

# INTERNATIONAL PERSPECTIVES ON HEALTH DISPARITIES AND SOCIAL JUSTICE: THE AFRICAN CONDITION

This article explicates the concept of health disparity and operationalizes it in the context of the developed world and Africa. The paper argues that the health disparity between the developed world and Africa is largely the consequence of the latter's economic debility and offers solutions. (*Ethn Dis.* 2007;17[suppl 2]:S2-50-S2-54)

**Key Words:** Health Disparities, Social Justice, Africa

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## INTRODUCTION

At the launching of the Global Health Institute at Duke University in spring 2006, Duke president Richard D. Broadhead observed, "The 20th century was a century not only of medical discovery, but of medical disparity. The same century that created new knowledge also created a new form of inequality between those who have and those who lack access to evidence-based medicine."<sup>1</sup>

This inequality is what is commonly referred to as health disparity, but what does health disparity really mean? The primary objective of this paper is to explicate the concept of health disparity and operationalize it in the context of the developed world vis-à-vis Africa.

Scientists and social scientists have defined health disparity with varying meaning. However, the most recognized and widely used definition is from Drexler: "the consistent gap in physical and mental well-being between the most privileged members of society and the most socially and economically disadvantaged."<sup>2</sup>

Paula Braverman elaborated further on the concept by positing that health disparity does not refer to all differences in health, but rather it connotes a particular type of difference in health that could be shaped by policies. Braverman adds that "it is a difference in which disadvantaged social groups such as the poor, racial/ethnic minorities, women, or other groups who have persistently experienced social disadvantage or discrimination systematically experience worse health or greater health risks than more advantaged social groups."<sup>3</sup>

Other writers have advanced theories about the determination of disparities or inequality. For example, Dahlgren and Whitehead<sup>4</sup> have postulated

that health inequalities count as inequities when they are avoidable, unnecessary, and unfair. This school of thought is a logical extension of the German pathologist and political reformer Rudolf Virchow's inquiry a century and a half ago, "Do we not always find the diseases of the populace traceable to defects in society?"<sup>5</sup>

To discuss international health disparities, with specific reference to Africa, we must confront the socioeconomic factors that underpin them. Hence, the adoption of the social determinants model to examine international health disparities. The selection of this model does not negate the fact that health outcomes are the result of complex and poorly understood interactions among households, communities, health services, other sectors, and the environment. Nevertheless, the health disparity between the developed world and Africa seems to largely be the consequence of the latter's economic debility.

## AFRICA'S HEALTH STATUS

Africa is host to a number of disease vectors whose transmission is aided by a warm, tropical climate and variable rainy seasons. The continent's efforts to overcome illness and diseases since independence have yielded mixed results. On one hand, infant mortality has been reduced by approximately one third while life expectancy has increased by  $\approx 10$  years. Unfortunately, the gain in life expectancy has been eliminated by the devastation of the HIV/AIDS epidemic.

Around the independence period, 1957–1960, one in seven Africans had access to safe drinking water. Improvements to quality of water and healthcare

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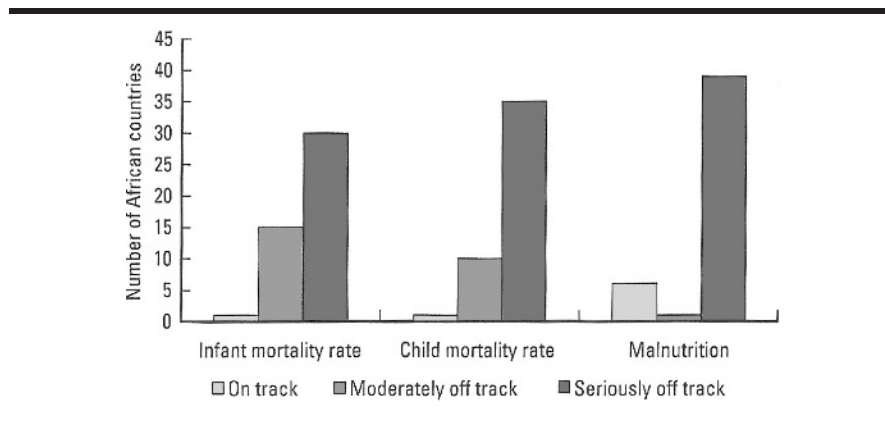
access have been made since that time. More than 40% of Africans now obtain their drinking water from a safe source, and  $\approx 50\%$  of all Africans can travel to a healthcare facility within one hour.<sup>6</sup>

Although the aforementioned can be described as progress, when compared to other developing areas, the progress is slow and limited. Forty-seven million African children under age five show signs of chronic malnutrition. The proportion of underweight children was reported by the World Bank at 27% in 1990 and 29% in 2000. Many African nations conduct an annual demographic and health survey. Of the 25 countries that have conducted more than one survey, each shows a rise in the prevalence of stunting, an indicator of chronic malnutrition, which leaves the region poised to account for more child deaths than all the other regions of the world combined.<sup>7</sup>

Anemia is also a problem in Africa. Approximately 50% of pregnant women and children from preschool age to 14 years old are anemic, partly due to iron deficiency, which makes them more susceptible to infection.<sup>7</sup> Africa has the highest global prevalence of vitamin A deficiency; 20% of all deaths among children under five years of age could be prevented with adequate vitamin A.<sup>7</sup>

Africa's infant mortality rate of 105 per 1000 live births is nearly 50% higher than the average for all low-income countries. More disturbing is the fact that the under-five mortality rate has risen in 19 African countries. At this rate, Africa will not reach the Millennium Development Goals (MDGs) for infant mortality until approximately 2144 (Fig. 1).<sup>7</sup> The MDG is to reduce the infant mortality rate by one third by the year 2015.

These data are averages; if we isolate the under-five mortality rates of the poorest groups, we find a mortality rate of 200 per 1000. The rate for some population groups of the same age in South Asia is 140 per 1000.<sup>7</sup> Further-



**Fig 1. African countries on track to achieve MDGs for infant and child mortality and malnutrition. Adapted from the World Bank 2006. *Improving Health, Nutrition and Population Outcomes in Sub-Saharan Africa: The Role of the World Bank.***

more, Africa has the highest dependency population ratio in the world: 44% of the population is <15 years of age. The higher the dependency ratio, the greater the pressure on households, communities, and governments to provide basic needs, including health care for the dependents.<sup>7</sup>

African fertility rates are the highest in the world. Although the average total fertility rate (TFR) declined from 6.6 in 1982 to 5.9 in 1992 and 5.3 in 1999, 13 countries, inclusive of the larger ones of Nigeria, Ethiopia, and Democratic Republic of Congo, still have TFRs  $\geq 6.0$ . An additional 18 countries have TFRs between 5.0 and 6.0.<sup>7</sup>

Maternal deaths in Africa are also a problem, accounting for more than half of the world's total. Women on the continent face a 1 in 16 chance of dying in childbirth, compared with an  $\approx 1$  in 3500 chance in the developed world. Additionally, for every woman who dies,  $\approx 30$  endure injuries, infections, and disabilities in pregnancy or childbirth.<sup>7</sup>

Compounding this problem is sexually transmitted disease. Africa experiences >69 million new cases of curable sexually transmitted infections annually or 257 new cases for every 1000 people ages 15 to 49 years.<sup>8</sup>

Historically, the leading causes of disability-adjusted life years lost in Africa are respiratory infections, diarrheal diseases, malaria, tuberculosis, HIV/AIDS,

and measles.<sup>7</sup> However, HIV/AIDS has now assumed the most predominant position. The nature and scope of the pandemic provide the most convincing evidence of the disparity between Africa and the rest of the world.

Worldwide, >40.3 million people are living with HIV/AIDS. Of these, 25.8 million, or nearly two thirds of the world's total HIV/AIDS population, are in Africa.<sup>9</sup> Given the fact that the African population constitutes only  $\approx 10\%$  of the world's population, this rate is highly disproportionate. In addition, 77% of all African women are infected. In 2005, 3.2 million new HIV infections were reported in sub-Saharan Africa.<sup>9</sup> This number translates into 11,000 new infections daily and a new infection every 8 seconds. In 2005 alone, 2.4 million AIDS deaths were recorded in Africa out of a total of 3.1 million worldwide.<sup>9</sup> AIDS has orphaned 13 million children worldwide; 12 million of these are in Africa. This number is expected to double by 2010. The most affected are vital, productive people between the ages of 20 and 50 years.

Within the next decade, many countries, especially in southern Africa where the crisis is more severe, will experience a decline of 20 or more years in life expectancy. Botswana and Zimbabwe have already experienced a drop in life expectancy from 65 to 40 years of

age and 70 to 39 years of age, respectively.<sup>10</sup> To avoid economic decline in some of these countries, especially Botswana, the educated workforce needs to work for 10 to 15 years, but they are economically active for only five years as a result of AIDS.

Economists estimate that the shrinking labor pool, the consequence of HIV/AIDS, will slow the continent's economic growth rate by 2% annually.<sup>11</sup> The World Bank estimates that in the case of South Africa, where 20% of the population is HIV/AIDS-positive, gross domestic product (GDP) will decrease by 17% by 2010.<sup>12</sup> In the South African industrial sector, the hardest hit companies are estimated to lose 40%–50% of their workforce in the same period.<sup>13</sup>

Notwithstanding the danger HIV/AIDS poses to the security and survival of the African continent, it is the attitude of the international community to HIV/AIDS patients that makes the disparity more glaring. Approximately 730,000 HIV/AIDS patients are treated with antiretroviral drugs worldwide, and out of these, 500,000 are living in developed countries, compared with only 30,000 African AIDS patients who are treated with these drugs.<sup>14</sup>

Next to the havoc of the HIV/AIDS pandemic, malaria ranks second in magnitude for health disparities between Africa and the rest of the world. Malaria was the number-one cause of mortality on the continent until 2000, when it was surpassed by HIV/AIDS. According to studies conducted by the London School of Hygiene and Tropical Medicine and the Harvard Center for International Development, of the 300 million cases of malaria victims and fatalities in the world, 255 million or 85% were found in Africa.<sup>15</sup> Each day, 2173 African children under the age of five die from malaria. A total of 225 African children die of malaria every 2.5 hours, and 1 million Africans die each year from malaria.<sup>16</sup>

In economic terms, malaria has cost Africa \$100 billion in GDP over the

past three decades.<sup>17</sup> According to Professor Jeffrey Sachs, former director of the Harvard Center for International Development, the “growth penalty” from malaria is estimated as high as 1.3 percentage points a year. A poor family living in a malaria-affected area may spend up to 25% or more of its annual income on prevention and treatment. In current calculations, malaria control costs the continent ≈\$12 billion annually.<sup>18</sup> The Harvard study observed that malaria might impede the flow of trade as well as foreign investment and commerce, thereby affecting a country's entire population. Tourists shun regions with high malaria, as do multinational firms choosing locations of foreign investments. Repeated bouts of malaria damage children's mental and physical development and damage educational achievement. Parents have more children to replace those they have lost or expect to lose to malaria, increasing population growth, impoverishing families, and preventing women from joining the labor force. All these hidden costs of malaria, as reported by *The Guardian* in 2000, are not usually taken into account in estimating its economic damages.<sup>15</sup>

Research indicates that netting over beds or sleeping areas could reduce the prevalence of malaria by as much as 50%; however, only 2% of African children use them.<sup>17</sup> It is also estimated that every US \$8 spent on prevention adds a year of healthy living to an African child; however, world expenditure on malaria control and research is approximately US \$.10 per capita annually.<sup>17</sup> Although African governments pledged to waive customs duty on insecticide-treated bed-nets in 2000, only 26 of the 53 countries have done so.<sup>17</sup>

### AFRICA'S ECONOMIC CONDITION

Africa's population is estimated to be ≈800 million, nearly half of whom

are <15 years of age and live in the continent's 53 countries. The continent's GNP is ≈\$120 billion, equal in value to that of a small country like Belgium. The per capita income is <\$300. Income levels are distributed as follows: 7 countries have a per capita income <\$200, 2 have \$200–\$400; 22 have \$400–\$1000; 5 have \$1000–\$2000, and only 4 have per capita incomes >\$2000.<sup>19</sup>

Africa is the only continent whose per capita output consistently declined over the last century, falling from 21% of GDP to 15.6%, grossly insufficient to maintain existing capital stock. Per capita private consumption has declined by one fifth, from levels that were too low even in comparison to other developing regions. Government expenditures in health and education also declined from ≈25.2% to ≈19%.<sup>19</sup> Undoubtedly, Africa has not benefited significantly from the unprecedented global technological, financial, and commercial advances.

Globalization has escaped Africa, leaving the continent in a state of economic debility and debt crisis. The continent's total stock of debt is ≈\$340 billion.<sup>19</sup> Forty percent of those in this region live on \$1/day, and surviving on \$2/week is the reality for 50% of the people.<sup>19</sup> The ratio of the debt to the GNP is 123%, in stark contrast to Latin America's debt-to-GNP ratio of 41.4% and Asia's 28.2%. The ratio of external debt to exports is 340% for sub-Saharan Africa, compared to 202% for Latin America and 121% for Asia.<sup>20</sup> Debt-servicing costs to African countries are \$13.5 billion annually, an amount that far exceeds the United Nations' Global HIV/AIDS Trust Fund.<sup>21</sup> The consequence of these economic burdens is the weakening of Africa's healthcare and education systems. The tragedy of Africa's state of economic debility has been worsened by International Monetary Fund (IMF) Structural Adjustment Programs (SAPs), which call for the restructuring of the institutions respon-

sible for allocation and investment decisions. In practice, restructuring means the privatization of public enterprises, reduction in the size of the public sector, reduction of budget deficits, imposition of ceilings on government borrowing from the banking system, elimination of price controls, deregulation/liberalization of the economy, devaluation of currency, and improvement in production incentives.<sup>22</sup>

In reacting to the relationship between HIV/AIDS and SAPs, Peter Piot, director of UNAIDS opined, "Structural adjustments raise particular problems for governments because most of the factors which fuel the AIDS pandemic are also factors that seem to come into play in structural adjustment programs."<sup>23</sup>

Cheru's research emphasizes that strategies to eliminate the African HIV/AIDS pandemic should include the structural context in which the pandemic occurs.<sup>24</sup> A top priority in these strategies is the cancellation of Africa's debt. It is estimated that if all debt were forgiven, an additional \$15.98 per capita could be freed up in Ghana, \$16.18 in Zambia, and \$6.46 in Nigeria. By comparison, the existing spending on HIV/AIDS per capita is \$0.12 in Ghana, \$0.73 in Zambia, and \$0.03 in Nigeria.<sup>25</sup>

In addition, African nations have a low per capita expenditure for overall health, with an average of 6% of GDP and \$13 per capita per year, compared with 5.6% and \$71 per capita per year in other developing countries. Debt relief offers an opportunity to rehabilitate social infrastructures and systems that have been eroded under macroeconomic decline, structural adjustment, and spiraling debt. This type of infrastructure is needed for the delivery of both HIV prevention and AIDS mitigation.<sup>25</sup>

While some debt cancellation has occurred, as announced by the G8, the cancellation covers only the debt of the 18 poorest countries, with 70 more countries to qualify in the future, amounting to \$50 billion over the next

40 years. This Multilateral Debt Relief Initiative is designed to cancel all debts owed to the IMF, to the lending arm of the World Bank, the IDA, and to the lending arm of the African Development Bank, the African Development Fund. Countries that have completed the international debt relief scheme, the Heavily Indebted Poor Countries Initiative, will qualify for debt cancellation.<sup>26</sup> The initiative, which came into effect on July 1, 2006, covers debts accrued up to 2004, leaving the post-2004 debts intact. This amounts to ≈\$36 billion cancellation for 21 countries, including Benin, Burkina Faso, Cameroon, Ethiopia, Ghana, Madagascar, Mali, Mauritania, Mozambique, Niger, Rwanda, Senegal, Tanzania, Uganda, and Zambia. The benefit of the total ≈\$36 billion cancellation will be spread over ≈40 years, the time during which the debts would otherwise have been paid.<sup>26</sup> Another drawback of the cancellation policy is that the World Bank will offset the cost of debt cancellation by reducing by two thirds the aid that it currently gives to the eligible countries.

The good news, however, is that the debt cancellation has started yielding positive dividends. For example, in Zambia, the \$4 billion received in debt relief is being invested in health and education. Zambia is a country in which 65% of its citizens live on less than a dollar a day and the average trip to a clinic costs more than double that amount, thanks to the World Bank- and IMF-inspired user fees introduced in the 1990s. With the debt relief, Zambia has implemented free health care for citizens who live in rural areas.<sup>27</sup> Other countries like Ghana are developing plans to use their debt relief funds to support health and education.

While access to care is a barrier for most in Africa, access to pharmaceuticals compounds the problem. The cost of pharmaceutical treatments accounts for 20%–50% of total healthcare expenditures, second only to costs for medical personnel. This proportion far

exceeds the rate of 12% for pharmaceuticals in developing countries.<sup>7</sup> This disparity is attributable to the place of Africa in the world pharmaceutical production and distribution system. This disparity manifests in the disproportionate amount of research funds of \$70 billion, or 90% of global total, devoted to medical research into Western diseases that account for 10% of the global burden of disease.<sup>28</sup> This spending translates into 1393 new drugs, out of which only 16 are devoted to tropical diseases.<sup>28</sup> Fortunately, concerned individuals and groups have come together to establish The Drugs for Neglected Diseases Initiative based in Geneva, Switzerland, to promote research and production of drugs for so-called neglected diseases.<sup>29</sup>

The healthcare problems in Africa have been exacerbated by a myriad of other social and political factors, including the disproportionate influence of financial donors in Africa's health sector. Though donor support accounts for just ≈10% of all health expenditures in Africa, donors exercise a great deal of influence and burden governments with demands for meetings, parallel accounting and reporting requirements, documentation, and hosting missions. These restrictive and limiting approaches stretch the few available skills in the continent to attend to healthcare needs.<sup>7</sup>

Other factors contributing to the disparity include limited institutional capacity and severe discrepancies in physicians per capita. Africa has ≈10% of the world's population and 24% of the global disease burden but only 3% of global healthcare workers, translating to 2.3 health workers per 1000 people. In comparison, the United States has 24.8 health workers per 1000 people. Out of the 57 countries that face a serious shortage of health workers, 37 are in Africa. This disparity is even further exacerbated by the brain drain, conflict and civil wars, corruption that costs the continent ≈\$150 billion annually,<sup>30</sup> gender imbalance, high

illiteracy levels (estimated at 70% for women and 48% for men above age 15<sup>31</sup>), limited intranational and international transport and communication infrastructure, and last but not least, poor sanitary environments.

## CONCLUDING SOLUTIONS

With the disparate state of health between Africa and the rest of the world, what solutions can be offered? In The Report of the Commission on Macroeconomics and Health, an estimated \$27 billion (at 2001 prices and exchange rates) would be needed annually to help the poorest countries, especially those in Africa, deliver basic lifesaving health services beginning in 2007.<sup>32</sup> As large as this amount appears, it represents ≈.1% of needed donor income and equals a paltry \$.10 per \$100 of the developed world's income. The internationally agreed-upon official development assistance (ODA) target is .7%, while the current donor ODA level is only .25%. If the deficit of ≈.45% could be made up, it would easily reach the \$27–\$30 billion target for aid.<sup>33</sup>

Such an infusion of funds would help to provide adequate remuneration, incentives, and benefit packages for health workers to stay on the continent, rather than migrate in search of better prospects. Additionally, a few recommendations follow:

- Pharmaceutical companies should be encouraged and given incentives to expand their research agenda to cover more so-called neglected and tropical diseases.
- African countries should abide by their own agreements to devote 15% of their GNP to health care; enforce strict sanitation regulations; produce clean water for their citizens and ensure good governance, transparency, and accountability.
- The international community should take trade negotiations (including trade-related intellectual property

rights) seriously and open developed country markets to African countries.

- More groups like the Clinton AIDS Trust should negotiate with pharmaceutical giants for reduction in cost of drugs.
- Proposals put forward by British Prime Minister, Tony Blair, to raise \$7 billion to develop Africa's health infrastructure by training 1 million health workers should be supported by the international community and African governments.
- More emphasis should be placed on preventive rather than curative health care.

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## AUTHOR CONTRIBUTIONS

*Design concept of study:* Danso

*Acquisition of data:* Danso

*Data analysis and interpretation:* Danso

*Manuscript draft:* Danso