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An Education Strategy to Respond to Medicine Inequality in Africa

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People living in Africa face a heavy and wide-ranging burden of disease that takes an incalculable toll on social and economic development as well as shortening life expectancy (life expectancy in Tanzania is about 60 vs. about 80 in the US and Europe, WHO, http://www.who.int/countries/tza/en/). The HIV/AIDS epidemic, as well as the resurgence of tuberculosis and the unrelenting presence of malaria, continue to depress life expectancy in Sub-Saharan countries. **The only treatments for these diseases are medicines**. A number of these medicines are of poor quality due to counterfeiting and manufacturing problems or are "out-of-stock". Additionally, the dependence of African countries on donations for these life-saving medicines promotes a culture of dependence and inadequacy. The long-term ability to supply Africa with lifesaving medications through importation is questionable because of the large quantity required and the difficulties in developing a secure supply chain and a cold chain e.g. oxytocin. Finally, new breakthrough medicines to treat diseases such as hepatitis C are not available in Africa further exacerbating the inequality of medicines between the developed and developing world.

Further, the pharmaceutical market in developing countries is immature and may not support quality medicines. In many cases a tender system is used, and medicines are bought by the government at the lowest price. In such cases, poor quality drug can be "dumped" on these countries at very low prices. The government that purchases the substandard drug has little control over drug quality or the supply chain and is focused mainly on price, and the company "dumping" the product can recover some losses from failed and substandard lots. The artificially low prices due to dumping makes it impossible for local manufacturers of quality products to compete.

This exact problem was apparent over 150 years ago in the United States. During the conflict with Mexico, diseases were widespread among the US troops. For every fighting man killed in action, seven died of disease. The American Pharmaceutical Association stated "Physicians on the front lines reported that the medicines they had available were nearly worthless—weak and adulterated. And while we may today doubt the efficacy of mid-19th-century drug regimens, the physicians of the times still relied on the materia medica of the heroic age of therapeutics—alcohol, opiates, and strong laxatives such as jalap, rhubarb, and the near-panacea calomel. When massive doses of these purgatives produced little response in patients, army doctors knew for sure that they had poor-quality drugs" (Higby, 2002) The United States was the recipient of dumped/poor quality drugs. The American Pharmaceutical Association also reported: "While it had been common since colonial days for exporters to send shoddy goods overseas, the situation worsened in the 1830s and 1840s. The drug market within Europe tightened up through regulation. Moreover, the developing science of alkaloidal chemistry made it possible to extract quinine or other alkaloids from medicinal plants and then send the partially (or fully) exhausted bark or root off to America." As one congressional committee put it, "This country [has] become the grand mart and receptacle of all the refuse merchandise,…not only from European warehouses, but from the whole eastern world." The American Pharmaceutical Association stated "American pharmacists were especially sensitive to the problem because physicians had come to rely on them as a check for drug quality. The local pharmacy societies in New York and Philadelphia, the "colleges of pharmacy," held meetings, published notices and testing procedures, and eventually