

SSP203CountrymanBIO181.doc.

My plan is to have my Biology 181 students complete an assignment that involves researching the current evidence that supports (or does not support) the use of vaccines for preventable disease. They will research this in a variety of ways including interviewing other people about their views and searching for peer-reviewed resources. They will also look into the use of vaccines in developing countries. Students will utilize the Stanford Design Model in their approach. The assignment will tie in well with the lymphatic system and immunity because vaccines relate to the immune system functioning. It also has the potential to tie into other units of the course depending on the preventable disease chosen and what organ system it is affiliated with most commonly.

The goal of the assignment is to have them learn about vaccines and address misconceptions, but also to address social justice because there are many people across the globe that do not have access to vaccines for preventable disease largely due to location or for economic reasons. I hope to be able to incorporate it into my Biology 181 (Anatomy and Physiology II) course in the Spring 2016.

The assignment will address the following General Education Learning Outcomes:

- Reasoning (Identify and solve problems)
- Information literacy (Locate, evaluate, and use information effectively)
- Scientific awareness (Understand and apply the scientific method of inquiry)

Other Learning Outcomes for the assignment include:

- Acquire an appreciation for the importance of scientific and technological knowledge to the ability of an individual to function in modern society.
- Understand the process by which physiological data is collected and analyzed thereby developing the ability to judge the merits of scientific findings including those reported in the media.
- Understand how to differentiate a peer-reviewed resource from other resources on the internet.
- Develop writing skills.
- Gain an understanding of how vaccines work.
- Develop an understanding of the meaning of social justice and how vaccine availability relates to social justice.

Assignment:

Vaccines and Society

40 points

Preliminary Information

In recent years, one of the more controversial topics covered by the media involves the use of vaccines and whether children in the U.S. are receiving too many vaccines or vaccines with side effects. Your job in completing this assignment will be to research the use of vaccines and the perceived pros and cons versus the pros and cons supported by scientific literature. You will also explore the use of vaccines (or lack of) in developing countries. There will be several parts of the assignment to complete.

Part I: What are the pros and cons of vaccines according to the public? (___/5)

For this part, you will use various websites to research the opposing positions on vaccines and their necessity (those for vaccinations and those against) as well as interview 4 people you see on campus (asking them if they believe in vaccinations for children and why/why not). You want to look for websites that provide stories about children that were or were not vaccinated and the consequences. Here are a few ideas to get you started:

<http://www.voicesforvaccines.org/blog/>

<http://www.thinktwice.com>

In a Word Document, create a list of at least 4 websites and the names of the 4 people you interviewed and give each one a number. Then, create a table that lists the PROS for vaccines (from those in support) and CONS (for those against) with the number of the resource shown behind it. List at least 6 PROS and 6 CONS.

Part II: Does scientific literature support or counter the public view? (___/10)

After exploring the views presented by various websites, you will now use research engines provided by the Moraine Valley library to search for peer-reviewed resources to try and counter or support the findings you listed in Part I. The Health and Biological Databases are a good location to start with. You must do this for at list 4 of the 6 Pros and Cons you listed. Provide a list of the specific resources you used. These must be peer-reviewed resources. You will create a copy of the Table you made in Part I and then add a column or notation that summarizes your research finding with the resource(s) noted. You will be evaluated on both your summary as well as whether the resources you utilized are peer-reviewed and quality resources.

Part III: What are the potential side effects and benefits of vaccines (___/5)

Pick 2 vaccines that are currently administered to children in the U.S. Find the vaccine on the CDC's website and list the disease that the vaccine protects against (benefit) as

well as the side effects (both mild and serious).

Part IV: Vaccines and Social Justice (____/10)

A. Go to the following website and read one of the case stories toward the bottom of the webpage:

http://origin-www.unicef.org/immunization/index_81467.html

Write a one page summary of the case study in your own words.

B. Based on the vaccine in the case study, further research the issues associated with availability of the vaccine in that region of the world. In your written discussion, indicate:

What are the issues that stand in the way of individuals receiving vaccines?

What are the repercussions of individuals not receiving the vaccine?

What is being done to resolve this issue; are there agencies working to combat the lack of vaccine?

Do you believe more can be done to fix the problem?

What could you do to help such a cause?

Any other comments?

Part IV: Promoting Awareness (____/10)

Using Microsoft Word or another computer program, create a tri-fold brochure that will inform the public about vaccines. You may choose to make a brochure that covers vaccines in general or goes into the specifics for one particular vaccine. Your brochure should include sections that:

1. address the purpose of vaccines and how they work.
2. explain the typical side effects of vaccines (risks).
3. explain why vaccines are important for public safety and address any misconceptions about vaccines.