In many developing countries, contaminated water supplies lead to frequent outbreaks of disease. Diarrheal diseases are a leading cause of death in the developing world. Even when not fatal, these diseases can cause long term harm to children’s cognitive and physical development. A widely available and inexpensive method of disinfecting water supplies is the addition of bottled chlorine to the water used in the home. In Western Kenya, where awareness of water contamination issues is high, a recent study found that only 5 percent of households used chlorination to disinfect their water.

In a set of experiments designed to determine the most effective method of increasing water chlorination, the Poverty Action Lab learned that most households have a low willingness to pay for chlorine. A 50% reduction in the monthly price of chlorine (from $0.30 to $0.15) resulted in a 10 % increase in chlorine usage. When provided for free, 58% of households used the chlorine. However, hiring local community members to promote chlorine use among neighbors was found to be highly effective at increasing usage rates.

You plan to explain these results in a student forum on developing world health issues next week. To compare the effectiveness of the two policies (lowering prices vs. persuasion), you sketch a demand curve for chlorine that roughly illustrates the pricing policy. What is the impact of persuasion on this demand curve? Can you speculate on why there is low willingness to pay for chlorine?

(For more information, you can read the experiment description at the Poverty Action Lab web site. "Source Dispensers and Home Delivery of Chlorine in Kenya," http://www.povertyactionlab.org/evaluation/source-dispensers-and-home-delivery-chlorine-kenya)