

Bioethics

Limited Medication: Who gets it?

According to AVERT (www.avert.org/worldstats.htm), an international HIV and AIDS charitable organization, "Already, by 2004, 20 million people around the world have died of AIDS, about 25% them children. Over 39 million are now living with HIV, the virus that causes AIDS, and most of these are likely to die over the next decade or so. The most recent UNAIDS/WHO estimates show that, in 2005 alone, about 5 million people were newly infected with HIV."

Many biotechnology companies are focusing product development on AIDS therapies and vaccines to prevent the symptoms of AIDS. Several challenges exist to the manufacture and distribution of these pharmaceuticals, including some of the following:

- The need is great. So many people have been infected and need treatment.
- Patients are not confined to a specific nation or region, but are spread throughout the world.
- The majority of HIV-infected individuals are extremely poor.
- The cost of producing these products is astronomical, and biotech companies need to make money.
- There are religious, societal, or political obstacles to administering medications.

Even if a company could produce substantial amounts of an HIV medication, there will likely never be enough at a cost low enough to treat everyone who needs it. This is a significant barrier to companies investing in R&D for these products.

Problem: How should a limited amount of an HIV therapeutic product be distributed?

Part I: What numbers of people are living with AIDS? How are they distributed throughout the world?



Go to the AVERT Web site (www.avert.org/worldstats.htm) or any other site that publishes World Health Organization (WHO) HIV/AIDS statistics. Use the information on the Web site to fill in the following table, using data for the most recent year available.

Total Number of People Newly Infected with HIV in the Past Year	
Adults	
Women	
Children	
Total Number of People Living with HIV in the Past Year	
Adults	
Women	
Children	
In Sub-Saharan Africa	
In North Africa and Middle East	
In South and South East Asia	
In East Asia and Pacific	
In Latin America	
In the Caribbean	
In Eastern Europe and Central Asia	
In Western Europe	
In North America	
In Australia and New Zealand	
AIDS Deaths in the Past Year	
Adults	
Women	
Children	
AIDS Deaths Since the Beginning of the Epidemic	
Adults	
Women	
Children	

Part II: How should a limited amount of a medication that reduces the amount of HIV particles in the body be distributed?

TO DO

Think of yourself as an administrator for the WHO. A biotechnology company has developed a therapeutic recombinant protein that halts the replication of the HIV in AIDS patients, giving the body a chance to get rid of the virus. Although the company can break even on its production investment, the science behind producing the therapeutic agent limits the amount that can be produced to 20 million doses per year. Since that amount is not enough for all the patients who need it, and since the AIDS epidemic has so many political and social implications, the company has asked the WHO to decide how the doses should be distributed.

1. With your colleagues' help, determine who (men, women, and/or children), living where (which geographic locations), should get these dosages, and when (first year, second year).
2. Make a flowchart or timeline that shows the distribution schedule. Write a position paper that specifically justifies the decisions you and your colleagues have made.