“Issues in Biology”

Should Mass Vaccinations Be Required?

Small pox is a deadly disease that produces pustules (small blisters) all over the body. Smallpox had been brought under control by a worldwide vaccination program. It appeared that vaccination had eradicated every trace of smallpox in nature. As a result, the routine vaccination of children against small pox was ended in the United States in 1971. No new small pox cases have been reported anywhere since 1978. Only two laboratories, one in Atlanta, Georgia, and the other in Russia, are known to have samples of the virus

Today there is concern that certain infectious diseases, such as smallpox, will be used as a biological weapon. This has led authorities in the United States and other counties to order the production of new stocks of certain vaccines. Preparing millions of doses of a vaccine as a precaution against attack certainly seems like a good idea. But it also raises an important social and scientific question – should a nation require its citizens to be vaccinated against a particular disease, or should we wait until there is evidence of an outbreak of a disease in a given area?

**The Viewpoints -----**

**Require Vaccinations**: Human history shows just how deadly certain infectious diseases can be. Therefore, it makes sense to preempt an outbreak by requiring vaccinations as soon as enough doses of the vaccine are available. The benefits of immunity would outweigh any possible adverse reactions to the vaccines. In addition, it is cheaper to vaccinate everyone, rather than to treat infectious diseases on an individual basis.

**Hold the Vaccine in Reserve**: As serious as the threat from certain infectious diseases may be, we should keep in mind the rule of medicine that is taught to all doctors: First, do no harm. We already know, unfortunately that administering vaccines to an entire population will indeed do harm. For example, U.S. health statistics show that for every 1 million infants vaccinated for smallpox, as many as 5 may have died from reactions to the vaccine. The exact umber of deaths that will result from a nationwide vaccination program is not certain, but any number of deaths is too many when the risk of infection is only hypothetical.

**Research and Decide:**

1. **Analyzing the Viewpoints:** To make an informed decision, learn more about this issue by consulting library or Internet resources. Then, list both the risks and benefits of nationwide vaccination.
2. **Forming your Opinion** – How do you balance the risks and benefits of vaccination now against the risks and benefits of stockpiling the vaccine? What factors should you consider?
3. **Role-Playing** – You are a researcher for the Centers for Disease Control (CDC) in Atlanta. You have been offered the chance to be inoculated with a vaccine such as smallpox. Would you get the vaccination? Explain your answer and support it with facts from your research.

ASSIGNMENT:

1. Research Scientific sites (Wikipedia is NOT a scientific site!)
2. Write a one page essay (three to five paragraphs))
3. Type using a “normal” font, size 14 or 16 and double spacing
4. Address ALL of the questions on “Research and Decide” in your essay
5. Use a minimum of two reference sites \*BE CAREFUL of plagiarism\*
6. Document your references
7. Write your name, date, and class period at the top of your paper
8. Email your paper to me at: arhuckab@episd.org