quality of care they give and receive, and 78% felt that the program would help them save money on health care.

The Assistant Superintendent for finance of the school district, said, "There was a drop in the rate of health insurance cost increases following implementation of the program. Employees better understood when to seek medical help. Once employees understood how health insurance costs were computed, they felt a greater sense of ownership in the health plan,"

(Kemper, 1992, p.4). Kemper also found that CAMSCO, a small Campbell Soup Company in Dudley, Georgia, saw a 16% drop in medical costs in the
first year after implementing a self-care program. The second year they reported a 30% drop (Kemper, 1992).

After implementing a self-care program, Amalgamated Sugar Company reported saving $250 per employee per year (Sipf, 1990). So, it seems that lower utilization creates savings. Blue Cross of Idaho found this to be true, reporting a 29% reduction in utilization as a result of self-care programming (Sipf, 1990).

The Montana Power Company has estimated great savings with the education of employees through self-care. "....the CareWise package will cost us $120,000, and our medical claims are estimated at $8.5 million. That's about 1.5% of our medical cost to keep our workers wise purchasers of health care" (Battagliola, 1992, p.22).

Even if not astronomical changes, self care will likely make a minor impact on increasing costs. According to Gregg Kamas, Comprecare health program specialist, "Self-care programs won't create huge cuts in health care costs. But the programs can help slow the increases," (Gazette Telegraph, 1991, p.1).

Kemper et al. (1993) evaluated several self-care programs, and Appendix A shows the results. The two tables in Appendix A review self-care interventions for both broad and specific health problems. Each study implemented one or more self-care manuals, and used a range of 100-1,625 study households. Most evaluations were randomized, controlled pretest-posttest designs, comparing knowledge, behavior and
health status prior to and following the intervention. Some of the studies exhibited statistically significant reductions in physician visits; none reported detrimental results.

The investigators concluded that self-care is widely used, produces significant benefits and lacks harmful effects (Kemper et al., 1993); however, several concerns with self-care research were identified. First, larger samples were needed in the studies to produce a statistically powerful result. Second, self-reported data could be unreliable -- especially with a small sample; and third, none of the studies mentioned an underlying rationale or theoretical model. These concerns could be taken into consideration in future self-care studies.

Another study, a prospective, randomized controlled trial of self-care interventions was conducted by Vickery et al (1983). They found statistically significant decreases in total medical visits and minor illness visits in three experimental groups versus three control groups. The decreases averaged 17% to 35% respectively.

**Summary**

In summary, self-care has appeared throughout history in several forms. Beginning in Greek times and reemerging today, the concept of self-care has endured for centuries. Additionally, there appears to be a need for self-care in containing health insurance claims costs, limiting physician dissatisfaction concerning unnecessary office visits, and in appeasing a
disgruntled public. Overall, evaluations of self-care programs have proven the significant effect self-care may have on controlling costs and decreasing utilization. Coupled with the positive attitudes seen in employers, physicians and the public, these results appear to make self-care an excellent choice for taming an overused health care system.
Chapter Three -- Research Procedures

Introduction

The following section explains the methods used to evaluate the Healthwise program. The evaluation design, subject selection, instrumentation, data collection and analysis are explained in further detail.

Evaluation Design

Both quantitative and qualitative methods were utilized for this evaluation, in order to test whether the goals and objectives were met. Quantitative measures noted changes in medical utilization and costs, while qualitative methods gained feedback toward participants' attitudes and perceived usefulness of the program.

The quantitative evaluation was conducted using a time-series design. This design employed 3 observations prior to the intervention and 3 following. The claims histories of all subjects were gathered each month beginning three months prior to program implementation as well as each month following implementation for three months. Additionally, evaluation sheets were gathered both immediately after and six months following the workshop. No randomization or control group was used; however, the time-series design controls several threats to internal validity. For example threats such as maturation effects of testing, regression towards the mean,
selection and mortality can be controlled leaving contemporary history as the main threat to internal validity. This could have been controlled as well using a control group, however access to subjects was a limitation of the evaluation.

Subject Selection

A nonprobability sample of convenience was used, due to the time limitations. The subjects were participants from four of PHP's client groups, which will be referred to as companies A, B, C and D. These companies were chosen due to their desire to participate in the program during the evaluation time-frame.

The program implementation and observation dates varied for each group: the first two in September and December respectively and the last two in April -- all in 1994.

Instrumentation

Healthwise includes evaluation instruments with their program, however, PHP modified these and used them prior to and during this evaluation. At the onset of this project, goals and objectives were established by the researcher in conjunction with PHP personnel. and new instruments to measure these. Though not used in this evaluation for timing reasons, the new instruments will be utilized for further programs.
The instruments were content valid, measuring the areas PHP was attempting to effect.

**Data Collection**

As mentioned above, the subjects' health insurance claims were analyzed for each month, three months prior to program implementation and each month, three months following implementation. A data analyst from PHP, gathered this information; however, some data are missing in the months following the workshop due to the time limitations of this project.

Evaluation instruments were given to participants immediately following the program by the health educator conducting the program, and follow-up evaluations were sent to the companies six months later by the health educator. A copy of both sets of forms are provided in Appendix B.

**Data Analysis**

The data generated from the questionnaires was studied through a general evaluation of responses as well as a comparison of responses to the goals and objectives expected of PHP. The following section explains the workshop and reviews the responses to both workshop and follow-up questionnaires.
The Workshop

The workshops generally follow the same format, but are customized for time. They begin with an introduction to the concept of self-care and a review of workshop goals. Then participants are asked to brainstorm current resources used when faced with medical decisions. The Healthwise handbook is distributed at this time, giving participants another resource.

The facilitators then discuss how to strengthen the doctor-patient relationship to make the most efficient and useful medical appointments. This is followed by explanations of the "Healthwise Approach", a simple medical action-plan, and the "Ask The Doctor Checklist", a checklist to use prior to a doctor's appointment.

Time-permitting, self-care situation cards are distributed to groups of participants for "hands-on" use of the book. The groups then try to "diagnose" a problem and decide whether they would seek medical attention. These situations are then reviewed and discussed among all participants.

Lastly, the benefit of self-care in holding down health care costs and the active role medical consumers can make in this effort are explained. Any questions are addressed and workshop evaluation forms are distributed.
Chapter Four -- Presentation of Qualitative Data

Introduction

The data is divided into two sections. The first is a qualitative analysis giving question-by-question responses to the both workshop and follow-up evaluation instruments for each individual company. The second is a quantitative review of the health insurance claims data for each company.

Question-by-Question Responses to Workshop Evaluation

The responses are divided by question, with the workshop evaluation first, followed by the six month follow-up evaluations. The questionnaire used for company A differed slightly from those used for companies B, C and D. These differences are noted in the following question-by-question review and tables.

Table 1 displays the responses to question one, regarding the overall value of the workshop. Both questionnaire forms asked this question using a Likert scale with response choices ranging from excellent (n=132) to poor (n=0). These responses indicated that the third objective, regarding attaining positive feedback from the workshop, was met.
Table 1
Overall, how would you rate this program?

<table>
<thead>
<tr>
<th>Company</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>poor</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
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<td>23</td>
<td>86</td>
<td>132</td>
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</table>

The second question asked if the workshop would improve the quality of self-care received by participants and their families. Seen in Table 2, the results were overwhelmingly positive with 250 'yes' responses, two answering 'no' and seven responding 'unsure'. This question relates to objective two which sought to find participants expressing a higher level of confidence in the quality of health care given and received in the home. The responses indicate that the majority of participants met this goal.

Table 2
Do you think the workshop and book will help you improve the quality of self-care you and your family receive?

<table>
<thead>
<tr>
<th>Company</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>Total</th>
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<tr>
<td>Yes</td>
<td>20</td>
<td>34</td>
<td>38</td>
<td>158</td>
<td>250</td>
</tr>
<tr>
<td>No</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Unsure</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>2</td>
<td>7</td>
</tr>
</tbody>
</table>

When asked to predict whether the manual would help strengthen the partnership with participants and their doctors, 217 forecasted 'yes', 11 'no' and 29 were unsure. Results appear in Table 3. This indicates that the
first objective, concerning participants predicting an increased partnership with their doctors, was attained.

**Table 3**

Do you think that the workshop and book will help you strengthen your partnership with your doctor?

<table>
<thead>
<tr>
<th>Company</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>16</td>
<td>27</td>
<td>28</td>
<td>146</td>
<td>217</td>
</tr>
<tr>
<td>No</td>
<td>2</td>
<td>1</td>
<td>3</td>
<td>5</td>
<td>11</td>
</tr>
<tr>
<td>Unsure</td>
<td>1</td>
<td>7</td>
<td>10</td>
<td>11</td>
<td>29</td>
</tr>
</tbody>
</table>

Three additional questions were asked of company A and are displayed in Tables 4a, 4b and 4c. The first asked what percentage of time participants predict they would rely on self-care rather than utilizing professional services. The Likert-style responses began with 'about 10%' in increments of 10% until reaching 'greater than 50%'. Eighteen responded 'greater than 50%' while 2 reported 'about 30%'. No other responses were made. This indicates a largely positive response to self-care use. Table 4a displays these results.
Table 4a
What percentage of the time do you feel you will rely on self-care rather than utilizing professional services?

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>None of the time</td>
<td>0</td>
</tr>
<tr>
<td>about 10%</td>
<td>0</td>
</tr>
<tr>
<td>about 20%</td>
<td>0</td>
</tr>
<tr>
<td>about 30%</td>
<td>2</td>
</tr>
<tr>
<td>about 40%</td>
<td>0</td>
</tr>
<tr>
<td>about 50%</td>
<td>0</td>
</tr>
<tr>
<td>&gt; 50%</td>
<td>18</td>
</tr>
</tbody>
</table>

Secondly, company A participants were asked if they felt the book and workshop would help save money on health-care costs. Answer choices included 'yes' (77), 'no' (2) and 'unsure' (2). One comment was noted next to a no response, "I have been taking care of myself for quite awhile". Table 4b displays the results.

Table 4b
Do you feel the book and workshop will help you save money on health-care costs?

<table>
<thead>
<tr>
<th>Response</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>17</td>
</tr>
<tr>
<td>No</td>
<td>2</td>
</tr>
<tr>
<td>Unsure</td>
<td>2</td>
</tr>
</tbody>
</table>

The final differing question for company A gave three sentences and asked participants to choose the sentence which best described their thoughts regarding self-care and its impact on health-care costs. The sentences and their responses are shown in Table 4c. With most responses
weighing on the positive end of the scale, respondents realized they have some amount of control over reducing health-care costs while none felt they had no control.

There was little difference in response to the first and second statement in terms of a feeling of control over health-care costs. Either of the first two responses indicate an understanding of the concept that consumers can help limit costs. Having no responses to the last question, which clearly indicates a lack of understanding of this concept, the responses show that participants recognized their role as significant in limiting costs.

Table 4c
Which of the following best describes your thoughts about helping to reduce health-care costs?

<table>
<thead>
<tr>
<th>Response</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>I realize that health benefits and salaries come out of the same budget and I’m going to do my part to keep costs from increasing any more than necessary.</td>
<td>13</td>
</tr>
<tr>
<td>I realize that I pay for my health benefits in the long run, but I will continue to use them when needed.</td>
<td>11</td>
</tr>
<tr>
<td>I don’t see how I can have an effect on health care costs and I will use my health care benefits when I want to regardless of the cost.</td>
<td>0</td>
</tr>
</tbody>
</table>

Finally, shown in Table 5, the questionnaire for companies B, C and D asked if participants would recommend this workshop to others. Nearly
all (231) of the responses were 'yes' while no one answered 'no' and 4 people were unsure.

Table 5
Would you recommend this workshop to others?

<table>
<thead>
<tr>
<th>Company</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>33</td>
<td>41</td>
<td>157</td>
<td>230</td>
</tr>
<tr>
<td>No</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Unsure</td>
<td>2</td>
<td>0</td>
<td>2</td>
<td>4</td>
</tr>
</tbody>
</table>

The following section is comprised of the various comments to three open-ended questions on both questionnaire forms. Based on these comments, the participants found the workshop to be useful and reacted positively toward the concept of self-care. Several comments reflected the idea that the manual is a valuable and informative resource. The numbers following some sentences represent the number of people who gave that general response. For question one, responses are categorized into those concerning the handbook, situation cards and discussion, partnership and decision-making and a miscellaneous category.

1. What part of the workshop was most useful to you? Why?

**The handbook**
- Reviewing the book, table of contents, etc...
- The book - I like references to confirm my diagnoses
- The book information (2)
- It gives information quickly so you can react to illness quickly
- Use of book (72)
- Getting the book (21)
- The idea of being able to use and understand such a book
- Seeing all the different things the book has to offer
- To read the book and to help me so I do know what to do (3)
- It explains what to do when situations occur so you can be a little more calm, which will make you more efficient in an emergency (2)
- Description/location of items in book for future use (2)
- By receiving a book that will help a lot because I need something to help me out in a problem such as health-care
- Looking up info
- The explanation of the first page in the handbook

**Situation Cards/Discussion**
- Discussing the different types of problems others are having.
- Situations, they were practical, believable and brought out the usefulness of the book
- Problem solving
- Examples, situations, yellow cards (18)
- The talk (4)
- The case study
- Using the book for demonstration problems. It showed how quick and thorough using it can be.

These comments relate to objectives four and five, which aim to help participants decide when to seek professional care and let them "diagnose" a problem using the handbook. The program facilitators allowed all participants to be involved and were sure that each group used the book correctly.

**Partnership/Decision-making**
- Helped me to know when to see the doctor
- When to call a doctor (2)
- All the above in question 3 [By helping to decide when to see a doctor, by using the "Healthwise Approach", by using the "Ask The Doctor Checklist, by helping you to better prepare for a doctor visit or medical service, by helping you share in the treatment decision with your doctor.] (2)
- It helped me to understand some things I can do myself
- Know what to check and how to take care of things
- The Healthwise approach

**Miscellaneous**
- Just having the information
- Enthusiastic presenter
- No change
- Prevention and cures
- Will share with my grandchildren
- Amy -- she was great!

2. What part of the workshop was least useful to you? Why?

- None (41)
- All good (12)
- Knowing when and when not to see the doctor
- Evaluation
- Teaching how to use the book, it is easy to understand (4)
- I'm not eligible for coverage yet
- Partnership section (2)
- Filling out this form, you guys are better than this
- The writing on the wall (3)
- The way about getting doctor for things
- Table problem solving with others
- Cold most of all about the back
- The beginning
- Brainstorming
- Book
- No writing

3. Please share any general comments or suggestions for improvement.

- None (14)
- Good job (8)
- Will help people who are not in the medical field (2)
- So far, best inservice this year
- A film would help
- Could be longer
- More time
- Quick, to the point
- Keep right on what you're doing (3)
- Know your material a little better. You did fine once you got to your book. Liked the program keep it up.
- A little more illustrations
- Skip the writing
- Better presentation
- Interesting and informative
- Good -- got everybody involved
- Great! (3)
- No information concerning infants
- Good. Need to pass on to more people
- Good speaker -- worth time spent
- Thank you!
- Very good -- the handbook will come in very useful
- Free pop & popcorn during meeting
- Will be useful if used
- Good book
- More Healthwise medical problem quiz
- Is okay

Discussion

Based on workshop evaluations, participants found the workshops to be informative, interesting and involving. Comments were generally positive with many responses indicating the usefulness of the Healthwise handbook. Additionally, goals one through six which were to be measured in the workshop evaluation, were met satisfactorily.

Question-by-Question Responses to Follow-up Evaluation

Six months following the workshop, questionnaires were sent to the workshop participants. The following section reviews the responses to these questionnaires. These were completed only by companies A and B for purposes of this paper, due to time limitations.

Some employees were given the handbooks without attending the workshop; therefore, the first question asked if the employees attended the
workshop. Of the respondents who completed the questionnaire; however, all attended the workshop.

Part A of question two asked if participants or other members of their families used the book or workshop information in the past six months. Combining responses for both companies A and B there were 18 'yes' responses, 11 'no's, and three 'unsure' answers. If the respondents answered 'yes' to the first part of question two, the second part asked how many times the book was used in the past six months. Answer choices were none, one to two times, three to five, or six or more times. Thirteen responded one to two times, three answered three to five and three also answered six or more times.

The third question asked: Has the book or workshop helped you improve the quality of home care for you or members of your family? Fourteen answered 'yes', nine 'no' and nine 'unsure'. Relating directly to objective eight-a, that participants will agree that the program has increased the quality of their home health care, it is inconclusive as to whether or not this objective was met. However, the majority of responses were 'yes'.

Table 6 illustrates the combined responses of companies A and B to question four. From this information it appears that some participants found the workshop or book useful in reducing medical consumption.
Table 6

Has the book or the information in the workshop saved you or members of your family any of the following in the last six months?

<table>
<thead>
<tr>
<th></th>
<th>Medical office phone calls</th>
<th>Physician office visits</th>
<th>Urgent center visits</th>
<th>Emergency room visits</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>25</td>
<td>21</td>
<td>31</td>
<td>31</td>
</tr>
<tr>
<td>1-2</td>
<td>6</td>
<td>9</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>3-5</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>6+</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

A two-part question, number five asked participants if the book or workshop helped to improve their families' partnerships with their doctors. Five responded "yes", 18 "no", and eight "unsure" with a comment, "We get along quite well already". The second part of the question had five sentences indicating ways in which the book or workshop could have strengthened this partnership. Those five answering yes were to check all that applied. The sentences and the number of responses were as follows:

1. By helping to decide when to see a doctor (5)
2. By using the "Healthwise Approach" (1)
3. By using the "Ask the Doctor Checklist" (2)
4. By helping you to better prepare for a doctor visit or medical service (2)
5. By helping you to share in the treatment decision with your doctor (3)

Responses to this question indicate that neither the workshop nor book made a substantial impact on strengthening participant’s partnerships with their doctors. This measure of objective eight-b, a report of an
increased partnership with health-care providers, seems to show that it was not attained. However, these responses conflict with the workshop evaluations which had 217 participants predicting an increased partnership with their doctors. One explanation for this response is a lack of medical consumption in the past six months; it may take longer to realize this objective.

Like the workshop questionnaires, question six asked if participants would recommend the Healthwise handbook to others. There were 25 'yes' responses; zero 'no's; and five were unsure. This indicates that participants found some value in the handbook regardless of the impact made in reducing medical consumption or in strengthening the doctor-patient partnership.

Question eight asked for the gender of the respondents; with 17 males and 15 females responding. No significance can be found in relation to sex because both males and females were nearly equally represented.

Finally a section for comments received the following responses.

- Great reference material
- Great book!
- I haven't needed to use the book. It is handy to have if the need would ever arise.
- Excellent book to have around when needed.
- Very helpful during my pregnancy. Information helpful for family emergencies. Thanks.
- Very good book. Wish I'd had a book like this when my children were young.
Summary

In summary, objectives one through six were met satisfactorily. Objective seven will be addressed with health insurance claims data and objective eight, though not satisfactorily attained, may still be met in a longer time frame. Dealing with an increased partnership with health-care providers, it may take more than a six month period to see many results.

Through this analysis, it can be concluded that most of the objectives were achieved, PHP received very positive responses from the workshop evaluations, and qualitative analysis found value in continuing use of the Healthwise program.
Chapter Five -- Quantitative Analysis

Introduction

As mentioned in the research procedures portion of this paper, a time-series method was used in collecting health insurance claims data for companies A, B, C and D. It was intended for the data to be gathered for each month three months prior to the workshop as well as each month for three months following the workshop. Due to time limitations of the project, only company B has each months' data. Company A is missing the third month following the workshop and companies C and D have only one month's data following the workshop.

Health Insurance Claims Data

The following tables represent the key claims PHP was hoping to contain including office services and surgery, urgicenter visits, hospital emergency room utilization and pharmacy. The tables are provided for each company individually and a final table combines all of the data, noting the exclusion of some companies in the later months, due to lack of access to data.
Table 7 displays the key total number of claims for company A; including office services and surgery, urgicenter visits, hospital emergency room visits, use of pharmacy and all other claims under 'other'. As mentioned above, the third month following the workshop is not available. From this information, it can be seen that there were few significant changes in utilization. A noteworthy change was in use of pharmacy; however, this change can not be wholly attributed to the Healthwise program. Total utilization also decreased slightly, which again may or may not have been a direct reflection of the impact of the program.

<table>
<thead>
<tr>
<th>Key Benefits</th>
<th>O1-Pre 3</th>
<th>O2-Pre 2</th>
<th>O3-Pre1</th>
<th>O4-Post 1</th>
<th>O5-Post 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Office Services/ Surgery</td>
<td>43</td>
<td>25</td>
<td>53</td>
<td>60</td>
<td>68</td>
</tr>
<tr>
<td>Urgicenter</td>
<td>7</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>Hospital ER</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Pharmacy</td>
<td>130</td>
<td>92</td>
<td>60</td>
<td>36</td>
<td>46</td>
</tr>
<tr>
<td>Other</td>
<td>35</td>
<td>11</td>
<td>26</td>
<td>37</td>
<td>53</td>
</tr>
<tr>
<td>Total</td>
<td>216</td>
<td>132</td>
<td>143</td>
<td>137</td>
<td>175</td>
</tr>
</tbody>
</table>

Company B shows similar trends (Table 8) with increases in office services and surgery, but decreases in pharmacy and total claims. As with company A, the decreases do not appear to be significant.
Both companies C and D also show an overall decrease in claims. However, company C also reports a decrease in office services and surgery and an increase in pharmacy, while D exhibits the reverse. Data was not available for observations five and six for either company. Tables 9 and 10 illustrate the figures for these companies.

Table 8 -- Company B

<table>
<thead>
<tr>
<th>Key Claims</th>
<th>O1-Pre 3</th>
<th>O2-Pre 2</th>
<th>O3-Pre1</th>
<th>O4-Post 1</th>
<th>O5-Post 2</th>
<th>O6-Post 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Office Services/Surgery</td>
<td>33</td>
<td>56</td>
<td>55</td>
<td>51</td>
<td>53</td>
<td>60</td>
</tr>
<tr>
<td>Urgicenter</td>
<td>7</td>
<td>14</td>
<td>15</td>
<td>19</td>
<td>12</td>
<td>8</td>
</tr>
<tr>
<td>Hospital ER</td>
<td>3</td>
<td>6</td>
<td>5</td>
<td>5</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>Pharmacy</td>
<td>218</td>
<td>246</td>
<td>99</td>
<td>99</td>
<td>102</td>
<td>107</td>
</tr>
<tr>
<td>Other</td>
<td>49</td>
<td>80</td>
<td>54</td>
<td>60</td>
<td>24</td>
<td>25</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>310</strong></td>
<td><strong>402</strong></td>
<td><strong>228</strong></td>
<td><strong>234</strong></td>
<td><strong>192</strong></td>
<td><strong>206</strong></td>
</tr>
</tbody>
</table>

Table 9 -- Company C

<table>
<thead>
<tr>
<th>Key Claims</th>
<th>O1-Pre 3</th>
<th>O2-Pre 2</th>
<th>O3-Pre1</th>
<th>O4-Post 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Office Services/Surgery</td>
<td>91</td>
<td>61</td>
<td>82</td>
<td>60</td>
</tr>
<tr>
<td>Urgicenter</td>
<td>10</td>
<td>9</td>
<td>4</td>
<td>10</td>
</tr>
<tr>
<td>Hospital ER</td>
<td>4</td>
<td>2</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Pharmacy</td>
<td>140</td>
<td>118</td>
<td>152</td>
<td>143</td>
</tr>
<tr>
<td>Other</td>
<td>96</td>
<td>62</td>
<td>77</td>
<td>57</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>341</strong></td>
<td><strong>252</strong></td>
<td><strong>319</strong></td>
<td><strong>272</strong></td>
</tr>
</tbody>
</table>
Table 10 -- Company D

<table>
<thead>
<tr>
<th>Key Claims</th>
<th>O1-Pre 3</th>
<th>O2-Pre 2</th>
<th>O3-Pre 1</th>
<th>O4-Post 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Office Services/Surgery</td>
<td>93</td>
<td>91</td>
<td>72</td>
<td>98</td>
</tr>
<tr>
<td>Urgicenter</td>
<td>7</td>
<td>9</td>
<td>1</td>
<td>8</td>
</tr>
<tr>
<td>Hospital ER</td>
<td>7</td>
<td>3</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Pharmacy</td>
<td>395</td>
<td>276</td>
<td>259</td>
<td>289</td>
</tr>
<tr>
<td>Other</td>
<td>124</td>
<td>83</td>
<td>81</td>
<td>105</td>
</tr>
<tr>
<td>Total</td>
<td>626</td>
<td>462</td>
<td>419</td>
<td>506</td>
</tr>
</tbody>
</table>

The last table (Table 11) summarizes all data combined for companies A, B, C and D. These results show a larger overall decrease in claims. However, one must keep in mind that data are missing for observation six for companies B, C and D and also for observation five for companies C and D.

Table 11 -- Combined Claims

<table>
<thead>
<tr>
<th>Key Claims</th>
<th>O1-Pre 3</th>
<th>O2-Pre 2</th>
<th>O3-Pre 1</th>
<th>O4-Post 1</th>
<th>O5-Post 2</th>
<th>O6-Post 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Office Services/Surgery</td>
<td>260</td>
<td>233</td>
<td>262</td>
<td>269</td>
<td>121</td>
<td>60</td>
</tr>
<tr>
<td>Urgicenter</td>
<td>31</td>
<td>34</td>
<td>23</td>
<td>40</td>
<td>18</td>
<td>8</td>
</tr>
<tr>
<td>Hospital ER</td>
<td>15</td>
<td>13</td>
<td>16</td>
<td>14</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>Pharmacy</td>
<td>883</td>
<td>732</td>
<td>570</td>
<td>567</td>
<td>148</td>
<td>107</td>
</tr>
<tr>
<td>Other</td>
<td>304</td>
<td>236</td>
<td>238</td>
<td>259</td>
<td>77</td>
<td>25</td>
</tr>
<tr>
<td>Total</td>
<td>1,493</td>
<td>1,248</td>
<td>1,109</td>
<td>1,149</td>
<td>367</td>
<td>206</td>
</tr>
</tbody>
</table>
Summary

The quantitative analysis of health insurance claims data shows decreases in total claims for each company. However, due to inconsistent data and small sample sizes, these decreases are neither significant nor can be directly attributed to the Healthwise program. In short, the quantitative analysis is inconclusive at the present time, warranting further study.
Chapter Six -- Summary, Conclusions, and Recommendations

Introduction

This chapter reports a summary of the problem, conclusions drawn from the analysis of both qualitative and quantitative data and recommendations for future study.

Summary

The purpose of the thesis was to evaluate the Healthwise self-care program for Physicians Health Plan of Fort Wayne, Indiana. A review of literature recounts the history of self-care including its reemergence today, the need for self-care and evaluation results of several self-care programs.

The study was conducted using data gathered from four of PHP's client groups who participated in the program within the evaluation time-frame. Both qualitative and quantitative research methods were employed. Goals and objectives were set to measure the success of the program. Both workshop and six-month follow-up evaluation sheets were gathered from participants and compared to the goals and objectives. In addition, health insurance claims data was analyzed using a time-series design.
Conclusions

Based on the literature review and the analysis of data within the limitations of the project, the following conclusions have been drawn:

1) Self-care is emerging as a valuable resource in empowering health-care consumers, and may contribute to cost-containment.

2) The Healthwise program received an overwhelmingly positive response from the participants, based upon workshop evaluations. This suggests a need to continue implementation of the program.

3) The majority of objectives were satisfactorily met, with the others remaining uncertain -- warranting future study.

4) Due to small sample sizes and inconsistent data, the claims data analysis was inconclusive.

Recommendations

The following are recommendations in regard to the Healthwise program for future evaluation and for continuation of the program.
Recommendations:

1) Implementing the new evaluation forms may more accurately measure the goals and objectives set forth, creating more useful results in determining the future of the Healthwise program.

2) Evaluating a larger sample size, tracking all claims over a longer time-frame, and using a control group would result in more useful findings. The effects of self-care on cost-containment could not be measured with the data and methods used in this evaluation.
References


Physicians Health Plan/Physicians Health Choice. 'Healthwise' Program Helps Contain Corporate Healthcare Costs. FYI from PHP.


Appendix A

Table 1: Summary of studies of self-care interventions for a broad range of health problems

Table 2: Summary of studies of self-care interventions for specific minor problems

Source of Tables:
Table 1. Summary of studies of self-care interventions for a broad range of health problems.

<table>
<thead>
<tr>
<th>Intervention</th>
<th>Subjects/design</th>
<th>Knowledge, behavior, health status outcomes</th>
<th>Utilization changes</th>
</tr>
</thead>
</table>
| **Moore, 1980 [35]** | 699 HMO households | 84% reported reading some of the book. 38% reported using the book for a specific health problem during the six-month period. Of those who had read book, 55% reported feeling more confident about taking care of their health problem. | \( x^1 \) reduced visits 21%  
\( x^2 \) reduced visits 24%  
Controls reduced visits 15%  
Comparison among the 3 groups \((P > 0.05)\) |
| \( x^1 \) Take Care of Yourself  
\( x^2 \) Same as above plus $50 at the end of six months if family visits to physicians were reduced by 1/3 as compared to previous year. Control group received no intervention. | 0  
R  
0  
0 | |
| **Kemper, 1982 [34]** | 218 HMO households with children. Average age: 35. | 81% reported reading at least half of the handbook. Significant increases in self-care knowledge. 83% reported improved health care. | Comparison of treatment subjects with controls over 1 year. 24% fewer referrals to specialist, \( P > 0.05 \).  
10.9% less lost per visit, \( P < 0.05 \).  
$55.48 less cost per household. |
| \( x^1 \) 10, 2 hour medical self-care workshops lead by a nurse practitioner. 55% of group attended workshops and received the Healthwise Handbook [31]. Intervention costs averaged $35.75 per \( x^1 \) family. Control group received no intervention. | 0  
R  
0  
0 | |
| **Vickery, 1983 [38]** | 1625 HMO households | A sub-study indicated significantly improved appropriateness of minor illness visits.  
Less than 20 calls were received by telephone service. | Comparison of 12 months before the intervention with 12 months after intervention.  
Groups 1–3 reduced their total visits to physicians by 10–14%.  
For group 1 it was estimated that $3.43 was saved per dollars spent and for groups 2–3, $2.41 was saved per dollars spent. |
| \( x^1 \) (1) received in the mail three books (15, 16, 42), a monthly newsletter, five lifestyle brochures and a self-scored health risk appraisal;  
(2) telephone information service;  
(3) individual counseling.  
\( x^2 \) everything in \( x^1 \) except counseling.  
\( x^3 \) everything in \( x^1 \) except telephone information and counseling. Controls received no intervention. | 0  
0  
0  
0  
0  
0  
0 | |
Nelson, 1984 [39]

$x^1$ 204 subjects, 13 session self-care and health promotion program. Two health care books (32, 33).

$x^2$ 126 subjects lecture/demonstration on foot care and hypertension (controls).

Lorig, 1985 [37]

20 minute seminar, 2 self-care books (15, 16), monthly newsletter.

Vickery, 1988 [40]

$x^1$ Mailed copies of 2 books (15, 43), a newsletter, 8 lifestyle brochures, 2 educational packages. Telephone information service. Controls received no intervention.

Leigh, 1990 [41,42]

All interventions received through the mail.

$x^1$ Take Care of Yourself [15], Semi-annual life style questionnaires, risk reports, personalized letters from a physician.

$x^2$ Semi-annual questionnaire only.

Controls received no intervention.

---

Senior citizens in 2 New Hampshire towns. Average age: 71; 80% female.

No randomization.

7349 employees in 22 Northern California companies. Average age: 39

Staggered intervention, time series.

35% of treatment subjects used the books. 75% reported using the other materials.

For the most part, the telephone information system was not used.

1009 Medicare households.

12 month comparison showed no differences in function, health ratings, emotional health or quality of life.

Subjects, when asked, did not report adverse effects.

5686 Bank of America retirees. Average age: 68; 53% female.

$x^1$ reported 10% more visits to physicians and 5% more hospital days than $x^2$.

$x^1$ had 4.4% fewer days confined to bed than did $x^2$. $P < 0.01$.

$x^1$ showed more improvement than $x^2$ in 31 of 32 health habits, health status and health cost measures.

$x^1$ claims decreased more than controls, $P = 0.155$.

Per person claims decreased by $74$ for $x^1$ and increased by $266$ for $x^2$, $P = 0.045$ (1-tailed t-test).
Table 2. Summary of studies of self-care interventions for specific minor symptoms.

<table>
<thead>
<tr>
<th>Intervention</th>
<th>Subjects/design</th>
<th>Knowledge, behavior, health status outcomes</th>
<th>Utilization changes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zapka, 1979 [44,45]</td>
<td>21500 students and faculty.</td>
<td>There were approximately 3000 visits per year to the self-care center. 50% of center users felt that it helped them decide what action to take. No significant adverse effects of self-treatment were found.</td>
<td>The visit rate for colds and sore throats declined by 33%. Cost savings of $46120 were projected for a two-year period.</td>
</tr>
<tr>
<td><em>x</em> Access to a cold self-care center at a university health service. Covered colds, sore throats and URI symptoms. OTC medications were available at no cost.</td>
<td>0 x 0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Morrell, 1980 [46,47]</td>
<td>254 London households</td>
<td>74% of <em>x</em> families consulted the booklet during the 12-month study.</td>
<td><em>x</em> group had 15% fewer visits for the six symptoms. <em>P</em> &lt; 0.05.</td>
</tr>
<tr>
<td><em>x</em> 16 page booklet mailed to families in medical practice. Symptoms covered: sore throat, diarrhea, fever, cough, minor trauma, runny nose. Controls received no intervention.</td>
<td>x 0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mulvihill, 1983 [48]</td>
<td>1000 university students</td>
<td>160 visits to the self-care center were recorded over a 9-month period.</td>
<td>Cost savings of $233 were projected for the nine month period. There was no formal evaluation of the center's effect on the number of visits to the nurse.</td>
</tr>
<tr>
<td><em>x</em> A self-care center for cuts was made available at a university health service. First aid supplies and guidelines on when to get professional care were provided.</td>
<td>0 x 0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Roberts, 1983 [49]</td>
<td>577 Missouri households</td>
<td>20% increase in percent of visits judged to be appropriate. No increase was seen in complications of URI's.</td>
<td><em>x</em> group had 29% fewer visits for URI. <em>P</em> &lt; 0.01. <em>x</em> group had 44% fewer 'unnecessary' visits. <em>P</em> = 0.001. A benefit to cost ratio of 1.9:1 was reported.</td>
</tr>
<tr>
<td><em>x</em> Four page booklet with guidelines on when to see the doctor. Presented in one-on-one education session. Symptoms: sore throat, fever, runny nose.</td>
<td>x 0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Siergachis, 1986 [50]

10 page booklet on URI mailed to home.

- 4723 HMO members
- 4% improvement in appropriateness of URI calls, $P > 0.05$. 19% fewer URI telephone consultations, $P < 0.05$. 4723 HMO members

Robinson, 1989 [51]

10 minute slide tape show on self-care guidelines for fever.

- 497 HMO households with children 43% minority
- $x$ group had improved fever knowledge scores, $P < 0.001$. $x$ group had 19% fewer URI telephone consultations, $P < 0.05$. 497 HMO households

Hansen, 1990 [52]

- $x$ group had improved fever knowledge scores, $P < 0.001$. $x$ group had 42% greater use of self-treatments and 39% fewer visits due to ‘worry’. Improvements in GP’s rating of appropriateness of visit, $P > 0.05$. 100 Danish households

Siergachis, 1990 [53]

- 790 HMO households
- 40% of $x$ group reported use of the booklet for URI. 2% improvement in appropriateness of visits, $P > 0.05$. $x$ group had 49% fewer physician home visits, $P < 0.05$. 790 HMO households
Appendix B

Evaluation Forms:

1. Old workshop evaluation form
2. Old follow-up evaluation form
3. New workshop evaluation form
4. New follow-up evaluation form
Healthwise Self-Care Workshop Evaluation

*Please make check marks in the boxes for your answers.*

1. Overall, how would you rate this program?
   - □ Excellent  □ Very Good  □ Good  □ Fair  □ Poor

2. Do you think that the workshop and book will help you improve the quality of self-care?
   - □ Yes  □ No  □ Not Sure

3. Do you think that the workshop and the book will help you strengthen your partnership with your doctor?
   - □ Yes  □ No  □ Not sure
   
   If "Yes", check all that apply.
   - □ By helping to decide when to see a doctor?
   - □ By using the "Healthwise Approach" (page 1 in the Healthwise Handbook).
   - □ By using the "Ask the Doctor Checklist" (page 2 in the Healthwise Handbook).
   - □ By helping you to better prepare for a doctor visit or medical service.
   - □ By helping you to share in the treatment decision with your doctor.

4. What part of the workshop was most useful to you? Why?
   ( )

5. What part of the workshop was least useful to you? Why?
   ( )

6. Please share any general comments or suggestions for improvement.

7. Would you recommend this workshop to others?
   - □ Yes  □ No  □ Not Sure

8. Please answer the following for research purposes only:
   - Gender: □ Male  □ Female  Age: ______

Thank You!
1. Did you attend the Healthwise Workshop where the Healthwise Handbook was distributed?
[ ] Yes   [ ] No (go to question #7)

2. Have you or other members of your family used the book or workshop information during the past six months?
[ ] Yes   [ ] No   [ ] Not Sure

If yes, how many times have you used the book?
[ ] None   [ ] 1-2   [ ] 3-5   [ ] 6+

3. Has the book or workshop information helped you improve the quality of home care for you or members of your family?
[ ] Yes   [ ] No   [ ] Not Sure

4. Has the book or the information in the workshop saved you or members of your family any of the following in the last six months?

Medical office phone calls
[ ] None   [ ] 1-2   [ ] 3-5   [ ] 6+

Physician office visits
[ ] None   [ ] 1-2   [ ] 3-5   [ ] 6+

Urgent Center visits
[ ] None   [ ] 1-2   [ ] 3-5   [ ] 6+

Emergency room visits
[ ] None   [ ] 1-2   [ ] 3-5   [ ] 6+

5. Has the book or workshop information helped you or members of your family to strengthen the partnership with your doctor?
[ ] Yes   [ ] No   [ ] Not sure
If "Yes", check all that apply.
[ ] By helping to decide when to see a doctor.
[ ] By using the "Healthwise Approach" (page 1 in the Healthwise Handbook).
[ ] By using the "Ask the Doctor Checklist" (page 2 in the Healthwise Handbook).
[ ] By helping you to better prepare for a doctor visit or medical service.
[ ] By helping you to share in the treatment decision with your doctor.

6. Would you recommend the Healthwise Handbook to others?
[ ] Yes   [ ] No   [ ] Not Sure

7. Please answer the following for research purposes only:
Gender:   [ ] Male   [ ] Female   Age: ___

Comments?
Healthwise Workshop Evaluation

Please answer the following questions concerning the Healthwise handbook/workshop.

1. Do you think that the Healthwise handbook will help you strengthen your partnership with your doctor? (circle one) Yes No Not sure

   If "yes", check all that apply:
   □ by helping to decide when to see a doctor
   □ by using the "Healthwise Approach"
   □ by using the "Ask the Doctor Checklist"
   □ by helping to better prepare for a health care visit
   □ by helping to share in the treatment decision
   □ other (please specify) __________________________

2. The Healthwise handbook will be a helpful resource for treating common health problems. (circle one)

   Strongly Agree Agree Neutral Disagree Strongly Disagree

3. I am confident in my ability to handle non life-threatening health problems. (circle one)

   Strongly Agree Agree Neutral Disagree Strongly Disagree

4. I know when to seek the help of a health care professional. (circle one)

   Strongly Agree Agree Neutral Disagree Strongly Disagree

5. How would you rate the workshop? (circle one)

   Excellent Good Fair Poor

6. What part of the workshop was most useful to you? Why?

7. What part of the workshop was least useful to you? Why?
Healthwise Workshop Evaluations

8. Would you recommend this workshop to others? (circle one)
   Yes  No  Not sure

9. Gender: (circle one)  Male  Female

10. Age: (circle one)
     25 or under  26-35  36-45  46-55  55 or over

11. Please feel free to write any other comments about the workshop or handbook:

   - Thank you -
Healthwise Follow-up Evaluation

Please answer the following questions concerning the Healthwise handbook/workshop as accurately as possible.

1. Did you attend the Healthwise workshop? (circle one)  
   Yes  No  
   If you answered "No" please skip to # 9

2. Do you think that the Healthwise handbook has helped you strengthen your partnership with your doctor? (circle one)  
   Yes  No  Not sure  
   If "yes", check all that apply:  
   □ by helping to decide when to see a doctor  
   □ by using the "Healthwise Approach"  
   □ by using the "Ask the Doctor Checklist"  
   □ by helping to better prepare for a health care visit  
   □ by helping to share in the treatment decision  
   □ other (please specify) ____________________________________________

3. The Healthwise handbook has been a helpful health care resource. (circle one)  
   Strongly Agree  Agree  Neutral  Disagree  Strongly Disagree

4. I am confident in my ability to handle non-life threatening health problems. (circle one)  
   Strongly Agree  Agree  Neutral  Disagree  Strongly Disagree

5. I know when to seek the help of a health care professional. (circle one)  
   Strongly Agree  Agree  Neutral  Disagree  Strongly Disagree

6. In the past six months, I have used the Healthwise handbook as a self-care resource. (circle one)  
   Yes  No

7. When family members or I have a health problem, I turn to the Healthwise handbook. (circle one)  
   Always  Most of the time  Some of the time  Never

8. The quality of my self care has increased as a result of the Healthwise handbook/workshop. (circle one)  
   Strongly Agree  Agree  Neutral  Disagree  Strongly Disagree

9. Gender: (circle one)  Male  Female
10. Age: (circle one)

25 or under  26-35  36-45  46-55  56 or over

11. Please feel free to write any other comments you have about the handbook/workshop:

- Thank you -
Healthwise Self-Care Workshop Evaluation

Please make check marks in the boxes for your answers.

1. ✔ Overall, how would you rate this program?
   □ Excellent  □ Very Good  □ Good  □ Fair  □ Poor

2. ✔ Do you think that the workshop and book will help you improve the quality of self-care?
   □ Yes  □ No  □ Not Sure

3. ✔ Do you think that the workshop and the book will help you strengthen your partnership with your doctor?
   □ Yes  □ No  □ Not sure

   If "Yes", check all that apply.
   □ By helping to decide when to see a doctor?
   □ By using the "Healthwise Approach" (page 1 in the Healthwise Handbook).
   □ By using the "Ask the Doctor Checklist" (page 2 in the Healthwise Handbook).
   □ By helping you to better prepare for a doctor visit or medical service.
   □ By helping you to share in the treatment decision with your doctor.

4. ✔ What part of the workshop was most useful to you? Why?

5. ✔ What part of the workshop was least useful to you? Why?

6. ✔ Please share any general comments or suggestions for improvement.

7. ✔ Would you recommend this workshop to others?
   □ Yes  □ No  □ Not Sure

8. Please answer the following for research purposes only:
   Gender:  □ Male  □ Female  Age: _______

Thank You!
HEALTHWISE SELF-CARE WORKSHOP - SIX MONTH SURVEY

1. Did you attend the Healthwise Workshop where the Healthwise Handbook was distributed?
   [ ] Yes  [ ] No (go to question #7)

2. Have you or other members of your family used the book or workshop information during the past six months?
   [ ] Yes  [ ] No  [ ] Not Sure

   If yes, how many times have you used the book?
   [ ] None  [ ] 1-2  [ ] 3-5  [ ] 6+

3. Has the book or workshop information helped you improve the quality of home care for you or members of your family?
   [ ] Yes  [ ] No  [ ] Not Sure

4. Has the book or the information in the workshop saved you or members of your family any of the following in the last six months?

   Medical office phone calls [ ] None  [ ] 1-2  [ ] 3-5  [ ] 6+
   Physician office visits [ ] None  [ ] 1-2  [ ] 3-5  [ ] 6+
   Urgent Center visits [ ] None  [ ] 1-2  [ ] 3-5  [ ] 6+
   Emergency room visits [ ] None  [ ] 1-2  [ ] 3-5  [ ] 6+

5. Has the book or workshop information helped you or members of your family to strengthen the partnership with your doctor?
   [ ] Yes  [ ] No  [ ] Not sure

   If "Yes", check all that apply.
   [ ] By helping to decide when to see a doctor.
   [ ] By using the "Healthwise Approach" (page 1 in the Healthwise Handbook).
   [ ] By using the "Ask the Doctor Checklist" (page 2 in the Healthwise Handbook).
   [ ] By helping you to better prepare for a doctor visit or medical service.
   [ ] By helping you to share in the treatment decision with your doctor.

6. Would you recommend the Healthwise Handbook to others?
   [ ] Yes  [ ] No  [ ] Not Sure

7. Please answer the following for research purposes only:
   Gender:  [ ] Male  [ ] Female  Age: _____
   Comments?
Healthwise Workshop Evaluation

Please answer the following questions concerning the Healthwise handbook/workshop.

1. Do you think that the Healthwise handbook will help you strengthen your partnership with your doctor? (circle one)  
   Yes  No  Not sure

If "yes", check all that apply:

☐ by helping to decide when to see a doctor
☐ by using the "Healthwise Approach"
☐ by using the "Ask the Doctor Checklist"
☐ by helping to better prepare for a health care visit
☐ by helping to share in the treatment decision
☐ other (please specify) __________________________

2. The Healthwise handbook will be a helpful resource for treating common health problems. (circle one)

   Strongly Agree  Agree  Neutral  Disagree  Strongly Disagree

3. I am confident in my ability to handle non life-threatening health problems. (circle one)

   Strongly Agree  Agree  Neutral  Disagree  Strongly Disagree

4. I know when to seek the help of a health care professional. (circle one)

   Strongly Agree  Agree  Neutral  Disagree  Strongly Disagree

5. How would you rate the workshop? (circle one)

   Excellent  Good  Fair  Poor

6. What part of the workshop was most useful to you? Why?

7. What part of the workshop was least useful to you? Why?
Healthwise Workshop Evaluations

8. Would you recommend this workshop to others? (circle one)
   Yes       No       Not sure

9. Gender: (circle one)       Male       Female

10. Age: (circle one)
    25 or under   26-35  36-45  46-55  55 or over

11. Please feel free to write any other comments about the workshop or handbook:

   - Thank you -
Healthwise Follow-up Evaluation

Please answer the following questions concerning the Healthwise handbook/workshop as accurately as possible.

1. Did you attend the Healthwise workshop? (circle one) Yes No
   If you answered "No" please skip to # 9

2. Do you think that the Healthwise handbook has helped you strengthen your partnership with your doctor? (circle one) Yes No Not sure
   If "yes", check all that apply:
   ☐ by helping to decide when to see a doctor
   ☐ by using the "Healthwise Approach"
   ☐ by using the "Ask the Doctor Checklist"
   ☐ by helping to better prepare for a health care visit
   ☐ by helping to share in the treatment decision
   ☐ other (please specify) __________________ 

3. The Healthwise handbook has been a helpful health care resource. (circle one)
   Strongly Agree Agree Neutral Disagree Strongly Disagree

4. I am confident in my ability to handle non-life threatening health problems. (circle one)
   Strongly Agree Agree Neutral Disagree Strongly Disagree

5. I know when to seek the help of a health care professional. (circle one)
   Strongly Agree Agree Neutral Disagree Strongly Disagree

6. In the past six months, I have used the Healthwise handbook as a self-care resource. (circle one) Yes No

7. When family members or I have a health problem, I turn to the Healthwise handbook. (circle one)
   Always Most of the time Some of the time Never

8. The quality of my self care has increased as a result of the Healthwise handbook/workshop. (circle one)
   Strongly Agree Agree Neutral Disagree Strongly Disagree

9. Gender: (circle one) Male Female
10. Age: (circle one)
   25 or under  26-35  36-45  46-55  56 or over

11. Please feel free to write any other comments you have about the handbook/workshop:

-Thank you-