

Asthma

Introduction:

The topic I chose to research for my Web Critique project was asthma. Asthma is a chronic respiratory system condition in which the airways and air passing paths of the body occasionally become inflamed, constrict, or become lined with mucus, which stunts air flow. These characteristics contribute to asthma attacks, which can be caused by exposure to allergens, tobacco smoke (second-hand smoke), degrees of the air temperature (either cold air or warm air), pet hair, perfume, over-exertion, and even emotional stress or anxiety. Symptoms resulting from the constriction of airways can be coughing, wheezing, tightening of the chest, and shortness of breath. The time periods in between attacks or episodes are accompanied by normal behavior and individuals can feel fine. However, mild symptoms can erupt, or depending on their activity (possibly exercise) the individual may see the affects of their asthma. Some cases of asthma are mild, but there have been life-threatening instances associated with asthma, and even deadly instances. There are medications that control the effects of asthma, and help with the prevention of attacks. Individuals with asthma can also maintain their symptoms by changing or placing themselves in a correct environment in which they know does not trigger their symptoms. I wanted to research this chronic condition because of its increasing population among children, and in today's society. Because this illness is becoming more popular in its diagnosis, I wanted to research its prevalence, and learn more about asthma in general. By researching 16 web sites (4 on background information, 4 on research, 4 on statistics, and 4 on consumer information) I found some satisfying, while others I found to be not so beneficial to my project.

Section 1: Background and Problem Statement

Healthy People 2010: Asthma (27)

<http://www.healthypeople.gov/document/html/objectives/01-04.htm>

When I searched the Healthy People 2010 site for "asthma", I only received one result. The article that it brought me to be very confusing because it consisted of more diagrams and charts as opposed to written factual information. This Web site, being one of four informational sources, did not give me any basic information at all. Had I know more about this subject before researching it, maybe I would have known how to interpret the charts in a better, clearer way.

National Heart Lung and Blood Institute (25)

http://www.nhlbi.nih.gov/health/dci/Diseases/Asthma/Asthma_WhatIs.html

As soon as this Web site loaded I knew it would be informational. There was a labeled picture right on the first page along with an informational paragraph on asthma. It was titled, "What is Asthma?" and explained the basics on the subject. It also consisted of an overview (where the picture was placed), on asthma and how it is caused in the body. It also gave an outlook, which explained that asthma is incurable, its medication process, and how an individual can go about getting treatment.

U.S Environmental Protection Agency (26)

<http://www.epa.gov/asthma/>

This Web site was confusing to navigate, and while it did contain useful information, it also contained an equal amount of information that I did not find beneficial. It discussed more about the issues with asthma in the community, and gave information about Asthma Awareness Month, which is in May. If this site contained more background information along with the facts about its designated awareness month, it would have been much more beneficial.

Asthma and Allergy Foundation of America (29)

<http://www.aafa.org/display.cfm?id=8>

Brief in information, this Web site contained very little background knowledge. It only consisted of a small paragraph on general information about asthma, and a picture of an inhaler. I did not think this Web site was beneficial as opposed to other sites. Though it was organized, having only one small paragraph with very little information did not make me want to search that site for any additional information because I figured from the negative results I received, that the rest of the site would do me no good.

Section 2: Research

The New England Journal of Medicine (24)

<http://content.nejm.org/cgi/content/abstract/326/13/862>

An economic evaluation of asthma in the United States

Research: Distribution of health care resources used for asthma

Results: The cost of illness related to asthma in 1990 was estimated to be \$6.2 billion. Inpatient hospital services represented the largest single direct medical expenditure for this chronic condition, approaching \$1.6 billion. The value of reduced productivity due to loss of school days represented the largest single indirect cost, approaching \$1 billion in 1990.

Although asthma is often considered to be a mild chronic illness treatable with ambulatory care, we found that 43 percent of its economic impact was associated with emergency room use, hospitalization, and death. Nearly two thirds of the visits for ambulatory care were to physicians in three primary care specialties--pediatrics, family medicine or general practice, and internal medicine.

National Institute of Environmental Health Sciences (26)

<http://www.niehs.nih.gov/health/topics/conditions/asthma/>

Asthma and Wheeze in Young Women Taking Oral Contraceptives

Research: Oral contraceptive use by young women may influence the occurrence of asthma and wheezing according to research performed at the University of Southern California Keck School of Medicine. Oral contraceptive use was associated with about an 80% reduction in wheezing, a sign of a flare up of the disease, in women with a history of asthma.

Results: NIEHS-supported team conducted an epidemiologic study in a population of 905 women aged 13-28. The results were somewhat variable depending on the whether women had a history of asthma. In women without asthma, oral contraceptive use was associated with a 75% increase in the prevalence of wheeze. And women who reached puberty before age twelve were twice as likely to develop asthma after puberty. The age at which girls reach puberty has been declining in the same time period that asthma prevalence has been increasing. The authors conclude that sex hormones may play an important role in asthma occurrence. Oral contraceptive use and asthma are common among young women; therefore, these findings are likely to have public health implications. The authors also suggest that clinicians may want to inform young women about the potential effects of oral contraceptive use on asthma-related respiratory symptoms.

Elsevier Article Locator (18)

<http://linkinghub.elsevier.com/retrieve/pii/S0091674906030302>

Characterization of the severe asthma phenotype by the National Heart, Lung, and Blood Institute's Severe Asthma Research Program

Objective: The goal of the Severe Asthma Research Program is to identify and characterize subjects with severe asthma to understand pathophysiologic mechanisms in severe asthma.

Results: A total of 438 subjects with asthma were studied (204 severe, 70 moderate, 164 mild). Severe subjects with asthma were older with longer disease duration ($P < .0001$), more daily symptoms, intense urgent health care utilization, sinusitis, and pneumonia ($P \leq .0001$). Lung function was lower in severe asthma with marked bronchodilator reversibility ($P < .001$). The

severe group had less atrophy by skin tests ($P = .0007$), but blood eosinophils, and exhaled nitric oxide levels did not differentiate disease severity. A reduced FEV1, history of pneumonia, and fewer positive skin tests were risk factors for severe disease. Early disease onset (age < 12 years) in severe asthma was associated with longer disease duration ($P < .0001$) and more urgent health care, especially intensive care ($P = .002$). Later disease onset (age ≥ 12 years) was associated with lower lung function and sinopulmonary infections ($P \leq .02$).

Archives of Internal Medicine (27)

<http://archinte.ama-assn.org/cgi/content/abstract/159/11/1237>

Sex Differences Among Adults Presenting to the Emergency Department with Acute Asthma

Objective: To compare Emergency Department visits for acute asthma among women vs. men

Results: Of 1228 patients, 64.3% were women. Women did not differ significantly from men by age or education level, but women were more likely to be insured, have a primary care provider, and use inhaled corticosteroids. Women had a higher peak expiratory flow rate than men, both early (expressed as percent predicted) and late in the ED stay. Despite this, women were more likely to be admitted to a hospital than men. At 2-week follow-up, women had not experienced more relapse events but were 1.5 times more likely to report an ongoing exacerbation.

Section 3: Statistics

American Academy of Allergy Asthma & Immunology (23)

http://www.aaaai.org/media/resources/media_kit/asthma_statistics.stm

This Web site seemed statistically accurate. It contained all of the possible statistics you could think of dealing with asthma. It includes information about the prevalence in asthma, which increased 75% from 1980-1994. It also contained statistics dealing with the United States population. For example, it states that approximately 20 million Americans suffer from asthma. This site contains a lot of beneficial information regarding statistics, and helped me gain some understanding about how asthma is affecting the population.

National Institutes of Health (21)

<http://www.nhlbi.nih.gov/health/prof/lung/asthma/asthstat.pdf>

This Web site was more of a fact sheet, and being that it was this way, it was easier to read. It gives an introduction, and easy to read graphs that were easy to comprehend. It contained information on asthma's prevalence, emergency department visits associated with asthma, hospitalizations, mortality rate, and costs related to asthma. The cost of asthma in 1998 was

estimated to be about \$11.3 billion, which is a lot. It also stated that in 1995, 5,637 people died from asthma. All of this relative information from this Web site helped me gain insight on the subject due to its informational aspects. It gave historical statistics, which helped me understand how it is today.

National Center for Health Statistics (22)

<http://www.cdc.gov/nchs/products/pubs/pubd/hestats/asthma/asthma.htm>

Being that this Web site contained statistics from the year 2002, I found it more up to date than the previous Web site explained. There is also a link as to which you could receive statistical information for the years 2003-2005, which is more up to date. This Web site is also very colorful at the top, which makes it more appealing to read. It also contained easy to read bar graphs in color, and a brief history on the subject so that anyone who knows nothing about asthma can gain some understanding about it. I learned that children 5 to 17 years of age missed 14.7 million school days due to asthma, and that adults 18 years of age and older who were currently employed missed 11.8 million work days due to asthma. These statistics help me see how important it is to understand asthma, and what effects its hold on society.

American Lung Association (21)

<http://www.lungusa.org/site/pp.asp?c=dvLUK9O0E&b=33347>

The American Lung Association Web site is confusing, and reading the data and statistics page that was supposed to relate to asthma, it contained more information about lung disease rather than asthma. It did provide links to air quality charts, and charts related to all of the possible things that could accompany the outcome of asthma, but I did not find the information posted on the site really beneficial.

Section 4: Consumer Information

Society for Women's Health Research (20)

http://www.womenshealthresearch.org/site/PageServer?pagename=hs_consumerfacts_asthma

I found this site interesting and beneficial to my understanding. It stated the issues associated with asthma and how it may affect an individual, then following that paragraph it explained that asthma is more common in women than in men. I also learned from this Web site that African-American women have a higher chance of dying from asthma than most other racial groups. The site also contained a paragraph named, "What Can I Do?" which explained how there is no cure for asthma and what a person with asthma can do to maintain a normal life with the disease.

U.S Food and Drug Administration (22)

<http://www.fda.gov/consumer/updates/asthmameds051308.html>

This Web site was very plain and confusing. It displayed information about a specific drug called "Foradil Aerolizer" which is a powder that can be inhaled to prevent wheezing and breathing problems. The site gave information regarding this specific drug and how to take it properly. This site would definitely be informational for those with asthma or who are taking this drug prescribed to them. However, I did not find this site very informative about general products associated with asthma.

Teens overestimate how well they manage asthma (23)

<http://blogs.consumerreports.org/health/2008/06/teens-overestim.html>

I did not see how this article was supposed to relate to consumer information. If I was looking for information regarding teens and their asthma, then it would have been informative, but this site did not explain anything consumer related.

Health InForum (21)

<http://www.healthinforum.org/eMedicine-Health-Asthma-info-23157.html>

All this site consisted of was links to sources. This page itself did not contain any direct information on consumer statistics associated with asthma, let alone any information on asthma alone. This is definitely the least informational of all the Web sites, I learned nothing from it, and did not help me at all

Conclusions:

Section 1: Background and Problem Statement

Best Web site:

National Heart Lung and Blood Institute

http://www.nhlbi.nih.gov/health/dci/Diseases/Asthma/Asthma_WhatIs.html

I came to the conclusion that this was the best Web site. It gave much insight about asthma, and very beneficial background information. Also, the fact that it contained pictures, I found extremely beneficial and helped me better understand asthma.

Worst Web site:

Health InForum

<http://www.healthinforum.org/eMedicine-Health-Asthma-info-23157.html>

All this site consisted of was links to sources. This page itself did not contain any direct information on consumer statistics associated with asthma, let alone any information on asthma alone. This is definitely the least informational of all the Web sites, I learned nothing from it, and did not help me at all.

Section 2: Research

There has been a lot of research done regarding asthma and its effects. I learned how asthma affects the economy, and how those affects are related to health care. All of the sites I found were interesting in their own way. I discovered how many different experiments are done regarding asthma, and how they are done for human benefit.

Section 3: Statistics

The National Center for Health statistics was the most beneficial Web site according to statistical information. I learned a lot from this Web site because it contained the most up to date information. I learned that children 5 to 17 years of age missed 14.7 million school days due to asthma, and that adults 18 years of age and older who were currently employed missed 11.8 million work days due to asthma. These statistics help me see how important it is to understand asthma, and what effects its hold on society.

Section 4: Consumer Information

Three out of four of these sites were bad. The only informational site was from the Society for Women's Health Research. It was the easiest to understand, and I learned that asthma is more common in women rather than in men. I found that as I graded these sites, they mostly had low scores.

Back to Betty C. Jung's Web site	http://www.bettycjung.net/
Back to Web site Critique Reports Directory	http://www.bettycjung.net/Pch201wsreports.htm

Asthma (Class Handout)

- ✓ After looking for four Web sites containing background information and a problem statement, I found that the best site was http://www.nhlbi.nih.gov/health/dci/Diseases/Asthma/Asthma_WhatIs.html, by the National Heart Lung and Blood Institute. As soon as this Web site loaded I knew it would be informational. There was a labeled picture right on the first page along with an informational paragraph on asthma. It was titled, "What is Asthma?" and explained the basics on the subject. It also consisted of an overview (where the picture was placed), on asthma and how it is caused in the body. It also gave an outlook, which explained that asthma is incurable, its medication process, and how an individual can go about getting treatment.

- ✓ The Web site that contained the best information regarding the research aspect of asthma was <http://www.niehs.nih.gov/health/topics/conditions/asthma/>, by National Institute of Environmental Health Sciences. It was research involving Asthma and Wheeze in Young Women Taking Oral Contraceptives. It was the most interesting research to read about. I also chose this as the best research site because it may affect many teenage girls and women in society, who are taking oral contraceptives. I thought it was the most intriguing and beneficial.

- ✓ The best statistical related Web site I found was <http://www.nhlbi.nih.gov/health/prof/lung/asthma/asthstat.pdf>, by the National Institutes of Health. This Web site was more of a fact sheet, and being that it was this way, it was easier to read. It gives an introduction, and easy to read graphs that were easy to comprehend. It contained information on asthma's prevalence, emergency department visits associated with asthma, hospitalizations, mortality rate, and costs related to asthma. The cost of asthma in 1998 was estimated to be about \$11.3 billion, which is a lot. It also stated that in 1995, 5,637 people died from asthma. All of this relative information from this Web site helped me gain insight on the subject due to its informational aspects. It gave historical statistics, which helped me understand how it is today.

- ✓ The Web site in which I found the best consumer information was http://www.womenshealthresearch.org/site/PageServer?pagename=hs_consumerfacts_asthma, by the Society for Women's Health Research. I found this site interesting and beneficial to my understanding. It stated the issues associated with asthma and how it may affect an individual, then following that paragraph it explained that asthma is more common in women than in men. I also learned from this Web site that African-American women have a higher chance of dying from asthma than most other racial groups. The site also contained a paragraph named, "What Can I Do?" which explained how there is no cure for asthma and what a person with asthma can do to maintain a normal life with the disease.