2007

World Poverty and Health Issues in Africa: The Relationship Connecting Social Responsible Pricing Pharmaceutical Companies and HIV/AIDS Infections in Sub-Saharan Countries

Ivana Fredotovic

World Poverty and Health Issues in Africa: the relationship connecting social responsible pricing, pharmaceutical companies and HIV/AIDS infections in Sub-Saharan countries

A thesis submitted to the Faculty of Barry University
in partial fulfillment of the requirements
for the completion of the Honors Program

by

Ivana Fredotovic

May 2007

Barry University
Honors Program

Honors Thesis Written by

Ivana Fredotovic

Approved by:

Dr. Lewis Lash
Chair, Supervisory Committee

Dr. Robert Cruz
Thesis Supervisory Committee

Dr. Luigi Esposito
Honors Program Faculty Member

Dr. Pawena Sirimangkala
External Member

Fredotovic, Ivana (B.S., Int'l Business)

World Poverty and Health Issues in Africa: the relationship connecting social responsible pricing, pharmaceutical companies and HIV/AIDS infections in Sub-Saharan countries

May/2007

Abstract of a senior honors thesis at Barry University
Thesis supervised by Professor Lewis W. Lash

Number of pages in text 37

The 21st century faces a series of social issues such as extreme poverty, war, income inequality, discrimination, and political and economic disparity. Among these, world poverty is certainly one with a tremendous global impact, due to its multidimensional factors such as hunger, poor education, low income, health crisis, gender inequality, exploitation of child labor and low economic growth, all part of the social phenomena.

Understanding the complex scope of poverty, the study examined the health problem in developing countries, particularly in Sub-Saharan Africa. In addition, the relationships between numerous health issues, including HIV/AIDS infections, social responsible pricing (differential pricing), and pharmaceutical companies is investigated. Essential measures and factors necessary in order to seek health improvements in these Sub-Saharan countries are proposed. Further, the significance of global effort in order to reduce poverty is clearly emphasized. It is argued that the theory of socially responsible pricing is the strategy that will provide more contributions to developing countries in areas like Sub-Saharan Africa.

The main research methodology for this study was an analysis of variety of textual sources. Information from appropriate textbooks, academic journals and statistical data from multinational corporations and recommendations by governments, non-governmental organizations, and multilateral institutions such as the World Trade

Organization, World Health Organization, International Monetary Fund and United Nations Development Program are incorporated in order to support thesis research.

Following the reality that health is accepted as a fundamental human right, not as a privilege, a goal is to present new ideas and emphasize the use of differential pricing for drugs which will serve markets in high income and in developing countries. The primary purpose of this thesis is to introduce and propose the idea of how differential pricing theory model could contribute to the improvement of the world's poorest countries. Lastly, the goal is to demonstrate the importance of social responsible pricing theory; the importance of understanding the dangers of the current health issue in the Sub-Saharan region which could have an unfathomable adverse impact on the world, if left unattended.

ACKNOWLEDGEMENTS

I dedicate my Honors Thesis to my parents, without their love and support this thesis and my education at Barry University could not have been realized.

I would like to take this opportunity to acknowledge and thank my thesis advisor Dr. Lewis W. Lash. The completion of my thesis is a result of the guidance, commitment, support, and belief expressed by Dr. Lash. Usually there is one professor who will always be remembered for changing the life of a student. Dr. Lash is that professor for me and he will always be remembered.

There are many that from behind the scenes have encouraged and supported my work and I wish to thank them. Thank You Dr. Cruz, Dr. Esposito and Dr. Sirimangkala. Special thanks to my English tutor Mr. Xose F Alvarez-Alfonso.

TABLE OF CONTENTS

LIST OF TABLES, FIGURES AND APPENDICES

Introduction

The 21st century is characterized by growing world-wide income inequality and wealth distribution disparity. If the trends from 1981 to 2001 continue, the aggregate $1 per day poverty rate for 1990 will be almost half by 2015. Some 1.1 billion people are living in extreme poverty, on less the $1 a day, almost 20% of the world's population. Over 313 million of these people are living in Sub-Saharan Africa. Statistics show that of more than 6.5 billion people in the world today, nearly three billion people live on less than $2 a day (UNAIDS, 2006). Some economic improvements efforts have raised income in areas such as East and South Asia. East Asia was the poorest region in the world twenty years ago. Today, it is leading the developing world in economic growth and poverty reduction.

At a collective global level, there is progress in reducing poverty. The estimates indicate that the world's population living in extreme poverty is fewer than 22% in 2004, compared to 28% in 1990's (WEO, 2004). However, the concern is mounting on Sub-Saharan Africa which has emerged as the region with the highest incidence of extreme poverty and the greatest depth of poverty. Sub-Saharan Africa's extreme poverty is actually estimated to have increased. Nearly one-half of the population is living below the poverty line. Further, the probability at birth of surviving to age 65 for women in the world is 73% and 65% for men, but in Sub-Sahara Africa it is 37% for women and 34% for men (UNAIDS,2006). Even more tragically, some countries in Sub-Sahara Africa have more than 65% of the population living on less than $1 a day. For example, the number of people living on such minute income in Madagascar is 61%, in Zimbabwe is

56%, in Gambia is 59%, in Nigeria is 70%, in Zambia is 75%, and in Mali is 72% (HDR, 2002).

Also, Africa is the second largest continent with 11,700 square miles (after Asia with 17,400 square miles) where more than 10% of the world's population resides (UNAIDS, 2005). The African continent counts for 20% of total Earth's land. Of the total world's population, more than 6.5 billion, 767 million people live in Sub-Saharan Africa. Projected population increase in the world for 2025 is to 7.9 billion and in Sub-Saharan Africa is over 1.1 billion, meaning that by 2025 Sub-Sahara will account for over 14% of the world's population. Furthermore, by 2050 the world's population is estimated to reach 9.2 billion and the population in Sub-Sahara Africa 1.7 billion (19% of the world's population, PRB, 2006).

Africa has 53 countries of which 47 countries are considered Sub-Saharan Africa (World Bank, 2005).

Figure1. Map of the Sub-Saharan Africa

Fig1. Area and countries that are considered Sub-Saharan Africa region are highlighted. The World Bank. The World Bank Group. 2007.http://web.worldbank.org/WBSITE/EXTERNAL/COUNTRIES/AFRICAEXT/0,,contentMDK:20226042~menuPK:258664~pagePK:146736~piPK:226340~theSitePK:258644,00.html.

The Complex Scope of Poverty

There are many factors that contribute to the multidimensional aspect of poverty. Among the factors that need to be addressed are debt, free trade, globalization, civil strife and environmental degradation. By addressing these factors, their effects on poverty could be reduced. Poverty's many dimensions include hunger, poor education, low income, health crises, gender inequality, exploitation of child labor, differences in social and cultural values, corruption, and low economic growth. All these factors are strongly interconnected, and therefore, proposing a straightforward solution to resolve this problem is incredibly challenging, and seemingly improbable.

Global Concern

Although statistics show that there are 390 million fewer people living in poverty in 2001 than 20 years ago, and that the number of people living in poverty is slightly decreasing each year, substantial regional disparities remain, especially in Sub-Saharan Africa. For instance, in Sub-Saharan Africa region the number of people living in extreme poverty is projected to increase from 315 million in 1999 to over 400 million by 2015. In other words, Sub-Sahara Africa will hold more than 50% of the world's poor by 2015 (UNAIDS, 2006). HIV/ AIDS infection is not confined to the poorest; however the poor account absolutely for most of those infected in Africa. HIV incidence in Sub-Saharan Africa appears to be "stabilizing" due more to increased HIV-related mortality than economic improvement. The numbers of people becoming infected with HIV is roughly matching the numbers dying of AIDS-related illnesses.

Literature Review

The goal of this paper is to review existing research articles, to report on several business practices, to help deal with this global crisis. Possible concepts which could contribute to the improvement in Africa's health conditions will be observed. More precisely, examination of the variability of the drug donations, out-licensing and, most importantly, differential pricing theory will be shown.

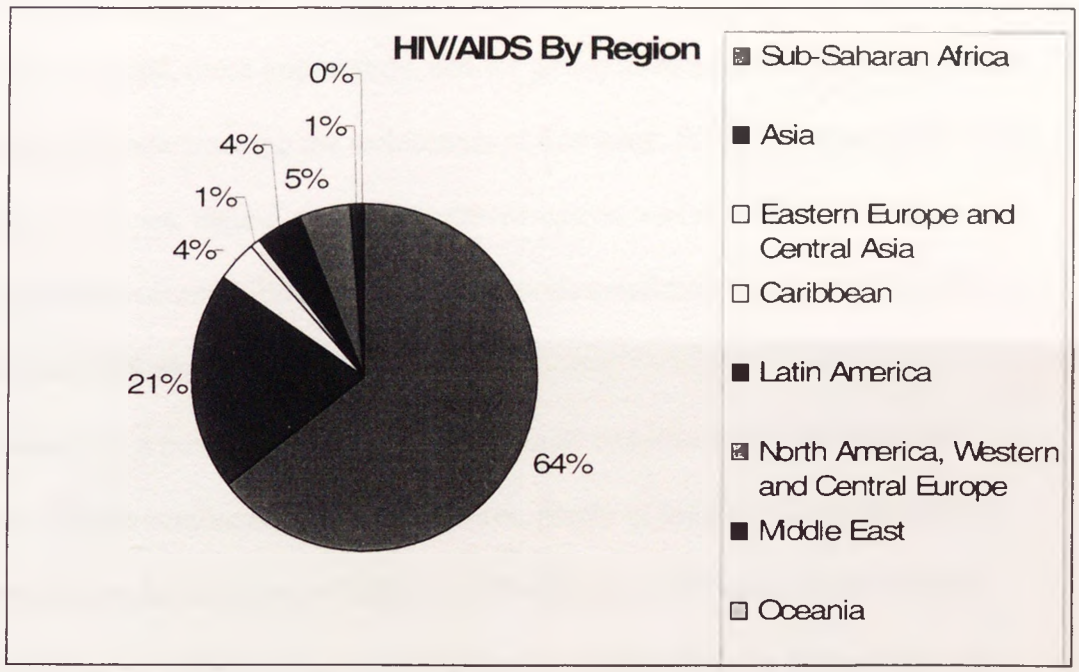
While appreciating the linkages between poverty and health, the global impacts and potential solution to the health issue in Sub-Saharan Africa, particularly diseases such as HIV/AIDS, malaria, tuberculosis (TB), extend far beyond the African continent. Sub-Saharan Africa is an epicenter to almost 64% of all HIV/AIDS infections, with an estimated 21.6 million to 27.4 million people living with HIV/AIDS infections. As referred in a table 1 and figure 2, at the end of 2005, 39.5 million people worldwide were living with HIV/AIDS; 24.7 million (63%) are people who live in Sub-Saharan Africa. An estimated 4.8 million people worldwide become newly infected annually, where 2.8 million (58%) are people in the region of Sub-Saharan Africa. Additionally, an estimated 2.9 million people lost their lives to HIV/AIDS in 2005 and of this number 2.1 million (72%) people died in Sub-Saharan Africa. Moreover, worldwide there are more than 2.9 million children under 15 years of age living with HIV/AIDS; almost 90% these live in Sub-Saharan Africa (UNAIDS, 2006).

Table1. General HIV/AIDS Statistics

Indicator	Year	World (in mil)	Sub-Saharan Africa (in mil)	Sub-Saharan Africa %
Adults and children living with HIV/AIDS	2005	39,500,000	24,700,000	64%
Adults (ages 15+) living with HIV/AIDS	2005	36,300,000	22,400,000	62%
Women (ages 15+) living with HIV/AIDS	2005	17,700,000	13,300,000	75%
Children (ages 0-14) living with HIV/AIDS	2005	2,300,000	2,000,000	89%
AIDS orphans currently living (ages 0-17)	2005	15,200,000	12,000,000	79%
Adults and child AIDS deaths	2005	2,900,000	2,100,000	73%
Adults and children newly infected with HIV	2006	4,300,000	2,800,000	65%

Regional and world data for this indicator are from the UNAIDS/WHO AIDS Epidemic Update: December 2006 (http://www.unaids.org/en/HIV_data/epi2006/default.asp), and refer to the end of 2006.

Figure2. HIV/AIDS Infection Percentage by Region



Source from Report on the Global AIDS Epidemic, UNAIDS, May 2006, Chapter 6.

HIV/AIDS virus has been identified as the original source in a subspecies of chimpanzees native to west equatorial Africa in 1970's. By 1980's, HIV had spread to at least five continents North America, South America, Europe, Africa and Australia (NIAID, 2000). In just 25 years, HIV/AIDS has spread relentlessly from a few regions to virtually every country in the world, infecting 65 million people and killing over 25 million (UNAIDS, 2006).

Approximately 40% of the world's population, mostly those living in the world's poorest countries, is at risk of contracting malaria. Malaria causes more than 300 million acute illnesses and at least one million deaths annually (World Bank, 2005). Also, close to half of all people in developing countries suffer from malaria as the results of contaminated water and sanitation deficits. Some 1.1 billion people in developing countries have inadequate access to water, and 2.6 billion lack basic sanitation (UNAIDS, 2006). These statistical records clearly show the dominance of this disease and world poverty condition and, more importantly, call for global attention and an increased sense of importance in understanding the seriousness of this issue. Further, inappropriate social and economic policies, natural disasters, graft/corruption, and civil strife have all contributed to the current failing social and economic conditions in Sub-Saharan Africa.

The Collective Efforts

One reason for a poverty trap is a difficult climate conditions and geographical position of African continent. High temperatures, plenty of breeding sites, and insects that prefer humans to cattle are all factors that contribute to this social issue (Hamish, 1995). The climate is adequate for tropical diseases which makes the prevention even harder. In order to provide HIV/AIDS prevention in Sub-Saharan Africa and to

overcome barriers such as lack of infrastructure, inappropriate treatments and programs, and shortages of trained workers, the nations' greatest collective efforts are needed. The collective efforts will lead to a greater contribution from developing countries to set a better model for the global community's future, decrease a number of HIV/AIDS infections and, most importantly, provide improvement of one of the health issues which will contribute to reduction of world poverty. On the other hand, the failure to improve the health condition in Sub-Saharan countries will lead to overwhelming global consequences and failure to reduce poverty, which could lead to national economic, security and health risks.

Achieving freedom from illness in Africa is one of the essential steps in fighting world poverty and establishing a foundation for health and education development. As American psychologist Abraham Maslow proposed in his paper, "A Theory of Human Motivation," the higher needs only come into focus once all the needs that are lower down are adequately satisfied (Maslow, 1943).

Today, various multinational corporations, governmental, and non-governmental organizations, and multilateral institutions such as the World Trade Organization, World Health Organization, International Monetary Fund and United Nations Development Program are expediting possible solutions for world poverty reduction. These organizations are proposing a number of programs in order to address and reduce extreme poverty, assist developing countries, and examine major social issues. One of the major developing programs, Millennium Development Goals (MDG), to reduce extreme poverty in the world was adopted by the United Nation's in 2000, with a mission to constrain extreme poverty, restrict the spread of HIV/AIDS and promote universal

primary education by 2015. Additionally, this would lead to promotion of peace and security, sustainable development, human rights, democracy, and good governance. The MDG program is comprised of a series of eight goals aimed at reducing extreme poverty.

Millennium Development Goals Program

Goals

At the Millennium Summit in September 2000, 189 countries gathered and adopted the UN Millennium Declaration, committing their nations to a new global partnership to reduce extreme poverty. This group, the largest to come together in a joint effort, set forth what they called, Millennium Development Goals (MDG), setting out a series of targets with a deadline up to 2015. Major members of the committee are Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Japan, Luxembourg, Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, United Kingdom, and United States. Responding to the world's main development challenges, the MDGs set agenda to address poverty reduction, education, maternal health, gender equality, and its intentions to fight child mortality, and HIV/AIDS among other diseases. The eight goals established include:

- Eradicate extreme poverty and hunger
- Achieve universal primary education
- Promote gender equality and empower women
- Reduce child mortality
- Improve maternal health
- Combat HIV/AIDS, malaria and tuberculosis
- Ensure environmental sustainability

- Develop a global partnership for development (United Nations, 2005).

Since the focus of this thesis project is improving the health conditions in Sub-Saharan Africa, this section explore goal six, fighting HIV/AIDS, malaria and TB. The MDGs' in Sub-Saharan Africa targets the reduction of the spread of HIV/AIDS and the incidence of malaria and TB by 2015. In order to meet this goal, the following objectives have to be met.

- Decrease rate of infection of HIV/AIDS, malaria, and tuberculosis while increasing access to essential medicine such as antiretroviral medication (ARV).
- Provide prevention and treatment interventions for malaria that includes improved case management; intermittent preventive treatment (IPT) for pregnant women and provide long lasting insecticide treated nets (LLITNs) for every member of the village.
- Provide education on AIDS prevention and voluntary counseling and testing; ARV therapy, nutritional supplementation for effective treatments, and a combination of drug treatments for TB.
- Renovate or construct a local clinic to provide basic medical services and medicines.
- Train local, community health workers in prevention and general health care for home-based care.

(United Nations, 2005)

Benefits of reaching goals

The benefits of combating HIV/AIDS, malaria and TB will lead to an increased number of healthy people who can have productive lives. Furthermore, more people will be spared, have access to medicines, and more children would have access to education.

Further benefits of meeting all of MDGs by 2015 would be enormous for future generations in developing countries outside of Sub-Saharan Africa and contribute to the world's prosperity. According to the MDGs plan, more than 500 million people worldwide could be lifted out from extreme poverty, 300 million would not longer suffer from hunger and more than 30 million children would reach adulthood. Furthermore, an additional 350 million people would have access to safe drinking water and 650 million people would have access to basic sanitation (MDGs, 2005). More precisely, table 2 and 3 show the projected benefits of meeting the MDGs by a region.

Table2. Poverty Headcount Reduction Goals

Poverty Headcount(millions of people)		
Region	**2005 estimate**	**MDG scenario 2015**
Eastern Europe and Central Asia	92	49
East Asia and the Pacific	182	0
Latin America and the Caribbean	128	90
Middle East and North Africa	8	4
South Asia	407	317
Sub-Saharan Africa	**345**	**198 (almost ½_)**

Table3. HIV/AIDS Reduction Expectations for new infections

New HIV Infections 2002-2010 (millions)		
Region	**2010 estimate**	**MDG scenario 2010**
Eastern Europe and Central Asia	2.8	1.3
Latin America and the Caribbean	2.3	0.7
Middle East and North Africa	0.9	0.3
South and Southeast Asia	18.5	5.7
Sub-Saharan Africa	**21**	**8.8 (1/3)**

The benefits of meeting the Millennium Development Goals, by region. Note: Numbers in table may not sum to totals because of rounding. Source: Poverty headcount data from Chen and Ravallion 2004. GDP per capita and child mortality data from World Bank 2004d. Undernourishment data from FAO 2003. Maternal mortality data from WHO and UNICEF 1996 and WHO, UNICEF, and UNFPA 2003. Water and sanitation data from WHO and UNICEF 2004. HIV/AIDS data from Stover and others 2002. Slum dweller data from United Nations Population Division 2001, 2003 and UNHABITAT 2003. All population projections from United Nations Population Division 2003.

Essential inputs needed in order to meet Millennium Development Goals

The key to achieving these goals is to ensure that each of the developing regions has the essential means to a productive development. In order to achieve this goal, two roles are needed. First, hunger needs to be reduced, health and education needs to be improved, and safe water needs to be accessible for all people. Second, inputs for economic growth and further development need to be established. In order to accomplish this goal, rich countries should contribute of 0.7% of its gross national product (GNP); various country-level investment plans should be established; debt relief strategies need to be implemented; and trade reform has to be established. However, only five countries have met the 0.7% GNP contribution target: Denmark, Luxembourg, Netherlands, Norway and Sweden (United Nations, 2006).

The U.S., the most powerful and developed country in the world, currently ranks last among the richest in contributions to the development assistance program. In 2004, the U.S. donated 0.16 % of its GNP to the MDGs, which amounts to about $19 billion dollars. By giving an additional 1%, the U.S. would be able to help prevent 10 million children from becoming AIDS orphans and send 100 million children to grade school (PC, 2006).

Total UK official development assistance is expected to rise from $8 billion in 2004 to almost $ 12.8 billion by 2008. The UK is making progress towards the United Nations 0.7% target for assistance, as a proportion of gross national income (GNI). Figures for 2003 expenditure indicate that the UK reached 0.34% of GNI. On current plans, this will rise to 0.47% in 2008. The government plans to continue to raise UK assistance at the rate of growth achieved in 2008, which would mean that total assistance

would reach the UN target of 0.7% by 2013. Further, reports indicate that UK in 2003/04 committed a sum of $1 billion to combat HIV/ AIDS and reduce malaria, TB and other diseases (MDGs Progress Report, 2006).

Estimated cost of meeting the MDGs in all countries for 2006 was $135 billion. Projected cost for 2010 is $143 billion and for 2015 is $189 billion. Comparatively speaking, even though these numbers look enormously large, the fact is that the funds fall short of achieving the goals. The escalating development assistance from $135 billion in 2006, to $195 billion by 2015 is minimal when compared to the fact that the world's military budget is $ 900 billion a year. Indeed, if all countries allocated 0.7 % of GNP, development assistance would increase by over $100 billion a year compared with some $55 billion in 2004 (UNDR, 2004). Other multiple factors create a real challenge to MDGs and in some cases making the goals seem improbable. The problem of poor governance, marked by corruption, poor economic policies and denial of human rights in developing countries are factors that compose MDGs' challenge. Further, different social and cultural values among 47 countries in Sub-Saharan Africa create an additional challenge to MDGs unify solution.

MDGs' progress

According to United Nation's reports, between 1990 and 2002 average overall countries incomes increased by approximately 21%. The number of people in extreme poverty declined by an estimated 130 million (UNAIDS, 2006). About 8% of the population in developing countries received access to safe water; an additional 15% acquired access to improved sanitation services (UNAIDS, 2006). However, the progress has been far from uniform across the world. There are huge disparities among the

countries. Within countries, poverty is greatest for rural areas, though urban poverty is also extensive, growing, and underreported by traditional indicators.

Most of the MDGs are behind the estimated progress schedule in Sub-Saharan countries. Sub-Saharan Africa is at the greatest risk of not achieving the goals and is struggling to progress on almost every dimension of poverty, including hunger, lack of education, and prevalent disease. Between 1990 and 2001, the number of people in Sub-Saharan Africa living on less than $1 a day rose from 227 million to 313 million, and the poverty rate rose from 45% to 46%. Sub-Saharan Africa has the highest rate of undernourishment in the world, with one-third of the population below the minimum level of nourishment (World Bank, 2004). Malaria and TB remain a significant threat to health in Sub-Saharan region.

MDGs are just one of numerous programs that are trying to make a change and to reduce extreme poverty. Numerous non-profit and profit organizations are trying to fight this affliction, but the realistic problem is that the seriousness and strength of the issue is unimaginable. An increasing number of people become victims of diseases and lose their lives daily. According to World Bank's statistics, the amount of aid to developing countries increases every year. The table below shows the source and composition of official development assistance from 2002 to 2005. Billions of dollars are being spent every year, as though the increasing speed of virus infection is faster than the increasing speed of dollars spent to defend lives.

Table4. Official Development Assistance (ODA) from 2002 to 2005

		ODA in U.S. Dollars (Millions)			
	Country	**2002**	**2003**	**2004**	**2005**
1	Australia	962	1,237	1,460	1,666
2	Austria	475	503	678	1,552
3	Belgium	1,061	1,887	1,463	1,975
4	Canada	2,013	2,209	2,599	3,731
5	Denmark	1,632	1,747	2,037	2,107
6	Finland	466	556	655	897
7	France	5,182	7,337	8,473	10,059
8	Germany	5,359	6,694	7,534	9,915
9	Greece	295	356	465	535
10	Ireland	397	510	607	692
11	Italy	2,313	2,393	2,462	5,053
12	Japan	9,220	8,911	8,906	13,101
13	Luxembourg	143	189	236	264
14	Netherlands	3,377	4,059	4,204	5,131
15	New Zealand	124	169	212	274
16	Norway	1,746	2,043	2,199	2,775
17	Portugal	282	298	1,031	367
18	Spain	1,608	2,030	2,437	3,123
19	Sweden	1,754	2,100	2,722	3,280
20	Switzerland	933	1,297	1,545	1,771
21	UK	4,749	6,166	7,883	10,754
22	USA	12,900	15,791	19,705	27,457

Source: OECD. Organisation for Economic Co-operation and Development

Understanding the complexity of the poverty issue, and obstacles that MDG currently faces in Sub-Saharan is crucial. A way to improve health conditions in Sub-Saharan Africa is through socially responsible pricing (differential pricing). The most powerful pharmaceutical companies and various non-profit organizations are capable of making primary partial contribution which will lead to the overall good. Yet, the majority of people in Sub-Saharan Africa who could benefit from pharmaceuticals do not receive them. Less than 20% of the total HIV/AIDS population in Sub-Saharan Africa

has access to antiretroviral (ARV) therapy, the medical treatment that may allow them to lead productive lives. In Sub-Saharan Africa region approximately 810,000 people were on treatment in December 2005. Only about 1 in 6 (17%) of the 4.7 million people in need of ARV treatment in Sub-Saharan Africa receive it. One of the main barriers to access is that the medicine is too expensive for the majority of those who are infected. Even the least expensive ARV medication could cost approximately $3 per day, more than three times the per capita income pf a large proportion of the total population (UNAIDS, 2006).

In the following section three major theories will be examined in order to determine program effectiveness. These theories are socially responsible pricing (differential pricing), drug donation and out-licensing. However, only differential pricing had significant findings to report that could lead to effective contribution.

Corporate Social Responsibility (CSR)

The concept of socially responsible pricing (SRP), also known as differential pricing, is understood when corporate social responsibility is acknowledged. Socially responsible pricing is a pricing to maximize social welfare, not to maximize profit. "Civil society" is made up of private individual citizens who organize themselves outside of government and the public service to deal with specific issues and concerns that normal governmental process cannot address by itself (UNAIDS, 2005). In the context of AIDS, many different individuals and organizations participate actively outside of government structures in response to the epidemic. At the group level, civil society includes nongovernmental development organizations, faith-based organizations, women's groups, and other special-interest associations, as well as business enterprises and labor

unions, private foundations and the media. The term "corporate social responsibility" is often used with corporate responsibility, corporate citizenship, social enterprise, sustainability, corporate ethical duties, and in some cases corporate governance.

Companies are facing new demands to engage in public-private partnerships and are under growing pressure to be accountable not only to shareholders, but also to stakeholders such as employees, consumers, suppliers, local communities, policymakers, and society-at-large. Responding to corporate social responsibility issues many times can result in higher costs for the company. However, these costs are entirely legitimate taking into account that in order to be successful in today's world of globalization and differentiation, companies need to set themselves apart from their industry's competition.

The most admired companies today are ones which could retain good reputation and image in the public's eye (Fisher, 2007). Failure to respond on a corporate social responsibility issue automatically leads to higher additional costs, such as loss of good reputation and future sales. Corporations which could set higher ethical and moral standards would certainly set a better model for other corporations. European companies outperformed their counterparts in the U.S. and Asia. Oil company BP and telecom provider BT are among some of the top ranked companies for 2006.

UK-based BP is one of the world's largest petroleum and petrochemicals groups, with operations in 100 countries in Europe, North and South America, Australasia and Africa. Its CSR initiatives include conducting social and environmental impact assessments to understand the impact of its operations on the communities where it operates. The company also supports urban renewal programs, art sponsorships, literacy drives, conservation programs and health campaigns. Among other programs, BP

sponsors medical treatment in Bolivia and assists in the installation of solar power in desert communities in Algeria.

Britain's BT is one of Europe's leading telecom providers, serving more than 20 million residential and business customers in the UK. One of the company's key CSR strategic targets is to contribute at least 1% of its UK pre-tax profits to community programs. As one of the country's largest energy providers, it has also set a target of capping carbon dioxide emissions at 25% below 1996 levels by 2010 (Demos, 2006).

The U.S. company General Motors, ranked 12th in social responsibility in 2006, and is dedicated to protecting human health, natural resources and the global environment. In 2004, GM Foundation and GM Corporate contributed more than $68 million to charitable causes through cash contributions, in-kind donations and participation in charity events. GM is dedicated to protecting human health and the global environment. The company reduced composite greenhouse gas emissions in the U.S. by 77.2 percent from 1990 to 2004. Total carbon dioxide emissions from the U.S. plants declined 27.3 percent. (GM, 2007).

More importantly, human health and access to health care is a human right. On December 10, 1948, the General Assembly of the United Nations adopted and proclaimed the Universal Declaration of Human Rights, and according to article 25, everyone should have access to quality healthcare.

> 1) Everyone has the right to a standard of living adequate for the health and well-being of himself and of his family, including food, clothing, housing and medical care and necessary social services, and the right to security in the event of unemployment, sickness, disability, widowhood, old age or other lack of livelihood in circumstances beyond his control.

(2) Motherhood and childhood are entitled to special care and assistance. All children, whether born in or out of wedlock, shall enjoy the same social protection.

(Article 25-UN, 1948)

Universal Declaration of Human Rights is an international document that clearly emphasizes that human health should be treated as a human right. On the other hand, companies and organizations have a social responsibility to contribute funds and assist in improving human conditions that are of the global concern. Understanding the importance of corporate social responsibility and company's commitment to contribute to the improvement of human safety and future economic development is crucial in order for strategies such as differential pricing to be effective.

Differential Pricing (Socially Responsible Pricing, SRP)

The differential pricing for medicines was promoted by the WHO and the WTO, and the European Commission's ideas of a global "tiered pricing" system back in 2001 (Raghavan, 2001). Due to the mounting public protest, led by international non-governmental groups against the WTO and over the exorbitant profits of the transnational pharmaceutical industry, the concept of differential pricing became an attractive solution. Differential pricing promotes product sales at fluctuating prices proportional to a country's economy. Socially responsible pricing or differential pricing reflects sales decisions consistent with a corporation's obligations to society and is not focused on maximizing its profits. Differential pricing permits companies and individuals to make their products or services available to people of a wider range of incomes.

From the perspective of the traditional economic view, companies face a social, ethical or moral challenge and obligation to lower prices (Vachani & Smith, 2004). This is an essential key in helping Sub-Saharan countries to become independent in the long term. However, neither multinationals nor developing country governments can alone create conditions for socially responsible pricing to prevail. The goal is to work with multinational corporations (pharmaceutical national/ international companies), local partners, and local and international institutions in order to provide a sustainable development.

Comparison of two major alternative theories

Drug Donation

In theory, drug donation programs set the price at zero for drugs to be freely distributed in developing countries. However, drug donations programs can burden donor countries with hidden costs. For instance, donating countries can face challenges in the administration of drug distribution because demand is more difficult to estimate without market signals. These programs can also harm commercial sales when there is unauthorized diversion in the private sector. Most importantly, these programs are not considered sustainable in the long term given the scale required for HIV/AIDS dose treatments. Even though some programs and firms are willing to contribute to the health conditions in Sub-Saharan Africa, the situation is that majority of the companies and countries would not stay committed past the MDGs (Vachani & Smith, 2004). Also, donors' agencies have proceeded on the mistaken assumption that directing their assistance toward one specific area would put a country on a secure path to economic growth. For instance, since the 1960's, assistance from donor countries has totaled more

than 1 trillion dollars, and yet the per capita income growth rate for the average developing country over the past two decades did not change significantly (Gilbert, 2004).

Out-licensing

Out-licensing theory allows pharmaceutical patent holders to give out-licenses to generic manufacturers who agree to manufacture and supply medicines to poor, developing countries. Under the legally required terms of these license agreements, several generic manufacturers could compete against one another on price in poor countries, but would not be allowed to compete against the patent holder in rich countries, and thereby protect revenues and incentives for inventing new medicines.

In theory, out-licensing has the advantage of providing opportunities for consumers to obtain drugs at lower prices. However, the price may not be low enough to make the product affordable for large portions of the population in need or local manufactures may not be able to maintain quality and safety standards (Vachani & Smith, 2004). Another potential objection to out-licensing is that it could reduce R&D incentives. If restrictions on intellectual property rights were limited to the poorest countries, the impact on research reasons would be minimal for most diseases, but for diseases that primarily affect poor countries (Kremer, 2002).

It is clear that charity or donations are insufficient to overcome the challenges that Sub-Sahara Africa faces. Out-licensing is a theory with a great potential, but in reality it is very difficult to implement considering the technological and safety condition in Sub-Sahara Africa region. Structural interventions such as practice of differential pricing are a challenge that would lead to improvement of health conditions in Sub-Saharan Africa.

Methodology

Two world's major pharmaceutical companies that produce HIV/AIDS drugs, GlaxoSmithKline and Merck were used to examine the effectiveness of socially responsible pricing. These companies are global research-driven pharmaceutical companies with the greatest impact on prevention of HIV/AIDS. Further, these companies are practicing differential pricing; therefore the effectiveness of this theory is clearly shown. Findings indicated that the practice of differential pricing is a significant component that could lead to poverty reduction.

Findings

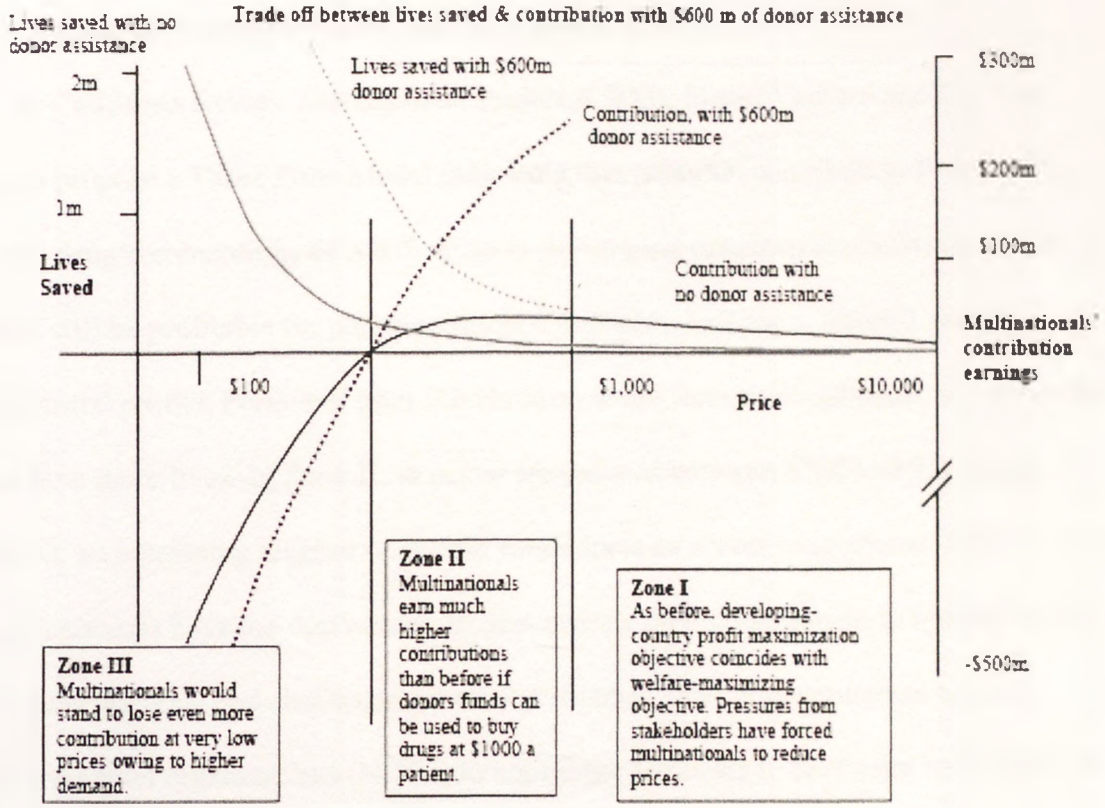
Research and development (R&D) is a key characteristic of the research-based pharmaceutical industry's business model. The commitment to drug research and development result in a cost structure with high fixed costs and low variable cost. Ideally, with these fixed and variable costs, drug prices would be lowered to level that yield low contribution margins. However, a few large pharmaceutical companies that are controlling the market are also preventing drug price reduction. The costs of some life saving drugs are too high. For example, a year's supply of three drug ARV combinations for a single AIDS patient was priced at around $10, 000 in developed countries in 2003 (Vachani & Smith, 2004).

Additionally, many pharmaceutical companies have out priced themselves in developing countries so the pricing strategy for entering developing countries' market requires segmenting the markets and pricing low in developing countries and high in developed countries.

At high prices, companies earn greater profits but sell few units. On the other hand, by reducing prices in developing country markets, companies would earn less per sale, but increase the number of sales leading to greater profits.

In California Review Management Project (CRM), Sushil Vachani and N. Craig Smith propose a Three Zone Model indicating that potential contribution from selling triple- drug combinations of AIDS drugs in developing countries at adjustable prices could still be profitable for pharmaceutical companies. In Zone I, figure 3 shows substantial profits. Pressures from stakeholders could force multinationals to lower prices and save more lives. In Zone II, as prices are reduced between $750 and $1000 per person, an increasing number of people would have an access to medicine. This is where multinationals have the opportunity to demonstrate their commitment to human welfare by lowering price and challenging their stakeholders such as governments and non governmental organizations (NGOs) to contribute resources to save even more lives. In Zone III, the maximization of social welfare would have been very difficult for multinationals to achieve alone. Multinationals would lose large amounts of money as the price drops bellow $500.

*Figure 3.*Tradeoff between lives saved and contribution in developing countries with and no donor assistance



Source: California Management Review, Vol 47,NO.1 Fall 2004

Analyzing this model, it is clear that with the price reduction of HIV drugs, thousands of more lives could be saved. Zone II is a key for understanding the idea of differential pricing and sets an example for ways differential pricing could be beneficial to multinationals, as well as save lives. If prices of drugs managed to be between $750 to $1000 some 50,000 to 80,000 patients might have been provided drugs, rather than serving a 1000 people at $10,000 per person (Vachani & Smith, 2004). Further, donors, government and NGOs could participate and save a greater number of individuals. The model clearly shows that lower prices would encourage donors, government and private

organizations to participate in programs assistance. More importantly, the model indicates that differential pricing is practical for some major pharmaceutical companies.

Pharmaceutical market differentiation between developed and developing countries

It is essential to recognize that the market for pharmaceuticals in developing countries differs in several ways from that in developed countries. First, the market for pharmaceuticals in the poor countries is small. For example, Connecticut spends more on health care than 38 low income countries of Sub-Saharan Africa (World Bank 2001). Further, North America, European Union and Japan accounted for 88% of audited worldwide pharmaceutical sales in 2003. Whereas, Asia, Africa and Australia together count for only 8% of global sales

Setting the pace among the leading regions, North American pharmaceutical sales grew 11% in 2003, representing, almost half of all global sales. The European Union countries experienced sales growth of 8%; the rest of Europe experienced sales growth of 14%. Japan achieved 3 % growth in pharmaceutical sales. Pharmaceutical sales in Asia (excluding Japan), Africa and Australasia grew by 12%. Sales in the improving economy of the Latin American region rose 6% in 2003 as shown in table 5 (IMS, 2004).

Table 5. World Pharmaceutical Market Sales by Region

World Audited Market	2003 Sales ($bn)	% Global sales ($)	% Growth (constant $)
North America	229.5	49%	+11%
European Union	115.4	25	8
Rest of Europe	14.3	3	14
Japan	52.4	11	3
Asia, Africa and Australasia	37.3	8	12
Latin America	17.4	4	6
TOTAL	$466.3bn	100%	+9%

Source: IMS World Review, 2004.

Third, World Health Organization (WHO) estimates that infections and parasitic diseases account for 1/3 of the disease burden in low income countries, but only 3 % of the burden in high income countries. In fact, nearly half of the reported cases involving diseases such as HIV/AIDS, malaria and TB occur in Africa. In contrast, the disease burden in high-income countries mainly consists of noncommunicable condition like cancer and cardiovascular disease as indicated in table 6.

Table6. Percentage of Disease Burden

Disease	World	Low-Income Countries	High-Income Countries
Tuberculoses	2.4%	2.9%	0.3%
HIV/AIDS	6.1%	9.7%	0.7%
Malaria	2.7%	4.5%	0%
Malignant neoplasms-cancers	5.3%	2.9%	14.4%
Cardiovascular disease	10.3%	7.7%	16.45

Source: World Health Organization, 2001

Finally, a weak health care system is a significant problem in developing countries. For instance, the Unites States has 2.7 trained physicians per thousand people and Europe has 3.9. Yet, Sub-Saharan Africa has only 0.1 physicians per thousand people. Also, misuse of pharmaceuticals in developing countries is often the cause for lack of drugs because drug procurement and distribution are ineffective or corrupt (Kremer, 2002).

Drawing on this background information concept, the perception is that access in Sub-Saharan Africa to medicine, such as drugs for HIV, malaria and TB is a major issue of corporate social responsibility; therefore, the conditions in which costs could be lowered to a socially responsible affordable price at which the poor can be better served are essential.

Case Studies

Two well known pharmaceutical companies that produce HIV/AIDS drugs are GlaxoSmithKline and Merck.

GlaxoSmithKline

Headquartered in the UK and with operations based in the US, GlaxoSmithKline is one of the pharmaceutical industry leaders, with an estimated 7% of the world's pharmaceutical market. The company's mission is to improve the quality of human life by enabling people to do more, feel better and live longer. This mission gives the company the purpose to develop innovative medicines and products that help millions of people around the world (GlaxoSmithKline, 2007).

In April 2003, GlaxoSmithKline cut the prices of AIDS drugs in poor countries by as much as half. The price of Combivir, the company's popular AIDS therapy that combines two drugs in a single pill, has been cut to 90 cents a day, from $1.70, a reduction of 47%. The price of Combivir in the United States is about $18 a day. GlaxoSmithKline also reduced the price of its other drugs to treat HIV/AIDS, AZT, which is available for 75 cents per day. The prices are available to qualified customers in 63 countries, including all of Sub-Saharan Africa. GlaxoSmithKline supplied nearly six million tablets of Combivir to developing countries in 2002, up from about two million tablets in 2001 (Abelson, 2003). This company represents a model for other major companies and more importantly it represents a faith for implementation of differential pricing theory in action.

Merck Inc.

Another example is U.S. based Merck Inc, a global research-driven pharmaceutical company; Merck established in 1891, researches, develops, manufactures and markets vaccines and medicines. The company's mission statement is discovering, developing and delivering new medicines and vaccines that can make a difference in people's lives, and maintain high ethical standards and a culture that values honesty, integrity and transparency (Merck, 2007).

In March 2002, Merck promised that it would reduce the price of its first-line AIDS drug Stocrin (efavirenz, EFV) to less than $1 per day in developing countries; the promised has failed to materialize. Merck announced a price reduction for the 600mg formulation of EFV, bringing the price down to $346.75 per person per year or 95 cents per unit. EFV is among the ARVs recommended by the WHO for first-line treatment, and

it is a critical component of ARV combination therapy, particularly for patients infected with HIV. The 600mg tablet formulation of EFV allows patients to take one tablet instead of three 200mg capsules per day. However, the company failed to keep its promise; therefore, people with HIV/AIDS in developing countries who need to take EFV are obliged to take three 200mg capsules at a cost of 44% more than the price announced by Merck (Doctors Without Borders/Medecins Sans Frontieres, MSG, 2004).

Even though, Merck broke its promise in 2002, the company has changed its actions in 2006. In May 2006, Merck is being presented with the Global Business Coalition National Action Award for its efforts to combat the spread of AIDS in African country Botswana, a country where nearly 38 % of the adult population is HIV positive. The company supported Botswana's ARV treatment program, which is one of the largest such programs in Africa, with more than 52,000 patients currently on treatment. Also, Merck provided hands-on clinical training for more than 3,200 physicians and other health care professionals. Further, the company supported projects such as distance education for teachers and students, a blood safety and youth prevention program, condom distribution efforts, behavior change interventions and small grants to community-based efforts (Merck, 2007). GlaxoSmithKline and Merck are valuable illustrations of practicing differential pricing and saving more lives.

Even with various risks that could appear to discourage socially responsibly pricing by multinationals there are still ways to overcome these obstacles. Alternative theories such as drug donations and out-licensing have at times failed.

Conclusion

There are a number of potential costs and risks that appear to discourage socially responsible pricing by multinationals.

Product diversion

One of the risks of significant price differences between countries is the possibility of product diversion across countries. For example, in 2002 AIDS drugs sold by one of the multinationals at sharply reduced prices in Africa were found illegally in Germany and the Netherlands. However, multinationals can also discourage diversion by introducing different brands, codes and packaging in developed and developing countries so that diverted products can be more easily detected. With appropriate methods of control, it would be possible to limit gray markets (Vachani & Smith, 2004).

Price Discrimination

Price discrimination across countries could result in increased pressure for price reductions in developed countries. However, governments could address the needs of poorer segments of their own countries and pressure for lower prices from multinational might ease. Also, rich developed countries could facilitate price discrimination by prohibiting imports of pharmaceutical products from countries with weaker patent laws. This would be necessary step in order to prevent product discrimination (Vachani & Smith, 2004).

Inadequate Infrastructure and Avoiding Drug Resistant Strains

Many multinationals claimed that lack of infrastructure was a serious hurdle to treating developing country patients than drug prices. Also, without proper infrastructure patients would not take their medications as directed. A more concrete obstacle to the

distribution of inexpensive drugs is the lack of an effective delivery system in many developing countries. Thus, even if lifesaving drugs were priced cheaper, the lack of medical infrastructure would make it very hard to deliver them to the individuals needing them the most (Sachs, 2005).

Donor Opposition

When poor patients are unable to pay for medications, one possible solution for drug companies is to lower their prices. If they are quick to cut prices, donors and local governments may be under pressure to provide financial support. However, when drug prices are high, donors' lack of motivation to contribute significant amount from their funds is critical (Vachani & Smith, 2004).

Conditions under socially responsible pricing will work

The coordinated effort of multiple stakeholders is necessary to overcome barriers to socially responsible pricing. These stakeholders include developing and developed country governments, multilateral institutions private donors, NGOs and generic product manufacturers. It is essential to understand the importance of collective effort of multiple stakeholders because of the complex relationship between poverty and HIV transmission. Yet, the pharmaceutical industry is an essential spring board for making improvements on health conditions in Sub-Saharan Africa.

Further, the need for a multilateral response and assistance by multinational corporations, government and non-government organizations could enhance social welfare.

Pharmaceutical Companies

Differential pricing strategy does not seem attractive from an economic standpoint due to the fact that companies are not able to maximize their prices; pharmaceutical officials need to consider a more socially responsive mindset that would enhance welfare. Given that not all multinationals' products are life-saving drugs, a company's maximum profits reductions are not required on all products. Also, companies could reduce the price of drugs by seeking lower cost manufacturing techniques and supplies. Even though, it looks as if pharmaceutical companies would lose profits, Zone II (p, 23, figure 3) clearly explained the idea under which pharmaceutical companies could still obtain their profits and save lives. Additionally, in the long term, pharmaceutical companies could increase the demand in Sub-Saharan Africa which would lead to an increase of future sales growth.

Although, the Sub-Saharan region represents about 3-4% of the total sales market, this number could grow (IMS, 204). By accepting the idea of sub-optimal earnings in developing countries and finding ways to overcome the obstacles in combination with other stakeholders, the success of differential pricing strategy is possible.

Working with companies outside the pharmaceutical industry

Furthermore, not only could pharmaceutical companies contribute to saving lives, it could also create a better model for other companies outside the pharmaceutical industries. Due to the fact that many developing countries lack of an effective delivery system, companies inside the infrastructure industry could be motivated to help developing countries and make available drugs and appropriate treatment possible. These companies could contribute to life-saving factors through assistance of road

improvements and training people on road maintenance. Infrastructure companies would build better reputations and a positive image in the public's eye, which could be a powerful niche and competitive advantage for growth and innovation.

Working with donors

Also, if multinationals work together with other stakeholders they would create an opportunity for donors to become even more motivated by the opportunity that their donations would be saving an increasing number of people due to lower drug prices. Further, donors themselves need to improve their own performance. A donor plan should focus on three aspects of aid flows. First, aid should be large enough to enable the recipient country to finance its investment plan. Second, aid should be long term in order to be effective and make substantial contributions. Third, aid should be supported by other development strategies (Sachs, 2005).

Working with multilateral institutions

Multilateral institutions would get an opportunity to enhance their current developing programs and plans for developing countries even stronger into action. More precisely, these institutions could be backed by pharmaceutical companies, which would create a better chance for successful implementation of programs and overcoming local obstacles. Corruption is a sensitive issue because it could bring embarrassments to the multinational corporations; it could harm developing plans to a great extent and it could hinder growth. Foreign aid and lower prices have no significant impact on the growth rate of countries with non-committed polices, but they have a positive impact on countries that have a strong policy environment (Sachs, 2005). With the power and support that of UN, WHO, IMF, WTO, local governments in developing countries could be improved to

the levels that differential pricing strategy is effective. For instance, multilateral institutions could help developing countries create an environment conducive to investments by private businesses and create conditions that will allow a business to thrive and rely on future profits. The key is for multilateral institutions to create a plan which would help local governments become independent and sustain continued development.

Pharmaceutical companies could create a stronger flow for a collective effort of multiple stakeholders which is necessary to overcome barriers to socially responsible pricing, establish effective assistance and lead developing countries to consistent sustainable growth and development.

Finally, not only would pharmaceutical companies create a better model for other companies, they would also set a higher ethical standards for future businesses, build a strong positive reputation in the public's eye, provide valuable insights, and gain a great differentiation which could be used to a competitive advantage. Most importantly, pharmaceutical companies have a power and capability to impact the world, save thousands of more lives, remind the world that health is a fundamental right, not a privilege.

Even though, challenges such as product diversion, price referencing, inadequate infrastructure and corruption among other major concerns and risks of practicing differential pricing strategy, it is possible to overcome these obstacles. Under certain conditions, it is possible for these challenges to be met and the prospects for the world's poorest people to be substantially improved.

Global concern regarding health issues in Sub-Saharan Africa and other developing countries is a widely recognized reality. Unquestionably, more than 1.1 billion people live below the $1.08 per day income as of 2001, with an average income of $0.77 per day, or $ 281 per year. The poor in 2001 had a shortfall relative to basic needs of $ 0.31 per day ($ 1.08 minus $0.77), or $ 113 per year per person multiplied by 1.1 billion people, or $124 billion (World Bank, 2004). These statistics indicate that the global assistance from governmental and nongovernmental organizations is essential in order to reduce extreme poverty.

Furthermore, in Sub-Saharan Africa, there are currently 4.1 million people with AIDS who are in immediate need of life-saving ARV drugs. Each day in Africa, 6,500 people die and another 9,500 contract the HIV virus - 1,400 of whom are newborn babies infected during childbirth or by their mothers' milk (UNAIDS, 2006). Currently more than 11 million children in Africa have lost at least one parent to HIV/AIDS; that number is expected to reach 20 million by 2010 (UNAIDS/UNICEF, 2006). Five people die from AIDS every minute (Red Nose Day, 2006).

Even though, some people would argue that Africa is a "black continent" and that it does not affect the rest of the world, figures clearly imply that the HIV/AIDS is certainly affecting if not threatening civilization. For instance, there are approximately 40 million people living with HIV and AIDS worldwide (Oxfam, 2006). One in every 100 people worldwide is HIV positive and one third of them is between the ages of 15 and 24 (ActionAid UK, 2006). AIDS experts estimate that it cost more than $10.5 billion a year to fight AIDS globally in 2003 and that price escalated to more than $15 billion in 2007 (UNAIDS, 2004). It is clear that not only that a percentage of people becoming infected

by HIV/AIDS virus is rising, but also the cost of fighting this disease is increasing exponentially.

The complex scope of world poverty and interconnection of multiple aspects of poverty is one of the greatest challenges for the 21st century. Proposing a single solution is unrealistic but proposing different strategies for improvement of world's health condition, basic needs and primary education would be a starting point for improvement. Africa's problems are difficult but still solvable. Disease could be controlled, agriculture could be improved, and infrastructure could be built. Through the practice of differential pricing, access to medicines for diseases such as HIV/AIDS is obtainable to the poorest countries. Multiple obstacles such as product diversion, price referencing, inadequate infrastructure, corruption, and donor reluctance represent a challenge for the successful realization of differential pricing. However, through global interventions by multinational companies, governmental and private organizations, these obstacles could be overcome which would lead to a productive global outcome in the long run.

Yet, one of the most difficult challenges needs to be addressed. Variables such as cultural and social value are certainly challenges that make the issue even more complex. Cultural environment may be an obstacle to development. For instance, in some countries cultural or religious norms in the society may block the role of women or undermine half of the population without economic or political rights, education and overall development. Similarly, cultural barriers could affect religious or ethnic minorities. For instance, some of these norms may prevent access to education, health facilities or job training to certain groups (Gilbert, 2004). Even worse, this situation could lead to

harassment in the community, including boycotts, vandalism and ethnic cleansing (Hamish, 1995).

Promotion of international participation, free trade, economized globalization, global community is all result of today's world's globalization and integration. These aspects could serve as a background for promotion of a new globalized culture. A country's culture is not static; it has been influenced by other cultures, either through voluntary extension or unfortunately through force and oppression. In order to successfully promote ideas such as a need for the global effort to fight against world poverty and confront social issues, a global shift in culture is needed. There is no inert culture; only the human made environment helps create culture (Bonden, 1991).

Through promotion of education and long term plans these challenges could be successfully addressed. However, one has to understand that this is an extremely time consuming process and in order to seek results, a collective effort is needed. Knowing that cultural differences among nations could create serious obstacles to developmental plans, further research is essential; factors that have an impact on these different cultural values should be examined. In order for multilateral organizations to successfully develop assistance plans, a relationship between cultural values and local corruption should be examined in further research. Further, elements that could contribute to a global shift in culture need to be recognized and emphasized.

The collective effort is the most probable way to successfully seek the world's social improvements. This thesis only provides a small portion of the extremely important issue, and it has to be carried to the next level of research in order to seek an improvement. Beyond this thesis, the further research should include an examination of

variables such as free trade, debt release, and international and local policies from institutions such as IMF and WTO. These variables have an enormous impact on developing countries' growth, therefore further research is necessary. Yet, one has to understand that in order to deal with such extreme social phenomena; it takes time, collective efforts and sacrifices for all.

. References

Abelson, R. (April, 2003). *Glaxo Will Further Cut Prices Of AIDS Drugs to Poor Nations.* Retrieved on March 2, 2007. The New York Times. http://query.nytimes.com/gst/fullpage.html?res=9D01E0D6123DF93BA15757C0A9659C8B63&sec=heal...

Bonden, G.A. (1991). *Cultural Orientation: An approval to understanding intellectual communion.* Englewood Cliffs, NJ: Prentice-Hall.

Business and Human Rights Resource Center. *Declaration of Human Rights.* United Nations, 1948. Retrieved on February 18, 2007. http://www.business- humanrights.org/Home

Demos, T. *Beyond the bottom line. Our second annual ranking of Global 500companies.* Retrieved on March 20, 2007. CNN.http://money.cnn.com/popups/2006/fortune/g500_accountability/index.html

Doctors Without Borders/Medicines Sans Frontiers (MSF).(March, 2004) *MSF Calls for Immediate Action to Reduce Price and Register Efavirenz.* Retrieved on February 18, 2007. The New York Times Company. http://www.cptech.org/ip/health/aids/msf03032004.html

Fisher, A. (March, 2007). *America's most admired companies.* Fortune Magazine.

Fittipaldi, S. *The corporate world is still searching for definitive proof that corporate responsibility pays—and now the evidence is piling up.* Global Finance. Retrieved on March 27, 2007. http://globalf.vwh.net/content/?article_id=498

Geoffrey, G. (2004). *Contemporary world issues. World Poverty* .New York Press, NY. Prentice Hall

General Motors. *Corporate Responsibility*. Retrieved on February 20, 2007. http://www.gm.com/company/gmability/

GlaxoSmithKline. *Responsibility.* Retrieved on March 15, 2007. http://www.gsk.com/responsibility/index.htm

Google. *Sub-Saharan Africa Map*. Retrieved on March 15,2007. 2http://images.google.com/images?q=sub+saharan+africa&hl=en&um=1&sa=X&oi=images&ct=title

Gordon, C. *Support the Millennium Development Goals.* Presbyterian Church. Retrieved on March 15, 2007. http://www.pcusa.org /washington/index.htm

HIVInSite. *Sub-Saharan Africa*. Retrieved on December 20, 2006. http://hivinsite.ucsf.edu/InSite

IMF- *World Economic Outlook, 2004, 2005.* Retrieved on December 15, 2006. World Bank http://www.worldbank.org/reference/

IMS. *Lipitor leads the way in 2003*. Retrieved in February 12, 2007. http://open.imshealth.com/IMSinclude/i_article_20040317.asp

International Food Policy Research Institute. *Sub-Saharan Africa*. Retrieved on February 22, 2007. http://www.ifpri.org/; http://www.ifpri.org/divs/mtid/dp/mtidp93.asp

Kremer, M. *Pharmaceuticals and the Developing World.* Journal of Economic Perspectives. Volume 16, Number 4, 2002.

McRae, H. (1995). *Power, Culture, and Prosperity: The World in 2020.* The New York Press. NY: Prentice Hall.

Merck Inc. *Corporate Responsibility.* Retrieved on February 11, 2007. http://www.merck.com/cr/

Millenium Campaign. *Goal 6: Combat HIV/AIDS, malaria and other diseases.*" Retrieved on February 10, 2007. www.usaid.gov

Millennium Project (2002-2006). *Millennium Goals.* Retrieved on December 12, 2006. http://www.unmillenniumproject.org/goals/index.htm

National Institute of Allergy and Infectious Diseases (NIAID). *NIAID-Supported Scientists Discover Origin of HIV-1.* Retrieved on March 12, 2007. http://www3.niaid.nih.gov/

Raghavan, C. *Differential pricing for drugs to help people or corporations.* Retrieved on December 2, 2006. http://www.twnside.org.sg/title/pricing.htm

Sachs, J. (2005). *A Practical Plan to Achieve the Millennium Development Goals.* Millennium Project, United Nations, 2005.

Sachs, J. (2005). *Economic Possibilities for Our Time. The end of Poverty.* The Earth Institute. New York. NY: Prentice-Hall.

The World Bank Group. *Data and Statistics.* Retrieved on February 2, 2007. http://www.worldbank.org/reference/

United Nations Development Program (2005). *Millennium Development Goals.* Retrieved on December 12, 2006. http://www.undp.org/mdg/

The World Bank. *Dramatic Decline In Global Poverty, But Progress Uneven.* Retrieved on January 15, 2007. http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/EXTPOVERTY/0,,contentMDK:20195240~pagePK:148956~piPK:216618~theSitePK:336992,00.html

The World Bank Group. *Reducing Poverty and Hunger*. Retrieved on January 15, 2007. http://devdata.worldbank.org/wdi2005/Section1_1_1.htm

UNAIDS. *Report on the global AIDS epidemic 2006*. Retrieved on February 5, 2007. http://www.unaids.org/en/HIV_data/2006GlobalReport/default.asp

USAID. *Sub-Saharan Africa*. Retrieved on March 2, 2007. http://www.usaid.gov/locations/sub-saharan_africa/

Vachani, S. and Smith C. (2004). *Socially Responsible Pricing: Lessons from the Pricing of AIDS Drugs in Developing Countries*. California Management Review. Hass School of Business.

World Resource Institute. *World Development report 03/04*. Retrieved on February 21, 2007.http://econ.worldbank.org/WBSITE/EXTERNAL/EXTDEC/EXTRESEARCH/EXTWDRS/0,,contentMDK:20227703~pagePK:478093~piPK:477627~theSitePK: 477624,00.html