

Pollution and Heart Disease

Introduction

- The topic that I chose for this assignment is pollution and heart disease. I chose this topic because I had a next door neighbor who was very close to me who died from a heart disease. Heart disease is an abnormality of the heart or of the blood vessels supplying the heart that impair its normal functioning. Pollution is the introduction of contaminants into an environment that causes instability, disorder, harm or discomfort. Heart disease is among one of the number one killers in America between both men and women. Heart disease kills 40 percent of Americans; men and women ages forty-five to forty-nine have the highest age bracket of having heart problems. Men, however, get diagnosed with heart disease four times more than women. There are many factors that contribute to this deadly disease. I will be addressing the issue of pollution and how it affects heart disease. Types of pollution can range from land, water, radioactivity, and thermal. Pollution increases the risk of heart disease.

Section 1: Background and Problem Statement

- Web site #1: <http://www.protectingourhealth.org> (Score: 30)
- Web address: <http://www.protectingourhealth.org/news/science/cardiovascular/2005-0601cardiopeerreview.htm>
- Information:

This Web site was very helpful with presenting background information on cardiovascular disease; how it is caused and the repercussions. It briefly describes how the various types of pollution will affect an individual heart condition. This site informs you about the different types of people this condition affects, how it affects them and the various types of effects it has on

them. I feel this Web site is perfect on the basis that it has concise background information.

- Web site #2: www.americanheart.org (Score: 31)

- Web address:

<http://www.americanheart.org/presenter.jhtml?identifier=4419>

- Information:

This site was very useful with background information about how specific pollutions can adversely affect the health of a person's heart. I like this Web site because it speaks to such environmental issues such as the particular elements within the pollutants, carbon monoxide, nitrogen dioxide, particulate matter and sulfur dioxide. This Web site is especially useful as a leisure education outlet to the public that is unaware of the effects of smoking on the environment and the heart.

- Web site #3: www.kdheks.gov (Score 24)

- Web address: http://www.kdheks.gov/cardio/cardio_disease.htm

- Information:

This site was not really very helpful with giving substantial background information on disease and pollution. It does however give you symptoms and risk of heart disease, which is helpful in identification.

- Web site #4: content.onlinejacc.org (Score 28)

- Web address: <http://content.onlinejacc.org/cgi/content/full/39/6/943>

- Information:

This site was very helpful as it pertains to air pollution and heart disease. The study by Suwa et al shows how pollution directly affects cardiovascular disease. They present convincing experimental evidence that particulate air pollution induces progression of atherosclerosis. I would recommend this Web site.

Section 2: Research

- Web site #1: www.ncbi.nlm.nih.gov (Score 29)

- Web address:
http://www.ncbi.nlm.nih.gov/pubmed/19394925?ordinalpos=3&itool=EntrezSystem2.PEntrez.Pubmed.Pubmed_ResultsPanel.Pubmed_DefaultReportPanel.Pubmed_RVDocSum

- Summary of the research:

This article consists of surveys taken across America to find out about people who have reported cases of heart disease after been exposed to air pollution. This survey was done among adults 30 years or older from 1995 -2005. It shows the results of the surveys in specific areas of the country. I would recommend this web site only for surveys purpose.

- Web site #2: circ.ahajournals.org (Score 27)

- Web address: <http://circ.ahajournals.org/cgi/content/abstract/106/8/933>

- Summary of the research:

This journal is very helpful with actual tests on how air pollution affects individuals over a period of time. These were tests done over a period of 6 months in Finland. It shows all the percentages of particles of pollutants in the air. I would recommend this site for those who want to see exactly how air pollution will affect a person over a period of time.

- Web site #3: www.pubmedcentral.nih.gov (Score 29)

- Web address:
<http://www.pubmedcentral.nih.gov/articlerender.fcgi?artid=1241113>

- Summary of the research:

This article examined the occurrence of increased vulnerability among persons with these conditions to daily variations in ozone, carbon monoxide, nitrogen dioxide, or particulate matter less than or equal to 10 micro m in

aerodynamic diameter. Air pollution was most strongly associated with myocardial infarction hospital admissions. This test showed how different levels of pollution can affect individuals in an area.

- Web site #4: aje.oxfordjournals.org (Score 29)
- Web address:
<http://aje.oxfordjournals.org/cgi/content/abstract/142/1/23>
- Summary of the research:

This research took place in Detroit Michigan. This study examined the association between air pollution and cardiovascular hospital admissions for persons aged 65 years and older in the Detroit, Michigan, metropolitan area during the years 1986–1989. This site shows how long pollution has been reported to cause heart disease and increasing amounts of hospital admittance due to this condition.

Section 3: Statistics

- Web site #1: washington.chenw.org (Score 27)
- Web address:
http://washington.chenw.org/RIgroup/cardio_disease.html
- Summary of the research:

This site stated all the deaths that happened due to heart disease among American Indian/Alaskan Natives, Asian and Pacific Islanders, Blacks, Hispanics and Whites. Blacks had the highest death rate out of all the ethnicities. The site also stated that the World Health Organization has estimated that 16% of the total burden of cardiovascular disease can be attributed to environmental pollution, with a range of 7 - 23%. This site has a lot of useful information for all races. I learned that black people are at the highest risk of heart disease.

- Web site #2: circres.ahajournals.org (Score 30)
- Web address: <http://circres.ahajournals.org/cgi/content/full/99/7/692>
- Summary of the research:

This site states that even though secondhand smoke (SHS) has only recently been classified as a pollutant, and the data show that 70% to 80% of deaths attributable to SHS are caused by heart disease. That was very interesting to know that cigarette smoke is actually a pollutant that adversely affects the environment and its environs. This site has a lot of useful information as well as statistics that would be both helpful and useful to everybody.

- Web site #3: www.cdc.gov (Score 30)
- Web address: <http://www.cdc.gov/heartDisease/statistics.htm>
- Summary of the research:

This site is primarily about heart disease and how it affects America and the world it gives statistics about the amount of people it affects. In 2005, 652,091 people died of heart disease (50.5% of them women). This was 27.1% of all U.S. deaths. The age-adjusted death rate was 222 per 100,000 populations. This is a very socking fact that we should all think about and try to help reduce the amount of pollutants we contribute to the environment.

- Web site #4: library.thinkquest.org (Score 26)
- Web address:
http://library.thinkquest.org/26026/Environment_Watch/air_pollution_statistics.html
- Summary of the research:

This site includes statistics for air pollution in different countries. There is a pdf file, which shows every statistic from the population to the nitrogen dioxide micrograms per cu. m. The other limit of this site is that all these statistics are in 1995, so the database has not been updated in 14 years.

Section 4: Consumer Information

- Web site: content.nejm.org (Score 30)
- Web address: <http://content.nejm.org/cgi/content/full/356/5/447>
- Summary of the research:

This site has adequate information that would educate the typical reader. There is a lot of literature to read but if you do read through it, you will have a firm understanding of the issue at hand. I would recommend this site, as it is very helpful for the understanding of pollution and how it affects heart disease.

- Web site: www.the-aps.org (Score 29)
- Web address: <http://www.the-aps.org/press/releases/09/8.htm>
- Summary of the research:

This site is not as informational on the broad topic of pollution; it narrows it down to how air pollution affects heart disease. The information is concise and to the point. It shows different pollutants. This site is ideal for someone who is just looking for information on air pollution and how it is connected to heart disease.

- Web site: www.theheart.org (Score 27)
- Web address: <http://www.theheart.org/article/840403.do>
- Summary of the research:

This site speaks to pollution issues affecting the Chinese people in China. This Web site does not go in depth on the issue but it just brushes on the issues and gives a few statistics. I would not recommend this Web site for a person who is looking to learn about pollution in China.

- Web site: <http://www.cvmd.org/> (Score 25)
- Web address: <http://www.cvmd.org/>
- Summary of the research:

This site is much different from all the other sites, as the information is given through an audiovisual medium. The information was not a lot, but enough to give the general public a general understanding of the issue at hand. This way of giving the information is also easier than having to read the same information. The video does not go in depth but just enough to give a basic understanding.

Conclusion

○ Section 1: Background and Problem Statement

- The best Web site was www.americanheart.org
- I chose this as my best site because it provided me with so much information that I can take with me and apply to life. I feel as if this site has given me the knowledge to now know how to try and help make this earth safer for me and everyone around me. This site was well organized and very easy to use. It was very user friendly as I could maneuver around the site with ease. I would recommend this site.
- The worst Web site was www.Kdheks.gov
- This site had little information; the little that they had was not clear and easy to understand. This site was poorly organized and froze on a number of occasions. I would not recommend this site for any research.

○ Section 2: Research

- New information I learned include:
- I learned that there are many different particles in the air which cause it to be classified as polluted such as carbon monoxide, nitrogen dioxide, or particulate matter less than or equal to 10 micro m in aerodynamic diameter. All these pollutants can be found from emissions from cars to just the smoke from a cigarette every one ad up and causes a great effect on the ozone.

○ Section 3: Statistics

- New statistics I learned include:
- That black people have the highest death rate out of all the ethnicities. I also learned that World Health Organization has estimated that 16% of the total burden of cardiovascular disease can be attributed to environmental pollution, with a range of 7 - 23%. This has opened my eyes how to view my environment and how that by what I am doing now can affect the condition of the

environment in the future, as I see where the rate of pollution goes up every year by at least 7%.

○ **Section 4: Consumer Information**

○ **The best Web site was content.nejm.org**

○ **This site was just filled with lots of information that is great in helping a person who knows not about pollution and heart disease. The reading is a lot but it is worth the time.**

○ **The worst Web site was www.theheart.org**

○ **Even though this site was concentrating on one nation the information was not substantial. This site cannot help a person who has no idea about the conditions in China. This site was overall not informative enough.**

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

Presentation Outline

- **Introduction**

Name and my topic

- **Background /Statement Problem**

What is Pollution and Heart Disease?

- **Research**

Most interesting find which is that heart disease affects mostly adults 30 years and older. This is interesting because I believe that if a younger adult lives in an area that has higher pollution rates that it would affect them too.

- **Statistics**

The most interesting that I found was that Blacks have a higher chance of contracting a heart disease from pollution. This is interesting because I myself am a black person and this is something that can affect me.

- **Conclusion**

Pollution and heart disease is a serious problem that is affecting us all and if everyone did their part by recycling and cutting down on the emissions of different gasses we can make the environment better for everybody.