

by corporations based in Switzerland, Germany, France, and England. So that it is not exclusively a U.S. problem.

Senator BEALL. Are the promotional practices generally the cause of the irrational dispensing and prescribing of drugs?

Dr. LEE. I think they are, in part, related to that. In Latin America, I think that the educational programs for physicians and pharmacists are inadequate, as they are in the United States. The promotional practices by the pharmaceutical companies also foster irrational prescribing and dispensing. The continuing education of physicians in the United States is largely dependent on the drug companies. That is also true in Latin American countries. After physicians complete their basic training they continue to get information which is not fully accurate. They are not provided the information that they need to prescribe rationally and for the pharmacists to dispense rationally.

Dr. Silverman in his testimony dealt at some length with the promotion of chloramphenicol in Latin America, and in my statement I discussed this in detail.

What are the consequences of the type of promotion that we see for antibiotics, specifically chloramphenicol, in Latin America?

First, physicians and pharmacists will be more likely to prescribe and dispense chloramphenicol either when it is not needed, when it is contraindicated, or when other drugs would be more appropriate. Patients will be more likely to take chloramphenicol without particular concern for the possible hazards or they may be totally unaware of the hazards, and some will undoubtedly suffer serious, indeed fatal, side effects.

The regulation of the manufacture, promotion and marketing of drugs is the responsibility of the government in each country where the drugs are made, sold and promoted. Drug companies may, and indeed do, adopt standards that exceed the requirements in many countries. The regulations of the drug industry in Mexico, Guatemala or any other country should, however, be a matter of concern for the United States because inadequate regulations poses a hazard both for the citizens of the countries involved and for the visitors to those countries, and potentially for those who never traveled to the countries. In short, inadequate regulation poses a potential threat to world health and this is particularly true because of the emergence of drug resistant strains of bacteria.

In my statement I detailed some of the history, the pharmacology and the microbiology that is involved in this problem.

In Latin America there are, of course, millions of residents of those countries who are exposed to these hazards. It is also important to note that 21½ million residents of the United States travel to Mexico annually. Millions more travel to Central America and to other Latin American countries, as do travelers from Europe, Asia and Africa. At least one-third of the travelers to Mexico and many other Latin American countries are likely to suffer an episode of gastroenteritis during or following their trip. If they develop that they are very likely to be prescribed a potentially dangerous drug, chloramphenicol, as an example. They then may develop a serious side effect either during or subsequent to that treatment.