

Name: _____

Infectious Diseases Student Worksheet

Part II Case Study -- Cholera Funding from WHO

Your teacher will assign you one of the following groups. Please read through ALL group descriptions so you know who your competition is. All groups will try to secure full funding for their group – and must argue their case to do this. The World Health Organization has been given \$200 million dollars to spend on world cholera programs. An outbreak of cholera was confirmed in Haiti in October 2010 and so special focus is given to this country. This is currently the most prominent outbreak of cholera found worldwide. Funding all programs would cost \$675 million. You can see not every program can be funded in full (a very real-world problem!). After each group's name, it will tell you the amount of funding the group is arguing for and what that funding will buy. In the debate, all groups will try to secure full funding for their group, and must argue their case to do so.

The World Health Organization (WHO) -- This group represents the funding source -- They have \$200 million dollars to spend on world cholera programs that may be divided among the groups listed below after hearing their arguments. Each of the following groups wants to be funded and will present their arguments in the debate to secure (fight for!) their funding.

Group 1 -- Basic science research community -- \$50 million for a 5% chance that the disease is eradicated permanently within the next 30 yrs because of the discovery of a new cholera vaccine.

Group 2 -- Clinical research community -- \$50 million for a 30% chance of discovering a new drug that works well and shortens the time cholera symptoms are felt by 50% (6 days down to 3 days). The drug makes the disease spread 50% less efficiently (so there would be half the number of cases). The new drug would become available worldwide in three years, and the effects would be permanent.

Group 3 -- Public health organization #1 (Worldwide focus) -- \$100 million for drugs to give to people currently infected with cholera around the world (it won't treat all cases, but the money is spread evenly around the world). This would decrease cholera incidence and mortality by 30% around the world starting immediately, and the program would last for two years.

Group 4 -- Public health organization #2 (Haiti) -- \$100 million for drugs to treat current infections in Haiti, where an epidemic is raging and mortality rates are much higher than in other cholera outbreaks (20% mortality rate versus 5% in other places around the world). This would eliminate cholera in Haiti immediately (however, this does not guarantee any immunity to the disease in the future, and Haiti would remain at high risk for cholera outbreaks).

Group 5 -- Aid Organization focused on shelter, food, and water in Haiti -- \$100 million to bring food, water and new shelters to Haiti. Since flooding and earthquakes brought on the current cholera outbreak in Haiti, returning people to stable living environments would mean the cholera outbreak there would fade away. This would eliminate cholera in Haiti starting next year, with a low risk that cholera would break out again.

Group 6 -- Third World education projects -- \$50 million for education projects in third world countries to teach people about the dangers of contaminated water and how to make sure they're drinking clean water. This would cut the incidence and mortality of cholera and other water-borne diseases worldwide by 10% starting next year.

Group 7 -- Government of Haiti - Health care system -- \$50 million to support local and national government efforts to set up health care systems (hospitals, clinics, doctors, nurses, etc.) in Haiti to deal with cholera and other diseases. This would cut the incidence and mortality of cholera and other diseases in half starting next year.

Group 8 -- Government of Haiti - Water treatment plants -- \$75 million to support the development of water treatment plants that would supply clean water throughout the country. This would eliminate cholera in Haiti starting five years from now.

Group 9 -- United Nations -- \$100 million to support UN-Water, a multi-agency program run by the UN that aims to bring clean drinking water to all people throughout the world. This would pay about 0.1% of the costs of a program that could eliminate cholera outbreaks worldwide starting 20 yrs from now.

Debate preparation

1. Research your given group's topic within the class period you have. You may want to use this website as a starting point <http://www.cdc.gov/haiticholera/> and use other internet sites and library resources (if available) to learn about the outbreak of cholera in Haiti (and around the world). Use search engines (ex: google.com) to learn about how your group would help curtail the spread of cholera. Jot notes here (each student should have their own notes). The WHO group should have notes here on the disease of cholera in general, as well as notes showing they've learned about the country of Haiti.

2. Within your group, decide who will give the opening argument on behalf of your group. Using the notes from each student in the group, write an opening argument that is meant to convince the WHO group that your group deserves full funding. You have only two minutes to deliver this opening argument – so practice it beforehand! (Each group need only have one written opening argument).

The WHO funding group doesn't need to have an opening argument. Instead, that group should write here a two-three sentence summary of each group's issue to show that they are versed in that issue and can make an informed, final, unanimous decision. The WHO group should choose a chairperson who will lead the class discussion (others in the WHO group can speak and ask questions, but must be recognized by the chairperson). Remember the World Health Organization has \$200 million to distribute. Some things will have to be skipped, since 'buying' all of them would cost \$675 million. Groups may be given full, partial or no funding.

3. Write questions you have for other groups (be sure to note which group given questions are for). These might respectfully expose the weaknesses in their requests for funding. Remember, all are fighting to help people stricken by cholera – particularly in the country of Haiti.

4. Write down here what the final decisions of the WHO funding group were. Was your group happy with the results? Explain.

5. How is this exercise like the real world? How does it differ?

6. If the WHO were given \$500 million instead of the \$200 million, how would you allocate the money? Explain?

7. What if the WHO was only given \$50 million? How would you allocate the money? Explain?

8. There are many different organizations presented in this exercise and there are many different career options available that in real life could work for such organizations. Some examples are a scientist in a lab who specializes in infectious diseases, a medical doctor that specializes in vaccine research, a medical doctor that focuses on public health (this could be done in a lab or in the field), an aid worker that distributes necessary supplies to the sick and impoverished, politician, nurse, educator, etc. Choose just one these career options that interests you (or another related to this exercise) and tell what education and training you would need to achieve this position. Why does this career option interest you? Use the internet to do research for your answer as necessary.