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Book report.

Risky Trade: Infectious Disease in the Era of Global Trade Ann Marie Kimball 2006

Kimball's big message is that the development and spread of new diseases is often rooted in the aim of wealthy states and international organisations to maximise profits. In her conclusion she quotes Jeffrey Sachs, who said that *'The question isn't whether the rich can afford to help the poor, but whether they can afford not to'*¹. In the first section of her book, Kimball describes some of the diseases she identifies as linked with modern trade practices. The second half details solutions which are, or could be, employed to reduce the risks of diseases developing and spreading along with global trade.

Kimball provides a historical context, showing how trade practices have changed over time, and how such developments have influenced the spread of diseases. In her first chapter she compares the 14th century when ships were quarantined for 40 days in harbour to the current rapid transit of aircraft where there is little opportunity to identify sick individuals. The issue of time is important in her discussion of the spread of two types of diseases. She compares SARS and AIDS which spread internationally by rapid transport with nvCJD which takes many years to develop. Despite the different time frames of these diseases, technological development has enabled both to prosper.

BSE can take 15-30 years to develop. Kimball represents diseases establishing themselves on this time-scale as stealth agents. In her discussion of nvCJD, Kimball explains the history of using animal protein in cattle feed in terms of technological change. The practice began in the UK during WWII when a then main feed for cattle, soybean could not be imported. After meat was removed from carcasses, the remains were processed to produce animal protein products for feed and fertilizer and tallow for candles. This practice continued after the war. As tallow became less marketable, less profit was made from the processing of carcasses. To increase the profit margin, animal remains were heated to a lower temperature. This change may have led to BSE becoming active during the 1980s.

In the second section of the book, Kimball provides three chapters, each on primary, secondary and tertiary methods for preventing disease. In her prevention pyramid she describes primary as the point of emergence, species jumping and ecological pressure, secondary as local extension and tertiary as pandemic geographically dispersed clusters. Kimball lists five changes which can contribute to primary prevention (avoiding disease), which are to some degree already being implemented. These are the regulation of transplants and transfusions to avoid HIV/AIDS, the use of high temperatures in rendering meat to avoid BSE, education in keeping birds in domestic settings to avoid the transfer of flu from birds to humans, withdrawing antibiotics from animal feeds and greater care in the use of antibiotics in medicine. At the level of secondary prevention (responding to disease), Kimball emphasises tracking and controlling the arrival of diseases in a region. Kimball notes the irony that, despite the operation of sophisticated

¹ Sachs, J. (2005) *The End of Poverty: Economic Possibilities for Our Time*, New York, Penguin Press p228

surveillance systems, most outbreaks are notified through informal links. Often, it is concerned clinicians and public health workers who raise the alarm. Although formal systems tend currently to be slow-moving, attempts to devise faster methods are being developed. Kimball refers to web crawling software that seeks the occurrence of words and phrases that indicate a problem has arisen. Kimball discusses disease measures such as the slaughter of cattle, protected sex, and the tagging of food so that it can be recalled if contaminated.

The final, tertiary level chapter discusses the agencies which regulate the movement of people and goods when disease develops, for example WHO and WTO. Before the extent of AIDS was known, many of these control systems were being reduced on the basis of optimism that technology had reached a level where epidemics were controllable. Kimball gives the example of cholera in Peru in the 1990s when simple trade embargos were put in place in order to confine the disease. While the disease continued to spread, the embargos only led to increasing poverty in Peru and deepened the misery of populations affected by cholera. Since then, increasingly sophisticated methods have been developed for international regulation, including decision algorithms. However, Kimball sees several problems with the new sophisticated systems. First, sanctions can debilitate trade and result in the problems noted in Peru. Secondly, poor countries cannot always afford full time representation in places like Geneva. And, thirdly, there is not systematic analysis of what is going on.

An example of simple, humanitarian planning by wealthy countries which can help others as well as themselves is providing clean water in countries where luxury food items are grown. In Mexico, salad onions grown for export have been irrigated with unclean water. Kimball suggests that it would be best to provide the whole area, workers as well as onions with clean water. She concludes that food hygiene can be improved not only by increasing the cleanliness of food production, but also by avoiding the extended process technologies which allow problems to arise, and not shipping food to areas where the associated problems had not existed before, thereby creating new infection pathways.

To conclude, *Risky Trade* links changes in international trade relate to health. Kimball provides a useful categorisation of types of new diseases and suggests methods for addressing how they develop and spread.

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