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# An Economical Analysis of Asthma Wellness Programs

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Sample Paper #4 Original Research

## Introduction

Until I was 16 years of age, I made annual visits to the emergency room due to asthma complications. Each visit required admittance into the hospital for a minimum of five days. I have taken every type of medication offered to asthmatics to help me with my condition. I accumulated an abundance of sick days due this illness. The severity of my condition resulted in an invite to a health promotion program for asthmatics. It helped me recognize and treat my symptoms before they required medical attention. Once I decided to comply with the program, my hospital visits decreased drastically. I attribute that to my experience and education of the disease and its treatment.

Currently, I am attending college to attain my Master's degree in Health
Promotions and Wellness Management. The primary focus of this degree program is to
decrease the incidence of disease through education, thus making the population
healthier. A healthier population makes the economy more efficient, allowing more
individuals to be productive workers. My interest in doing this research is to provide
information supporting health promotion programs and their economical benefit, with an
emphasis on asthmatic conditions.

Health Promotion is a growing profession directed towards educating the population on healthier lifestyles. By promoting healthier lifestyles, individuals are able to increase their quality of life, allowing them the ability to engage in various activities. One of those various activities is employment. Healthier individuals are less likely to miss work and are able to work efficiently. The goal of health promotion programs is to create a population that values individual needs for health improvement (5). Therefore, individuals are more valuable to their employer.

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Asthma is a lung condition that affects 17 million Americans (1). Its effects could require hospitalization and may accumulate an abundance of sick days from employment, costing many organizations losses in production. Incorporating health promotions programs within hospital and corporation settings and educating asthmatics on their condition has decreased its prevalence and has allowed employees to work sufficiently. It has also decreased absenteeism among workers. The theory behind this correlation is the ability of health promotions to decrease the incidence of asthma attacks, resulting in more productive hours by healthier employees. The purpose of this research is to view the affects of health promotion programs in hospital and corporation settings. It will also predict how profit-maximizing firms will respond to the benefits and costs of incorporating asthmatic wellness programs.

## Literature Review

Hospital Health Promotions defines health promotion as "the maintenance and enhancement of existing levels of health through the implementation of effective programs, services and policies (7)." It is classified into primary, secondary, and tertiary intervention strategies in order to detect and limit the effects of disease. Primary prevention strategies address the occurrence of disease. Secondary prevention focuses on "early detection and intervention" of disease in an effort to decrease the effects (7). Tertiary prevention minimizes the effects of disease by keeping surveillance and maintenance aimed at preventing complications (3,7). By educating individuals on their asthmatic condition, it is tackling asthma on the all prevention levels.

Within recent years, businesses have begun to incorporate health promotion programs. By introducing these programs into their corporations, businesses have

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"decreased health care and life insurance costs, reduced absenteeism and employee turnover, and decreased workers' compensation claims (7)." Additional benefits include "improved employee morale, enhanced corporate image, and happier, healthier employees (7)."

Health promotion is also beneficial in a hospital setting, especially for asthmatics. The hospital setting has grown in popularity, as well as the corporation setting, in regards to health and wellness programs. A hospital setting would be appropriate in addressing health promotion for asthmatics due to their frequent doctor visits. According to Sol & Wilson, hospitals "have the responsibility to take a leadership role in helping ensure the good health of their communities (7)." It is also the responsibility of hospitals to "find ways to increase market share, find new revenue sources, expand outpatient services, and to more efficiently utilize current staff (7)." "For profit" hospitals are firm maximizes and they strive to minimize their production/service costs. Hospital Health Promotion states, "for survival and profitability, each provider must strategically position itself within its market in a unique and distinctive way in order to attain a sustainable competitive advantage using its own array of services, products, and programming (7)." Hospitals that have health promotion programs offer more to consumers in comparison to those that do not. This allows hospitals with the programs to gain the lead in the competition. So, hospitals are not only concerned with the health status and education of its consumer, profitability is also a main concern. Hospital health promotion programs have the ability to reach inpatients, outpatients, the community and corporations.

Asthmatic health promotion programs are incorporated in hospital settings to educate its victims on maintenance and primarily prevention. Participants are educated

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on asthmatic effects and its triggers in an effort to decrease the onset of the disease.

According to AIR POWER (a patient education program focused towards asthmatics), four, hour long sessions are used to educate the participants on the disease. With the completion of the programs, patients will understand their lung anatomy (as it pertains to asthma), asthmatic symptoms, and medication. Patients are also educated on how to stay calm and relax during an asthma attack. The program continues with the causes of asthma symptoms, controlling hazardous environment, and the actions to take when symptoms start, continue, and when to take emergency action (4).

From a corporation outlook, health promotions have become a way to do business. It is a way to reduce health care cost and to increase productivity with healthier employee's (6). While conducting research on the benefits of health promotion, an actual journal titled The American Journal of Health Promotions was useful in finding testimonies of specific corporations. The common goal of corporations today is to "tighten their belts, reduce waste and redundancy, and to stick to their knitting," as a result of increasing competition from international sources, deregulation, and the shifting of manufacturing to a service economy (2). In order to accomplish this, some corporations are allowing their employees the option to receive medical vouchers instead of offering the common medical insurance (2). However, does this reduce the occurrence of a particular disease or illness? Will this reduce the absenteeism and increase productivity? The reasoning for the voucher response is to the reduce cost of medical insurance, and is not an approach to reducing the incidence of illness. Most of the testimonies offered in this journal are in favor of promoting health within corporations in order to reduce the occurrence of illnesses, therefore decreasing health care cost.

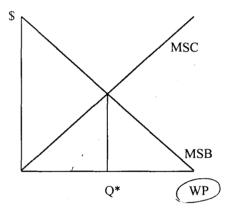
Glaxo Wellcome shares their experience with the introduction of health promotion programs and the success they gained from it. This company is dedicated to "fighting disease by bringing innovative medicines and services to patients and to the healthcare providers who serve them (8)." Glaxo Wellcome approaches its health promotion program by looking at the company's current spending on health benefits, along with the investment of health, productivity, and the quality of life of its employees. This approach helps the company not only look at the costs of health benefits, but also looks at reducing absenteeism. The incorporation of the health promotion includes primary, secondary, and tertiary prevention. Examples of primary prevention include health promotion topics like fitness and exercise, nutrition, coping enhancements, recreation, and work/home balance. Disease prevention of the primary sector includes smoking cessation, weight control, stress management, health risk appraisal, and health education. Injury prevention is also included in disease prevention and it has an emphasis in accident investigation, health hazard assessment, and industrial hygiene monitoring. Secondary prevention incorporates medical evaluations, injury diagnosis and treatment, screening programs, and health risk population education. Tertiary prevention includes self-care programs, disability management, and industrial hygiene management.

The rationale for incorporating an extensive program such as this are proven to increase the morale of employees, attract and retain employees, increase productivity, reduce time loss from work and disability, short and long term health benefit cost savings, and its ability to increase the employees' quality of life (8). Glaxo Wellcome attributes its health promotion program to being voted the "best place to work in North Carolina (8)." This award and numerous others awards have increased support of health

promotion programs by senior executives, "who appreciate how these programs keep employees healthy, productive, and at work (8)." "Those greedy bastards."

## Economic Theory

The economic theory for this research will use the cost and benefit analysis to predict the actions of profit maximizing corporations, including hospitals. It will show that the benefits of health promotion programs are worth the cost. The cost/benefit analysis compares the marginal social cost to corporations to the marginal social benefit of the programs.



WP= Wellness Programs MSC= Marginal Social Cost MSB= Marginal Social Benefit

This model predicts that a profit maximizing corporation will produce Wellness Programs

were marginal social cost equals marginal social benefit (Q\*). According to the model, as the cost of wellness programs increase (MSC shifts to the right), corporations will value the program less. The reverse states that as the cost of wellness programs decrease (MSC shifts to the left), corporations will value the program more. It also states that as the benefits increase (MSB shifts to the right), corporations will be willing to pay more for its production. This reversal states that as the benefits of the program decrease (MSB shifts to the left) corporations will pay less for its production.

The behaviors of hospitals and corporations today are following the predicted model. Currently, health and wellness programs are being produced when marginal benefits equal marginal cost. Many corporations are now using health promotion programs to promote healthier employees, allowing the growth of the profession.

### Data

According to the American Lung Association, direct medical expenditures and indirect costs equals the economic cost of Asthma. The indirect cost is the lost of productivity which added up to 4.6 billion dollars. The direct costs added up to 8.1 billion, totaling 12.7 billion attributed to Asthma. In the year of 2000, 3 million workdays were lost (1).

#### Economic Cost of Asthma, 2000

Category	Cost (in millions)	
Direct Medical Expenditure		
Hospital Care		
Inpatient	3,474.90	,
Emergency Room	656.10	- fre
Outpatient	421.20	۱ حل
Physician Services	1 well	(./
Inpatient	324.00	- 700
Outpatient	769.50	Nat' -
Medication	2,446.20	$\sim \Delta$
		DAIN
All Direct Expenditures	8,091.90	is the wife for a
Indirect Costs		
School days lost	1,495.00	
Loss of work	1,495.00 225.40 349.60 837.20	rese
Outside Employment	Heet!	
Men	225.40	$\gamma$
Women	349.60	,
Housekeeping	837.20	٠
Mortality	·	
Men	805.00	
Women	887.80	
All Indirect Costs	4,600.00	

All Costs

12,691.90

In an effort to reduce these cost, health promotion programs will educate those that suffer from asthma. With knowledge of the disease, individuals are capable of managing it on their own, as oppose to seeking hospital care and physician services. This will directly decrease these costs. In addressing the missed workdays, individuals will have the knowledge to recognize an asthma attack before it actually occurs. This will directly decrease the days missed at work.

#### **Cost of Asthmatic Programs**

An example of an asthmatic program provided by AirPower states that sufficient education of the disease is accomplished with four, -hour sessions. A qualified person, such as a nurse or health educator, is required to teach the class about the disease complications and preventative measures. Audio-visual materials are likely to be available regardless of the setting, whether it is a corporation or in a hospital setting. Sample materials, like inhalers and other medications are available from the health care provider. The direct cost of promoting a health promotion program of this caliber would include the salary of the health educator and the administrative duties of acquiring handouts, setting, recruitment, and enrollment of participants. Therefore, the opportunity cost of participating in the program is low. Within the corporation setting, employees will receive the education for free. The hospital setting my charge a miniscule price to its participants, if any at all.

These programs will be able to educate numerous individuals, giving them the advantage of treating themselves and improving their condition through preventative measures. By paying the salary of the health educator, you are reaching an abundance of

individuals, giving them the benefit of conquering their disease. This will reduce the loss of workdays and increase productive work hours. In this situation, the benefit of the health promotion programs equals the costs of its production. Moreover, corporations are likely to purchase its service.

## **Discussion**

Although asthma is a disease that affects 17 million American's, it is unknown how many asthmatics are working in a particular corporation. For a corporation to use an asthmatic program, they should have a record of diagnosed asthmatics, and that number should be significant. Significant in this situation is defined as benefits equivalent to the cost of the wellness program. If this is not the case, corporations will not waste their money on this program. However, for those corporations that do have a significant number of asthmatics on board, this program will be beneficial and the particular corporation will purchase its service, according to the cost/benefit analysis.

In the hospital setting, asthmatic programs are beneficial for those hospitals that receive profits for their services. It allows them to be more competitive in the market. As stated earlier, "hospitals have the responsibility to take a leadership role in helping ensure the good health of their communities," in addition to the competitive nature (7). However, it is also their responsibility to "find ways to increase market share, find new revenue sources, expand outpatient services, and to more efficiently utilized current staff (7)." The hospital setting also has the advantage to reach more asthmatics due to their frequent visitation. Within this setting, the cost/benefit analysis would be in favor of promoting asthmatic health and wellness programs.

## **Conclusion**

Health and wellness programs are increasing their frequency in corporations and hospital settings. This increase in frequency is due to the benefits equivalence of the costs of sponsoring the programs. The benefits for corporations are decrease cost of health care and increase work productivity due to the increased health of their employees. The benefit of the hospital setting is nearly the same. They are also decreasing their production cost by decreasing the number of hospital visits. Some hospitals are profit maximizes and attain profit in other areas like health promotion programs.

Asthma is a disease that affects a large portion of Americans. Many these asthmatic Americans are within a work force that depends on their productivity. Once a person falls ill to this disease, their productivity decreases drastically. They tend to accumulate an abundance of sick days, costing their employers a lot of money. Incorporating asthmatic programs will help reduce the loss of production due to this disease. However, the programs are only beneficial if the marginal social costs are equal to the marginal social benefit.

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